

**IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF TENNESSEE
NASHVILLE DIVISION**

A.M.C., by her next friend, C.D.C., *et al.*,

Plaintiffs,

v.

STEPHEN SMITH, in his official capacity as
Deputy Commissioner of Finance and
Administration and Director of the Division
of TennCare,

Defendant.

Civil Action No. 3:20-cv-00240
Chief District Judge Crenshaw
Magistrate Judge Newbern

**MOTION FOR LEAVE TO FILE A SUPPLEMENTAL BRIEF IN OPPOSITION TO
PLAINTIFFS' MOTIONS FOR A PRELIMINARY INJUNCTION
AND CLASS CERTIFICATION**

Defendant, Stephen Smith, in his official capacity as Deputy Commissioner of Finance and Administration and Director of the Division of TennCare ("Defendant"), respectfully moves for leave to file a Supplemental Brief in Opposition to Plaintiffs' Motions for a Preliminary Injunction, Doc. 26 (Apr. 10, 2020), and Class Certification, Doc. 12 (Mar. 27, 2020).

Defendant moves to file this brief to bring to the Court's attention an important development that is highly relevant to both of Plaintiffs' motions, which are currently pending before the Court. On November 2, 2020—after briefing concluded on both motions—the Centers for Medicare & Medicaid Services ("CMS") certified TennCare's Tennessee Eligibility Determination System ("TEDS"), concluding that it meets the extensive regulatory requirements for mechanized claims processing and information retrieval systems necessary for receiving enhanced federal funding. After completing its comprehensive review, CMS granted TEDS certification retroactive to June 3, 2019.

Plaintiffs' contention that TEDS has been systemically flawed since the system launched is central to their Motions for a Preliminary Injunction and Class Certification. Defendant seeks to provide additional support for its opposition to both motions in light of this recent development, as CMS's decision to certify TEDS is entitled to substantial deference under Sixth Circuit precedent and affirmatively refutes Plaintiffs' argument that TEDS systemically and wrongfully deprived individuals of TennCare coverage. Thus, Defendant respectfully requests leave to file the Supplemental Brief in Opposition to Plaintiffs' Motions for a Preliminary Injunction and Class Certification and supporting exhibits, which are attached to this motion. Defendant's counsel has conferred with Plaintiffs' counsel, and Plaintiffs do not oppose this motion, but request the opportunity to respond to Defendant's Supplemental brief if the Court grants this motion. Defendant does not oppose that request.

January 19, 2021

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I hereby certify that a true and correct copy of the foregoing document has been served via the Court's electronic filing system on this 19th day of January, 2021.

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**DEFENDANT'S SUPPLEMENTAL BRIEF IN OPPOSITION TO PLAINTIFFS'
MOTIONS FOR A PRELIMINARY INJUNCTION AND CLASS CERTIFICATION**

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INTRODUCTION

Defendant files this supplemental brief in opposition to Plaintiffs’ Motions for a Preliminary Injunction and Class Certification to bring to the Court’s attention an important development in this action: the Centers for Medicare & Medicaid Services (“CMS”) has certified the Tennessee Eligibility Determination System (“TEDS”). CMS, the federal agency charged by law with the oversight of the states’ Medicaid programs, including Tennessee’s TennCare program, has determined, after years of thorough review, that TEDS complies with the extensive statutory and regulatory requirements that a state agency must satisfy to receive federal funds for mechanized claims processing and information retrieval systems. CMS’s certification, which is entitled to substantial deference under Sixth Circuit precedent, *affirmatively refutes* Plaintiffs’ position—central to their claims in both the preliminary injunction and class certification motions—that TEDS is systemically flawed. Plaintiffs cannot meet any of the preliminary injunction factors because the CMS certification of TEDS demonstrates that the assertions of systemic failure they ask the Court to preliminarily remedy—at the expense of an estimated \$1 billion to the State—simply do not exist. Likewise, Plaintiffs’ arguments in favor of class certification disintegrate in the absence of common or typical issues for their proposed class, as required under Rule 23(a), or any evidence of systemic violations depriving individuals of TennCare coverage to qualify as a Rule 23(b)(2) class.

STATEMENT

CMS provides states with funding, known as enhanced Federal Financial Participation (“FFP”), for the design, development, or installation, as well as the operation and maintenance, of a “mechanized claims processing and information retrieval system[]” that the “Secretary determines [is] likely to provide more efficient, economical, and effective administration” of the state’s Medicaid plan and is “compatible with the claims processing and information retrieval

systems utilized in the administration of [Medicare].” 42 U.S.C. § 1396b(a)(3)(A)(i), (B). Federal statute and regulations impose extensive requirements, which the Secretary must find are satisfied, before a state receives enhanced FFP. *See* 42 U.S.C. § 1396b(r) (setting forth, in detail, the findings that the Secretary must make in order to certify a mechanized claims processing and information retrieval system for enhanced FFP); *see also* 42 C.F.R. § 433.112(b) (providing the conditions for CMS approval of 90-percent FFP rate for system design, development, installation, or enhancement); *id.* § 433.116 (providing the conditions for CMS approval of 75-percent FFP rate for the operation of such systems).

As relevant here, before CMS may approve a system for enhanced FFP for operation expenditures, it must determine that:

- The system “is likely to provide more efficient, economical, and effective administration of the State plan”;
- “The system is compatible with the claims processing and information retrieval systems used in the administration of Medicare for prompt eligibility verification and for processing claims for persons eligible for both programs”;
- “The agency ensures alignment with . . . accessibility standards established under section 508 of the Rehabilitation Act, or standards that provide greater accessibility for individuals with disabilities, and compliance with Federal civil rights laws . . .”;
- The system “[s]upport[s] accurate and timely processing and adjudications/eligibility determinations and effective communications with providers, beneficiaries, and the public”;
- “The system supports seamless coordination and integration with the Marketplace, the Federal Data Services Hub, and allows interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services as applicable”; and
- “For [eligibility and enrollment] systems, the State must have delivered acceptable MAGI-based system functionality, demonstrated by performance testing and results based on critical success factors, with limited mitigations and workarounds.”

42 C.F.R. § 433.112(b)(1), (3), (12), (14), (16), (17); *see also id.* § 433.116(c) (requiring a system to meet the “conditions of § 433.112(b)(1) through (22) . . . at the time of approval” for operation expenditures).

TennCare began the extensive process of obtaining CMS certification for TEDS in 2017, years before TEDS went live in June 2019.¹ TennCare completed the Medicaid Eligibility and Enrollment Toolkit (“MEET Toolkit”) created by CMS to provide technical assistance to states developing and implementing new or updating existing eligibility and enrollment systems. *See* CMS, DIV. OF STATE SYS., MEDICAID ELIGIBILITY & ENROLLMENT LIFE CYCLE 5 (Aug. 2018) (attached as Exhibit 1). The steps in the MEET Toolkit help ensure that, among other things, a state’s system meets the federal requirements for eligibility and enrollment systems. *See id.* The process outlined in the MEET Toolkit was extensive and required TennCare to both submit substantial amounts of information to CMS, including TEDS business rules, test scripts and test results for every Medicaid eligibility category showing that TEDS screens for and appropriately determines eligibility for every Medicaid category and to satisfy several milestone reviews to confirm implementation progress and alignment with CMS requirements and expectations for TEDS. *Cf. id.* at 43–45 (describing the milestone review process, requiring the state agency to provide “concrete evidence . . . as appropriate to the milestone review”). In order for TennCare to continue on the certification path, the agency was required to successfully respond to CMS

¹ TennCare submitted to CMS June 3, 2019 as TEDS’s go live date to reflect the state agency’s determination as to when the system met the statutory and regulatory requirements to qualify for 75-percent enhanced FFP for operation expenditures. As such, the date slightly differs from the one given by Director Hagan in her declaration—May 30, 2019—for when TEDS became operational statewide with full functionality. *See* Decl. of Kimberly Hagan, Doc. 63 at ¶ 9 (May 29, 2020). Plaintiffs allege that “TEDS became operational and the TEDS-based redetermination process went into effect” on March 19, 2019. Compl., Doc. 1 at ¶ 74 (Mar. 19, 2020). But that is merely the date when the member portal became operational, not when the system became operational statewide or when it became eligible for 75-percent enhanced FFP.

feedback following each milestone review. As required by CMS, TennCare engaged an independent verification and validation (“IV&V”) contractor, who “represents the interests of CMS, and as such, provides an independent and unbiased perspective on the progress of the [system] development and the integrity and functionality of the system.” *Id.* at 11.

In late 2019, CMS invited Tennessee to complete the Outcomes-Based Certification Pilot (“OBC Pilot”) as an “alternative pathway for approval of the TN TEDS system by CMS . . . based on the information and evidence evaluated through the pilot intake form, live demonstrations, and data on metrics (referred to as key performance indicators [KPIs] for this pilot) submitted by the state.” CMS, DIV. OF STATE SYS., ELIGIBILITY & ENROLLMENT SYSTEM CERTIFICATION REVIEW REPORT; TENNESSEE ELIGIBILITY DETERMINATION SYSTEM (TEDS) 3 (Nov. 2, 2020) (“Certification Report”) (attached as Exhibit 2). This new certification method will replace the MEET Toolkit approval pathway, upon success of the CMS OBC Pilot program. *Id.* TennCare chose to participate in the OBC Pilot even though the state had already completed the MEET Toolkit requirements—by providing to the IV&V contractor and CMS extensive data and evidence to satisfy the milestone reviews—in 2019. *See id.* As a result, CMS reviewed the evidence TennCare provided under the MEET Toolkit pathway for demonstrating that TEDS meets CMS and regulatory requirements, and identified differences between the MEET Toolkit and the new OBC Pilot requirements, which TennCare also fulfilled. *See id.* Thus, over the course of several years TennCare provided under the relevant CMS requirements—either through the MEET Toolkit or the new OBC Pilot—ample evidence regarding the design, implementation, and operations of TEDS prior to CMS completing its virtual Certification Review of the system on July 9, 2020. *See id.*

During the Certification Review, CMS “performed a comprehensive review of functionality for both Modified Adjusted Gross Income (MAGI)-based and non-MAGI based eligibility supported by [TEDS].” *Id.* In other words, through the MEET and OBC Pilot processes, CMS reviewed TEDS capability for evaluating *all* types of eligibility categories. As detailed in CMS’s Certification Report, the CMS team designed the OBC Pilot to test several objectives, including:

- “*A Clear Articulation of the Business Outcomes.* One of the important principles of approving a funding request for the development or enhancement of an information technology (IT) system is that the IT system aligns with state business and policy needs to provide more efficient and effective administration of the Medicaid program and allows for good end user experience for Medicaid applicants and beneficiaries.”
- “*Compliance with Federal Regulations.* At a minimum, IT systems must contain functionality that implements federal statute and regulations and state elected policies”
- “*Evidence of System Health.* Metrics must be defined, captured, and reported regularly to allow the health of the operational IT system to be assessed and to detect trends of these metrics over time.”

Id. at 4.

The Certification Report further details how the CMS team built the OBC Pilot to test whether these objectives were met, including the extensive evidence it sought from TennCare in the process. *See id.* For instance, CMS created a “set of evaluation criteria for each outcome that represented the basic functionality for the [eligibility and enrollment] module, including references to the corresponding federal regulations.” *Id.* Moreover, CMS also developed metrics for key performance indicators of the system, which were “also linked to regulations” and “represented basic features such as sound architectural principles for connectivity to external systems,

modularity, [Section] 508 compliance,² Health Insurance Portability and Accountability Act of 1996, security, etc.” *Id.* The CMS team and TennCare met regularly for six months to work on these metrics prior to the Certification Review in July 2020, further demonstrating the thoroughness of the process. *See id.* The federal agency assigned eleven CMS and Federally Funded Research and Development Center (“FFRDC”) professionals to perform the virtual review. *See id.* at 7. The Certification Report also details the extensive agenda of the Certification Review CMS conducted in assessing TEDS. *See id.* at 6. The review included, among other things, an evaluation, based on “a system demonstration in the production environment,” of the eligibility and enrollment criteria that served as a validation of the evidence TennCare previously provided regarding TEDS’s workflow. *See id.*

After reviewing the materials TennCare submitted and conducting the Certification Review, CMS concluded that “the state has successfully met the requirements for certification.” *Id.* at 7. CMS also noted that “[w]hile there were no critical findings, there were some instances where the system configuration could be improved to prevent worker error and/or improve user experience.” *Id.* CMS stressed that it provided “recommendations for TEDS, which do not have an impact on certification or funding decisions at this time.” *Id.* (emphasis in original).³ Finally, the Certification Report also explained that the CMS team evaluated data for several key performance indicators of TEDS and concluded that the data “validated the efficiency and reduction in administrative burden that can be realized with the implementation of a highly automated system.” *Id.* at 10.

² Section 508 of the Rehabilitation Act requires federal agencies to make their electronic and information technology accessible to persons with disabilities. *See* 29 U.S.C. § 794d.

³ TennCare is in the process of implementing many of these CMS recommendations.

Because TEDS met the certification criteria, CMS granted TennCare’s request to certify the system retroactive to its implementation on June 3, 2019. *See* Letter from Edward Dolly, Dir., Div. of State Sys., CMS to Stephen M. Smith, Deputy Comm’r, Div. of TennCare 1 (Nov. 2, 2020) (“Certification Letter”) (attached as Exhibit 3). In its cover letter to the Certification Report, CMS listed the criteria used for its evaluations, which include: the Social Security Act; Affordable Care Act; 42 CFR Part 433, Subpart C (regarding “mechanized claims processing and information retrieval systems”); 42 CFR Part 435 (regarding Medicaid eligibility); the Health Insurance Portability and Accountability Act; and “[c]urrent legislation and CMS policies.” *Id.* at 2. CMS also explained that its decision was “based upon CMS’s comprehensive review of TEDS, including all documentation provided by Tennessee, discussions with the Tennessee and vendor staff, and observations prior to, during, and after the CMS review.” *Id.*

As a result of the certification, Tennessee is eligible to receive 75 percent enhanced FFP, retroactive from the TEDS implementation date, for the operation and maintenance of TEDS. *See id.* at 1 (citing 42 C.F.R. § 433.116). Indeed, in the 2021 Implementation Advance Planning Document for TEDS, CMS approved on November 19, 2020, ***hundreds of millions of dollars of funding*** for the enhancement, maintenance, and operations of TEDS projecting into federal fiscal year 2023. *See* DIV. OF TENNCARE, IMPLEMENTATION ADVANCE PLANNING DOCUMENT UPDATE, TENNESSEE ELIGIBILITY DETERMINATION SYSTEM 84 (Sept. 25, 2020) (approving approximately \$243 million enhanced FFP for 2020, \$307 million for 2021, \$256 million for 2022, and \$222 million for 2023) (attached as Exhibit 4); *see also* Letter from Edward Dolly, Dir., Div. of State Sys., CMS to Stephen M. Smith, Deputy Comm’r, Div. of TennCare 2 (Nov. 19, 2020) (approving TennCare’s September 25, 2020 IAPDU in accordance with “Section 1903(a)(3) of the Social Security Act,” codified as 42 U.S.C. § 1396b(a)(3), and the relevant federal regulations for

mechanized claims processing and information retrieval systems, “42 CFR 433, Subpart C”) (attached as Exhibit 5). CMS will continue to monitor the functionality of TEDS, as TennCare will report TEDS key performance indicators on a quarterly basis post-certification.

ARGUMENT

CMS’s certification of TEDS demonstrates that Plaintiffs’ motions for a preliminary injunction and class certification must be denied. CMS’s thorough review and subsequent certification of TEDS—making TennCare eligible for hundreds of millions of dollars in funding—forecloses Plaintiffs’ central contention that TEDS is systemically flawed, prompting tens of thousands of erroneous terminations warranting an expansive preliminary injunction and class certification. CMS’s certification *affirmatively* refutes these allegations, and CMS’s findings in this regard—that TEDS complies with the governing statute and regulations regarding enhanced FFP for mechanized eligibility and enrollment systems—is entitled to substantial deference by the Court.

I. CMS’s Certification of TEDS Is Entitled to Substantial Deference.

The Sixth Circuit affords “substantial deference” to decisions made by CMS when administering the Medicaid statute, *see Rosen v. Goetz*, 410 F.3d 919, 927 (6th Cir. 2005), granting *Chevron* deference to its interpretations of law,⁴ *cf. Harris v. Olszewski*, 442 F.3d 456, 465–68 (6th Cir. 2006). The Court has afforded this deference in the Medicaid context not only to regulations promulgated through notice-and-comment rulemaking, *see Averett v. United States Dep’t of Health & Hum. Servs.*, 306 F. Supp. 3d 1005, 1012 (M.D. Tenn. 2018), but also to agency

⁴ A federal agency’s findings of fact are reviewed under the arbitrary and capricious standard, which the Sixth Circuit has described as “the most deferential standard of judicial review of agency action, upholding those outcomes supported by a reasoned explanation, based upon the evidence in the record as a whole.” *Mich. Bell Tel. Co. v. MCIMetro Access Transmission Servs., Inc.*, 323 F.3d 348, 354 (6th Cir. 2003).

determinations that a state plan or procedure complies with a relevant Medicaid statutory requirement or regulation. For example, the Sixth Circuit has afforded *Chevron* deference to HHS's determination that a state program complied with the statutory requirement that state plans must provide eligible enrollees free choice over providers of medical assistance. *See Harris*, 442 F.3d at 460, 466–68. The Court has also given CMS substantial deference in approving a state's proposed disenrollment process. *See Rosen*, 410 F.3d at 927.

The determination by CMS that TEDS is functioning in compliance with the applicable federal regulations and entitled to enhanced FFP under the Medicaid Act, *see* Certification Letter at 2, is likewise entitled to substantial deference due to the role that the Congress has assigned to the federal agency to supervise state Medicaid programs. In *Harris*, the Sixth Circuit evaluated a challenge to a single-supplier contract that the Michigan Department of Community Health—administrator of the state's Medicaid program—had for incontinence products. 442 F.3d at 459. The plaintiffs alleged the contract violated the Medicaid Act's "freedom-of-choice provision" requiring state plans to let enrollees choose their medical assistance providers. *Id.* at 460. The state concluded that the contract fell under the exception for "medical devices," and HHS reviewed and accepted the state's certification of the contract. *Id.* at 467. The Sixth Circuit held that HHS's decision was entitled to *Chevron* deference because, in making its determination, the agency exercised an express delegation of interpretive authority:

When HHS accepted the department's certification, it was required to find that the amendment satisfied all statutory requirements, *see* 42 U.S.C. § 1396a(b), including that the department's single-source contract for incontinence products complied with § 1396n(a)(1)(B) [the exemption provision]. In carrying out that responsibility, HHS was exercising Congress's "express delegation of specific interpretive authority," *United States v. Mead Corp.*, 533 U.S. 218, 229 (2001), and accordingly the agency's approval of the state plan amendment is entitled to *Chevron* deference.

Harris, 442 F.3d at 467 (citations omitted).

Congress has similarly conferred on the Secretary the authority, here delegated to CMS, to certify that a state's enrollment and information systems meet the statutory requirements of the Medicaid Act, and that the program is therefore entitled to enhanced FFP.⁵ In certifying TEDS, therefore, CMS exercised an “express delegation of specific interpretive authority,” *Mead*, 553 U.S. at 229, under Section 1396b that is comparable to that which HHS exercised under Section 1396a in *Harris*. See, e.g., *N.Y. Dep't of Soc. Servs. v. Shalala*, 21 F.3d 485, 491–92 (2d Cir. 1994) (applying *Chevron* deference to interpretation of 42 U.S.C. § 1396b(a)(3) where the Health Care Financing Administration (“HCFA”)—now known as CMS—had determined that it was not required to reimburse the state more than a 50-percent FFP rate for its computer system for processing Medicaid claims until the entire system was fully operational); *Ga., Dep't of Med. Assistance v. Shalala*, 8 F.3d 1565, 1567–73 (11th Cir. 1993) (applying *Chevron* deference to HCFA's denial of a state plan amendment based on the agency's interpretation of upper income limitation set for FFP eligibility under Section 1396b(f)(4)(C)); *Massachusetts v. Sec'y of Health & Hum. Servs.*, 749 F.2d 89, 96 & n.3 (1st Cir. 1984) (affording *Chevron* deference where a different subsection of the same Medicaid statute regarding payments to states, 42 U.S.C.

⁵ See 42 U.S.C. § 1396b(a)(3)(A)(i) (directing the Secretary to make 90-percent FFP payments for the “design, development, or installation” of mechanized claims process and information systems which “*the Secretary determines* are likely to provide more efficient, economical, and effective administration of the plan and to be compatible with the claims processing and information retrieval systems utilized in the administration of subchapter XVIII [Medicare]. . . .” (emphasis added)); *id.* § 1396b(a)(3)(B) (directing the Secretary to make 75-percent FFP payments for the “operation of systems” described in subparagraph (A)(i), “which are approved by the Secretary”); *id.* § 1396b(r) (setting forth, in detail, the findings that the Secretary must make in order to certify a mechanized claims processing and information retrieval system for FFP); see also 42 C.F.R. § 433.112(b) (providing the conditions for CMS approval of such systems for 90-percent FFP payments for system design, development, installation, or enhancement); *id.* § 433.116 (providing the conditions for CMS approval of 75-percent FFP payments for the operation of such systems).

1396b(d)(2), commanded reimbursement “to the extent of any overpayment . . . which *the Secretary determines* was made,” “thus seemingly entrusting the determination of what constitutes an overpayment to the Secretary” (emphasis in original)). The Court should afford the same substantial deference to the determination made by the federal agency in this case.

CMS’s certification decision is informed by the sort of “specialized experience and broader investigations and information” that only a federal agency, charged with overseeing the operation of a nationwide program in each state, could possess. *Skidmore v. Swift & Co.*, 323 U.S. 134, 139 (1944). CMS is uniquely aware of what each state program must accomplish in order to meet the federal standards, but also has particularized knowledge of the local conditions and circumstances in each individual state. *See id.* at 140. The federal agency exercised a considerable degree of care in reaching its decision, assigning eleven CMS and FFRDC professionals to perform the virtual review. *See* Certification Report at 7. CMS devoted six months to review preparation, during which time it held regular (“mostly biweekly”) meetings with TennCare, to devise the criteria and formalize the review process. *Id.* at 4. In addition to participating in the formal Certification Review CMS conducted in July 2020, TennCare submitted to CMS reams of documents and data through the MEET Toolkit pathway and, in accordance with the new OBC Pilot requirements, a substantial quantity of data—covering the period from January to July 2020—reflecting the key performance indicators of the system for the federal agency’s review. *Id.* at 10–11. The degree of care, the formality of the process, the thoroughness of the investigation, and the expertise that the federal agency brought to bear on the decision thus all combine to confer a formidable power to persuade on the CMS’s certification decision.

As the Sixth Circuit has observed, reliance on a federal agency’s “ ‘significant expertise [is] particularly appropriate in the context of a complex and highly technical regulatory program’

like Medicaid.” *Harris*, 442 F.3d at 468 (quoting *Wis. Dep’t of Health & Fam. Servs. v. Blumer*, 534 U.S. 473, 497 (2002)); *see also Thomas Jefferson Univ. v. Shalala*, 512 U.S. 504, 512 (1994) (“This broad deference is all the more warranted when, as here, the regulation concerns a complex and highly technical regulatory program” that “require[s] significant expertise and entail[s] the exercise of judgment grounded in policy concerns.” (quotation marks omitted)). It is a fortiori appropriate to do so here, a case in which this Court is being asked to evaluate whether a technologically sophisticated administrative system complies with the requirements of that complex and highly technical regulatory program. *Cf. Ind. Fam. & Soc. Servs. Admin. v. Thompson*, 286 F.3d 476, 478–82 (7th Cir. 2002) (deferring to HCFA’s interpretation of the agency’s State Medicaid Manual in assigning a later certification date for a mechanized claims processing system, thereby reducing the enhanced FFP funding available to the state under 42 U.S.C. § 1396b(a)(3)(B), and noting that the “Secretary has a familiarity, expertise, and institutional memory concerning the intricacies of Medicaid processing systems and funding standards that [the court] cannot rival”).

II. The TEDS Certification Compels the Denial of Plaintiffs’ Preliminary Injunction Motion.

Plaintiffs’ primary argument in favor of their motion for a preliminary injunction is that “the TennCare redetermination process utterly and systemically fails to accurately evaluate eligibility” or “properly notify TennCare enrollees when and why their coverage is being terminated,” and that “TennCare’s policies and procedures also violate the rights of enrollees with disabilities by using methods of administration that screen them out from benefits and deny them equal access to health coverage.” Mem. of Law in Supp. of Pls.’ Mot. for a Prelim. Inj., Doc. 26-1 at 2 (Apr. 10, 2020) (“PI Mot.”); *see also id.* at 5–9 (alleging that TEDS has “perpetuated existing flaws and manifested new ones” and detailing supposed flaws and “systemic errors” in the

redetermination process). CMS's certification of TEDS, to which the Court owes substantial deference, refutes Plaintiffs' claims of systemic problems with the TEDS redetermination and reverification processes and compels the Court to deny Plaintiffs' motion for a preliminary injunction.

A. There Is No Risk of Irreparable Harm.

Plaintiffs cannot establish the “indispensable” requirement of irreparable harm warranting a preliminary injunction. *See D.T. v. Sumner Cnty. Schs.*, 942 F.3d 324, 327 (6th Cir. 2019). CMS's certification of TEDS demonstrates that Plaintiffs' allegations of systemic problems with TEDS have no basis in fact and therefore must fail as a matter of law. As previously explained, CMS's determination that TEDS meets the relevant, extensive requirements for mechanized enrollment systems—i.e., that TEDS properly evaluates individuals for all types of eligibility categories and appropriately issues notices to the same, qualifying TennCare to receive hundreds of millions of dollars in FFP—is entitled to substantial deference. Wholly apart from the moratorium and the due process given to individuals facing termination of coverage, Plaintiffs cannot prove that *any* person faces the imminent harm they assert—“[t]he serious threat to Plaintiffs' health in the midst of the current pandemic as a result of Defendant terminating their TennCare coverage,” PI Mot. at 17—when Plaintiffs' allegations that thousands of people may be erroneously terminated due to systemic TEDS problems are not only unproven, but demonstrably false based on CMS's certification.

B. Plaintiffs Are Unlikely to Succeed on the Merits.

1. TennCare's Procedures Do Not Violate the Due Process Clause Nor the Medicaid Act.

The TEDS certification is relevant to two aspects of Plaintiffs' claims that TennCare's redetermination procedures violate Due Process and the Medicaid Act. First, CMS's decision

further refutes Plaintiffs’ argument that TennCare’s notices of decision are inadequate because they “incorrectly state” that TennCare has checked the information it has about the member to consider whether she qualifies in another category. PI Mot. at 22. Plaintiffs contend this statement is inaccurate because TennCare: (1) “routinely fails to check all of the information in its files”; (2) “does not collect all information needed to evaluate eligibility”; and (3) “does not screen for all eligibility categories.” *Id.* at 22–23. Director Hagan explained in her declaration that these allegations are simply untrue, and provided extensive information about how TEDS interfaces with SSA and numerous other databases, processes reverifications, and evaluates eligibility for all non-SSI and SSI-related categories. *See* Br. in Opp’n to Pls.’ Mot. for a Prelim. Inj., Doc. 62 at 11–16 (May 29, 2020) (“PI Opp’n”) (citing to Hagan Decl.). Moreover, Director Hagan detailed the idiosyncratic errors that led to complications in individual Plaintiffs’ cases, noting that TennCare had either corrected or was in the process of correcting the issues it has discovered. *Id.* at 13–15 (citing to Hagan Decl.). All but one issue has now been systemically corrected through TEDS design updates; the one remaining issue is currently corrected through a manual process that will soon be systemically corrected through a design update.

CMS’s thorough review of TEDS confirms the accuracy of Ms. Hagan’s testimony. Indeed, CMS explicitly stated that it “performed a comprehensive review of functionality for both Modified Adjusted Gross Income (MAGI)-based and non-MAGI based eligibility supported by [TEDS].” Certification Report at 3. TennCare also submitted substantial evidence to CMS in the MEET process showing that TEDS screens for and appropriately determines eligibility for every Medicaid category. And, in approving TEDS for enhanced FFP, CMS was required to determine that: the system “is compatible with the claims processing and information retrieval systems used in the administration of Medicare for prompt eligibility verification and for processing claims for

persons eligible for both programs,” 42 C.F.R. § 433.112(b)(3); the system “[s]upport[s] accurate and timely processing and adjudications/eligibility determinations,” *id.* at (b)(14); “[t]he system supports seamless coordination and integration with the Marketplace, the Federal Data Services Hub, and allows interoperability with health information exchanges, public health agencies” and other similar entities, *id.* at (b)(16); and the State demonstrated “acceptable MAGI-based system functionality,” *id.* at (b)(17); *see also id.* § 433.116(c) (requiring a system to meet the “conditions of § 433.112(b)(1) through (22) . . . at the time of approval”). These facts, especially in light of the substantial deference owed to CMS’s analysis, demonstrate that Plaintiffs are *not* likely to succeed on their claims that TennCare’s notices mislead enrollees because TEDS does not gather and cross-check relevant information or screen for all eligibility categories.

Second, CMS’s TEDS certification is also relevant to Plaintiffs’ baseless assertion that TennCare “routinely fails to grant timely requests for hearings.” PI Mot. at 24. Plaintiffs have failed to demonstrate a systemic problem with TennCare’s appeals process, which is vital to the success of their Medicaid Act and due process claims. *See* PI Opp’n at 17–19. Indeed, Plaintiffs only pointed to one person—Plaintiff Fultz—who did not receive a timely, requested appeal, and the State demonstrated that his problem arose from a combination of idiosyncratic worker errors rather than a systemic issue with TEDS. *See id.* at 18. But Plaintiffs’ lack of evidence to support allegations of “routine” problems with the appeals process is unsurprising, as CMS’s review of TEDS confirmed that there are no systemic issues with TEDS’s processing and tracking of eligibility appeals. *Cf.* Certification Report at 7, 10 (noting that there were no “critical findings” in the certification review, but recommending that TennCare allow individuals to submit an appeal online, though the requirement that individual be able to do so is “not yet in effect”). Again, Plaintiffs are unlikely to prevail on this claim.

2. TennCare's Procedures Do Not Violate Title II of the ADA.

As the State showed in its opposition brief, Plaintiffs utterly failed to demonstrate a lack of meaningful access to TennCare in violation of Title VII of the ADA. *See* PI Opp'n at 23–26. Once again, CMS's certification of TEDS affirmatively *refutes* disabled Plaintiffs' allegations of systemic errors in TEDS that would deny them or the members of the disability subclass TennCare benefits in the future. Again, the errors Plaintiffs identified in their cases were either one-off mistakes (such as worker error) or the result of TEDS start-up issues that TennCare has corrected. *See id.*

CMS's determination that TEDS meets the extensive requirements for enhanced FFP, including the requirement that “[t]he agency ensures alignment with . . . accessibility standards established under section 508 of the Rehabilitation Act, or standards that provide greater accessibility for individuals with disabilities, and compliance with Federal civil rights laws,” 42 C.F.R. § 433.112(b)(12), confirms that TEDS does not suffer from any systemic issues regarding disability-linked eligibility evaluations, whether in the annual redetermination process or due to a change in the enrollee's circumstances. Indeed, CMS performed a “a comprehensive review of [TEDS] functionality,” including live walkthroughs of many scenarios for both MAGI and non-MAGI eligibility categories. *See* Certification Report at 3. And its decision to certify TEDS should be afforded substantial deference. In sum, the TEDS certification confirms that Plaintiffs are unlikely to succeed on the merits of the ADA claims.

C. The Remaining Factors Counsel Against an Injunction.

As explained in the State's opposition brief, the public interest and balance of the equities also favor the State, as TennCare's Chief Financial Officer has estimated that one year of compliance with Plaintiffs' proposed preliminary injunction would likely cost nearly *\$1 billion*.

See PI Opp'n at 30–31 (citing Decl. of William Aaron, Doc. 64 at ¶ 4 (May 29, 2020)). CMS's certification of TEDS further confirms that this enormous cost to the public is entirely unjustified. While Plaintiffs have quibbled with Mr. Aaron's calculations, *see* Reply in Further Supp. of Pls.' Mot. for a Prelim. Inj., Doc. 71 at 4–5 (June 5, 2020), they cannot offer any substantive justification for the State paying an undoubtedly substantial sum for the prospective reinstatement of nearly *180,000 individuals* when CMS has certified (and made eligible for substantial enhanced FFP funding) the *very system* that Plaintiffs allege caused these ostensibly wrongful terminations, *see id.* at 1. Thus, the balance of the equities and public interest strongly counsel against granting Plaintiffs' motion.

D. Plaintiffs' Proposed Preliminary Injunction Is Impermissible Under Rule 65(d).

CMS's certification of TEDS further confirms that Plaintiffs' proposed preliminary injunction is both impermissibly vague and overbroad.

As explained in the State's opposition brief, Plaintiffs' proposed injunction is impermissibly vague because it lacks the specificity that is necessary “to prevent uncertainty and confusion on the part of those faced with injunctive orders, and to avoid the possible founding of a contempt citation on a decree too vague to be understood.” *Schmidt v. Lessard*, 414 U.S. 473, 476 (1974). The State raised the question of what Plaintiffs' proposed injunction could possibly require of TennCare that it is not *already doing*? See PI Opp'n at 33. This question has become even more prescient in light of CMS's certification of TEDS. TennCare is currently operating a system that CMS has certified complies with the extensive regulations for mechanized eligibility systems, and does not know of any person who is entitled to receive relief to whom relief has not already been provided under TennCare's procedures. And while no system is infallible, the State has demonstrated its commitment to fixing mistakes as soon as they are brought to its attention.

Plaintiffs' proposed injunction offers no explanation as to what changes or additional procedures would be required to provide the relief they seek.

Plaintiffs' proposed injunction is also overbroad because Plaintiffs' alternate request—that the State reinstate coverage for the entire Plaintiff class of nearly 180,000 people regardless of their circumstances—is not narrowly tailored to the scope of the alleged injury. Indeed, Plaintiffs have conceded that as few as 2 percent of the individuals in this group—whose coverage was terminated as of March 19, 2019—are actually eligible for TennCare. *See* Mem. of Law in Supp. of Pls.' Mot. for Class Cert., Doc. 12-1 at 14–15 (Mar. 27, 2020) (“Class Cert. Mot.”). And CMS's certification of TEDS retroactive to its implementation date of June 3, 2019 further indicates that, if a class of injured persons exists, it is likely miniscule because there is no evidence of widespread or systemic issues with regards to the redetermination process (or any TEDS process, for that matter). Again, Plaintiffs provide no evidence supporting such wide-ranging relief; rather, the evidence of TEDS's functionality and compliance with federal statutory and regulatory requirements demonstrates that Plaintiffs' requested relief is grossly overbroad.

III. TEDS Certification Completely Undermines Plaintiffs' Motion for Class Certification.

Plaintiffs' motion for class certification rests on their contention that TennCare, through TEDS, “systematically and wrongfully” deprives eligible individuals of Medicaid coverage. *See* Class Cert. Mot. at 1. CMS's recent certification of TEDS demonstrates that: (1) Plaintiffs have not proven—nor could they prove—that “there are questions of law or fact common to the class,” FED. R. CIV. P. 23(a)(2); (2) Plaintiffs likewise have failed to demonstrate that “the claims . . . of [named Plaintiffs] are typical of the claims . . . of the class,” FED. R. CIV. P. 23(a)(3); and (3) Plaintiffs have not proven, and cannot prove, that TennCare has acted or refused to act on grounds that apply generally to the class, *see* FED. R. CIV. P. 23(b)(2).

A. CMS's TEDS Certification Confirms that Plaintiffs Have Not Proven Commonality and Typicality as Required by Rule 23(a)(2) and (3).

Plaintiffs argue that their proposed class meets the commonality and typicality requirements of Rule 23(a) because, they claim, TennCare's eligibility redetermination process as carried out through TEDS is systematically flawed. *See* Class Cert. Mot. at 17, 22. CMS's certification of TEDS decisively refutes Plaintiffs' allegations of systemic problems with the TEDS redetermination and reverification processes, thus foreclosing their commonality and typicality arguments.

As explained above, through MEET and OBC Pilot processes, TennCare provided CMS with extensive documentation of the development, implementation, and operation of TEDS. CMS has thoroughly reviewed TEDS, including the system's ability to complete eligibility determinations for all types of TennCare categories. The review also considered compliance with relevant federal regulations and statutory requirements, including specifically TEDS's ability to "[s]upport accurate and timely processing and adjudications/eligibility determinations." 42 C.F.R. § 433.112(b)(14). CMS certified TEDS, concluding that "there were no critical findings." Certification Report at 7. In other words, CMS's comprehensive review found no systemic issues with TEDS's enrollment or redetermination processes in *any* eligibility category.

Given this extensive review, CMS would have certainly uncovered the systemic problems with TEDS that Plaintiffs allege. Moreover, as a result of this certification, TennCare will receive from CMS hundreds of millions of dollars for the operation of TEDS annually for the next several years. It boggles reality that CMS would sign off on a system for enhanced FFP that will cost the federal government hundreds of millions of dollars if Plaintiffs' allegations regarding systemic issues with TEDS's redetermination processes were true. Rather, the TEDS certification confirms Director Hagan's testimony that the issues named Plaintiffs experienced, while regrettable, were

idiosyncratic or attributable to worker error. Because the named Plaintiffs have not—and cannot—establish that their claims arise from systemic issues with TEDS, their claims are both not “common” and not “typical” of the class or subclass they seek to represent. The flaw in Plaintiffs’ argument is not that each plaintiff has “unique” facts or that they suffered “[d]ifferent manifestations of the State’s flawed policies,” Reply in Further Supp. of Pls.’ Mot. for Class Cert., Doc. 68 at 3–4 (June 5, 2020) (“Class Cert. Reply”), but that the TEDS certification and record evidence refutes the underlying premise that such injuries result from “flawed policies” or systemic TEDS issues. The fact remains that Plaintiffs have provided *no evidence* whatsoever of common or typical injuries, let alone a common policy or practice that is systemically causing the denial of TennCare coverage to eligible individuals. Rather, the State has provided ample evidence that TEDS is devoid of the systemic defects Plaintiffs allege.

Plaintiffs’ argument that Defendant’s proof of the lack of systemic problems “go[es] to the merits, not this procedural motion,” *id.* at 3, is misplaced. It is *Plaintiffs* who rest their arguments in favor of commonality and typicality primarily on allegations of systemic problems with TEDS. Defendant is entitled rebut Plaintiffs’ assertions of common injuries or policies leading to such injuries by showing that their allegations are factually inaccurate and therefore cannot support commonality or typicality. *Cf. In re Am. Med. Sys. Inc.*, 75 F.3d 1069, 1080–81 (6th Cir. 1996) (plaintiffs failed to demonstrate commonality when they “allege[d] in general terms that there are common issues without identifying any particular defect common to all plaintiffs,” the defendant introduced evidence showing a lack of common cause of injury for the proposed class, and the amended complaint reflected a lack of uniformity in plaintiffs’ complaints).

Moreover, the Court’s evaluation of whether the Rule 23 requirements are met is a “rigorous” exercise, that “should be predicated on evidence presented by the parties concerning

the maintainability of the class action.” *In re Whirlpool Corp. Front-Loading Washer Prod. Liab. Litig.*, 722 F.3d 838, 851 (6th Cir. 2013) (quotation marks omitted). And this “ ‘rigorous analysis’ may involve some overlap between the proof necessary for class certification and the proof required to establish the merits of the plaintiffs’ underlying claims.” *Id.* (quoting *Wal-Mart Stores, Inc. v. Dukes*, 564 U.S. 338, 351 (2011)). As such, “[m]erits questions may be considered to the extent . . . that they are relevant to determining whether the Rule 23 prerequisites for class certification are satisfied.” *Amgen Inc. v. Conn. Ret. Plans & Tr. Funds*, 568 U.S. 455, 466 (2013); *see also In re Whirlpool Corp. Front-Loading Washer Prod. Liab. Litig.*, 722 F.3d at 851 (noting that the Supreme Court has clarified “that some inquiry into the merits may be necessary to decide if the Rule 23 prerequisites are met”). Much like the claim that Wal-Mart violated Title VII by “engag[ing] in a *pattern or practice* of discrimination,” in *Wal-Mart Stores, Inc. v. Dukes*, 564 U.S. 338 (2011) (emphasis added), “proof of commonality” in this action also “necessarily overlaps with [Plaintiffs’] merits contention,” *id.* at 352, i.e., that TennCare’s “policies and practices . . . unlawfully deprive eligible children and adults of vitally necessary care under the Medicaid program,” Compl., Doc. 1 at ¶ 1 (Mar. 19, 2020). Plaintiffs here “wish to sue about” thousands of TennCare eligibility determinations “at once.” *Wal-Mart*, 564 U.S. at 352. And “[w]ithout some glue holding the alleged *reasons* for all those decisions together, it will be impossible to say that examination of all the class members’ claims for relief will produce a common answer to the crucial question” of why individuals’ coverage was terminated. *Id.* (emphasis in original). Thus, even if consideration of TennCare’s evidence rebutting commonality and typicality—whether Director Hagan’s declaration or CMS’s TEDS certification—touches on the merits of Plaintiffs’ claims, it is appropriate here because alleged systemic issues with

redetermination or reverification provide the main basis for Plaintiffs' argument supporting commonality and typicality.

B. CMS's TEDS Certification Confirms that Plaintiffs Cannot Satisfy the Requirements of Rule 23(b)(2).

CMS's certification of TEDS also refutes Plaintiffs' claim that "the party opposing the class has acted or refused to act on grounds that apply generally to the class, so that final injunctive relief or corresponding declaratory relief is appropriate respecting the class as a whole." FED. R. CIV. P. 23(b)(2). Plaintiffs have argued that they meet this standard because the alleged violations are consistent across the class and subclass based on their "systemic nature." Class Cert. Mot. at 24. Plaintiffs again point to alleged systemic defects in TEDS. *See id.*

Yet again, CMS's certification of TEDS demonstrates that there is *no systemic violation of TennCare members' rights*. Because Plaintiffs cannot demonstrate any systemic issues with regards to TEDS redetermination or reverification processes in the face of CMS's certification of TEDS, they fail to satisfy the key characteristic of a Rule 23(b)(2) class: actions in which "a single injunction or declaratory judgment would provide relief to each member of the class," as opposed to those in which "each individual class member would be entitled to a *different* injunction or declaratory judgment against the defendant." *Wal-Mart*, 564 U.S. at 360; *see also Gooch v. Life Inv'rs Ins. Co. of Am.*, 672 F.3d 402, 428 (6th Cir. 2012) ("What is necessary is that the challenged conduct or lack of conduct be premised on a ground that is applicable to the entire class." (quoting 7AA CHARLES A. WRIGHT & ARTHUR R. MILLER, FED. PRAC. & PROC. § 1775 (2d ed. 1996))). As a result, it is a "well-recognized rule that Rule 23(b)(2) classes must be *cohesive*." *Romberio v. Unumprovident Corp.*, 385 Fed. App'x 423, 433 (6th Cir. 2009); *see also Creech v. Emerson Elec. Co.*, No. 3:15-CV-14, 2019 WL 1723716, at *13 (S.D. Ohio Apr. 18, 2019); *Coleman v. Gen. Motors Acceptance Corp.*, 220 F.R.D. 64, 86 (M.D. Tenn. 2004). In other words, "the interests of

the class members are cohesive and homogeneous such that the case will not depend on adjudication of facts particular to any subset of the class nor require a remedy that differentiates materially among class members.” *Lemon v. Int’l Union of Operating Eng’rs, Local No. 139, AFL-CIO*, 216 F.3d 577, 580 (7th Cir. 2000). “A class action may not be certified under Rule 23(b)(2) if relief specifically tailored to each class member would be necessary to correct the allegedly wrongful conduct of the defendant.” *Shook v. Bd. of Cnty. Comm’rs*, 543 F.3d 597, 604 (10th Cir. 2008) (Gorsuch, J.) (quoting 5 JAMES W. MOORE ET AL., MOORE’S FED. PRAC. § 23.43(2)(b) (3d ed. 2000)). Indeed, “if redressing the class members’ injuries requires time-consuming inquiry into individual circumstances or characteristics of class members or groups of class members, ‘the suit could become unmanageable and little value would be gained in proceeding as a class action.’ ” *Id.* (quoting *Barnes v. Am. Tobacco Co.*, 161 F.3d 127, 143 (3d Cir. 1998)).

CMS’s certification of TEDS further demonstrates that Plaintiffs have failed to meet the requirement that the class and subclass are cohesive, as relief here would require individualized determinations as to whether a class member is entitled to benefits because Plaintiffs cannot assume that all class members experienced an erroneous termination based on a TEDS-related systemic defect that could be remedied in one stroke. Indeed, Plaintiffs ask this Court to require Defendant “to prospectively reinstate TennCare coverage of the Plaintiff Class members until such time as the state determines that enrollees are in fact no longer eligible, based on a redetermination process that reliably complies” with the law, Compl. at 115, but CMS has already made such a determination through its certification process. As such, the relief sought is “not a class-wide, universal injunction against a challenged practice . . . but rather is, although a form of equitable relief, essentially individualized in nature.” *Lightfoot v. District of Columbia*, 273 F.R.D. 314, 330 (D.D.C. 2011) (denying class certification because the plaintiffs failed to satisfy the cohesiveness

requirement). Moreover, due to the lack of demonstrated systemic issues with TEDS's processes, this is likely not "a case where there is a modest number of members of the class falling outside the scope of the challenged conduct." *Id.* Rather, in view of CMS's certification decision, it is likely that most, if not all, of the nearly 180,000 individuals comprising the proposed class were *not eligible* nor *deprived of due process* and therefore "would be afforded relief to which they were not otherwise due." *Id.*

CONCLUSION

For the reasons stated herein and, in the State's previously-filed briefs in opposition to the motions, *see* Docs. 61 & 62, the State respectfully submits that this Court should deny Plaintiffs' Motions for a Preliminary Injunction and Class Certification.

January 19, 2021

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document has been served via the Court's electronic filing system on this 19th day of January, 2021.

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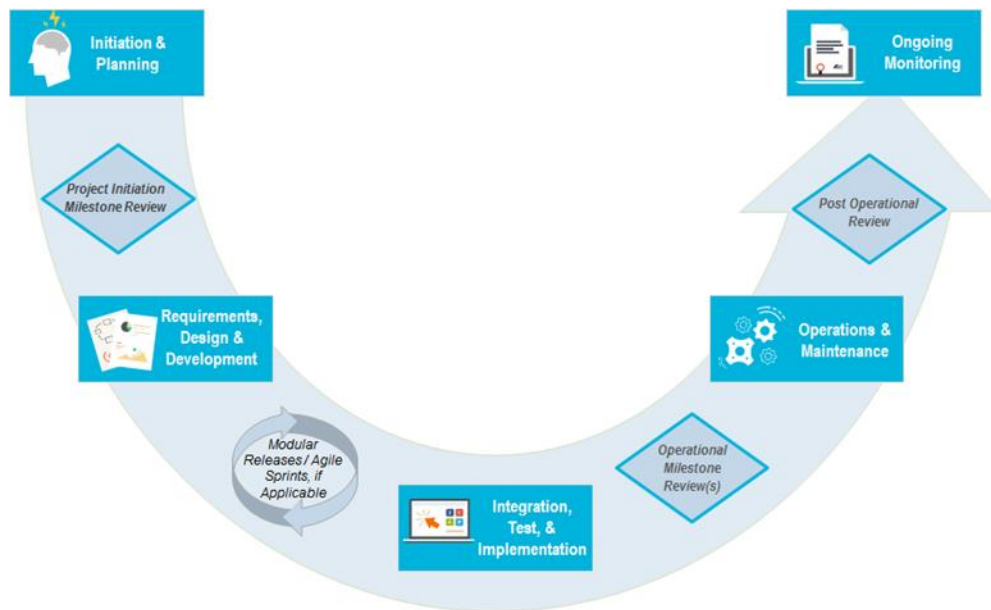
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EXHIBIT 1

MEDICAID ELIGIBILITY & ENROLLMENT LIFE CYCLE

August 2018



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Division of State Systems
Data and Systems Group
Center for Medicaid & CHIP Services
Centers for Medicare & Medicaid Services



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1 E&E Toolkit Overview

1.1 Introduction

The Medicaid Eligibility and Enrollment (E&E) Toolkit (“toolkit”) was developed by the Centers for Medicare & Medicaid Services (CMS) Center for Medicaid & Children’s Health Insurance Program Services (CMCS) to provide technical assistance to states at every stage of developing and upgrading their Eligibility and Enrollment (E&E) systems. CMS continues to focus on the goal of helping states to be successful in their implementations and to reduce project delays and costs.

The purpose of the toolkit is to provide a consistent, detailed process to review the Medicaid E&E business functions and to help ensure that the new/updated system meets all federal requirements for E&E and satisfies the objectives described in the state’s Advance Planning Document (APD). The new Medicaid Eligibility and Enrollment Life Cycle (MEELC) works with the various approaches states may use in E&E system development (e.g. agile, waterfall, etc.).

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1.2 Toolkit Organization

The Medicaid E&E Toolkit (MEET) contains the following:

- A welcome document with toolkit release notes
- This Medicaid Eligibility and Enrollment Life Cycle guidance document
- A separate life cycle workflow diagram with At-a-Glance sheets
- Medicaid E&E Checklists
- Independent verification and validation (IV&V) standard Request for Proposal (RFP)/contract language
- An E&E IV&V Progress Report Template
- A Project Partnership Understanding (PPU) template
- A list of prototypical artifacts that define the information for each type of review
- A MITA self-assessment scorecard
- An E&E Concept of Operations (ConOps) template

Section 1 of this guidance document, E&E Toolkit Overview, introduces the E&E toolkit and how it addresses the diversity of development approaches taken by states, such as waterfall and agile methodologies, outsourcing of Medicaid services, and reuse of other states’ E&E components.

Section 2, Medicaid E&E Life Cycle Roles, explains the entities involved in the life cycle and their responsibilities. Section 3, Medicaid E&E Life Cycle, describes the process and milestone reviews by which CMS reviews a state’s E&E system for compliance with all federal regulations and standards. Section 4, describes when milestone reviews are conducted virtually or on-site. Section 5, Medicaid E&E Checklists, explains the CMS checklists used during milestone reviews. Section 6, Milestone Reviews,

explains the milestone review process and how to prepare. Section 7 of this document provides reference materials.

1.3 A Flexible Medicaid Eligibility and Enrollment Life Cycle

The MEELC contains four life cycle phases and three types of milestone reviews. Figure 1 depicts these at a high level. Section 3 provides a detailed life cycle process workflow and an in-depth description of each process activity.

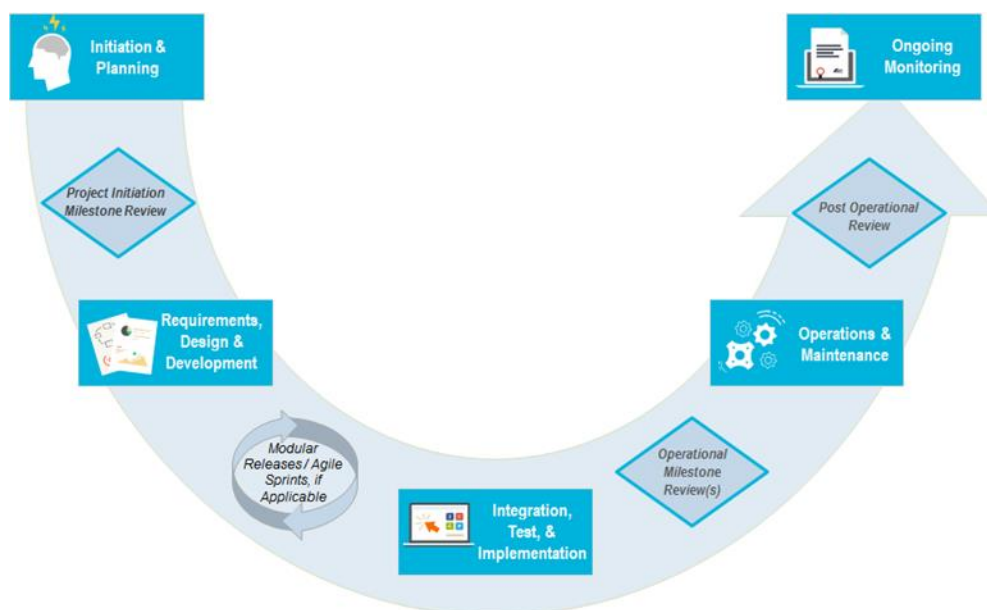


Figure 1. Medicaid E&E Life Cycle Phases and Milestone Reviews

The MEELC accommodates various approaches that states employ to update or upgrade their E&E systems. The flexibility is manifest in four characteristics:

- MEELC fits with a state's own system development life cycle (SDLC), whether that SDLC is agile-based, waterfall-based, or a hybrid of the two (see Figure 2 for two state examples).
- MEELC accounts for states that choose to outsource some or all of their Medicaid functions.
- MEELC allows CMS and the state to schedule each review to fit within the state SDLC schedule (see Section 1.4).
- The MEELC is flexible to accommodate a state that contracts with a third party to perform Medicaid functions.

1.4 States' System Development Life Cycles

The term SDLC refers to the phased approach the state and its contractors use in planning, creating, testing, deploying, and maintaining the E&E system. CMS designed its review process to fit with waterfall, agile, and hybrid system development methodologies.

CMS expects that the state will manage its own SDLC, including conducting internal SDLC gate reviews where “go / no go” decisions are made to move the E&E system through the state’s SDLC phases. CMS reviews serve a different purpose than SDLC gate reviews. SDLC gate reviews focus on development progress, while the CMS reviews monitor compliance with CMS E&E system requirements.

To avoid confusion between the two types of reviews—state SDLC gate reviews and CMS reviews—this toolkit refers to CMS reviews as “milestone reviews.”

The toolkit and the MEELC do not show state-level SDLC steps or gate reviews performed by the state and its IV&V contractor. Rather, the MEELC sits atop the state’s SDLC. The state’s project management plan needs to explain how the state’s SDLC and the E&E Life Cycle will fit together. Figure 2 shows two examples of how actual states’ SDLCs—one using a waterfall SDLC and one using agile—are compatible with the MEELC.

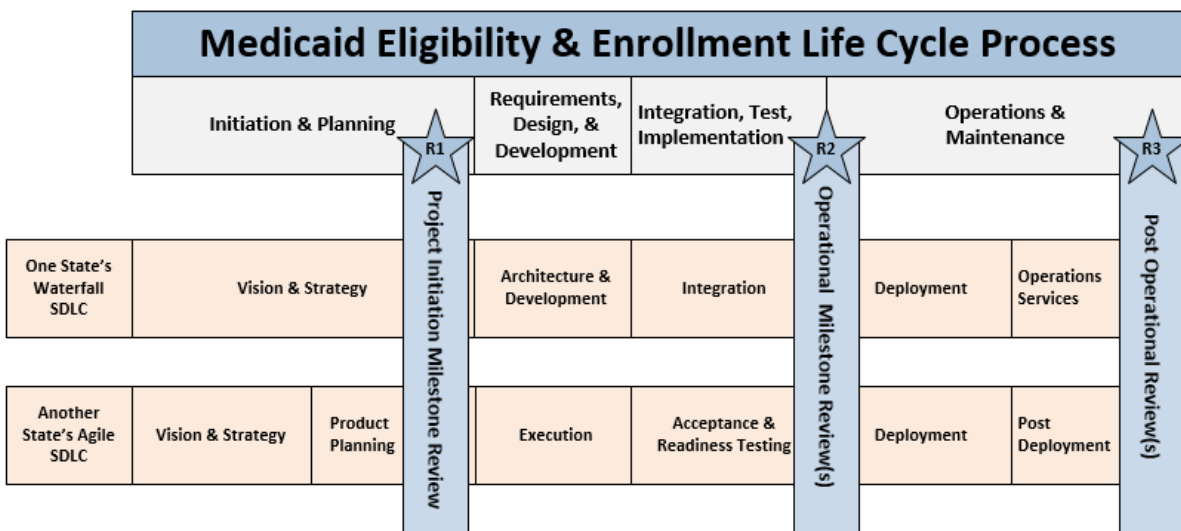


Figure 2. Examples of How MEELC Fits Atop States’ SDLCs

1.5 Recommendations for Establishing a State Project Management Office

CMS has found that states with well-established project management offices (PMOs) are more likely to produce successful Medicaid systems. CMS expects a state to demonstrate project management planning activities during the Planning and Initiation phase of the MEELC. The state manages the project plan, the budget, risk register, and risk plan; coordinates the work of various E&E contractors; and ensures that the state’s SDLC gate reviews are being conducted throughout the E&E project. A PMO can be helpful in serving as a central point for managing these activities. A PMO can also plan the logistics for E&E milestone reviews, such as setting up teleconference lines, developing agendas for review sessions, reserving conference rooms, and facilitating reviews.

1.6 How the Review Process Fits with the Advance Planning Document Process

The detailed APD process description is not within the scope of this E&E toolkit. This section, however, briefly describes the intersection of APDs and the MEELC.

An APD is a plan of action the state uses to request FFP for the costs of planning and implementing an E&E. Specific types of APDs are used during the MEELC:

- A planning advance planning document (PAPD), which is optional
- A planning advance planning document update (PAPDU)
- An implementation advance planning document (IAPD)
- An implementation advance planning document update (IAPDU)

The operational advance planning document (OAPD), used outside of the MEELC, is for systems that have successfully completed the review process and are in operation.

APD preparation falls within the Planning and Initiation phase of the life cycle. The state sends its completed IAPD to the CMS E&E analyst to begin the APD approval process. If needed, CMS has 60 days to send a letter with questions to the state. Once the state responds, the CMS E&E analyst has another 60 days to approve or disapprove the APD.

The MEELC does not disrupt the APD process, but has been designed to mesh with it (see Section 3, Figure 4 for the E&E life cycle workflow). Before the state submits its IAPD to the E&E analyst, the IV&V contractor reviews the state planning documents, evaluating them against the MEELC checklist criteria and critical success factors. The results are compiled into a progress report. The IV&V contractor sends a copy of this E&E IV&V Progress Report to the state, to its CMS E&E analyst, and to the CMS email address (MES@cms.hhs.gov), being sure to include “E&E” in the subject line. This gives the state time to remedy gaps or issues before submitting the IAPD. The CMS analyst may also find the report helpful when preparing questions for the state.

The Project Initiation Milestone Review is held within 30 days of the IAPD submission. The milestone review does not alter the usual APD approval process; the APD approval process is still followed, with CMS and the state exchanging official letters within regulatory timeframes. The Project Initiation Milestone Review provides a forum for the state and CMS to discuss the state’s plans, including the IAPD.

Table 1 describes each APD and where it fits within the MEELC.

Table 1. Types of APDs

APD Type	Name	Description	Overlap with Medicaid Eligibility & Enrollment Life Cycle
PAPD	Planning Advance Planning Document	Used to request federal funds for planning the E&E development.	At the beginning of the Planning and Initiation phase, before the state begins most planning. The PAPD is optional.
PAPDU	Planning Advance Planning Document Update	Used to update a previously approved PAPD.	If an update to a PAPD is necessary; needed PAPD updates usually occur during the Planning and Initiation phase. The CMS E&E analyst reviews and approves, as usual.
IAPD	Implementation Advance Planning Document	Used to request federal funds for developing and implementing the E&E system. It should contain the overall development plan, including any staggered development and a breakout of costs associated with each module or release by federal fiscal year.	In the Planning and Initiation phase, the IAPD is submitted to the CMS E&E analyst after the IV&V contractor has delivered its E&E IV&V Progress Report and before the Project Initiation Milestone Review. The IAPD is required. Because funds are typically released on an annual basis, the CMS E&E analyst reviews the IAPD each year to ensure that the budget is still accurate before the next round of funds is released.
IAPDU	Implementation Advance Planning Document Update	Used to update a previously approved IAPD.	Updates to the IAPDU are most likely to occur during Design and Development or during the Integration, Test, and Implementation phase of the review process. IAPDUs are used during a long E&E development project in which requirements and system designs have evolved. The CMS E&E analyst must review and approve any IAPDU. If plans have changed significantly since the Project Initiation Milestone review (R1), the state may need to undergo another R1 review.
OAPD	Operations Advance Planning Document	Used to request funds for operating an approved E&E system.	The state submits OAPDs annually for systems that are already in operation. Therefore, OAPDs do not apply to the MEELC; they are used after the system has been approved.

1.7 Aligning to the MEELC

A state that has an active E&E project that began prior to the publication of MEET 1.0 (August 2017) should align the MEELC described in this toolkit with the state's project schedule. States should meet the legislative and regulatory requirements embodied in the Medicaid E&E system review checklists, regardless of when the E&E project began. This transition should be straightforward as the MEELC is an enhancement of the previous type of E&E reviews and the majority of checklist criteria are sourced from existing regulations.

To support the review process, states need to ensure that proper contracts, e.g. IV&V, are in place so that sufficient time and resources are available to conduct the review process. If a state is in the middle of an existing project, it will work with its E&E analyst to determine the best point at which to begin aligning with the MEELC. CMS works with states that are "in flight" with their E&E update/replacement efforts to ensure minimal disruption in project schedules and system development. The agreement between the state and CMS on transition to the MEELC is documented in the Project Partnership Understanding (PPU).

For systems that have been in operation, the state should work with the CMS E&E analyst to schedule a post operational review at an appropriate time, but not sooner than six months after implementation. For systems that are transitioning to the MEELC post implementation, the checklist set may be abbreviated. As with other E&E projects, the agreement between the state and CMS on the appropriate review procedures, checklists, criteria and evidence requirements will be documented in the PPU. Several factors influence the complexity and amount of adjustment necessary to comply with changes in the E&E review requirements. In the planning phase of the E&E Life Cycle, documents and artifacts are prepared to define the development approach and are used to estimate cost, schedule, and acquisition intentions. Most of this initial information is included in the PAPD and is updated and included in the IAPD. The system developers, state PMO, and IV&V contractors should review the MEELC process and artifacts to provide appropriate information for each milestone review.

Legislation and CMS policies are expected to evolve over time. When legislation or policies change, CMS updates the Medicaid E&E system review checklists and makes them available to states. A state PMO can meet with its CMS E&E analyst at any time to discuss concerns about the E&E system review process.

1.8 Critical Success Factors

The MEELC incorporates critical success factors (CSFs) into the process. There are two types of CSFs—programmatic and functional. Programmatic CSFs identify activities the state PMO will need to perform in managing its E&E project. They are found in the Programmatic Tab of the IV&V Progress Report Template, which the IV&V contractor fills out as part of the regular progress reports.

Functional CSFs identify system capabilities required to support Medicaid agency functions and are included in the E&E checklist. Compliance with functional CSFs is tracked by the IV&V contractor using the E&E checklist, which contains built-in mapping between the functional CSFs and checklist criteria. CMS uses this mapping to determine a state's compliance with functional CSFs.

2 Medicaid Eligibility and Enrollment Life Cycle Roles

2.1 CMS E&E Analyst

The E&E analyst serves as a resource for the state throughout the E&E life cycle and is the point of contact for the state regarding all matters concerning E&E system development projects.

At the beginning of the life cycle, the E&E analyst reviews and approves draft IV&V RFPs and PAPDs and consults with the state once the E&E ConOps is complete. As part of the CMS review team, the E&E analyst reviews the IV&V contractor's E&E IV&V Progress Report, completes the CMS tab of the E&E IV&V Progress Report, and participates in the milestone reviews. The CMS E&E analyst approves IAPDs and development contracts and stays abreast of the state's progress throughout the E&E project. A state may consult with its analyst at any time.

2.2 State

The state plans and manages the E&E project. The state ensures that the IV&V contractor has access to evidence needed to prepare its E&E IV&V Progress Report, tracks issues identified by the IV&V contractor, and manages them through resolution. The state plans E&E milestone reviews in coordination with the CMS E&E analyst.

2.3 IV&V Contractor

The IV&V contractor represents the interests of CMS, and as such, provides an independent and unbiased perspective on the progress of E&E development and the integrity and functionality of the system. CMS expects that the IV&V contractor will participate in state SDLC gate reviews and will inform CMS of significant risks or issues as the system is planned, developed, and deployed. **To ensure independence, the IV&V contractor must not report to the same agency or department that oversees the Medicaid program.** (For example, the IV&V contract may be owned by the state's auditor's office or the state's department of treasury.) The IV&V contractor must not be the contractor performing software testing.

According to 45 CFR § 95.626 (b) and (c),

- (b) Independent verification and validation efforts must be conducted by an entity that is independent from the state (unless the state receives an exception from the Department), and the entity selected must:
 - (1) Develop a project work plan. The plan must be provided directly to the Department at the same time it is given to the state.
 - (2) Review and make recommendations on both the management of the project, both state and vendor, and the technical aspects of the project. The IV&V provider must give the results of its analysis directly to the federal agencies that required the IV&V at the same time it reports to the state.
 - (3) Consult with all stakeholders and assess the user involvement and buy-in regarding system functionality and the system's ability to support program business needs.

- (4) Conduct an analysis of past project performance sufficient to identify and make recommendations for improvement.
 - (5) Provide risk management assessment and capacity planning services.
 - (6) Develop performance metrics which allow tracking project completion against milestones set by the State.
- (c) The acquisition document and contract for selecting the IV&V provider (or similar documents if IV&V services are provided by other state agencies) must include requirements regarding the experience and skills of the key personnel proposed for the IV&V analysis. The contract (or similar document if the IV&V services are provided by other state agencies) must specify by name the key personnel who actually will work on the project. The acquisition documents and contract for required IV&V services must be submitted to the Department for prior written approval.

CMS has developed standard IV&V language to be included in the state's IV&V RFP and contract (or contract modification, if a contract already exists) to ensure that the IV&V contract includes duties that CMS expects of the contractor. The standard language can be found in the toolkit appendices.

Throughout the life cycle, the IV&V contractor prepares the IV&V and programmatic tabs of the IV&V Progress Reports. For the report immediately preceding a milestone review, the contractor also completes the reviewer columns of the checklists. The IV&V contractor reviews project and technical progress against the state's baseline plans and against requirements in the Medicaid E&E system review checklists. The IV&V contractor delivers the E&E IV&V Progress Reports, including draft reports, to CMS and to the state simultaneously.

The IV&V contractor should help the state ensure it is meeting requirements as part of normal business operations by offering advice and participating in state-level gate reviews. However, when it is time to start preparing for a milestone review (about six to eight weeks before the milestone review), independence must be maintained. Therefore, the IV&V contractor does not assist the state in generating checklist answers and evidence, nor does it store its draft adjudications where the state can access them. The guiding principle is that the state and CMS receive IV&V comments at the same time.

IV&V contracts entered after February 17, 2018 must comply with all IV&V requirements, per State Medicaid Director Letter #16-010 and regulation. E&E analysts will verify with the states that the IV&V contracts are being modified where needed to meet the new requirements.

3 Medicaid Eligibility and Enrollment Life Cycle

The MEELC is composed of the following four phases:

- Initiation and Planning
- Requirements, Design, and Development
- Integration, Test, and Implementation
- Operations and Maintenance

Each phase has distinct activities that a state is expected to perform during the MEELC. This chapter provides detailed explanations of each activity shown in the workflow diagram (Figure 4). An interactive version of the MEELC is included in the toolkit as a separate document. That version also contains quick-reference At-a-Glance sheets for each activity.

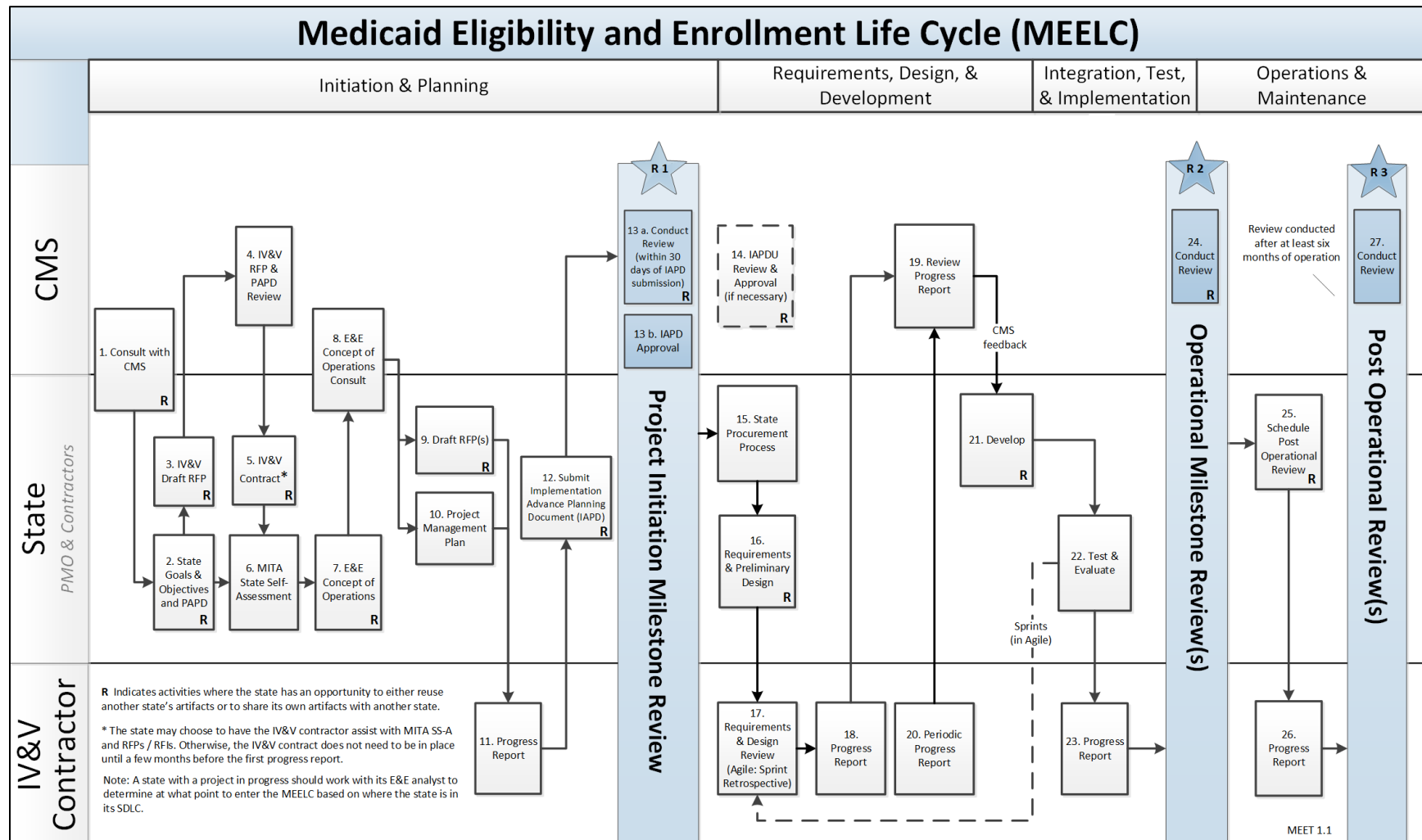


Figure 3. Medicaid Eligibility and Enrollment Life Cycle

3.1 Initiation and Planning

Figure 5 shows the activities in the Initiation and Planning phase.

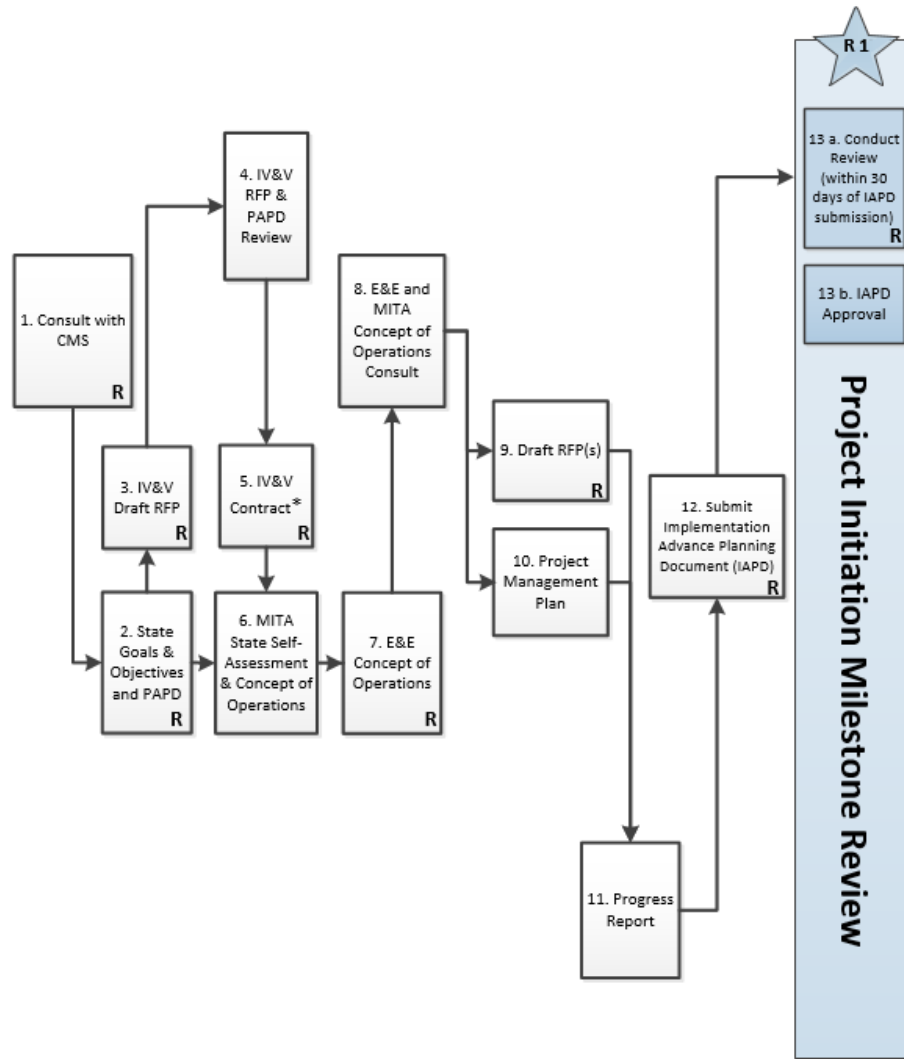


Figure 4. Initiation and Planning Phase

During the Initiation and Planning phase, the state performs the following actions:

- Consults with the CMS E&E analyst to explain its approach and asks questions about the life cycle
- Documents its goals and objectives for the new, upgraded, or replacement E&E system
- Submits a PAPD, if requesting planning funds from CMS
- Assesses itself against the Medicaid Information Technology Architecture (MITA) maturity model
- Contracts with an IV&V provider

- Prepares the E&E ConOps (a courtesy template is provided in toolkit appendices)
- Prepares an IAPD and draft RFP(s)
- Creates its project management plan, schedule, and risk register
- Cooperates with the IV&V contractor as the contractor prepares Part 1 of the E&E IV&V Progress Report and the checklists review prior to the first milestone review
- Cooperates with the CMS E&E analyst in its review and completion of the E&E IV&V Progress Report
- Undergoes the first milestone review
- Is notified of whether CMS has approved the IAPD and RFP(s)

3.1.1 Activity 1: Consult with CMS

Figure 6 shows the steps within the consult with CMS activity. This activity includes:

- Opportunities for CMS to understand the state's approach to E&E enhancement / replacement.
- Opportunities for the state to ask questions about the MEELC at the onset of the project.
- Mutual agreement between the state and CMS on a preliminary "critical path" for the state's progress through MEELC. This includes a high-level timeline for milestone reviews and frequency of E&E IV&V Progress Reports that will fit with the state's project schedule.

In this activity, CMS and the state agree to a frequency for the E&E IV&V Progress Reports that the IV&V contractor will prepare throughout the project. E&E IV&V Progress Reports must be submitted at least quarterly, but the state and CMS may deem it necessary to have more frequent reports. E&E IV&V Progress Reports created in preparation for a milestone review may be considered one of the quarterly reports.

The decisions made between the state and CMS are documented in the PPU (see toolkit appendices for a template). It can be updated whenever the CMS and the state find it necessary to alter plans. The state should send new or updated PPUs and related correspondence to the CMS E&E analyst and the CMS email box (MES@cms.hhs.gov), being sure to include "E&E" in the subject line.

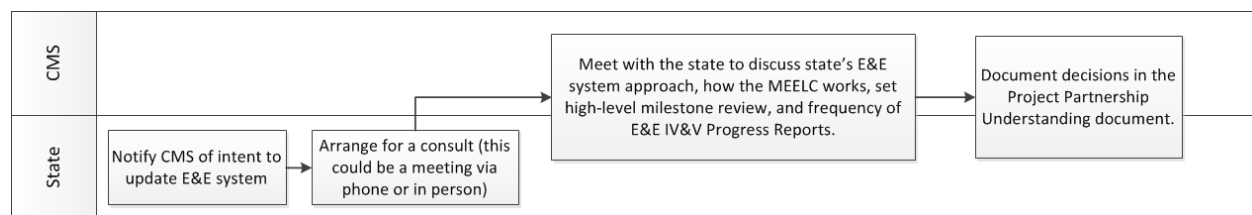


Figure 5. Activity 1: Consult with CMS

3.1.2 Activity 2: State Goals and Objectives and PAPD

Figure 7 shows the steps in Activity 2. The state agency considers its vision of the future and sets goals and objectives for the new or updated E&E system. The state should use MITA business areas to guide its planning. The state submits a PAPD to CMS if requesting FFP for E&E planning. States are not

required to submit a PAPD. The output of this activity is a documented set of state goals and objectives and a PAPD, if the state is using one. The state and CMS follow the established APD processes during this activity. The details of the APD process are beyond the scope of the MEELC.

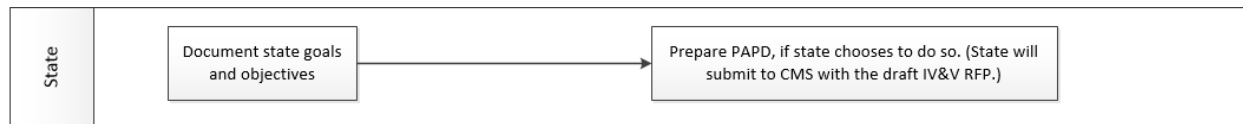


Figure 6. Activity 2: State Goals and Objectives & PAPD

3.1.3 Activity 3: IV&V Draft RFP

The state drafts an RFP for an IV&V contractor or drafts a modification to an existing contract, if necessary (Figure 8). The inputs to this activity are the state goals and objectives and the Medicaid E&E system review checklists; the output is a draft IV&V RFP.

CMS expects the state to include certain standard language in the RFP to ensure that the contractor:

- Is independent of the state agency that manages the E&E project
- Does not perform software testing
- Reviews project management and technical designs (including security, performance management, claims editing, etc.)
- Submits periodic E&E IV&V Progress Reports (including drafts) to CMS and the state simultaneously

Standard language for the state to copy into its IV&V draft RFP/contract can be found in Appendix C of the toolkit. The wording is to be used as written. The standard wording is not intended to provide exhaustive coverage of IV&V contract scope, but stipulates the minimum activities CMS requires during planning, design, development, and implementation through post-operational review. The state may add other duties. If the state is using an agile approach, the state is encouraged to add language requiring the IV&V contractor to participate in sprint burn-downs. To maintain true independence, the IV&V contractor must not perform software testing of the system, but should verify that those activities have been performed properly and with adequate test coverage.

The state and CMS may need to discuss the frequency of E&E IV&V Progress Reports prepared by the IV&V contractor. Reports should be frequent enough to give the CMS a solid understanding of E&E risks and progress, yet not so frequent as to add undue expense and burden on the state and on CMS. Reports must be submitted at least quarterly.

The standard RFP/contract language required by CMS does not cover activities that the state may require of the IV&V contractor during ongoing operations and maintenance (O&M). The IV&V role during O&M is outside the scope of this toolkit.

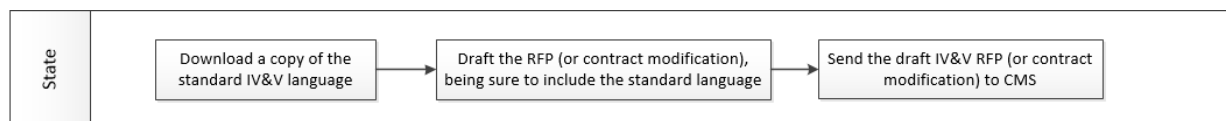


Figure 7. Activity 3: IV&V Draft RFP

3.1.4 Activity 4: IV&V RFP and PAPD Review

During Activity 4 (Figure 9), CMS will review the IV&V RFP to ensure that CMS's interests are represented by the contractor and that the scope of IV&V review is comprehensive. If the state is submitting a PAPD, it will send the draft IV&V RFP with the PAPD to the CMS E&E analyst. The analyst will review both and provide feedback, if warranted.

CMS should check the frequency of E&E IV&V Progress Reports required in the RFP. E&E IV&V Progress Reports are needed before each milestone review and throughout the project, with a minimum of quarterly report submission. (A report prepared for a milestone review counts toward the quarterly report minimum.) E&E IV&V Progress Reports should be frequent enough to give CMS a solid understanding of the risks and progress as the E&E project proceeds, yet not so frequent as to add undue expense and burden on the state and on CMS. After the state makes any necessary corrections to the PAPD and the IV&V RFP, CMS will decide if the IV&V RFP and the PAPD have been approved.

The standard IV&V RFP language and checklists are inputs to this activity. The outputs are CMS decisions of approval or disapproval for the IV&V RFP and the PAPD.

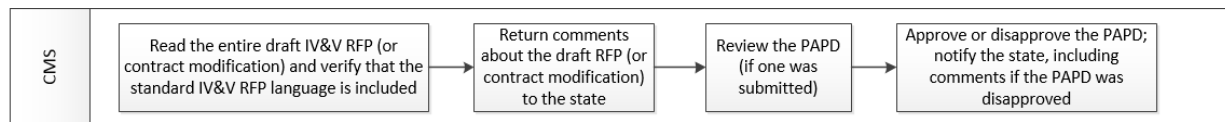


Figure 8. Activity 4: IV&V RFP and PAPD Review

3.1.5 Activity 5: IV&V Contract

The inputs for Activity 5 (Figure 10) are the state's acquisition policies and procedures, the checklists, and the IV&V RFP/contract standard language in toolkit Appendix C. The output of Activity 5 is a contract submitted to the E&E analyst for approval.

The state follows its procurement processes for issuing an IV&V contract, ensuring that the contract includes the standard language. The state also must ensure that the contractor is qualified to perform reviews of business processes and IT service management processes and technical reviews of design, databases, applications, and security. The state sends the contract to the CMS E&E analyst for approval.

Any changes to the IV&V contract that alter the scope of the contract must be reviewed and approved by the CMS E&E analyst. Once the state has contracted with an IV&V contractor, the state should conduct a kickoff meeting with the IV&V contractor to explain the state's goals, SDLC, release plans, and the checklist set it selected.

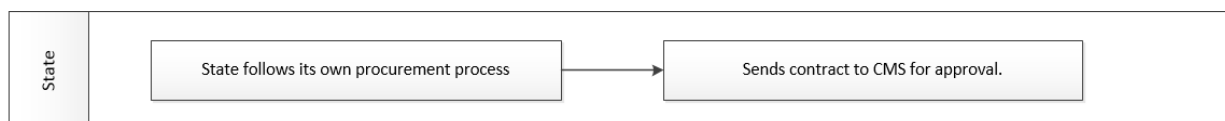


Figure 9. Activity 5: IV&V Contract

3.1.6 Activity 6: MITA State Self-Assessment

Per MITA 3.0, the state performs a MITA state self-assessment (MITA SS-A). This is Activity 6 (Figure 11) in the MEELC. The input for this activity is the latest MITA guidance, and the output is a set of MITA documents. States may have their IV&V contractor perform the SS-A. CMS encourages states to use the SS-A scorecard (see toolkit appendices) for submitting the SS-A to CMS. The state is encouraged to consider reusing examples from other states and to share its artifacts with other states. The state may find it easier and more cost-effective to tailor elements of another state's SS-A than to start from scratch in preparing its own SS-A. States that use documents from other states can show that use as evidence of compliance with the leverage condition.

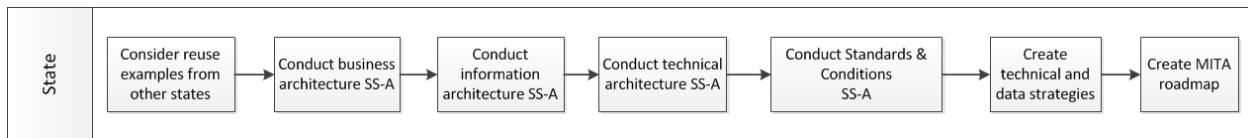


Figure 10. Activity 6: MITA State Self-Assessment

3.1.7 Activity 7: E&E Concept of Operations

The state writes a technical E&E ConOps in Activity 7 (Figure 12). The input for this activity is the state's technical concept for the E&E solution. The output is an E&E ConOps. The ConOps describes, at a high level, the technical solutions the state has selected and how those technical components will integrate internally and with external state and federal IT systems. The concept should explain how the state intends to apply the conditions of reuse and modularity. The state should be able to reuse much of the ConOps language for its IAPD. The state may choose to use the E&E ConOps template provided in Appendix E of the toolkit.

The state is encouraged to consider reusing examples from other states and to share its artifacts with other states. The state may find it easier and more cost-effective to tailor elements of another state's E&E ConOps than to start from scratch in preparing its ConOps. States that use documents from other states can show that use as evidence of compliance with the leverage condition.

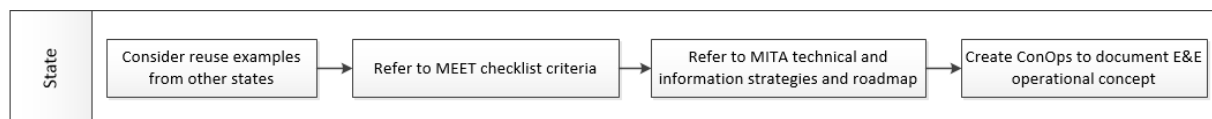


Figure 11. Activity 7: E&E Concept of Operations

3.1.8 Activity 8: E&E and MITA Concept of Operations Consult

After the E&E ConOps is developed, the state sends the document to the CMS E&E analyst for review and consult. The CMS E&E analyst discusses the high-level design with the state to understand the scope of the work (and later, the funding request for it). CMS also identifies issues with the high-level operational design that may pose system review/approval problems. Figure 13 shows the steps in this activity. The inputs to this activity are the state's E&E ConOps.

The E&E ConOps consult is informal and usually uncomplicated. The state and CMS E&E analyst decide how to conduct the consult—over the phone, through emails, in-person meeting, etc. The E&E analyst is welcome to use other CMS subject matter experts (SMEs) during the activity. The output is a revised E&E ConOps based on comments, if any, received by the E&E analyst.

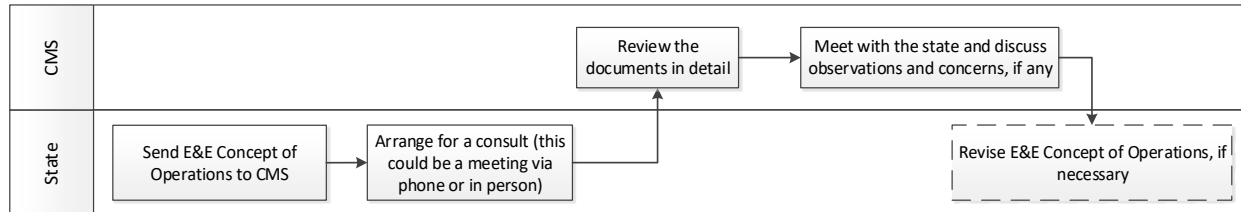


Figure 12. Activity 8: E&E Concept of Operations Consult

3.1.9 Activity 9: Draft Request for Proposal

The state often contracts with one or more vendors to design, develop, test, and install its E&E system. The state must ensure that E&E requirements in the RFP map to its APD and its MITA roadmap, and to the Medicaid E&E checklists. Figure 14 shows the steps in this activity. The inputs are the E&E checklists, the MITA documents, and the E&E ConOps; the output is one or more draft RFPs for system development.

CMS has learned through experience that states that include certain provisions in their RFPs and contracts are more successful in system deployments. Wherever enforceable under state law, a state should include the following provisions:

- Defined goals and objectives
- Environment requirements (business, architecture, data), including reuse, interoperability, and modularity requirements
- Conditions tying compensation to meeting or exceeding defined goals (e.g., service level agreements)
- Reservation of right for the state to approve and/or remove subcontractors
- Requirement that contractors cooperate with other contractors (including the IV&V contractor) and facilitate progress

The state should also include language in the RFP and contract that requires contractors to abide by all of the state's security and privacy policies.

According to 45 CFR Part 92, procurement that exceeds a certain threshold dollar amount needs to be approved by CMS. For E&E, the draft RFP(s) are reviewed by the CMS E&E analyst.

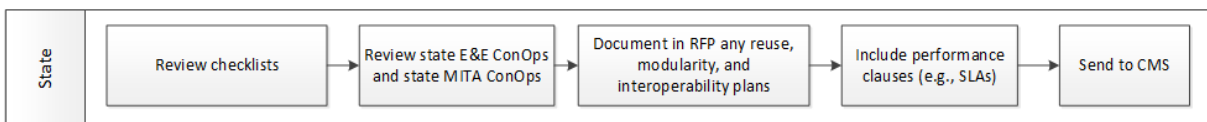


Figure 13. Activity 9: Draft Request for Proposal

3.1.10 Activity 10: Project Management Plan

Figure 15 shows the steps in Activity 10. The inputs to the project management plan are the MITA and E&E documentation developed to this point, and the outputs are a high-level milestone schedule, project management plan including budget, risk management plan, risk register, and SDLC.

If the state has not already established a PMO, it could do so during this activity. The state performs the following actions:

- Writes or updates the project management plan
- Develops or updates the budget
- Develops the project schedule
- Documents the SDLC it will use to develop the E&E and how the MEELC fits atop that SDLC (see Figure 2)
- Creates a risk register (waterfall)/exception plan (agile)
- Ensures that all necessary artifacts are ready for the Project Initiation Milestone Review (see toolkit appendices for the list of artifacts)

The first version of the project schedule may show only high-level milestones broken out by quarter because, often, a project schedule is detailed only after a system's specific requirements are determined. The schedule can contain more detail after the system requirements/user stories are defined.

The state is encouraged (not required) to consider examples of other states' documents. The state may find it easier and more cost-effective to tailor elements of another state's documents than to start from scratch. States that reuse documents from other states can show that use as evidence of compliance with the leverage condition.

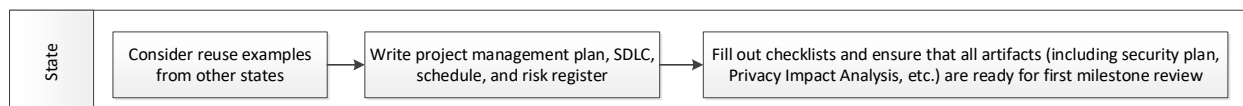


Figure 14. Activity 10: Project Management Plan

3.1.11 Activity 11: Progress Report

In preparation for the Project Initiation Milestone Review, the IV&V contractor prepares an E&E IV&V Progress Report (Figure 16). The state fills out its portion of the six checklists: E&E checklist, the Technical Architecture (3), Information Architecture, and Standards and Conditions checklists. When the state completes the sections of its Medicaid E&E system review checklists, it stores the checklists and supporting evidence in its own repository.

The IV&V contractor then completes the reviewer sections of the checklists and completes the IV&V tabs of the E&E IV&V Progress Report Template.¹ The completed checklists are appended to the report.

The IV&V contractor then submits the reports and checklists simultaneously to the state, to the CMS E&E analyst, and to the CMS email address (MES@cms.hhs.gov), being sure to include “E&E” in the subject line, no later than two weeks prior to the milestone review. When the state receives the checklists from the IV&V contractor, it should save the IV&V-completed checklists in the state repository as new versions of the checklists. (The checklists should continue to be updated as new versions with subsequent progress reports.)

The IV&V contractor should not send drafts of the report to the state unless it is also sending the same draft simultaneously to CMS. CMS uploads the completed checklists to its tracking database. The state may respond to issues identified in the E&E IV&V Progress Report. CMS can insert comments in the CMS section of the report. CMS will pay particular attention to how the state is including security and privacy into the system.

When preparing the E&E IV&V Progress Report required before the Project Initiation Milestone Review, the IV&V contractor evaluates the following state documents for thoroughness, accuracy, and consistency:

- State goals and objectives
- MITA self-assessment / MITA roadmap
- E&E ConOps
- Draft RFP(s)
- Privacy impact analysis
- State security policies and security plan
- Project management plan artifacts (budget, schedule, risk register/exception plan)

The Progress Report details what, if any, issues the state should address before the CMS conducts the Project Initiation Milestone Review. The inputs to this activity are the checklists; supporting evidence and documents, including project management artifacts; and the E&E IV&V Progress Report Template. The outputs are an E&E IV&V Progress Report and completed checklists, which are appended to the report. CMS reviews the E&E IV&V Progress Report and the checklists, and completes the CMS section of the E&E IV&V Progress Report after the milestone review.

If the contractor and state have identified particularly good examples of final versions of project documents, the state should consider sharing them with other states. Such documents need to be owned by the state and not contain sensitive or proprietary information. States that contribute documents to other states for reuse can show that contribution as evidence of compliance with the leverage condition.

¹ It is recommended that the contractor use the E&E IV&V Progress Report Template provided in Appendix D, as it contains all of the information needed for this report. If the state or IV&V contractor desires to use a different format, it should discuss with CMS E&E analyst to ensure proper content and structure of the report.

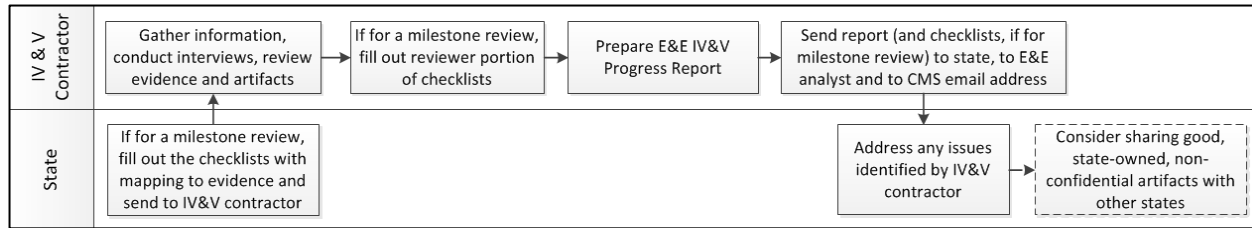


Figure 15. Activity 11: Progress Report

3.1.12 Activity 12: Submit Implementation Advance Planning Document

Activity 12 (Figure 17) represents IAPD submission. The inputs for IAPD submission are all of the state's planning documents prepared to this point. The state follows the APD process specified in 45 CFR, Part 95.

The IAPD includes the following:

- Statement of need and objectives
- Requirements and alternatives analysis, including reuse consideration
- Project management plan
- Proposed project budget and cost distribution
- Statement of security/interface and disaster recovery requirements
- Assurances
- Compliance with standards and conditions for Medicaid IT
- MITA SS-A, as an attachment

The state sends the IAPD to the CMS E&E analyst; the IAPD is the output of this activity. Submission of the IAPD starts the APD approval process, which can last as long as 120 days, but is usually concluded in much less time. The E&E analyst evaluates the business case presented in the IAPD, formally submits questions to the state, considers the answers received from the state, and issues a decision on approval.

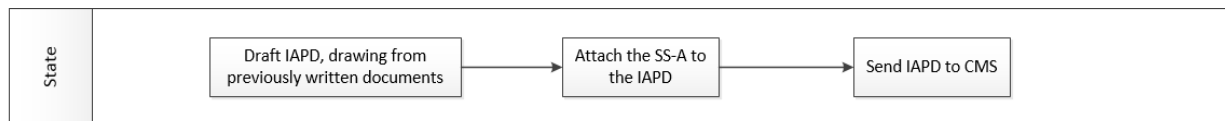


Figure 16. Activity 12: Submit IAPD

3.1.13 Activities 13 a and b: Project Initiation Milestone Review and IAPD Approval

The activity after the state addresses any issues identified in the E&E IV&V Progress Report is the Project Initiation Milestone Review (Figure 18). The Project Initiation Milestone Review ensures that the state has documented goals and objectives, a solid MITA SS-A and roadmap, and a technical ConOps. In this review, CMS evaluates the state's business case, project management plan, and RFPs.

This first milestone review must be conducted within 30 days of the IAPD submission. If a state is planning a release, it will send that release through a Project Initiation Milestone Review. If enough time has passed that the original plans are out of date or plans have altered considerably (e.g., there is a contract protest, scope is changed, additional releases are planned), CMS may determine that another review is warranted.

The entry criteria for the Project Initiation Milestone Review are that the state has made artifacts and evidence available to CMS and that the IV&V contractor has sent the progress report and completed checklists to the state, to the CMS E&E analyst, and to the CMS email box (MES@cms.hhs.gov) with “E&E” in the subject line, no later than two weeks prior to the milestone review. See Appendix H_Milestone Review Preparation Guide for details about the timeline and logistics of milestone reviews.

The inputs to the Project Initiation Milestone Review are the E&E IV&V Progress Report, the IAPD, the draft RFP, and all other planning documents. (See the toolkit appendices for a list of artifacts for each milestone review.) CMS may choose to send test cases or scenarios to the state to be included as part of the milestone review. In such instances, the state would be expected to show how the module or SMA will process the test cases or scenarios. If CMS makes test cases part of the review, the E&E analyst will provide further guidance to the state.

The outputs are an IAPD decision from CMS, an RFP decision from CMS, and the CMS portion of the E&E IV&V Progress Report, including comments, if any, about the state’s status.

Granting CMS direct access to the state’s evidence repository is the preferred method of supplying evidence. If that is not possible, the state may make other secure arrangements with CMS, such as using encrypted File Transfer Protocol (FTP). It is critical to follow all Health Insurance Portability and Accountability Act (HIPAA) regulations are followed when submitting evidence that contains personal health information (PHI) and personally identifiable information (PII). Using an unencrypted thumb drive or other forms of physical storage through shipping services, for example, would not be acceptable. If a state has questions, it should contact its E&E analyst.

The Project Initiation Milestone Review consists of CMS reviewing the progress report and checklists. CMS will respond with comments in the CMS section of the report and send copies of the progress report to the state and to the IV&V contractor. The CMS review team may or may not include comments in the checklists. This concludes the milestone review; no site visit is usually required.

However, there may be cases where CMS considers a more formal review to be appropriate and may schedule a virtual or an on-site visit for the Project Initiation Milestone Review (R1). In such cases, the E&E analyst will notify the state if this is necessary and will work with the state to schedule the review and arrange logistics.

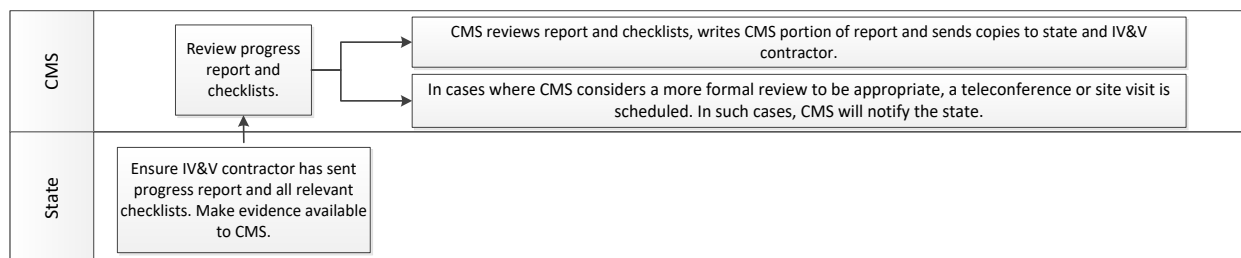


Figure 17. Activity 13a: Project Initiation Milestone Review

From the time the state submits its IAPD (Activity 12) through IAPD approval (Activity 13b), the state and CMS E&E analyst follow the APD process (Figure 19). (A full description of the APD process is outside the scope of this toolkit.) IAPD approval is shown in the MEELC to illustrate how the APD process is conducted concurrently with the MEELC milestone review process. The state may proceed with the other MEELC workflow activities so long as the IAPD is approved. It does not need to wait until CMS updates the E&E IV&V Progress Report.

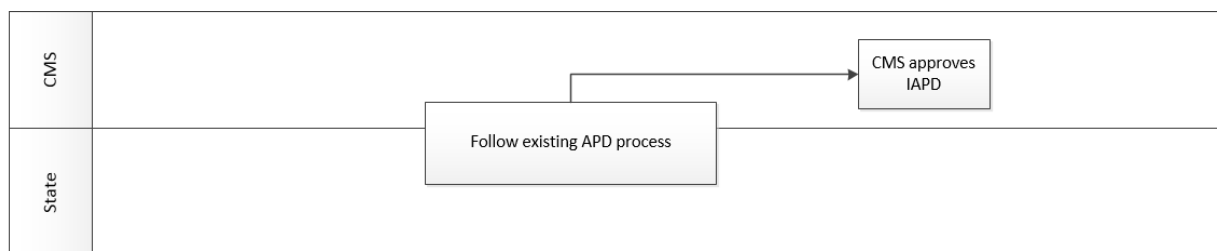


Figure 19. Activity 13b: IAPD Approval

3.2 Requirements, Design, and Development

Figure 20 shows the activities in the Requirements, Design, and Development phase.

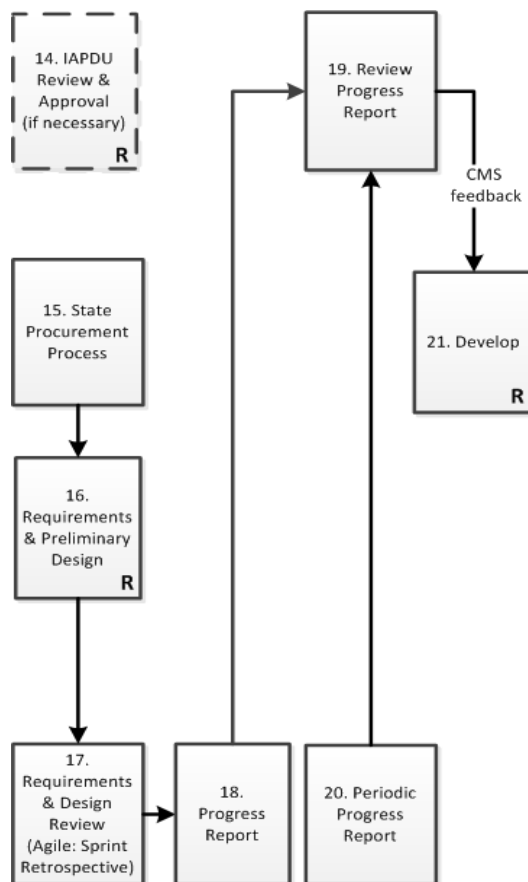


Figure 20. Requirements, Design, and Development Phase

During the Requirements, Design, and Development phase, the state performs the following actions:

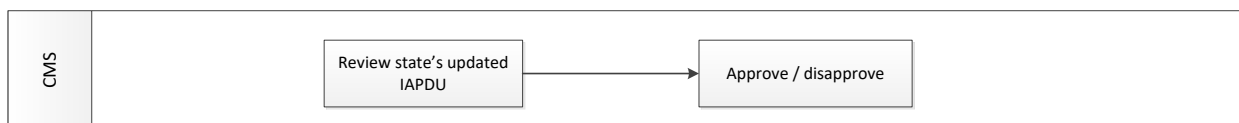
- Documents system requirements
- Designs the system
- Undergoes an IV&V requirements and design review
- Documents test/validation plans
- Cooperates with the IV&V contractor as the periodic E&E IV&V Progress Report is prepared
- Develops/updates/integrates the E&E system

States may employ a waterfall, agile, or hybrid development methodology. The IV&V contractor reviews the requirements and the designs and sends periodic reports to the state, to the CMS E&E analyst, the CMS email box (MES@cms.hhs.gov), being sure to include “E&E” in the subject line.

3.2.1 Activity 14: IAPDU Review and Approval (if Necessary)

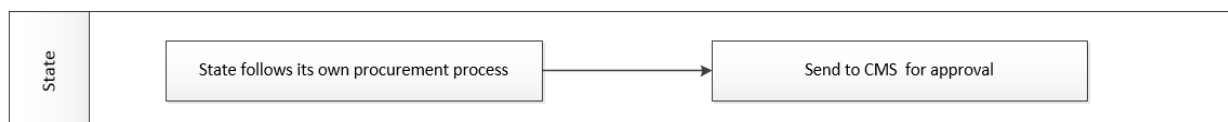
A state that has already cleared the Project Initiation Milestone Review and needs to update a previously approved IAPD does not need to go through another Project Initiation Milestone Review. The state would update its IAPD along with any related RFPs, and send them to the CMS E&E analyst to review and approve (Figure 21).

This activity also covers the case where the CMS E&E analyst plans to release funds annually and needs to review a previously approved IAPD. In such a routine, annual IAPD review by the CMS E&E analyst, the state will not undergo another Project Initiation Milestone Review. The input to this activity is the IAPDU (or a previously approved IAPD). The output is a decision from CMS regarding approval and a release of funds.

*Figure 21. Activity 14: IAPDU Review and Approval (if Necessary)*

3.2.2 Activity 15: State Procurement Process

The state follows its own procurement processes to enter into contracts with developers, testers, system integrator, etc. The state sends the contracts to the CMS E&E analyst for approval (Figure 22). The inputs are the state's procurement policies and procedures and the RFP. The output is a contract(s) submitted to the CMS E&E analyst for approval.

*Figure 22. Activity 15: State Procurement Process*

3.2.3 Activity 16: Requirements and Preliminary Design

If the state is developing a system (as opposed to purchasing a COTS product or outsourcing services), the state documents the system requirements, system design, and test plans (Figure 23). If the state is purchasing a COTS product, the state must produce an interface design document, including a description of Application Programming Interfaces. The state also must develop a test plan to verify that the system meets all CMS requirements and will operate seamlessly within the E&E (e.g., host identity management, data updates). The toolkit Appendix B contains a list of artifacts for each milestone review.

In an agile development, requirements may take the form of epics and user stories on note cards or in a software suite. Each user story is mapped to a test case for validating the code produced during sprints. Use case testing is developed in parallel with product development. Integration testing is crucial for E&E success and must be included in test plans.

In traditional waterfall development, mapping between requirements and test cases is called a requirements traceability matrix (RTM). Agile approaches may not have a formal RTM, but regardless of the methodology used, mapping must contain requirements traceability and must detail requirements for the following categories:

- Business
- Data
- Capacity/performance
- Security/privacy/HIPAA compliance
- Usability
- Maintainability
- Interface
- 508 compliance

The inputs for this activity are the MITA technical strategies, MITA documents, E&E ConOps, and the checklists, including CSFs. The output is a set of technical designs and requirements/use cases or user stories.

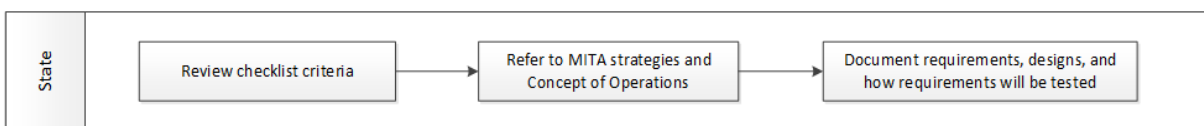


Figure 23. Activity 16: Requirements and Preliminary Design

All applicable criteria in the E&E checklists must be covered in the requirements. States are encouraged to include users in the requirements gathering and preliminary design activities to ensure state specific

requirements are also covered. The requirements and design typically change over the course of a large development and must be kept current.

CMS has seen the importance of states carefully managing requirements. In one large system implementation, the state lacked a unified, approved version of requirements. Different requirement versions were used for development of software, test cases, stakeholder expectations, and test data creation, and the system failed as a result.

3.2.4 Activity 17: Requirements and Design Review(s)/Sprint Retrospective

3.2.5 Activity 18: Progress Report

3.2.6 Activity 19: Review Progress Report

3.2.7 Activity 20: Periodic Progress Report

Activities 17, 18, 19, and 20 are covered together because they are closely related. Regarding Activity 17, the success of the E&E project depends on the inclusion of all applicable federal and state Medicaid systems requirements in the technical designs. CMS does not perform a formal milestone review of the detailed requirements and designs because states develop detailed designs at different times and in different ways, depending on their SDLC. CMS does require that the IV&V contractor use the E&E checklists to review the requirements and design as they are developed. The IV&V contractor also needs to report to CMS any risks and gaps, using the periodic E&E IV&V Progress Reports. The inputs for Activity 17 (Figure 24) are the ConOps documents and preliminary designs, requirements, and test plans. The output of Activities 17 and 18, together, is an E&E IV&V Progress Report.

The IV&V contractor prepares Progress Reports at least quarterly as indicated in Activities 18 and 20 (Figure 25) throughout the MEELC on a schedule agreed on by the state and CMS during Activity 1 Consult with CMS (Figure 6). The IV&V contractor appends the adjudicated checklists in the report that immediately precedes a milestone review.

Special occurrences of the E&E IV&V Progress Reports can count toward the minimum of quarterly reports. Even if a state is using multiple development vendors, the IV&V contractor only prepares a single report that covers all modules undergoing planning, development, test, or implementation.

The E&E IV&V Progress Reports are prepared immediately before a milestone review (Activities 11, 23, and 26) and after the preliminary requirements and designs have been created (Activity 18). The report generated after preliminary design development gives CMS a chance to review the designs and notify the state of any issues early in development, when it is least costly and less time-consuming for the state to correct them.

The state should schedule the E&E IV&V Progress Report after the preliminary requirements and design to fit its SDLC phase gates. For example, a state following a waterfall development may have a single

design phase gate. That would be the most appropriate time for the IV&V contractor to perform its requirements and design review.

A state employing an agile approach will not likely have a design gate review. It may, instead, perform a series of sprint retrospectives, where the backlog is prioritized and designs are modified at the conclusion of each sprint. In such a case, the IV&V contractor may perform a requirements and design review at each sprint retrospective, during every other sprint retrospective, or at some other pre-agreed schedule. The IV&V contractor must thoroughly review the requirements and design at least once.

For the periodic E&E IV&V Progress Reports, the IV&V contractor will review the following:

- System design document or, if the state is purchasing a COTS system, an interface design document
- Information system security assessment
- Test plan
- Test report/validated product reports
- Interface control document
- Database design
- Data conversion/data management plan
- Implementation plan
- Contingency/recovery plan
- Data use/exchange interconnection security agreement
- Project progress against plans
- MITA progress

For progress reports prepared in advance of a milestone review, the state fills out its portion of the checklists for the milestone review. All six checklists: E&E, Technical Architecture (3), Interface Architecture, and Standards and Conditions, should be used. When the state completes its sections of its E&E checklists, it stores the checklists and supporting evidence in its own repository.

The IV&V contractor then completes the reviewer sections of the checklists and completes the IV&V and Programmatic tabs of the E&E IV&V Progress Report Template.² The IV&V contractor submits the reports and checklists simultaneously to the state, to the CMS E&E analyst, and to the CMS email address (MES@cms.hhs.gov), being sure to include “E&E” in the subject line. When the state receives the checklists from the IV&V contractor, it should save the IV&V-completed checklists in the state repository as a new version of the checklists. (The checklists should continue to be updated as new versions with subsequent progress reports.)

² It is recommended that the contractor use the E&E IV&V Progress Report Template provided in Appendix D, as it contains all of the information needed for this report. If the state or IV&V contractor desires to use a different format, the state should discuss with its E&E analyst to ensure proper content and structure of the report.

The IV&V contractor is not to send drafts of the report to the state unless it is also sending the same draft simultaneously to CMS. The state may respond to issues identified in the E&E IV&V Progress Report. CMS will pay particular attention to how the state is including security and privacy in the system.

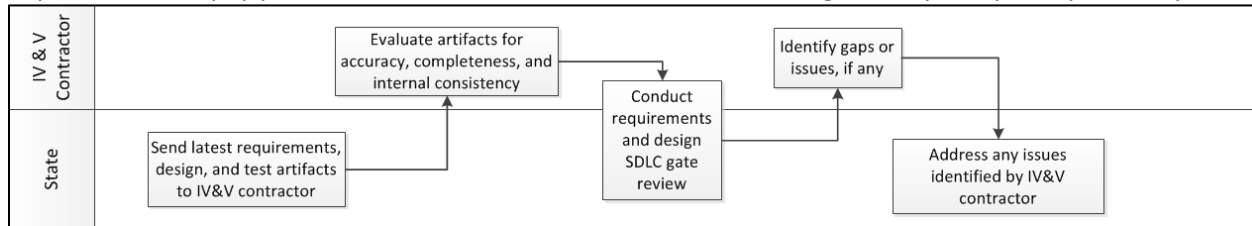


Figure 24. Activity 17: Requirements and Design Review

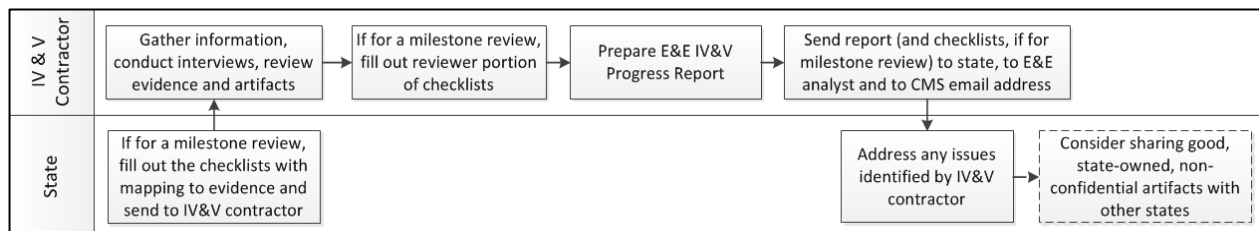


Figure 25. Activities 18 and 20: Progress Report

Once CMS reviews the E&E IV&V Progress Report, CMS may make suggestions in the CMS section of the report. The state should incorporate CMS suggestions into project plans, as appropriate. If CMS has made comments, it sends the final version of the E&E IV&V Progress Report to the state and the IV&V contractor and the state stores it in the state's repository. Figure 26 shows the steps of Activity 19. The input is the E&E IV&V Progress Report; the output is comments in the CMS section of the report, if CMS has comments.

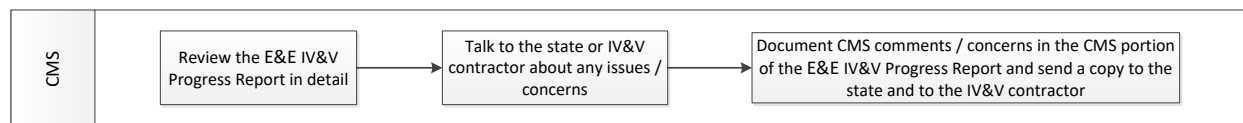


Figure 26. Activity 19: Review Progress Report

3.2.8 Activity 21: Develop

The state and its contractors develop the E&E system according to their own SDLC processes.

3.3 Integration, Test, and Implementation

Figure 27 shows the activities in the Integration, Test, and Implementation phase.

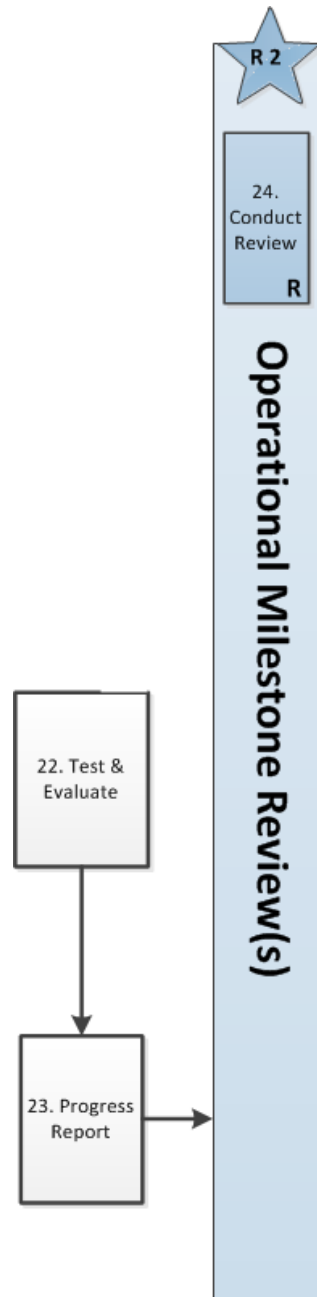


Figure 27. Integration, Test, and Implementation Phase

During the Integration, Test, and Implementation phase, the state performs the following actions:

- Integrates E&E system with MMIS
- Tests the integrated system
- Cooperates with IV&V contractor as periodic E&E IV&V Progress Reports are prepared
- Undergoes Operational Milestone Review(s)
- Deploys the system into production

3.3.1 Activity 22: Test and Evaluate

The state and its contractors employ their own testing procedures to evaluate the functionality of the E&E system against documented requirements or user stories (Figure 28). Testing includes generating reports of how documented requirements or user stories were tested, along with the test results or evidence of product acceptance by users. For agile approaches, use case testing is developed in parallel with product development. If the state is using an automated test suite, the entire set of test cases could be run on the production environment before the Operational Milestone Review(s). CMS encourages the use of automated testing and continuous integration, when possible.

The inputs for Activity 22 are working code and test plans/test cases. The output is documented test results or, in the case of agile development, product acceptance by the customer.



Figure 28. Activity 22: Test and Evaluate

3.3.2 Activity 23: Progress Report

During this activity, the IV&V contractor reviews the working system and artifacts for the Operational Milestone Review (see the list of artifacts in the toolkit appendices) and evaluates whether or not the system is ready for the Operational Milestone Review. The state completes the state section of the checklists and stores the checklists and supporting evidence in its own repository. The IV&V contractor then submits the reports and checklists simultaneously to the state, to the CMS E&E analyst, and to the CMS email address (MES@cms.hhs.gov), being sure to include “E&E” in the subject line, no later than two weeks prior to the milestone review. The state should save the IV&V-completed checklists in its repository as a new version of the checklists. (The checklists should continue to be updated as new versions with subsequent progress reports.)

If the IV&V contractor sends drafts of the report to the state, it must also send the same drafts simultaneously to the CMS E&E analyst. The Progress Report details what, if any, issues the state should address before Operational Milestone Review. As with all IV&V Progress Reports, the state may respond, and those responses will be appended to the report.

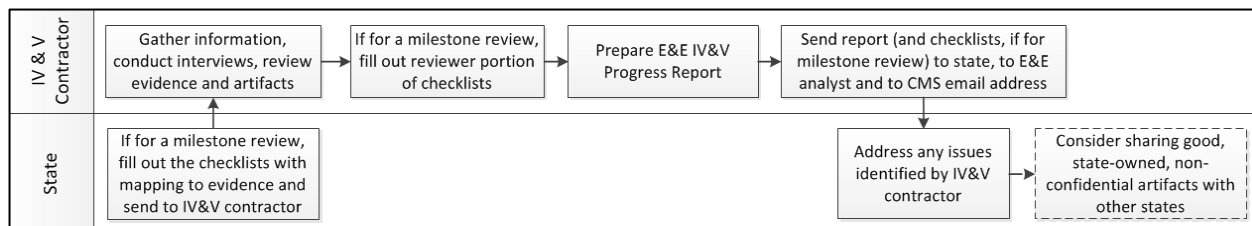


Figure 29. Activity 23: Progress Report

3.3.3 Activity 24: Operational Milestone Review

The entry criteria to this activity are 1) the state has an E&E system ready for deployment, 2) no later than two weeks prior to the milestone review the IV&V contractor has submitted the E&E IV&V Progress

Report and checklists to the CMS E&E analyst and to the CMS email box (MES@cms.hhs.gov), having included “E&E” in the subject line, and 3) the state has made evidence available to CMS.

Granting access to the state’s repository is the preferred method of supplying evidence to CMS. If that is not possible, the state may make other secure arrangements with CMS, such as using encrypted FTP. It is critical to follow all HIPAA regulations when submitting evidence that contains PHI and PII. Using an unencrypted thumb drive or other forms of physical storage through shipping services, for example, would not be acceptable. If a state has questions, it should contact the CMS E&E analyst for further instructions.

During this review, CMS validates the functionality and security of the E&E system before deployment. See Appendix H_Milestone Review Preparation Guide for details about the timeline and logistics of milestone reviews. CMS will review the progress report and checklists, respond with comments in the CMS section of the report, and send copies of the progress report to the state and to the IV&V contractor. The CMS review team may or may not include comments in the checklists.

CMS may choose to send test cases or scenarios to the state to be included as part of the milestone review. In such instances, the state would be expected to show how the module or SMA processed the test cases or scenarios. If CMS makes test cases part of the review, the E&E analyst will provide further guidance to the state.

CMS decides on a case-by-case basis whether the E&E analyst review of the progress report will constitute the Operational Milestone Review or whether there is a need to have a virtual or an on-site review. The CMS E&E analyst will notify the state as to how the milestone review will be conducted and will work with the state to schedule the review and arrange logistics.

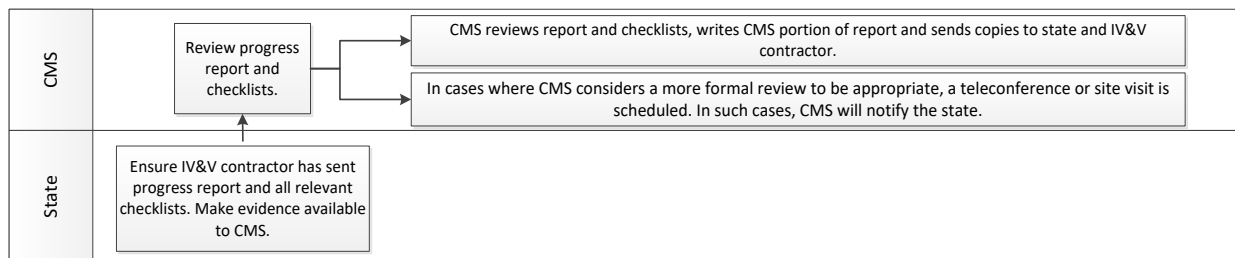


Figure 30. Activity 24: Operational Milestone Review(s)

3.4 Operations and Maintenance

Figure 31 shows the activities in the O&M phase.

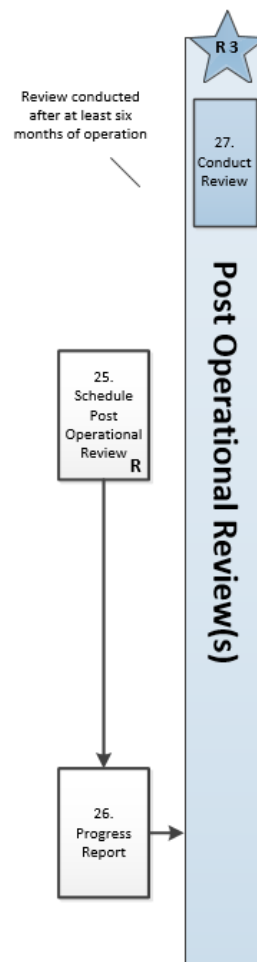


Figure 31. Operations and Maintenance Phase

During the O&M phase, the state performs the following actions:

- Operates the E&E according to the state's processes and procedures
- Schedules Post Operational Review(s)
- Undergoes the Post Operational Review

3.4.1 Activity 25: Schedule Post Operational Review

Once the E&E system has been placed into operation, the state should contact its CMS E&E analyst to schedule the Post Operational Review (Figure 32). The purpose of the review is to ensure that all Standards and Conditions for Medicaid IT and the conditions for operation as specified in 42 CFR Part 433.116 have been met by the implemented system. The Post Operational Review should be scheduled

after the system has been in operation for at least six months, or as agreed upon by the state and CMS. Generally, six months of system operation allows the system to stabilize.

At least six weeks prior to a desired Post Operational Milestone Review date and often even earlier, the state discusses with CMS its desire to have the milestone review. This allows CMS and the state four to six weeks of planning (e.g., scheduling, assembling teams, etc.). CMS and the state will discuss the format and timing of the review, the state's evidence storage plans, and any legal agreements that need to be in place for sharing data with CMS. (See toolkit Appendix H_Milestone Review Preparation Guide for more details about milestone review timing and logistics.)

No fewer than two weeks before the milestone review, the IV&V contractor must send the E&E IV&V Progress Report with completed checklists to the state, to the CMS E&E analyst, to the CMS email box (MES@cms.hhs.gov), being sure to include "E&E" in the subject line. Also, no fewer than two weeks before the milestone review, the state must grant CMS access to the checklist evidence. This evidence should include artifacts for the Post Operational Review (see the Artifacts List in the toolkit appendices).

Granting CMS direct access to the state's evidence repository is the preferred method of supplying evidence. If that is not possible, the state may make other secure arrangements with CMS, such as using encrypted FTP. Using an unencrypted thumb drive or other forms of physical storage through shipping services, for example, would not be acceptable. If a state has questions, it should contact its E&E analyst.

Together, CMS and the state will set dates for the E&E Post Operational Review.

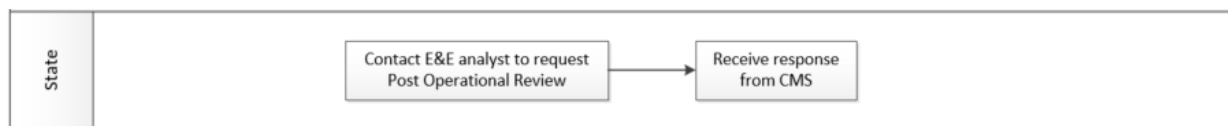


Figure 32. Activity 25: Schedule Post Operational Review

3.4.2 Activity 26: Progress Report

During this activity, the IV&V contractor reviews the working E&E system and all of the artifacts for the E&E Post Operational Review (see Artifacts List in the toolkit appendices) and evaluates whether the E&E system is ready for the E&E Post Operational Review (Figure 33).

The state fills out its portion of the E&E checklist and the Technical Architecture (3), Information Architecture (1) and Standards and Conditions for Medicaid IT (1) checklists. Once the state completes its sections of the checklists, it stores the checklists and supporting evidence in its own repository. The IV&V contractor then completes the reviewer sections of the checklists and completes the IV&V tabs of the E&E IV&V Progress Report Template.³ The completed checklists are appended to the report. No later than two weeks prior to the milestone review, the IV&V contractor submits the report and

³ It is recommended that the contractor use the E&E IV&V Progress Report Template provided in Appendix D, as it contains all of the information needed for this report. If the state or IV&V contractor desires to use a different format, the state should discuss with its CMS E&E analyst to ensure proper content and structure of the report.

checklists simultaneously to the state, to the CMS E&E Analyst, and to the CMS email address (MES@cms.hhs.gov), being sure to include “E&E” in the subject line. When the state receives the checklists from the IV&V contractor, it should save the IV&V-completed checklists in the state repository as a new version of the checklists.

The IV&V contractor is not to send drafts of the report to the state unless it is also sending the same draft simultaneously to CMS. CMS uploads the completed checklists to its tracking database. The state may respond to issues identified in the E&E IV&V Progress Report. CMS will insert comments in the CMS section of the report after the milestone review is complete.

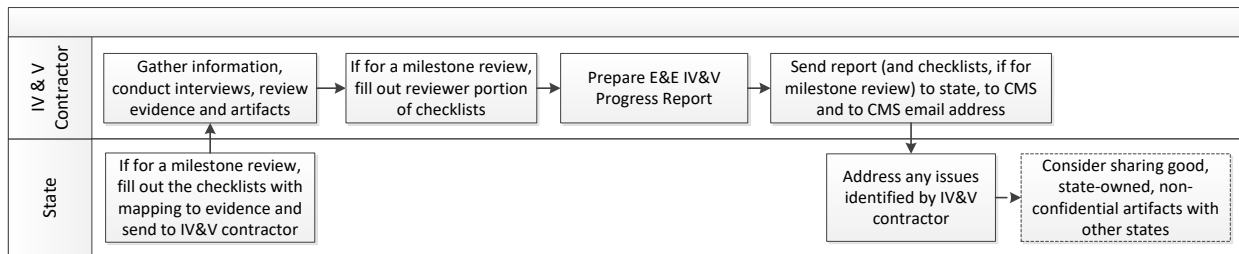


Figure 33. Activity 26: Progress Report

3.4.3 Activity 27: Post Operational Review

During Activity 27 (Figure 34), CMS evaluates the E&E system against CMS guidelines and federal regulations after the system has been in operation. The Post Operational Review should occur after the system has been in operation for at least six months, or as agreed upon by the state and CMS. Generally, six months of system operation allows the system to stabilize.

This section gives a high-level summary of the Post Operational Review. For detailed information about how milestone reviews are conducted and how the state can prepare for them, see Appendix H_Milestone Review Preparation Guide.

The entry criteria to this activity are that the state has a working E&E system that it has accepted from the vendors, the IV&V contractor has submitted the E&E IV&V Progress Report and checklists, and the state has made evidence and artifacts available to CMS.

Granting CMS direct access to the state’s evidence repository is the preferred method of supplying evidence. If that is not possible, the state may make other secure arrangements with CMS, such as using encrypted FTP. It is critical to follow all HIPAA regulations when submitting evidence that contains PHI and PII. Using an unencrypted thumb drive or other forms of physical storage through shipping services, for example, would not be acceptable. If a state has questions, it should contact its E&E analyst.

During the review, CMS will verify that the criteria based on federal and state requirements are satisfied by reviewing the functionality of the system in production. CMS will perform the verification by actual system interaction, review of documents, and interviews with state and, potentially, contractor staff. CMS may choose to send test cases or scenarios to the state to be included as part of the milestone review. In such instances, the state would be expected to show how the module or SMA processed the test cases or scenarios. If CMS makes test cases part of the review, the E&E analyst will provide further guidance to the state.

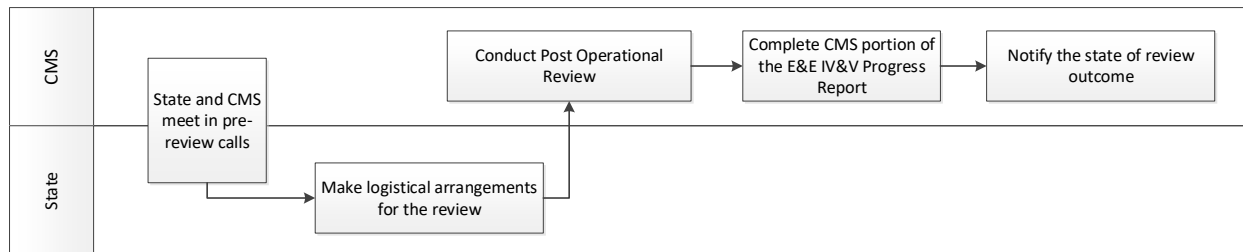


Figure 34. Activity 27: Post Operational Review(s)

For the Post-Operational Milestone Review, CMS will conduct a virtual or on-site review. The CMS E&E analyst will notify the state as to how the milestone review will be conducted and will work with the state to schedule the review and arrange logistics. If there is a visit, the visit will conclude with a closeout or exit conference in which CMS summarizes the activities and observations made during the review. For detailed information about how milestone reviews are conducted and how the state can prepare for them, see Appendix H_Milestone Review Preparation Guide.

The decision to validate the state's system is deferred until CMS can analyze all information gathered during the review or submitted subsequently by the state. CMS will respond with comments in the CMS section of the progress report, and send copies of the progress report to the state and to the IV&V contractor.

4 When Milestone Reviews are Conducted Virtually or On-Site

This section gives a high-level summary of virtual/on-site milestone review. For detailed information about how milestone reviews are conducted and how the state can prepare for them, see Appendix H_Milestone Review Preparation Guide.

On-site or virtual milestone reviews follow a pattern. No fewer than two weeks before the milestone review, the IV&V contractor must send the E&E IV&V Progress Report with completed checklists to the state, to the CMS E&E analyst, and to the CMS email box (MES@cms.hhs.gov), being sure to include "E&E" in the subject line. Also, no fewer than two weeks before the milestone review, the state must grant CMS access to the checklist evidence. This evidence should include artifacts for the milestone review (see Artifacts List in the toolkit appendices) along with a list of existing system defects by severity and priority.

After submission of the E&E IV&V Progress Report, and at least two weeks before the milestone review, the state and CMS will have one or more pre-review calls to plan the logistics and agenda of the review meetings. The state will give CMS access to the evidence and documentation. A milestone review kickoff meeting will be held for the state and CMS to introduce their respective team members.

The review meetings generally last from two to five days and are broken into sessions based on system functionality and/or checklist areas. The state arranges logistics for the E&E Post Operational Review, such as scheduling rooms, granting CMS access to evidence, and setting up teleconference lines. CMS team members will be assigned to sessions based on their subject matter expertise. CMS may conduct the reviews entirely by web conferencing or may send a few members of the team to the state site while the remaining members join via phone.

Questions may come up during the milestone review for which the state may not have immediate answers. Generally, there are a few weeks following the review in which the state supplies any additional evidence requested by CMS. After all the evidence has been reviewed, CMS fills out the CMS portion of the E&E IV&V Progress Report and sends copies to the state and to the IV&V contractor.

Once the E&E system has been approved, the capabilities of the approved system will be used as the baseline for future E&E updates.

5 Medicaid Eligibility and Enrollment Checklists

The Medicaid E&E Checklists have been updated to reflect current regulations, MITA architectures (Business, Information, and Technical Architectures), and the Standards and Conditions for Medicaid IT. Checklists are used throughout the life cycle and support a variety of state development approaches—modular, phased, agile, waterfall, etc.

Before each milestone review, the state downloads the E&E Checklist set zip file. The state fills out the checklists, and the IV&V contractor fills out the reviewer columns and uses the checklists to complete its E&E IV&V Progress Report. The IV&V contractor sends copies of the report and completed checklists simultaneously to the state, to the CMS E&E analyst, to the CMS email address (MES@cms.hhs.gov), being sure to include “E&E” in the subject line. The checklists are then uploaded to a tracking database maintained by CMS. This allows CMS to keep a running record of the E&E system development progress throughout the E&E life cycle. CMS runs a report from the database that shows which CSFs have not been met.

This process is repeated every time the IV&V contractor prepares an E&E IV&V Progress Report. Figure 36 shows the checklists through the MEELC.

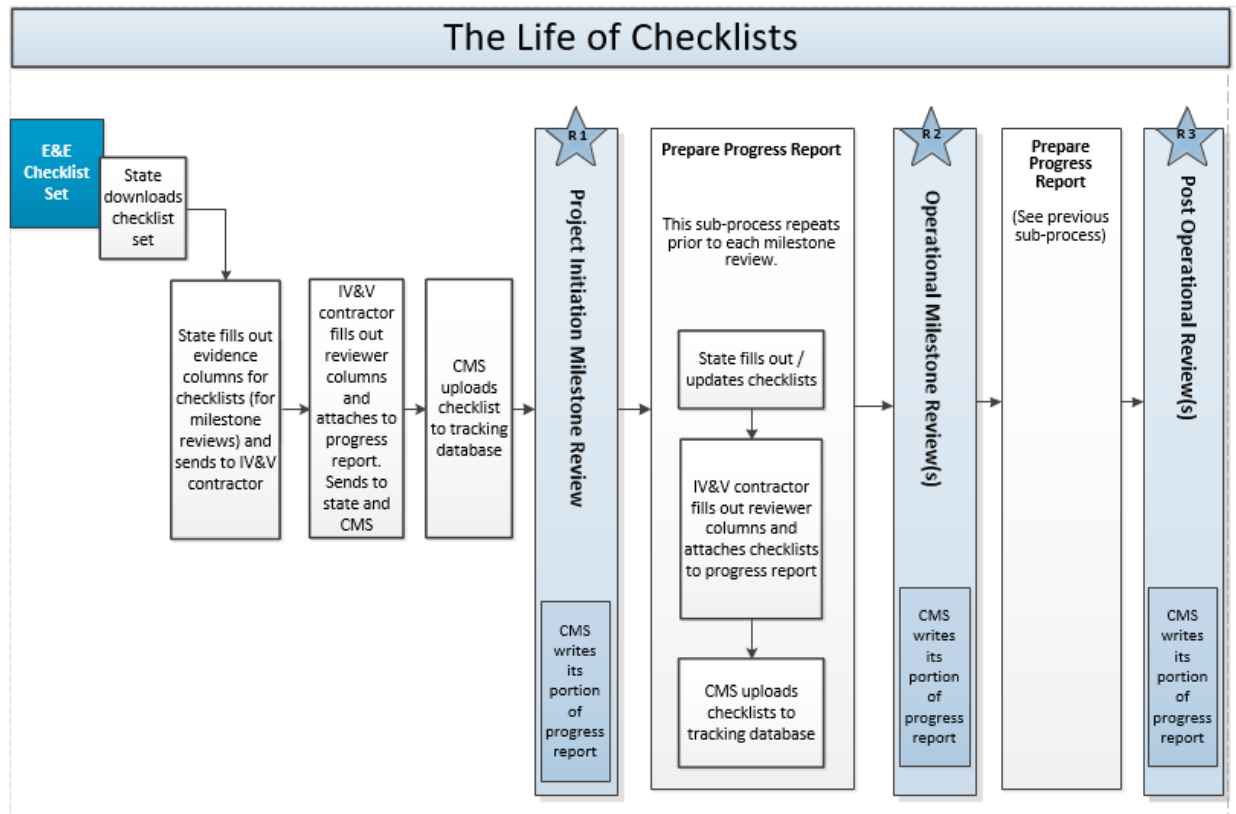


Figure 35. The Life of Checklists

5.1 Anatomy of a Checklist

Each checklist is an Excel workbook with separate tabs. One tab is a set of instructions (Figure 36), another tab is the checklist (Figure 37), and yet another is a guidance tab (Figure 38).

Checklist: Information Architecture Checklist	
Note: Some of these instructions are MMIS specific.	
Checklist Instructions A. General Information – What users need to know about the Checklists B. State and IV&V Specific Instructions – The process of completing the Checklist by the state C. Sample Criteria and Evidence – Sample evidence in each of the Milestone Review phases	
General Information: (MMIS specific) Depending on approved MMIS development option, state selects the appropriate checklist set. - MITA Checklist Set: Ten (10) MITA + Core Checklists (IA Component, TA Access And Delivery, TA Intermediary and Interface, TA Integration and Utility, and Standards and Conditions) - MMIS Functional Checklist Set: Ten (10) MMIS Checklists + Core Checklists - Custom Set: One workbook to develop custom set of modular checklist(s) + Core checklists. The Custom Set option must be developed in coordination with and receive approval by CMS. (E&E specific) State should use 6 Checklists (E&E Checklist + 5 Core Checklists (IA Component, TA Access and Delivery, TA Intermediary and Interface, TA Integration and Utility, and Standards and Conditions)) - The checklists are used for documenting state evidence and IV&V reviewer comments. When completed, checklist data will be imported into a CMS tracking database. - The first 27 columns are grouped into three sections identified by headers to identify data. The headers are read-only and should not be edited. These are identified as follows: - Columns (col) A to C are criteria information labeled as: Ref #, System Review Criteria, and Source respectively. - Criteria Ref # pattern: MITA Business Area.CSF Code.Unique Number (e.g. CA.CL7.1) - MITA State Specific Criteria Ref#: MITA Business Architecture.Business Area.Business Process.State Abbr.Unique Number (e.g. BA.CM.FFS.SS.NY.1) - MITA Architecture (TA, IA, S&C) : MITA Architecture.MITA component.Unique Number (e.g. S&C.BRC.1, TA.SP.33, IA.CDM.1) - Entries in col A are color-coded to indicate status of the criteria (<i>red italics: state-specific</i>) - Col pairs D and E, J and K, and P and Q are for entering state Evidence data. Each pair is labeled Yes/No/Not Applicable and X Evidence Comments where X is the Milestone Review - Col sets F to I, L to O, and R to U are for entry of IV&V reviewer comments for each of the Milestone Review phases. - Each set includes Review Date, Reviewer Name, Reviewer Assessment, and Reviewer Comments - The column structure (i.e. label names, merged columns, etc.) is used by the database during import of the checklist data and should not be changed - Criteria in each checklist are grouped into a series of rows. Each group begins with a merged row colored in green to mark the beginning of a group mapping - Depending on the package used, each green merged row identifies either a business process, technical service, component, module, or CSF - Depending on the type of review, CMS may or may not fill out the CMS columns. - By default, the CMS Assessment columns for R1 and R2 mirror the IV&V contractor assessment column. This is normal. If CMS assesses a criterion differently than the IV&V contractor, it will alter the	
State and IV&V Specific Instructions: - Complete criteria evidence columns prior to each milestone review - IV&V will work with state to review evidence and annotate review findings and resolutions in the review columns of the checklist "Not assessed" is chosen if the IV&V contractor does not assess a criterion. The contractor should indicate in the comments column why it was not assessed. "Not Applicable" is chosen if the state does not deem a criterion to apply to its module(s). The state must indicate in the evidence column why it does not apply. The IV&V contractor must evaluate whether it does or does not apply and indicate whether it concurs or disagrees with the state in the review comments column. "Partially meets" is chosen if the module(s) meets some but not all aspects of the criterion. The IV&V contractor should indicate in detail in the comments column why it partially meets. "Doesn't meet" is chosen if the module(s) completely fails to meet the criterion. The IV&V contractor should indicate in detail in the comments column why it does not meet. Evidence columns (D-E for Project Initiation, J-K for Operational, and P-Q for Final) and Review columns (F-I for Project Initiation, L-O for Operational, and R-U for Final): - The evidence pair columns have "Yes/No/Not Applicable" to indicate criteria has been met or out-of-scope and "Comments" for entry of supporting evidence text - Criteria evidence will be entered in the same row as the criteria under each Milestone Review phase - Criteria evidence references to artifacts should be as specific as possible, including section or page numbers, so that the cited evidence can be readily confirmed	
Checklist Instructions InformationArchitecture MITA Business Processes Guidance ...	

Figure 36. Instructions Tab

Information Architecture Checklist										
Select Milestone Review(s) →		Check Spelling	Project Initiation Milestone Review							
Ref #	System Review Criteria	Source	Yes/No/Not Applicable	Project Initiation Milestone Evidence	Review Date	Reviewer Name	Reviewer Assessment	Reviewer Comments	CMS Assessment	CMS Comment
IA.CDM.2	The system of interest identifies relationships between key entities in the Medicaid enterprise.	MMIS BP								
IA Component Name: Data Management Strategy (DMS)										
IA.DMS.2	The SMA demonstrates adoption of an intrastate metadata repository where the agency defines the data entities, attributes, data models, and relationships sufficiently to convey the overall meaning and use of Medicaid data and information.	MITA 3.0 IA ML 3								
IA.DMS.4	The SMA demonstrates adoption of statewide standard data definitions, data semantics, and harmonization strategies.	MITA 3.0 IA ML 3								
IA.DMS.5	The system of interest updates all historical claim data, recipient enrollment, provider enrollment, and other primary reference data on a scheduled basis.	MMIS BP								
IA Component Name: Data Standards (DS)										
IA.DS.1	The system of interest supports system transmission and receipt of all	HIPAA 5010								

Checklist Instructions

InformationArchitecture

MITA Business Processes

Guidance ...

Figure 37. Checklist Tab

The header across the top of the checklist tab shows the name of the checklist. Below that are the milestone review checkboxes. When a box is checked in the review selection section, the sheet will automatically display the columns that apply to that period of the MEELC and will hide information that does not apply. The state checks the box of the next pending milestone review. Individual criteria are listed in rows, with a mapping of their sources and criteria number.

The evidence columns are of three types: columns for the state to complete, columns for the IV&V contractor to complete, and CMS columns. The state fills out the Yes/No/Not Applicable column and the evidence column. It is important that states provide answers for each criterion in the checklists, even for those mapped to a higher maturity level (ML) than the state's target ML. Since MITA 3.0 was released, many of the requirements for ML3 have become standard industry practice. The Standards and Conditions for Medicaid IT stipulates that states employ industry best practices. A few examples of ML3 criteria that are now basic IT practices include limiting system access to authorized stakeholders (TA.BI.9), use of single sign-on (TA.SP.63), and use of business rules engine to avoid costly hardcoding changes (TA.DM.1). Failure to address all relevant criteria will result in the state needing to re-submit the checklists, likely causing delays in the review timeline. The IV&V contractor fills in the Review Date, Reviewer Name, Reviewer Assessment, and Reviewer Comments columns. Depending on the type of review, CMS may or may not fill out the CMS comment columns. By default for R1 and R2, the CMS Assessment column mirrors the IV&V contractor assessment column. This is normal. If CMS assesses a criterion differently than the IV&V contractor, it will alter the CMS assessment column entry.

The spreadsheets are imported into the CMS tracking database, so the structure of the checklists must not change (e.g., label names, merged columns), and many cells are locked. Checklist names for the canned checklist sets, tab names, and reference numbers should not be changed; however, column widths and row heights can be adjusted to suit user needs. Numbers are color-coded to indicate the nature of the criteria. The checklist can be filtered by column and by the pre-set filter dropdowns in each column header. The filter function in the data menu bar will not work with the pre-set filters set.

Checklists also contain the factors considered critical to the success of an E&E system. These are called "functional critical success factors" or CSFs. CSFs are shown as green rows in the checklist tab. The checklists each have a guidance tab that explains the type of evidence that could be provided for each criterion.

 Information Architecture Checklist			
Ref # (MITA State-specific)	System Review Criteria	Source	Guidance
IA Component Name: Data Management Strategy (DMS)			
IA.DMS.2	The SMA demonstrates adoption of an intrastate metadata repository where the agency defines the data entities, attributes, data models, and relationships sufficiently to convey the overall meaning and use of Medicaid data and information.	MITA 3.0 IA ML 3	Enterprise: For R1, evidence should include a data management strategy. For R2 and R3, evidence should demonstrate that an interagency data model is being developed and used by multiple state agencies. For R2 (if not a desk review) and R3, states should be prepared to demonstrate and discuss its metadata repository. Modules: If commercial-off-the-shelf, it should include proposed metadata for the module (the state can choose to adopt them or not). If a module is developed by the state, demonstrate that module uses state's metadata standards.
IA.DMS.4	The SMA demonstrates adoption of statewide standard data definitions, data semantics, and harmonization strategies.	MITA 3.0 IA ML 3	For R1, evidence should include a data management strategy. For R2 and R3, evidence could include screenshots or definition documents showing the data definitions, semantics, and harmonization norms. For R2 (if not a desk review) and R3, the state should be prepared to discuss their statewide data management practices as they pertain to Medicaid-related systems' interoperability. Enterprise: Provide evidence that it has created standard data definitions and data semantics and that the strategies are being reviewed/updated as modules are added, if necessary, as rules change, etc. Modules: Demonstrate that the module is using the state's data definitions and semantics.
IA.DMS.5	The system of interest updates all historical claim data, recipient enrollment, provider enrollment, and	MMIS BP	This criterion does not apply to E&E. For R1, evidence could include acquisition documents, requirements, a ConOps that explains how this will be implemented, service level agreements
InformationArchitecture MITA Business Processes Guidance +			

Figure 38. Guidance Tab

6 Milestone Reviews

6.1 Preparing for a Milestone Review

A summary of milestone reviews and an example case is included here. Appendix H_Milestone Review Preparation Guide contains detailed information about the timeline and logistics of milestone reviews.

Before the IV&V contractor prepares an E&E IV&V Progress Report (prior to a milestone review), the state completes the state section of the checklists (including the Information Architecture, Technical Architecture, and Standards and Conditions for Medicaid IT checklists) and stores the checklists and supporting evidence in its repository. The state fills out the Yes/No and Evidence column for each criterion and includes a hyperlink that points to evidence in the state's repository.

Only one hyperlink can be added to any one cell. If a state needs to point to more than one artifact for a criterion, the state can point the reviewer to a document that lists all relevant hyperlinks. The state provides a narrative of evidence for the criterion in the checklist and provides a link to the supporting evidence. The relationship between the criterion and the evidence provided should be clearly stated. If the state is marking a criterion as not applicable, then the state needs to provide appropriate justification. If a criterion is being evaluated that covers functionality being performed by a different system, then the state must demonstrate how data interaction and data flow occur between the two systems.

In all cases, concrete evidence needs to be provided, as appropriate to the milestone review. For example, for a Post Operational Milestone Review (R3), the evidence for business criteria could include examples of correctly executed use cases and associated operational transactions from the production system(s) as well as database queries or reports showing correct results for each case. If evidence contains PII or PHI, the evidence needs to be protected using appropriate measures.

Clear, simple linkage between the criterion and the evidence is very important. In one early case, a state mapped criteria to a complicated mapping matrix outside the original checklist. The complexity of the mappings within mappings, and the repeated logins that were required every time a document was opened in the evidence repository, resulted in a reviewer having to perform 109,056 operations to complete review of a single checklist. Such complexity is unnecessary and costly. The state needs to maintain a simple mapping from criteria in the checklist to the supporting evidence.

The state should organize evidence by using folders that correspond to each of the checklist criteria. The state must also indicate which evidence contains PHI or PII. For example, the state labels the evidence as "Confidential." The state will also need to ensure that the IV&V contractor and all members of the CMS review team have access to the evidence repositories. The state will also need to ensure that the IV&V contractor and all members of the CMS review team have access to the evidence repositories.

The IV&V contractor then submits the reports and checklists simultaneously to the state, to the CMS E&E analyst, and to the CMS email address (MES@cms.hhs.gov), being sure to include "E&E" in the subject line. The state should save the IV&V-completed checklists in its repository as a new version of the checklists. The checklists should continue to be updated for subsequent reports and milestone reviews as new versions.

In the checklists, the state must clearly map each checklist criterion directly to the evidence that supports it.

Only one hyperlink can be added to any one checklist cell. So if the state needs to link to more than one artifact for a criterion, it may provide a link to a separate document that lists all the relevant hyperlinks.

6.1.1 An Example

State X is implementing an E&E systems project and is using the Eligibility & Enrollment checklist set. The IV&V contractor needs to write an E&E IV&V Progress Report, so the state downloads the zip file for the checklist set from Medicaid.gov, which includes the Technical Architecture, Information Architecture, and the Standards and Conditions for Medicaid IT checklists.

State X first checks the phase box in the upper left-hand corner of the checklist tab. The state then reads through each criterion in the checklists and indicates in the Yes/No /Not Applicable columns whether each criterion applies to its E&E system. If a criterion does not apply, State X explains why it does not in the Evidence column.

State X then fills out the evidence column for each criterion by putting a short explanation in the evidence cell and inserting a hyperlink to that criterion's repository folder. It puts all relevant evidence into that folder. The state indicates which evidence contains personal health information (PHI) / personally identifiable information (PII) by labeling such evidence "Confidential."

For one of the criteria, State X has three artifacts as evidence—two screenshots and a report. The state places the report in that criterion's folder and also uploads a Microsoft Word document in which it pastes the two screenshots and gives a short explanation for the various pieces of evidence. By placing as much evidence as possible directly into the Word document, the state has reduced the time it will take the CMS reviewers to find evidence. This makes for a quicker review.

The state ensures that the IV&V contractor staff has access to the state's artifact repository and sends the checklists to the IV&V contractor. The IV&V contractor reviews the state entries in the checklists, along with the evidence. The contractor may request interviews or additional information. The IV&V contractor fills out the Reviewer Comment columns, uses the progress report template to complete its report, and appends the completed checklists to the E&E IV&V Progress Report before sending copies to the state and to CMS simultaneously. The state stores these IV&V-generated versions in its state repository.

Before the next milestone review, State X updates the last version of the checklists from the previous milestone review and sends the updated checklists to the IV&V contractor. Then the process repeats.

6.2 Artifacts for Each Milestone Review

Toolkit Appendix B has a list of the artifacts for each of the milestone reviews. Minimum suggested content is given for each document. This is not an exhaustive list of what typically is included in each artifact, and states are encouraged to add elements as appropriate.

Document names used in agile methodologies often differ from those used in traditional waterfall methods; so, wherever possible, the corresponding agile term is used alongside the traditional name. Because of agile methods' lighter approach to documentation, some artifacts will for agile implementations will not be available until the final milestone review. In general, CMS expects designs created during the Initiation and Planning phase to be at a high level. As part of its periodic E&E IV&V Progress Reports, the IV&V contractor will review detailed designs as they are developed during the Requirements, Design, and Development phase of the E&E life cycle. CMS does not expect detailed designs until the Operational Milestone Review.

At the time of milestone reviews, states will supply reviewers the location and grant access to reviewers for milestone review artifacts (e.g., MITA documents). CMS must be able to access all milestone review artifacts in preparation for, during, and after the milestone review.

7 Reference Material

7.1 Standards and Conditions for Medicaid IT

CMS is a principal stakeholder in the development of state Medicaid IT systems, and has established a core set of binding requirements for states regarding processes, standards, and architecture. 42 CFR Part 433.122(b)(10-22) establishes specific requirements for Medicaid funding. States should incorporate these requirements into their baseline set of project requirements.

The key components of the Standards and Conditions for Medicaid IT are the following (note: numbers 10 – 22 are what are particularly relevant for development tracking purposes):

1. CMS determines the system is likely to provide more efficient, economical, and effective administration of the State plan.
2. The system meets the system requirements, standards and conditions, and performance standards in Part 11 of the State Medicaid Manual, as periodically amended.
3. The system is compatible with the claims processing and information retrieval systems used in the administration of Medicare for prompt eligibility verification and for processing claims for persons eligible for both programs.
4. The system supports the data requirements of quality improvement organizations established under Part B of title XI of the Act.
5. The State owns any software that is designed, developed, installed or improved with 90 percent FFP.
6. The Department has a royalty free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use and authorize others to use, for Federal Government purposes, software, modifications to software, and documentation that is designed, developed, installed or enhanced with 90 percent FFP.
7. The costs of the system are determined in accordance with 45 CFR 74.27(a).
8. The Medicaid agency agrees in writing to use the system for the period of time specified in the advance planning document approved by CMS or for any shorter period of time that CMS determines justifies the Federal funds invested.
9. The agency agrees in writing that the information in the system will be safeguarded in accordance with subpart F, part 431 of this subchapter.
10. Use a modular, flexible approach to systems development, including the use of open interfaces and exposed application programming interfaces; the separation of business rules from core programming, available in both human and machine readable formats.
11. Align to, and advance increasingly, in MITA maturity for business, architecture, and data.
12. The agency ensures alignment with, and incorporation of, industry standards adopted by the Office of the National Coordinator for Health IT in accordance with 45 CFR part 170 subpart B: the HIPAA privacy, security and transaction standards; accessibility standards established under section 508 of the Rehabilitation Act, or standards that provide greater accessibility for individuals with disabilities, and compliance with Federal civil rights laws; standards adopted by the Secretary under section 1104 of the Affordable Care Act; and standards and protocols adopted by the Secretary under section 1561 of the Affordable Care Act.
13. Promote sharing, leverage, and reuse of Medicaid technologies and systems within and among States.

14. Support accurate and timely processing and adjudications/eligibility determinations and effective communications with providers, beneficiaries, and the public.
15. Produce transaction data, reports, and performance information that would contribute to program evaluation, continuous improvement in business operations, and transparency and accountability.
16. The system supports seamless coordination and integration with the Marketplace, the Federal Data Services Hub, and allows interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services as applicable.
17. For eligibility and enrollment systems, the State must have delivered acceptable MAGI-based system functionality, demonstrated by performance testing and results based on critical success factors, with limited mitigations and workarounds.
18. The State must submit plans that contain strategies for reducing the operational consequences of failure to meet applicable requirements for all major milestones and functionality.
19. The agency, in writing through the APD, must identify key state personnel by name, type and time commitment assigned to each project.
20. Systems and modules developed, installed or improved with 90 percent match must include documentation of components and procedures such that the systems could be operated by a variety of contractors or other users.
21. For software systems and modules developed, installed or improved with 90 percent match, the State must consider strategies to minimize the costs and difficulty of operating the software on alternate hardware or operating systems.
22. Other conditions for compliance with existing statutory and regulatory requirements, issued through formal guidance procedures, determined by the Secretary to be necessary to update and ensure proper implementation of those existing requirements.

The Secretary of the Department of Health and Human Services may also establish additional conditions in the future, subject to certain limitations. This flexibility will allow CMS to evaluate states' progress as well as evolving business processes on an ongoing basis and add more conditions as necessary. Importantly, any new conditions established under this provision will be limited to ensuring that states properly develop their systems in accordance with the existing statutory and regulatory framework.

During the Requirements, Design, and Development phase, CMS will evaluate each state for compliance with these requirements, including ensuring the mapping between these requirements and where they are addressed in artifact documentation. These components have been incorporated into the Medicaid E&E Life Cycle and criteria.

7.2 Critical Success Factors and Mitigations

The condition described at 42 CFR § 433.112(b)(17) requires that Medicaid E&E systems be able to adequately process modified adjusted gross income (MAGI)-based Medicaid applications with limited mitigations and work-arounds. This condition requires that states demonstrate MAGI-based functionality by meeting Medicaid E&E System Critical Success Factors (CSFs) outlined in the final rule at 80 FR 75819. CMS requires states to use CSFs to document system development progress on an ongoing basis where items remain incomplete and work-arounds are still in place (e.g., an online, fillable PDF instead of a dynamic online application).

These Medicaid E&E System CSFs and an evaluation of contingencies have been incorporated into the E&E Checklist criteria and are listed in the table below:

Table 2. Medicaid E&E System Critical Success Factors

Reference No	CSF	Short Description	Long Description
01	Streamlined Application	Ability to accept a single, streamlined application	Ability to accept a single, streamlined application (or an approved alternative), including online, phone, mail and in-person.
02	MAGI Rules	Ability to process applications based on modified adjusted gross income (MAGI) rules	Ability to assess/determine Insurance Affordability Program (IAP) eligibility based upon MAGI rules and MAGI rules are applied in an automated manner

Reference No	CSF	Short Description	Long Description
03	Automated Verification (Federal Data Services HUB and state sources)	Ability to verify eligibility based upon electronic data sources	Ability to achieve successful technical and legal interface with the Federal Data Services Hub or approved alternative(s) to conduct Verifications (e.g. with federal agencies). - IRS federal tax information - SSA - TALX/Equifax - Renewal and Redetermination Verification (RRV) - Verify Lawful Presence (VLP) - MEC check for Medicare - State-hosed MEC check - Remote Identity Proofing (RIDP) Alternatively, or in addition, what state data sources are used for eligibility verification. - Quarterly wage data - Unemployment data - State connection to TALX/Equifax - State tax return information - Immigration status through SAVE - Other program data (Title II, SNAP, other public assistance) - Other state data (e.g., vital statistics, state incarceration data, child support, PARIS)?
04	MAGI Conversion	Ability to convert existing state income standards to modified adjusted gross income (MAGI)	Ability to convert pre-ACA income standards to new MAGI income standards within state systems
05	Account Transfer	Ability to accept and send application files (accounts) to and from the Marketplace	Ability to perform Bi-directional account transfer with the FFM or the SBM as applicable
06	MEC Check	Ability to respond to inquiries from the Marketplace on current Medicaid or CHIP coverage	Ability for the state to provide the "Verify Medicaid/CHIP Non-ESI MEC" service to the FFM for FFM applicant processing; or to provide equivalent functionality as part of SBM processing.
07	FFM State Integration Rules	Ability to convey state-specific eligibility rules to the Federally-Facilitated Marketplace (FFM), as applicable	(This criterion applies only to states using the FFM. A process has been put in place for these states to submit on a periodic basis.)

Reference No	CSF	Short Description	Long Description
08	Human Services Integration	The state is leveraging the Medicaid E&E capabilities to support other human services programs	Ability to leverage capabilities to support other human services programs such as SNAP, TANF, LIHEAP, etc.
09	Renewals	The state has the ability to support renewals for existing beneficiaries.	Ability to renew Medicaid beneficiaries on an ex parte basis, and online, phone mail or in-person for exceptions.
10	Appeals	The ability of the state to support E&E appeals applications and processes	Ability to provide data in support of appeals.
11	Notices	The ability of the state to produce required notices	Ability to produce notices for approval, denial, termination, requests for additional information and other events.
12	Authority to Connect	The state meets the requirements to allow connections with the FDSH and other required interfaces	State has authority to connect (or appropriate equivalent) to all required data sources.
13	Presumptive Eligibility	The ability of the state to receive notices of presumptive eligibility determination from hospitals	Ability to process hospital presumptive eligibility through all modalities (electronic, phone, mail, fax, other).
14	Retroactive Eligibility	The state system is able to support determinations of retroactive eligibility for MAGI-based individuals who submit an application to the state agency	Ability to support determinations of retroactive eligibility.
15	Emergency Medicaid	The state's system supports eligibility for Medicaid coverage of emergency medical services (including labor and delivery)	Ability to support eligibility for Medicaid coverage of emergency medical services (including labor and delivery).
16	Changes in Circumstances	The state is able to receive and process changes in circumstances reported by MAGI-based beneficiaries	Ability to process changes in circumstance through all modalities.
17	Non-MAGI determinations	The state can receive application for and make determinations of eligibility under non-MAGI eligibility groups.	Ability to accept an application for non-MAGI basis.

Reference No	CSF	Short Description	Long Description
18	Transfer on Change in Eligibility	For beneficiaries determined no longer eligible, the state is able to evaluate potential eligibility for other insurance affordability programs and transfer the individual's electronic account to the appropriate program	Ability to transfer an individual's electronic account upon a change ineligibility to the appropriate program.
19	Interface with MMIS	Integration of the E&E component with the MMIS, especially with respect to enrollment, maintenance of member records, and other related actions.	Ability to transfer new determinations to the MMIS for enrollment.
20	Data Conversion	The state has converted and migrated historical data	Conversion of any legacy data to the new system, or archival of data as appropriate. Includes provisions for protection or conversion of data under HIPAA, etc.
21	Inmate Eligibility	The state implements eligibility restrictions and/or limitations on inmates	The state implements inmate-related requirements such as the restriction on FFP for services provided to inmates of a public institution who are enrolled in Medicaid at the time of their incarceration or commitment to another public institution, and ensuring that inmates who are eligible for Medicaid are enrolled for coverage upon release.

7.3 Acronyms

Table 3. Acronyms

APD	Advance Planning Document	MITA	Medicaid Information Technology Architecture
CHIP	Children's Health Insurance Program	MMIS	Medicaid Management Information Systems
CMCS	Center for Medicaid and CHIP Services	M&O	Maintenance and Operations
CO	Central Office	PHI	Protected Health Information
ConOps	Concept of Operations	PII	Personally Identifiable Information
CSF	Critical Success Factor	PM	Project Manager
DDI	Design, Development, and Implementation	PMP	Project Management Plan
DR	Disaster Recovery	PPU	Project Partnership Understanding
DRA	Deficit Reduction Act	Q&A	Question and Answer
DSG	Data and Systems Group	R1	Project Initiation Milestone Review
DSS	Decision Support System	R2	Operational Milestone Review
DW	Data Warehouse	R3	Final Certification Milestone Review
FAQ	Frequently Asked Questions	RFI	Request for Information
FFP	Federal Financial Participation	RFP	Request for Proposal
HCBS	Home and Community-Based Services	RO	Regional Office
HIPAA	Health Insurance Portability and Accountability Act of 1996	RTM	Requirements Traceability Matrix
IAPD	Implementation Advance Planning Document	SDD	System Design Document
IBP	Industry Best Practice	SDLC	System Development Life Cycle
ICD	International Classification of Diseases	SI	System Integrator
IT	Information Technology	SMDL	State Medicaid Directors Letter
IV&V	Independent Verification and Validation	SME	Subject Matter Expert
MEELC	Medicaid E&E Life Cycle	SPoTT	State Portfolio Tracking Tool
MEET	Medicaid E&E Toolkit	SS-A	State Self-Assessment
MES	Medicaid Enterprise System		

EXHIBIT 2

ELIGIBILITY AND ENROLLMENT SYSTEM

CERTIFICATION REVIEW REPORT

Tennessee Eligibility Determination System (TEDS)

November 2, 2020

Issued by

Division of State Systems

Data and Systems Group

Centers for Medicaid and CHIP Services

Centers for Medicare & Medicaid Services



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1. Introduction

The Centers for Medicare & Medicaid Services (CMS) would like to thank Tennessee's staff for their participation in the virtual Outcomes-Based Certification (OBC) Pilot Certification Review (CR) of the state's Eligibility and Enrollment (E&E) system, conducted on July 9, 2020. During this review, CMS performed a comprehensive review of functionality for both Modified Adjusted Gross Income (MAGI)-based and non-MAGI-based eligibility supported by the Tennessee Eligibility Determination System (TEDS), including an analysis of selected Tennessee project artifacts provided as evidence.

Prior to this pilot initiation and the subsequent CR, the state of Tennessee had already completed the Medicaid Eligibility and Enrollment Toolkit (MEET) in 2019, so the CMS team conducted a crosswalk of the evidence provided for MEET with the required evidence for OBC and identified any gaps that needed to be addressed through demonstrations or additional documentation at the CR. This process helped ensure that all the necessary functionality was demonstrated, and that Tennessee knew what to expect for the review.

This report provides feedback to the state in support of this review. All comments, recommendations, and corrective actions included in this report were determined based on the information provided and functionality demonstrated during the review. The state should consider these findings and recommendations to make any necessary system changes or for future enhancements.

For additional information about the requirements for and approval of E&E systems, please refer to the following statutory and regulatory references:

- Section 1903(a)(3) and 1903(r) of the Social Security Act (the Act) related to providing 90-percent Federal Financial Participation (FFP) to states for the design, development, and installation of, and 75 percent FFP to states for the maintenance and operation of an approved of Mechanized Claim Processing and Information Retrieval Systems, which includes E&E systems by reference of regulations at 42 Code of Federal Regulations (CFR) Part 433, for efficient, economical, and effective administration of the state plan.
- 42 CFR Part 433, which further describes the requirements states must meet to receive the funding described in section 1903 of the Act.
- 42 CFR part 435, related to E&E requirements and options for states.

2. Background – Outcomes-Based Certification Pilot

The TN TEDS OBC pilot is an alternative pathway for approval of the TN TEDS system by CMS and replaces the MEET pathway for approval based on the information and evidence evaluated through the pilot intake form, live demonstrations, and data on metrics (referred to as key performance indicators [KPIs] for this pilot) submitted by the state. TN was presented with a choice of proceeding with the MEET pathway or engaging in an OBC pilot; the state selected the latter. The OBC pilot requirements differ from those outlined in the MEET in the following ways:

- Except for the Official Certification Request Letter and the System Acceptance Letter, states are no longer required to submit the artifacts listed in MEET Appendix B.
- The Project Partnership Understanding and Independent Verification and Validation Progress Report have been eliminated.

- There is no Project Initiation Milestone Review.
- Outcomes, evaluation criteria, and state reporting on KPIs replace MEET checklists.

The CMS team carefully designed and operationalized OBC pilots to test whether the following objectives could be achieved:

- *A Clear Articulation of the Business Outcomes.* One of the important principles of approving a funding request for the development or enhancement of an information technology (IT) system is that the IT system aligns with state business and policy needs to provide more efficient and effective administration of the Medicaid program and allows for a good end user experience for Medicaid applicants and beneficiaries.
- *Compliance with Federal Regulations.* At a minimum, IT systems must contain functionality that implements federal statute and regulations and state elected policies, both from user-facing functionality, such as a single streamlined Medicaid application, record maintenance requirements, and reporting capabilities.
- *Evidence of System Health.* Metrics must be defined, captured, and reported regularly to allow the health of the operational IT system to be assessed and to detect trends of these metrics over time.
- *State Burden Reduction and State Flexibility.* The OBC process is collaborative in nature and must allow for states to tailor business outcomes, evaluation criteria, and operational metrics to their business needs. In addition, the burden on states to develop and demonstrate compliance must be considerably less than that needed to complete the MEET checklist.

To test whether these objectives could be met, the CMS team carefully designed and operationalized the TN TEDS OBC pilots through collaboration with the state. Below are examples of the basic steps taken by the CMS team:

- We developed a baseline set of materials for the E&E business area module and revised them as necessary based on state feedback and input. The materials included:
 - Outcome statements that summarized the main business objectives
 - A set of evaluation criteria for each outcome that represented the basic functionality for the E&E module, including references to the corresponding federal regulations
 - Required evidence for each evaluation criterion to guide the state as to how it should demonstrate each criterion
 - A library of KPIs that could be collected and reported regularly to indicate the system's ability to achieve the stated outcomes
- We developed a baseline set of criteria and KPIs that were enterprise-wide regardless of the business module. These metrics are also linked to regulations, and they represented basic features such as sound architectural principles for connectivity to external systems, modularity, 508 compliance, Health Insurance Portability and Accountability Act of 1996, security, etc.
- We developed a mechanism to present, review, and garner state feedback and input for the artifacts described above. The purpose of this process was to work collaboratively with the state to tailor the baseline materials to fit the state's needs, as well as to incorporate state-specific outcomes, criteria, and KPIs. Feedback from Tennessee was carefully considered, and approved suggested edits were either incorporated into the baseline or accepted as exceptions specific to the state of Tennessee.
- The CMS team and Tennessee held regular (mostly biweekly) meetings starting January 2020 all the way through June 2020 leading up to the CR.

Once all materials were discussed and relevant feedback incorporated, the materials were finalized, and the CMS and Tennessee teams transitioned to the process of preparing for the CR.

3. Certification Review

3.1 Background on TEDS

TEDS went live in May 2019. Tennessee endeavored to modernize and streamline the eligibility determination and appeals processes for all health coverage programs that it administers. The previous system was disjointed, resource intensive, burdened by inefficient manual interventions, and difficult for workers to navigate. Tennessee did not have an integrated system that determined eligibility for Medicaid and the Children's Health Insurance Program (CHIP). Rather, it relied on multiple entities, systems, and manual processes to adjudicate applications. As a previous "determination" state, Tennessee relied on the Federally Facilitated Marketplace (FFM) to determine MAGI-based eligibility for Medicaid and CHIP. Tennessee used a manual process to determine eligibility for the MAGI categories and adjudicated eligibility for all non-MAGI eligibility categories utilizing the Automated Client Certification and Eligibility Network for Tennessee system. The lack of integration of the IT environment adversely affected the business processes and operations.

Tennessee indicated that the following goals for their Medicaid program have been achieved with the implementation of TEDS:

- Automation
- Streamlined from legacy state – eight systems to one
- Better managed workload
- Increased efficiency
- Quicker eligibility determinations
- Better user experience with self-service options
- Improved data quality and data integrity

TEDS contains the following components:

- **Worker Portal** – A website that serves as a single point of entry for TennCare workers to register applications, complete data collection, perform case maintenance, renewals, file appeals, etc.
- **Member Portal** – A website where Tennesseans can perform several self-service actions 24 hours a day, seven days a week, including apply for benefits, check and renew their benefits, report changes, upload documents for eligibility appeals, upload verifications, and view notices in the Member Portal. Applicants can still submit applications by phone, paper, and the FFM.
- **Mobile Application** – An extension of the Member Portal. The app allows members to manage their cases from their phone. Members can access their benefit information, view and upload documents, view notices and letters, and report demographic changes, such as an address change, directly in the app.
- **TennCare Access** – A Provider/Partner Portal for participating hospitals, the Department of Health, and Long-Term Services and Supports providers, such as nursing facilities, to use. Participating hospitals can apply for presumptive eligibility on behalf of Former Foster Care

recipients, pregnant women, infants, children under the age of 19, and parents and caretaker relatives.

3.2 CR Agenda and CMS Reviewers

The CR was conducted as a full-day session on July 9, 2020, virtually because of the COVID-19 travel and social distancing restrictions. The day was roughly broken into the following segments:

- E&E Criteria:
 - The TEDS team conducted a demonstration of the criteria selected for a system demonstration in the production environment. As mentioned earlier, the CMS team had already reviewed the evidence describing the system workflow, and therefore the system demonstration was a validation of the evidence, and the CMS team engaged to get clarification or ask probing questions.
- Enterprise Conditions:
 - The TEDS team went through all criteria in the Enterprise intake form and addressed all the questions and comments provided by the CMS team, including status/currency of Transformed Medicaid Statistical Information System data and Performance Indicator Data submitted to CMS.
 - A number of the criteria in the Enterprise Intake Form were duplicative of criteria reviewed in the E&E Intake Form; therefore, no additional system demonstration was necessary.
- KPI Walkthrough:
 - The TEDS team went through the KPI Report Excel workbook and had subject matter experts available to discuss their interpretations of the formulas and the level of effort required for the data collection, and to explain the outcome of the metrics based on the methodology used.
 - No benchmarks have been set for the KPIs as part of the pilot process, but rather, the KPIs provided an opportunity to focus on feasibility of reporting by the state and the value of the data presented in evaluating system health.
 - No Enterprise KPIs were covered as part of this CR because Tennessee has active Authority to Connect with the CMS Marketplace Data Services Hub, which requires states to meet the same privacy and security criteria. Therefore, the Privacy and Security KPI created to ensure that the state is managing privacy and security risks is waived for E&E system reviews.
- Open Discussions:
 - The TEDS team closed out the day by presenting a dashboard the state uses for tracking the OBC certification process, including evidence provided and level of effort.
 - The CMS team, along with the TEDS team, recapped the remaining tasks to finish out the OBC pilot, including TN completing the Pilot Feedback form and CMS wrapping up the review and documenting findings within 30 days.

The CR review was led by Rebecca Bruno (Health FFRDC), with active participation from Enitan Oduneye (the CMS State Officer for Tennessee) and other Health FFRDC team members. The TEDS team was led by Diane Langley, Raichon Morand, Kim Hagan, and other representatives from TennCare, as well David Rodriguez with KPMG, a vendor providing support to the TennCare state team, and included active participation from the state team and state vendor team (KPMG, Deloitte, NTT Data).

Table 1. CMS Review Team

Role	Reviewer Name	Organization
DSG Tennessee State Officer	Enitan Oduneye	CMS
DSG Certification Technical Director	Eugene Gabriyelov	CMS
Tennessee Pilot Lead / E&E Subject Matter Expert	Rebecca Bruno	Health FFRDC
Certification Task Lead	Kyle Miller	Health FFRDC
E&E Certification Analyst	Michael Heffner	Health FFRDC
E&E Certification Analyst	Muhammad Sungkar	Health FFRDC
E&E Certification Analyst	Walter Ellis	Health FFRDC
E&E Certification Analyst	Steffi Castillo	Health FFRDC
E&E Certification Analyst and MEET Team Lead	Sejal Patel	Health FFRDC
Privacy and Security Subject Matter Expert	David Chen	Health FFRDC
Principal Systems Engineer	Donald Bynum	Health FFRDC

4. CMS CR Report

Based on the TEDS OBC Pilot CR, CMS finds that most of the criteria for the OBC E&E and Enterprise Intake Forms are marked as Meets. Overall, the state has successfully met the requirements for certification.

While there were no critical findings, there are some instances where the system configuration could be improved to prevent worker error and/or improve user experience. The following are **recommendations** for TEDS, which do not have an impact on certification or funding decisions at this time:

1. Timely Determinations

Issue- Regulations at 42 CFR 433.112(b)(15) require that state E&E systems produce transaction data, reports, and performance information that would contribute to program evaluation, continuous improvement in business operations, and transparency and accountability as a condition of CMS approval. Regulations at 42 CFR 435.912(c)(3) require that “...the determination of eligibility for any applicant may not exceed—(i) Ninety days for applicants who apply for Medicaid on the basis of disability; and (ii) Forty-five days for all other applicants.” According to KPI data TN submitted for this CR, approximately 87% of MAGI determinations made in January-June 2020 were completed in 45 days or less; 92% of non-MAGI determinations were made in 90 days or less. However, TN is currently reporting on Performance Indicator #12 to CMS, so we did not have that data for comparison.

Recommendation- The state should continue working with the Performance Indicator Data team at CMS and plan to submit applicable data based on CMS direction.

2. Automatic Enrollment

Issue: The system pre-populates the Worker Portal with “deemed newborn” whether they are or are not. The state said it had some issue with babies eligible for Medicaid at birth not being on the case with the mother, so it used this approach to solve for that. However, the worker will have to go in and manually change it if the baby is not a deemed newborn, which creates risk and opportunity for an eligibility determination error.

Recommendation: The state should consider changing this rule in the system so that it does not track every baby as “deemed” newborn and only assigns that category once the state determines that is the right eligibility group designation. The state should explore whether there is an alternative solution to linking a newborn to their mother who was enrolled in Medicaid at the time of birth. The state indicated that it would take this comment back and review options.

3. Notices

Issue: The functionality for individuals to opt into receiving electronic notices only exists through the online Member Portal if an email address was provided; this cannot be done over the phone.

Recommendation: TN should consider allowing an individual to opt into electronic notices via phone/mail to create a better user experience and accessibility.

4. Social Security Number (SSN) Masking/Verification

Issue: When an individual enters their SSN into the online application, the entire SSN is shown, which creates a potential security and privacy risk.

Recommendation: TN should consider allowing the SSN to be masked when entered into the online application.

Issue: SSN verification occurs manually for non-electronic applications.

Recommendation: TN should consider making SSN verification automated for all applications, regardless of entry point.

5. Online Application

Issue: When an individual is creating an account in the Member Portal, the system uses a reCAPTCHA to ensure it is a real person.

Recommendation: If not already done, TN should consider conducting an analysis of whether the use of reCAPTCHA is a deterrent for individuals using the online member portal.

Issue: The online application has not been fully configured to be mobile friendly.

Recommendation: TN should work to ensure that the online application is mobile friendly, as a large percentage of the Medicaid population uses mobile phones and has limited access to personal computers.

Issue: If an individual's online account is locked after multiple tries, the individual must call to get it unlocked.

Recommendation: TN should consider an alternative way for individuals to unlock their accounts, such as security questions.

Issue: For languages other than English and Spanish, TN provides phone numbers for applicants/members to have information translated into the language they speak. There is also an option on the home page, which connects to Google Translate for translation services; however, this button is buried at the bottom of the screen, so it may be hard to find.

Recommendation: TN should consider moving the translation button in the Member Portal more up front on the page.

6. Ex Parte Renewals

Issue: The state uses the Renewal/Redetermination Validation (RRV) service through the Federal Data Services Hub for the Internal Revenue Service (IRS) only. The state did not realize it could receive Equifax data as part of the RRV service.

Recommendation: TN should consider using the RRV service to access all available data sources through the Hub (SSA, IRS, Equifax) to increase its percentage of Ex Parte renewals.

7. Mobile Application

Issue: The mobile application has limited functionality, including the ability to report demographic information (not income), upload documents, and check on the status of appeals.

Recommendation: TN should consider future functionality to allow individuals to apply, report additional changes in circumstances, and renew coverage through the mobile application.

8. Appeals

Issue: TEDS does not have the functionality for Medicaid applicants and beneficiaries to submit an appeal for denial of eligibility online in accordance with 42 CFR 431.221(a). Because the effective date for this requirement is linked to the date in 42 CFR 435.1200(i), the requirement that individuals be able to submit a fair hearing request via the internet is not yet in effect; this will be identified in future rulemaking by CMS.

Recommendation: TN should consider future functionality to allow individuals to submit an appeal online.

The E&E OBC Intake Form and the Enterprise OBC Intake Form included in this document provide a complete record of the analysis conducted indicating whether Tennessee Met, Partially Met, or did Not Meet the evaluation criteria:

Tennessee TEDS OBC Pilot Certification Review E&E Intake Form



Tennessee TEDS
OBC Pilot Certificatio

Tennessee TEDS OBC Pilot Certification Review Enterprise Intake Form



Tennessee TEDs
OBC Pilot Certificatio

5. KPI Synopsis

The CMS team evaluated data for the 11 KPIs listed below. The data validated the efficiency and reduction in administrative burden that can be realized with the implementation of a highly automated system. The ability to conduct real-time no-touch eligibility determinations and Ex Parte renewals reduces the amount of contact needed with applicant sand beneficiaries and the need to process paper documentation. This reduction in burden provides an optimal user experience for Medicaid applicants and beneficiaries and puts less pressure on state staff and the Medicaid program budget.

Tennessee provided the following data for January to July 2020:

- Automated “No-Touch” Eligibility Determination – For the six-month reporting period, Tennessee reported that an average of 14% of determinations were automated without intervention from a worker.
- Timeliness of Non-Disability-Related Determinations (Note: The state used MAGI-related vs. Non-Disability-Related) – For the six-month reporting period, Tennessee reported that an average of 87% of MAGI determinations were completed in 45 days or less.
- Timeliness of Disability-Related Determinations (Note: The state used non-MAGI-related vs. Disability-Related) – For the six-month reporting period, Tennessee reported that an average of 92% of non-MAGI determinations were made in 90 days or less.
- Backlog of Non-Disability-Related Applications (Non-FFE) – For the six-month reporting period, Tennessee reported that an average of 10% of undetermined Non-Disability-Related applications (individuals) were greater than 45 days from when they were received.
- Backlog of Disability-Related Applications (Non-FFE) – For the six -month reporting period, Tennessee reported that an average of approximately 1% of undetermined Disability-Related applications (individuals) were greater than 90 days from when they were received.
- Backlog of Non-Disability-Related Applications from the FFE – For the six -month reporting period, Tennessee reported that an average of 11% of undetermined Non-Disability-Related applications (individuals) transferred from the FFE that were greater than 45 days from when they were received.
- Backlog of Disability-Related Applications from the FFE – For the six -month reporting period, Tennessee reported that an average of less than 1% of undetermined Non-Disability-Related applications (individuals) transferred from the FFE were greater than 90 days from when they were received.
- Ex Parte Renewals – For the six -month reporting period, Tennessee reported that an average of approximately 37% of renewals are completed through the Ex Parte process.
- Inbound Account Transfer Success Rate – Based on data available to CMS, Tennessee consistently maintained a success rate of between 98% and 100%, the acceptable rate determined by CMS.
- Outbound Account Transfer Success Rate – Based on data available to CMS, Tennessee consistently maintained a success rate of between 98% and 100%, the acceptable rate determined by CMS.
- Most Common Help Desk Calls from Applicants and Beneficiaries – For the six -month reporting period, Tennessee reported that the most common help desk calls were:
 - Notice Review
 - Eligibility Status Inquiry
 - Application Status
 - Document Search
 - Program Information
 - Health Plan (MCO) Referral

EXHIBIT 3



November 2, 2020

Stephen M. Smith, Deputy Commissioner
Division of TennCare
Department of Finance and Administration
310 Great Circle Road
Nashville, TN 37243

Dear Mr. Smith:

The Tennessee Division of TennCare has requested certification of the Tennessee Eligibility Determination System (TEDS) retroactive to its implementation on June 3, 2019.

In response to the state's request, the Centers for Medicare & Medicaid Services (CMS) performed a comprehensive review and assessment of TEDS. This was an assessment of information technology system functionality and does not reflect a comprehensive determination of state compliance or non-compliance with all federal Medicaid policy regulations.

In accordance with 42 Code of Federal Regulations (CFR) 433.116, and based on this review, CMS approves the state's request for certification retroactive to the implementation date of June 3, 2019. As a result, Tennessee is eligible to request 75 percent Federal Financial Participation (FFP) retroactive to the first day in the calendar quarter following the implementation date of June 3, 2019, for TEDS.

BACKGROUND

Tennessee has implemented TEDs with Deloitte. In response to the state's request for CMS certification, the CMS certification team reviewed TEDS through demonstrations and relevant artifacts/materials during a certification review conducted virtually on July 9, 2020. The following certification team performed the review:

Table 1. CMS/Health FFRDC Review Team

Role	Reviewer Name	Organization
DSG Tennessee State Officer	Enitan Oduneye	CMS
DSG Certification Technical Director	Eugene Gabriyelov	CMS
Tennessee Pilot Lead / E&E Subject Matter Expert	Rebecca Bruno	Health FFRDC
Certification Task Lead	Kyle Miller	Health FFRDC
E&E Certification Analyst	Michael Heffner	Health FFRDC

E&E Certification Analyst	Muhammad Sungkar	Health FFRDC
E&E Certification Analyst	Walter Ellis	Health FFRDC
E&E Certification Analyst	Steffi Castillo	Health FFRDC
E&E Certification Analyst and MEET Team Lead	Sejal Patel	Health FFRDC
Privacy and Security Subject Matter Expert	David Chen	Health FFRDC
Principal Systems Engineer	Donald Bynum	Health FFRDC

The criteria and information used as a basis for the certification pre-visit, virtual reviews, and subsequent evaluations include the following:

- Social Security Act
- Affordable Care Act
- 42 CFR Part 433, Subpart C
- 42 CFR Part 435
- Current legislation and CMS policies
- The approved Tennessee State Plan for Medical Assistance
- Health Insurance Portability and Accountability Act
- Advance Planning Documents, Request for Proposals, and contracts for the original procurement
- CMS Eligibility and Enrollment (E&E) Certification Intake Form
- CMS Enterprise Intake Form
- CMS Operational Measures (KPI) Reporting Form

SUMMARY REPORT

A detailed report of the above areas is contained in an enclosure to this letter. All findings and recommendations in the report were determined during the certification review and were discussed with Tennessee staff during the certification review on July 9, 2020, or in subsequent correspondence.

The enclosed report outlines the finding to be addressed by Tennessee, as well as recommendations intended to assist Tennessee to improve the operating efficiencies of TEDS. The recommendations do not impact certification decisions. However, the state may consider the recommendations for future enhancements.

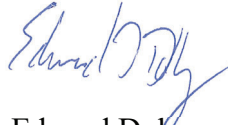
DECISION

CMS approves the request for certification of Tennessee's TEDS back to the requested date of June 3, 2019. This decision is based upon CMS's comprehensive review of TEDS, including all documentation provided by Tennessee, discussions with the Tennessee and vendor staff, and observations prior to, during, and after the CMS review. Please note that this system must continue to function in compliance with all applicable federal regulations and sub-regulatory requirements in order to continue to qualify for enhanced FFP for maintenance and operations activities of these systems. CMS reserves the right to request data pertaining to the operations of this system at any

time, under the reporting condition for enhanced federal funding, to validate that the system remains compliant.

We wish to extend our special thanks to Tennessee's Medicaid leadership, staff, and contractor staff for partnering with us to test a streamlined, outcomes-based approach to E&E certification. In the coming months and years, all states undergoing E&E certification will benefit from Tennessee's generosity in sharing its time and insights. The cooperation your staff extended to each member of the certification team was very much appreciated. Please contact me if you have any questions.

Sincerely,



Date:

2020.11.02

10:17:08

Edward Dohy -05'00'
Director, Division of State Systems

Enclosures:

TEDS Final Certification Review Report
TEDS E&E Intake Form
TEDS Enterprise Intake Form

EXHIBIT 4

State of Tennessee
Department of Finance and Administration
Division of TennCare



Implementation Advance Planning Document Update
Tennessee Eligibility Determination System

Version: 6.1

State Contact: Hugh Hale
Hugh.Hale@tn.gov
615-507-6339

September 25, 2020

IAPDU Version History

Version	Date	Name	Comments
1.0	1/29/2016	Max Arnold	Original Submission
2.0	2/24/2017	Max Arnold	Annual update
2.1	4/28/2017	Max Arnold	Revisions to annual update to address CMS request for clarification
2.2	6/9/2017	Hugh Hale	Revised State Staffing Chart Provided
3.0	12/21/2017	Hugh Hale	Annual update
3.1	2/9/2018	Hugh Hale	Revisions to annual update to address CMS request for clarification
4.0	10/31/2018	Hugh Hale	Annual Update
5.0	10/04/2019	Hugh Hale	Annual Update
6.0	9/25/2020	Hugh Hale	Annual Update
6.1	10/22/2020	Hugh Hale	Revisions to annual update to address CMS questions

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IAPDU Section	Significant Changes from IAPDU (version 6.0)
1 Executive Summary	Updated with current information
2.1 Major Activities	Updated to reflect activities undertaken and completed since the last IAPDU. Historical activities moved to the appendix
2.2 Expenditures Summary	Updated with current expenditures
3 State of Needs and Objectives	Updated with Outcomes Based Certification (OBC) and last year's APD
4 Requirements, Feasibility, and Alternatives	No change
5 Cost Benefit Analysis	No change
6 Natures and Scope of Activities	Historical activities moved to the appendix. Updated to reflect TEDS' current status. Added information for additional scope post-TEDS go-live
7 Project Management Planning and Procurement	Updated schedule to show post-TEDS go-live activities. Updated information around the various contracts included within this IAPDU. Moved Certification activities to section 6.3 and updated from Medicaid Eligibility and Enrollment Toolkit (MEET) to OBC
8 Personnel Resource Statement	Updated with current Division of TennCare staff
9 Proposed Activity Schedule	Updated milestones and timeline
10 Proposed Budget	Updated with current financials and budget
11 Cost Allocation Plan	Updated to reflect current financials and budget
12 Security/Interface and Disaster Recovery Requirements	No change
13 Conditions and Standards for Receipt of Enhanced FFP	No change
14 CMS IAPDU Required Federal Assurances	Updated to reflect most recent version

Appendix A – E&E Medicaid Detailed Budget Tables (MDBTs)	Updated MDBTs to reflect current financials and budget
Appendix B – TEDS Total Project Costs to Date	Added for informational purposes only
Appendix C – Historical Background Information	Added historical Information
Appendix D– Acquisition Assurance	No change
Appendix E – Current Systems Overview	No change
Appendix F – Contractor Personnel Resources	Updated contractor resources
Appendix G – Acronyms	Updated the acronym table

1 EXECUTIVE SUMMARY

The Tennessee Department of Finance and Administration (F&A), through its Division of TennCare (the agency), the single State agency established to administer Tennessee's Medicaid Plan under Title XIX of the Social Security Act, is submitting this Tennessee Eligibility Determination System (TEDS) Implementation Advance Planning Document – Update (IAPDU)¹ to the Centers for Medicare and Medicaid Services (CMS) to:

- Report on expenditures to date
- Request approval for Federal Fiscal Years (FFYs) 2021 – 2023 enhanced Federal Financial Participation (FFP) for the following activities:
 - Design, Development, and Implementation (DDI) – Funding for enhancements post-go-live of TEDS, discussed in [Section 6.4 – “Future State” – Additional Scope](#)
 - Maintenance and Operations (M&O) – Funding for M&O activities as TEDS enters its second year of operations
 - Outcomes Based Certification (OBC) Activities – Funding for on-going Key Performance Indicator (KPI) reporting activities for the pilot OBC initiative
 - Governance and Facilities Manager Resource Vendors – Additional funds to provide post go-live and enhancement support
 - Hardware and Software Maintenance – Additional funds to support a refresh in hardware and software

Further explanation of planned activities can be found in:

- [Section 6 – Nature and Scope of Activities](#)
- [Section 9 – Proposed Activity Schedule](#)

¹ This submission is an IAPDU, not an Operational Advance Planning Document (OAPD). TennCare will continue to submit IAPDUs for TEDS as long as significant enhancements continue

CMS previously approved Eligibility and Enrollment (E&E) funding on November 25, 2019 (TN-2019-10-04-EE-IAPDU). With this IAPDU, the agency is requesting²:

FFY 2021

- **Additional E&E enhanced** funding for **FFY 2021** in the amount of **\$163,591,341** (\$108,700,879 CMS Share 90% FFP, \$32,109,440 CMS Share 75% FFP, and \$22,781,022 State Share)
- **Additional E&E not enhanced** funding for **FFY 2021** in the amount of **\$4,099,484** (\$2,049,742 CMS Share 50% FFP, and \$2,049,742 State Share)
- For an **APD Total Computable** for **FFY 2021** in the amount of **\$406,384,510** (\$144,102,029 CMS Share 90% FFP, \$163,104,926 CMS Share 75% FFP, \$14,398,955 CMS Share 50% FFP, and \$84,778,600 State Share)

FFY 2022

- **Additional E&E enhanced** funding for **FFY 2022** in the amount of **\$144,623,732** (\$56,060,062 CMS Share 90% FFP, \$61,751,081 CMS Share 75% FFP, and \$26,812,590 State Share)
- **Additional E&E not enhanced** funding for **FFY 2022** in the amount of **\$5,188,756** (\$2,594,378 CMS Share 50% FFP, and \$2,594,378 State Share)
- For an **APD Total Computable** for **FFY 2022** in the amount of **\$353,421,672** (\$84,020,402 CMS Share 90% FFP, \$172,069,130 CMS Share 75% FFP, \$15,320,082 CMS Share 50% FFP, and \$82,012,059 State Share)

FFY 2023

- **New E&E enhanced** funding for **FFY 2023** in the amount of **\$282,145,185** (\$65,249,326 CMS Share 90% FFP, \$157,234,451 CMS Share 75% FFP, and \$59,661,409 State Share)
- **New E&E not enhanced** funding for **FFY 2023** in the amount of **\$31,256,905** (\$15,628,453 CMS Share 50% FFP, and \$15,628,453 State Share)
- For an **APD Total Computable** for **FFY 2023** in the amount of **\$313,402,090** (\$65,249,326 CMS Share 90% FFP, \$157,234,451 CMS Share 75% FFP, \$15,628,453 CMS Share 50% FFP, and \$75,289,861 State Share)

Below depicts the FFP associated with the agency's request for FFY 2021–2023:

	Medicaid ENHANCED FUNDING FFP Total	Medicaid NOT ENHANCED FUNDING FFP Total	TOTAL FFP	STATE SHARE TOTAL	APD TOTAL (TOTAL COMPUTABLE)
FFY 2021	\$ 307,206,955	\$ 14,398,955	\$ 321,605,910	\$ 84,778,600	\$ 406,384,510
FFY 2022	\$ 256,089,531	\$ 15,320,082	\$ 271,409,613	\$ 82,012,059	\$ 353,421,672
FFY 2023	\$ 222,483,776	\$ 15,628,453	\$ 238,112,229	\$ 75,289,861	\$ 313,402,090
TOTAL	\$ 785,780,262	\$ 45,347,490	\$ 831,127,753	\$ 242,080,521	\$ 1,073,208,273

Table 1: TEDS Future Budget

Further detail on project costs can be found in:

- [Section 10 – Proposed Budget](#)
- [Appendix A – E&E Medicaid Detailed Budget Tables](#)
- [Appendix B – TEDS Total Project Costs to Date](#)

² All COVID-19 related TEDS costs can be found within the COVID-19 Emergency Funding Request APD approved by CMS on 8/7/2020, and have not been included within this TEDS 2021 IAPDU

2 RESULTS OF ACTIVITIES INCLUDED IN THE PREVIOUS APD

All historical accomplishments prior to the 2020 IAPDU (version 5.0) can be found in [Appendix C – Historical Background Information](#). Since last year’s IAPDU submission, the agency has completed the following activities.

2.1 Major Activities Summary

2.1.1 Contract Acquisition/Transitions/Amendments

Milestones	Contract No.	Approval Date
TALX Corporation <i>Amendment #1</i>	48683	2/25/2020
Automated Health Services (AHS) <i>Amendment #3</i>	44715	2/19/2020
NTT Data <i>Amendment #6</i>	37266	6/15/2020
DXC Technology MS LLC (<i>DXC</i>) <i>Amendment #6</i>	NV-12056	6/15/2020
KPMG LLP (KPMG) <i>Amendment #3</i>	47327	6/15/2020
Public Consulting Group (PCG) <i>Amendment #3</i>	48027	6/17/2020
Keystone Peer Review Organization Inc (KEPRO) <i>Amendment #1</i>	59175	6/17/2020
Deloitte Consulting LLP <i>Amendment #3</i>	51758	6/18/2020
Deloitte Consulting LLP NASPO ValuePoint (Cloud Services) Participating Addendum (PA)	AR2479	7/2/2020
PCG Asset Verification System (AVS) <i>Amendment #1</i>	57865	8/24/2020
Member Services Request for Proposal (RFP)	To be determined	9/9/2020

Table 2: Contract Acquisition/Transitions/Amendments to Date

2.1.2 Infrastructure Enhancements

Milestones	Status	Date
Initiated the plan for the build of a robust information technology (IT) infrastructure in the Amazon Web Services (AWS) based TennCare Cloud	Completed	January 2020
Performed annual Disposition Review (DR) exercise for TEDS applications	Completed	March 2020
Initiated the plan for Identity Access Management (IAM) in the cloud (ITC) project – AWS TennCare Cloud Server infrastructure	Completed	April 2020
Initiated the plan for Oracle database software upgrade across TEDS application environments	In Progress	April 2020
Established a direct connect dedicated circuit connectivity between TennCare Cloud and Strategic Technology Solutions (STS) data centers Completed improvement projects for existing business processes and IT services of Optimized Security Patching activity to minimize the connectivity issues while working remotely Completed the implementation of IT infrastructure which includes setup of “Direct Connect” Connectivity between TennCare Cloud and STS on-premises data centers Enabled JVPN to access the user and server Internet Protocol (IP) ranges from State’s network	Completed	May 2020
Provisioned the plan for the Contact Center initiative - AWS TennCare Cloud Server infrastructure Developed, tested, staged, and produced application environments for IAM ITC and Contact Center Solutions to support the implementation lifecycle activities	Completed	June 2020
Completed software upgrades for the following: FileNet, Informatica, Tableau, Application Lifecycle Management Tools, CA workload automation, and Master Data Management (MDM) Commercial Off-The-Shelf (COTS)	Completed	July 2020
Secured all approvals from CMS, STS, and State for the NASPO Cloud Agreement	Completed	August 2020

Table 3: Infrastructure Enhancements³

³ A portion of TennCare Cloud solution funding has been requested in the 2020 MMIS APDU.

2.1.3 TEDS Application Activities

Milestones	Date
Completed implementation of TEDS Enhancement Release 6.0	October 2019
Completed annual batch processing for Social Security Administration (SSA) Cost Of Living Adjustment (COLA)	December 2019
Completed implementation of TEDS Enhancement Release 7.0	
Completed implementation of Workload Process Automation and Optimization (WPAO) Automations	
Completed implementation of Partner Portal Expansion	
Supported end-user training and provided site support for Partner Portal Expansion	January 2020
Completed implementation of TEDS Enhancement Release 8.0	February 2020
Completed annual batch processing for Federal Poverty Level COLA	March 2020
Completed implementation of TEDS Enhancement Release 9.0	May 2020
Completed implementation of TEDS Enhancement Release 10.0	July 2020

Table 4: TEDS Application Activities

2.1.4 TEDS Certification Activities

Milestones	Date
Delivered TEDS MEET Post-Operational Milestone Review Checklists and Artifacts to CMS	11/5/2019
CMS decision to move from MEET to OBC	12/9/2019
TEDS Combined Operational Readiness Review (ORR) and Certification Review (CR)	7/9/2020

Table 5: TEDS Certification Activities to Date

2.1.5 Security and Privacy Accomplishments

Milestones	Date
Held Vendor Risk Assessment Program Kick-off (inclusive of TEDS)	May 2020
Held Security Operations Center (SOC) Go-Live for AWS	May 2020
Completed SSA 2020 Compliance Review	June 2020
Completed Vendor Contract Gap Analysis and Updates to Standard Security Language	July 2020

Table 6: TEDS Security and Privacy Accomplishments to Date

2.1.6 In-Progress and Planned Efforts for Security and Privacy Projects

As the TEDS solution, referred to as TennCare Connect, is now statewide and live, the focus for security, compliance, and privacy shifts to ongoing operations and maintenance activities as well as new initiatives. The following is a description of ongoing operations, in-flight projects, and new initiatives planned.

In-Progress and Planned Efforts for Security and Privacy Projects

The security and privacy programs have undergone a significant transformation at the agency. Efforts are currently focused on setting up the next wave of security initiatives that support the strategic security approach that the agency is undertaking. The strategy and roadmap are largely divided into two areas: strategic projects and ongoing program-level operations. Below is a list of the main projects and activities:

- Security Program Metrics
- Vendor Security Assessment Guide
- Vendor Security Management Procedure
- Vendor Contract Gap Analysis (existing)
- Security Training and Development Plan
- Application Coding Standards
- Risk Assessment (update methodology)
- Public Key Infrastructure Evaluation
- Security Procedures Log (initial list)
- System Security Plan (SSP) Development
- SSP Development – MDM
- System Identification for the agency
- Data Classification Implementation
- Data Flows
- Security Architecture Standards
- Security Management SharePoint Re-design
- QRadar Expansion
- Active Directory Review
- Privileged Access Management System (servers)
- Data Loss Prevention Implementation
- IAM ITC
- Keylight Upgrade Workflows
- Employee Hire, Term, Transition Practice Document
- Oracle Audit Vault Procedure
- Acceptable User Policy Update
- Automatic Data Processing (ADP) Report

Future Maintenance and Remediation for TEDS/Minimum Acceptable Risk Standards for Exchanges (MARS-E)

Security-related activities for ongoing support of the TEDS platform will primarily be focused on MARS-E 2.0 program requirements. The last annual submission of the MARS-E 2.0 package to CMS for review and comment was submitted on July 29th, 2020 (utilizing the Covid-19 extension date for all states) for CMS review. TennCare has submitted quarterly Plan of Action and Milestones (POAM) updates to CMS since TEDS was put into production. These updates provide information regarding remediation work needed to meet requirement gaps identified during continuous monitoring, penetration testing, and Security Assessment Reports. These items are discussed in monthly meetings with the CMS Affordable Care Act (ACA) security team Information System Security Officer (ISSO) and TennCare security/privacy team members. The next POAM submission to CMS is scheduled for October 30th, 2020.

SOC Monitoring

The agency is pursuing a SOC monitoring initiative that focuses on identification, notification, and prevention of security threats and risks for applications that are live and in production. Security threats and risks may be magnified by the solution hosting individual and health/Medicaid data. For this initiative, a team will set up the SOC monitoring capabilities, processes, tools, and governance, and then operate SOC monitoring across the TEDS infrastructure.

Security and Compliance

The agency's ability to stay current with State and Federal security and compliance is paramount to the protection of data and prevention of issues and security occurrences. This initiative focuses on providing the agency with the added support needed to meet security and compliance regulations and obligations. This goes beyond by using tools and industrialized processes that enable the agency to meet the growing demands of security needs.

IAM ITC

IAM serves as the foundation for securely managing user, member, and provider access with privileged accounts for TEDS. States often have manual, highly interactive processes for user management, which include utilizing a combination of multiple processes such as email, hard copy requests, and numerous other back-and-forth processes. IAM ITC will provide the agency with an advanced degree of self-service functionality for members, workers, and providers to manage their own TEDS accounts. IAM ITC is designed to provide additional access to applications and serve as a foundation for the agency and the State of Tennessee to manage benefits with fewer disruptions at a faster response time across the enterprise.

Please refer to [Section 9 - Proposed Activity Schedule](#) for more detail on activities and timelines.

2.2 Expenditures Summary

CMS previously approved E&E funding for **FFY 2015 – FFY 2020** in the total computable amount of **\$1,241,696,141** [excluding Children's Health Insurance Program (CHIP)] shown by FFP below as these FFYs spanned over multiple years of approval letters.

	Medicaid ENHANCED FUNDING FFP Total	Medicaid NOT ENHANCED FUNDING FFP Total	TOTAL FFP	STATE SHARE TOTAL	APD TOTAL (TOTAL COMPUTABLE)
FFY 2015	\$ 36,800,743	\$ 9,842,250	\$ 46,642,993	\$ 18,980,024	\$ 65,623,017
FFY 2016	\$ 63,015,532	\$ 9,686,166	\$ 72,701,698	\$ 24,118,194	\$ 96,819,892
FFY 2017	\$ 139,288,919	\$ 8,613,016	\$ 147,901,935	\$ 33,506,353	\$ 181,408,288
FFY 2018	\$ 167,552,021	\$ 10,413,751	\$ 177,965,772	\$ 40,333,801	\$ 218,299,573
FFY 2019	\$ 281,483,339	\$ 14,762,984	\$ 296,246,323	\$ 64,634,109	\$ 360,880,432
FFY 2020	\$ 242,908,493	\$ 12,056,939	\$ 254,965,432	\$ 63,699,507	\$ 318,664,939
TOTAL	\$ 931,049,047	\$ 65,375,106	\$ 996,424,153	\$ 245,271,988	\$ 1,241,696,141

Table 7: TEDS Previously Approved Funding*

In comparison to the approved E&E funding noted above, total actual E&E expenditures for **FFY 2015 – FFY 2020** amounted to **\$1,081,307,761** [excluding CHIP] shown by FFP below:

	Medicaid ENHANCED FUNDING FFP Total	Medicaid NOT ENHANCED FUNDING FFP Total	CHIP FFP Total	TOTAL FFP	STATE SHARE TOTAL	APD TOTAL (TOTAL COMPUTABLE)
FFY 2015	\$ 24,513,977	\$ 15,841,806	\$ -	\$ 40,355,782	\$ 22,595,816	\$ 62,951,598
FFY 2016	\$ 55,898,429	\$ 17,061,204	\$ -	\$ 72,959,634	\$ 30,115,667	\$ 103,075,301
FFY 2017	\$ 113,892,337	\$ 9,493,094	\$ -	\$ 123,385,431	\$ 31,789,603	\$ 155,175,034
FFY 2018	\$ 133,485,257	\$ 11,789,855	\$ -	\$ 145,275,112	\$ 37,782,209	\$ 183,057,321
FFY 2019	\$ 202,266,250	\$ 10,219,503	\$ -	\$ 212,485,754	\$ 45,897,814	\$ 258,383,567
FFY 2020	\$ 242,908,493	\$ 12,056,939	\$ -	\$ 254,965,432	\$ 63,699,508	\$ 318,664,940
Total	\$ 772,964,744	\$ 76,462,401	\$ -	\$ 849,427,145	\$ 231,880,616	\$ 1,081,307,761

Table 8: TEDS FFY 2015 - 2020 Expenditures*

*These tables are included for *informational purposes only* to provide historical context of the actual cost of the project for FFY 2015 – FFY 2020.

3 STATEMENT OF NEEDS AND OBJECTIVES

3.1 Background and Technical Overview

Tennessee endeavored to modernize and streamline the eligibility determination and appeals processes for all health coverage programs that it administers. The previous system was disjointed, resource intensive, burdened by inefficient manual interventions, and difficult for workers to navigate. Tennessee did not have an integrated system that determined eligibility for Medicaid and CHIP. Rather, it relied on multiple entities, systems, and manual processes to adjudicate applications. As a previous “determination” state, Tennessee relied on the Federally Facilitated Marketplace (FFM) to determine Modified Adjusted Gross Income (MAGI)-based eligibility for Medicaid and CHIP. Tennessee used a manual process to determine eligibility for the MAGI categories and adjudicated eligibility for all non-MAGI eligibility categories utilizing the Automated Client Certification and Eligibility Network for Tennessee (ACCENT) system. The lack of integration of the IT environment adversely affected the business processes and operations.

The agency began its project to replace its previous E&E system with TEDS in 2015. Please refer to [Appendix C – Historical Background Information](#) for more detail on the project background and historical activities. Since the 2020 IAPDU (version 5.0), the agency has continued to enhance the TEDS solution, implementing automation and user experience improvements to the Member Portal, Worker Portal, Mobile application and Contact Center. A summary of the project needs used to develop this new, modern solution can be found in [Appendix C – Historical Background Information](#).

Because of the success of this implementation, other projects initially rolled out for TEDS only (e.g., IAM) are being implemented enterprise wide. In addition, the agency has decided to add in additional enhancements to the new replacement system. During the DDI phase of the of TEDS project, updates or changes to the original scope of work were requested and each of these functional changes has advantages and impacts across the TEDS system. At a high level, these enhancements will improve worker efficiencies, reduce data entry, improve the user experience, and reduce call volumes. These enhancements are discussed further in [Section 6.4 – “Future State” Additional Scope](#).

3.2 Strategic Vision and Business Objectives

3.2.1 Strategic Vision

The agency envisioned a client service model that is customer-centric, efficient, and effective. TennCare and CHIP⁴ (also known as CoverKids in Tennessee) applicants and members needed the ability to file applications for services and benefits, as well as report changes, using multiple electronic channels and processes. When the self-service portal was implemented, Tennessee began to encourage the use of this new online member portal, while continuing to provide consumers with multiple avenues to submit applications and make inquiries. In addition, Tennessee has also established a mobile application that

⁴ No CHIP costs have been included within this APD.

allows applicants and members to access the eligibility process and their electronic case record through a mobile device. Additionally, most required materials and verification documents are scanned and stored electronically within the electronic case record for the applicant or member. Whenever possible, verification of required information is captured electronically through a web-based service and updated automatically in the case record. Workers or automated processes review applications and send questions or request additional documentation (electronically or through print media) to communicate with applicants and members.

This strategic vision has been met for TEDS. However, future enhancements to the system will continue to ensure that the client service model is customer-centric, efficient, and effective. These enhancements are discussed further in [Section 6.4 – “Future State” Additional Scope](#).

3.2.2 Business Objectives

The agency achieved the following strategic business objectives through the eligibility modernization project and will continue to work towards these for future enhancements:

- Provided a “no wrong door” approach to all health coverage programs administered by Tennessee
- Provided workers with up-to-date access to member records across all health coverage programs
- Automated eligibility determination to provide real-time or near-real-time responses to applicants, relying on human intervention only when requested by the applicant/member or required by program policy
- Aligned eligibility processes to meet the needs and preferences of applicants, members, stakeholders, business partners, and the agency staff and contractors
- Improved the completeness, relevance, timeliness, and accuracy of data collected and used for eligibility, including eligibility appeals
- Leveraged Service Oriented Architecture (SOA) principles to develop an extensible architecture that will comply with CMS’s Medicaid IT Architecture (MITA) 3.0, CMS’s Standards and Conditions for Medicaid IT, OBC, and national standards for security, privacy, interoperability, and information sharing
- Managed eligibility criteria in a transparent and collaborative manner that allows for efficient and appropriate updates

To measure the agency’s success in supporting the TennCare TEDS project, the agency is also tracking key outcomes as part of the OBC pilot. These outcomes will be monitored on a continual basis using CMS-approved metrics, which will demonstrate the agency’s progress in meeting the goals and outcomes of its E&E system. At this time, the pilot E&E key outcomes for this project are:

- Outcome Statement 1: Individuals receive timely and accurate determinations of eligibility and are promptly enrolled.
- Outcome Statement 2: The state has a coordinated E&E process with all insurance affordability programs.

- Outcome Statement 3: The state ensures a user friendly and accessible experience for applicants and beneficiaries.
- Outcome Statement 4: Appropriate safeguards of electronic protected health information and personally identifiable information are implemented and maintained.

KPIs align with these outcomes and will be reported to CMS on the agreed-upon basis.

3.3 Anticipated Benefits

The agency has identified five guiding principles to prioritize decisions for the future enhancements to eligibility operations as follows: (1) consistent delivery of member services and increased member self-service, (2) optimized business operations using reliable systems, (3) enhanced program self-sufficiency, (4) organizational adaptability, and (5) improved data quality and data integrity. These principles are further detailed below:

Consistent Delivery of Member Services and Increased Member Self-Service

- Expand and improve eligibility intake channels via the Contact Center and online portal to increase applicant and member satisfaction
- Provide citizens with the ability to apply for services and benefits at a time and place convenient for them through an accessible web portal, utilizing agency and contract staff only when necessary
- Provide real-time or near-real-time eligibility determinations, without agency worker intervention, and improve the accuracy of eligibility determinations
- Reduce unnecessary Division of TennCare manual intervention by providing self-service functionality for clients in accessing eligibility applications, submitting documentation, and updating personal information
- Provide information to applicants and members in a manner of their choosing (e.g., paper or electronic)
- Utilize a single Contact Center for all eligibility-related services
- Provide the agency's member services (e.g., Contact Center staff) with online access to information needed to respond to member inquiries in a timely fashion

Optimized Business Operations Using Reliable Systems

- Provide a high level of automation and systems adaptability throughout the eligibility process
- Minimize the complexity of user interfaces to perform systems functions
- Implement a content management system (including document management) in compliance with state and federal regulations and statutes
- Reduce the cost of future technology enhancements by implementing modular components
- Define and implement business processes, operational changes, and eligibility rules throughout the agency

- Implement and integrate an automated rules engine to enable updates with less development cost when regulations, statutes, or eligibility standards change
- Establish an automated system to generate notices to applicants, members, stakeholders, and business partners
- Consolidate data currently housed in separate systems into a single system, reducing the need for the agency's staff and contracted vendors to access multiple systems/databases

Enhanced Program Self-Sufficiency

- Transfer responsibility for MAGI-based eligibility determination from the FFM to the agency
- Improve sustainability of systems and operations
- Lower average transaction costs through automation of eligibility determination
- Facilitate more accurate and timely adjudication of eligibility appeals by consolidating information in one system and providing appeals staff with access to a centralized data source and a single system of record

Organizational Adaptability

- Implement configurable business rules that will result in lower customization costs, due to necessary regulatory changes impacting eligibility standards
- Improve assessment of current performance and accurately project future business needs

Improved Data Quality and Data Integrity

- Minimize data discrepancies and improve data integrity associated with transmission of applicant eligibility determinations from FFM to the agency
- Establish a governance structure to manage data and information better, including ownership and accountability
- Track applications received, approved, denied, and abandoned
- Report performance metrics without the need for manual intervention
- Audit and track member encounters
- Prevent duplicate applications by matching in-process applications and current Medicaid/CHIP enrollment
- Enable recognition of "change of circumstance" applications to eliminate casework on previously filed applications

4 REQUIREMENTS, FEASIBILITY, AND ALTERNATIVES (NO CHANGE)

4.1 Requirements

A requirements analysis was conducted and can be found in [Appendix C – Historical Background Information](#). Please refer to this section for any historical information related to TEDS.

4.2 Feasibility Study and Alternative Considerations

In March 2010, the Affordable Care Act (ACA) was enacted by Congress, imposing significant changes for Medicaid eligibility determination and its processes. Based on the requirements of the ACA, it became necessary to modernize Tennessee's Medicaid and CHIP eligibility determination system and process through updated technology that protects and supports the interests of the State's citizens, while complying with the requirements of federal law and regulations. Therefore, the agency concluded that a full-fledged feasibility summary was not required.

Rather, the agency leveraged the MITA 3.0 State Self-Assessment results and confirmed that the current ACCENT system is incapable of processing MAGI-based eligibility. This conclusion is also reflected in Tennessee's use of the FFM to determine MAGI-based eligibility on behalf of Tennessee. As discussed in [Section 3 - Statement of Needs and Objectives](#) and [Section 6 - Nature and Scope of Activities](#), the State utilizes the FFM and various work arounds and manual interventions to adjudicate eligibility, store information, generate notices, handle appeals, and manage a program that serves over 1.5 million participants in TennCare.

4.2.1 Summary of Alternative Analysis Results

Based on the historical analysis that can be found in [Appendix C – Historical Background Information](#), the only two alternatives that provided a realistic opportunity to achieve the agency's strategic objectives and maximize compliance with CMS requirements were either (1) transfer a solution from another state or (2) implement a COTS-based platform. Transferring a solution appeared to have the greatest potential return and formed the basis for planning the TEDS modernization, but it was anticipated that competitive COTS-based proposals would also be considered if all minimum requirements established through the Request for Qualifications (RFQ) development process could be met.

In addition to the advantages noted in [Appendix C – Historical Background Information](#), adapting a transfer solution from another state allowed Tennessee to leverage technology that had been previously funded by the federal government (primarily), thereby enhancing the cost-effectiveness of this approach. A transfer also reduced the implementation timetable, thereby enabling the agency to accelerate completion of this initiative.

5 COST BENEFIT ANALYSIS (NO CHANGE)

It was critical that Tennessee replace its aging legacy system. The risks associated with the previous system were documented in the MITA 3.0 State Self-Assessment, as well as the day-to-day realities of a system that was not able to meet the operational requirements of the ACA.

Within the 2017 TEDS IAPDU Conditional Approval Letter dated May 10, 2017, the following request was made for a Cost Benefit Analysis (CBA) to be completed or to request a waiver:

“The state must either submit a CBA or a waiver in their next APD update.”

While preparing the 2018 TEDS IAPDU, the agency requested a waiver for the CBA for the following reasons:

- A verbal waiver from Jess Kahn was obtained December 21, 2015 and referenced in the 2016 IAPDU submission (page 28) approved by CMS on March 24, 2016.
- The results of a high-level feasibility study (identifying the alternative options) considered were included in the 2016 IAPDU (pages 23-27).
- The TEDS solution development was well underway; as such, it was believed that undertaking the exercise to develop a cost-benefit analysis this late in the project would yield no benefits to the State of Tennessee or to CMS.
- The current implementation schedule might be placed at risk if resources were to be refocused on a more comprehensive CBA exercise.
- Since the project has passed the final State Design Gate, it is highly unlikely that Tennessee would alter the course direction at this point.
- Tennessee and CMS have already approved a contract with the Solutions provider, Deloitte Consulting; to change direction at this point would result in additional loss of federal and state funds already committed toward the current implementation and open the state up to possible litigation actions.

Following the submission of the 2018 TEDS IAPDU, CMS and the agency continued correspondence in order to receive a final, written approval letter from CMS for a CBA waiver. The agency submitted this official waiver request on April 25, 2018 for a CBA, which was approved by CMS on May 16, 2018 (enclosed with this IAPDU).

A high-level cost-benefit analysis for IAPDU purposes can be found in [Appendix C – Historical Background Information](#). Please refer to this section for any historical information related to TEDS.

6 NATURE AND SCOPE OF ACTIVITIES

6.1 Historic State – Business and Technology

The legacy system before TEDS go-live is now referred to as the agency's "historic state." All historic state information can be found in [Appendix C – Historical Background Information](#).

6.2 Current State – Modernized E&E System

As outlined in the 2020 IAPDU (version 5.0), TEDS launched statewide in March 2019 and finished all conversions at the end of May 2019, which means TEDS is the new "current state." TEDS is a client service model that is customer-centric, efficient, and effective. The modernization of the agency's eligibility and appeals systems included improvements to every aspect of the process, including application submission/intake, processing of applications, interfaces with external data sources, eligibility determination and applicant notification, eligibility redetermination, eligibility appeals, and notice generation, and distribution. The changes to the historic state of operations benefits all stakeholders, but especially Tennesseans receiving services from the agency, the agency workers, and staff in other state agencies and business partners that interact with the agency, including the federal government. While the initial system that went live was what the agency needed at the time, as workers and members began interacting with the system, enhancement were identified to increase overall usability for both workers and members. Since go-live in March, substantial enhancements have been identified and are being implemented to bring additional value to the TEDS system. Further details on these enhancements can be found in [Section 6.4: "Future State" – Additional Scope](#).

6.2.1 Key Design Features

As part of the planning process, a number of key assumptions were identified in several areas that affected the scope and design approach of TEDS. In addition to the key assumptions, the agency also identified constraints or known factors that affected the scope and design approach for TEDS. These were considered constraints because they limited the acceptable alternatives for the design approach. The following discusses the key design features that were part of the original assumptions and constraints. These have been implemented, unless otherwise indicated.

Newborn Application Processing updates – TEDS Worker Portal's newborn functionality was updated to prepopulate the Circumstances Change Date to be the child's date of birth, which will reduce worker errors and will align eligibility to begin on the newborn's date of birth.

Updates to Simulation Data Exchange (SDX) Screen – The TEDS SDX inquiry screen was enhanced for workers to easily determine whether an individual should be active or inactive for Supplemental Security Income (SSI) while working tasks.

Expand Document Search – The TEDS Worker Portal was enhanced with the ability to search historical documents from three months to six months to assist workers in researching cases with Appeals or inquiries from members.

Member/Partner Portal Updates – Member/Partner portal was enhanced to allow:

- Members to request Non-MAGI assistance using TennCare Connect as part of the “Renew My Benefits” flow
- Members and partners to remove assisting person from Member Portal
- Providers to assist their patients with quick processing for newborns and nursing facilities (NF) applicants
- Members to see documents that were uploaded by mail/fax.

Duplicate Notices – TEDS Notices Module was enhanced to prevent duplicate reprints on the same day. This was done to reduce dependency on workers to manually check for duplicates and also to avoid any confusion for members on receiving multiple notices.

Case Merge Updates – TEDS Case Merge Functionality was enhanced to ensure continued member coverage while moving between cases.

TEDS Audit Trail – TEDS Audit History module was enhanced to enable workers to easily view the audit trail for case/individuals across changes to the information on screen.

Improve No-Touch Processing Efficiency – Member/Partner Portal functionality was expanded to allow providers to assist their patients and allow call center representatives to maximize “no-touch” processing. TEDS workers will use TennCare Connect to report changes/complete renewals for phone calls, many of which can be processed end to end by TEDS No Touch processing functionality.

Automatic Case/Appeal Notes – TEDS Worker Portal was enhanced to create automatic Case Notes for key system transactions such as Adding Income, Date of Death etc.

Updates to Additional Information Notice –Additional Information Notice was enhanced to provide further clarification to members on the exact documents that are required to process eligibility.

TEDS Eligibility Updates – Patient liability amount calculations were enhanced to align the patient liability start/end dates based on the State’s cut-off date to process a change. Updates were also made to business rules to account for eligibility of newly added spouse or child(ren) of a Transitional/Extended Medicaid recipient. The SDX ex-parte process was enhanced to automatically assess for Pickle Category of Eligibility (recipients eligible for SSI and SSA benefits).

Continuous Eligibility Indicator – Enhancements were made to provide override capabilities to certain worker groups to break the continuous eligibility of members for any administrative or policy reasons.

Group Appeals – The TEDS Appeals module was expanded to include Group Appeals functionality that will help workers to file and process multiple appeals of a household together. This will reduce appeal processing time and improve worker efficiency.

Deemed Newborn Updates – A new screen in TEDS was introduced for deemed newborns to allow workers to identify if a mother is already eligible for Medicaid.

TEDS Automation Updates (WPAO) – New modules were implemented in TEDS to improve automation, worker efficiency, and reduce backlog of tasks. The new modules support simpler ways for demographic updates reported to the call centers and the addition of newborns to existing cases. Also, the TEDS task module was enhanced to easily identify and allow prioritization of authorization of the oldest applications first.

TEDS Task Module – Modifications to the task dashboard were made to enable more efficient and timely processing of applications. A new feature was added to enable “bulk assignment” of tasks. Task search was also updated to retain search results on click of "Back to Inbox" from Task Details. These updates will improve worker experience and throughput.

Appeals Notices of Hearing (NOH) – TEDS was updated to auto-generate Notice of Hearing for all linked appeals, which will reduce manual effort on State Attorneys. Functionality was also updated to enable workers to choose additional documents to include in evidence packet of the NOH letter.

Additional Information/Verification Processing – TEDS updated re-route Additional Information/Verification Documents to call center workers for regular program queues. This will assist in reducing the backlog of documents/applications and will allow for the State to manage overall workload more efficiently.

Change Application Date Change – Initially in TEDS, the Application Date could not be changed outside of Application Registration. TEDS was enhanced to provide the ability to change the Application Date when in Data Collection pre- and post- authorization of the case. This will allow workers to correct any worker errors and resolve effective date appeals more efficiently.

6.2.2 Current State Process Model

The System Integrator’s (SI) Industry Print 4 business process modeling tool was used to create a detailed hierarchy and structure for each end-to-end business process, including human-to-human, human-to-system, and system-to-system. For example, the business process model below depicts the various application intake channels (inputs) and how applications were originally designed to be registered in TEDS (activities and outputs), as well as the humans and systems involved throughout (end-to-end actors). In addition to the core Tennessee business processes, detailed system processes depict the series of tasks completed within TEDS portals and functional areas. System processes support the broader business processes by elaborating the TEDS functionality, including pages, notices, and interfaces. For example, the system process model below depicts the steps to register an application in the TEDS Worker Portal.

B-020 Application Registration

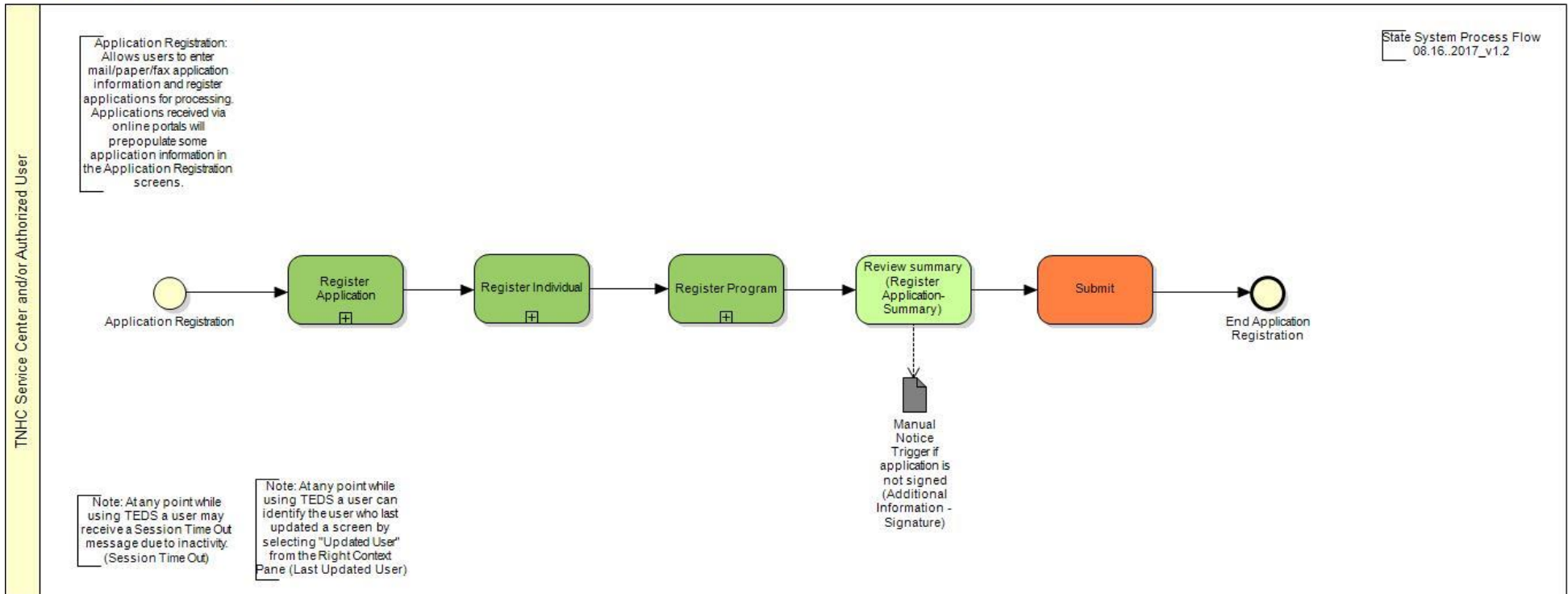


Figure 2: Process Model – Application Registration System Process

6.2.3 Current State Conceptual Architecture

The agency faced significant challenges replacing a patchwork of aging and “hard-to-maintain” mainframe systems and numerous one-off solutions with modern technology, improved functional capability, built-in flexibility for the inevitable changes that will occur, and the ability to maintain and modify systems as new programs are brought online. A modular, SOA-based future state architecture was used for TEDS. The components of the architecture are the basis of the eligibility solution features and functions. The Conceptual Architecture builds a foundation of a large enterprise eligibility system and uses COTS products from major enterprise software vendors and/or transfer solutions from other states. It supports the functional and technical requirements of a modern eligibility system and has the flexibility to support the agency’s short- and long-term goals. The core architecture is designed such that modular components can be changed, added, or removed to meet the agency’s current and future requirements.

In addition to the overarching guiding principles noted earlier, the Conceptual Architecture observes the following principles that align with the agency’s IT strategy:

- Aligns with MITA 3.0 and OBC, and meets CMS’s Standards and Conditions for Medicaid IT
- Employs a layered and modularized approach to implementing system architecture. This approach clearly separates the system’s presentation layer, shared services layer, and the underlying COTS products. This allows the agency to maximize interoperability with other state systems and reduce the eligibility system infrastructure maintenance costs
- Uses technology-agnostic solutions to allow System Provider and System Implementers to propose mature solutions without unnecessary constraints or limitations
- Leverages enterprise architecture methodology, avoids developing new systems in silos, leverages existing and ongoing investments of the agency on sharable capabilities, such as master client index, enterprise service bus, identity and access management, and enterprise content management

The following figure represents the Conceptual Architecture for the new eligibility system. It follows the widely accepted industry structure for maintainability by separating every function into implementation layers:

- Presentation layer – A user interface view (no storage of data)
- Services layer – Where calculations are performed
- Data storage layer – Where data is stored

Each major system is depicted as a “box.” The data flows between systems are identified, as well as the batch files used to exchange data in a recognized, standard format with the SSA, FFM, and other external partners.

The overall architecture is composed of five major features: (1) User Interfaces/Points of Access, (2) Platform, (3) Eligibility System Major Feature Groups, (4) Data Exchange with External Stakeholders, and (5) Reporting and Analysis Tools.

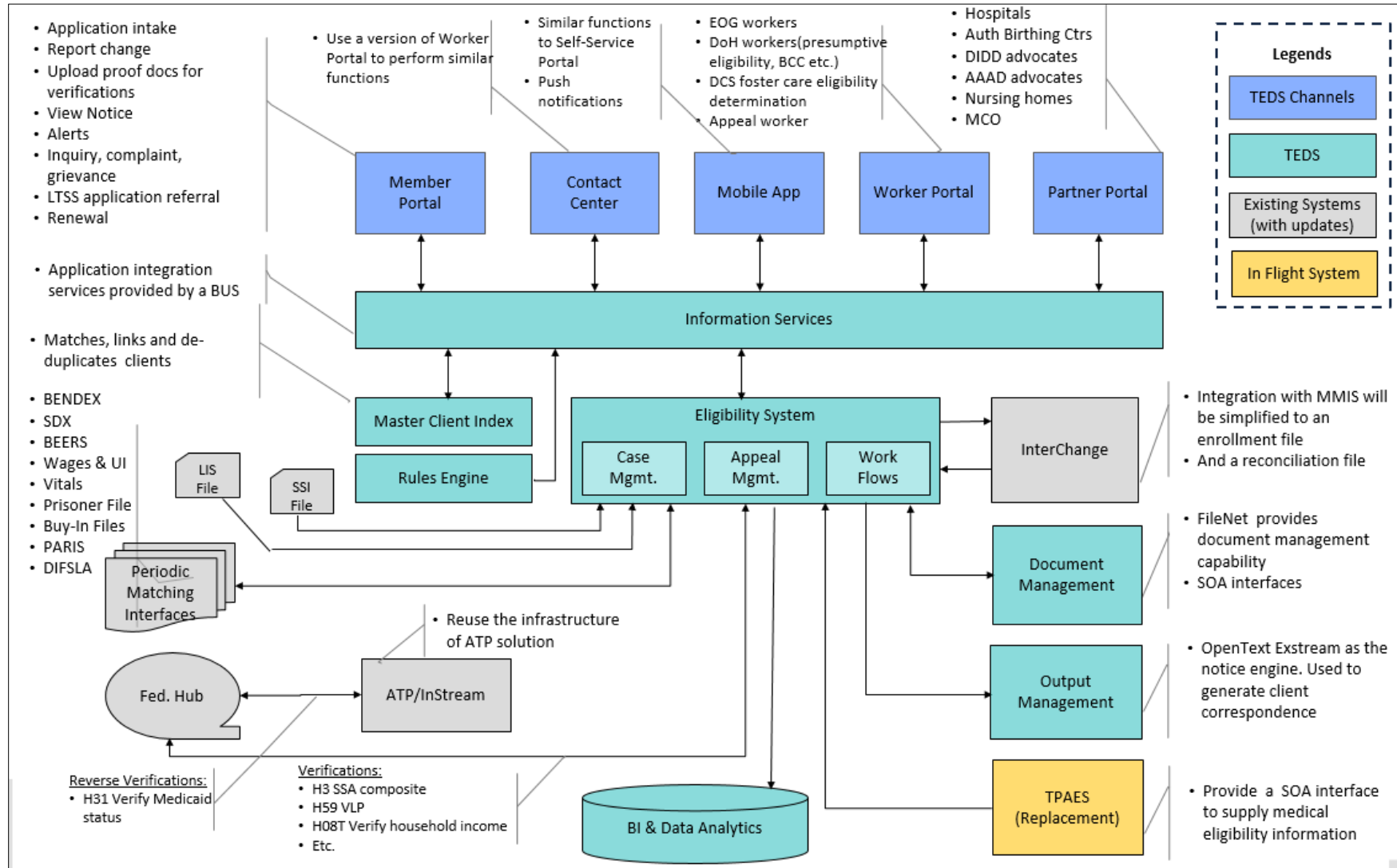


Figure 3: Conceptual Architecture of Division of TennCare New Eligibility System

6.2.4 User Interfaces and Points of Access

The new eligibility system provides members, workers, and business partners with multiple points of access that align with the guiding principles of consistent delivery of member services, optimized business operations using reliable systems, self-sufficiency, data quality and integrity, and organizational adaptability. Given that the State already processed applications via paper, mail, and fax, the new system enhances the existing pathways for clients to apply for benefits. In addition, a number of new entry points have been established:

- **Worker Portal** – The Worker Portal provides the agency’s staff with an integrated view of information about an applicant/member and includes a complete historical view of the member. As an internal portal, the Worker Portal uses richer applications and formats, along with HTML, to provide needed content to the agency’s staff.
- **Partner Portal** – The Partner Portal enhances the ability of partners, including authorized State agencies, healthcare providers, and other organizations, to coordinate with the agency. It also provides workers at partner agencies with access to a subset of the system’s information tailored to their needs and appropriate levels of access.
- **Consumer Self-Service/Member Portal** – An online consumer self-service portal, now called TennCare Connect, promotes self-sufficiency, enhances outreach, and provides a new channel for member interaction. It allows Tennessee residents to apply for services, submit verification documents, view personalized communication, and update their application information using a computer or mobile device with internet access.
- **Mobile Application** – With the adoption of a mobile access channel, the State can reach individuals who otherwise may not participate in health coverage programs. This application allows mobile access to E&E functionality and notifications.

6.3 Certification Activities

On December 9, 2019, the agency consulted with CMS and agreed to halt MEET-related activities and to transition to an OBC pilot for TEDS certification. The agency and its partners, in consultation with CMS, worked to certify TEDS using the OBC process, which utilizes the following three components:

1. Outcome Statements: Describe the desired state once the system is implemented
2. Evaluation Criteria: Used to evaluate the functionality of the system and its compliance to laws, regulations, and industry good practices
3. KPIs: Used to track the performance of the system over time

In its pilot state, the OBC process followed the below lifecycle:

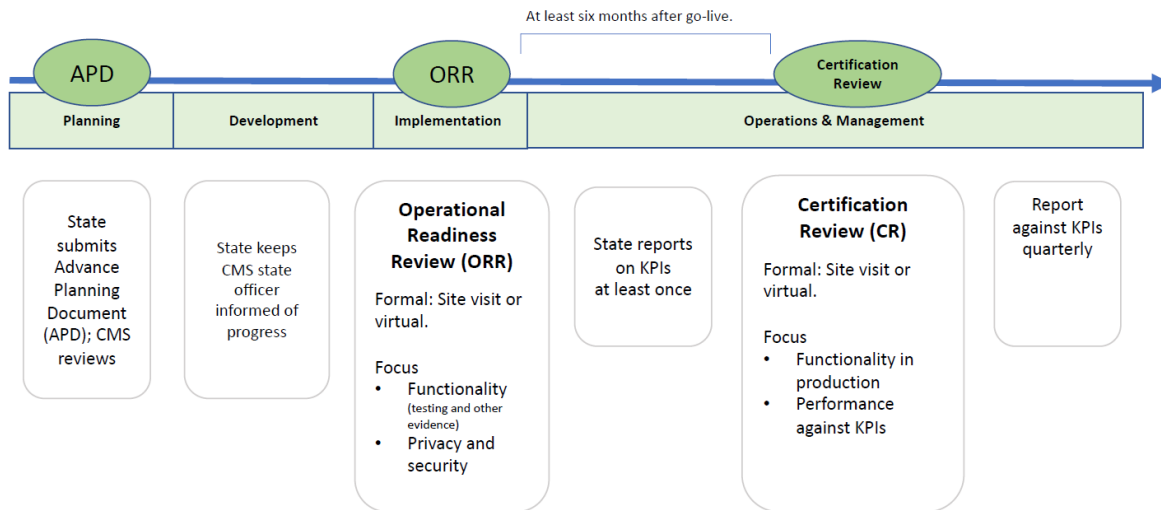


Figure 4: OBC Lifecycle

6.3.1 Planning (Complete)

The agency kicked off the OBC pilot with CMS on December 9, 2019. Since the OBC pilot began after go-live, the ORR could not be completed as laid out in the lifecycle above. Thus, the agency qualified as an “unique case” and CMS agreed to combine the ORR and CR in order to certify TEDS. CMS, MITRE, and the agency agreed to hold a combined ORR/CR on July 9, 2020.

6.3.2 Development (Complete)

The agency’s certification team, CMS, and CMS’ partner (MITRE) began enhancing the draft E&E-specific outcome statements, evaluation criteria, and KPIs to fit the agency’s E&E business team’s needs. CMS provided the following draft outcomes:

- Outcome Statement 1: Individuals receive timely and accurate determinations of eligibility and are promptly enrolled.
- Outcome Statement 2: The state has a coordinated E&E process with all insurance affordability programs.
- Outcome Statement 3: The state ensures a user friendly and accessible experience for applicants and beneficiaries.
- Outcome Statement 4: Appropriate safeguards of electronic Protected Health Information (PHI) and Personally Identifiable Information (PII) are implemented and maintained.

CMS, alongside its partner MITRE, and the agency, developed evaluation criteria and metrics that were then used to demonstrate the success of the system. Once developed and finalized, the agency’s TEDS business team and TEDS solution provider collected the evidence needed to satisfy the evaluation criteria, developed the appropriate reports, and gathered the data to accurately report on metrics. In

addition, since the agency had already submitted all evidence for the three MEET milestone reviews, all parties worked together to map that evidence back to the OBC requirements to determine any gaps that would need to be discussed during the combined ORR/CR.

6.3.3 ORR and CR (Complete)

CMS, MITRE, and the agency held a combined ORR/CR on July 9, 2020. The agency is pending official confirmation of the certification of TEDS. The agency is now preparing for its first submission of its KPI reporting and will do this reporting continuously throughout the future, as required by CMS.

6.4 “Future State” – Additional Scope

As part of continuous improvement, the identified additional scope changes will improve the Member and Worker services. These enhancements will optimize efficiencies in supporting the operational activities and user experiences of the Portals.

6.4.1 TEDS Future Enhancements

Background

During the DDI phase of the of TEDS project, updates or changes to the original scope of work have been requested. Each of these functional changes below has advantages and impacts across the TEDS system:

- Member Portal, Worker Portal, and Mobile Enhancements
- Enrollment Modernization
- TennCare Connect 2.0
- NextGen 360

Value

These enhancements are further detailed below and will (1) improve worker efficiencies, (2) reduce data entry, (3) improve user experience, and (4) reduce call volumes.

6.4.1.1 TEDS Member Portal, Worker Portal, and Mobile Enhancements (planned)

Background

The Member Portal, Partner Portal, Worker Portal, and mobile application will be enhanced to support the changing regulations, policies, and TennCare business needs and additional requirements of TennCare to have a system that allows for continued enhanced usability, and richer user experience. As part of this project, the following will be implemented:

- Any changes as a result of feedback received from CMS;
- System changes introduced due to change in state/federal policy and regulations;
- Any notice changes or language updates to improve member communications; and
- Direct Worker feedback to improve usability and reduce the number of clicks. As an example, an enhancement was recently developed to allow tracking of document and notices already viewed by the Worker/Member. This enhancement provides an improved Worker experience that drives efficiency.

Value

TEDS Member Portal, Worker Portal, and mobile enhancements provide TennCare the flexibility of keeping the system current on policy/legislation changes, user experience improvements, and upgrades to keep the worker processes efficient and error free. These improvements will also allow TennCare to:

- Incorporate changes/enhancements to the eligibility system as required as part of TEDS releases approximately every 10 weeks;
- Implement new reports with varying dataset as needs arise through the fiscal year. As an example, a new report was recently developed to allow tracking of complete renewal cycle for each month starting from renewal packets mailed each month, to the outcome of renewal packets (approval, termination, pending verifications); and
- Enhance Member/Partner functions based on the feedback received from the end users to enhance Member capabilities, improve user experience, or make the existing functions and features more robust. As an example, as part of the last TEDS release, paper documents submitted (via fax or mail) to TennCare were made available to the Member through their Member Portal to improve Member experience. Previously, only Member uploaded documents were available from their Member Portal.

6.4.1.2 Enrollment Modernization (planned)**Background**

Enrollment for members is a multi-step, multi-system, and multi-day experience that can lead to confusion and increased calls to the call center. As eligibility is determined in the Member Portal via real time eligibility, the member must wait until a nightly batch occurs from TEDS to the MMIS and another nightly batch from the MMIS to the MCOs, along with a wait time for the notification/notice.

Enrollment modernization delivers a real time or semi-real time approach to enrollment via the Member Portal with the information sent directly to their mobile device.

Value

Enrollment modernization decreases the wait time for members to be enrolled at a provider/MCO. This allows for enhanced member experiences through real time acknowledgement/notification. This project also helps to modernize the process of enrollment and make this information available via the member's mobile device and the "check my benefits" account.

6.4.1.3 TennCare Connect 2.0 (planned)**Background**

The Member/Partner Portal would be altered to have a design that allows for enhanced usability, technology/browser support, and richer user experience. It would also utilize the mobile platform to nudge members to respond and provide an update on their requested additional information requests.

Implementing a fully responsive Member Portal/Partner site would greatly improve the members' experience in applying for benefits on a mobile device or a tablet, as it would remove the need to "pinch and zoom." An expansion of current functionality includes the following:

- Create a brand/logo for TN Member/Partner through TennCare Connect;
- Create mood boards and color schemes/palette based on Tennessee State standards;
- Produce a modern, attractive, and inviting splash screen/home page;
- Review existing user experience and information architecture to identify any improvements;
- Review user interface to make sure the most modern and contemporary design standards are followed; and
- Create modern iconography to represent gender, demographics, etc.

Value

Consistency across digital properties (desktop, tablet, mobile) for an organization improves credibility and drives greater adoption and trust. In this case, maximizing the usability of the Member/Partner Portal and mobile platform can increase the adoption and user rates, which reduces the amount of "manual processing" needed by TennCare for phone, mailed, and faxed applications, changes, and documents. By implementing TennCare Connect 2.0 and refreshing TennCare Connect, the Members/Partners will have easy access to all their data and the website on their smart phones/tablets. This helps with the increase in the digital adoption of TennCare Connect and its user base, and thus reduces the workload for the TennCare staff for manual processing. Additionally, the experience of the transition from one digital device to another remains unaffected. As the user experience for TennCare Connect improves, more application processing and renewals will then go through "no-touch" processing to help reduce churn.

6.4.1.4 Next Gen 360 (planned)

Background

It is important for Eligibility and Appeals workers to start their work by analyzing an applicant's/member's household details, relationships, income, and demographics of all members on a TEDS case and conduct research to identify all relevant historical events before they can start their work on a case. This is a very important step to complete before case maintenance or appeals processing can begin. In order to do this research, the workers currently need to visit multiple screens in TEDS to identify all details of the household members and the historical events that have occurred on the case.

A new screen will be added to the TEDS display with a consolidated view of the entire household/case, including the information related to household members, relationships, income, expenses, resources, outstanding verifications, documents submitted, and notices received. Additional screens will be added to TEDS to display a consolidated view of historical information of all key events defined by TennCare against the timeline when these events occurred.

Value

This enhancement provides a quick 360-view of the case to the worker on a single screen, thus making the worker processing faster, more efficient, and less error prone. Similarly, a single screen to obtain the timeline of the key events that have already occurred on a case would save the worker screening and research time, thus increasing worker efficiency.

6.4.2 TEDS Process Efficiency and Optimization**Background**

As TEDS evolved, updates/changes to the original scope have been requested. Each of these functional changes below has advantages and impacts across the TEDS system:

- WPAO
- NextGen - Intelligent Document Routing and Management
- Work Surge Initiative
- ServiceNow Services
- SOC Monitoring
- NextGen Chat Bot
- NextGen Call Center Applications
- Enterprise Security

Value

These enhancements are further detailed below and will (1) improve worker efficiencies, (2) reduce data entry, (3) improve user experience, and (4) reduce call volumes.

6.4.2.1 TEDS WPAO (in process)**Background**

WPAO provides capabilities to monitor TennCare's workload and business processes, introduces automations for repetitive tasks, and investigates and resolves operational issues. Automation is a high-impact technology that replicates human actions via performance of rules-based and manual tasks that free up the workforce and streamline business processes and completes the job in less time.

Automations have demonstrated success across multiple federal, state, and commercial entities. State governments are now leveraging this technology to realize operational efficiencies to better serve their population and enhance worker experience. Automations can have a significant impact in reducing backlogs for Medicaid programs, thereby allowing workers to focus on human-centered and critical work. Coupling automations with support for new or optimized existing business processes allows the workforce to focus on areas that need most attention.

Value

WPAO creates hundreds of business process documents for new enhancements and develops micro-learnings, which are less than ten-minute training videos for workers, TennCare partners, and TennCare beneficiaries. WPAO also establishes and manages "SWAT teams," which focus efforts of TennCare workers to burn down outstanding work. As an example, in the past few months alone, SWAT teams have closed 28,000 tasks and almost 12,000 appeals. Based on on-the-ground observations of workers, recommendations are provided on streamlining business processes, increasing the quality of work, and

reducing processing time. Further, automations have many benefits by enabling faster response time, handling higher volumes, and reducing errors in processing and data entry. Any process that has a high transaction volume/duration, is predictable, has a significant amount of manual work involved, and/or is prone to error and rework can all be assisted with automation. So far, WPAO has conducted 55 very effective automations for repetitive tasks, one of which decreased the time for workers to add a newborn to a mother's case by 97%. In the past few months alone, between SWAT teams and automations, WPAO is responsible for helping the State decrease their pending appeal volume by 60%. In the future, with the COVID-19 emergency ending, WPAO will play a critical role in helping with workload management by leveraging additional automations and SWATs.

6.4.2.2 NextGen - Intelligent Document Routing and Management (planned)

Background

Manual categorization and indexing of inbound documents are time consuming and error prone. Intelligent Document Management and advanced Optical Character Recognition (OCR) capabilities enable automation in categorizing documents and capturing data for indexing purposes. In addition, for a select number of document types, data captured from the document is passed into TEDS for automated processing of pending eligibility verifications, all without the intervention of a human user.

Value

The introduction of advanced automation for the document center will help the agency to efficiently and effectively manage the volume of documents it receives, reduce manual intervention and allows for documents to be processed more rapidly, thereby better serving the members.

6.4.2.3 Work Surge Initiative (planned)

Background

High workload during periods of economic downturn or with the broadcast of open enrollment continue to be events that need planning and forecasting in a Medicaid organization. When these high-intake periods occur, they often are followed by periods of high workload for State staff. While the technology enables as much as the automation will allow, the hard work starts when workers need to dive into a set of tasks to accomplish an outcome; ultimately to authorize a benefit for a Tennessean. The work surge initiative uses crowd sourcing technology to shift some of this overwhelming work to better support State workers. This initiative aligns the work with a State worker's skills and then offloads the work that does not align to other workers.

Value

The goal and mission of the work surge initiative is to reduce workload on existing State staff and continue to focus on efficiency. Work Surge, with an introduction to crowd sourcing, provides additional support to the existing workforce. By dividing tasks and providing those tasks to the workers who can accomplish them in the most efficient time possible, improved delivery of work is promoted. In the future, as the State prepares for the end of the COVID-19 Public Health Emergency (PHE), the application and renewal workload is expected to rise; in anticipation of such surges, this enhancement would provide greater support for the State.

6.4.2.4 *ServiceNow Services (planned)*

Background

The agency has invested in ServiceNow, an enterprise management tool capable of managing IT and enterprise processes. ServiceNow is capable of transforming what has traditionally been a paper/manual process to a purely electronic process, saving effort and time from everyday tasks such as requesting access to a solution, or managing a portfolio of work.

Value

The agency's ServiceNow initiative will modernize the traditionally manual processes of security and IT service management. It will provide the agency with data upon which to act and understand the management of IT and capitalize on improvements over time to the organization. The initiative will deliver ServiceNow modules that will enable processes such as infrastructure management, IT requests and fulfillment, onboarding and access management, and project management. Leveraging ServiceNow will also streamline and automate TennCare workforce workflows, data structure/repositories, and analytics needed to inform, streamline, and advance the overall Medicaid modernization.

6.4.2.5 *SOC Monitoring (in process)*

Background

TennCare established a monitoring platform, Splunk, to collect application logs and monitor them for anomalous activity within the application. This enables TennCare to detect potential security issues as they are occurring. However, in order to realize this capability, the Splunk platform requires active monitoring to look for unusual events and investigate these events for potential risk(s).

Value

SOC monitoring provides 24/7 alerting of potential security issues through alert generation from TennCare's Security Incident Event Monitoring platform, Splunk, to distributed SOC's with staff monitoring. TennCare is then alerted of issues that require further investigation and research. The SOC monitoring initiative focuses on identification, notification, and prevention of security threats and risks for live production. Security threats and risks may be magnified by the solution hosting individual and health/Medicaid data. TennCare has established SOC monitoring capabilities, processes, tools, governance, and operation of SOC monitoring across the TEDS infrastructure.

6.4.2.6 *NextGen Chat Bot (planned)*

Background

A new chatbot is being deployed to provide members and partners an additional self-service channel. They will be able to report a newborn, make address and phone number changes, and get case information through the virtual assistant. The virtual assistant will prompt the member when a pending action is required on the case, such as if a renewal needs to be completed. Should the member/partner have a request that the virtual assistant cannot resolve, a live agent will take over and complete the interaction.

Value

The chat feature enhancements the customer experience for the members, allowing them to complete important updates on their cases with ease through a channel that best suits them.

6.4.2.7 NextGen Call Center Applications (planned)**Background**

The agency is revamping its contact center technology to include an integrated omni-channel platform and customer relationship management (CRM) application. The cloud-based contact center solution will handle all inbound and outbound telephone calls, workforce management, quality management, and contact recording. It will integrate with TEDS to provide case data to the agents and allow the agent to make updates into TEDS. Agents will be nudged when an action is pending on the case to remind the member and help resolve the matter on the same call. Members will be able to hear information about their case and make updates to their case through interactive voice response (IVR) self-service features without needing to speak to an agent.

Value

The new contact center solution brings efficiency, transparency, and improved member experience to the agency. Self-service features to address the most called in questions via IVR (and not agents) reduces workforce needs. Calls that do need to reach an agent are efficiently routed to the right agent through call optimization software. The platform provides the agency with enhanced reporting of incoming and handled calls providing historical data to assist in forecasting future demand. TennCare will have improved ability to monitor performance through real-time service level agreement dashboards and call agent performance reports. The new technology will drive down average call handle time and increase first call resolution rates, providing a more efficient and supportive member experience. Self-service features provide members the ability to access information and make changes outside of standard business hours.

6.4.2.8 Enterprise Security 2.0 (planned)**Background**

As TennCare continues to modernize its citizen facing applications and add functionality to deliver benefits to members, it must evolve to face increasingly complex cybersecurity threats and risks. Enterprise Security 2.0 is an effort to implement industry leading cybersecurity processes and technologies to meet the challenge posed by potential cyber adversaries looking to capitalize on the personal information of TennCare members and systems for personal gain. These processes may include specific programs around “insider threat” management, which deals with the risk of TennCare employees or contractors accidentally or intentionally leaking confidential information including member Personally Identifiable Information (PII). Insider threat programs are a combination of people, processes, and technology designed to prevent, detect, and mitigate threats posed by “insiders” to the organization. Additionally, Enterprise Security 2.0 will enhance processes regarding external threats and will include programs to better manage cyber threats and vulnerabilities, security monitoring, identity management, training and awareness, cloud cybersecurity, and other emerging areas. The goal of these

enhancements is continual maturity of TennCare's information security program to manage risks and protect the personal information of its members.

Value

It is a business imperative that TennCare protects the safety of its members and their personal information. Enterprise Security 2.0 is a comprehensive risk management and security program including enhanced processes and technology to defend TennCare against malicious or accidental data breaches. Enterprise Security 2.0 will leverage established cybersecurity frameworks to enhance and strengthen TennCare's cybersecurity posture. This program will include investments in people, processes, and technology to defend member PII/ PHI, and will include safeguards designed to prevent, detect, and respond to cybersecurity incidents.

6.4.3 TEDS Analytics and Data Optimization

Background

As TEDS evolved, updates/changes to the original scope have been requested. Each of these functional changes below has advantages and impacts across TEDS:

- Digital Adoption
- Predict, Nudge, Monitor Analytics
- Implementation Services
- MDM

Value

These enhancements are further detailed below and will (1) improve worker efficiencies, (2) reduce data entry, (3) improve user experience, and (4) reduce call volumes.

6.4.3.1 Digital Adoption (planned)

Background

As the agency has now launched TennCare Connect, there are greater than 1.4 million members on Medicaid who now need to start to utilize this robust and efficient platform. Digital adoption is the start and journey of educating the public, nudging their behavior, and adopting the new TennCare digital capabilities (i.e., Member Portal and mobile app6).

Value

As more and more Tennesseans adopt these digital capabilities, the agency will start to see more and more efficiency in its processing and management of the Medicaid/CHIP program. For example, if a new applicant is not aware of the Member Portal and provides a paper application, this process of entering all data manually and then processing this request is a lengthy process, which ultimately impacts the member as they wait. If this same member applied through the member portal, real-time eligibility and additional features help to streamline this application and provide benefits more promptly.

6.4.3.2 Predict, Nudge, Monitor Analytics (planned)

Background

People today need reminders to stay on task, to help them pick up from where they left off, to alert them to deadlines, and to remain engaged throughout a lengthy process. Methods that help people in these ways are referred to as “nudging.”

Value

Analytics and predictive modeling are commonly used to determine who and how to nudge people towards positive outcomes. Unlike standard prompt messages that are generic and desensitize users over time, data is used to spot patterns and recommend next actions that are specific to what the user is doing. For example, it may be normal for an elderly single person applying for Medicaid to have no or limited income, but the system may prompt a middle-aged family of four to remember to visit specific pages to report all income and financial assets if those areas seem underreported compared to the norm.

TEDS will employ multiple channels to deliver nudges to caseworkers and members, including email notifications, dashboards, and dynamic system messaging within the Worker and Member portals. How the nudge is performed can be specific to the activity being monitored. For example, a system message would nudge an applicant to remember to provide potentially missing information, while an email or dashboard notification would be used to summarize daily worker progress.

This approach to nudge users through the use of analytics and predictive modeling has numerous potential applications across the agency. These applications deliver value to the agency through one or more of the following:

1. Cost Reduction
2. Quality Process Improvement
3. System Usability
4. Workload Monitoring and Recognition

6.4.3.3 Implementation Services

During the operations phase, there is a need to create new reports, and to modify other processes that were never envisioned during the initial DDI of TEDS. As such, implementation services provide the agency with new technology automation processes, new reports and data capabilities, and profiling automation that provides a better outcome for TEDS. These types of implementation services improve the effectiveness of TEDS, enhances the quality of the solution over time, and furthers the agency’s MITA maturity footprint.

6.4.3.4 Master Data Management

Background

MDM is the backbone of the member 360-view, which will serve TennCare as the single point for finding and identifying all members served by TennCare and their agencies. Currently, MDM serves TEDS as a repository for member demographics, along with merge and unmerge functionalities.

Value

MDM is currently hosted in the TennCare Data Center and managed by the Deloitte Infrastructure team. The agency's goal in moving all of its infrastructure to the Cloud aligns with the MDM, which will help TennCare in the long-term cost of managing MDM ITC. With a hardware refresh cycle due in the next two years on STS data center-based infrastructure for MDM, the move to the cloud will significantly reduce the cost of building the improved MDM infrastructure and additional environments needed for in-flight projects. This will reduce the cost of building and managing the MDM in-the cloud by approximately 40% to 50% over next several years. The agency has multiple servers and environments to meet the requirements of TEDS, so the move of these servers to the Cloud will provide the advantage of managing all infrastructure in a more efficient manner. ITC provides the flexibility of adding new servers if there is a new requirement in the least amount of time and also removing any servers that are no longer needed, which will reduce infrastructure cost. Currently, adding a new server in the State Data Center, installing MDM software, and making the services available takes at least two months. Moving to the Cloud will decrease this time from months to weeks. Deloitte will work with TennCare and plan for the movement of the servers to the Cloud for all the environments as part of next year's planning.

Note: Although not funded out of this APD, the Pre-Admission Evaluations and Referrals Long-Term Services and Supports (PERLSS)⁵ system will be integrating with MDM and sending demographic data for members created by PERLSS to the MDM system. The integration of PERLSS with MDM will identify the members who are recipients of services from TEDS and PERLSS and will provide TennCare a 360-degree view of the member.

Current MDM implementation with TEDS has provided significant benefit to TennCare in client management and serving clients of TennCare. MDM is an enterprise service that can be integrated with multiple TennCare applications and provide MDM services to different agencies based on MDM guidelines. MDM golden record enhancements, task analytics, and automating task resolution are scheduled for next year.

⁵ All costs associated with PERLSS have been included within the 2020 MMIS APDU submitted to CMS on 6/26/2020. As such, no PERLSS costs are included within this APD

6.4.4 TEDS Cloud Implementation and Managed Services

Background

As TEDS evolved, updates/changes to the original scope have been requested. Each of these functional changes below has advantages and impacts across TEDS:

- Cloud Implementation and Cloud Compute
- Infrastructure Managed Services – Phase 1
- DevOps 2.0
- IAM ITC
- TEDS Cloud Migration
- Security and Privacy Compliance Automation
- Insider Threat Program

Value

On-premise data center-based hardware is scheduled to be upgraded or renewed as part of the refresh cycle. The expenditures to establish new hardware, migrate the current TEDS platform, and set-up specific in-flight projects can be reduced significantly by leveraging the Cloud-based infrastructure. Implementing the Cloud-based infrastructure to support these projects improves agility in providing needed environments for application development. This initiative reduces hardware costs to be used during the development lifecycle duration instead of procuring hardware (compute and storage devices) to be hosted in the data center. The quicker turnaround time to build the appropriate environments in Cloud-based infrastructure reduces the overall development lifecycle timelines for these applications. The ability to use the environments on-demand and spin up the servers and compute on an as-needed basis will improve efficiencies in project execution lifecycle and overall cost benefits throughout the M&O years.

6.4.4.1 *Cloud Implementation and Cloud Compute (planned)*

Background

The Cloud represents a tremendous opportunity for the agency to gain additional security and agility, and compute resources to support future technology needs. The Cloud represents a configurable infrastructure environment capable of meeting today's and tomorrow's compute and infrastructure needs. The Cloud implementation initiative and Cloud compute initiative will design, develop, and implement the cloud infrastructure upon which the agency will use to support future applications and processes.

Value

The Cloud provides the ability to scale upon demand, provides security controls and compliance related capabilities by leading cloud compute vendors, and promotes agility to "spin up" resources upon request. The cloud initiatives for the agency will promote the ability for the business teams to realize the benefits and outcomes they seek in a faster way, as infrastructure and underlying compute resources will take a shorter amount of time to establish than previous methods.

6.4.4.2 Infrastructure Managed Services – Phase 1 (planned)

Background

The agency has a number of virtual services and servers across the existing on-premises infrastructure established at the State of Tennessee. These services and servers require continual patching and upgrades to maintain and exceed security controls, and to stay current with software vendor support programs. The agency Infrastructure Managed Services initiative provides patch and upgrade services to these servers to meet these objectives.

Value

Infrastructure Managed Services provides the agency with the ability to delegate Operating System specific upgrades and patch activities while still maintaining and holding to architectural principle and design ownership. This provides the agency with a consistent and repeatable service to manage and conduct upgrades across the existing infrastructure.

6.4.4.3 DevOps 2.0 (planned)

Background

As the agency moves to the Cloud and plans for a future that will involve micro-service deployments, hot fix change requests, and increases in server resources, the DevOps 2.0 initiative propels the current development operations and IT operations to support the cloud. This includes planning, design, development, and implementation of new tools and resources to support cloud development and ongoing IT service management ITC.

Value

Development operations are critical to the efficient management and ongoing operations of any IT organization. These operations, the automation, and tools that support operations provide efficient means upon which to proactively support key business initiatives and the timeliness and accuracy of IT actions. Development operations, with the advancement of Cloud, provides the agency with an opportunity to advance into additional IT automation and monitoring to best support TennCare Connect and other agency applications.

6.4.4.4 IAM ITC (in progress)

Background

IAM serves as the foundation for securely managing user, member and provider access with privileged accounts for TEDS. States often have manual, highly interactive processes for user management, which include utilizing a combination of multiple processes such as email, hard-copy requests, and numerous other back and forth processes.

IAM ITC will provide the agency with an advanced degree of self-service functionality for members, workers, and providers to manage their own TEDS accounts. IAM ITC is designed to provide additional access to applications and serve as a foundation for the agency and the State of Tennessee to manage benefits with fewer disruptions at a faster response time across the enterprise.

Value

IAM ITC provides members/applicants, workers, and providers with enhanced features to interact and do business more seamlessly with the agency. Benefits for IAM ITC specific to user account lifecycle management, standardization and efficiencies, and role management and scalability are further detailed below:

- Account lifecycle management – Provides enhanced audit trails for user account approvals and tracking/accountability, a standardized user account request interface, and reduced number of orphaned application accounts
- Standardization and efficiencies – Standardizes and consolidates business processes across the organization and reduces the number of manual workflow processes
- Role management – Provides for enhanced role-based provisioning and role lifecycle management processes.

6.4.4.5 TEDS Cloud Migration (planned)**Background**

As part of the in-flight projects such as the IAM ITC, Contact Center Solutions, and TennCare Connect 2.0, several of the TEDS application shared components are moving to the TennCare Cloud. The majority of these components will be moved to Cloud infrastructure to limit the use of on-premises infrastructure, scalability, and agility limitations. The TEDS application can be built in the Cloud and its data can be migrated without a significant impact to ongoing operations, rather than a refreshing or modifying of on-premises hardware, which often requires system outages. Incremental migration is planned for the TEDS environments starting with infrastructure for disaster recovery and sub-sequent incremental order of Development to Production (lower to higher) environments.

Value

The on-premises hardware for the TEDS refresh cycle is due in a couple of years, and instead of purchasing the hardware and storage in an on-premises data center to host TEDS, it is more efficient to move the remainder of TEDS components and use the shared and enterprise services to the Cloud. This will reduce the number of data transfers needed between the TennCare Cloud based applications to the on-premises TEDS application components and repositories. In the long term, the number of logical environments needed to be managed and operated can be reduced, which lowers the overall costs of recurring hardware & software needs in addition to operational services. The TEDS migration to the Cloud aligns with the long-term technology growth needs of TEDS applications and also aligns with the Cloud First initiative from TennCare leadership.

6.4.4.6 Security and Privacy Compliance Automation (planned)**Background**

TennCare must comply with numerous security and privacy regulations including CMS MARS-E 2.0 and Internal Revenue Service (IRS) 1075. There are security and compliance documents and processes that must be completed on a regular basis that require a significant level of coordination across stakeholders both inside and outside of TennCare. TennCare seeks to leverage a purpose-built Governance, Risk, and Compliance (GRC) technology platform combined with redesigned compliance processes and

governance structures to streamline its approach to various GRC processes and federal and state regulatory requirements.

Value

Implementing a GRC platform combined with redesigned compliance processes and governance structures will allow TennCare to reduce the effort spent annually on compliance activities through reduction of manual process effort, streamlined processes, and enhanced visibility through the use of structured data in a purpose-built GRC platform. TennCare's compliance automation effort will implement a "test once, satisfy many" approach that will rationalize comparable security requirements across regulations and allow TennCare Security and Internal Audit to more efficiently track the status of security compliance across multiple regulatory requirements.

6.4.4.7 Insider Threat (planned)

Background

In an increasingly physically distributed world, combined with new forms of medical eligibility coming online, it is important that TennCare remain vigilant in protecting citizen information and preserving citizen trust in the department and the state. Industry-wide, many security incidents are the result of "insiders" (contractors, employees, and business partners) and their inadvertent disclosure of information or worse, willful theft of PII/PHI. An Insider Threat Program seeks to implement the necessary technologies, controls, training, governance, etc., across all relevant TennCare stakeholders to minimize the risk of data loss from insiders. Stakeholders include information systems, security, legal, privacy, Human Resources (HR), and Member Services.

Value

A comprehensive Insider Threat Program will facilitate the implementation of people, process, and technology to enhance TennCare's ability to prevent, detect, and respond to data loss caused by "insider" users with access to confidential information (PII/PHI). By mitigating risk of data loss, TennCare will be able to better comply with security requirements and increase its ability to protect the personal information of its members who rely on TennCare to safeguard this information.

6.4.5 Vendor Management and Governance

The agency operates in a complex, multi-vendor environment that enables the agency to successfully meet goals and objectives. However, many agency divisions utilize various vendors, creating a fragmented vendor management function across the organization. The agency recognizes that coordinating ongoing efforts across the agency and approaching vendor management at an enterprise-level can reduce redundancies, minimize risk, and provide opportunities within the current and future vendor landscape. In an effort to strengthen the agency's vendor management capability, the agency plans to enhance the structure of overall governance, formalize consistent processes, and standardize common tools.

Objectives for this effort include the following:

- Enhance the visibility, oversight, governance, and management of partners from onboarding to contract completion
- Provide validation that vendors are providing TennCare with the agreed upon service levels
- Enable faster decision making with clear accountability and ownership between TennCare and vendor roles
- Enhance and simplify compliance with Federal and State regulatory requirements
- Promote continuous improvement by proactively identifying and mitigating risks on an ongoing basis
- Provide the ability to focus and build on strategic partnerships with vendors

Planning and implementation dollars for State and vendor resources have been included within this APD to cover such costs as strategy development and scoping, project milestone and deliverables identification, and implementation roll-out and support.

7 PROJECT MANAGEMENT PLANNING AND PROCUREMENT

The agency has dedicated key staff members, with proper backups assigned, to provide oversight and support to the Medicaid modernization effort, in general, and the TEDS project, in particular. As described below, the agency's staff will serve as the management staff for the project, supported by the contractors outlined later in this section. For a full list of agency resources and their responsibilities, please refer to [Section 8 – Personnel Resource Statement](#).

7.1 Governance

7.1.1 Enterprise Governance

Tennessee plans to continue its innovative approach to enterprise governance of its Medicaid Information Systems solutions. This approach will leverage several independent vendor solutions to provide an enterprise framework for governance of all three major system areas:

1. MMIS
2. E&E
3. Health Information Exchange/Health Information Technology (HIE/HIT)

The CMS guidance for the System Integrator (SI) function, allows the SI to be accomplished by the State or a contractor. The agency has opted to enhance its existing governance structure to create a “Modular SI Framework,” which allows the agency to accomplish the SI function in a unique way. The figure below illustrates the essential elements of the framework:

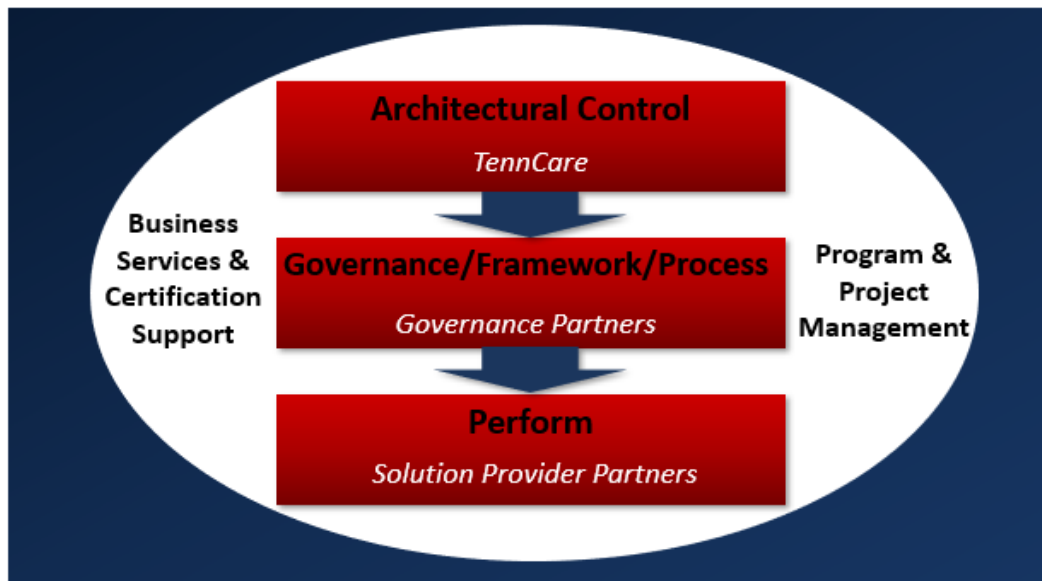


Figure 5: SI Modular Framework

Historically, the agency has had multiple contractors filling the governance roles for the various projects across the enterprise. This has resulted in disparate, “siloeed” approaches, with various tools and

methodologies. By centralizing the Strategic Program Management Office (SPMO), Business Support Services (BSS)⁶, and Technical Advisory Services (TAS) functions, the agency has gained increased efficiency through a common governance structure directing the architecture, security, tools, methodologies, and management across its Medicaid enterprise.

This solution provides the State with the much-needed consultative industry expertise and extended “arms and legs” to implement the critical business information solutions. A modular SI framework approach avails the State of Tennessee the flexibility and freedom to select the most qualified, available, and appropriate SI to implement a given business module.

In order for the agency enterprise to meet CMS timelines, operational benchmarks, and address ACA security and compliance requirements for state-based eligibility assessment and determination, the agency will utilize governance vendors. The SPMO implements, manages, and monitors the ongoing operation of the newly designed program. The BSS vendor provides additional support and expertise to agency enterprise initiatives. The TAS contractor partners with the agency in an advisory capacity to establish the overarching governance structure and support for project execution. For a full list of contractor resources and their responsibilities, please refer to [Appendix F – Contractor Personnel Resources](#).

7.1.2 Enterprise Modernization Project (EMP) Governance

To effectively manage the complexity associated with modernizing eligibility determination, the agency created the TEDS project organization. This project organization brings together the key stakeholders and evolved as the extended suite of Medicaid Modernization Program (MMP) projects is implemented. Please refer to [Appendix C – Historical Background Information](#) for more information on this project organization. This Governance model has been implemented in other areas across the agency’s enterprise and will be utilized on an ad-hoc basis for future TEDS enhancements.

7.1.3 Project Management Approach

Project Management spans the duration of the TEDS project, and the Project Management Plan is the primary control element that will be updated throughout the life of the project as project management procedures or other aspects of the project change. The Project Management Plan deliverable will be developed according to industry standards and best practices, and will address the following elements throughout the duration of the project:

- Overall Project Management Approach
- Scope Management
- Schedule Management
- Communication Management
- Quality Management
- Risk and Issue Management

⁶ BSS continues to provide business services and certification support roles; CMS no longer requires states to provide Independent Verification and Validation (IV&V) services.

- Organizational Change Management
- Configuration Management
- Performance Management
- Staffing Management
- Financial Management

The Project Management Plan and its component plans were developed during the Start-Up Phase and reviewed and approved by the agency. They provide the project management process and procedures employed throughout the life of the project.

7.1.4 Earned Value Performance Metrics

The Schedule Performance Index (SPI) and the Cost Performance Index (CPI) are the Earned Value Metrics for this project. The budgeted cost of work performed divided by the budgeted cost of work scheduled will be used to calculate the SPI, with the value of one hour being \$1. For example, if there are three tasks, each with a duration of 10 hours budgeted, and two of the tasks are 100 percent complete, but the third is only 50 percent complete, then the calculation would be:

- Task 1 = 10
- Task 2 = 10
- Task 3 = 5 (10 x 50%)
- The sum of tasks 1-3 is 25; 25 divided by 30 results in an SPI of “.83.”

CPI will be calculated as follows:

- Cost Variance Current Period = Budgeted Cost of Work Performed minus Actual Cost of Work Performed for Current Period
- Cost Variance Cumulative = Budgeted Cost of Work Performed minus Actual Cost of Work Performed for the entire project to date
- Cost of Performance Index = Budgeted Cost of Work Performed divided by Actual Cost of Work Performed for entire project to date

7.1.5 Quality Management

The agency has contracted with the TAS to provide enhanced oversight of the TEDS implementation and for future enhancements. The TAS contractor will utilize its project management methodology through the duration of this project, which includes the following:

- Assessment reports regarding the quality of services provided by the Solution Provider to the agency
- Recommendations and creation of leading practices, tools, and techniques for quality management
- Project Plan input as it relates to building quality management leading practices and program integration into the project
- Creation of improvements to the project Quality Management processes and procedures
- Assistance with documentation and quality management meeting facilitation across the project

- Creation of improvements to the project testing management and methodology
- Creation of a change management process and methodology
- Assessment of key project staff's breadth and depth of subject matter knowledge

The work will include an assessment of the procedural compliance by the Solution Provider to conduct project management activities through the duration of the project, including:

- Project Plan Development and Management
- Scope Management
- Cost Management
- Resource Management
- Communications Management
- Risk Management
- Issue Management
- Procurement Management

The TEDS Project team will continue to conduct an assessment of the Solution Provider's proposed technical approach, including its System Development Lifecycle (SDLC) methodology, through upcoming enhancements. Finally, the TEDS Project team will review the Solution Provider's initial project plan for future enhancements and provide observations and recommendations as well as an assessment of key risks noted in the proposed schedule. After the initial assessment, regular assessments are performed to verify that the Solution Provider is following the procedures as designed.

The Quality Management (QM) team will also be monitoring the status of all project artifacts on the critical path to the success of the project. The QM team will monitor the quality reviews and approvals of each artifact as it moves through the required state reviews throughout the project. This tracking and reporting includes all project vendors. The QM team will continue to assist the TEDS project team in the review of all Solution Provider artifacts. This QM support began in the planning phase with the identification of the right resources for review and moved through the design phase with the support of QM resources in reviewing and providing feedback on specific artifacts. Support will continue through enhancements.

As artifacts were approved by the agency and pass through both the agency's SDLC Gates, the project moved into the development phase. TAS has drafted a minimum standard test management plan, which outlines standards established by the International Software Testing Qualifications Board and the American Software Testing Qualifications Board. The testing framework and methodology align with CMS guidance. This Test Management Plan was provided to the Solution Provider at the time of their onboarding and will drive the Solution Provider's testing process.

7.2 Procurement

The agency has a formal vendor selection process for contractors it plans to utilize, which includes processes for competitive procurement, sole-source procurements, amendments, and option years, etc.

The below describes the various contractors included within this IAPDU and the process followed for procuring that contractor.

7.2.1 Solutions Provider - Deloitte

On March 31, 2016, the State released an RFQ to select a Solution Provider for the coordination, DDI of TEDS, and initial M&O. Upon receipt of vendor proposals, the evaluation process was facilitated by the agency. The procurement was designed to award the contract to the vendor offering the best combination of attributes, including cost and quality, based on established evaluation criteria.

Future amendments have been and will continue to be sent to CMS for review and approval. Costs are included within this IAPDU through FFY 2023. The contract is deliverables based, and the deliverables are aligned with the single release outlined in [Section 9 - Proposed Activity Schedule](#). The agency is attempting to reuse any previously purchased hardware or software where possible.

7.2.2 NASPO Services Statement of Work for TennCare Cloud AWS Platform – Deloitte

On May 12, 2020, an SOW was drafted between Deloitte and the agency for providing an AWS hosting platform for TennCare Medicaid eligibility and TennCare enterprise projects. These projects include, but are not limited to, IAM ITC, MATS, Partner Portal, PERLSS, Contact Center Applications, and other projects as directed by the agency. The agency received approval of the SOW on July 1, 2020, with the SOW being fully executed on September 1, 2020.

7.2.3 Call Center Member Services – AHS

The agency utilized the State's standard competitive bidding process to procure the member services call center vendor, AHS, which was awarded the contract in August 2017. Most recently, the agency received CMS approval on Amendment #3 to this contract on February 19, 2020. The total contract maximum liability is now \$151,711,357. The terms of the amendment extended AHS' services through October 31, 2021 in order to continue with their call center member services function, and to respond to members' questions about the processing of their redetermination packet.

7.2.4 Application Processing Call Center – KEPRO

This competitively procured contract was for the procurement of a second call center to focus on application registration and data collection in TEDS. They handle phone, faxed, and mailed applications and renewals. They are required to have operators to perform these functions and other staff to work in TEDS outside of phone calls. The RFP was released to the public for bidding on January 5, 2018. KEPRO won the contract and began services on June 15, 2018. Most recently, the agency received CMS approval on Amendment #1 to this contract on June 17, 2020. The total contract maximum liability is now \$45,169,158.89. The terms of the amendment extended KEPRO's services through March 31, 2022.

7.2.5 Member Services Contact Center RFP

In an effort to increase efficiencies, decrease cost, and better serve TennCare's service population, the agency plans to centralize the application process center and case maintenance center services into one contract. This contract will be procured via RFP, approved by CMS on 9/9/2020. The awarded contractor shall operate a Contact Center (hereinafter referred to as "TennCare Connect Contact Center") to

support TennCare and CHIP⁷ eligibility services, known as “CoverKids” in Tennessee, for individuals seeking to obtain and maintain eligibility for TennCare and CHIP. By serving as the main hub for all prospective and enrolled members, the TennCare Connect Contact Center will be able to:

- Provide accurate and consistent information regarding appellant/applicant/member options
- Collect and disposition applications for TennCare benefits
- Intake appeals via multiple media
- Provide updates on the status of applicants’ verification and application status, appeal, case and several other questions.

At a high level, the roles and services to be performed by the TennCare Connect Contact Center are as follows:

- Accept and facilitate eligibility applications, redetermination, verifications, and appeals for TennCare and CoverKids programs received via phone, mail, partner portal, member portal, and data interfaces
- Utilize a diversified virtual contact center environment to service its service population in both verbal and non-verbal channels
- Employ an Artificial Intelligence chatbot, intelligent IVR, member portal and mobile apps to allow individuals the ability to perform status inquiries, obtain answers to general questions, and receive guidance on necessary steps required to submit or process their requests in addition to obtaining updates on previously submitted applications and verification documents
- Operate a contact center where live representatives will assist callers with more complex questions, situationally unique requests, and professional guidance with the aid of thorough training, a robust knowledgebase, new call center technology to include but not limited to Service-Now, Omnichannel routing, process automation, work force management and traditional supervisory support
- Utilize an enhanced document center with the addition of Datacap document processing systems, in which representatives will receive, categorize, index, and digitize applications and other correspondence for ease of review, processing, and decisioning in a timely and efficient manner.

TennCare Connect Contact Center RFP Timeline:

Event	Target Date
RFP Release	October 2020
RFP Response Evaluations	November 2020
RFP Award	November 2020
Contract Start	February 2021
Go-Live	July 2021

⁷ No CHIP costs have been included within this APD.

Prior to go-live the agency will coordinate with the current Member Services Call Center contractor, AHS and the current Application Processing Center contractor, KEPRO, to transition services away from these two legacy vendors to the new centralized contractor. Once the transition of services is complete, the agency will look to terminate the legacy vendor contracts.

7.2.6 Asset Verification System – PCG

Pursuant to Section 7001(d) of Title VII of the Supplemental Appropriations Act of 2008, Public Law 110-252, added §1940 to the Social Security Act, the Division of TennCare is required to implement a system for verifying the assets of aged, blind or disabled applicants and recipients of Medicaid. Therefore, the State sought an AVS to meet the requirements of §1940. The State must have the ability to electronically forward a request for asset information for individuals applying and/or receiving TennCare Medicaid. Each financial institution shall respond electronically, providing any information it has about assets the applicant/recipient has in the institution. This information must be brought into the TEDS, where the information is used to determine whether the applicant and/or recipients meet certain financial eligibility requirements. The RFP was released to the public for bidding on January 3, 2018. PCG won the contract and began services on April 1, 2018. AVS went live on January 23, 2019 and has been operational since the March 2019 Statewide launch of TEDS. A Tennessee State Plan Amendment was submitted to CMS separately for their review and approval prior to the AVS go-live. Most recently, the agency submitted Amendment #1 to this contract to CMS on July 27, 2020 and was approved by CMS on August 24, 2020. The total contract maximum liability will remain at \$3,266,750. The terms of the amendment extended PCG's services through March 31, 2022.

7.2.7 TALX Corporation

The Division of TennCare has two contracts with the TALX Corporation (TALX), **both of which were requested and approved for future enhanced FFP in the 2019 TEDS IAPDU v4.0.**

The first contract, effective August 15, 2017, is for TALX to configure and deploy an Eligibility Advisor verification solution and services to support the agency's Medicaid Eligibility Program. The Eligibility Advisor verification solution and services will provide the agency with access to The Work Number® database via Application Program Interface integration. This integration will allow the agency to obtain real-time employment and income verification data to process MAGI and Non-MAGI Medicaid cases, and CHIP enrollment for purposes of eligibility. This contract was procured sole-source after approval by Tennessee's Central Procurement Office (CPO). Per Tennessee's CPO Procurement Manual, section 6.2.1, as long as a vendor meets the criteria listed within that section and a clear justification can be given, then a sole source procurement can be initiated after receiving CPO approval. The justification behind procuring TALX sole source, according to the agency's CPO-approved Special Contract Request, is that there are "no other providers who offer automated, instant access to the specific employer payroll records available on The Work Number. In addition, employers who send records to Equifax use this service exclusively. Therefore, TALX is the effective 'sole source' provider of access to these records." The agency has received approval and is asking for enhanced funding for phase 5, as well as any future option year.

The second contract, effective December 11, 2015, is a subscription contract for an online lookup tool that the agency uses for verification of a consumer's employment status (via "The Work Number") or income (via "The Work Number Income Verification"). This contract is a statewide contract that the agency has leveraged. The agency has received approval and is asking for enhanced funding for future subscription payments beginning with the 2018 IAPDU effective October 2018. The agency received CMS approval on Amendment #1 to this contract on February 28, 2020. The total contract maximum liability is now \$6,790,020. The terms of the amendment extended TALX's services through December 31, 2020.

7.2.8 STS Infrastructure Support

The benefit of the resources listed in [Appendix F - Contractor Personnel Resources](#) is to ensure that the State can support the infrastructure of the delivery of TEDS to meet agency needs for eligibility processing. These resources are required to manage, trouble-shoot, build, implement, and document all TEDS infrastructure changes as required by the agency. Work began with the agency's sister agency in October 2017 and is estimated to continue through FFY 2023. Please refer to [Section 10 - Proposed Budget](#) for the costs associated with this project.

7.2.9 Technical Advisory Services

In August 2015, KPMG was competitively procured to perform the TAS governance function for the agency. The contract included three base years and two, one-year option periods. The agency received CMS approval on Amendment #3 to this contract on June 15, 2020. The total contract maximum liability remained at \$355,578,564. The terms of the amendment extended KPMG's services through December 31, 2024. Since the TAS vendor provides a governance function for the agency, TAS funding is found in multiple APDs the agency submits to CMS.

7.2.10 Strategic Program Management Office

In November 2015, PCG was competitively procured to perform the SPMO governance and project management functions for the MMP program. The contract included three base years and two, one-year option periods. The agency received CMS approval on Amendment #3 to this contract on June 17, 2020. The total contract maximum liability is now \$42,265,097. The terms of the amendment extended PCGs' services through October 31, 2021. Since the SPMO vendor provides a governance function for the agency, SPMO funding is found in multiple APDs the agency submits to CMS.

7.2.11 Business Support Services

In June 2013, a competitively procured contract was signed with Cognosante, now NTT DATA, to perform the IV&V governance function for the agency. In FFY 2020, the decision was made by CMS to no longer require states to provide IV&V services. Due to this decision shift, TennCare (after consultation with CMS) decided to discontinue IV&V support. NTT Data's remaining BSS services continue to provide critical business expertise, financial, and certification support roles for the agency. The agency received CMS approval on Amendment #6 to this contract on June 15, 2020. The total contract maximum liability is now \$66,514,464.17. The terms of the amendment extended NTT DATA's services through December 31, 2020. Since the BSS vendor provides a governance function for the agency, BSS funding is found in

multiple APDs the agency submits to CMS. The agency is currently exploring options to continue the use of BSS beyond the end of this calendar year.

7.2.12 Tennessee Department of Health

Through an interagency agreement with the Department of Health, TennCare plans to contract the statewide network of 95 local and metro health departments to assist individuals seeking to obtain and maintain eligibility for TennCare. This also includes performing presumptive eligibility determinations for pregnant women or individuals who have been diagnosed with breast or cervical cancer or precancerous conditions for these diseases.

At a high level, the roles and services to be performed by the TN Department of Health through local and metro health departments are as follows:

Eligibility Support (non-presumptive):

- Assisting individuals with the completion of any or all components of the TennCare application through TennCare Connect or TennCare Access
- Assisting individuals who are ineligible for TennCare to apply for CoverKids through the TennCare Connect online application, TennCare Access, the federal marketplace, or by faxing a paper application to TennCare Connect.

Presumptive Eligibility Support:

- For those desiring assistance, assisting pregnant women or individuals who have been diagnosed with breast or cervical cancer or precancerous conditions for these diseases with the completion of any or all components of the TennCare application through TennCare Connect or TennCare Access
- Accepting and processing TennCare presumptive eligibility applications for pregnant women or individuals who have been diagnosed with breast or cervical cancer or precancerous conditions for these diseases
- Submitting application determination results to TennCare
- Notifying enrollees, in writing, of the presumptive eligibility determination and, for those approved, of the need to complete the full application process within the required timeframe in order to maintain ongoing TennCare coverage

Additional Services:

- Training staff at all local health departments in 95 counties to utilize the TennCare Partners Portal
- Assisting TennCare enrollees, when needed, in accessing TennCare benefits, scheduling medical appointments and accessing enrollee transportation
- Assisting TennCare enrollees, when needed, in filing appeals to obtain TennCare covered benefits

- Answering enrollee questions and helping them to better understand the TennCare program, materials the enrollee receives from TennCare or the managed care organization (MCO) and helping the enrollee better understand MCO requirements

Referrals to the Community Health Access and Navigation in Tennessee program shall be screened and assessed for TennCare eligibility. If eligible, the CHANT coordinator will assist the child/family with the application process.

7.2.13 Department of Labor and Workforce Development

Through an interagency agreement with the Department of Labor (DOL) and Workforce Development, the agency has contracted the provision of wage data on a quarterly basis, in order for the agency to compare its non-Medicaid TennCare eligible case income to wage data. The DOL will provide wage data in the form of a wage file (1301) that includes all processed employers' quarterly wage reports. Data contained within the wage file includes data to verify the following:

- Enrollee applicant eligibility and income data
- Employment records for persons employed in the State of Tennessee

8 PERSONNEL RESOURCE STATEMENT

The agency has dedicated key staff members to provide oversight and non-key resources to the Medicaid modernization effort, in general, and TEDS, in particular. Agency staff, along with TAS, BSS, and SPMO vendors will serve as the management staff for the project.

8.1 State Resources

Several internal State resources are required for the representation of business and IT requirements. The agency will provide IT, business, and policy subject matter experts who are responsible for various activities. The tables below identify and describe the roles, as well as the estimated annual costs, for both Key State personnel and other support resources for this project.

Key State Personnel

State Staff Name and Title	Avg. Hourly Rate*	Total Hours*	Total Cost with Benefits	Responsibilities
Hugh Hale, Chief Information Officer (CIO)	\$164	878	\$143,992	Responsible for the TEDS project
Max Arnold, Chief Technology Officer and Deputy CIO	\$117	878	\$102,726	Responsible for infrastructure and build-out of appropriate environments to support TEDS implementation
Kim Hagan, Business Sponsor	\$151	5,850	\$883,350	Director of Member Services for the Division of TennCare
Scott Hiatt, Technical Sponsor	\$109	5,850	\$637,650	Director of Product Development, Eligibility, responsible for development and management of TEDS and related applications
Ira Baxter, Project Management Office (PMO) Director	\$77	1,755	\$135,135	Responsible for overall implementation of MMP
Natasha Flener, Director of Policy	\$62	5,850	\$362,700	Eligibility Policy Administrator oversees unit responsible for

State Staff Name and Title	Avg. Hourly Rate*	Total Hours*	Total Cost with Benefits	Responsibilities
				policy analysis, development, and implementation
Pam Davenport, Business SME	\$90	5,850	\$526,500	Responsible for eligibility operations
Angela Turner, Business SME	\$86	5,850	\$503,100	Responsible for eligibility compliance and policy, including member communications
Alex Fontana, Director of Audit and Compliance	\$62	5,850	\$362,700	Responsible for eligibility audit functions

*Total Hours and Average Hourly Rate based on 1,950 Annual Hours per full-time employee for FFY2021 - FFY2023

Table 9: Key State Personnel TEDS FFY2021 - FFY2023

Other State Personnel

State Staff Title	Avg. Hourly Rate*	Total Hours*	Total Cost with Benefits	Responsibilities
Compliance and Strategic Funding Personnel	\$69	10,351	\$714,219	Support the agency in Federal compliance reporting and certification efforts
Information Systems (IS) Technical Subject Matter Personnel (SMP)	\$66	87,750	\$5,791,500	Specialize in data, interfaces, infrastructure, security, and privacy
IAM Technical SMPs	\$78	4,266	\$332,748	Specialize in data, interfaces, infrastructure, security, and privacy
IS Project Managers (PM)	\$49	2,681	\$131,369	Support the Director of Product Development, Eligibility, and assists with the development and management of TEDS and related applications
Business SMPs	\$62	111,150	\$6,891,300	Provide business guidance in design and requirements

State Staff Title	Avg. Hourly Rate*	Total Hours*	Total Cost with Benefits	Responsibilities
				sessions; Review Solution Provider-developed deliverables
IS UAT Testers	\$53	23,400	\$1,240,200	Support the testing of interface, penetration, load, performance, systems integration, security, etc.
Member Services UAT Testers	\$38	29,250	\$1,111,500	Test the systems per business area on agreed upon design
Determination Staff	\$35	2,633,090	\$92,158,150	Assist with eligibility determination
Appeals Staff	\$45	1,605,253	\$72,236,385	Assist with appeals

*Total Hours and Average Hourly Rate based on 1,950 Annual Hours per full-time employee for FFY2021 - FFY2023

Table 10: Other State Personnel TEDS FFY2021 - FFY2023

See [Appendix F - Contractor Personnel Resources](#) for details on the contractor support resources devoted to the TEDS project.

See [Section 10 – Proposed Budget](#) for each line item listed by FFP breakdown with totals to show federal and state portions, as well as the total costs by category.

9 PROPOSED ACTIVITY SCHEDULE

9.1 Summary of Major Activities to Date

Below are the major activities completed since the 2020 IAPDU (version 5.0). The activities completed before that IAPDU submission can be found in [Appendix C – Historical Background Information](#).

TEDS History	Start Date	End Date
Implementation of Partner Portal Expansion	9/16/2019	12/15/2019
Implementation of WPAO Automations	9/23/2019	12/15/2019
Conducted TEDS OBC Pilot Certification Review Meeting	7/9/2020	7/9/2020
Implementation and delivery of TEDS Enhancement releases	10/6/2019	7/12/2020

Table 11: Major Activities To-Date

9.2 Key Future Milestones and Timeline

The following table identifies the key project milestones to be achieved:

Key Milestones	Targeted Start Date	Targeted End Date
Implementation and delivery of TEDS Enhancement releases	8/8/2020	On-Going
Implementation of IAM ITC	09/20/2020	10/18/2020
Implementation of Contact Center project	10/18/2020	06/30/2021
Submit Quarterly TEDS OBC Metrics Report	10/2020	On-Going

Table 12: Future Key Milestones

9.3 TEDS Project Schedule

An overview of the current TEDS project schedule is presented in the figure below. Please refer to [Appendix C – Historical Background Information](#) for more details on how the timeline has shifted over the course of the project.

Current Release Timeline

as of: 9/14/2020

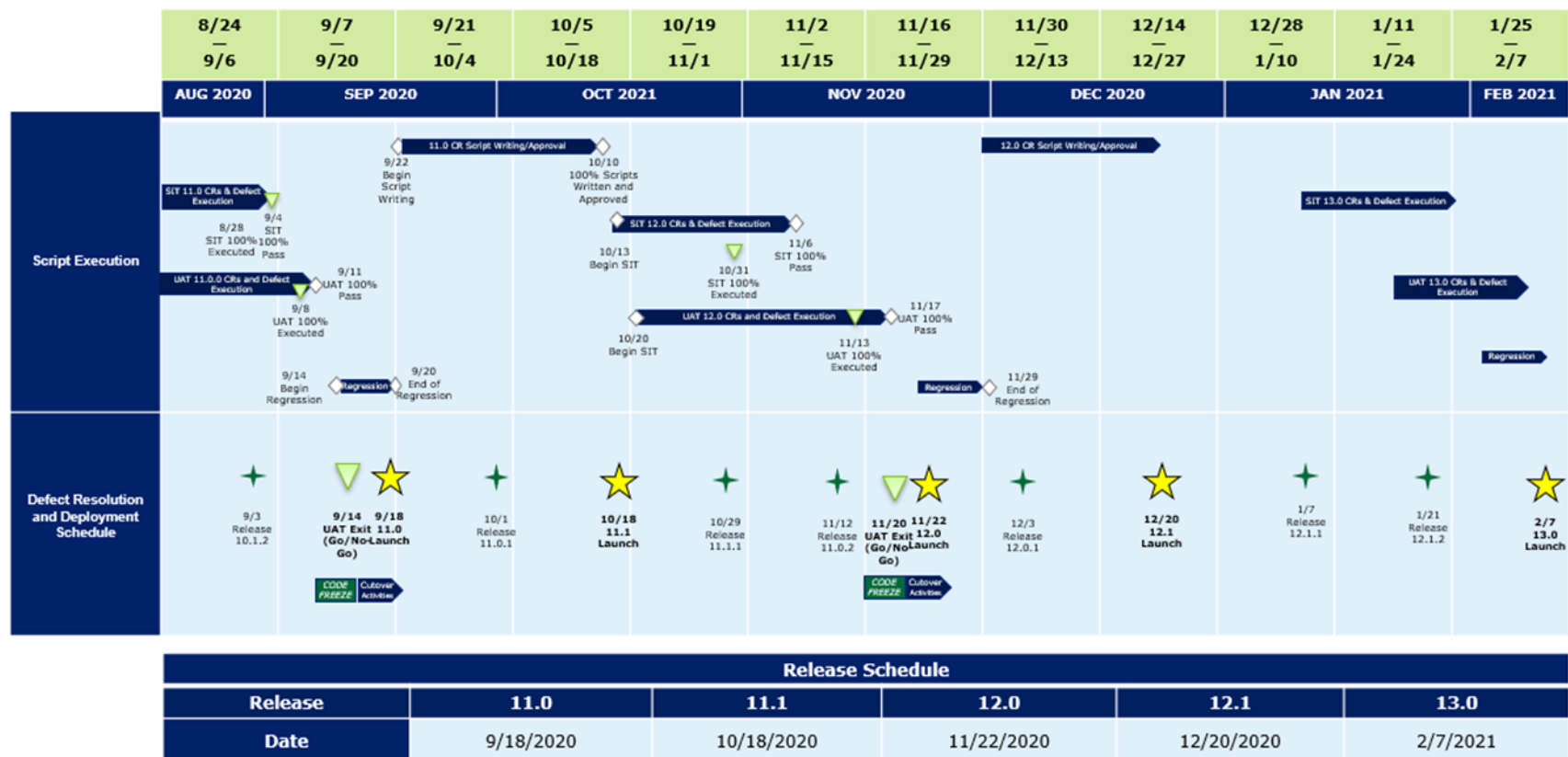


Figure 6: TEDS Merged Release Project Timeline

10 PROPOSED BUDGET

10.1 Future E&E Enhanced Funding Request

CMS previously approved E&E funding on November 25, 2019 (TN-2019-10-04-EE-IAPDU). With this IAPDU, the agency is requesting:

FFY 2021

- **Additional E&E enhanced** funding for **FFY 2021** in the amount of **\$163,591,341** (\$108,700,879 CMS Share 90% FFP, \$32,109,440 CMS Share 75% FFP, and \$22,781,022 State Share)
- **Additional E&E not enhanced** funding for **FFY 2021** in the amount of **\$4,099,484** (\$2,049,742 CMS Share 50% FFP, and \$2,049,742 State Share)
- For an **APD Total Computable** for **FFY 2021** in the amount of **\$406,384,510** (\$144,102,029 CMS Share 90% FFP, \$163,104,926 CMS Share 75% FFP, \$14,398,955 CMS Share 50% FFP, and \$84,778,600 State Share)

FFY 2022

- **Additional E&E enhanced** funding for **FFY 2022** in the amount of **\$144,623,732** (\$56,060,062 CMS Share 90% FFP, \$61,751,081 CMS Share 75% FFP, and \$26,812,590 State Share)
- **Additional E&E not enhanced** funding for **FFY 2022** in the amount of **\$5,188,756** (\$2,594,378 CMS Share 50% FFP, and \$2,594,378 State Share)
- For an **APD Total Computable** for **FFY 2022** in the amount of **\$353,421,672** (\$84,020,402 CMS Share 90% FFP, \$172,069,130 CMS Share 75% FFP, \$15,320,082 CMS Share 50% FFP, and \$82,012,059 State Share)

FFY 2023

- **New E&E enhanced** funding for **FFY 2023** in the amount of **\$282,145,185** (\$65,249,326 CMS Share 90% FFP, \$157,234,451 CMS Share 75% FFP, and \$59,661,409 State Share)
- **New E&E not enhanced** funding for **FFY 2023** in the amount of **\$31,256,905** (\$15,628,453 CMS Share 50% FFP, and \$15,628,453 State Share)
- For an **APD Total Computable** for **FFY 2023** in the amount of **\$313,402,090** (\$65,249,326 CMS Share 90% FFP, \$157,234,451 CMS Share 75% FFP, \$15,628,453 CMS Share 50% FFP, and \$75,289,861 State Share)

Below depicts the FFP associated with the agency's request for FFY 2021–2023:

	Medicaid ENHANCED FUNDING FFP Total	Medicaid NOT ENHANCED FUNDING FFP Total	TOTAL FFP	STATE SHARE TOTAL	APD TOTAL (TOTAL COMPUTABLE)
FFY 2021	\$ 307,206,955	\$ 14,398,955	\$ 321,605,910	\$ 84,778,600	\$ 406,384,510
FFY 2022	\$ 256,089,531	\$ 15,320,082	\$ 271,409,613	\$ 82,012,059	\$ 353,421,672
FFY 2023	\$ 222,483,776	\$ 15,628,453	\$ 238,112,229	\$ 75,289,861	\$ 313,402,090
TOTAL	\$ 785,780,262	\$ 45,347,490	\$ 831,127,753	\$ 242,080,521	\$ 1,073,208,273

Table 13: TEDS Future Budget

Please also refer to [Appendix A – E&E Medicaid Detailed Budget Tables](#), which contains the APD Total Computable covering FFY 2015 – 2023 in Medicaid Detailed Budget Table (MDBT) format.

This E&E enhanced funding for **FFY 2021 – 2023**, requested in the table above, will support the following activities:

- DDI – Funding for enhancements post go-live of TEDS, including but not limited to Member/Worker Portal and Mobile enhancements, TennCare Cloud implementation, and Contact Center modernization. Further information can be found in [Section 6.4 “Future State” – Additional Scope](#)
- M&O – Funding for M&O activities as TEDS enters its second year of operations
- OBC Activities – Funding for activities to certify TEDS using the pilot OBC initiative process
- Governance and Facilities Manager Resource Vendors – Increased funds to provide post go-live and enhancement support
- Hardware and Software Maintenance – Additional funds to support a refresh in hardware and software

10.2 Total Project Costs by Phase (INFORMATIONAL PURPOSES ONLY)

The summary table below provides an overview of the project's expected total costs by phase for the period covering FFY 2015 - FFY 2023 of \$2,154,516,033 [excluding CHIP].

Summary of DDI vs. M&O Costs for TEDS IAPDU FFY 2015 - FFY 2023											
Category	FFP %	FFY 2015	FFY 2016	Actual FFY 2017	FFY 2018	FFY 2019	FFY 2020	Projected			Total
								FFY 2021	FFY 2022	FFY 2023	
Design, Development, Implementation (DDI)											
State Staff (DDI)	90%	\$ 2,165,477	\$ 6,814,568	\$ 2,770,124	\$ 2,915,141	\$ 2,112,537	\$ 1,512,381	\$ 2,621,224	\$ 1,960,398	\$ 1,956,002	\$ 24,827,852
Contractor Staff (DDI)	90%	\$ 2,522,325	\$ 18,264,787	\$ 26,883,574	\$ 75,919,501	\$ 150,629,024	\$ 130,020,824	\$ 142,979,236	\$ 68,966,164	\$ 54,213,391	\$ 670,398,826
State Data Center Services (DDI)	90%	\$ 16,101	\$ 7,131	\$ 5,738,728	\$ 8,515,335	\$ 8,266,711	\$ 4,831,210	\$ 3,436,271	\$ 10,361,285	\$ 3,782,750	\$ 44,955,522
Hardware (DDI)	90%	\$ -	\$ 483,912	\$ 23,602,789	\$ (991,684)	\$ (10,551,313)	\$ 2,760,147	\$ 4,558,081	\$ 4,758,696	\$ 4,968,523	\$ 29,589,151
Software (DDI)	90%	\$ -	\$ -	\$ 20,596,704	\$ 7,206,785	\$ 9,572,615	\$ 8,572,326	\$ 8,068,976	\$ 8,153,551	\$ 8,222,113	\$ 70,393,071
Software (COTS)	75%	\$ -	\$ 476,098	\$ -	\$ 31,706	\$ 31,706	\$ -	\$ -	\$ -	\$ -	\$ 539,510
Subtotal (DDI Costs)		\$ 4,703,903	\$ 26,046,496	\$ 79,591,919	\$ 93,596,784	\$ 160,061,280	\$ 147,696,889	\$ 161,663,788	\$ 94,200,094	\$ 73,142,780	\$ 840,703,932
Maintenance & Operations (M&O)											
State Staff (M&O)	75%	\$ -	\$ -	\$ 12,033	\$ 131	\$ 232,943	\$ 3,041,030	\$ 4,566,602	\$ 4,707,404	\$ 4,848,626	\$ 17,408,769
State Staff - Eligibility (M&O)	75%	\$ -	\$ 31,497,793	\$ 25,533,079	\$ 25,708,341	\$ 37,377,978	\$ 42,067,269	\$ 40,739,270	\$ 42,371,509	\$ 43,552,656	\$ 288,847,895
State Staff - Appeals (M&O)	50%	\$ 27,834,237	\$ 17,218,273	\$ 16,358,463	\$ 19,335,851	\$ 17,925,763	\$ 21,537,010	\$ 23,928,295	\$ 24,642,487	\$ 25,381,773	\$ 194,162,151
Contractor Staff (M&O)	75%	\$ 267,466	\$ 5,982,986	\$ 27,576,467	\$ 41,043,025	\$ 40,202,792	\$ 87,196,765	\$ 120,459,566	\$ 155,282,898	\$ 133,376,102	\$ 611,388,067
Contractor Staff (M&O)	50%	\$ 3,405,256	\$ 17,509,494	\$ 1,104,181	\$ 1,972,835	\$ 2,235,754	\$ 2,096,264	\$ 3,439,562	\$ 4,223,478	\$ 4,004,009	\$ 39,990,833
State Data Center Services (M&O)	75%	\$ -	\$ 11,206	\$ 69,195	\$ 334,377	\$ 517,007	\$ 7,320,798	\$ 11,919,249	\$ 12,349,355	\$ 12,810,812	\$ 45,331,999
State Data Center Services (M&O)	50%	\$ -	\$ -	\$ 2,485	\$ 28,862	\$ 136,806	\$ 117,161	\$ 236,286	\$ 248,101	\$ 260,506	\$ 1,030,207
Hardware & Software Maintenance	75%	\$ 7,548,878	\$ 3,095,363	\$ 4,520,679	\$ 1,103,741	\$ (380,743)	\$ 6,496,662	\$ 35,776,495	\$ 9,018,471	\$ 9,120,821	\$ 76,300,367
Presumptive Eligibility (DOH)	75%	\$ -	\$ 2,158,826	\$ 3,184,154	\$ 3,527,755	\$ 2,671,574	\$ 3,772,508	\$ 6,662,340	\$ 8,491,815	\$ 8,491,815	\$ 38,960,787
Legal Services	50%	\$ 2,111,677	\$ 1,190,558	\$ 2,520,332	\$ 3,927,124	\$ 508,973	\$ 686,004	\$ 1,544,720	\$ 1,899,502	\$ 1,991,537	\$ 16,380,427
Subtotal (M&O Costs)		\$ 41,167,514	\$ 78,664,499	\$ 80,881,068	\$ 96,982,042	\$ 101,428,847	\$ 174,331,471	\$ 249,272,384	\$ 263,235,020	\$ 243,838,657	\$ 1,329,801,502
Interim Contingency											
Interim Contingency (DDI)	90%	\$ 2,755,654	\$ 3,789,322	\$ 2,869,154	\$ 5,559,431	\$ 1,549,237	\$ 899,224	\$ 400,836	\$ 293,612	\$ 240,000	\$ 18,356,470
Interim Contingency (Call Center)	75%	\$ 17,637,769	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,637,769
Subtotal (Interim Contingency)		\$ 20,393,423	\$ 3,789,322	\$ 2,869,154	\$ 5,559,431	\$ 1,549,237	\$ 899,224	\$ 400,836	\$ 293,612	\$ 240,000	\$ 35,994,239
Less: CHIP Funds		\$ (3,313,242)	\$ (5,425,016)	\$ (8,167,107)	\$ (13,080,936)	\$ (4,655,797)	\$ (4,262,644)	\$ (4,952,498)	\$ (4,307,054)	\$ (3,819,346)	\$ (51,983,640)
Total		\$ 62,951,598	\$ 103,075,301	\$ 155,175,034	\$ 183,057,321	\$ 258,383,567	\$ 318,664,940	\$ 406,384,510	\$ 353,421,672	\$ 313,402,090	\$ 2,154,516,033

Table 14: Total TEDS Project Costs – DDI and M&O*

*This table is included for *informational purposes only*, to provide historical context of the total actual cost of the project for FFY 2015-FFY 2020

*The agency is requesting CMS approval of enhanced funding FFP for the period FFY 2021-FFY 2023

*No CHIP funds are requested through this IAPDU, total values exclude CHIP allocations

10.3 Total Costs by Category (INFORMATIONAL PURPOSES ONLY)

The summary table below provides an overview of the project's expected total costs by category for the period covering FFY 2015 - 2023 of \$2,154,516,033 [excluding CHIP].

Summary of In House vs. External Costs for TEDS IAPDU FFY 2015 - FFY 2023											
Category	FFP %	FFY 2015	FFY 2016	Actual FFY 2017	FFY 2018	FFY 2019	FFY 2020	Projected			Total
In House Costs											
State Staff (DDI)	90%	\$ 2,165,477	\$ 6,814,568	\$ 2,770,124	\$ 2,915,141	\$ 2,112,537	\$ 1,512,381	\$ 2,621,224	\$ 1,960,398	\$ 1,956,002	\$ 24,827,852
State Data Center Services (DDI)	90%	\$ 16,101	\$ 7,131	\$ 5,738,728	\$ 8,515,335	\$ 8,266,711	\$ 4,831,210	\$ 3,436,271	\$ 10,361,285	\$ 3,782,750	\$ 44,955,522
Hardware (DDI)	90%	\$ -	\$ 483,912	\$ 23,602,789	\$ (991,684)	\$ (10,551,313)	\$ 2,760,147	\$ 4,558,081	\$ 4,758,696	\$ 4,968,523	\$ 29,589,151
Software (DDI)	90%	\$ -	\$ -	\$ 20,596,704	\$ 7,206,785	\$ 9,572,615	\$ 8,572,326	\$ 8,068,976	\$ 8,153,551	\$ 8,222,113	\$ 70,393,071
Software (COTS)	75%	\$ -	\$ 476,098	\$ -	\$ 31,706	\$ 31,706	\$ -	\$ -	\$ -	\$ -	\$ 539,510
State Staff (M&O)	75%	\$ -	\$ -	\$ 12,033	\$ 131	\$ 232,943	\$ 3,041,030	\$ 4,566,602	\$ 4,707,404	\$ 4,848,626	\$ 17,408,769
State Staff - Eligibility (M&O)	75%	\$ -	\$ 31,497,793	\$ 25,533,079	\$ 25,708,341	\$ 37,377,978	\$ 42,067,269	\$ 40,739,270	\$ 42,371,509	\$ 43,552,656	\$ 288,847,895
State Staff - Appeals (M&O)	50%	\$ 27,834,237	\$ 17,218,273	\$ 16,358,463	\$ 19,335,851	\$ 17,925,763	\$ 21,537,010	\$ 23,928,295	\$ 24,642,487	\$ 25,381,773	\$ 194,162,151
State Data Center Services (M&O)	75%	\$ -	\$ 11,206	\$ 69,195	\$ 334,377	\$ 517,007	\$ 7,320,798	\$ 11,919,249	\$ 12,349,355	\$ 12,810,812	\$ 45,331,999
State Data Center Services (M&O)	50%	\$ -	\$ -	\$ 2,485	\$ 28,862	\$ 136,806	\$ 117,161	\$ 236,286	\$ 248,101	\$ 260,506	\$ 1,030,207
Hardware & Software Maintenance (M&O)	75%	\$ 7,548,878	\$ 2,982,869	\$ 3,199,894	\$ 1,047,494	\$ (431,365)	\$ 3,730,652	\$ 24,075,074	\$ 1,595,945	\$ 1,642,990	\$ 45,392,431
Presumptive Eligibility (DOH)	75%	\$ -	\$ 2,158,826	\$ 3,184,154	\$ 3,527,755	\$ 2,671,574	\$ 3,772,508	\$ 6,662,340	\$ 8,491,815	\$ 8,491,815	\$ 38,960,787
Legal Services	50%	\$ 2,111,677	\$ 1,190,558	\$ 2,520,332	\$ 3,927,124	\$ 508,973	\$ 686,004	\$ 1,544,720	\$ 1,899,502	\$ 1,991,537	\$ 16,380,427
Subtotal (In House Costs)		\$ 39,676,370	\$ 62,841,234	\$ 103,587,980	\$ 71,587,218	\$ 68,371,935	\$ 99,948,496	\$ 132,356,388	\$ 121,540,048	\$ 117,910,104	\$ 817,819,773
External Costs											
Contractor Staff (DDI)	90%	\$ 2,522,325	\$ 18,264,787	\$ 26,883,574	\$ 75,919,501	\$ 150,629,024	\$ 130,020,824	\$ 142,979,236	\$ 68,966,164	\$ 54,213,391	\$ 670,398,826
Contractor Staff (M&O)	75%	\$ 267,466	\$ 5,982,986	\$ 27,576,467	\$ 41,043,025	\$ 40,202,792	\$ 87,196,765	\$ 120,459,566	\$ 155,282,898	\$ 133,376,102	\$ 611,388,067
Contractor Staff (M&O)	50%	\$ 3,405,256	\$ 17,509,494	\$ 1,104,181	\$ 1,972,835	\$ 2,235,754	\$ 2,096,264	\$ 3,439,562	\$ 4,223,478	\$ 4,004,009	\$ 39,990,833
Hardware & Software Maintenance (M&O)	75%	\$ -	\$ 112,494	\$ 1,320,785	\$ 56,247	\$ 50,622	\$ 2,766,010	\$ 11,701,421	\$ 7,422,526	\$ 7,477,831	\$ 30,907,936
Subtotal (External Costs)		\$ 6,195,047	\$ 41,869,761	\$ 56,885,007	\$ 118,991,608	\$ 193,118,192	\$ 222,079,863	\$ 278,579,784	\$ 235,895,066	\$ 199,071,333	\$ 1,352,685,661
Interim Contingency											
Interim Contingency (DDI)	90%	\$ 2,755,654	\$ 3,789,322	\$ 2,869,154	\$ 5,559,431	\$ 1,549,237	\$ 899,224	\$ 400,836	\$ 293,612	\$ 240,000	\$ 18,356,470
Interim Contingency (Call Center)	75%	\$ 17,637,769	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,637,769
Subtotal (Interim Contingency)		\$ 20,393,423	\$ 3,789,322	\$ 2,869,154	\$ 5,559,431	\$ 1,549,237	\$ 899,224	\$ 400,836	\$ 293,612	\$ 240,000	\$ 35,994,239
Less: CHIP Funds		\$ (3,313,242)	\$ (5,425,016)	\$ (8,167,107)	\$ (13,080,936)	\$ (4,655,797)	\$ (4,262,644)	\$ (4,952,498)	\$ (4,307,054)	\$ (3,819,346)	\$ (51,983,640)
Total		\$ 62,951,598	\$ 103,075,301	\$ 155,175,034	\$ 183,057,321	\$ 258,383,567	\$ 318,664,940	\$ 406,384,510	\$ 353,421,672	\$ 313,402,090	\$ 2,154,516,033

Table 15: Total TEDS Project Costs – In House vs External*

*This table is included for informational purposes only, to provide historical context of the total actual cost of the project for FFY 2015-FFY 2020

*The agency is requesting CMS approval of enhanced funding FFP for the period FFY 2021-FFY 2023

*No CHIP funds are requested through this IAPDU, total values exclude CHIP allocations

10.4 Total Project Costs by State/Federal Split (INFORMATIONAL PURPOSES ONLY)

The table below includes the detailed allocation of the expected total project costs across each funding source for the period covering FFY 2015 – 2023. The agency expects that, under federal regulations and related guidance, the TEDS project will qualify for federal funding as follows. Tennessee will supply the balance of the funds through its general budget or other appropriations.

Summary of Federal vs. State Share Costs for TEDS IAPDU FFY 2015 - FFY 2023						
Federal Fiscal Year	90% Federal Share	75% Federal Share	50% Federal Share	State Share	CHIP Share	Total
2015	\$ 6,377,921	\$ 18,136,056	\$ 15,841,806	\$ 22,595,816	\$ 3,313,242	\$ 66,264,840
2016	\$ 25,102,561	\$ 30,795,869	\$ 17,061,204	\$ 30,115,667	\$ 5,425,016	\$ 108,500,317
2017	\$ 70,504,217	\$ 43,388,120	\$ 9,493,094	\$ 31,789,603	\$ 8,167,107	\$ 163,342,141
2018	\$ 83,262,290	\$ 50,222,967	\$ 11,789,855	\$ 37,782,209	\$ 13,080,936	\$ 196,138,257
2019	\$ 142,846,979	\$ 59,419,271	\$ 10,219,503	\$ 45,897,814	\$ 4,655,797	\$ 263,039,364
2020	\$ 131,971,180	\$ 110,937,313	\$ 12,056,939	\$ 63,699,508	\$ 4,262,644	\$ 322,927,584
2021	\$ 144,102,029	\$ 163,104,926	\$ 14,398,955	\$ 84,778,600	\$ 4,952,498	\$ 411,337,008
2022	\$ 84,020,402	\$ 172,069,130	\$ 15,320,082	\$ 82,012,059	\$ 4,307,054	\$ 357,728,726
2023	\$ 65,249,326	\$ 157,234,451	\$ 15,628,453	\$ 75,289,861	\$ 3,819,346	\$ 317,221,436
Total	753,436,905	805,308,101	121,809,891	473,961,137	51,983,640	2,206,499,674

Table 16: Total TEDS Project Costs – Federal vs State*

*This table is included for *informational purposes only*, to provide historical context of the total actual cost of the project for FFY 2015-FFY 2020

*The agency is requesting CMS approval of enhanced funding FFP for the period FFY 2021-FFY 2023

*No CHIP funds are requested through this IAPDU, total values exclude CHIP allocations

Please also refer to [Appendix B – TEDS Total Project Costs to Date](#), which contains the expected total project costs covering FFY 2015 – 2023 in MDBT format.

11 COST ALLOCATION PLAN FOR IMPLEMENTATION ACTIVITIES

The agency expects that this TEDS project will qualify for the enhanced matching rate for the planning activities, implementation and testing activities, and CMS OBC Milestone activities at 90 percent FFP and the M&O portion at 75 percent FFP. Tennessee will supply the balance of funding under its general budget or other appropriations. The agency has the CMS-approved Public Assistance Cost Allocation Plan (PACAP) as required by 42 CFR part 433.34, and all cost allocation would be subject to this agency-specific plan. Please see the CMS budget tables for a detailed distribution of the funding by FFP category.

Under federal requirements, the TEDS project costs are split between TennCare and CHIP. The methodology used to allocate costs between TennCare and CHIP is based on the medical expenditures for the CHIP program versus the medical expenditures for the Medicaid Program, as agreed upon in a CMS meeting on August 23, 2018. The percent of expenditures seen below is the basis for allocation that the agency uses in its PACAP. An overview of the cost allocation methodology is noted below.

Medical Expenditures Category	Percentage of Total
Medicaid	98.80%
CHIP*	1.20%
Total	100%

*includes MCHIP numbers

Table 17: Medicaid/CHIP Enrollment Allocation

The agency performs this calculation quarterly, and the CHIP allocation will be based on this quarterly update. The percentage above is estimated for this quarter. Please see the CMS budget tables in [Appendix A - Medicaid Details Budget Tables](#) for a detailed distribution of the funding by FFP category.

The new eligibility system will be responsible for determining eligibility only for Medicaid (TennCare) and CHIP (CoverKids). Other human service programs (e.g., TANFs [TANF] and Supplemental Nutrition Assistance Program [SNAP]) will continue to rely on ACCENT, which is managed by the Department of Human Services, for eligibility determinations.

The Department of Human Services (DHS) and the agency will continue to explore the extent to which a feasible technology solution can be identified and developed to deliver a seamless customer experience for the citizens of Tennessee. It is with the guidance provided by CMS in the letter January

23, 2012, to the State Exchange Grantees, Medicaid, CHIP Directors, and Health and Human Services that aligns with the planning efforts identified by the agency.

Under this partnership, the agency and DHS, if possible, will consider an integrated E&E system, such that the additional functionality needed to determine eligibility for DHS programs (e.g., TANF and SNAP) can be added after the health coverage programs are operational. If the DHS and Division of TennCare (the agency) collaboration produces a viable solution and the activities outlined in this IAPDU change, the agency will issue a revised IAPDU to CMS, including the required cost allocation for all programs benefiting from the integrated E&E system.

12 SECURITY/INTERFACE AND DISASTER RECOVERY REQUIREMENTS (NO CHANGE)

12.1 Security

The Solution Provider is required to develop and maintain a TEDS Security and Privacy Management Plan that defines the deliverables and methodologies the Solution Provider will utilize to conform to all applicable state and federal regulations and policies required for compliance and security of TEDS. Privacy and security measures are required to deter attempts at sabotage, fraud, or criminal mischief and to protect the integrity of software and data.

The TEDS Security and Privacy Management Plan defines the mechanisms in place to safeguard the security of automated data processing resources, software, data, telecommunications, and personnel related to the development and operation of the eligibility determination and appeals system. In the TEDS Security and Privacy Management Plan and its associated deliverables, the Solution Provider documents the methodologies and mechanisms implemented to prevent unauthorized use and disclosure of enrollee protected health information and confidential data. It also addresses the management of the assessment and audit requirements for the system.

The TEDS Security and Privacy Management Plan addresses the management of the security and privacy compliance requirements, as well as the deliverables defined in the following regulatory and policy guidance documents:

1. CMS MARS-E version 2.0 or most recent version
2. National Institute of Standards and Technology (NIST) SP 800-53 Version 4
3. ADP System Security Requirements and Review Process, 45 CFR Part 95.621(f)
4. Standards defined in Federal Information Processing Standards (FIPS) Publications 31, 41, and 73, issued by the NIST
5. NIST Special Publication 800-184 Guide for Cybersecurity Event Recovery
6. Office of Management and Budget (OMB) Circular A-130, Management of Federal Information Resources, Appendix III Security of Federal Automated Information Resources
7. NIST Special Publication 800-111, Storage Encryption Technologies for End User Devices,
8. <http://csrc.nist.gov/publications/nistpubs/800-111/SP800-111.pdf>
9. NIST Cryptographic Module Validation List,
<http://csrc.nist.gov/groups/STM/cmvp/validation.html>
10. FIPS PUB 112, Password Usage, Procedure
11. FIPS PUB 186-3, Digital Signature Standard, June 2009
12. Records Usage, Duplication, Retention, Rediscovery, and Timely Destruction
Procedures/Restrictions, 5 U.S.C. § 552a (o)(1)(F), (H), and (I)
13. IRS PUB 1075, <http://www.irs.gov/pub/irs-pdf/p1075.pdf>
14. Federal Records Retention Schedule, 44 U.S.C. § 3303a
15. The Privacy Act of 1974, at 5 U.S.C. § 552a
16. Computer Matching and Privacy Protection Act of 1988

17. Federal Information Security Management Act (FISMA),
<http://csrc.nist.gov/drivers/documents/FISMA-final.pdf>
18. SSA Information System Security Guidelines for Federal, State, and Local Agencies,
<http://www.ssa.gov/dataexchange/security.html>
19. Child Online Privacy Protection Act, 15 U.S.C.A. § 6501 et seq.
20. Relation to Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy and Security Law, 42 U.S.C.A. § 300jj-19
21. 42 CFR § 431.300 et seq., Title XIX Safeguarding Information on Applicants and Recipients
22. 42 U.S.C.A. § 290dd-2 SAMHSA Confidentiality of Records
23. 5 U.S.C.A. § 552a, The Privacy Act of 1974
24. 42 U.S.C.A. § 300jj-19, Promotion of HIT in Relation to HIPAA Privacy and Security Law
25. 42 U.S.C.A. § 1320d-2 et seq., Administrative Simplification
26. HIPAA General Administrative Requirements and Security and Privacy, 45 CFR Parts 160 and 164
27. American Recovery and Reinvestment Act of 2009, HITECH Act, 42 U.S.C.A § 17921et seq.
28. Tenn. Code Ann. § 10-7-504, Tenn. Code Ann. § 63-2-101; Tenn. Code Ann. § 56-32-225; Tenn. Code Ann. § 33-3-103(3); Tenn. Code Ann. § 68-24-508; Tenn. Code Ann. § 68-10-101; Tenn. Code Ann. § 68-10-113; Tenn. Code Ann. § 68-10-11; Tenn. Code Ann. § 56-7-2703; Tenn. Code Ann. § 24-1-207; Tenn. Code Ann. § 63-11-213; Tenn. Code Ann. § 63-22-114; Tenn. Code Ann. § 63-7-125; Tenn. Code Ann. § 63-23-107; and any and all applicable federal and State privacy, security, and confidentiality laws and regulations, and as amended
29. The release of Medicare information to State and federal agencies, 42 CFR. § 401.134
30. State confidentiality laws under Tenn. Code Ann., Titles 10, 24, 33, 56, 63, 68, and 71 (2012)
31. Tennessee Identity Theft Deterrence Act, Tenn. Code Ann. § 47-18-2101 et seq.
32. State of Tennessee Enterprise Information Security Policies
33. Division of TennCare Security and Privacy Policies and Procedures

The agency must initially approve the TEDS Security and Privacy Management Plan and will conduct audits and evaluations of the Plan established by the Solution Provider. The Solution Provider is required to keep the Plan up to date along with its associated deliverables required for regulatory and policy compliance. The TEDS Security and Privacy Management Plan addresses the management of all administrative, physical, and technical safeguards as required by the regulatory authorities as well as all policies in force. The Plan must address the following elements for all sites where system development will occur, will host any State data, or will be interacting with the public. The following table lists the associated components to be addressed and managed by the TEDS Security and Privacy Management Plan.

TEDS Security and Privacy Management Plan

Management Plan Components	Overview
Network and System Architecture Schematics	A complete network diagram showing servers, printers, workstations, firewalls, network security device internet connections, and any other network connected device.
Configuration Management Database	- A complete list of the rules for any applicable firewalls. - A complete list of assets and their configuration information.
Configuration Management Plan	A software maintenance plan, including the operating system and third-party software updates.
Vulnerability Management Plan	- An antivirus deployment/maintenance plan. - A detailed plan for penetration testing and other vulnerability management/testing tasks. - A description of security features of the software designed to prevent application compromises through application security flaws such as those described in the "Open Web Application Security Project Top 10 Project." - A detailed plan for monitoring system health. - A detailed plan for system log collection and monitoring.
Access Control Management Plan	- An agreement that background checks will be completed and passed by all employees before allowing access to State data. - A description of how the safety of data will be physically protected through the use of appropriate devices and methods, including, but not limited to, alarm systems, locked files, guards, or other devices reasonably expected to prevent loss or unauthorized access to data. - A description of the steps taken to prevent unauthorized use of passwords, access logs, badges, or other methods designed to prevent loss of, or unauthorized access to, electronically or mechanically held data. Methods used shall include, but not be limited to, restricting system and/or terminal access at various levels, assigning personal IDs and passwords that are tied to pre-assigned access rights to enter the system, restricting access to input and output documents, including a view-only access and other restrictions designed to protect data.
Data Access Management Plan	- A set of procedures to limit access to customer/member information to those individuals who need such information for the performance of their job functions and ensuring that those individuals have access to only the information that is the minimum necessary for the performance of their job functions. The access limitations will be role-based. - A set of procedures and processes for securing data access across organizational boundaries, through the internet and

Management Plan Components	Overview
	other leased lines, or shared with contractors and subcontractor facilities, and all on-site and off-site data storage facilities.
Audit Management Plan	• A set of user-friendly audit trails that captures a history of every transaction processed by the system. It must also record every user who accesses or views a window, output, or other system feature. • A detailed plan for managing required audits at predefined intervals.
User Acceptance Agreement/Rules of Behavior	• A requirement that each employee, including the employees of subcontractors or any other person to whom the Solution Provider grants access to customer/member information under this contract, has signed a statement indicating he or she has been informed of, understands, and will abide by state and federal laws, statutes, and regulations concerning confidentiality, privacy, and security. A sanctions policy for any employee, subcontractor, officer, or director who violates the privacy and security policies shall be enforced. The Solution Provider must submit a copy of the approved User Security Agreement required of all of its employees or subcontractors who will come into contact with any secure, confidential information or data.
Incident Response Plan	• A set of procedures established to investigate incidents, recover data, and mitigate loss should it be released without authorization. • A set of procedures to ensure that corrective action occurs and mechanisms are established to avoid the recurrence of any breach.
Business Associate Agreement (BAA)	• An executed BAA with the agency and other required vendors that are in compliance with HIPAA Privacy and Security Rules and HITECH.
Compliance Management Plan	• A designated individual who is responsible for the implementation and monitoring of compliance with privacy and security policies and procedures. • A plan for the development of required compliance deliverables to regulatory agencies.

Table 18: TEDS Security and Privacy Management Plan

12.2 Contingency Management Requirements

The Solution Provider is also required to develop contingency plans that follow the guidelines defined by the agency as well as guidelines defined in the following regulatory authorities:

- NIST Contingency Planning Guide for Federal Information Systems Special Publication 800-34 Revision 1
- "45 CFR 95.621(f)" Federal guideline Information Systems Council – Information Resources Policies, Policy 9.00: Disaster Recovery (2004 or 2011) (see <https://www.tn.gov/lawsandpolicies/article/isc-policy-9>)

The Solution Provider will develop a TEDS Business Continuity and Disaster Recovery Plan and Contingency/Recovery Plan. An Information System Contingency Plan (ISCP) and TEDS Information System Contingency Staffing and Communication Plan will also be created in the support of TEDS and agency operations. All plans are defined below:

Plan	Purpose	Scope	Plan Relationship
TEDS Business Continuity and Disaster Recovery Plan	Describes the strategy and organized course of action that is to be taken if there is a loss of use of the established system.	Outlines the organized course of action that is to be taken due to a flood, fire, computer virus, or other major failure of the system.	The TEDS Business Continuity and Disaster Recovery Plan describes the strategy for ensuring product is in accordance with stated Recovery Time Objective and Recovery Point Objectives.
TEDS Contingency/Recovery Plan	Establishes procedures to recover a system following a disruption.	Identifies the activities, resources, and procedures needed to carry out operations during prolonged interruptions to normal operations.	Establishes criteria and pre-developed test plan for validating test CPs on an annual schedule, once every 365 days or in the event of an event that interruption normal operations for a prolonged period of time.
ISCP	Provides procedures and capabilities for recovering an information system.	Addresses single information system recovery at the current or, if appropriate, alternate location.	Information system-focused plan that may be activated independently of other plans or as part of a

Plan	Purpose	Scope	Plan Relationship
			larger recovery effort coordinated with a Disaster Recovery Plan, Continuity of Operations Plan, and/or Business Continuity Plan.
Information System Contingency Staffing and Communications Plan	Provides procedures for disseminating internal and external communications, and a means to provide critical status information and control rumors. Provides contingency staffing plans.	Addresses communications with Solution Provider personnel as well as Solution Provider staffing to support recovery efforts.	Incident-based plan activated with a major disaster.

Table 19: TEDS Contingency Management

The ISCP must address:

- Retention and storage of backup files and software
- Hardware back-up for critical system components
- Facility back-up
- Backup for telecommunications links and networks
- Backup procedures and support to accommodate the loss of online communications
- Detailed file backup plan and procedures, including the off-site storage of crucial transaction and master files. The plan and procedures must include a detailed frequency schedule for backing up critical files and (if appropriate to the backup media) their rotation to an off-site storage facility. The off-site storage facility must provide security of the data stored there, including protections against unauthorized access or disclosure of the information, fire, sabotage, and environmental considerations
- Maintenance of current system documentation and program source libraries at an off-site location

The ISCP and results of periodic disaster readiness simulations will be available for review by federal officials upon request. A full recovery test of the ISCP will be conducted every 12 months, and tabletop or walk-through tests will be conducted quarterly. A written report of the outcome, corrective action plan, and revisions, if any, will be available within 30 calendar days of the completion of a test. Reports and test results must be filed with Tennessee's Project Director and any other agency authorized by the Division of TennCare or the federal government.

The Information System Contingency Staffing and Communications Plan will address the Solution Provider's plan for staffing during a system recovery operation. It also addresses the communication procedures to be used by the Solution Provider during a system recovery.

13 CONDITIONS AND STANDARDS FOR RECEIPT OF ENHANCED FFP (NO CHANGE)

The table below demonstrates how the proposed approach meets each of the conditions and standards established by CMS for receipt of enhanced federal funding:

Conditions and Standards Description	Division of TennCare Approach
1. Modularity Standard – Use of a modular, flexible approach to systems development, including the use of open interfaces and exposed application programming interfaces; the separation of business rules from core programming; and the availability of business rules in both human and machine-readable formats.	Standards will be established to enable the use of components, such as Enterprise Architecture standards, technical standards, application interface standards, and other standards that will be applied across the new eligibility system. Also, the condition is met by the following: • Documented high-level future State technical designs as modular components which provide maximum opportunity for reuse across the Medicaid enterprise in Tennessee. • Created a roadmap for changes required to develop a modular architecture and design.
2. MITA 3.0 Condition – Align to and advance increasingly in MITA 3.0 maturity for business, architecture, and data.	The condition is met by the following: • The proposed business architecture scope and overall roadmap were developed based on an enterprise reference architecture, which was aligned to National Human Services Interoperability Architecture, Enterprise Reference Architecture, and MITA 3.0. • Specific traceability to all in-scope detailed MITA 3.0 process groupings will be captured through the process documentation phase at the activity level. • Performed a MITA 3.0 Self-Assessment.
3. Industry Standards Condition – Ensure alignment with, and incorporation of, industry standards: the HIPAA security, privacy, and transaction standards; accessibility standards established under section 508 of the Rehabilitation Act, or standards that provide greater accessibility for individuals with disabilities, and compliance with federal civil	This condition is met by incorporating specific policy requirements into the business and systems requirement process, to demonstrate traceability of functional and nonfunctional requirements to their policy and standard sources. Examples of such policy sources include: • Americans with Disabilities Act and Section 508 Compliance

Conditions and Standards Description	Division of TennCare Approach
rights laws; standards adopted by the Secretary under section 1104 of the ACA; and standards and protocols adopted by the Secretary under section 1561 of the ACA.	• HIPAA • HITECH Act of 1996 • Privacy Act of 1974 • ACA of 2010, Section 1561 • Safeguarding and Protecting Tax Returns and Return Information (26 U.S.C. 6130 and related provisions) • NIST Special Publications, which are available at http://csrc.nist.gov/publications/PubsSPs.html • SDLC will include the following industry standard phases: Planning, Requirements, Design, Development, Unit Testing, System Testing, Integration Testing, Performance Testing, and UAT.
4. Leverage Condition – Promote sharing, leverage, and reuse of Medicaid technologies and systems within and among states.	• The condition is met by the adopted approach, which is to build on common technology components and content from other states.
5. Business Results Condition – Support accurate and timely processing of claims (including claims of eligibility), adjudications, and effective communications with providers, beneficiaries, and the public.	The condition is met by the following: • Data sources and automated processes are used wherever possible to minimize manual interventions; a well-trained Contact Center staff; and clear, member-centric interactions. Additionally, in the future state, members will have the ability to manage interactions with Medicaid through the web and other self-service channels. • The system architecture includes integrated case coordination, calendaring, and noticing to assist with communication between members and the State personal IDs and passwords that are tied to pre-assigned access rights to enter the system, restricting access to input and output documents, including a view-only access and other restrictions designed to protect data.
6. Reporting Condition – Produce transaction data, reports, and performance information that would contribute to program evaluation,	The condition is met by the following: • Eligibility modernization, as part of the MMP, includes investment in business intelligence and data analytics components

Conditions and Standards Description	Division of TennCare Approach
continuous improvement in business operations, and transparency and accountability.	to support program reporting and evaluation. The new eligibility system will have the capability to produce automated, ad-hoc, and on-demand reports to support business and operations.
7. Interoperability Condition – Ensure seamless coordination and integration with the Exchange (whether run by the state or federal government), and allow interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services.	The condition is met by the following: - The new eligibility system will replace the functionality currently utilized by the State, and as a part of the overall roadmap, is planned to communicate with the FFM and other state agencies/programs. - In the future state, the new eligibility system will have the capability to provide interoperability with other human services programs by sharing data to promote effective customer service.

Table 20: Compliance with CMS Conditions and Standards for Receipt of Enhanced FFP

14 CMS IAPDU REQUIRED FEDERAL ASSURANCES

The agency assures that it will adhere to the provisions identified from federal regulations in the following table:

Assurances to CMS		
Procurement Standards		
State Medicaid Manual (SMM) Part 11	☒ Yes	☐ No
45 CFR §95.613	☒ Yes	☐ No
45 CFR §92.36	☒ Yes	☐ No
45 CFR Part 74	☒ Yes	☐ No
42 CFR 433.112	☒ Yes	☐ No
State Medicaid Director Letter of December 4, 1995	☒ Yes	☐ No
State Medicaid Director SMD # 16-009 Letter of June 27, 2016	☒ Yes	☐ No
Access to Records		
45 CFR Part 95.615	☒ Yes	☐ No
SMM Section 11267	☒ Yes	☐ No
Software and ownership rights		
42 CFR Part 433.112(b)(5-6)	☒ Yes	☐ No
Software Ownership:	(5) The State owns any software that is designed, developed, installed or improved with 90 percent FFP.	
Federal Licenses:	(6) The U.S. Department of Health and Human Services has a royalty-free, non-exclusive and irrevocable license to reproduce, publish, or otherwise use and authorize others to use software, modifications to software, and documentation that is designed, developed, installed, or improved with ninety percent (90%) FFP.	
Information Safeguarding		
42 CFR Part 433.112(b) (9)	☒ Yes	☐ No
45 CFR Part 164	☒ Yes	☐ No
IV&V		
45 CFR 95.626	☒ Yes	☐ No
Progress Reports		
SMM Section 11267	☒ Yes	☐ No

Table 21: CMS Assurances

APPENDIX A – E&E MEDICAID DETAILED BUDGET TABLES (MDBT) ⁸⁹

	Medicaid Share (90% FFP) DDI	State Share (10%)	Medicaid Share (75% FFP) DDI (COTS)	State Share (25%)	Medicaid Share (75% FFP) M&O	State Share (25%)	Medicaid Share (75% FFP) M&O E&E Staff	State Share (25%)	Medicaid ENHANCED FUNDING FFP Total	State Share Total	Medicaid ENHANCED FUNDING (TOTAL COMPUTABLE)
	28A & 28B†	--	28A & 28B†	--	28C & 28D†	--	28E & 28F†	--			
FFY 2015	\$ 14,081,130	\$ 1,564,570	\$ 2,277,521	\$ 759,174	\$ 10,538,317	\$ 3,512,772	\$ 9,903,775	\$ 3,301,258	\$ 36,800,743	\$ 9,137,774	\$ 45,938,517
FFY 2016	\$ 29,579,169	\$ 3,286,574	\$ 176,250	\$ 58,750	\$ 1,380,268	\$ 460,089	\$ 31,879,845	\$ 10,626,615	\$ 63,015,532	\$ 14,432,028	\$ 77,447,560
FFY 2017	\$ 96,913,350	\$ 10,768,150	\$ -	\$ -	\$ 11,505,386	\$ 3,835,126	\$ 30,870,183	\$ 10,290,061	\$ 139,288,919	\$ 24,893,337	\$ 164,182,256
FFY 2018	\$ 116,687,806	\$ 12,965,312	\$ -	\$ -	\$ 19,464,529	\$ 6,488,176	\$ 31,399,686	\$ 10,466,562	\$ 167,552,021	\$ 29,920,050	\$ 197,472,071
FFY 2019	\$ 197,804,945	\$ 21,978,327	\$ -	\$ -	\$ 31,387,990	\$ 10,462,663	\$ 52,290,404	\$ 17,430,135	\$ 281,483,339	\$ 49,871,125	\$ 331,354,464
FFY 2020	\$ 135,100,131	\$ 15,011,125	\$ -	\$ -	\$ 62,017,887	\$ 20,672,629	\$ 48,919,426	\$ 16,306,475	\$ 246,037,444	\$ 51,990,229	\$ 298,027,673
FFY 2021	\$ 145,900,732	\$ 16,211,193	\$ -	\$ -	\$ 103,640,292	\$ 34,546,764	\$ 59,464,634	\$ 19,821,545	\$ 309,005,658	\$ 70,579,501	\$ 379,585,159
FFY 2022	\$ 84,020,402	\$ 9,335,600	\$ -	\$ -	\$ 104,716,731	\$ 34,905,577	\$ 67,352,399	\$ 22,450,800	\$ 256,089,531	\$ 66,691,977	\$ 322,781,508
FFY 2023	\$ 65,249,326	\$ 7,249,925	\$ -	\$ -	\$ 90,878,619	\$ 30,292,873	\$ 66,355,832	\$ 22,118,611	\$ 222,483,776	\$ 59,661,409	\$ 282,145,185
TOTAL	\$ 885,336,991	\$ 98,370,776	\$ 2,453,771	\$ 817,924	\$ 435,530,019	\$ 145,176,669	\$ 398,436,183	\$ 132,812,061	\$ 1,721,756,963	\$ 377,177,429	\$ 2,098,934,393

Table 22: E&E Medicaid Detailed Budget Tables – 28A, 28B, 28C, 28D, 28E, & 28F

⁸ On June 19, 2020, the agency submitted to CMS the Coronavirus Disease 2019 (COVID-19) APD in response to the COVID-19 Public Health Emergency. This APD requested funds related to both the agency's MMIS and E&E systems. As requested by CMS, COVID-19 APD funds associated with the E&E systems have been included in the Appendix A – E&E Medicaid Detailed Budget Tables above and below.

⁹ On April 4, 2018, the Division of TennCare received approval of an IAPD for the New Medicare Card (NMC) Initiative, formally known as the Social Security Number Removal Initiative (SSNRI). As requested by CMS, those funds associated with the E&E systems have been included in the Medicaid Detailed Budget Tables included in this IAPDU.

	Medicaid Share (50% FFP) M&O E&E Staff	State Share (50%)	Medicaid Share (50% FFP) General	State Share (50%)	Medicaid NOT ENHANCED FUNDING FFP Total	State Share Total	Medicaid NOT ENHANCED FUNDING (TOTAL COMPUTABLE)
	28G & 28H†	--	49†	--			
FFY 2015	\$ 9,842,250	\$ 9,842,250	\$ -	\$ -	\$ 9,842,250	\$ 9,842,250	\$ 19,684,500
FFY 2016	\$ 9,686,166	\$ 9,686,166	\$ -	\$ -	\$ 9,686,166	\$ 9,686,166	\$ 19,372,332
FFY 2017	\$ 8,613,016	\$ 8,613,016	\$ -	\$ -	\$ 8,613,016	\$ 8,613,016	\$ 17,226,032
FFY 2018	\$ 10,413,751	\$ 10,413,751	\$ -	\$ -	\$ 10,413,751	\$ 10,413,751	\$ 20,827,502
FFY 2019	\$ 14,762,984	\$ 14,762,984	\$ -	\$ -	\$ 14,762,984	\$ 14,762,984	\$ 29,525,968
FFY 2020	\$ 12,056,939	\$ 12,056,939	\$ -	\$ -	\$ 12,056,939	\$ 12,056,939	\$ 24,113,878
FFY 2021	\$ 14,398,955	\$ 14,398,955	\$ -	\$ -	\$ 14,398,955	\$ 14,398,955	\$ 28,797,910
FFY 2022	\$ 15,320,082	\$ 15,320,082	\$ -	\$ -	\$ 15,320,082	\$ 15,320,082	\$ 30,640,164
FFY 2023	\$ 15,628,453	\$ 15,628,453	\$ -	\$ -	\$ 15,628,453	\$ 15,628,453	\$ 31,256,905
TOTAL	\$ 110,722,596	\$ 110,722,596	\$ -	\$ -	\$ 110,722,596	\$ 110,722,596	\$ 221,445,192

Table 23: E&E Medicaid Detailed Budget Tables – 28G & 28H

	Medicaid ENHANCED FUNDING FFP Total	Medicaid NOT ENHANCED FUNDING FFP Total	TOTAL FFP	STATE SHARE TOTAL	APD TOTAL (TOTAL COMPUTABLE)
FFY 2015	\$ 36,800,743	\$ 9,842,250	\$ 46,642,993	\$ 18,980,024	\$ 65,623,017
FFY 2016	\$ 63,015,532	\$ 9,686,166	\$ 72,701,698	\$ 24,118,194	\$ 96,819,892
FFY 2017	\$ 139,288,919	\$ 8,613,016	\$ 147,901,935	\$ 33,506,353	\$ 181,408,288
FFY 2018	\$ 167,552,021	\$ 10,413,751	\$ 177,965,772	\$ 40,333,801	\$ 218,299,573
FFY 2019	\$ 281,483,339	\$ 14,762,984	\$ 296,246,323	\$ 64,634,109	\$ 360,880,432
FFY 2020	\$ 246,037,444	\$ 12,056,939	\$ 258,094,383	\$ 64,047,168	\$ 322,141,551
FFY 2021	\$ 309,005,658	\$ 14,398,955	\$ 323,404,613	\$ 84,978,456	\$ 408,383,069
FFY 2022	\$ 256,089,531	\$ 15,320,082	\$ 271,409,613	\$ 82,012,059	\$ 353,421,672
FFY 2023	\$ 222,483,776	\$ 15,628,453	\$ 238,112,229	\$ 75,289,861	\$ 313,402,090
TOTAL	\$ 1,721,756,963	\$ 110,722,596	\$ 1,832,479,560	\$ 487,900,026	\$ 2,320,379,585

Table 24: E&E Medicaid Detailed Budget Tables – Full

APPENDIX B – TEDS TOTAL PROJECT COSTS TO DATE [Excluding CHIP]

INFORMATIONAL PURPOSES ONLY

	Medicaid Share (90% FFP) DDI	State Share (10%)	Medicaid Share (75% FFP) DDI (COTS)	State Share (25%)	Medicaid Share (75% FFP) M&O	State Share (25%)	Medicaid Share (75% FFP) M&O E&E Staff	State Share (25%)	Medicaid ENHANCED FUNDING FFP Total	State Share Total	Medicaid ENHANCED FUNDING (TOTAL COMPUTABLE)
	28A & 28B†	--	28A & 28B†	--	28C & 28D†	--	28E & 28F†	--			
FFY 2015	\$ 6,377,921	\$ 708,658	\$ -	\$ -	\$ 5,569,145	\$ 1,856,382	\$ 12,566,910	\$ 4,188,970	\$ 24,513,977	\$ 6,754,010	\$ 31,267,987
FFY 2016	\$ 25,102,561	\$ 2,789,173	\$ 339,220	\$ 113,073	\$ 4,700,031	\$ 1,566,677	\$ 25,756,618	\$ 8,585,539	\$ 55,898,429	\$ 13,054,463	\$ 68,952,892
FFY 2017	\$ 70,504,217	\$ 7,833,802	\$ -	\$ -	\$ 11,145,959	\$ 3,715,320	\$ 32,242,161	\$ 10,747,387	\$ 113,892,337	\$ 22,296,509	\$ 136,188,846
FFY 2018	\$ 83,262,290	\$ 9,251,366	\$ 22,194	\$ 7,398	\$ 16,324,551	\$ 5,441,517	\$ 33,876,222	\$ 11,292,074	\$ 133,485,257	\$ 25,992,355	\$ 159,477,612
FFY 2019	\$ 142,846,979	\$ 15,871,887	\$ 23,359	\$ 7,786	\$ 12,719,108	\$ 4,239,703	\$ 46,676,804	\$ 15,558,935	\$ 202,266,250	\$ 35,678,310	\$ 237,944,560
FFY 2020	\$ 131,971,180	\$ 14,663,464	\$ -	\$ -	\$ 62,017,887	\$ 20,672,629	\$ 48,919,426	\$ 16,306,475	\$ 242,908,493	\$ 51,642,569	\$ 294,551,062
FFY 2021	\$ 144,102,029	\$ 16,011,337	\$ -	\$ -	\$ 103,640,292	\$ 34,546,764	\$ 59,464,634	\$ 19,821,545	\$ 307,206,955	\$ 70,379,645	\$ 377,586,600
FFY 2022	\$ 84,020,402	\$ 9,335,600	\$ -	\$ -	\$ 104,716,731	\$ 34,905,577	\$ 67,352,399	\$ 22,450,800	\$ 256,089,531	\$ 66,691,977	\$ 322,781,508
FFY 2023	\$ 65,249,326	\$ 7,249,925	\$ -	\$ -	\$ 90,878,619	\$ 30,292,873	\$ 66,355,832	\$ 22,118,611	\$ 222,483,776	\$ 59,661,409	\$ 282,145,185
Total	\$ 753,436,905	\$ 83,715,212	\$ 384,772	\$ 128,257	\$ 411,712,323	\$ 137,237,441	\$ 393,211,006	\$ 131,070,335	\$ 1,558,745,006	\$ 352,151,245	\$ 1,910,896,251

Table 25: TEDS Total Project Costs to Date – 28A, 28B, 28C, 28D, 28E, & 28F*

	Medicaid Share (50% FFP) M&O E&E Staff	State Share (50%)	Medicaid Share (50% FFP) General	State Share (50%)	Medicaid NOT ENHANCED FUNDING FFP Total	State Share Total	Medicaid NOT ENHANCED FUNDING (TOTAL COMPUTABLE)
	28G & 28H†	--	49†	--			
FFY 2015	\$ 15,841,806	\$ 15,841,806	\$ -	\$ -	\$ 15,841,806	\$ 15,841,806	\$ 31,683,612
FFY 2016	\$ 17,061,204	\$ 17,061,204	\$ -	\$ -	\$ 17,061,204	\$ 17,061,204	\$ 34,122,409
FFY 2017	\$ 9,493,094	\$ 9,493,094	\$ -	\$ -	\$ 9,493,094	\$ 9,493,094	\$ 18,986,188
FFY 2018	\$ 11,789,855	\$ 11,789,855	\$ -	\$ -	\$ 11,789,855	\$ 11,789,855	\$ 23,579,710
FFY 2019	\$ 10,219,503	\$ 10,219,503	\$ -	\$ -	\$ 10,219,503	\$ 10,219,503	\$ 20,439,007
FFY 2020	\$ 12,056,939	\$ 12,056,939	\$ -	\$ -	\$ 12,056,939	\$ 12,056,939	\$ 24,113,878
FFY 2021	\$ 14,398,955	\$ 14,398,955	\$ -	\$ -	\$ 14,398,955	\$ 14,398,955	\$ 28,797,910
FFY 2022	\$ 15,320,082	\$ 15,320,082	\$ -	\$ -	\$ 15,320,082	\$ 15,320,082	\$ 30,640,164
FFY 2023	\$ 15,628,453	\$ 15,628,453	\$ -	\$ -	\$ 15,628,453	\$ 15,628,453	\$ 31,256,905
Total	\$ 121,809,891	\$ 121,809,891	\$ -	\$ -	\$ 121,809,891	\$ 121,809,891	\$ 243,619,783

Table 26: TEDS Total Project Costs to Date – 28G & 28H*

	Medicaid ENHANCED FUNDING FFP Total	Medicaid NOT ENHANCED FUNDING FFP Total	TOTAL FFP	STATE SHARE TOTAL	APD TOTAL (TOTAL COMPUTABLE)
FFY 2015	\$ 24,513,977	\$ 15,841,806	\$ 40,355,782	\$ 22,595,816	\$ 62,951,598
FFY 2016	\$ 55,898,429	\$ 17,061,204	\$ 72,959,634	\$ 30,115,667	\$ 103,075,301
FFY 2017	\$ 113,892,337	\$ 9,493,094	\$ 123,385,431	\$ 31,789,603	\$ 155,175,034
FFY 2018	\$ 133,485,257	\$ 11,789,855	\$ 145,275,112	\$ 37,782,209	\$ 183,057,321
FFY 2019	\$ 202,266,250	\$ 10,219,503	\$ 212,485,754	\$ 45,897,814	\$ 258,383,567
FFY 2020	\$ 242,908,493	\$ 12,056,939	\$ 254,965,432	\$ 63,699,508	\$ 318,664,940
FFY 2021	\$ 307,206,955	\$ 14,398,955	\$ 321,605,910	\$ 84,778,600	\$ 406,384,510
FFY 2022	\$ 256,089,531	\$ 15,320,082	\$ 271,409,613	\$ 82,012,059	\$ 353,421,672
FFY 2023	\$ 222,483,776	\$ 15,628,453	\$ 238,112,229	\$ 75,289,861	\$ 313,402,090
Total	\$ 1,558,745,006	\$ 121,809,891	\$ 1,680,554,897	\$ 473,961,137	\$ 2,154,516,034

Table 27: TEDS Total Project Costs to Date – Full*

*These tables are included for *informational purposes only*, to provide historical context of the approximate total cost of the project to date.

APPENDIX C – HISTORICAL BACKGROUND INFORMATION

Organization Background

F&A is the State agency within which the Division of TennCare is located. The agency is the single State agency responsible for administering TennCare and CoverKids, as well as the Strategic Planning and Innovation Group, which oversees the Tennessee Health Care Innovation Initiative and the Office of eHealth Initiatives.

The agency is one of the oldest Medicaid managed care programs in the country, having started on January 1, 1994. It is the only program in the nation to enroll the vast majority of the State's Medicaid population in managed care. Unlike traditional fee-for-service Medicaid, TennCare is a managed care program operating under a Section 1115 waiver from CMS.

Funding Background

Since the submission of the IAPD in January 2016, the TEDS project has transitioned from planning to development, and most recently to operations and maintenance, and from projected to actual costs. In particular, the Solution Provider was competitively procured in May 2016 and awarded to Deloitte, which commenced work in October 2016.

The initial IAPD for TEDS, which was submitted on January 29, 2016, and approved by CMS on March 24, 2016, included \$423,825,011 for the period covering FFY 2015 through FFY 2018. This total consisted of \$339,752,858 in FFP and \$84,072,153 in State funds.

In the 2017 IAPDU, which was submitted in January 2017 and approved by CMS on May 10, the agency requested a total of \$686,523,735 for the period covering FFY 2015 – FFY 2019, as detailed below:

- Total FFP of \$504,318,641:
 - 90% - \$259,795,506
 - 75% - \$198,563,455
 - 50% - \$45,959,680
- Federal CHIP funding of \$36,976,620 (not included in MDBT)
- State funding of \$145,228,470 (including State's CHIP share)

In the 2018 IAPDU, covering FFY 2015 – FFY 2020, the Division of TennCare projected total project costs of \$978,797,436 (excluding CHIP), as detailed below:

- 90% FFP - \$411,591,216
- 75% FFP - \$282,891,350
- 50% FFP - \$72,142,698
- State Share - \$212,172,172
- CHIP Share - \$64,000,698

In the 2019 IAPDU (v4.0), covering FFY2015 – FFY2021, the Division of TennCare projected total project costs of \$1,313,386,933 (excluding CHIP), as detailed below:

- 90% FFP - \$468,002,437
- 75% FFP - \$445,686,440
- 50% FFP - \$99,567,821
- State Share - \$300,130,238
- CHIP Share - \$44,445,920

Project Background and Overview

The agency's initial eligibility system replacement efforts, which occurred between December 2012 and January 2015, did not succeed. In February 2015, the agency and the eligibility determination system contractor signed a mutual termination agreement. It also became necessary for the agency to deploy an interim eligibility ATP for MAGI-based members. In January 2016, the agency submitted an IAPD and received approval from CMS in March 2016 for the procurement, development, and initial operation of an eligibility determination and appeals system.

Tennessee endeavored to modernize and streamline the eligibility determination and appeals processes for all health coverage programs that it administers. The previous system was disjointed, resource intensive, burdened by inefficient manual interventions, and difficult for workers to navigate. The goal of the new project was to modernize all aspects of Medicaid eligibility operations, enabling the agency to automate all Medicaid eligibility determinations and related appeals functions. This included providing automated functionality for Tennesseans to apply for Medicaid directly with the agency, in addition to the option of filing an application through the FFM. These efforts were intended to reduce the need for workers to process eligibility manually by automating and streamlining eligibility and appeals processes that are currently handled with minimal systems support.

Tennessee did not have an integrated system that determines eligibility for Medicaid and CHIP. Rather, it relied on multiple entities, systems, and manual processes to adjudicate applications. As a previous "determination" state, Tennessee relied on the FFM to determine MAGI-based eligibility for Medicaid and CHIP. When the FFM identifies income and citizenship inconsistencies, Tennessee used a manual process to resolve the inconsistencies and determine eligibility for the MAGI categories. The State adjudicated eligibility for all non-MAGI eligibility categories (e.g., long-term support services [LTSS] and medically needy) utilizing the ACCENT system. Tennessee's DHS ACCENT system was referenced to determine Medicaid eligibility. ACCENT was a transfer system from the State of Ohio that was fully deployed in Tennessee in 1993. Significant customization of this system was required to meet Tennessee's requirements. ACCENT was unable to meet the requirements of the ACA, both from business and technology requirements perspectives.

The lack of integration of the IT environment adversely affected the business processes and operations. Due to limitations of the mainframe platform and the need to provide functionality for workers to meet statutory and regulatory requirements, there were various bridge systems and stand-alone microsystems developed over time. The IT environment operated in silos across the agency and is

supported by numerous vendors and technologies. This resulted in an increased workload for the staff serving applicants and members.

The development and implementation of a single, streamlined eligibility determination system for Medicaid and CHIP, along with enhancements to the State's eligibility determination and eligibility appeals processes, will allow Tennessee to provide its residents with a seamless customer experience providing real-time or near-real-time determination of eligibility. At the forefront of this effort is a broader channel management strategy that emphasizes efficient electronic capture of eligibility data, regardless of how applicants choose to provide it, while promoting self-service and reducing transaction costs.

At a high-level, the TEDS Project comprises eligibility determination and case management functions in the worker portal for the MAGI Medicaid and CHIP programs. It also includes non-MAGI Medicaid programs and functionality in the worker portal, along with functionality to support the timely processing and adjudication of appeals.

The following table outlines the programs supported by the TEDS Project:

MAGI, Worker Portal, and Non-MAGI	
MAGI Medicaid Coverage Groups automated in the Worker Portal	• MAGI Child 0-1 • MAGI Child 1-5 • MAGI Child 6-18 • MAGI – Pregnancy • MAGI – Caretaker Relative • CoverKids • Transitional Medicaid • Extended Medicaid • Former Foster Care up to age 26 • TennCare Standard • TennCare Standard Medical Eligibility • Emergency Medical Services (EMS)
Non-MAGI Programs and Coverage Groups automated in the Worker Portal	• Breast or Cervical Cancer • Disabled Adult Children • Institutional Medicaid • Pickle Pass Along • SSI Cash Recipient • Widow/Widower Categories • Qualified Medicare Beneficiary • Specified Low-Income Medicare Beneficiary • Qualifying Individual Program • Qualified Disabled Working Individual • LTSS • Deemed Newborns • Presumptive Eligibility Pregnant Women • Child Medically Needy • Qualified Pregnant Women Medically Needy • Hospital Presumptive Eligibility

Table 28: Summary of TEDS Project Programs

The following table outlines the functionality supported by the TEDS Project:

MAGI, Non-MAGI, and Portal(s)	
System modules provided in the Worker Portal for managing the MAGI Medicaid program	• Application Registration • Data Collection • Eligibility Determination • Document Scanning • Payment Error Rate Measurement and Medicaid Eligibility Quality Control • Automation of Notices • Automation of Reports • Interfaces • Integration with FFM • Integration with MMIS System • Integration with Federal and State Verification Sources for MAGI eligibility
System modules provided in the Worker Portal for managing the Non-MAGI Medicaid program	• Application Registration • Data Collection • Eligibility Determination • Appeals • Automation of Notices • Automation of Reports • Interfaces • Integration with Beneficiary Data Exchange System (BENDEX) and SDX • Integration with other State Verification Sources for non-MAGI Eligibility
System modules provided in the member portal for consumers	• Account Registration • Apply for Benefits • Check My Benefits • Report My Changes • Renew My Benefits • Mobile Application
<i>The partner portal automates presumptive eligibility for partners.</i>	

Table 29: Summary of TEDS Project Functionality

Project Goals

TEDS has met the goals set out during the planning stages of the project, which are listed below:

- Meet the requirements of the ACA

- Align with MEET, which is inclusive of the updated CMS Standards and Conditions for Medicaid IT
- Comply with all applicable federal and State requirements

The agency developed five high-level goals that been achieved by the successful, and still ongoing, modernization effort. These goals include:

- Consistent delivery of member services and increased member self-service
- Optimized business operations using reliable systems
- Enhanced program self-sufficiency
- Organizational adaptability
- Improved data quality and data integrity

This request is consistent with the July 20, 2015 letter from CMS, *Additional Guidance to States on the OMB Circular A-87 Cost Allocation Exception*, which noted that enhanced federal funding will “enable states experiencing unanticipated delays with the development of the MAGI functionality in their eligibility systems, procurement challenges, and other unforeseen barriers to complete that work...to streamline their eligibility systems, improve access to health and human service programs, and maximize efficiency.” The request is also consistent with the Final Rule, issued December 4, 2015.

Summary of Project Needs

TEDS Statewide Launch occurred in March 2019, with all related-conversion activities being completed in May 2019. Further detail on the activities and schedule changes can be found in [Section 9 – Proposed Activity Schedule](#). During the transition from ACCENT to TEDS, the agency used its Interim Contingency solution, which was agreed upon with CMS on October 28, 2015.

Systems Modification or Replacement Needs

As part of the agency’s eligibility modernization efforts, the following systems required either modification or replacement:

- Replace existing legacy mainframe eligibility determination system (ACCENT) for Medicaid eligibility
- Replace legacy CHIP processes and systems
- Create eligibility-related interfaces between MMIS and TEDS
- Replace the Tennessee Eligibility Appeals Management System (TEAMS)
- Streamline and automate applicant/member notification processes and systems

Business and Technical Needs

The following specific business and technical needs that were addressed during modernization efforts include:

- Multiple processes/systems currently used to determine eligibility for TennCare and CoverKids
- Significant manual interventions required to process health coverage program applications
- Lack of a single case record and document storage solution

- Lack of single reference access point for member services to provide applicants with information on pending applications
- Need for process automation for applications with income/citizenship inconsistencies transferred from the FFM to Tennessee
- Inability of residents to submit applications via a State-supported web portal

Requirements

A requirements analysis was conducted and is summarized below:

Core TEDS Requirements

By leveraging work completed during the initial attempt to develop a new eligibility system, along with a more recent analysis of requirements that align with CMS Standards and Conditions for Medicaid IT, the following lists the core requirements of TEDS:

Applications Received – FFM via Account Transfer

1. Electronically accept applications from the FFM via Account Transfer Process (ATP)
2. Submit an acknowledgment to the FFM upon receiving the application via ATP
3. Electronically store application data received via Account Transfer
4. Electronically submit an application to the FFM via Account Transfer

Applications Received – via Member, Worker, or Partner Portals

5. Electronically accept applications and other documents via Member Portal
6. Electronically store applications data via Member Portal
7. Electronically accept applications and other documents via Worker Portal
8. Electronically store applications data via Worker Portal
9. Electronically provide an eligibility determination result via Worker Portal
10. Electronically accept applications and other documents via the Partner Portal
11. Electronically store application data via the Partner Portal

Information Verification and Additional Information Requests

12. Automatically request information verification from information suppliers via data sharing operations
13. Automatically receive information verification response from information suppliers via data sharing operations
14. Automatically designate additional information needed to determine eligibility
15. Automatically create and populate a “request for additional information” notice
16. Electronically store additional information, including documents and images
17. Automatically request information from an external source via data sharing operations
18. Automatically receive information from an external source via data sharing operations
19. Electronically store information from an external source via data sharing operations

Eligibility Determination and Redetermination

20. Automatically determine eligibility of applicant and store eligibility results
21. Automatically redetermine eligibility of the member and store the results
22. Automatically determine presumptive eligibility of the individual and store the results
23. Automatically create and populate an eligibility determination notice with appropriate information
24. Generate an eligibility redetermination notice
25. Generate a presumptive eligibility determination notice
26. Automatically submit an eligibility determination result to an external source via data sharing operations
27. Automatically submit an eligibility redetermination result to an external source via data sharing operations
28. Automatically submit a presumptive eligibility determination result to an external source via data sharing operations

Appeals Unit Core Capabilities

With regard to the use of TEDS by the Appeals Unit, core capabilities needed by this Unit, which were fully integrated within the new system, include the following:

1. View appeals case information
2. Link appeals to cases
3. Add case notes within TEDS
4. View the complete case history of an individual's cases and appeals
5. Intake appeals via U.S. Mail/Fax/Phone
6. Include workflow prompts for the caseworker, such as identifying mandatory criteria and required timeliness
7. Include a rules engine, checklist prompts, and keyed references to support the caseworker's ability to apply policies in an appropriate hierarchy and to obtain the information necessary for accurate and timely appeals processing

Solution Provider RFQ Requirements

Following federal approval, the State issued an RFQ to solicit a contract with a Solution Provider for the establishment of TEDS (see Section 7 for a discussion of the procurement approach). The detailed requirements in the RFQ included:

1. Process flows
2. Functional requirements traceability matrix
3. Technical requirements traceability matrix
4. Interfaces
5. Notices/Letters

Feasibility Study and Alternative Considerations/Analysis

In March 2010, the ACA was enacted by Congress, imposing significant changes for Medicaid eligibility determination and its processes. Based on the requirements of the ACA, it became necessary to modernize Tennessee's Medicaid and CHIP eligibility determination system and process through updated technology that protects and supports the interests of the State's citizens, while complying with the requirements of federal law and regulations. Therefore, the agency concluded that a full-fledged feasibility summary was not required.

Rather, the agency leveraged the recent MITA 3.0 State Self-Assessment results and confirmed that the ACCENT system was incapable of processing MAGI-based eligibility. This conclusion is also reflected in Tennessee's use of the FFM to determine MAGI-based eligibility on behalf of Tennessee. As discussed in [Section 3 - Statement of Needs and Objectives](#) and [Section 6 - Nature and Scope of Activities](#), the State utilized the FFM and various work-arounds and manual interventions to adjudicate eligibility, store information, generate notices, handle appeals, and manage a program that serves over 1.5 million participants in TennCare.

Alternative Approaches Evaluated

Five alternative approaches to implementing the goals and objectives of TEDS were identified for consideration as follows:

1. Build a new system from the ground up
2. Modify the current ACCENT system
3. Maintain status-quo
4. Transfer a system from another state
5. Acquire a COTS-based platform

Each approach was defined based on federal guidance/industry practice, and each was informed by research about leading practices from other states.

Once the alternatives were defined, the respective advantages and disadvantages of each alternative were identified. Predefined evaluation criteria were then employed to assess the identified advantages and disadvantages of each of the alternatives. These criteria included:

- Ability to meet state and federal requirements
- Ability to reuse existing assets of the agency and other state IT systems
- Degree of customization required
- Estimated implementation cost

Each alternative was assessed using a High, Medium, and Low metric against each of the evaluation criterion. The results of this analysis are presented in the following table:

Implementation Alternative	Advantages	Disadvantages	Ability to Meet Requirements	Effective Reusability of Current State Assets and Systems	Degree of Customization Required	Additional Cost
1. Build a new system from the group up	- Customized business processes and technologies to fully meet the agency's requirements - Enhanced reusability for the agency's future initiatives	- High implementation cost - High degree of customization required - Longer timeframe needed for implementation effort	High	Low	High	High
2. Modify ACCENT system	Allows for potential reuse of shared services components	- Mainframe system does not meet CMS Seven Conditions and Standards - System does not support the agency's goals and objectives - Does not support the functional and technical requirements of a modern eligibility system	Low	Low	High	High
3. Maintain the status quo	No additional DDI investments by the	Numerous manual interventions required	Low	Low	Low	Low

Implementation Alternative	Advantages	Disadvantages	Ability to Meet Requirements	Effective Reusability of Current State Assets and Systems	Degree of Customization Required	Additional Cost
	State and Federal government	- Lack of automated support for MAGI-based eligibility determinations - Inflexible work environment that is difficult to adapt quickly to program changes - Unable to support the agency's goals and objectives				
4. Transfer a solution from another state	- Reuse of lead state-based solutions - Stable solution options - Transfer system previously approved by CMS - Includes the functional and technical requirements of a	Likely requires requirements elaboration and customization	Medium	Low	High	Medium

Implementation Alternative	Advantages	Disadvantages	Ability to Meet Requirements	Effective Reusability of Current State Assets and Systems	Degree of Customization Required	Additional Cost
	modern eligibility system					
5. Acquire a COTS-based platform	Provides the functional and technical requirements of a modern eligibility system	May require additional programming for Tennessee-specific requirements	High	Medium	Medium	Medium to High

Table 30: Summary of Advantages and Disadvantages of each TEDS Alternative Approach

Two alternatives to a full system replacement were considered, but ultimately rejected as impractical. They are:

- Remedial Modernization – The system cannot reasonably be re-architected to run eligibility in an online mode
- Defer Replacement – The system has too many risks and day-to-day operational issues to defer replacement any longer

Market Assessment Analysis

The requirements of the ACA are collectively the “tipping point” that has made some states replace their aging eligibility systems. Tennessee aligns with this trend. As part of the planning process, a market assessment was completed in December 2014. It assessed states that have recently updated, or are in the process of updating, their Medicaid eligibility systems. This market assessment identified 13 states (in positions similar to Tennessee) that are modernizing their systems. Three notable examples of states that have post-ACA contracts (of a similar size to Tennessee from a beneficiary count perspective) include:

- Missouri – Project underway to replace their legacy system
- Nebraska – Project underway to replace their legacy system
- Georgia – Overhauled their eligibility system once and now has a project underway to replace their existing eligibility system

Recommended Solution Benefits

It was determined that by leveraging either a transfer system from another state or a COTS-based solution, Tennessee stood to achieve significant benefits. Some benefits were enumerated and highlight the following:

1. Consolidation of data currently stored in multiple legacy systems to improve operational efficiencies, providing faster access to data and reduced downtime
2. Reduction in application fragmentation that negatively impacts governance and compliance processes by making data difficult to reconcile
3. Elimination of unnecessary hardware, software licenses, and maintenance support
4. Development of an automated rules engine, allowing the agency to more easily update eligibility standards resulting from legislative or regulatory changes, enforce the appropriate action and policy, ensure benefits are only provided to eligible residents, and reduce fraud
5. Deployment of a worker portal provides the agency’s staff and authorized workers a single view of the member, where workers use a common access point to identify and update case and benefit information, eliminating the need for workers to access multiple systems to obtain a comprehensive case record
6. Adoption of a partner portal for use by authorized (non-agency) staff reducing the time to submit applications, documentation, and the effort currently spent resolving inquiries
7. Generation of reports providing the capability for managers to better manage day-to-day activities

8. Establishment of a member portal reducing the time it takes residents to submit applications and enhance the processing of applications by the agency's staff
9. Integration of an IVR system with internal databases allowing members to update applications and other data in real time, allowing members to access the system outside of normal business hours, increasing member self-service, and reducing costs currently associated with manual entry by the agency's staff and Contact Center staff
10. Automation of notice generation saving time, resources, and costs
11. Reduction to the implementation timetable
12. Promotion of cost-efficiencies through the adoption of a system that has previously been approved and funded by CMS

Historic State – Business

Historical Business Context Model

The business operations for eligibility determination were initially assessed looking from the outside in, by identifying external stakeholders and how the State interacts with each of these stakeholders at a high level. The Context Model on the following page displays the large number of external stakeholders that the agency maintained relationships with, and the complexity of the interactions that occur to support the delivery of Medicaid and CHIP throughout Tennessee.

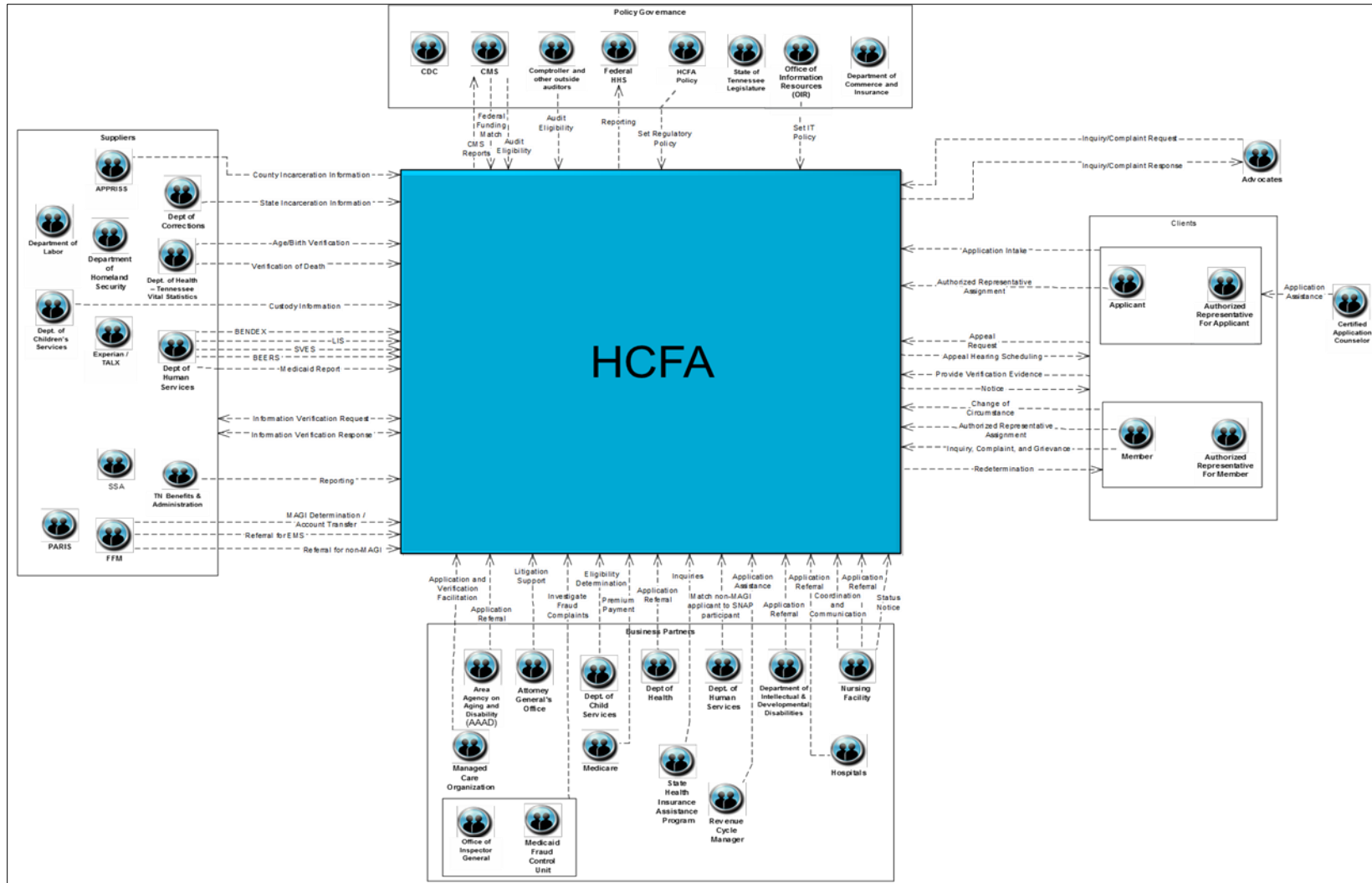


Figure 7: Division of TennCare Historic Context Model

Historical Business Operating Model

An internal, historical business view of Member Services operations below shows the internal interactions between units performing the functions that were required to support the external interactions that are occurring among stakeholders. Each organization established the capabilities required to perform the tasks that they are responsible for in order to produce what they must in accordance with the past business design. These capability groupings are identified within the organization unit boxes in the following historical model.

These organizational units performed many functions above and beyond the scope of this review, and as a result, the depiction is limited to Medicaid-related functionality and delivery. It is important to note that the services encapsulate all of the various business processes required to provide the identified business function.

The historical Operating Model (in the Figure below) displays all the interactions of the agency's functional groups, including:

- Eligibility Operations Group
- TennCare Eligibility Policy
- Service Center Contracts (i.e., Tennessee Health Connection [TNHC])
- Performance Management
- Appeals
- Division of TennCare Information Systems
- Division of TennCare Eligibility-related interactions external to Member Services

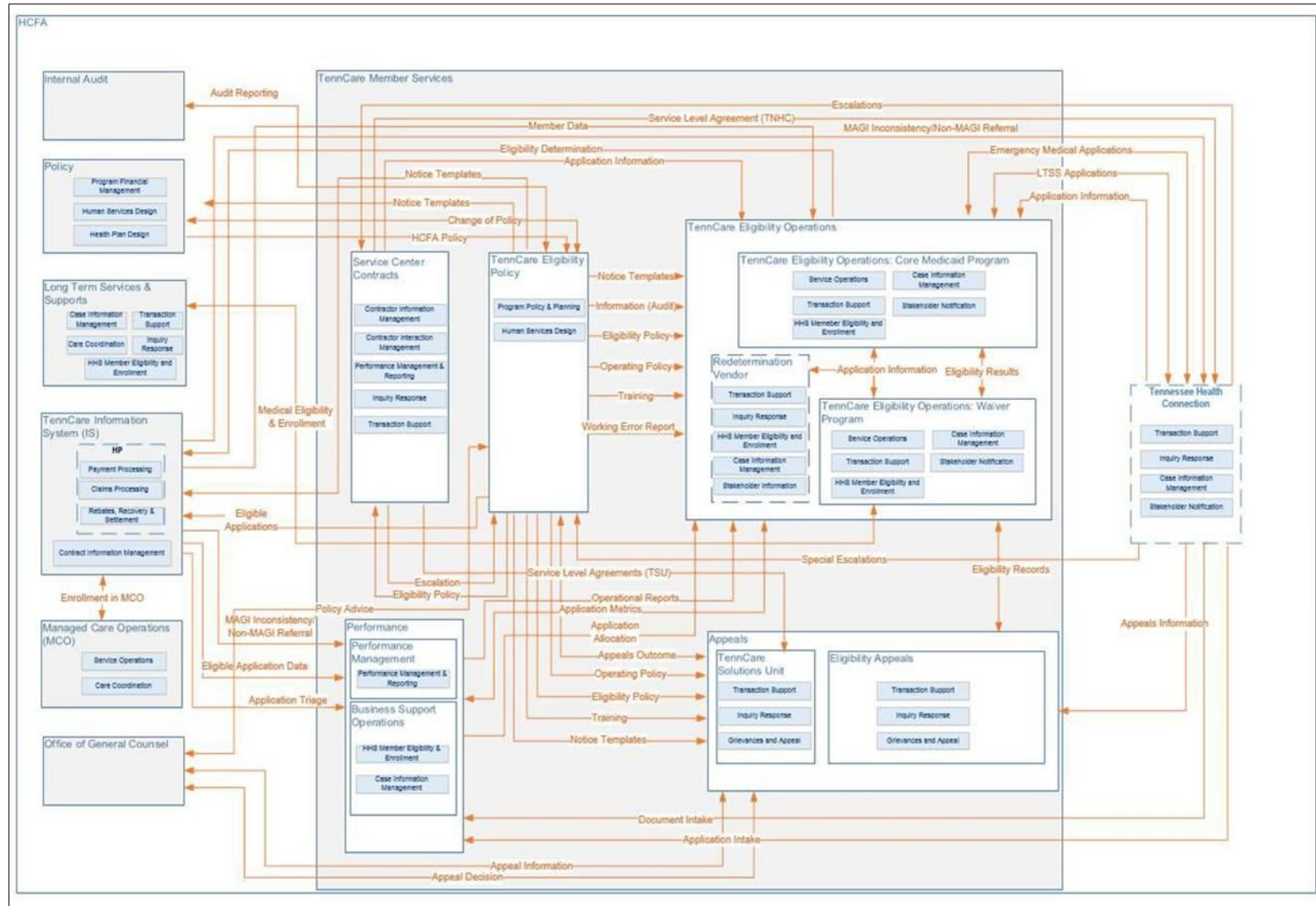


Figure 8: Division of TennCare Consolidated Interactions – Historic Operating Model

Eligibility Determination Business Rules

The State supported 16 different sets of business rules for eligibility determination. These rules apply to the following groups:

- Children
- Families (Caretaker Relative, Transitional, and Extended Medical Assistance)
- Women
- LTSS
- Medicare Cost Sharing

Eligibility Determination Process Prioritization

The information below provides an overview of the historic application and eligibility determination processes for each of the following six groups: (1) MAGI-based Eligibility, (2) Presumptive Eligibility, (3) SSI, (4) Former Foster Care and Medically Needy, (5) Long-term Care/Institutional Medicaid/Medicare Savings Program (MSP), and (6) Other Eligibility. These groups are sequenced in order from highest to lowest volume of transactions.

1. MAGI-based Eligibility

The highest volume of applicants was generated from the FFM based on the applicant's MAGI. Application input channels to the FFM included:

- Self-service web portal
- Telephony
- Mail
- All other applications arriving at TNHC (via fax or mail) were mailed to the FFM for processing

The FFM processed the application and used ATP (batch processing) to send eligibility determination results to the agency:

- Individuals (determined by the FFM to be eligible for CHIP or Medicaid based on MAGI) were transferred to the agency for enrollment
- Individuals that may have been eligible for Medicaid (on a basis other than MAGI) were referred by the FFM to the State. The State was responsible for obtaining more information from the applicant to determine whether the individual may be eligible for Medicaid under other eligibility categories

2. Presumptive Eligibility

The agency generated temporary determinations for presumptive eligibility, where the determination was initially completed by a provider or a partner state agency (e.g., Department of Health [DOH]).

Because the applicant's eligibility was temporary (e.g., 45 days), the individual was required to submit a full application through the FFM for continuing benefits. After processing by the FFM,

the application was routed to the agency via the ATP described above. Presumptive eligibility categories included:

- Breast and Cervical Cancer – Presumptive eligibility was determined by staff at the Department of Health (DOH) and sent via fax to the agency's Eligibility Group
- Pregnant Women – Presumptive eligibility was entered into a DOH system, Patient Tracking Billing Management Information System (AS400), by staff at DOH and batch transferred to MMIS.
- Newborns – Presumptive eligibility was determined by the hospital or authorized birthing center. The provider routinely assisted the parents with completing a full application via the FFM. The provider used microsystem spreadsheets to communicate presumptive eligibility for Medicaid newborns to the agency. For presumptive CHIP newborns, the provider faxed applications to the CHIP processing center.

3. Supplementary Security Income

Individuals who applied for SSI at the SSA were considered applicants for Medicaid. The SSA processed the application and sent the agency a SDX file of new SSI recipients. This file was compared to enrollment in MMIS to identify individuals who were enrolled in Medicaid, but may have been qualified under a different eligibility category. Individuals not enrolled in Medicaid were subsequently enrolled and added to MMIS.

The SSA notified the agency when an individual's SSI benefits were ending. Manual and microsystem methods were used to open, track cases, and perform eligibility determinations for individuals who were losing SSI to determine if the individual will qualify for Medicaid.

4. Former Foster Care and Medically Needy

FFM applications were transferred to the agency via ATP as referrals for consideration for Medicaid on a basis other than income. FFM records were preprocessed and loaded to TNHC. The Contact Center then contacted the individual to collect additional information sufficient to determine eligibility. Manual methods were used to evaluate the application and determine eligibility. Microsystems tracked cases, which were entered into the ACCENT system.

5. Long-term Care/Institutional Medicaid/Medicare Savings Program

LTSS/MSP applications were mailed or faxed to TNHC for consideration for Medicaid for non-MAGI categories. Additional information (sufficient to determine eligibility) was requested and collected from the individual and/or provider. Manual methods were used to evaluate the financial and nonfinancial information to determine eligibility. Microsystems tracked the cases, which were ultimately entered into the ACCENT system.

6. Other Eligibility

During the redetermination process, the member was evaluated for continued eligibility in their current category of eligibility. If they were no longer eligible in that category, the member is

considered for other eligibility categories. For children under age 19, Tennessee had two additional categories that are used only during the redetermination process:

- TennCare Standard (uninsured)
- TennCare Standard (Medically Eligible)

Historic State – Technology

Tennessee did not have a single system to determine eligibility for Medicaid and CHIP. Rather, it relied on multiple entities, systems, and manual processes to adjudicate applications. As a previous “determination” state, Tennessee relied on the FFM to determine MAGI-based eligibility for Medicaid and CHIP, while adjudicating eligibility for all non-MAGI categories (e.g., LTSS and medically needy) utilizing the ACCENT system.

As noted above, ACCENT, a mainframe system that supports eligibility and case management functions, is DHS’s legacy system, transferred from Ohio and fully deployed in Tennessee in 1993. This system provided fully integrated data processing support for the determination of client eligibility, benefits calculation and issuance, financial accounting, and management reporting. ACCENT still supports many of Tennessee’s major social service programs, including TANF, SNAP, and TennCare.

While ACCENT will continue to be used by Tennessee to determine eligibility for TANF and SNAP, TennCare and CoverKids eligibility will be determined by the new eligibility system being developed under this IAPDU. An overview of the current systems is included in [Appendix D - Current Systems Overview](#).

Historic System and Data Flow Map

The Historic System and Data Flow Map is shown in the following diagram. In this diagram, files that are used to batch transfer information from one system to another system are identified with the file name currently used by the Division of TennCare organization.

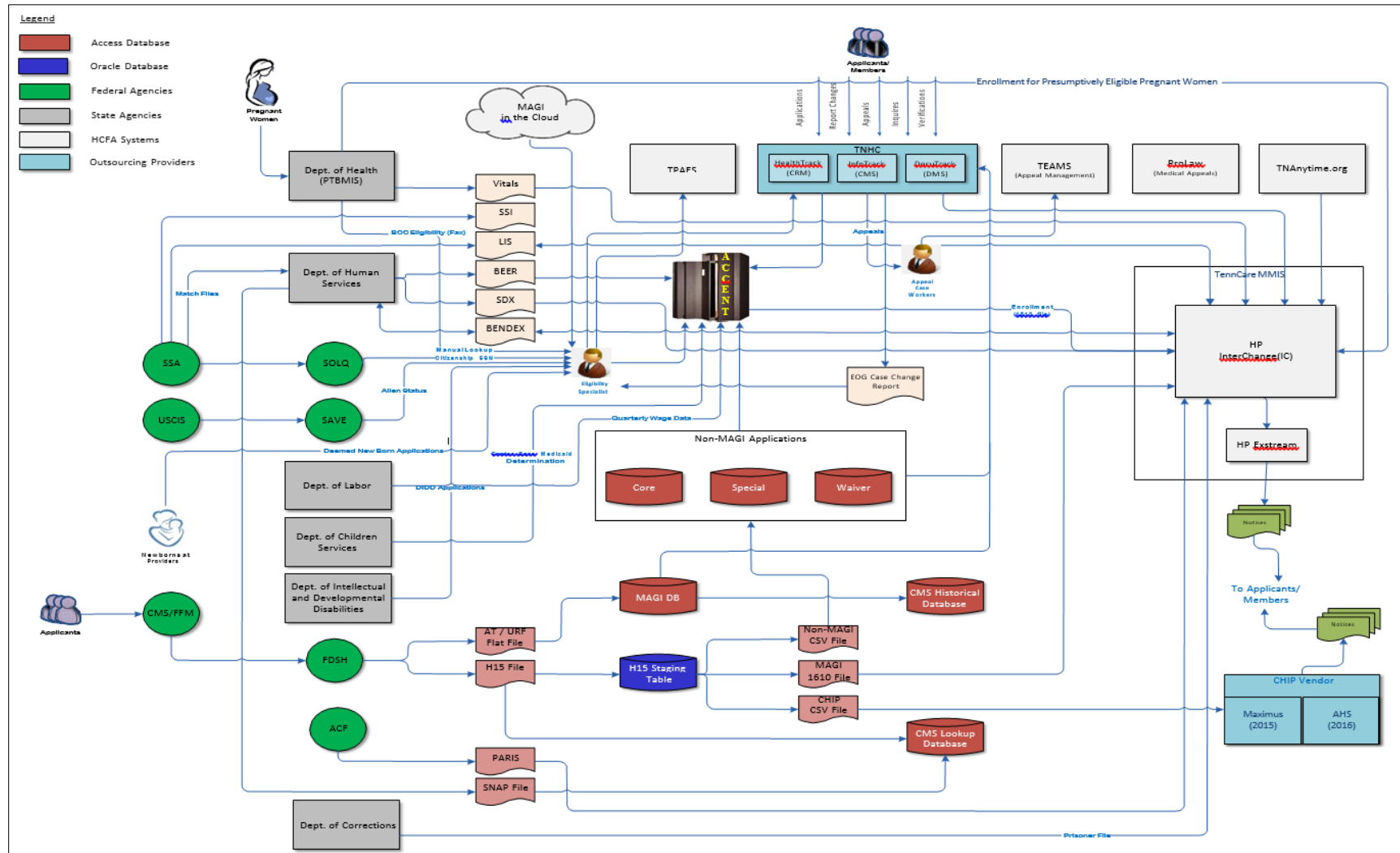


Figure 9: Division of TennCare Historic System and Data Flow Map

The figure above reflects the various small-scope bridge systems (primarily stand-alone microsystems) that were developed over time to compensate for limitations of the mainframe platform, and the need to provide functionality for caseworkers to meet statutory and legal requirements. This IT environment was in silos across the agency and was supported by numerous vendors and technologies, which resulted in an increased workload for caseworkers serving applicants and members on a day-to-day basis.

MITA 3.0 State Self-Assessment

In addition to the “Division of TennCare Current State System and Data Flow Map” described above, the agency completed a MITA 3.0 State Self-Assessment in 2014. A copy of the State Self-Assessment was provided to CMS in April 2015 with the MMIS IAPDU, and a Self-Assessment update was completed in July 2016. The MITA 3.0 State Self-Assessment noted a number of deficiencies with regard to E&E:

- Processes utilize a mix of manual and automated activities, but tasks are disjointed and often rely primarily on State-specific standards.
- MMIS serves as the system of record for member data, receiving information through interfaces with the primary eligibility system, as well as with other units that may be determining member eligibility. Sharing of member data uses a mix of manual and automated activities. Member data is stored in disparate systems.
- If the agency is to realize standardized business rules definitions that reside in separate applications or rules engines, a predominance of systems currently are not engineered to execute to that standard. System extensibility is not realized, as many systems do not use web services and require extensive code changes for adding system functionality.
- The current suite of systems supporting the agency does not provide the modern analytic functions necessary to proactively manage the business regarding formalized performance metrics, business intelligence gathering, or analytic data reports to the agency’s managers or executives.

Technical Assessment

The maturity assessment results for each system from the technical assessment were further assessed as a group to determine the maturity assessment for the business area as a whole. Key findings for E&E Management included the following:

- Client support access and business intelligence is manual
- Information exchange between organizations is manual
- Data access and management uses State-specific standards
- Logging analysis and performance calculations are manual

Information Architecture Assessment

Key information architecture “As-Is” assessment findings for E&E Management included the following:

- No centralized guidance for information management
- Fragmented data management strategy and governance
- Diverse development of data models

- Non-standard data

Business Architecture Assessment

The Business Architecture Gap Analysis noted gaps in automation, use of standards, collaboration, timeliness, the accuracy of information, cost-effectiveness, efficiency, the accuracy of results, and value to stakeholders. The resolutions to these gaps were addressed as part of the TEDS solution.

Software Service Capability Assessment

The framework of technology capabilities is leveraged from industry standards for enterprise-wide technology to support integrated business operations, using color codes as shown in the Software Service Capability Color Legend Table below. These color codes create a “Heat Map” of software service capabilities. The Heat Map also inventoried which Tennessee data system controls each specified technology.

Software Service Capability Color Legend	
Gray	The “gray” functionalities are technologies that are not available in the current state of the enterprise. Functionalities shown in gray have been evaluated for prioritization/inclusion/relevance.
Green	“Green” indicates functionalities that are implemented into current routine operations and are currently maintained.
Yellow	“Yellow” indicates planned functionality for improvement projects that are in-flight during the current state assessment.
Blue	“Blue” indicates planned functionality for improvement projects at the enterprise level that is in-flight during the current state assessment.
Purple	“Purple” indicates planned functionality for the modernized TEDS solution.

Table 31: Software Capability Color Legend

In summary, the Heat Map revealed the following:

- Presentation Services Layer includes Telephony and Terminal services in production
 - Browser services and Mobile client services are nonexistent
 - Rich client production services are limited to FFM kiosks
- Application Services Layer has planned projects for business rules management
 - Enterprise content management is nonexistent except for production implemented document management

- Opportunities for technical improvements could include MDM, Web/Application Server Services, Data Analytics, Business Intelligence Services, and Enterprise Collaboration Services
- Infrastructure Services Layer has limited planned projects for priority security and implementation of web services management registry and repository
 - Data Services, Data Warehousing, Infrastructure Management, and Enterprise Monitoring services are nonexistent

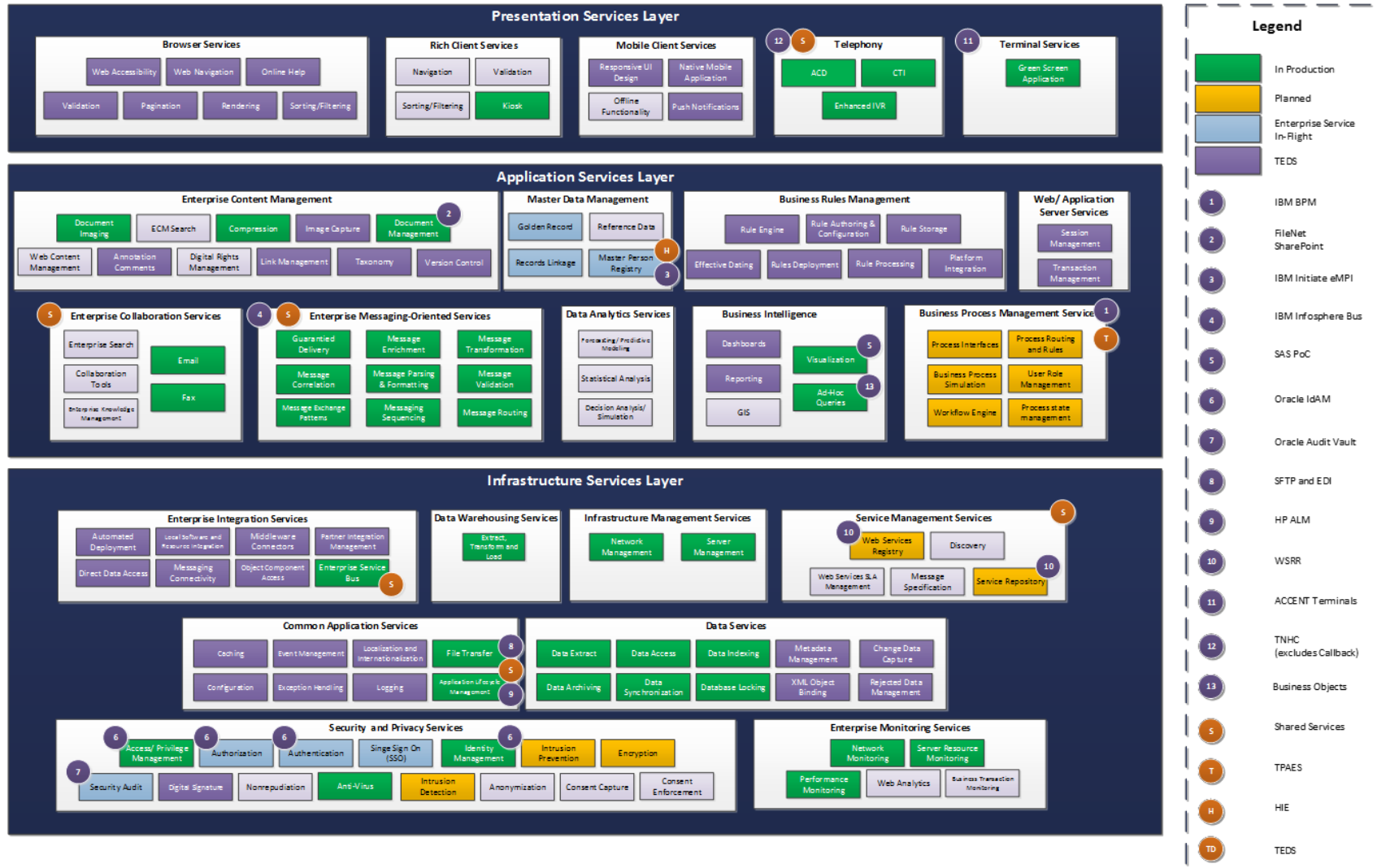


Figure 10: Historic Heat Map of Division of TennCare Software Service Capabilities

Summary of Historic State Assessment

Based on the preponderance of firsthand experience (daily operations), the agency determined that the only feasible recourse was to replace ACCENT. This was supported by third-party recommendations (MITA 3.0 Self-Assessment), the agency's lack of an eligibility determination system for MAGI applications, issues with supporting the ACA requirements, and the ongoing limitations to achieving operational efficiencies.

In addition to replacing ACCENT, the agency took this opportunity to include CoverKids in TEDS. Further, the agency plans to incorporate the functionality of the appeals management system from the current stand-alone TEAMS system into TEDS.

Major Activities Summary

Below is a detailing of the major activities and their status since the submission of the Planning Advance Planning Document (PAPD) in July 2015. To note, PAPD funding was closed out on March 24, 2016 with the February 2017 submission of the Implementation Advanced Planning Document (IAPD), and is not reflected in those tables. After this date, any remaining planning activities for the Implementation are reflected in the DDI and M&O cost categories.

TEDS launched statewide in March 2019 and finished all conversions in May 2019. Further detail on the activities and schedule changes can be found in [Section 9 – Proposed Activity Schedule](#) and detail on additional TEDS enhancements after the 2019 go-live can be found in [Section 6.3 – Additional Scope](#). All historical accomplishments before the 2020 IAPDU (version 5.0) are below.

Contract Acquisition/Transitions/Amendments

- Approved a contract with KPMG for TAS to support the following:
 - Guidance through the MMP, which includes TEDS
 - Enhancements to the MMIS
 - Assistance with the development of Tennessee's HIE
 - Data analytics, business intelligence, and security
- Approved a contract with Maximus Health Services, Inc. (Maximus) to conduct eligibility redeterminations for TennCare and CoverKids members
- TNHC Contact Center operations and management from Cognosante to AHS
- Approved a contract with PCG to provide SPMO services in support of the MMP
- Amended Cognosante's IV&V contract effective March 2015
- Transitioned CoverKids eligibility determination from Maximus to AHS
- Amended Cognosante's IV&V contract effective April 2016
- Finalized the creation of a RFQ for the competitive procurement of a Solution Provider to support the establishment of TEDS
- Facilitated Solution Provider respondent oral presentations and identified a qualified vendor for procurement
- Finalized Solution Provider contract negotiations and received contract approval from CMS

- Signed a contract with Deloitte for Solution Provider services to design, develop, implement, maintain, and operate a rules-based Medicaid eligibility determination system that includes:
 - Worker Portal
 - Member Portal
 - Partner Portal
- Utilized DXC's contract to work with Trinisys, Tech Democracy, and Audacious Inquiry for Member Services Data Management (MSDM), IAM, and MDM, respectively
- Transitioned support of MDM from DXC to Deloitte
- Transitioned support of FileNet from DXC to Deloitte
- Transitioned the project management role for IAM from DXC to Deloitte for the remainder of the IAM implementation
- Amended Cognosante's IV&V contract effective June 2017
- Amended AHS' and Maximus' contracts effective September 2017
- Amended KPMG's TAS contract effective August 2018
- Amended Cognosante's IV&V contract effective June 2018
- Amended PCG's SPMO contract effective October 2018
- Signed a contract with PCG for Solution Provider services to develop and implement the AVS
- Signed a contract with KEPRO for the Application Processing Call Center services
- Amended Cognosante's (now NTT DATA) contract, effective June 2019
- Amended KPMG's TAS contract, effective June 2019
- Amended PCG SPMO contract, effective July 2019
- Amended Deloitte's Solution Provider contract, effective August 2019

Requirements Gathering

- Developed business and technical requirements through a series of workshops, led by the TAS
- Identified the preferred approach for the establishment of TEDS
- Generated business and technical requirements, as well as supported content, for the development of the IAPD, submitted in January 2016, and the RFQ
- Completed the drafting of an RFQ for the procurement of an Solution Provider to support the establishment of TEDS
- Deloitte validated all functional and non-functional requirements with the Division of TennCare and published requirements in the Requirements Specification Document

Infrastructure Enhancements

- Implemented robust IT infrastructure, including the following:
 - Updated configuration load balancers to allow multiple dedicated secure data paths
 - Upgraded systems as follows:
 - Implemented new Integrated Bus version (IBM Service Bus)
 - Upgraded operating system (Red Hat Enterprise Linux)

- Implemented new and separate environments (Development [DEV], Testing [TEST], Staging [STAGE], New Production [PROD])
- Implemented H74 for Federal Data Services Hub (FDSH) connectivity
- Implemented D1/H31 for Minimum Essential Coverage
- Implemented data security provisions:
 - Revised patch schedules
 - Added new secure tunnels and encryption Secure Hash Algorithms (SHA-2) and encryption hashing algorithm
 - Enhanced performance monitoring
 - Implemented ongoing management of SiteScope, Syslog, and Oracle® Audit Vault
 - Implemented and managed Symantec Security Incident and Event Monitoring tool (being replaced by IBM QRadar)
 - Implemented Splunk logging and monitoring, including performance and executive dashboards
- Completed the following improvement projects for existing business processes and IT services:
 - Designed the new Oracle Audit Vault Solution with new security provisions and initiated the procurement process for the required hardware
 - Designed and implemented a new IT system solution for the Eligibility and Operations Group's non-MAGI-related business processes (known as Eligibility and Operations Group Database Solution)
 - Provided technical expertise in the design and implementation of a new Document Management System for the Member Services Group and coordinated the system's infrastructure installation
 - Modified the Disaster Recovery and Business Continuity policies and procedures, including:
 - Updated the TEDS/ATP Technical Recovery Plan based on MARS-E Contingency Controls
 - Coordinated the TEDS/ATP Disaster Recovery Table-Top Exercise
 - Provided oversight of the new Division of TennCare Contingency Process Transformation Project
 - Coordinated various MARS-E-related activities (e.g., MARS-E 2.0 gap analysis, annual assessment, and the creation of new policies and procedures)
 - Initiated the new Division of TennCare Enterprise Data Classification Framework activities
 - Completed the SHA-2 certificates renewal and successful implementation with CMS/Quality Software Services, Inc. (QSSI)
 - Completed the annual Division of TennCare Applications Risk Assessment
 - Successfully coordinated the agency's side of the State's IT Service Management Tool migration from BMC Remedy to ServiceNow
- Performed internal process improvements:
 - Implemented an internal Events Management Process, including a structured organization and workflow (events triage, analysis, reporting, and remediation)

- Implemented an internal MARS-E-based Vulnerability Management Process, including a structured organization and workflow (vulnerability scanning configuration, finding analysis, reporting, and remediation)
- Optimized the Security and Patching Management process, including improved coordination with the agency's infrastructure vendor (DXC) and STS
- Designed and built a data warehouse and an automated management process in SharePoint for Metrics Monitoring and Reporting (Change Management, ATP and D1H31 counts, and Systems Health Monitoring)
- Designed and built an automated management process in SharePoint for the TEDS/Information Systems (IS) Standard Operating Procedures
- Designed and built an automated management process in SharePoint for TEDS Configuration Items Management (e.g., Enterprise Product Currency Management Platform with Operating Systems and Application versions centrally updated)
- Installed all new servers with Red Hat Linux 7 and hardened in compliance with the Center for Internet Security and Defense Information System Agency Frameworks
- Implemented robust IT infrastructure, including:
 - Updated configuration of F5 load balancers to allow multiple dedicated secure data paths
 - Upgraded systems as follows:
 - Upgraded operating system (Red Hat Enterprise Linux)
 - Upgraded COTS products (IBM, OpenText, Oracle)
 - Implemented new and separate environments (Development [DEV], Testing [TEST], Staging [STAGE], New Production [PROD])
 - Upgraded Java Runtime Environment (Open JDK)
 - Implemented H74 for FDSH connectivity
 - Implemented D1/H31 for Minimum Essential Coverage
- Completed the following improvement projects for existing business processes and IT services:
 - Provided technical expertise in the design and implementation of a new Document Management System for the Member Services Group and coordinated the system's infrastructure installation
 - Modified the Disaster Recovery and Business Continuity policies and procedures, including:
 - Updated the TEDS/ATP Technical Recovery Plan based on MARS-E Contingency Controls
 - Coordinated the TEDS/ATP Disaster Recovery Table-Top Exercise
 - Provided oversight of the new Division of TennCare Contingency Process Transformation Project
 - Initiated the new Division of TennCare Enterprise Data Classification Framework activities
 - Completed the Secure Hash Algorithms (SHA)-2 certificates renewal and successful implementation with CMS/QSSI
 - Completed the annual Division of TennCare Applications Risk Assessment
 - Coordinated the agency's side of the State's IT Service Management Tool migration from BMC Remedy to ServiceNow
- Performed internal process improvements:

- Implemented an internal Events Management Process, including a structured organization and workflow (events triage, analysis, reporting, and remediation)
- Implemented an internal MARS-E-based Vulnerability Management Process, including a structured organization and workflow (vulnerability scanning configuration, finding analysis, reporting, and remediation)
- Optimized the Security and Patching Management process, including improved coordination with the agency's infrastructure vendor, DXC, and STS
- Designed and built an automated management process in SharePoint for the TEDS/ IS Standard Operating Procedures (O&M Runbook)
- Designed and built an automated management process in SharePoint for TEDS Configuration Items Management (e.g., Enterprise Product Currency Management Platform with Operating Systems and Application versions centrally updated)
- Installed and managed the successful implementation of the IBM Integrated License Management Tool to manage IBM licenses on all infrastructure servers

TEDS Solution Provider Activities

- Finalized on-boarding activities for TEDS Solution Provider
- Initiated working sessions and related activities, including:
 - TEDS enterprise architecture build
 - TEDS hardware and software bill of material validation and procurement process coordination
 - TEDS technical design sessions with the Solution Provider and STS, Tennessee's infrastructure services provider, including new environments, network, storage, and backup solutions in line with CMS security and compliance requirements
 - TEDS integration planning with other Division of TennCare enterprise solutions, including Oracle IAM, MDM, FileNet, and Secure File Transfer Protocol
 - Design and build infrastructure to support:
 - TEDS mobile application, MDM, FileNet, and TEDS Interfaces
 - TEDS VMWare farm
 - Implementation of TEDS Storage (G400)
- Completed the following working session activities:
 - Requirements and RFQ development
 - TEDS management plans
 - TEDS requirements validation with the Solution Provider
 - Design and build infrastructure to support:
 - Application Centric Infrastructure network
 - Design and implementation of TEDS environments (DEV, System Integration Testing [SIT], STAGE and PROD)
- Deloitte held design validation sessions with the agency and partners for functional and technical system specifications

- Implemented MDM
- Entered SIT testing for IAM
- Completed development of TEDS including MDM, IAM, and Document Management
- Completed SIT Wave 1 testing of TEDS including MDM, IAM, and Document Management
- Provided subject matter support for UAT for TEDS Pilot Wave 1 functionality
- Provided subject matter support for UAT for TEDS Pilot Wave 2 and Statewide functionality
- Supporting end user training for Pilot Wave 1
- Preparing for Pilot Wave 1 site support and workload management
- Provided site support and workload management for TEDS Statewide Launch
- Launched TennCare Connect through the following key milestones and accomplishments:
 - Launched the connections to the hub for electronic verification and following systems functionality (completed as of 3/18/2019):
 - Worker Portal
 - Appeals Pages
 - Application Registration / Data Collection Pages
 - Auto-Renewals
 - Interfaces: Verify Annual Household Income, Remote Identity Proofing, Verify Current Income, SSA Composite, MMIS Interfaces, DOL Quality Assurance (QA), DOL Unemployment Insurance, Small Business Administration (SBA), State Verification and Exchange System, BENDEX, TALX, United States Postal Service Change of Address, Vital Statistics, COLA, AVS, Certified Mail, Renewal and Redetermination Verification, Low Income Subsidy, Public Assistance Reporting Information System
 - Notices: Eligibility, Appeals
 - Reports: Eligibility, Appeals
 - Member Portal
 - Apply for Benefits
 - Check for Benefits
 - View Notices
 - Upload Documents
 - Report Changes
 - Renew Benefits
 - Partner Portal
 - LTSS Partner Look Up
 - Presumptive Breast and Cervical Cancer
 - Presumptive Pregnancy
 - Hospital Presumptive
 - Mobile Application
 - Check Benefits
 - View Notices
 - Upload Documents

- Report Changes
- Launched Conversion Waves (deployed 4/8/2019 to 5/20/2019)
 - Wave 3B (4/8/2019): 310k individuals in MAGI and MSP – Completed
 - Wave 3C (4/29/2019): 335k individuals in MAGI, MSP, NF and Department of Children’s Services (DCS) – Completed
 - Wave 3D (5/20/2019): Remaining population (~300k individuals) in MAGI, MSP, NF and DCS, SSI, and Pickle – Completed
- Launched additional functionality (deployed on 4/1/2019):
 - FFM Account Transfer (Transition to Assessment State) – Completed
 - SAVE – Completed
 - Verify Lawful Presence (v37) – Completed
- Launched Final functionality (deployed on 5/20/2019):
 - SDX – Completed

TEDS Gate and Milestone Review Activities

- Conducted and approved TEDS Architecture Gate Review on September 28, 2016
- Conducted and approved TEDS Project Baseline Gate Review on March 2, 2017
- Conducted and approved TEDS Project Initiation Milestone Review on March 31, 2017
- Conducted and approved Final Detailed Design Gate Review on September 14, 2017
- Conducted and approved Validation Readiness Gate Review on September 14, 2017
- Conducted Implementation Readiness Review and ORR for TEDS Pilot Wave 1 on October 8, 2018
- Submitted Operational Milestone Review checklists and artifacts to CMS on March 27, 2019
- Targeting to conduct Post-Operational Milestone Review in December 2019

E&E Interim Contingency Accomplishments

- Developed the Playbook II, which documents the current state business processes
- Implemented a data management system for Interim Contingency
- Completed the MSDM project, which brought documents under a common repository for multiple Member Services business units and reduced volumes and flow of paper documentation, as well as time spent indexing, archiving, and retrieving eligibility documentation. MSDM is a web application that has the ability to both capture document images and interface with current document storage, index with data entered into customized web forms, and store both image and indexing data in backend repositories
- Performed redetermination of cases during interim contingency
 - Approximately 17,000 updated redetermination statuses made in FFY18
- TEDS successfully transitioned the ATP transfers to route through TEDS Datapower to the Enterprise Service Bus (ESB) on October 8, 2018
- TEDS successfully transitioned the Minimum Essential Coverage Check service to route through TEDS Datapower to the ESB, so that MMIS may consume the service on October 8, 2018

Security and Privacy Accomplishments

Current State Accomplishments for TEDS MARS-E:

The TEDS compliance and security efforts have been completed for the pilot launch. The system received its Authority to Connect from CMS on September 4, 2018. To achieve this milestone, the joint team completed the following compliance documentation/activities:

- SSA
 - Security Design Plan
- IRS
 - Safeguard Security Report
- CMS
 - SSP and SSP Workbook
 - Privacy Impact Assessment
 - Interconnection Security Agreement
 - Information Security Risk Assessment
 - POAM for CMS
 - Business Continuity Plan, Disaster Recovery Plan, and Contingency Plan
 - The third-party assessment and associated Security Assessment Report (SAR)

The TEDS Security team, working with the agency, has also successfully deployed the following:

- IBM DataPower for web services security
- Splunk to aggregate security events within the TEDS environment
- Tripwire in the TEDS and Oracle IAM environments to monitor changes to critical system files and configuration
- Oracle Audit Vault to monitor critical TEDS and Oracle IAM databases
- Data Classification Framework
- Security Transformation Roadmap
- Information Security Program Policy (PM-1)
- Information Security Program Plan
- Policy Transformation (Division of TennCare organization)
- Operational Calendar (testing)
- Identity and Access Management (IAM)
- Data Loss Prevention Strategy
- Keylight GRC Tool Phase I, Add Phase II, Pilot Add Phase III, Enterprise rollout
- Vulnerability Intelligence and Alerting
- Risk Management Framework
- Acceptable User Policy Update
- Server-based End-point Protection
- POAM Guidelines
- Server-based End-point Protection

- Vulnerability Management Plan
- Vulnerability Scanning Procedure
- Enabled data access process and security and compliance for Federal Tax Information data
- Upgraded connectivity between DataPower to external interfaces to use 8443 protocol for more secure external data exchange
- Implemented data security provisions:
 - Revised patch schedules
 - Upgraded Transport Layer Security (TLS) 1.1 to TLS 1.2
 - Enhanced performance monitoring
 - Re-architected system monitoring (Splunk)
 - Implemented ongoing management of SiteScope, Syslog, and Oracle® Audit Vault
 - Implemented Splunk logging and monitoring, including performance and executive dashboards
- Designed the new Oracle Audit Vault Solution with new security provisions and initiated the procurement process for the required hardware
- Coordinated various MARS-E-related activities (e.g., MARS-E 2.0 gap analysis, annual assessment, and the creation of new policies and procedures)

Additionally, the identity and access management (IAM) team implemented phase 1 of user access management as well as authentication and authorization capabilities for the TEDS environment.

In addition to the Current State Accomplishments for TEDS MARS-E activities, the agency focused on many of the remediation items listed in the POAM previously submitted to CMS. The focus was also on understanding and incorporating the MARS-E 2.0 requirements for the TEDS platform. There were significant GRC activities undertaken to ensure closure of POAMs, including policy creation and modification, policy reviews, and creation and implementation of procedures in areas such as vendor management, incident management, risk management, compliance and testing, and monitoring. Other activities for program improvement beyond the maintenance activities listed above included:

- Completion of gap analysis between MARS-E 1.0 and 2.0
- Initiation of MARS-E 2.0 remediation for all system and operational controls supporting TEDS
- Modification of policies and procedures to support new regulatory requirements for the information security program infrastructure

The accomplishment of the above items provided an updated security framework by which the agency can achieve its strategic organizational goals. The alignment of the security program with the organizational goals of the agency is facilitated by the various GRC initiatives listed above.

EMP Governance

To effectively manage the complexity associated with modernizing eligibility determination, the agency created the TEDS project organization. This project organization brings together the key stakeholders

and evolved as the extended suite of MMP projects is implemented. This Governance model has been implemented in other areas across the agency's enterprise and will be utilized on an ad-hoc basis for future TEDS enhancements.

The TEDS project organization consists of three levels. The first is the Executive Leadership, which includes the Business and IT Project Sponsors. The next level is the Program Governance, which includes a TEDS Project Steering Committee, a TEDS Change Advisory Board (CAB), a Technical Architecture Review Board (TARB), Information Security Steering Committee (ISC), and an SPMO. The third level is the TEDS Project Core Team, which consists of the Division of TennCare PM, TAS Vendor, and Solution Provider Vendor. An IV&V team provides oversight for the Program Governance and the Project Core Team, as depicted in the figure below:

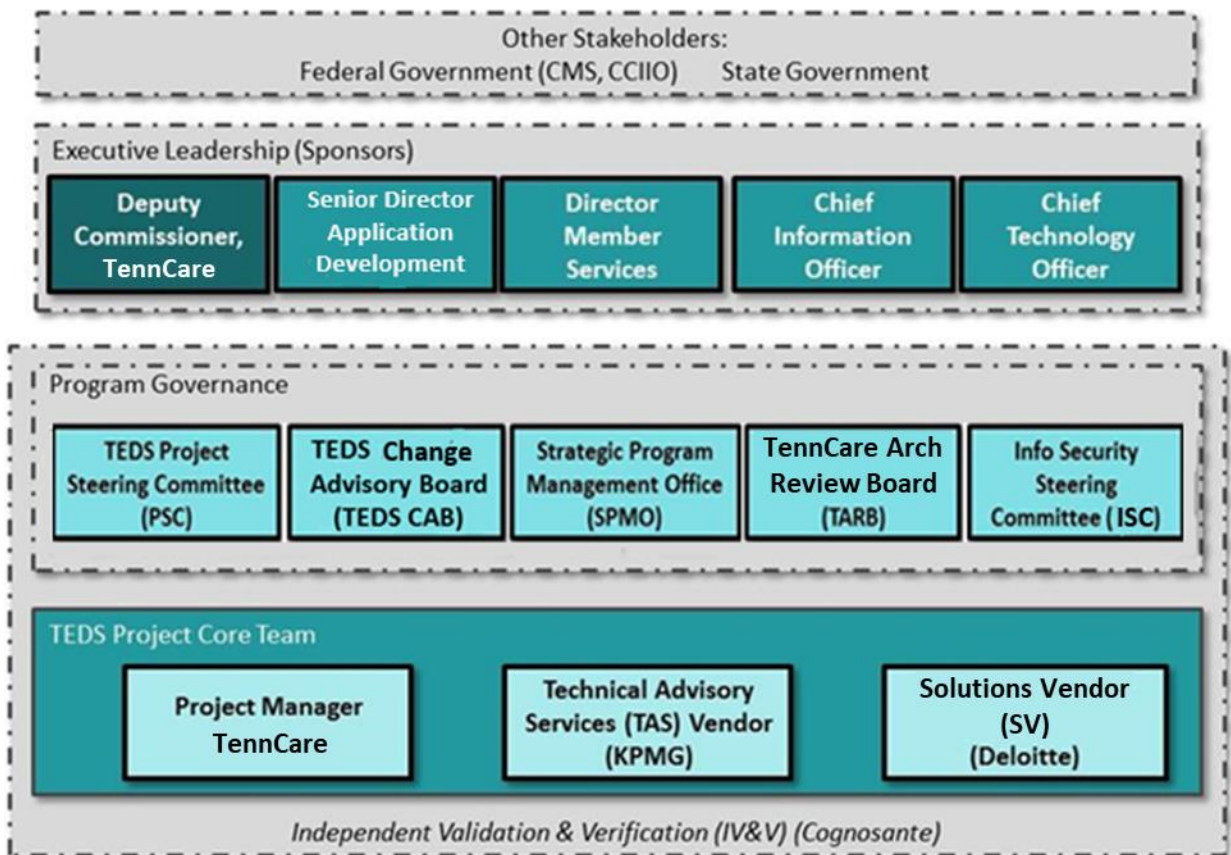


Figure 11: TEDS Project Steering Committee and Core Team

Level 1: Executive Leadership

This primary level includes the Business and IT Project Sponsors. Their function is to help steer and lead the TEDS project and future enhancements. Please refer to [Section 8 - Personnel Resource Statement](#) for a list of the executive leadership and their responsibilities.

Level 2: Program Governance

Project Steering Committee

The TEDS Project Steering Committee provides governance and overall direction for the TEDS Project Core Team. The Committee comprises key staff of the agency, which directs the priorities to achieve the functionality necessary for FFM integration and ACA compliance. The TEDS Project Steering Committee Charter defines membership that includes:

- Voting Members:
 - Director of Member Services (Business Sponsor)
 - CIO (Chair, IT Executive Sponsor)
 - Director of Development, Eligibility Systems (IT Sponsor)
 - Chief Technology Officer
 - Deputy Director of Member Services
- Nonvoting Members:
 - Compliance Officer
 - Solution Provider Representative
 - Program Director
 - Program Manager (SPMO)
 - TAS Executive
 - Application Services Executive
 - Solution Provider Executive
- Attendees (Nonvoting members at large and non-committee members):
 - IV&V PM
 - Business Architecture Representative
 - Security Representative
 - Chief Deputy General Counsel
 - Director of Accounts
 - Director of Contracts
 - State PM
 - TAS Program Manager
 - SPMO PM
 - SPMO Governance Administrator

The Steering Committee reviews all key management, budget, technical, security, and privacy decisions, and provides direction and support to the project core team. The Steering Committee has met throughout the development stages of the project system lifecycle. It will continue to meet monthly until all releases and enhancements within the scope are implemented. The Committee is supported by several additional members supporting each project area.

TEDS CAB

The TEDS CAB oversees technical changes to TEDS components impacting the agency's production environment. Responsibilities include:

- Providing overall guidance and direction to ensure the effective mitigation of risks to the agency's production environment and enabling technical changes to TEDS components to be made with minimum disruption
- Approving technical changes to TEDS components and systems within the control and authority of the TEDS CAB
- Overseeing the planning, scheduling, and implementation of TEDS component technical changes

The membership for TEDS CAB includes a Security approver, an Operations approver, a Quality Assurance approver, and a Technical approver. SMPs are included in CAB meetings as required.

TARB

The Eligibility Modernization solution conforms to state and federal IT standards, including MITA 3.0, CMS's Standards and Conditions for Medicaid IT, and MEET. In order for the agency to provide a fundamental control mechanism for ensuring the effective implementation of these state and federal standards and policies, the agency employs a TARB. The TARB meets monthly to govern and ensure the effective and consistent management and implementation of the MMP solution designs by the project team and Solution Provider, including timely technical review and approval of artifacts in support of the agency's SDLC Gate Review and CMS Milestone Reviews. In addition, the TARB is involved in key discussions regarding potential enhancements to the TEDS solution.

ISC

The ISC provides leadership in the protection of the agency's sensitive data, information assets, and technology. The committee members advise on and prioritize the development of the agency's Information Security Program, as well as information security and data protection initiatives. The committee members also advise on projects and policies and act as advocates for the users of the systems, including individual members of the public whose information is stored in the systems and agency personnel. The ISC provides guidance and leadership to maintain and improve the confidentiality, integrity, and availability of information across the agency.

The committee is sponsored by the CIO and will be chaired by the Chief Information Security Officer (CISO). Committee membership includes representation from following areas:

- IT Operations
- HR
- Internal Audit
- Legal
- Privacy
- Business stakeholders
- Other stakeholders identified by the CISO

Level 3: The Project Core Team

The project organization is supported by the TEDS Project Core Team, represented by the agency's PM and SPMO PM, as well as department leads representing business, planning, technology, security, and privacy components within each entity. The Project Core Team approach facilitates successful knowledge transfer between the Project Core Team staff and the support team.

The Project Core Team provides the following resource activities:

- Establishes an integrated, independent, and dedicated team tasked with managing the IT build and coordinating with Member Services to prepare the modernized eligibility services for sustained success
- Coordinates activities with other Tennessee agencies, other states, federal agencies, and vendors
- Provides project management and subject matter expertise
- Manages the Solution Provider and other contractual relationships associated with the IT build

Project Gate Reviews

Two types of gate reviews will be performed. MEET Milestone Reviews will be performed to meet requirements set forth by CMS as part of the MEET guidance, and SDLC Gate Reviews were performed internally, based on the agency's requirements and industry guidelines. The TEDS Project Steering Committee has accountability and oversight for the project successfully passing all gate reviews.

MEET

CMS developed MEET in 2017 to assist states as they work to streamline and modernize their E&E systems. A cornerstone of the new toolkit is the Medicaid E&E Life Cycle (MEELC). The MEELC and MEET checklists ensure alignment with the latest federal regulations and guidance, MITA, and the standards and conditions for Medicaid IT. MEET fits within the agency's SDLC. MEET comprises three types of milestone reviews with CMS. These milestone reviews are not intended to replace or interrupt the SDLC Gate Reviews that the agency will also conduct with the Solution Provider vendor.

As documented in the Project Process Agreement V2.0 February 27, 2017, between the Division of TennCare and CMS, three milestone review types are scheduled by mutual agreement between the agency and CMS to accommodate the agency's E&E deployment schedule and resource availability.

- **Milestone 1: Project Initiation Review** – Conducted following the Initiation and Planning Phase. At this review, CMS and the agency will discuss the most appropriate points in the agency's schedule to conduct the remaining milestone reviews. *(Passed)*
- **Milestone 2: Operational Milestone Review** – Conducted following the Test Phase and before the Implementation Phase. This review ensures TEDS is ready to go into the production environment. *(Under CMS review – materials submitted to CMS in March 2019)*
- **Milestone 3: Post-Operational Milestone Review** – Conducted during the M&O phase, within six months after TEDS has been in production. *(Planned for December 2019)*

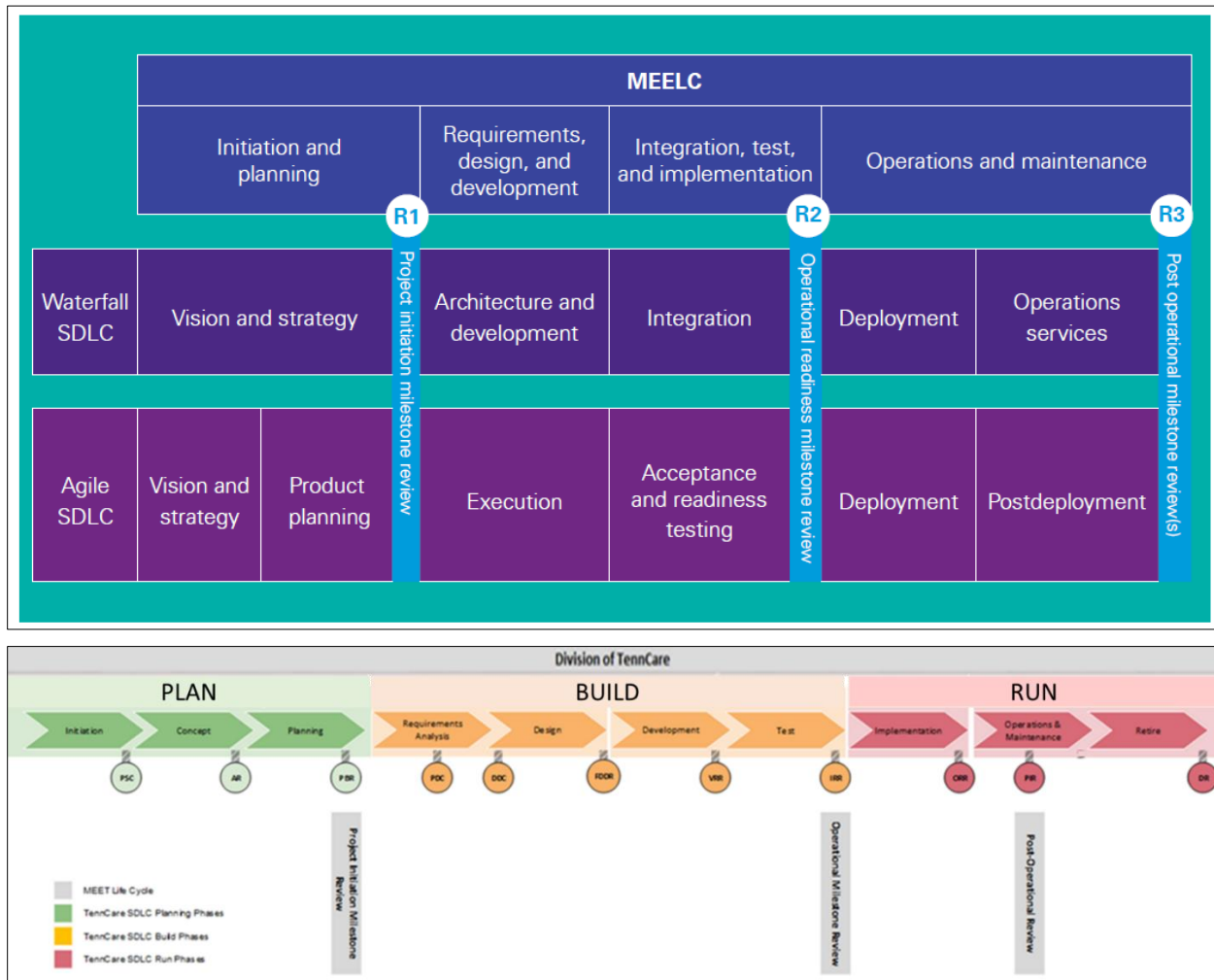


Figure 12: Division of TennCare SDLC and MEET Milestone Reviews

The Agency's SDLC Gate Reviews

In addition to the required CMS Milestone Reviews under MEELC, the agency conducted additional SDLC Project Gate Reviews. When performing SDLC Gate Reviews, the agency worked with the TAS, IV&V, and the SPMO to review the Solution Provider's progress to date and determine whether the work passed the standards for the subsequent CMS Milestone Review.

SDLC Gate Reviews examine the work of the Solution Provider for the eligibility system to ensure that each step of the DDI is consistent with and traceable to the original requirements and intent, and that risks have been properly mitigated, activities have been reviewed, and the project is in good standing for continuing work. The following SDLC Gate Reviews have been conducted by the agency throughout the course of the TEDS project:

- **Project Startup Review:** Review of high level strategy; initial expectations, milestones and timelines

- **Architecture Review (AR):** Meeting to assess if the proposed project is in alignment with the overall target architecture, which may include Exchange Reference Architecture, MITA, and CMS's Standards and Conditions for Medicaid IT. The project is also reviewed to see if it duplicates, interferes with, or otherwise contradicts other efforts.
- **Project Baseline Review:** Review to determine if project goals and objectives will be addressed and successfully managed in a completed Project Management Plan. Key activities such as CMS compliance, project management, risk management, and feasibility are examined to confirm that all have been appropriately addressed.
- **Requirements Review:** Review to determine where the solution meets requirements from the RFQ and what changes must be made to the design of solution where it does not meet requirements. Test planning, Security analysis/planning, Infrastructure/Staffing should begin discussions.
- **Final Detailed Design Review:** Gate Review to ensure that the majority of the design has been completed and that the Solution Provider is starting system development activities. CMS will confirm that the IV&V contractor has verified system requirements and designs as part of this step. Detailed design should remain compliant with MITA/Governance standards.
- **Validation Readiness Review:** Handoff of the developed solution into the Testing Phase. The Solution Provider will walk through the developed product to ensure that the testing team, State staff, and IV&V have sufficient insight to begin testing, verification, and validation of the solution.
- **Implementation Readiness Review:** Meeting to ensure that the test results and IV&V reports warrant moving into UAT with the State.
- **ORR:** Review to ensure that the system is ready and able to be transitioned into production. This will be verified through State testing, training, privacy and security actions, and accreditation activities.
- **Post Implementation Review (PIR):** Meeting to ensure that the system is ready for release into the production environment for sustained operations and maintenance. Newly operational systems are required to schedule a project-level PIR with the TARB and Project Steering Committee six months after moving into production. Subsequent PIRs should be conducted for each release.
- **DR:** Meeting to define the activities executed to remove a system (or an older release of the system) from the production environment.

Architecture Reviews

The Architecture Governance in the context of TennCare IS Lifecycle Process consists of four reviews. The associated outcomes and artifacts of the reviews are shown in the figure below. The artifacts are approved in gate reviews as indicated in the SDLC standard.

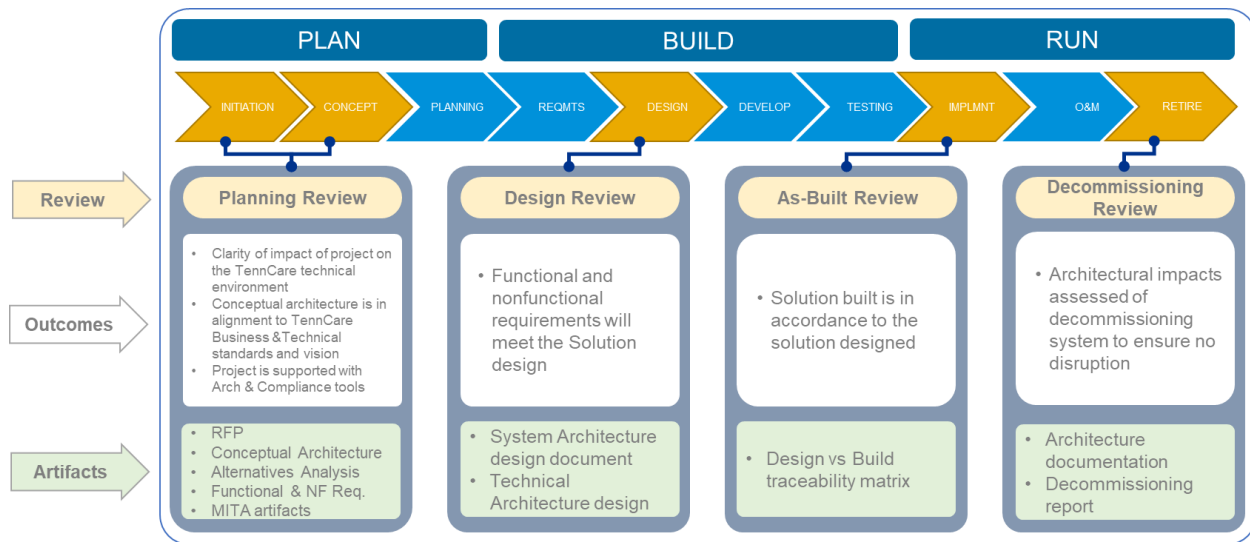


Figure 13: Division of TennCare Architecture Reviews

TEDS Project Schedule

In the IAPD submitted in January 2016 and approved by CMS in March 2016, the agency described an iterative approach that contemplated multiple releases to implement TEDS, prioritizing the highest volume services in the initial releases. Since that time, the agency, in consultation with the Solution Provider, TAS, SPMO, and IV&V vendors, identified and agreed on a new approach to reduce program risk, shorten the time to fully implement all TEDS functionality by several months, and deliver to Tennessee the maximum benefit of the project in a more timely fashion. The proposed approach was to implement a single release with all required functionality and features to support workers and members delivered sooner than previously planned.

The Division of TennCare, in collaboration with its technical consultants and the Solution Provider, modified its approach to the modernization of its eligibility and appeals systems. In place of a phased approach that included multiple releases that built-in functionality incrementally, Tennessee instead chose to implement TEDS using a single release. The timeline implemented a system for Modified Adjusted Gross Income (MAGI) and non-MAGI eligibility categories. Also, the revised approach improved administrative processes, which allows the agency to streamline and enhance its eligibility and appeals systems. This schedule was approved by CMS in May 2017 in the 2017 annual IAPDU.

This single-release approach provided the agency with a greater opportunity to achieve success in modernizing its eligibility system. The agency replaced a patchwork of legacy systems, interim solutions, manual work, outsourcing, and home-grown microsystems to more efficiently meet the criteria of the Patient Protection and ACA. As a result of replacing these systems, the State streamlined the eligibility process and includes security enhancements to meet the requirements of federal and State regulations and policies.

The table below highlights the advantages of a single implementation release:

Advantages of a Single Release	
Training	• Simplifies the approach for worker-based training as workers only have one system to process all their work • Increases ability to conduct preparation assessments and staff readiness checks as part of go-live planning • Reduces confusion and changes for workers by eliminating the need for multiple updates to desk guides per release; only one update and version of written desk guides (procedures) would be required
Communications	• Provides one source and one release for communication enabling improved standards and increased consistency
Timing	• Reduces risk of going live in the middle of ACA open enrollment period
Business Process	• Removes complicated interim (Release 1 [R1] to Release 2 [R2]) workflows and processes for applications and redeterminations that switch between MAGI and non-MAGI categories
Eligibility	• Provides more accurate and consistent eligibility processing across categories of eligibility • Reduces risk by removing the need to develop an interim medical coverage check with the MMIS to avoid complications of potentially creating duplicate eligibility segments
Notices	• Provides streamlined notices with clear content and consistent formatting to the agency earlier • Reduces the possibility of gaps in information and/or duplicate notices being sent when generating notices across systems
Reporting	• Enables improved reporting and analysis by implementing full reporting functionality to the agency earlier
Appeals	• Reduces overall errors, volume of appeals, and resource needs by having a fully functional, integrated eligibility system • Simplifies the approach for the appeals process by eliminating the need to gather information from disparate systems
Member Portal (Self-Service)	• Expedites member portal usage to allow clients to access and update their information, reducing dependency on workers • Allows clients to receive notices and complete redeterminations online, preventing unnecessary denials and closures • Reduces the volume of paper notices through the use of electronic notices to support communication with members
Master Client Index	• Reduces risk, simplifies the implementation, and reduces duplicate records as TEDS is the sole source of truth for

Advantages of a Single Release	
	applicant and member records
Interfaces	- Improves ability for consistent and complete closure of ATP with the FFM - Reduces risk by removing the need for temporary work-around(s) that MMIS would need to implement between R1 and R2 to add hierarchical logic between systems
Data Conversion	- Reduces risk in conversion by removing the need for multiple conversion efforts as well as any periodic interim conversion processes required to convert non-MAGI clients that are subsequently determined eligible for MAGI between R1 and R2 - Improves data quality at conversion by using all available source systems to convert the current data into TEDS
CoverKids	Supports moving CoverKids into interchange (iC) and integrates them with the Medicaid MCO prior to the TEDS go-live
New Medicaid Card (formally SSNRI)	Enhances the ability to implement and focus on NMC, formally the Social Security Number Removal Initiative (SSNRI); reduces the complexity associated with splitting work between two releases
Infrastructure	Reduces risk in the technical environments with a reduced number of logical environments
Enhanced Codebase	Reduces risk in the code base as more time allows for additional preparation and testing time
Code Branching	Reduces complexity of code branching and provides the ability for the agency to prioritize and plan
Testing	- Simplifies the overall testing approach with regression testing and R1/R2 testing scenarios - Allows the system to be tested end-to-end, with all functionality, including a full beta testing cycle for all functionality
External Systems	- Migrates from and reduces reliance on the following systems: - Max-E ATS (Maximus) – Processing for all MAGI and non-MAGI redeterminations - HealthTrack (CoverKids functionality) (AHS) – Processing and management of CoverKids - FileBound (InStream) – Processing for inconsistent MAGI account transfers from FFM - Access databases (State) – Tracking all non-MAGI referrals from FFM

Advantages of a Single Release	
	○ Accent (DHS) – Processing for all non-MAGI eligibility ○ ATP (DXC) – Routing of all inbound to Tennessee (FFM to State) account transfer files ○ TEAMS (KEPRO) – Processing and management of appeals

Table 32: Advantages of a Merged Release

During the development phase of conversion in the fall of 2017, the project team identified gaps in the data sources available for conversion. Without enough data to convert, there would be impacts on the ability to use automation, causing an increase in workload and a decrease in member experience due to lack of data. In consultation with the Solution Provider, TAS, SPMO, and IV&V vendors, the Division of TennCare identified and agreed upon a new approach to include additional data sources to help supplement existing data sources. As a result of this change, the project schedule was modified to provide for an additional data conversion development lifecycle, additional testing, and an extended Pilot and Training period. The project moved from a three-month Pilot to a six-month Pilot which reduced program risk and increased the quality of the implementation. During the first three months, TEDS only processed applications for new individuals who would not be subject to conversion activities. In the second wave of the pilot, TEDS included additional functionality, such as the processing of renewals.

In early August 2018, a decision was made by agency leadership to change the TEDS Pilot Wave 1 launch date from September 17, 2018 to October 22, 2018. Leadership made this decision to give the teams more time to prepare between the end of UAT and the launch date. This was to allow for additional time to improve functionality and expand current training materials before they are released to end users. The TEDS Pilot Wave 1 launched on October 22, 2018 and subsequently to the general public on October 23, 2018.

In early October 2018, it was decided to reschedule the launch of TEDS Pilot Wave 2 from December 17, 2018 to January 14, 2019. This allowed more time for testing of Wave 2 functionality and avoided launching during the holiday season.

As a result of the extended pilot period, the statewide launch for TEDS was met March 2019 and conversions were completed in May 2019. The high-level timeline below identifies this schedule:



Figure 14: High-Level Project Timeline

This approach provided the agency with a greater opportunity to achieve success in modernizing its eligibility system. After the launch of the E&E platform, the Division of TennCare plans to prioritize a

number of initiatives designed to increase efficiency for the end user community and enhance outcomes. These initiatives identified in this IAPDU are identified in [Section 6.3 – Additional Scope](#).

Below are the major activities completed to-date by the TEDS team.

TEDS History	Start Date	End Date
The agency submitted the original TEDS IAPD	April 10, 2012	April 10, 2012
CMS approved the TEDS IAPD	May 13, 2012	May 13, 2012
The agency submitted an Implementation IAPDU	March 7, 2014	March 7, 2014
CMS deferred approval of the IAPDU pending approval of the agency's contingency plan	May 1, 2014	May 1, 2014
Original IAPD funding expired	September 30, 2014	September 30, 2014
The agency submitted an Interim IAPDU funding request	December 18, 2014	December 18, 2014
The agency retracted the pending Interim funding request and prior IAPDU request per agreement with CMS. Next steps included the submission of a PAPD requesting enhanced funding for transition/bridge activities from the old implementation, interim contingency Medicaid Eligibility Determination and Appeals processing, and planning activities related to the new implementation	April 21, 2015	April 21, 2015
CMS approved the withdrawal of pending IAPDU and interim funding request	May 5, 2015	May 5, 2015
CMS approved TAS RFQ supporting TEDS and other Medicaid modernization activities	May 7, 2015	May 7, 2015
The agency submitted a PAPD to support TEDS	June 1, 2015	June 1, 2015
CMS approved SPMO RFQ supporting TEDS and other Medicaid modernization activities	June 26, 2015	June 26, 2015
The agency submitted a revision to the PAPD to include the eligibility redetermination contractor costs, which was competitively procured	July 14, 2015	July 14, 2015
CMS approved the PAPD	October 28, 2015	October 28, 2015
The agency submitted an IAPD funding request for TEDS	January 29, 2016	January 29, 2016
CMS approved TEDS IAPD	March 24, 2016	March 24, 2016
The agency submitted TEDS Solution Provider Services contract to CMS for approval	September 15, 2016	September 15, 2016
CMS approved TEDS Solution Provider Services contract	September 30, 2016	September 30, 2016

TEDS History	Start Date	End Date
The agency submitted eligibility redetermination services contract amendment #1 to CMS for approval	October 3, 2016	October 3, 2016
CMS conditionally approved eligibility redetermination services contract amendment #1	November 4, 2016	November 4, 2016
Single release approach reviewed and approved by CMS; CMS grants Tennessee one-month extension for submission of IAPDU	December 20, 2016	December 20, 2016
TEDS IAPDU (version 2.2) submitted to CMS	February 27, 2017	February 27, 2017
Project Baseline Review	March 2, 2017	March 17, 2017
Project Initiation Milestone Review	March 31, 2017	March 31, 2017
TEDS IAPDU (version 2.2) Approval	May 22, 2017	May 22, 2017
TEDS IAPDU (version 2.2) updated Staff Tables sent to CMS	June 14, 2017	June 14, 2017
CMS Approval of TEDS IAPDU (version 2.2) revised staff tables	June 30, 2017	June 30, 2017
CMS Approval of the AHS Contract Amendment	September 12, 2017	September 12, 2017
CMS Approval of the Maximus Contract Amendment #2	September 12, 2017	September 12, 2017
Submission of the AVS RFP to CMS	December 14, 2017	December 14, 2017
Submission of the Application Processing Call Center RFP to CMS	December 14, 2017	December 14, 2017
Complete Trading Partner Interfaces	February 7, 2017	January 19, 2018
System Development Complete	March 20, 2017	February 23, 2018
TEDS IAPDU (version 3.1) Corrected Approval Letter sent by CMS	March 15, 2018	March 15, 2018
System Integration Testing Progress: Wave 1	November 6, 2017	March 30, 2018
AVS Contract Began	April 1, 2018	April 1, 2018
Application Processing Call Center Contract Began	June 15, 2018	June 15, 2018
UAT	April 9, 2018	September 7, 2018
Start Pilot Training	September 24, 2018	September 24, 2018

Table 33: Major Activities To-Date

APPENDIX D – ACQUISITION ASSURANCE (No Change)

While the agency submitted the RFQ to CMS for its prior approval before it was released, Tennessee conducted the acquisition of automated data processing equipment and/or services in a manner that complied with all federal regulations and policies. In particular, the following has been noted:

1. The acquisition was conducted in a manner that provides, to the maximum extent practicable, open and free competition;
2. The acquisition, which was funded in part by Health and Human Services, meets the standard and functional requirements outlined in federal regulations;
3. The acquisition complied with all applicable federal and State standards, laws, policies, and procedures;
4. The acquisition document contained a clause that provides the U.S. Department of Health and Human Services and/or their representatives access to State agency documents, papers, or other records about the procurement to make audits, examinations, excerpts, and transcripts;
5. The acquisition complied with federal rules about State ownership rights to all software products, documentation, and intellectual property created under the acquisition;
6. The acquisition document contained a clause that grants the federal government a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use and to authorize others to use for federal government purposes, software, modifications, and documentation developed and/or obtained through the acquisition;
7. The statement of work in the acquisition document conveyed expectations to be met by the successful contractor including items such as required tasks, deliverables and their schedule of delivery, technical requirements, security, privacy, and confidentiality requirements, roles and responsibilities, and project reporting requirements;
8. The acquisition document included clauses covering mandatory contract terms and conditions, order of precedence, compliance with laws, liability, period of performance, Force Majeure, availability of funds, disputes, failure of performance, damages, and termination;
9. The acquisition document included information about the vendor evaluation and selection process;
10. The Solution Provider evaluation and selection process about technical and cost scoring was finalized before the release of the acquisition document; and
11. The acquisition document delineated responsibilities relative to key staff, the change order process, and documentation requirements.

APPENDIX E – CURRENT SYSTEMS OVERVIEW

Major Division of TennCare Systems Summary

- TEDS – TEDS is the agency's new eligibility and case management system. This has replaced ACCENT.
- TNHC – TNHC is an outsourced Contact Center for TennCare. TNHC utilizes a suite of business applications that support Contact Centers, CRM, and document management functionalities. The eligibility system will integrate with TNHC applications to support TNHC workflows.
- Division of TennCare Member Services Other Processes – The agency has a number of smaller processes that it uses to support specialized workflows. The expectation is that these stand-alone processes will be replaced by the new eligibility system, and it will not be necessary to convert data from these processes/files.
- interchange (iC) – DXC interChange is a federally certified MMIS used by the agency to administer and manage enrollment in Medicaid MCOs, as well as capture claims and encounter data from the MCOs. Through the Enhancement 10 project, the agency implemented a SOA infrastructure to provide an integrated platform, which includes an enterprise service bus, service lifecycle management, standards, procedures, and a governance model. The enhancement begins the agency's transition from traditional application architecture to SOA in alignment with CMS's Standards and Conditions for Medicaid IT.

Division of TennCare Systems Replacement or Modification Recommendations

The table below outlines the additional systems of the agency that will be replaced or modified by the new Eligibility Systems and the new role they will fulfill post-implementation:

Plan	Purpose	Scope
TEDS	TEDS supports eligibility and case management functionalities for Medicaid. This new eligibility system also enables MAGI-based eligibility determinations.	This new eligibility system replaced the legacy system, ACCENT, in 2019
Tennessee Pre- Admission Eligibility System (TPAES)	TPAES is the Pre-Admission Eligibility System for Tennessee's LTSS programs.	TPAES Integration – TEDS will have the ability to exchange medical level eligibility information with the TPAES system via the ESB. This is contingent on the readiness of the TPAES system and its completion and integration with the ESB. There will be no

Plan	Purpose	Scope
		integration between TEDS and TPAES until all work on the TPAES system is completed.
TEAMS	TEAMS is the name of the TennCare Eligibility Appeals Management System, a stand-alone database used to manage and document eligibility appeals.	TEAMS will be replaced by the new eligibility system.
interChange (iC)	iC is Tennessee's MMIS, which is operated by DXC. The system supports TennCare's MCO business model.	iC will NOT be replaced by the new eligibility system.
TNHC Service Center Business Support Suite	A suite of business applications used by TNHC to support Contact Centers, CRM, and document management functionalities. TNHC is an outsourced Contact Center. Most of the systems are out of the scope of the eligibility system.	The system will NOT be replaced by the new eligibility system.
AHS	AHS is a vendor that administers health benefits for CoverKids through the system HealthTrack.	The new eligibility system will assume all CHIP eligibility determinations.
Other Processes	Since the implementation of a Tennessee eligibility system has been delayed, the agency has developed a series of stand-alone processes as stop-gap measures. These processes are used to track applications received from the FFM and TNHC and used to support resolution specialists' workflows.	These other processes will be replaced by the new eligibility system.

Table 34: Additional Division of TennCare Systems Replaced/Modified by the New Eligibility Systems

APPENDIX F – CONTRACTOR PERSONNEL RESOURCES

In addition to the key agency staff noted in [Section 8.1 State Resources](#), the agency also has vendor resources to support the TEDS project efforts. The tables below provide detail on the resources from those vendors:

Business Support Services

Title	Avg. Hourly Rate**	Total Hours*	Total Cost	Role
BSS PM(s)	\$215	6,912	\$1,486,080	Management of BSS for the TEDS project
Technical Architect(s)	\$215	1,008	\$216,720	Performing BSS for the TEDS project
Enterprise Architect(s)	\$215	576	\$123,840	
Senior Technical Analyst(s)	\$215	5,760	\$1,238,400	
Senior Business Analyst(s)	\$215	13,248	\$2,848,320	
Senior Financial Analyst(s)	\$215	2,880	\$619,200	

*Total hours and hourly rate are based on 2,160 annual hours per full-time contractor employee for FFY2021 - FFY2023

**The average hourly rate may fluctuate year over year as cost adjustments for scope of work and resource levels are made

Table 35: BSS Resources FFY 2021 – FFY 2023

Strategic Project Management Office

Title	Avg. Hourly Rate**	Total Hours*	Total Cost	Responsibilities
Engagement Manager	\$238	2,508	\$596,904	Management of the SPMO team
Program Manager	\$214	5,016	\$1,073,424	Program management of the TEDS project
Project Manager(s)	\$190	10,032	\$1,906,080	Project management for business, systems, security/privacy, technology, and infrastructure
Risk Manager	\$190	5,016	\$953,040	Risk and issue management/quality assurance

*Total hours and hourly rate are based on 2,160 annual hours per full-time contractor employee for FFY2021 - FFY2023

**The average hourly rate may fluctuate year over year as cost adjustments for scope of work and resource levels are made

Table 36: SPMO Resources FFY 2021 – FFY 2023

Private Contractor Testing Resources

Title	Avg. Hourly Rate**	Total Hours*	Total Cost	Responsibilities
Sr. QA Analyst(s)	\$210	10,032	\$2,106,720	Lead and Supervise QA Analysts
QA Analysts(s)	\$125	85,272	\$10,659,000	Execute test cases

*Total hours and hourly rate are based on 2,160 annual hours per full-time contractor employee for FFY2021 - FFY2023

**The average hourly rate may fluctuate year over year as cost adjustments for scope of work and resource levels are made

Table 37: Testing Resources FFY 2021 – FFY 2023

Technical Advisory Services

Title	Avg. Hourly Rate**	Total Hours*	Total Cost	Responsibilities
Engagement Partner	\$244.20	1,442	\$352,136	Leads the TAS in support of TEDS
Engagement Director	\$244.20	2,883	\$704,110	Manages TAS staff and coordinates activities with State and other TEDS contractors
Quality Partner	\$244.20	217	\$53,013	Evaluates strategies and programs to measure achievement; establishes processes to support continuous business improvement
Director(s)	\$244.20	4,733	\$1,155,677	Manages TAS staff and coordinates activities with other TAS workstreams
Organizational Change Management Training (OCMT) Lead	\$244.20	938	\$229,133	Leads overall organizational change management strategy and project direction
Quality Assurance Lead(s)	\$244.20	4,657	\$1,137,122	Coordinates QA tasks and management of QA processes and workflows
Service Now Lead(s)	\$244.20	3,370	\$822,875	Manages Service Now staff and assists with Service Now work
PM Supervisor(s)	\$244.20	14,030	\$3,426,092	Manages PM staff and assists with PM work
Enterprise Architect/Solution Architect(s)	\$244.20	11,029	\$2,693,339	Aligns business and IT by supporting development of vision, model, processes, and IT blueprint
Business Architect(s)	\$244.20	11,029	\$2,693,339	Provides business context for health and human services enterprise transformation activities
Technical Architect(s)	\$244.20	11,029	\$2,693,339	Assists in defining technical architecture for TEDS future state
Analyst(s)	\$244.20	56,487	\$13,794,196	Provides TEDS analytical support

*Total hours and hourly rate are based on 2,160 annual hours per full-time contractor employee for FFY2021 - FFY2023

**The average hourly rate may fluctuate year over year as cost adjustments for scope of work and resource levels are made

Table 38: TAS Resources FFY 2021 – FFY 2023

Solution Provider

Title	Avg. Hourly Rate**	Total Hours*	Total Cost	Responsibilities
Account Executive(s) or Program Executive(s)	\$405.44	9,380	\$3,802,975	Onsite program executive for the contractors
DDI Manager(s)	\$276.65	41,255	\$11,413,269	DDI of eligibility solution and enhancements
Technical Solution Lead(s)	\$288.58	52,735	\$15,218,076	CIO and other technical leads for the eligibility solution and enhancements
Business Solution Lead(s)	\$362.51	41,975	\$15,216,538	Operations Officer and other business leads for the eligibility solution and enhancements
QA Lead(s)	\$299.72	50,768	\$15,216,018	Serves as project QA Managers and Leads for the eligibility Solution and responsible for EMP quality control
OCMT Lead(s)	\$204.45	93,038	\$19,021,399	Ensures deliverables are met on time and on budget; coordinates and manages instructional design staff; works with State OCMT Team to support the development of training materials
PMO Manager(s)	\$189.46	301,199	\$57,065,184	Contractor liaison to the SPMO and TAS, and manages project's PMO
Architect(s)	\$218.80	173,861	\$38,040,560	Role includes: - Defining and documenting network, security, server, SOA and the operating system specifications for the Solution - DDI of infrastructure to provide highly- complex, reliable, and scalable databases - Providing application architecture and design

Title	Avg. Hourly Rate**	Total Hours*	Total Cost	Responsibilities
				recommendations based on State standards • DDI of the integration between TEDS and other State standard COTS software
Analyst(s)	\$163.72	580,900	\$95,106,035	Provides overall assistance to the project
Manager(s)	\$248.36	306,342	\$76,083,250	Manages the implementation and development of eligibility solution and enhancements over the course of the project
Privacy/Security Lead(s)	\$285.52	66,610	\$19,018,197	Oversees the privacy and security aspects of the eligibility solution implementation and its enhancements
Web Platform Specialist(s)	\$112.10	33,940	\$3,804,524	Specializes in web platform services for the project
Technical Writer(s)	\$119.25	31,902	\$3,804,353	Performs technical writing for the project
Database Administrator(s)	\$117.05	32,495	\$3,803,501	Manages the various databases
CMS Compliance Resource(s)	\$159.19	23,897	\$3,804,210	Validates compliance with CMS rules, regulations, and policies

*Total hours and hourly rate are based on 2,160 annual hours per full-time contractor employee for FFY2021 - FFY2023

**The average hourly rate may fluctuate year over year as cost adjustments for scope of work and resource levels are made

Table 39: Solution Vendor Resources FFY 2021 – FFY 2023

Facilities Management

Title	Avg. Hourly Rate**	Total Hours*	Total Cost	Responsibilities
GRC Consultant(s)	\$81	178,348	\$14,446,184	TEDS Security MARS-E, SAR, and Security Transformation
Business Analyst(s)	\$70	206,529	\$14,457,049	ACA TEDS - ATP/FDSH TEDS 2.0 Interface Support
Developer(s)	\$92	122,462	\$11,266,465	TEDS 2.0 - Direct & Indirect Interfaces & Conversions Base resources
Manager(s)	\$100	71,887	\$7,188,657	TEDS Security Transformation
Project Manager(s)	\$100	103,547	\$10,354,709	ACA TEDS - ATP/FDSH TEDS 2.0 – Direct & Indirect Interfaces and Conversions
Quality Lead(s)	\$80	179,754	\$14,380,329	TEDS 2.0 - Direct & Indirect Interfaces and Conversions

*Total hours and hourly rate are based on 2,160 annual hours per full-time contractor employee for FFY2021 - FFY2023

**The average hourly rate may fluctuate year over year as cost adjustments for scope of work and resource levels are made

Table 40: Facilities Management Vendor Resources FFY 2021 - FFY 2023

STS Infrastructure Support

Title	Avg. Hourly Rate**	Total Hours*	Total Cost	Responsibilities
Enterprise Senior Project Director	\$139	1,248	\$173,472	Provides oversight for the TEDS infrastructure
Project Manager	\$100	1,248	\$124,800	Provides oversight to the TEDS development project

*Total hours and hourly rate are based on 2,160 annual hours per full-time contractor employee for FFY2021 - FFY2023

**The average hourly rate may fluctuate year over year as cost adjustments for scope of work and resource levels are made

Table 41: STS Infrastructure Support Resources FFY 2021 - FFY 2023

APPENDIX G – ACRONYMS

Acronyms	Definitions
ACA	Affordable Care Act
ACCENT	Automated Client Certification and Eligibility Network for Tennessee
ADP	Automatic Data Processing
AHS	Automated Health Systems
AR	Architecture Review
ATP	Account Transfer Process
AVS	Asset Verification System
AWS	Amazon Web Services
BAA	Business Associate Agreement
BENDEX	Beneficiary Data Exchange System
BSS	Business Support Services
CAB	Change Advisory Board
CBA	Cost Benefit Analysis
CR	Certification Review
CFR	Code of Federal Regulations
CHIP	Children's Health Insurance Program
CIO	Chief Information Officer
CISO	Chief Information Security Officer
CMS	Centers for Medicare and Medicaid Services
COLA	Cost of Living Adjustment
COTS	Commercial Off the Shelf Solution
CPI	Cost Performance Index
CPO	Central Procurement Office
CRM	Customer Relationship Management
DCS	Department of Children's Services

Acronyms	Definitions
DDI	Design, Development, and Implementation
DHS	Department of Human Services
DOL	Department of Labor
DR	Disposition Review
DXC	DXC Technology
E&E	Eligibility and Enrollment
EMP	Enterprise Modernization Project
EMS	Emergency Medical Services
ESB	Enterprise Service Bus
F&A	Tennessee Department of Finance and Administration
FDSH	Federal Data Services Hub
FFM	Federally Facilitated Marketplace
FFP	Federal Financial Participation
FFY	Federal Fiscal Year
FIPS	Federal Information Processing Standards
FISMA	Federal Information Security Management Act
GRC	Governance, Risk, and Compliance
HIE	Health Information Exchange
HIPAA	Health Insurance Portability and Accountability Act
HIT	Health Information Technology
HITECH	Health Information Technology for Economic and Clinical Health Act
HR	Human Resources
IAM	Identity Access Management
IAPD	Implementation Advanced Planning Document
IAPDU	Implementation Advanced Planning Document Update
iC	interChange
IRS	Internal Revenue Service

Acronyms	Definitions
IS	Information Systems
ISC	Information Security Steering Committee
ISCP	Information System Contingency Plan
IT	Information Technology
ITC	In The Cloud
IVR	Interactive Voice Response
IV&V	Independent Verification and Validation
KEPRO	Keystone Peer Review Organization
KPI	Key Performance Indicator
KPMG	KPMG LLP
LTSS	Long-term Services and Support
M&O	Maintenance & Operations
MAGI	Modified Adjusted Gross Income
MARS-E	Minimum Acceptable Risk Standards for Exchanges
MCO	Managed Care Organization
MDBT	Medicaid Detailed Budget Table
MDM	Master Data Management
MEELC	Medicaid Eligibility and Enrollment Life Cycle
MEET	Medicaid Eligibility and Enrollment Toolkit
MITA	Medicaid Information Technology Architecture
MMIS	Medicaid Management Information System
MMP	Medicaid Modernization Program
MSDM	Member Services Data Management
MSP	Medicare Savings Program
NF	Nursing Facilities
NIST	National Institute of Standards and Technology
NMC	New Medicare Card Project

Acronyms	Definitions
OBC	Outcomes Based Certification
OCMT	Organizational Change Management Team
OMB	Office of Management and Budget
ORR	Operation Readiness Review
PAPD	Planning Advance Planning Document
PACAP	Public Assistance Cost Allocation Plan
PCG	Public Consulting Group
PERLSS	Pre-Admission Evaluations and Referrals Long-Term Services and Supports
PHI	Protected Health Information
PII	Personally Identifiable Information
PIR	Post-Implementation Review
PM	Project Manager
PMO	Project Management Office
POAM	Produced Plan of Action and Milestones
PROD	Production
QA	Quality Assurance
QM	Quality Management
QSSI	Quality Software Services Inc.
RFP	Request for Proposal
RFQ	Request for Qualifications
SAR	Security Access Report
SBA	Small Business Administration
SDLC	System Development Lifecycle
SDX	Simulation Data Exchange
SHA-2	Secure Hash Algorithms
SI	Systems Integrator
SIT	System Integration Testing

Acronyms	Definitions
SMM	State Medicaid Manual
SMP	Subject Matter Personnel
SNAP	Supplemental Nutrition Assistance Program
SOA	Service Oriented Architecture
SOC	Security Operations Center
SPI	Schedule Performance Index
SPMO	Strategic Program Management Office
SSA	Social Security Administration
SSI	Supplemental Security Income
SSNRI	Social Security Number Removal Initiative
SSP	System Security Plan
STAGE	Staging
STS	Strategic Technology Solutions
TALX	TALX Corporation
TANF	Temporary Assistance for Needy Families
TARB	Technical Architecture Review Board
TAS	Technical Advisory Services
TEAMS	Tennessee Eligibility Appeals Management Systems
TEDS	Tennessee Eligibility Determination System
TEST	Testing
TLS	Transport Layer Security
TNHC	Tennessee Health Connection
TPAES	TennCare Pre-Admission Evaluation System
UAT	User Acceptance Testing
WPAO	Workload Process Automation and Optimization

Table 42: Table of Acronyms

EXHIBIT 5



November 19, 2020

Stephen M. Smith, Deputy Commissioner
Division of TennCare
Department of Finance and Administration
310 Great Circle Road
Nashville, TN 37243

RE: TN-2020-09-25-EE-IAPDU-FFY2023

Dear Mr. Smith:

This letter is in response to Tennessee's submission dated September 25, 2020, requesting that the Centers for Medicare & Medicaid Services (CMS) review and approve the State's Eligibility & Enrollment (E&E) Implementation Advance Planning Document Update (IAPD-U) in support of the Tennessee Eligibility Determination System (TEDS) project.

Supplemental information was received on October 23, 2020 and on November 16, 2020.

Tennessee's IAPD-U requests \$1,075,206,831, including the Federal Financial Participation (FFP) outlined in Appendix A. The funding requested includes but is not limited to support for the following activities:

- Enhancements to TennCare's Cloud infrastructure implementation e.g. implementation of a configurable infrastructure environment capable of meeting current and future computing and infrastructure needs.
- Support for Tennessee's strategic security approach e.g. implementation of MARS-E 2.0 program requirements and Identity Access Management (IAM) in the cloud.
- Implementation of automation and user experience improvements to the Member Portal, the Worker Portal, the Mobile application, and the Contact Center.
- Workload Process Automation and Optimization (WPAO) to monitor business processes, to introduce automation for repetitive tasks, and to investigate and resolve operational issues.
- Modernization of the MCO Assignment process and functionality.
- Enhancements to analytics and predictive modeling, consolidation of analysis tools, as well as enhancement to document management and routing.
- Maintenance and Operations (M&O) support for TEDS' second year of operations (to include hardware and software refresh, and Process Efficiency and Optimization enhancements for improved user experience).
- Outcomes Based Certification (OBC) activities e.g. Key Performance Indicator (KPI) reporting.
- Support for post go-live processes and enhancements related to Medicaid Enterprise Systems (MES).

CMS previously approved Tennessee's TEDS APD on November 25, 2019 (under ID: TN-2019-10-04-EE-IAPDU). This IAPD-U budget thus represents an increase in previously approved funding for FFYs 2021-2022 in the amount of \$317,503,313, and a request for new funding for FFY 2023 in the amount of \$313,402,090.

CMS approves Tennessee's IAPD-U effective September 25, 2020, in accordance with Section 1903(a)(3) of the Social Security Act, 42 CFR 433, Subpart C, 45 CFR 95, Subpart F, and the State Medicaid Manual, Part 11. CMS is authorizing expenditures under this APD, in an amount not to exceed the approved Project Medicaid Detailed Budget Table (MDBT) in Appendix A. Authorization of federal funding for this project will expire on September 30, 2023. This approval letter supersedes any prior TEDS APD for the federal fiscal years (FFYs) approved within Appendix A.

Please note: CMS is approving this state Medicaid IT project and the associated funding; however, this APD approval does not constitute approval of any Medicaid program policies. Medicaid program policies must be reviewed and approved through the appropriate State Plan Amendment or waiver processes.

CMS' Consolidated MDBT in Appendix A includes approved funding for all E&E Planning, Implementation, and Operational APDs for the listed FFYs.

This project is subject to all the requirements specified under Appendix B, which includes federal regulations and additional information about the State's responsibilities concerning activities described in the APD. The funding and scope of work approved in the APD are subject to these requirements. **Failure to comply with the federal requirements and State responsibilities in Appendix B is subject to FFP disallowance.**

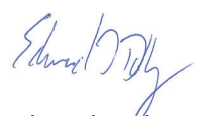
The State must submit monthly status reports for the project. These reports should measure progress against the approved APD. Status reports must be submitted to the Medicaid Enterprise Systems (MES) State Officer by the last day of each month, continuing through project completion.

The State must obtain CMS' prior approval for APDs, Requests for Proposals (RFPs), contracts, and contract amendments as specified in regulations at 45 CFR 95.611. Per 45 CFR 95.611(d), CMS has 60 days to review and respond to a state's IAPD submission. Failure to submit an Annual APD or IAPD Update in a timely manner may put the State at risk of having a gap in approved FFP. The State is reminded that funding for each federal fiscal year expires on September 30 of the corresponding FFY. An Annual APD or IAPD Update can be submitted at any time, however it must be approved by CMS before the funding expires to ensure there is no gap in approved FFP.

Formal submissions of E&E APDs, RFPs, and contracts should be sent to the CMS dedicated E&E electronic mailbox: MedicaidE&E_APD@cms.hhs.gov with a cover letter addressed to Edward Dolly, Director, Division of State Systems.

If you have any questions, please contact the Medicaid Enterprise Systems (MES) State Officer, Enitan Oduneye, at 404.562.7424 or enitan.oduneye@cms.hhs.gov.

Sincerely,



Edward Dolly, Director
Division of State Systems

Date:
2020.11.19
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05:00'

CC:

Dzung Hoang, CMS/CMCS

CAPT Samuel Schaffzin (USPHS), CMS/CMCS

Kia Banton, CMS/CMCS

Nicolas Aretakis, CMS/CMCS

Eugene Gabriyelov, CMS/CMCS

CAPT Willie Tompkins (USPHS), CMS/CMCS

Debbie Simon, CMS/CMCS

James Alexander, CMS/CMCS

Diane Langley, TN

Hugh Hale, TN

Raichon Morand, TN

Appendix A

Tennessee – E&E – Consolidated Detailed Budget Table*
Covers Federal Fiscal Years (FFYs) 2021-2023 (ending September 30, 2023)

	Medicaid Share (90% FFP) DDI	State Share (10%)	Medicaid Share (75% FFP) DDI (COTS)	State Share (25%)	Medicaid Share (75% FFP) M&O	State Share (25%)	Medicaid Share (75% FFP) M&O E&E Staff	State Share (25%)	Medicaid ENHANCED FUNDING FFP Total	State Share Total	Medicaid ENHANCED FUNDING (TOTAL COMPUTABLE)
	28A & 28B†	--	28A & 28B†	--	28C & 28D†	--	28E & 28F†	--			
FFY 2021	\$145,900,732	\$16,211,193	\$0	\$0	\$103,640,292	\$34,546,764	\$59,464,634	\$19,821,545	\$309,005,658	\$70,579,501	\$379,585,159
FFY 2022	\$84,020,402	\$9,335,600	\$0	\$0	\$104,716,731	\$34,905,577	\$67,352,399	\$22,450,800	\$256,089,532	\$66,691,977	\$322,781,509
FFY 2023	\$65,249,326	\$7,249,925	\$0	\$0	\$90,878,619	\$30,292,873	\$66,355,832	\$22,118,611	\$222,483,777	59,661,409	\$282,145,185

	Medicaid Share (50% FFP) M&O E&E Staff	State Share (50%)	Medicaid NOT ENHANCED FUNDING FFP Total	State Share Total	Medicaid NOT ENHANCED FUNDING (TOTAL COMPUTABLE)
	28G & 28H†	--			
FFY 2021	\$14,398,955	\$14,398,955	\$14,398,955	\$14,398,955	\$28,797,910
FFY 2022	\$15,320,082	\$15,320,082	\$15,320,082	\$15,320,082	\$30,640,164
FFY 2023	\$15,628,453	\$15,628,453	\$15,628,453	\$15,628,453	\$31,256,906

	Medicaid ENHANCED FUNDING FFP Total	Medicaid NOT ENHANCED FUNDING FFP Total	TOTAL FFP	STATE SHARE TOTAL	APD TOTAL (TOTAL COMPUTABLE)
FFY 2021	\$309,005,658	\$14,398,955	\$323,404,613	\$84,978,456	\$408,383,069
FFY 2022	\$256,089,531	\$15,320,082	\$271,409,614	\$82,012,059	\$353,421,673
FFY 2023	\$222,483,776	\$15,628,453	\$238,112,230	\$75,289,862	\$313,402,092

*Consolidated funding amounts described above are summarized by FFY; funding is only approved to be used in accordance with the approval dates described in this letter.

†MBES Line Item	
28A	E&E – Title 19 (Medicaid) DDI - In-house Activities
28B	E&E – Title 19 (Medicaid) DDI - Contractors
28C	E&E – Title 19 (Medicaid) Software/Services/Ops - In-house Activities
28D	E&E – Title 19 (Medicaid) Software/Services/Ops - Contractors
28E	E&E – Title 19 (Medicaid) Eligibility Staff - Cost of In-house Activities (staff who make eligibility determinations)
28F	E&E – Title 19 (Medicaid) Eligibility Staff - Cost of Private Sector (staff who make eligibility determinations)
28G	E&E – Title 19 (Medicaid) Eligibility Staff - Cost of In-house Activities (staff whose duties are related to eligibility, such as outreach, plan enrollment, etc.)
28H	E&E – Title 19 (Medicaid) Eligibility Staff - Cost of Private Sector (staff whose duties are related to eligibility, such as outreach, plan enrollment, etc.)

FFP rates for specific activities and costs can be found at 76 FR 21949, available at <https://federalregister.gov/a/2011-9340>

Appendix B

This APD project is subject to the federal regulations and State responsibilities as follows:

- 42 CFR 433, Subpart C, “Mechanized Claims Processing and Information Retrieval Systems”
- 45 CFR 75, “Uniform Administrative Requirements, Cost Principles, and Audit Requirements for HHS Awards”; and Subpart D, “Procurement Standards”
- 45 CFR 95, Subpart F, “Automatic Data Processing Equipment and Services—Conditions for Federal Financial Participation (FFP)”
- 42 CFR 457.230, “FFP for State ADP expenditures”
- State Medicaid Manual (SMM), Part 11
- SMD Letter #16-004 Re: Mechanized Claims Processing and Information Retrieval Systems-Enhanced Funding, and SMD Letter #16-009 Re: Mechanized Claims Processing and Information Retrieval Systems-APD Requirements, which contain additional details on specific FFP rates for qualifying activities

Approved Funding

The amounts allocated per federal fiscal year in Appendices A and B cannot be reallocated between federal fiscal years, even within the period of this letter’s approval, without submission and approval of an APD-Update. Only actual costs incurred are reimbursable.

Systems Software

All software development receiving 90 percent FFP must be state-owned and in the public domain in accordance with 42 CFR 433.112(b)(5) and (6) and 45 CFR 95.617. Federal regulations under 45 CFR 95.617(c) specify that 90 or 75 percent FFP is available for the license for proprietary software, but no FFP is available for the development of that software.

Per 45 CFR 95.617, the Department reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish, or otherwise use and to authorize others to use for Federal Government purposes, such software, modifications, and documentation.

Data Safeguarding and Data Breach Reporting

The State’s MES projects and operations are subject to federal regulations at 42 CFR Part 431, subpart F, “Safeguarding Information on Applicants and Beneficiaries,” and the Administrative Simplification provisions under the Health Insurance Portability and Accountability Act (HIPAA) requirements as specified in 45 CFR Part 160 and Part 164. Further, the State is bound by the requirements in section 1902(a)(7) of the Social Security Act, which require states to provide safeguards that restrict the use or disclosure of information concerning applicants and beneficiaries to purposes directly connected with the administration of the Medicaid program.

In the event of data breach, the State must immediately report the incident to the CMS IT Service Desk by email at cms_it_service_desk@cms.hhs.gov, or call the 24/7 CMS Service Desk phone number: 1-800-562-1963.

T-MSIS

Should the State’s Medicaid Enterprise Systems fail to maintain and produce all federally required program management data and information, including the required Transformed-Medicaid Statistical Information System (T-MSIS) eligibility, provider, claim, and managed care encounter data, in accordance with all applicable

regulations and sub-regulatory guidance and the approved APD for this effort, FFP may be suspended or disallowed as provided for in federal regulations at 45 CFR 95.612. The State is required to maintain monthly production submissions of T-MSIS data files and continue to resolve T-MSIS data issues associated with the Top Priority Items (TPIs) as discussed in the CMCS Informational Bulletin dated March 18, 2019 (<https://www.medicaid.gov/federal-policy-guidance/downloads/cib031819.pdf>) and subsequent T-MSIS guidance.

If you need access to the T-MSIS State Support Site, please contact the CMS T-MSIS Help Desk at T-MSIS_Helpdesk@cms.hhs.gov. CMS expects the State to consider and incorporate T-MSIS requirements in every phase of the Software Development Life Cycle (SDLC) as applicable for any changes to state systems that impacts T-MSIS data reporting.

Throughout this project, the State must continue to provide timely submission of T-MSIS data to CMS. Furthermore, the State must demonstrate to CMS that any changes implemented under this approval will not result in any degradation in the level of accuracy, completeness or timeliness of the State's T-MSIS data submissions. CMS expects the State to share results of testing of T-MSIS data production with CMS before implementation of new system capabilities.