Deliverable 3.1
Target State Design

Prepared for: The State of Tennessee
Administrative Office of the Courts (TN AOC)

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Version: v7

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Target State Design Summary

Purpose of the Target State Design Document

The State of Tennessee Administrative Office of the Courts (TN AOC)* is embarking on a comprehensive Court Technology modernization effort based on its strategic vision and goals of **uniformity**, increased **data accessibility, ability to scale** functionality and technology to the ever changing fast paced technical environment, and **increased availability and accessibility of data**, moving towards a more digital and paperless future, and **ensuring transparency and inclusion in delivery of justice** to Tennessee communities.

This document provides the **Target State Design*** for the State of Tennessee Court System Technology Solution Project.

* This term is defined in the Appendix

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Current State Synopsis

The current state of Tennessee Court Technology is **fragmented and often utilizes outdated or limiting technology** and processes.

The current architectural landscape* and capabilities **do not align with or support TN AOC's strategic vision** for Court Technology.

- There is a lack of **consistency in local data structures and data definitions**. This directly impacts the ability to ensure accuracy and reliance on analytics to drive decision-making.
- **Many courts across the state utilize older and sometimes outdated court technology** (e.g., technology lacking modern and flexible workflows available in newer solutions, or technology built on legacy patterns). This can contribute to overly manual processes, accuracy issues, and a lack of trust and visioning by end-users in the 'art of the possible.'
- While there may be hesitancy about TN AOC-mandated standardization*, **most court and clerk offices are well-primed and in need of TN AOC's leadership** to drive modernization and uniformity.
- TN AOC has several current bright spots that can be explored and expanded upon in the future (e.g., General Sessions Data Repository, or GSDR). The state has an **opportunity to capitalize on what is already working** to build a target state design that better meets its strategic vision and long-term court technology goals.

* This term is defined in the Appendix

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Target State Synopsis

The **Target State Design** addresses current state gaps and challenges by presenting a **unified, comprehensive court system technology solution architecture*** that supports TN AOC's strategic vision and goals.

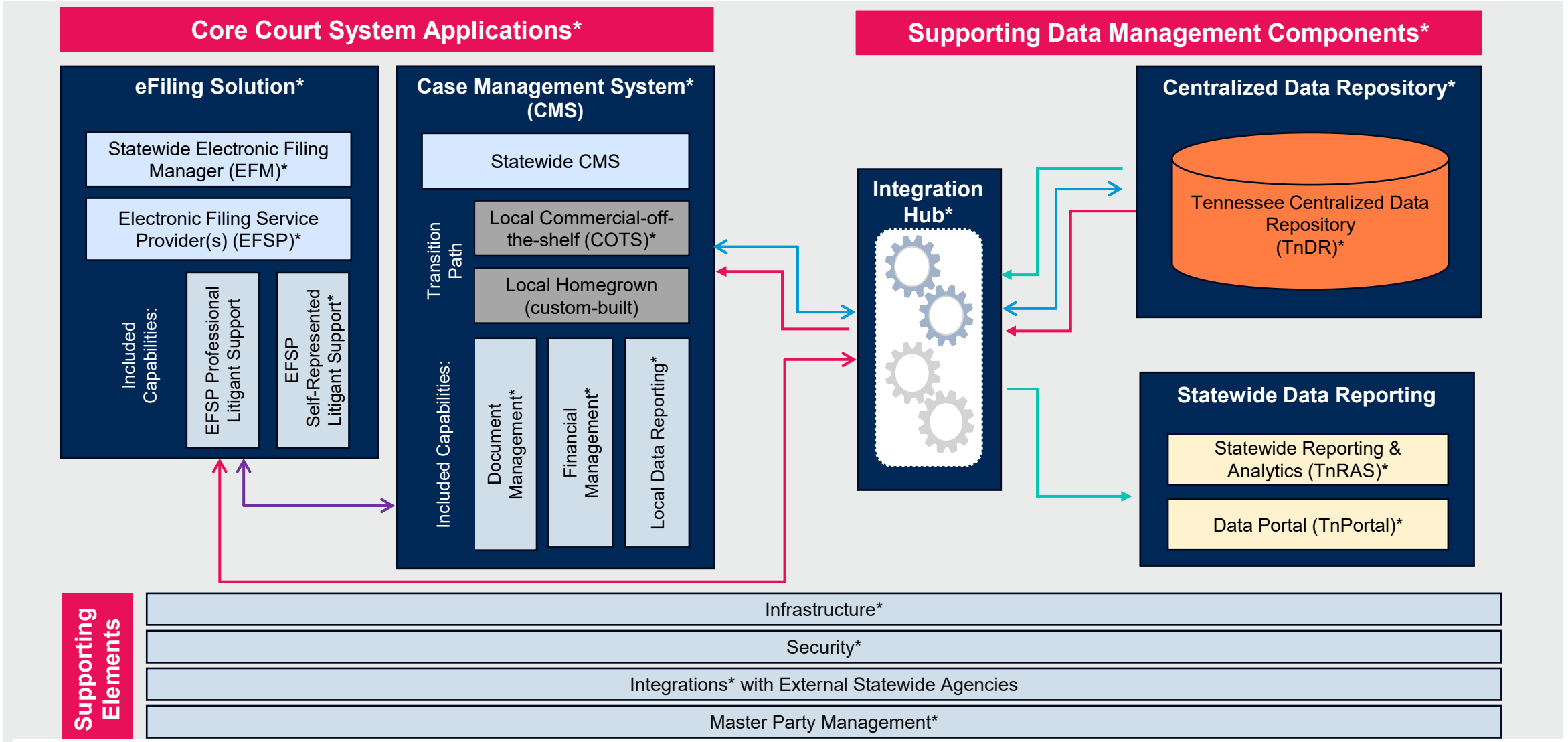
This design **builds a foundation of capabilities**, allowing Tennessee to grow and modernize further over time.

- This design lists several, foundational data management components that underpin the architectural landscape — specifically, a **Centralized Data Repository*,** paired with an **Integration Hub*** and **Statewide Data Reporting** tools and portals.
- This creates a flexible, scalable environment for court technology, which:
  - ✓ Allows for the **incremental replacement of legacy systems**, while enabling TN AOC ability to realize benefits more quickly.
  - ✓ Enables **access to data** from CMS across the state in a single, easily accessible statewide repository.
  - ✓ Is scalable and **designed to incorporate additional data elements** for data-driven decision-making
  - ✓ Facilitates **efficient data exchange** and **isolates components** to prevent disruptions from affecting the entire state system
  - ✓ Equips TN courts and clerks with **improved reporting capabilities**, allowing them to access and utilize local and statewide data for decision-making.
- The design contemplates implementation of **statewide eFiling* and Case Management Solutions*, both core system applications** — which together:
  - ✓ Allow for **consistent capabilities and technology** across courts
  - ✓ Ease the ability to **streamline statewide standards and policies**
  - ✓ Enable **centralized management for core capabilities** (e.g., security*, system maintenance, etc.)

* This term is defined in the Appendix

Target State Design for Tennessee Court Technology

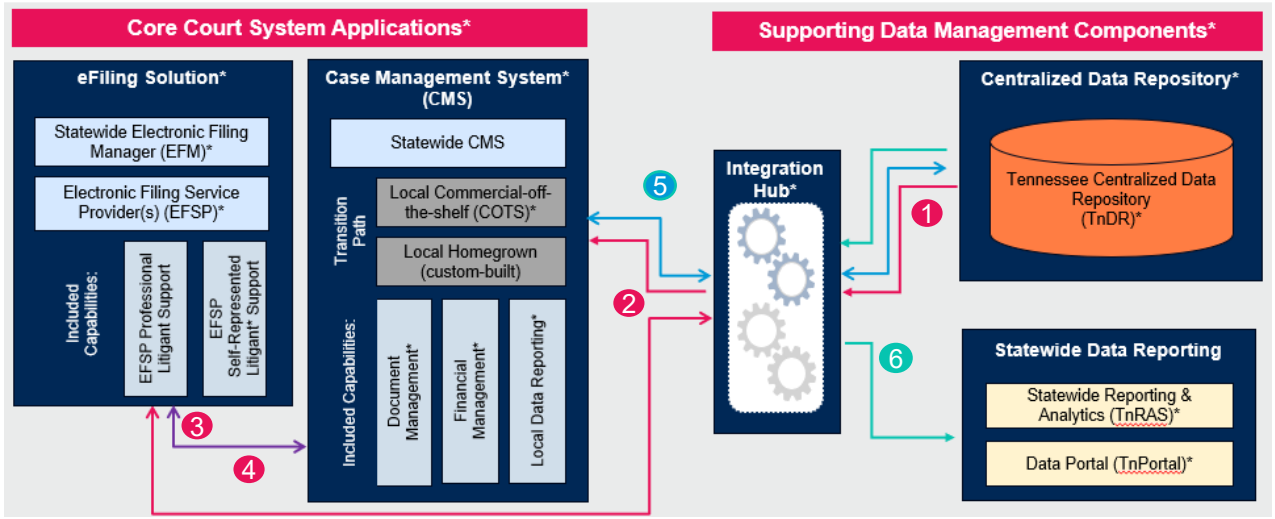
Court Technology Landscape Architecture*



Notes: (1) This conceptual architecture diagram* depicts the comprehensive routing of data through the Integration Hub. This represents the preferred target state. However, exceptions may occur, and TN AOC will evaluate each instance individually. **(2)** The purple arrow between EFSP/EFM and CMS would potentially occur if TN AOC selects a vendor that has an already integrated suite with both eFiling and CMS included. In that situation the pragmatic approach could be to leverage that out-of-the-box integration rather than forcing the vendor to pull apart their solutions and insert use of the integration hub for eFiling/CMS integration. **(3)** "Supporting Elements" are described in brief in the Appendix.**(4)** An * indicates that the term is defined in the Appendix.

Target State Design

Conceptual Data Flows Explained



1 For subsequent filings, eFiling receives existing case data from TnDR, through the Integration Hub, to provide context to the filer

2 For the situation where the CMS and eFiling solutions are from different vendors, filings pass through the Integration Hub to be posted to CMS

3 For the situation where the CMS and eFiling solutions are from the same vendor (i.e., pre-integrated), existing case data is received directly from CMS to provide context to the filer

4 For the situation where the CMS and eFiling solutions are from the same vendor (i.e., pre-integrated), approved filings are sent to CMS to be added to the case record

5 Upon receiving the filing, the CMS updates or creates the case accordingly and sends the case data back to TnDR for storage. Historical case data from TnDR can also be accessed in the CMS. These data exchanges take place via the Integration Hub.

6 TnDR data is accessible for the Data Portal and Statewide Reporting & Analytics through the Integration Hub.

Sample Process Flow in the Target State Design

1. Plaintiff accesses EFSP fromAOC website.
2. EFSP presents existing case data obtained from TnDR via Integration Hub.
3. Plaintiff prepares their filing on EFSP.
4. EFSP validates entered data, collects fees and sends to EFM.

5. Clerk sees filing in EFM review queue.
6. Clerk reviews filing and accepts (or rejects).
7. EFM sends confirmation (or rejection) back to filer via EFSP.
8. EFM sends accepted filing to CMS.

9. CMS is updated with filing data and documents received from EFM.
10. CMS sends filing updates to TnDR via Hub.
11. CMS schedules hearing based on Judge's calendar.
12. Defendant is served via EFSP provider.

13. Defense counsel accesses TnPortal for latest case data.
14. Judge reviews electronic filing in chambers and conducts hearing accessing Statewide CMS from the bench.
15. Clerk enters hearing results in CMS.
16. CMS sends update to TnDR via Hub.

17. TnRAS produces periodic statewide AOC reports by accessing data in TnDR inclusive of the subject motion.

CMS remains the Clerk's official record while TnDR aggregates that CMS data to serve statewide functions such as statewide eFiling, statewide access (TnPortal) and AOC reporting (TnRAS). TnDR also provides access to historical cases that may not be imported into the new Statewide CMS.

Core System Applications

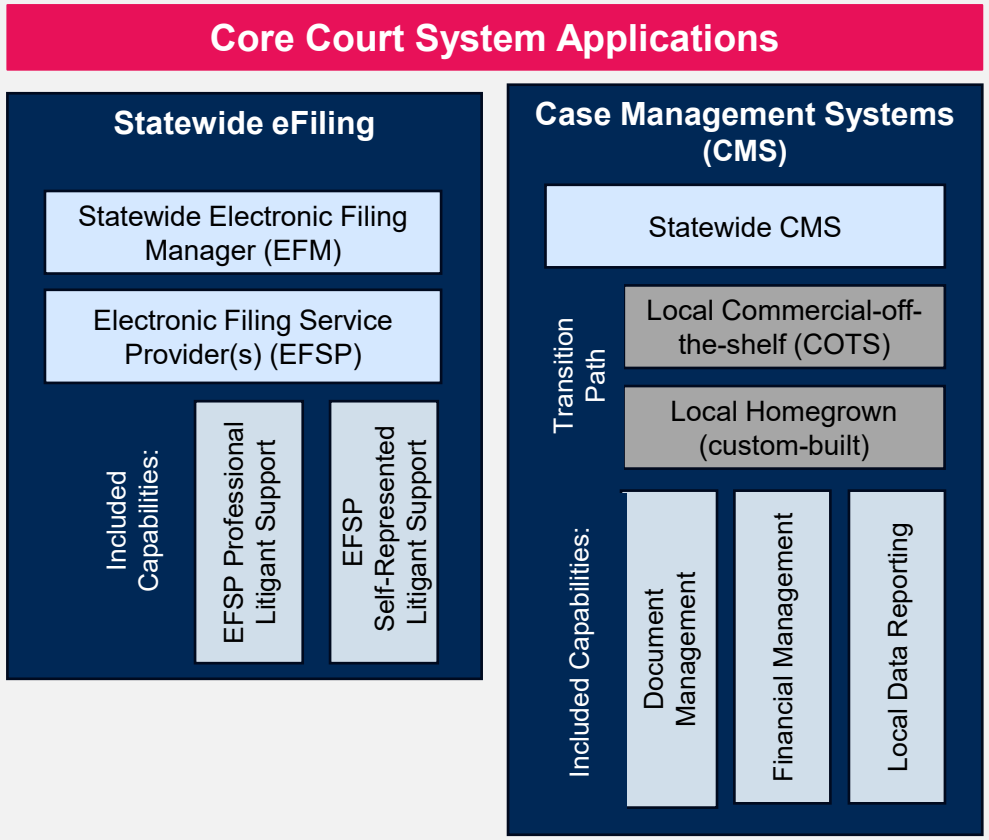
Core Court System Applications
At-a-Glance

Core court system applications

- **Statewide eFiling:** Facilitates the electronic submission of court documents by filers across the state and through to the relevant CMS.
- **Statewide CMS:** Central to managing case-related information, workflows, and court processes.

Capabilities within the core system applications

- **Document Management:** Integrated within CMS to handle the storage, retrieval, and management of court documents.
- **Financial Management:** Embedded functionality to manage court-related financial transactions, including fines, fees, and other monetary processes.
- **Local Data Reporting:** Local data reporting tools within CMS to support jurisdiction-specific reporting needs.

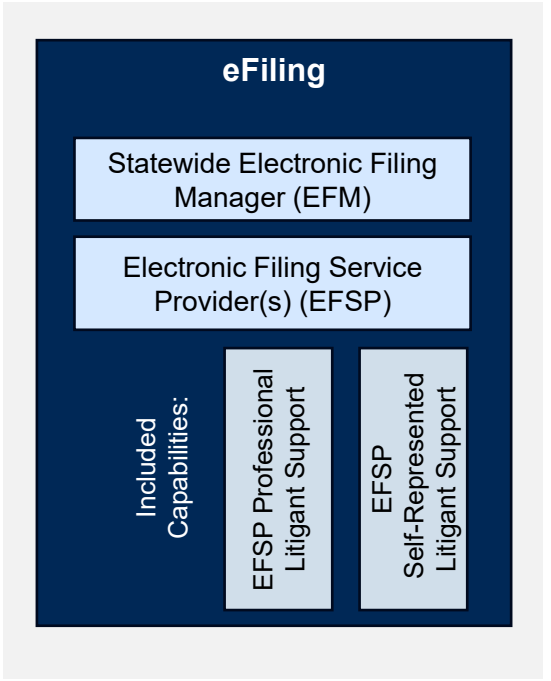


Statewide solutions allow for consistent capabilities and technology across TN courts and clerk offices, supporting the use of statewide standards and policies along with consistent system security and access controls.

Statewide eFiling Solution
Key Aspects

The Statewide eFiling Solution aligns with the ECF* standard and is segmented as follows:

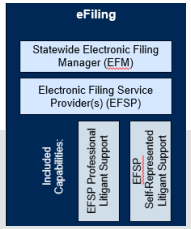
- The **Electronic Filing Service Provider (EFSP)** (web-based, vendor-hosted, for filers to prepare, assemble, and submit filings)
  - The target state allows for multiple EFSPs
  - It can include a primary version of the **EFSP for attorneys and frequent filers**, and an alternate version of the EFSP includes **special features to guide self-represented litigants** through the filing process.
- The **Electronic Filing Manager (EFM)** (single, vendor-hosted that connects the CMS instances through the Integration Hub or direct integration)
  - Receives filings from the EFSP(s),
  - Routes the filing to the designated jurisdiction,
  - Presents the filing for review, and, if accepted,
  - Transmits the filing to the CMS for the designated jurisdiction.



A single EFM provides a consistent method for review and acceptance of files across all jurisdictions and CMS. Likewise, a single (guided) EFSP provides opportunity for inexperienced filers to receive process support in submitting their filings, with consistency across the state.

* This term is defined in the Appendix

Statewide eFiling Solution
Process Flow



EFSP

1 Statewide EFSP

The filer selects the EFSP most relevant to their case and situation to prepare and submit their eFiling

EFSP also accesses existing case data from TnDR

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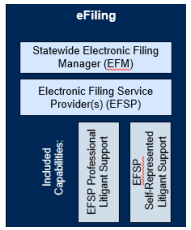


2 Statewide EFM

EFM receives filing and routes it for review to the appropriate Clerk

EFM

3 EFM Clerk Queue

Clerk reviews filing; if Clerk accepts, EFM sends filing to CMS via Integration Hub. Rejected filing feedback is returned through the EFSP

Direct Integration may be possible, if the AOC selects a vendor that has an already integrated suite with both eFiling and CMS included.

Integration Hub

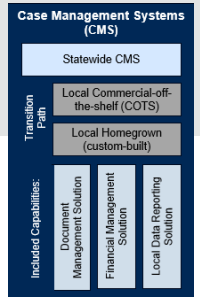
Integration Hub

Supporting Data Management Components

CMS

4 CMS

Filing is received and docketed in CMS; CMS sends case file to TnDR for case aggregation



Centralized Data Repository

Tennessee Centralized Data Repository (TnDR)

5 TnDR

Filing data is also sent from CMS to TnDR through the Integration Hub

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Statewide CMS
Key Aspects

Unified CMS

- The Target State CMS is a single, unified, statewide solution provided by TN AOC, implemented across all courts in Tennessee to ensure uniformity and efficiency in court operations.

Commercial Off-The-Shelf (COTS) Solution

- The Target State CMS is a COTS solution with SaaS-based and cloud capabilities, enhancing scalability and accessibility.

Mandatory Implementation

- All courts are required to adopt the statewide CMS, promoting consistent and efficient court operations.

Included Capabilities

- The CMS has embedded capabilities for:
  - Financial Management (e.g., full dual entry accounting)
  - Document Management (e.g., full text search of documents integrated within CMS)
  - Local Data Reporting (e.g., ability to connect third-party analytics tool)

Integration Hub

- The CMS connects to the Integration Hub, adhering to the standard data structure and data dictionary, ensuring seamless data exchange.

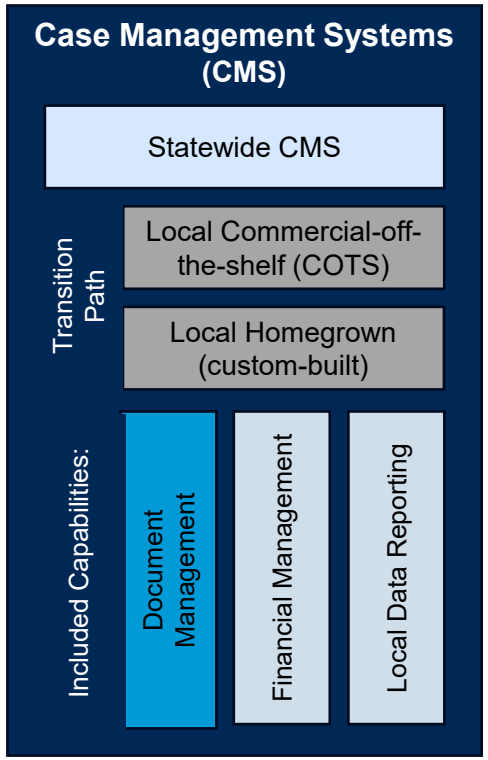
Paradigm Shift

- The CMS transitions from traditional case management (focused on recording past events) to case flow management (proactively moving cases through to disposition).

The Statewide CMS provides TN courts and clerk offices with the best balance of modern system capabilities and workflows with the best pricing and implementation timeline.

Statewide CMS
Document Management Capabilities

The Target State Design includes Document Management Capabilities embedded in and realized by CMS:



CMS includes standard Document Management Capabilities such as:

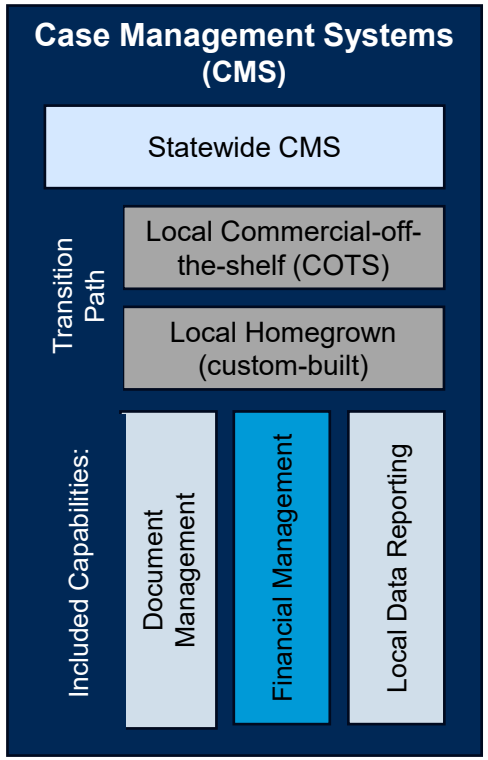
- ✓ Document Storage, Retrieval, Creation, Filing and Organization
- ✓ Search Functionality
- ✓ Collaboration & Sharing
- ✓ Security & Compliance
- ✓ Notifications & Alerts

The following specific capabilities are included:

- ❑ Ability to preserve documents exactly as they are submitted and/or accepted, ensuring that filed documents are immutable.
- ❑ Ability to associate a document with a specific entry in the Register of Actions within the CMS.
- ❑ Ability to apply digital signatures to documents.
- ❑ Ability to receive and manage tentative orders, which can be executed and then become part of permanent case files.
- ❑ Ability to apply annotations that are not included in the official document.

Statewide CMS
Financial Management Capabilities

The Target State Design includes Financial Management Capabilities embedded in and realized by the CMS:



CMS includes standard Financial Management Capabilities such as:

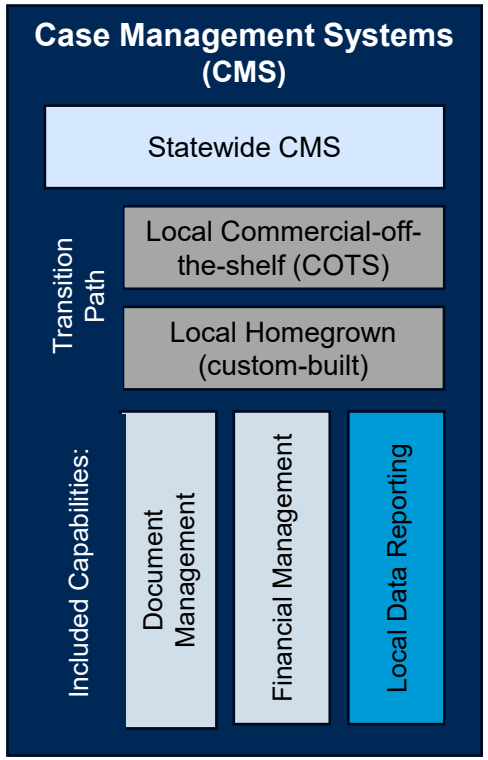
- ✓ Accounting
- ✓ Fee & Fine Collection
- ✓ Financial Reporting & Audit Trails
- ✓ Posting & Reconciliation
- ✓ Payment Processing

The following specific capabilities are included:

- ❑ Ability to automate processing tasks to reduce manual workload and errors.
- ❑ Provides synchronization between case actions (e.g., orders) and resulting financial transactions (e.g., fine payments, restitution payments) to ensure justice is rendered.
- ❑ Ability to bring accounting rigor (e.g., dual-entry accounting) to the state, along with effective integration with cashiering devices and platforms.
- ❑ Ability to differentiate between limited jurisdiction courts (e.g., traffic) with high financial transaction volumes and general jurisdiction courts with less frequent, more complex fund distributions.
- ❑ Ability to integrate with county financial systems, the statewide eFiling solution, and payment processes.

Statewide CMS
Local Data Reporting Capabilities

The Target State Design includes Local Data Reporting Capabilities embedded in and realized by the CMS:



CMS includes standard Local Data Reporting Capabilities such as:

- ✓ Pre-Defined Reporting
- ✓ Ad-Hoc Reporting and Data Analytics
- ✓ Use of Flexible Third-Party Reporting Tools

The following specific capabilities are included:

- ❑ Ability to gather data and present it in a format (e.g., PDF) and structure (e.g., columns, titles) that meets local and state requirements.
- ❑ Ability to run queries based on user-defined criteria and export the results into external documents (e.g., Excel, CSV, TXT).
- ❑ Ability to query a set of cases based on specific criteria and export the results into a workflow queue for users to complete tasks.

Supporting Data Management Components

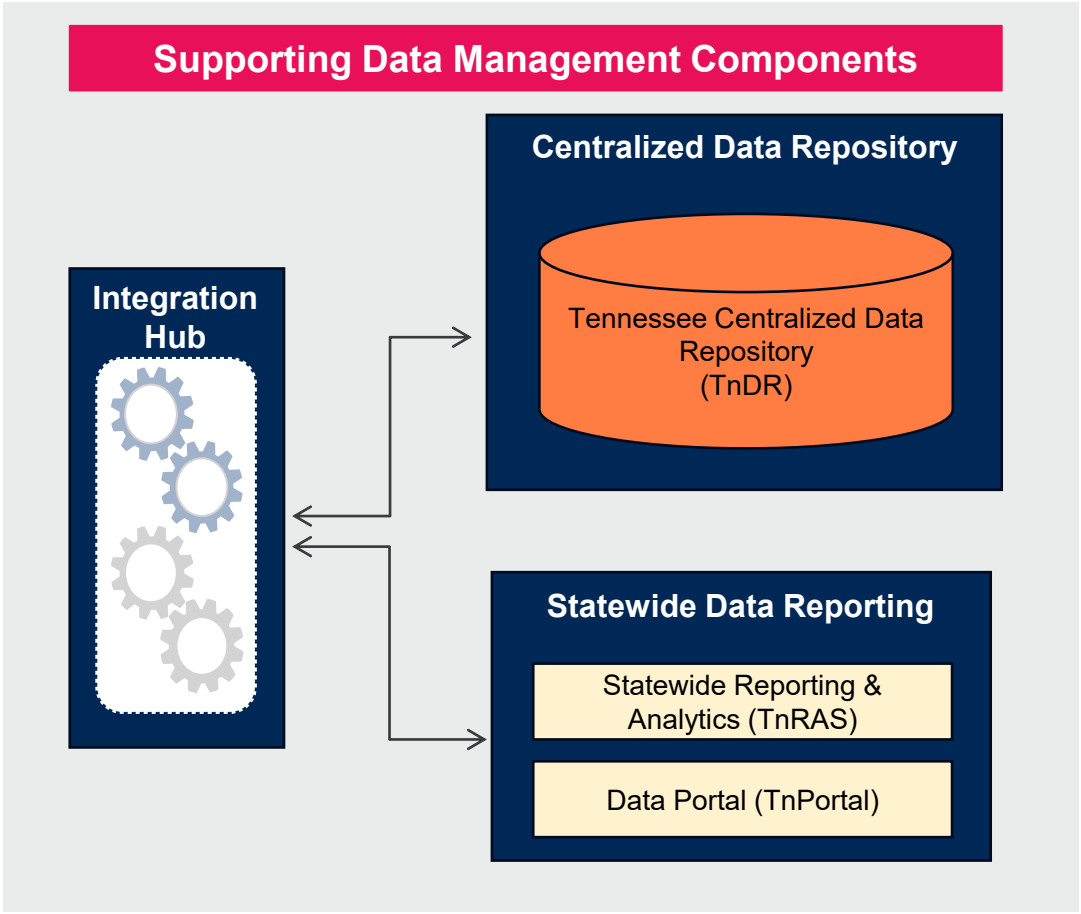
Supporting Data Management Components
At-a-Glance

Integration Hub & Centralized Data Repository

- **Integration Hub:** Facilitates connectivity and data exchange (normalized and aggregated data) between TnDR, Statewide Data Reporting, and the CMS and eFiling solutions, supporting interoperability* and data consistency.
- **TnDR:** Presents aggregated and normalized data to provide a unified and accurate source of statewide court-related information.

Statewide Data Reporting Components

- **TnRAS:** This statewide Reporting & Analytics tool allows for comprehensive data reporting and analytics, leveraging insights embedded in the TnDR data.
- **TnPortal:** This dedicated data portal (TnPortal) provides secure external access to statewide data for TN courts and clerk offices and external users.



This structure provides the ability to scale over time, allows flexibility, and utilizes modern composable platforms and tools. Also, it allows realization of benefits more quickly.

* This term is defined in the Appendix

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Integration Hub
Technology Expectations

Technology Factor	Expectation
Facilitate Legacy Connections	TN AOC maintains batch, bulk, and S/FTP connections to support existing integrations until the new statewide solution is fully implemented.
Multiple Message /Payload Types	The Integration Hub manages various types of messages. While APIs are preferred for system integrations, some systems will use XML, JSON, or other structured formats.
Data Integration* & Transformation	Effective data integration through the hub, including extracting, transforming, loading, and auditing data, enhances TN AOC's business intelligence and analytics.
Virtualization and Cloud Integration	The Integration Hub operates in virtual environments or general-purpose containers within a cloud infrastructure, supporting scalability, flexibility, and continuity of business operations.
Master Party Management (MPM)*	MPM enables TN AOC to link person records across cases, CMS, and jurisdictions. It provides a comprehensive view of each individual's interactions with the courts, ensuring accurate and up-to-date information for improved case management and operations.
Loosely Coupled Integration*	Loosely-coupled integrations are enabled by the Integration Hub. They allow TN courts and clerk offices to make local changes with minimal disruption to interfacing systems and established message structures.

* This term is defined in the Appendix

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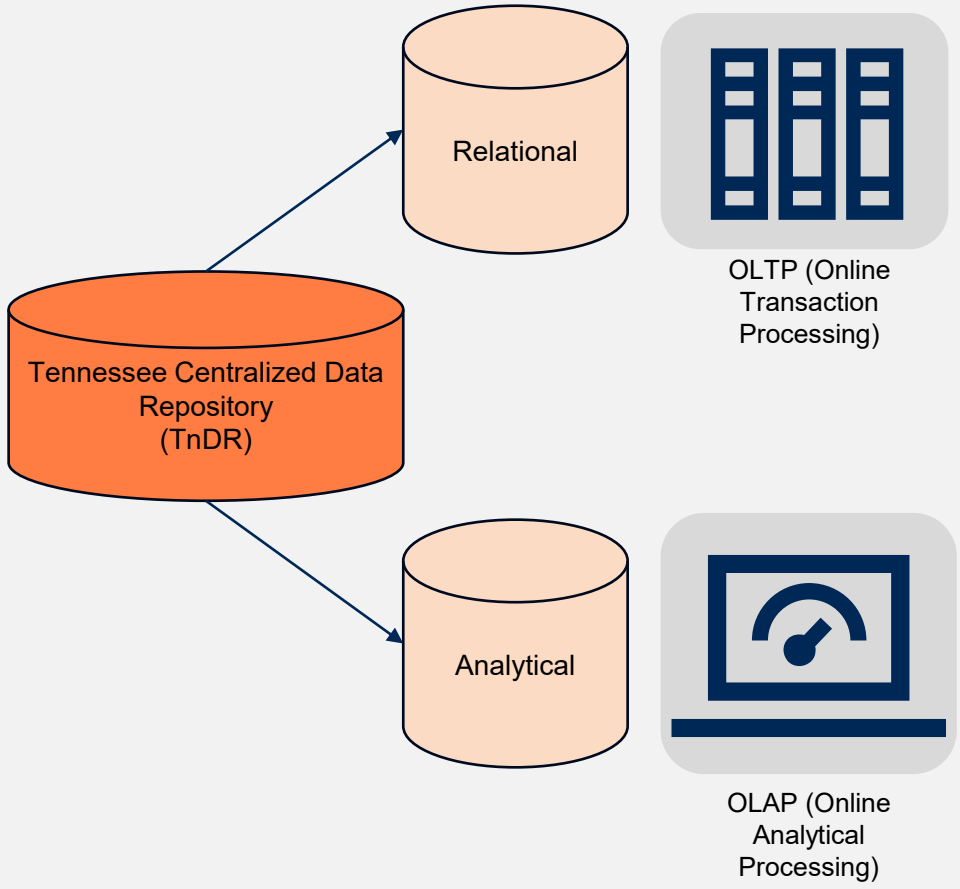
TnDR
Data Structures

TnDR utilizes the Integration Hub's data transformation capabilities to model CMS data using two distinct approaches, as shown below. Each model is optimized for a specific purpose.



Approach 1

- **Data is organized in traditional tables and columns**, largely mirroring the structure used in the statewide CMS database.
- TnDR's database design avoids the use of proprietary, vendor-specific idiosyncrasies that are present in vendor CMS database designs, thereby maximizing TN AOC's long-term **flexibility** and not constraining the introduction of future innovations.
- TnDR relational model is used to **support functions** such as **feeding data to the statewide eFiling EFSP** and supporting **cross-jurisdictional queries** embedded in the **statewide Portal and CMS**.

Approach 2

- **Data is organized as facts** (e.g., quantitative data such as number of cases filed, duration of court proceedings, the number of judgments issued) **and dimensions** (e.g., data attributes such as case type, jurisdiction, filing date, judge, party involved) **to facilitate reporting and advanced analytics.** This structure, sometimes referred to as a **star schema*,** is used by TN AOC's current state General Sessions Data Repository (GSDR).
- This structure, when combined with the modern statewide reporting tool, allows for **drill-through analysis**. For example, TN AOC can view caseloads statewide, 'double-click', and see caseloads by case type, break down case types by jurisdiction, and then perhaps by filing date—all without needing to create pre-built reports.
- TnDR analytical is used to create **mandated statewide reporting** and other ad-hoc data query needs.

* This term is defined in the Appendix

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Relationship between the Integration Hub and TnDR

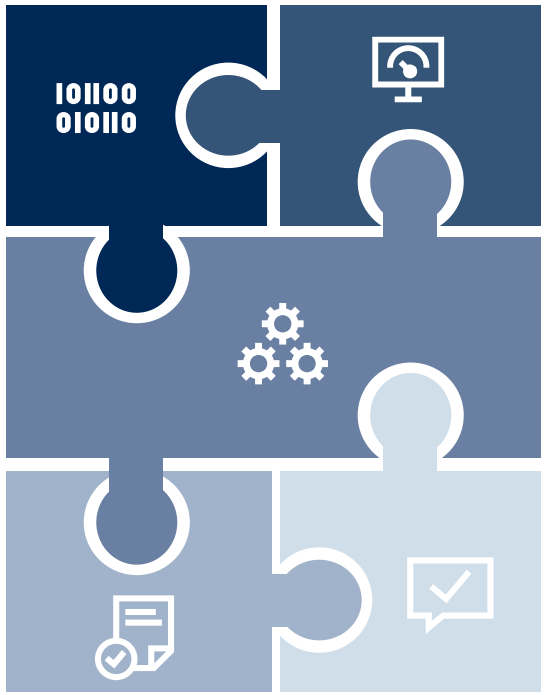
Sample Scenarios

Data Collection

- **Integration Hub Role:** Gathers data from various CMS across different courts.
- **TnDR Role:** Receives and stores this data in a structured and organized manner.

Near Real-Time Updates

- **Integration Hub Role:** Facilitates data exchanges, enabling data flow across systems. This approach allows TN AOC to move closer to real-time updates.
- **TnDR Role:** Reflects the most current information, ensuring that users have access to the latest data.



Data Accessibility

- **Integration Hub Role:** Ensures that data flows smoothly and securely between systems and TnDR.
- **TnDR Role:** Provides a consolidated, accurate, and timely view of the Clerk's records.

Data Transformation

- **Integration Hub Role:** Converts data from different sources into a uniform structure and format.
- **TnDR Role:** Stores the data, in a uniform structure and format making it easily accessible for reporting, analysis, and decision-making.

Operational Efficiency

- **Integration Hub Role:** Automates data exchange processes, reducing manual effort and minimizing errors.
- **TnDR Role:** Enhances operational efficiency by providing a reliable and efficient source of statewide data.

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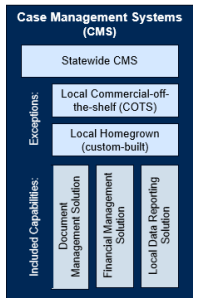
Data Flow Samples for TN AOC Integration Hub to TnDR

Docket Entry Posting Example



Start
End

1 **CMS**

A new docket entry is created and posted into CMS.

2 **Integration Hub**

- The Integration Hub captures the docket entry data through an API call.
- The data is transformed into the required format for TnDR.

Integration Hub

Centralized Data Repository

Tennessee Centralized Data Repository (TnDR)

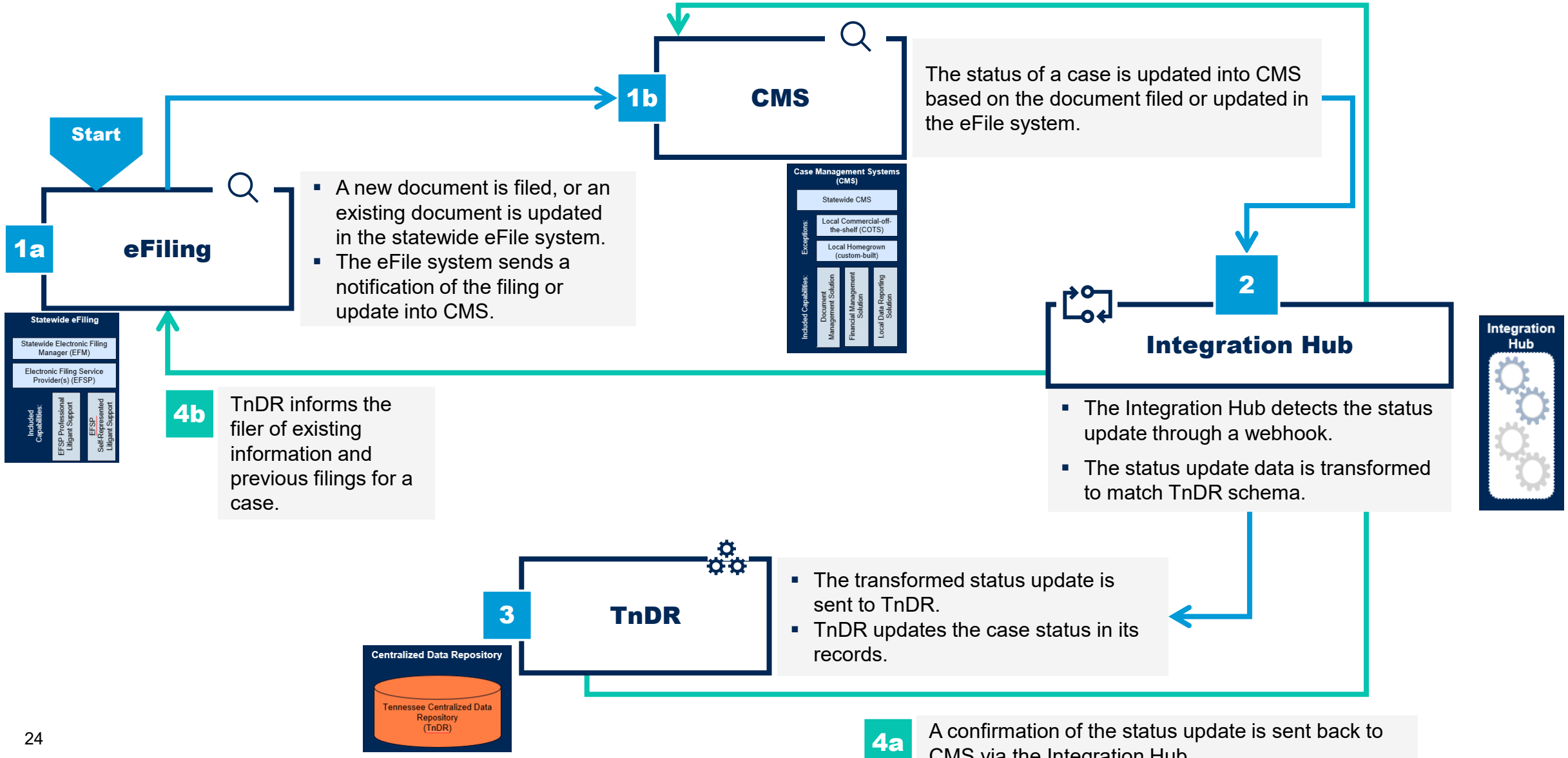
3 **TnDR**

- The transformed data is sent to TnDR.
- TnDR records the docket entry.

4 A confirmation message is sent back from TnDR to CMS via the Integration Hub, ensuring synchronization.

Data Flow Samples for TN AOC Integration Hub to TnDR

Case Status Update Example



Statewide Data Reporting
TnRAS Sample Scenarios

TnRAS provides access to view and use data from TnDR in various forms (e.g., predefined reports, ad hoc queries, visualizations, and dashboard summaries).

Example 1: Case Management System Integration with TnDR for Real-Time Reporting

How It Works:

1. Local CMS systems are integrated with TnDR using standardized APIs.
2. As case data is entered or updated in the local CMS, it is automatically synchronized with TnDR in real-time.
3. Stakeholders can access TnDR through a secure portal to generate real-time reports and analytics.

Example: A judge in Davidson County updates a case status in the local CMS. This update is instantly reflected in TnDR, allowing administrators to pull up-to-date statewide case status reports.

Example 2: Statewide Analytics for Performance Measurement

How It Works:

1. TnDR aggregates data from multiple local CMS systems, providing a comprehensive dataset for analysis.
2. Advanced analytics tools within the portal allow users to identify trends, measure performance, and generate insights.

Example: The TN AOC uses the aggregated data to analyze case resolution times across different jurisdictions. By identifying trends and outliers, they can implement targeted improvements to streamline case processing statewide.

Statewide Data Reporting
TnPortal Sample Scenarios

TnPortal accesses TnDR and TnRAS through the Integration Hub to aggregate and provide users with access to relevant statewide court information, records, and services. TnPortal has a separate interface from CMS and eFiling systems. Accessibility is based on rights and privileges. Types of users include (but are not limited to) public access users, attorneys, judicial officers, self-represented litigants, public agencies, and more.

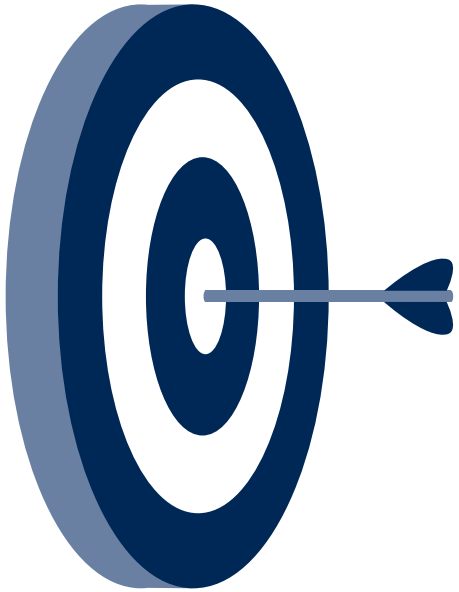
Example scenarios for different types of users

- A **Judge** accesses TnPortal to look up where a defendant was convicted and other associated details to understand the criminal history and key information of cases on their docket.
- An **Attorney** accesses TnPortal to retrieve case documents and / or access court schedules for all of their clients across multiple courts and counties.
- A **News Reporter** accesses TnPortal to query a set of data and information to develop a news story on upcoming cases within a county across multiple courts and identifies when the court hearings date and times are to attend.
- A **TN Resident** accesses TnPortal to review his/her current cases, review his/her fines and pay bills online, or confirm his/her next appearance date to arrive to court on time.

Key Benefits of the Target State Design

Key Benefits of the Target State Design

The Target State Design …



Allows the flexibility to scale and adapt over time

- The versatile and adaptable design uses up-to-date, modular* platforms and tools
- It has the flexibility to adapt to future court innovations and adjust to the changing technology capabilities
- The supporting data management components enable effective and flexible data sharing between CMS, TnDR, and eFiling solutions, supporting interoperability and data consistency and allowing the potential for future expansion

Streamlines aggregation and analysis of data and supports data quality and reliability

- Efficient aggregation of data from systems across the state supports accurate data for reporting, analytics, and presentation of information to key stakeholders

Provides consistent capabilities and technology across Tennessee courts and clerks offices

- Statewide solutions create a baseline of consistent capabilities across the state that help to standardize processes and services

Creates a more modern experience for users and customers

- Modern solutions and capabilities improve the end-user experience and offer improved workflows and features

* This term is defined in the Appendix

Ensuring Successful Implementation of the Target State Design

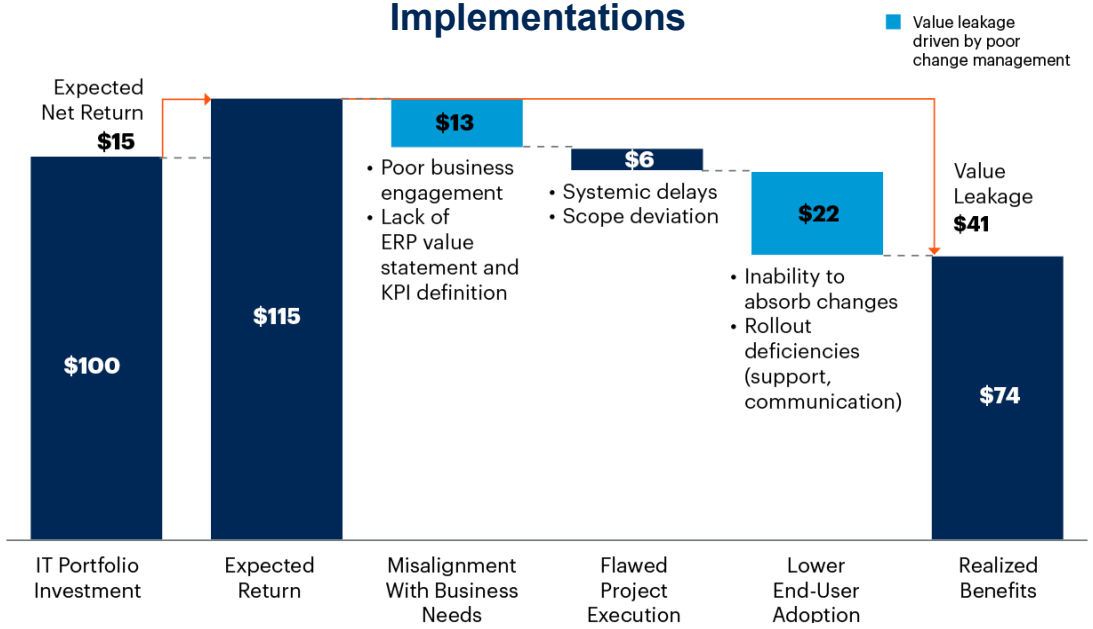
60% of technology modernization efforts fail, are over budget, or miss their target date

Underestimating technology modernization efforts and pitfalls result in adverse business impact, value leakage, and reputational damage.

Top 5 Transition Pitfalls and Mitigations

Scope Misalignment	Prescribe leading practices to ensure Knowledge Transfer (KT), org structure & size is consistent with SOW
Lack of Client Preparedness and knowledge	Identify and prioritize closure of knowledge gap by supporting learning initiatives
Incumbent unwillingness	Explore ways to facilitate collaboration with all stakeholders
Execution delays	Formalize governance and define escalation process to derisk critical path items
Vendor staffing issues	Proactively track and urgently escalate resource quality issues to steering committee

Sources of Value Leakage in Large-Scale Statewide Implementations



High Risk Alert: *Value leakage for Court Technology Modernization can result in actual loss vs simply a lower gain*

Leading implementations leverage the construct of a Business Transformation Office to orchestrate large-scale digital business transformations from start to finish

A Business Transformation Office (BTO) is a temporary organizational entity linked to a specific transformation. It exists for the purpose of providing support, enablement services, and work products to the program's executive sponsor and stakeholders.

Business Transformation Office (BTO)

BTOs are often named for the initiative. For example, in the case of this effort, we would refer to it as the "Court Technology Transformation Office (CTTO)".

Industry Best Practice Recommendations

- Leverage BTOs for transformational projects to increase alignment between business units with faster value realization and improved business outcomes.
- Develop a program office structure that supports effective leadership in executing program delivery across the enterprise by establishing measured outcomes with the right program structure and type.
- Align the PMO and BTO structure and roles to enable collaboration and consistency of solutions for transformation programs by ensuring clear domains of autonomy.

Leveraging the BTO model can result in a 3X – 5X return due to fewer delays, lower likelihood of cost overruns, and delivery of software and services that meet strategic vision, goals and contractual expectations.

A BTO exists to oversee and enable the execution of large technology modernization and transformation initiatives

- Strategic technology modernization and transformations require **complex coordination** across many disparate business and technology functions. Court Technology transformation initiatives cut across boundaries.
  - Organizations that fail to leverage a BTO approach are less likely to attain transformation outcomes and benefits.
  - Siloed behavior is one of the most common challenges to strategic execution.
- Having a **central coordinating function** adds discipline and structure to enterprise-wide transformation efforts and establishes **unambiguous leadership.**
- A BTO ensures the effort is collaborative, adaptive, value-driven and strategically aligned, and **bridges the gap** between strategy and execution.
- It supports both the executive leaders and committed stakeholders with a dedicated function to support their specific mandates that also sees and **understands the big picture** and all dependencies.

Effective BTOs reduce the risk of failure with program objectives, and improve the quality of program results

The approach to Business Transformation can occur in more than one way — from a focused IT resource to a senior level transformation leader. Note that the four different types of approaches depicted in this table are not mutually exclusive.

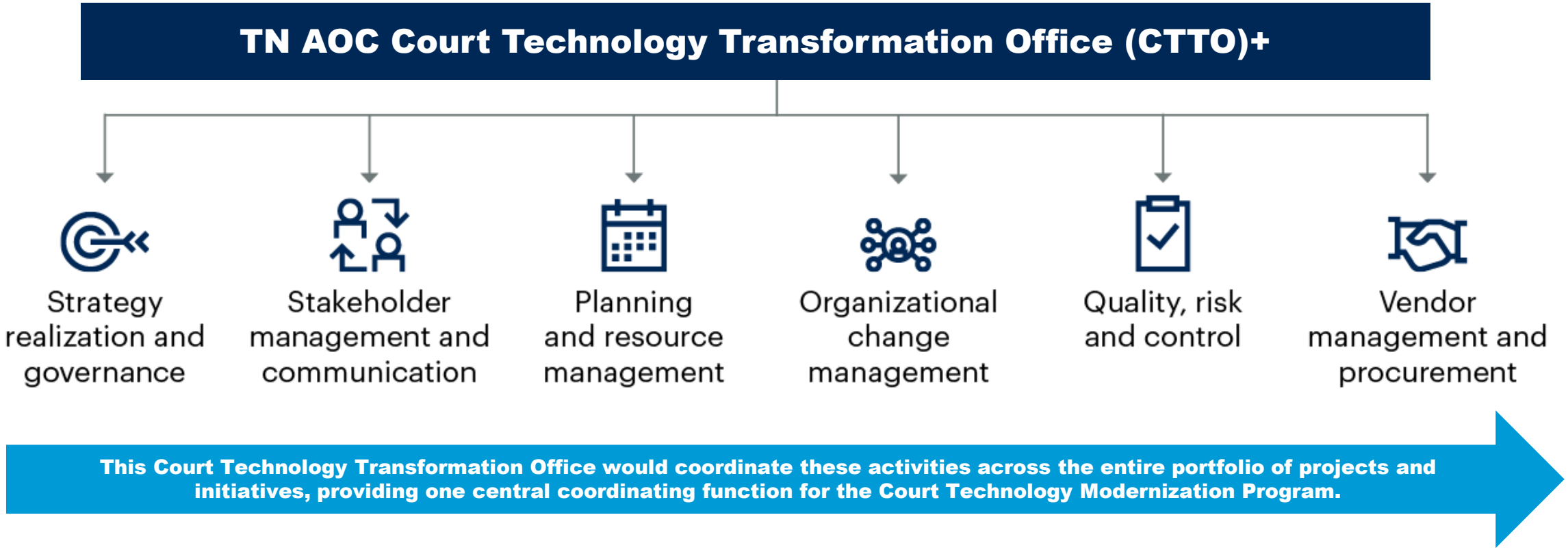
	Project Management Office (PMO)	Enterprise Project Management Office (EPMO)	Strategy Realization Office (SRO)	Business Transformation Office (BTO)
Benefit	Reduce risk	Optimize resource use	Contribute to growth	Orchestrates enterprise transformation
Focus	Project management, process, Project Manager development	Program coordination, governance, communication	Investment optimization, measurement of success, benefit realization, realignment	Large-scale business transformations from start to finish, including enterprise change management
Scope	Individual IT projects	Multi-project programs	Proposals, projects, assets	Transformation Initiative, projects, assess, talent
Typically reports to	CIO	Sometimes CIO, but usually to CFO, COO, or CSO	Outside IT— could be CSO, COO, CFO, CEO	Outside IT— could be CSO, COO, CFO, CSO
Role	Project manager	Program coordinator, program overseer	Investment advisor, portfolio overseer	Transformation leader
Engagement	Primarily IT Project Managers and project owners	Business leaders, external partners	Senior management decision makers	Senior management decision makers, business leaders, external partners
Tools	Time tracking, project mgt, risk management, deliverable templates	Program management, resource management, collaboration	Portfolio management, knowledge management	Transformation management, program management, knowledge management, change management
Skills	Process implementation	Change management	Benefits realization	Transformation management
Metrics	Project and Project Manager performance	Program performance and resource utilization	Portfolio and PMO performance	Business Results

Rapidly accelerating disruption results in the need to form a clear line of sight of all changes underway, and coordinate effectively and efficiently with all parties involved in the transformation

Gartner

To ensure successful modernization, TN AOC will stand-up and manage a BTO, referred to as the Court Technology Transformation Office (CTTO)

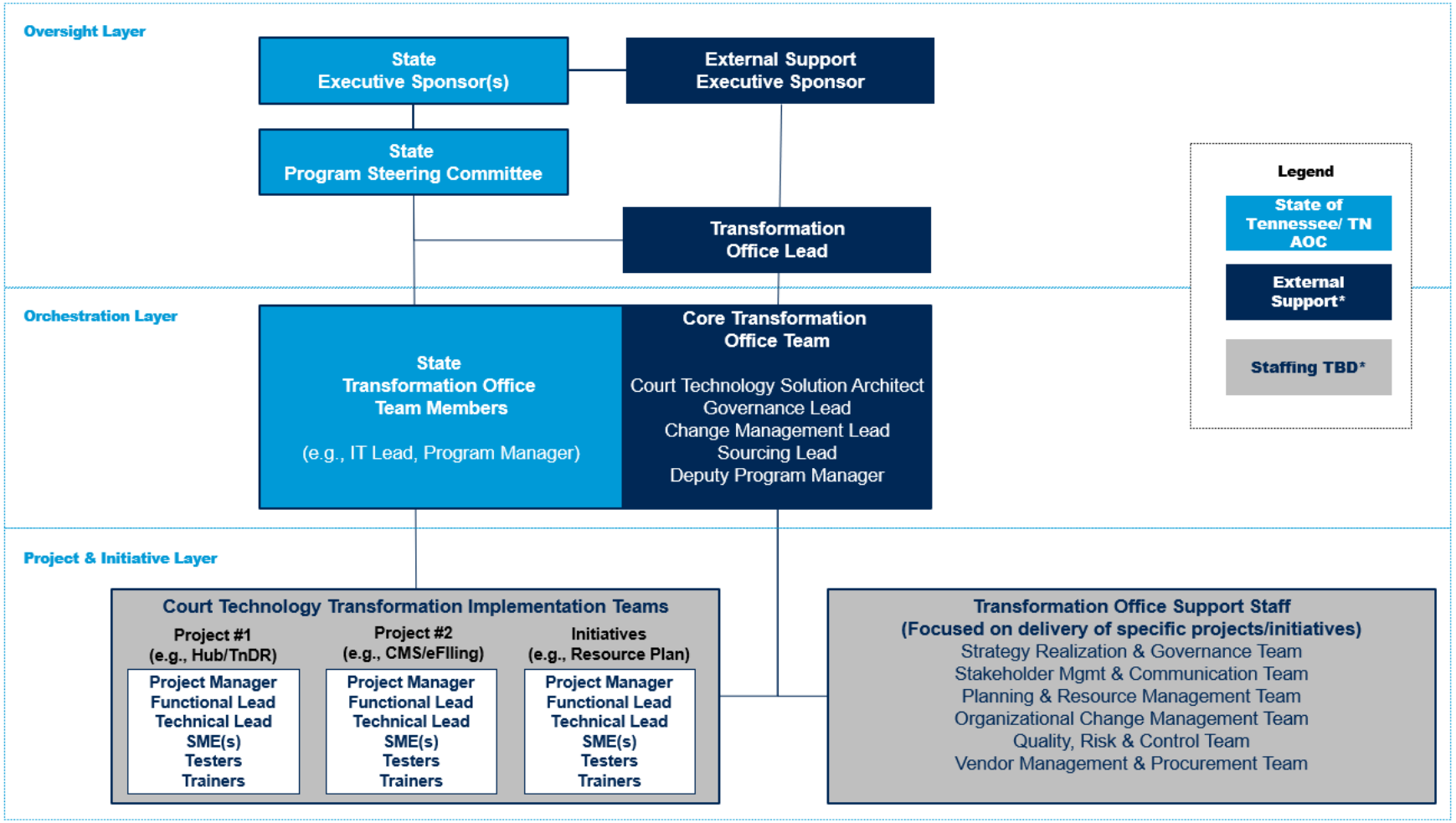
The CTTO serves as a “one-stop-shop” for Court Technology Modernization



+ *Specific roles, responsibilities, and functions of the BTO may be completed by TN AOC team or third-party consultants and agencies with subject matter expertise.*

What will the CTTO look like?

- Gartner proposes three layers to the CTTO
  - Oversight Layer
  - Orchestration Layer
  - Project & Initiative Layer
- The **Oversight Layer** acts as the leadership/face of the Office and Program.
- The **Orchestration Layer** aggregates all projects and initiatives into one to ensure consistency, cohesiveness, overall program management, and adherence to the programs strategic vision and goals.
  - The Core Transformation Office Team will conduct and manage risks, identify mitigation strategies, flag concerns, etc.
- The **Project & Initiative Layer** is the hands-on delivery of each specific project and initiative.
  - Majority of the work will be by the selected vendors/system integrators;
  - However, the State has tasks they must complete as well (e.g., data mapping, configuration codes, training, testing, validation, custom in-house development, ensure management of vendors, executing OCM, etc.)
  - These activities can be supported by State/TN AOC, a third-party, or a hybrid resource plan.



**Roles and capabilities shown serve as sample and may be modified during the CTTO stand-up process. Additionally, a determination will be made on which responsibilities will be supported by TN AOC or a third-party subject matter expert. Each of the layers can have a single or hybrid staffing model between the State, TN AOC, and an external support entity*

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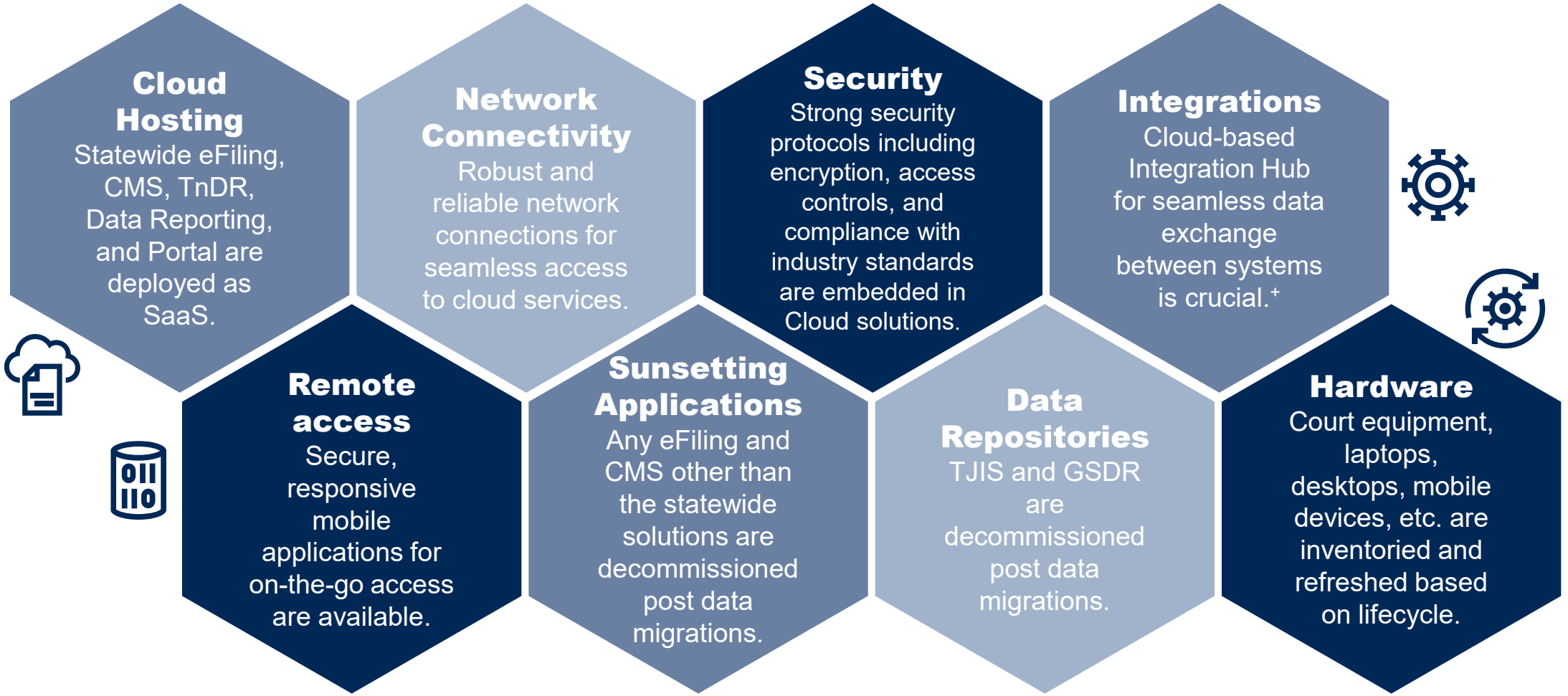
Appendices

Details on Supporting Elements
Deliverable Description and Inputs
Glossary of terms

Infrastructure

Considerations for the Target State

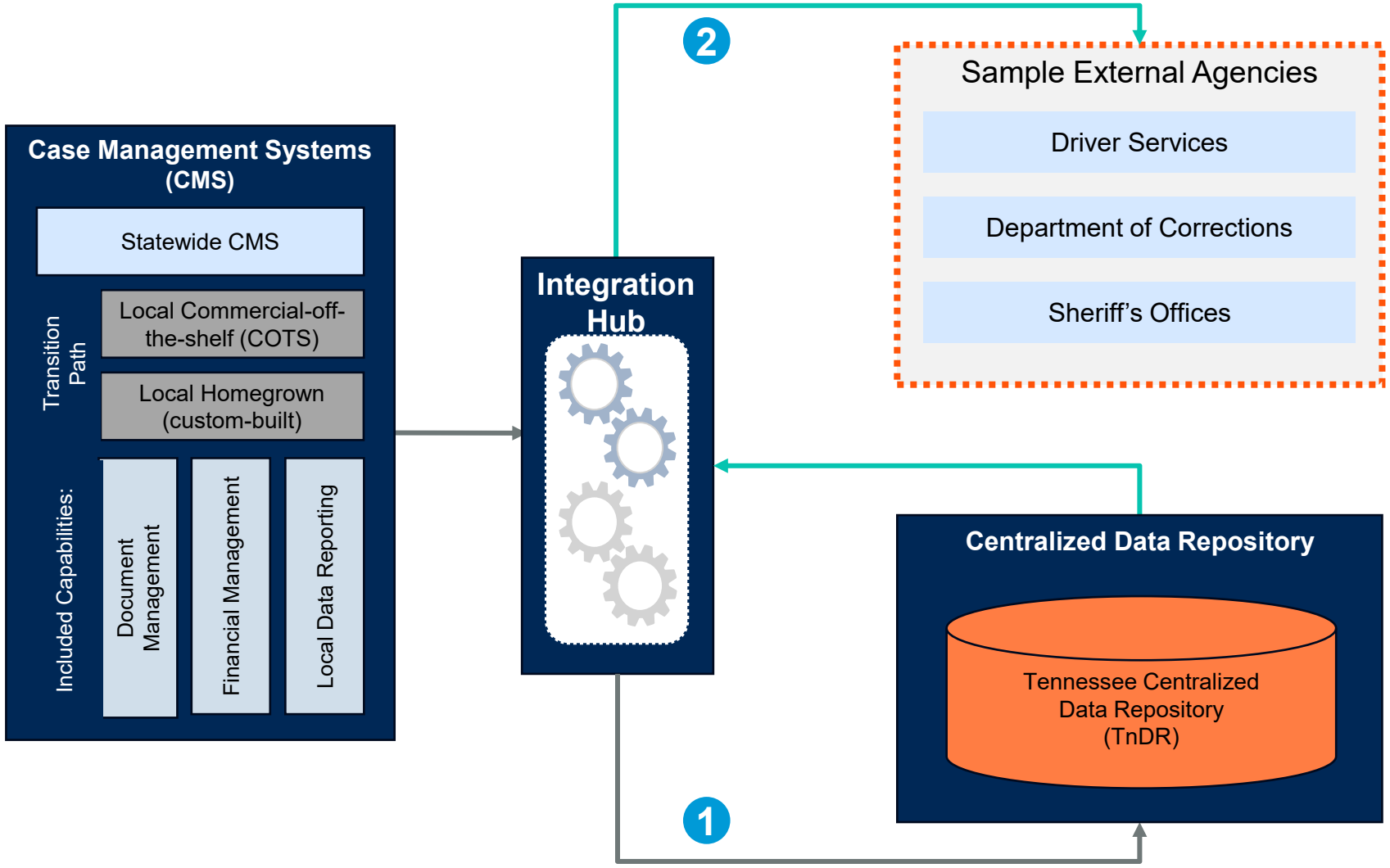


A cloud-based infrastructure for the statewide CMS, eFiling system, and TnDR ensures scalability, security, and operational efficiency. A cloud infrastructure supports seamless data integration, real-time access, and robust data management, enhancing the reliability, scalability, and effectiveness of the Tennessee court system.

+ Integrations may, in some cases, be bi-directional; likewise, there may be cases of data shared from external agencies *to* the CMS.

Integrations with External Statewide Agencies

Design Considerations



1. **CMS to TnDR**: The Integration Hub detects changes in CMS and sends them to TnDR

2. **TnDR to External Agencies**: The Integration Hub monitors event triggers from the TnDR and transmits relevant updates to the designated external agencies.

+ Integrations may, in some cases, be bi-directional; likewise, there may be cases of data shared from external agencies *to* the CMS.

Master Party Management (MPM)
Key Elements and Functionality

MPM provides a **unified, logical view of parties involved in court cases** across multiple jurisdictions and systems. Unlike in other industries, in the Criminal Justice system filings are recorded based on the facts presented at the time of filing. In this case an MPM solution **focuses on logically matching and contextualizing party records** without necessarily consolidating them, although it is a future capability. This approach ensures that all relevant information about a party is accessible and consistent, enhancing the accuracy and efficiency of court operations.

Key Elements of MPM for TN AOC

- **Case Records:** Unique identifiers and attributes for each case, such as case numbers, case types, and case statuses.
- **Court Orders:** Consistent identifiers for court orders, including order numbers, types, and issuance dates.
- **Parties Involved:** Uniform identifiers for individuals and entities involved in cases, including names, roles (e.g., plaintiff, defendant, judge), and contact information.
- **Court Locations:** Uniform identifiers and attributes for court locations, including court names, addresses, and jurisdictional information.

Functionality

- **Logical Context and Matching:** MPM uses advanced algorithms and matching techniques to identify and link records that pertain to the same party across different systems and filings. This logical context helps in creating a comprehensive view of a party's involvement in various cases without altering the original records.
- **Data Integration:** Through the Integration Hub, MPM integrates data from multiple sources, including CMS, eFiling, and TnDR. This ensures that all relevant data is available for matching and context-building.
- **Data Quality and Consistency:** MPM enhances data quality by identifying duplicates, inconsistencies, and incomplete records, and providing mechanisms to address these issues. This ensures that the information used in court processes is accurate and reliable.

Master Party Management (MPM)
Sample Scenarios

1 Unified Party Profile

1. **Scenario:** A defendant is involved in multiple cases across different jurisdictions.
2. **MPM Functionality:** MPM matches the defendant's records from various CMS and eFiling systems, creating a unified profile that includes all relevant case information.
3. **Benefit:** Judges and court staff have a comprehensive view of the defendant's legal history, enabling more informed decision-making and reducing the risk of conflicting judgments.

2 Enhanced Case Management

1. **Scenario:** A plaintiff files multiple cases in different jurisdictions related to the same issue.
2. **MPM Functionality:** MPM identifies and links the plaintiff's records, providing a consolidated view of all related cases.
3. **Benefit:** Court administrators can coordinate case management efforts, streamline processes, and avoid redundant hearings, improving overall efficiency.

3 Victim Protection and Support

1. **Scenario:** A victim of domestic violence has filed for protection orders in multiple jurisdictions.
2. **MPM Functionality:** MPM matches the victim's records and provides a unified view of all protection orders and related cases.
3. **Benefit:** Law enforcement and support services can access comprehensive information to provide better protection and support to the victim, ensuring their safety and well-being.

4 Data-Driven Decision Making

1. **Scenario:** The TN AOC needs to analyze trends in criminal activities involving repeat offenders.
2. **MPM Functionality:** MPM aggregates and matches offender records across multiple systems, providing a comprehensive dataset for analysis.
3. **Benefit:** Data analysts can identify patterns and trends, enabling the TN AOC to develop targeted interventions and policies to reduce recidivism.

Target State Design Deliverable Description

Gartner Consulting was engaged to provide this Target State Design document, as described below.

Task 3: Deliverable Description[+]

3.1 *Target State Design Deliverable Document:* PowerPoint document with description of the target state for court technology, including objectives and guiding principles, and conceptual descriptions of architecture from data, application, and integration perspectives as well as infrastructure needs. The target state diagrams will delineate core functional components of the target state solution such as case management, document management, public portals, integration platform, shared data management and reporting platforms. The deliverable will include supporting narrative for each of the diagramed components and will identify the components that the State will need to procure and will also identify existing and/or external components with which the target state will be integrated (e.g., local prosecution systems, financial systems).

[+] Source: This description of the project is taken directly from the TN AOC Statewide Court System Technology Assessment finalized Scope of Work for this engagement.

Target State Design Workshops

Gartner facilitated the following workshops with TN AOC Project Leadership and utilized Gartner research to gain consensus on the Target State Design:

Workshop		Date	Time (in CST)
Round 1 of Workshops			
1	Target State Planning Workshop	Monday, August 26	1:00 PM – 2:00 PM
2	CMS Strategy and Architectural Design Opportunities (Session 1)	Tuesday, September 3	10:00 AM – 12:00 PM
3	Data Strategy and Doc Management Design Opportunities	Wednesday, September 4	12:00 PM – 2:00 PM
4	Reporting and Analytics Architecture Design Opportunities	Thursday, September 5	9:00 AM – 10:30 AM
5	eFile Structure and Integration	Thursday, September 5	11:00 AM – 12:30 PM
6	Integrations / Data Sharing Design Opportunities	Tuesday, September 10	10:00 AM – 11:30 AM
Round 2 of Workshops			
7	CMS Strategy and Architectural Design Opportunities	Monday, September 16	10:00 AM – 12:00 PM
8	Integration Hub / Data Repository Discussion	Tuesday, October 1	1:00 PM – 2:30 PM
9	Security Discussion	Thursday, October 3	1:00 PM – 3:00 PM
10	eFiling Discussion	Monday, October 7	1:00 PM – 2:30 PM
11	Data Migration Discussion	Wednesday, October 9	2:00 PM – 3:00 PM
12	Artificial Intelligence (AI)* Discussion	Thursday, October 10	2:00 PM – 3:30 PM
13	Financials Discussion	Friday, October 18	10:00 AM – 11:30 AM

* This term is defined in the Appendix

Glossary of Terms (1 of 4)

Term / Abbreviation	Definition
Architecture	In the context of this document, Architecture refers to the overarching view of an organization's technology infrastructure, encompassing all the systems/software components and relationships between them.
Architectural Landscape	In the context of the document, Architectural Landscape refers to the overarching design of solutions and technology.
Artificial Intelligence (AI)	Artificial intelligence (AI) refers to the application of advanced analysis and logic-based techniques, including machine learning, to interpret events, support and automate decisions, and take actions. AI continuously improves its performance by self-learning and incorporating human feedback. Many COTS solutions for court technology make use of AI.
Case Management System (CMS)	A Court *Case Management System* or Solution (CMS) is a comprehensive software application designed to manage and track all information related to the life cycle of legal cases. This system integrates for various functionalities with additional systems to support the administration of justice, ensuring that cases are processed efficiently and effectively from initial filing through to resolution.
Centralized Data Repository	A Data Repository is a centralized system designed to store, manage, and aggregate data from various systems across the state. A data repository solution enables comprehensive data integration, reporting, and analytics, providing a unified view of data. Importantly, this refers to the ability to report on statewide data and does not replace the need for local data reporting from the CMS. See also “TnDR”.
Commercial off-the-shelf (COTS)	Commercial off-the-shelf (COTS) refers to ready-made software or hardware products that are available for purchase by the general public and can be used immediately without the need for customization or significant modification. These products are designed to meet the needs of a wide range of users and are typically developed, maintained, and updated by commercial vendors.
Core System Applications	In the context of this document, Core System Applications refers to a Statewide eFiling solution and a Statewide Court Case Management System (CMS).
Data Integration	Data Integration refers to the process of combining data from various sources (e.g., databases, applications, and external data feeds) into one central location.
Document Management	Document Management capabilities (or those found in a Document Management Solution, or DMS), related to document storage and management. Generally, court-related Document Management capabilities are found or developed within Court *Case Management Systems* (CMS).

Glossary of Terms (2 of 4)

Term / Abbreviation	Definition
eFiling Solution	eFiling (sometimes referred to as “e-Filing”, or “e-File”) is the electronic submission of legal documents with various courts, effectively replacing traditional paper-based methods with a digital platform. eFiling solutions streamline the filing process, enhance accessibility, and improve efficiency by allowing users to file documents online and receive real-time updates — moving toward a more digital judicial environment. eFiling solutions often integrate with other court solutions, such as Case Management Systems (CMS), to provide more seamless workflows. Note: “In this context, the term does not include facsimile or email.
Electronic Case File (ECF)	Electronic Case Files (ECFs) are digital versions of case-related documents and records that are stored and managed electronically, typically within a legal or judicial system. These files include all the documents and information pertinent to a particular case, such as pleadings, motions, orders, evidence, and correspondence.
Electronic Filing Management (EFM)	Electronic Filing Management (EFM) refers to the systematic process of managing the submission, storage, and retrieval of electronic documents, particularly in legal and governmental contexts. It involves the use of digital systems and software to handle the entire lifecycle of document filing, from initial submission to archiving.
Electronic Filing Service Provider (EFSP)	An Electronic Filing Service Provider (EFSP) is a third-party service that facilitates the electronic submission of legal documents to courts. EFSPs act as intermediaries between filers (such as attorneys, law firms, and self-represented litigants) and the court's electronic filing system. They provide a user-friendly interface and additional services that streamline the filing process.
Financial Management	Financial Management capabilities (those found in a Financial Management Solution, or FMS) are designed to handle the financial operations and transactions associated with court activities. This typically includes functionalities for budgeting, accounting, fee and fine collection, financial reporting, and auditing. Generally, court-related Financial Management capabilities are found or developed within Court Case Management Systems (CMS).
Infrastructure	Infrastructure refers to the foundational hardware, software, networks, and facilities that support the operation and management of court information systems. It includes servers, data storage, networking equipment, and other technology components essential for running court applications and services.
Integration	Integration refers to the process of linking different information systems and software applications to work together within a court's technology ecosystem. This allows for the seamless sharing and processing of data across various platforms and departments, enhancing efficiency and accuracy in court operations.
Integration Hub	Integration Hub is a centralized platform or middleware that facilitates the seamless exchange and synchronization of data between disparate systems, applications, and databases. It acts as a central point of control, managing data flows and transformations to ensure that data is consistently and accurately shared across the organization.

Glossary of Terms (3 of 4)

Term / Abbreviation	Definition
Interoperability	Interoperability refers to the ability of different information systems, devices, or applications to connect, communicate, and exchange data effectively and efficiently. This ensures seamless integration and functionality across various court-related technologies and platforms.
Local Data Reporting or Local Data Reporting Solution	Local Data Reporting refers to the tools and/or platforms that help users collect, process, and present data in a structured format. Often, Court Case Management Systems have data reporting capabilities built within the solution. Additional analytics tools are sometimes integrated to add more robust functionality. Importantly, this refers to the ability to report on local data, not statewide data.
Loosely Coupled Integration	A loosely coupled integration is one in which components are weakly associated (have breakable relationships) with each other, and thus changes in one component least affect existence or performance of another component.
Master Party Management (MPM)	Master Party Management (MPM) refers to the practice of managing and maintaining a single, consistent set of data about all the "parties" involved in a transaction or case, across different systems within an organization, ensuring accuracy and eliminating duplicate information.
Modular	Modular refers to a system design approach where the technology is divided into separate, interchangeable components or modules. This allows for flexibility and scalability, enabling courts to add, remove, or update specific functionalities without disrupting the entire system.
Security	Security refers to the implementation of robust measures to protect sensitive judicial data and systems from unauthorized access, breaches, and threats, ensuring data integrity, confidentiality, and compliance with legal standards in the TN AOC's target state design.
Self-Represented Litigant (SRL) Support	Self-Represented Litigant (SRL) capabilities refer to the features and capabilities of an electronic filing system that are specifically designed to assist individuals who are representing themselves in legal proceedings without the assistance of an attorney. This functionality aims to make the legal filing process more accessible, user-friendly, and efficient for non-lawyers.
Star Schema	A star schema is a type of database schema that is commonly used in data warehousing and business intelligence. It is designed to optimize query performance by organizing data into a central fact table connected to multiple dimension tables. The fact table contains quantitative data for analysis, such as sales or revenue, while the dimension tables store descriptive attributes related to the data, like time, geography, or product details. The structure resembles a star, with the fact table at the center and the dimension tables radiating outward.

Glossary of Terms (4 of 4)

Term / Abbreviation	Definition
Standardization	Standardization in technology refers to ensuring compatibility, interoperability, quality, and safety across products, services, and systems. These standards are typically established by consensus and approved by recognized bodies, such as international, national, or industry-specific organizations. Standardization aims to create uniformity and consistency, facilitating easier integration, communication, and collaboration among different technologies and stakeholders. For the purposes of this document, standardization may refer to multiple domains, e.g., data standardization, process standardization).
Supporting Data Management Components	For the purposes of this document, Supporting Data Management Components includes the following: Integration Hub; Centralized Data Repository (TnDR); TnRAS; and TnPortal
Target State Design (TSD)	Refers to the Target State Design (TSD) deliverable, which is a PowerPoint document with a description of the target state for court technology, including objectives and guiding principles, and conceptual descriptions of architecture from data, application, and integration perspectives as well as infrastructure needs.
Tennessee Administrative Office of the Courts (TN AOC or AOC)	The Tennessee Administrative Office of the Courts (TN AOC) provides support to the Tennessee Supreme Court and the entire state court system.
Tennessee Data Portal (TnPortal)	This dedicated data portal (TnPortal) provides secure external access to statewide data for TN courts and clerk offices and external users.
Tennessee Statewide Centralized Data Repository (TnDR)	Refers to the to-be-created Tennessee statewide “centralized data repository”, which is a single, consolidated storage location where statewide data from multiple sources is collected, stored, managed, and accessed. This repository will provide a unified and consistent view of statewide court-related data.
Tennessee Statewide Reporting & Analytics (TnRAS)	This statewide Reporting & Analytics tool allows for comprehensive data reporting and analytics, leveraging insights embedded in the TnDR data.