STATE OF UTAH
OFFICE OF THE UTAH STATE AUDITOR

TINA M. CANNON
UTAH STATE AUDITOR

Department of Health and Human Services

Office of Recovery Services

Limited Review

For the period from December 2024 to May 2025

Report No. ORS25PA-03

Office of the Utah State Auditor

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Management Letter

June 4, 2025

Tracy Gruber, Executive Director
Utah Department of Health and Human Services
195 North 1950 West
Salt Lake City, Utah, 84116

Dear Executive Director,

The Office of the State Auditor (OSA) has completed a limited review of the adequacy of certain information systems, data, and processes within the Office of Recovery Services (ORS) as authorized by Utah Code §67-3-1 (4)(a).

In November 2024, OSA was invited to hear testimony from dissatisfied custodial parents at a meeting organized by Legislative staff that ORS staff also attended. The testimony included concerns that ORS has been unresponsive to custodial parents' concerns and that ORS does not make sufficient efforts to collect child support in some cases. The Social Services Appropriations Subcommittee heard additional testimony from the public about concerns with ORS processes on January 27, 2025. OSA also occasionally receives complaints through our hotline from custodial parents expressing similar sentiments.

Our initial objective was to understand and validate whether the testimony of dissatisfied custodial parents was accurate. However, due to concerns about the functionality of the information system, the focus of our review was amended to assess the underlying information system that ORS uses to store and utilize information about child support cases.

Our review revealed a number of concerning systemic issues and problems with data quality and integrity. While our review was high-level in nature and did not include an in-depth assessment of individual child support cases, we are confident in the accuracy and relevance of the issues identified. The results provide meaningful insight into systemic challenges that may affect ORS operations and highlight opportunities to strengthen ongoing IT modernization efforts. As noted, our review was limited. Had we performed additional procedures or performed an in-depth review, additional concerns may have been noted which would have been brought to your attention.

Sincerely,

Tina M. Cannon
Utah State Auditor

cc: Raymond P. Ward, Representative
House Chair, Social Services Appropriations Subcommittee

Executive Summary

Our review identified three overarching weaknesses with the Office of Recovery Services Information System that we believe ORS Management needs to address.

Finding 1: Outdated Database Design and Improper Data Governance Impair Reporting Accuracy and Auditability - which jeopardizes federal funding. Our review revealed significant design and management weaknesses in the ORS Information System (ORSIS). These deficiencies have led to inaccurate and unreliable data reporting, particularly for critical federal reports. The system's design makes it challenging to produce consistent historical data and perform reliable analysis, which poses a risk to ORS' credibility and potential federal funding tied to performance metrics.

Finding 2: ORS has committed substantial public funds modernizing ORSIS without addressing the issues identified in Finding 1. ORS has spent over $28 million through fiscal year (FY) 2024. In addition ORS will spend at least $5 million annually through FY 2026 with a projected total of $38.5 million. Additional planned features and will likely extend the contract through FY 2031 for a potential total of $58 million. These modernization initiatives primarily focused on migrating existing systems and redesigning user interfaces. These initiatives have not adequately addressed the fundamental data quality, structural, and analytical limitations within the system, representing a missed opportunity to achieve significant operational improvements.

Finding 3: **Lack of Internal Understanding and Ownership of System Codebase**: There is a critical absence of comprehensive internal understanding and ownership of the ORSIS system's underlying code and architecture within both ORS and the Department of Technology Services (DTS). Specifically, how modifications in one component impact other components. This reliance on external vendors for development, coupled with insufficient internal knowledge transfer and oversight, has contributed to the persistence of known errors and greatly hinders ORS' ability to effectively maintain, troubleshoot, and strategically improve the system.

Methodology

To address the objectives, as outlined in our December 3, 2024 engagement letter, we performed the following activities:

1. We requested, were trained on, and gained access to certain databases, documents, and metadata to support our examination;
2. We held three in-depth interviews involving about a dozen staff in addition to several informal conversations with the ORS Director, Bureau of Electronic Technologies (BET) Manager, and relevant Department of Technology Services employees;
3. We analyzed network architecture, data flow diagrams, database schemas and dictionaries, and reviewed a variety of policies involving access, retention, privacy, and security in addition to plans detailing past and current modernization efforts;
4. With the assistance of the BET group we accessed particular data elements at the end of December 2024 and early January 2025 to analyze and reperform select work; and
5. We interviewed ORS personnel and reviewed relevant documentation, including federal guidance, ORS contracts with third party vendors, and financial and statistical reports.

Background Information

About the Organization

The Office of Recovery Services (ORS), a division within the Utah Department of Health and Human Services (DHHS), helps ensure children receive financial and medical support from both parents, regardless of their custodial arrangement.

Under Title IV-D of the Social Security Act, each state operates a Child Support Services program. ORS fulfills this role by locating non-custodial parents, establishing paternity, setting and monitoring support orders, collecting payments, and distributing funds. ORS employs approximately 380 staff to manage about 76,000 cases involving 100,000 children, facilitating nearly $190 million in annual collections against approximately $356 million in past-due

support.[1] Its FY2025 budget is $59.7 million, primarily funded by federal transfers (56%), the state general fund (28%), and other dedicated credits and expendable receipts.[2]

Federal funding is provided by the Office of Child Support Services (OCSS)[3] under the U.S. Department of Health and Human Services (HHS). Additionally, OCSS provides technical requirements, policy guidance, and oversight through monitoring and audits. In order to maintain and receive federal funding, ORS must meet various federal requirements, most importantly, it must maintain federal certification of its information systems. Further, OCSS requires each state's program to submit an Annual Performance Report (OCSE-157 report) which reports case information and statistics, collections, disbursements, staffing and other performance metrics. OCSS uses the information for research and reporting to congress.[4]

ORS' internal data management and access systems are collectively referred to as "the ORS Information System" (ORSIS). ORSIS is primarily administered by the ORS Bureau of Electronic Technologies (BET) with support of personnel from the Division of Technology Services (DTS). The ORSIS environment contains protected personal information (PPI) subject to state and federal privacy laws. All personnel with ORSIS access must comply with these standards. The system is structured and compartmentalized to enforce these policies and restrict broad access to PPI. Caseworkers and other staff have restricted access to the data that is relevant to their assigned caseloads and roles. BET employees have broader access for generating reports for ORS leadership and OCSS. The database management and human facing applications used by ORS case workers are primarily maintained and developed by DTS personnel or external vendors. These external parties assist BET with ORSIS administration but are not under direct BET management control.

About the Information System

The ORSIS system is a complex and somewhat fragmented legacy system first developed in the 1990's. The system must interconnect a variety of different teams, applications, and users for every case that the ORS handles. Each of these users and applications require current and accurate information in order to perform case actions to support ORS' operational goals of timely financial recovery of owed funds.

[1] Per ORS' 12/30/24 submission of the OCSE-157 Annual Performance Report to OCSS
[2] Per https://cobi.utah.gov/2025/3597/financials
[3] The Office of Child Support Services (OCSS) was called the Office of Child Support Enforcement (OCSE) until June 2023. Therefore, the acronyms are used interchangeably throughout the report.
[4] https://acf.gov/css/data

The core of ORSIS is an “online transaction processing (OLTP)” or “Operational Database” with hundreds of distinct tables. OLTP/Operational Databases are designed to support and synchronize high-volume information updates in real time. It is important to note that OLTP systems are not optimal for historical data analysis, require additional applications to aggregate and analyze the data, and require a high degree of maintenance and operational costs.

To ensure data consistency across different tables during current operations, Relational Database Management Systems (RDBMS) are employed. These systems are the backbone of OLTP. They handle the daily grind of a business: recording financial transactions, managing current case inventory, processing active orders, and updating live records. The current version of ORSIS we reviewed is using a PostgreSQL RDBMS which is hosted on AWS’s “Amazon Relational Database Service Aurora Postgres.”

About the Relational Database Model

A RDBMS gets its name from the fact it employs a “Relational Data" model. Data is stored in tables. Each table has rows which represent a single record. Tables also have columns which represent a specific attribute or piece of information about each record. These tables are able to relate/connect to one another with a shared ID field/columns. This model is a preferred data format in most cases since it improves information organization and allows for quick searches.

It also reduces storage space and reduces the chance of data duplication since a single record’s attributes can be modified in one location and shared with other tables that might need that information by linking or joining of the relevant ID fields. In the context of ORSIS, this might appear as a “Participant” moving to a new address. There are multiple tables that need to “know” a participant’s address such as the “Case,” “Debt,” and “Mail Notification” tables. Instead of updating every table (or process) that uses a participant’s address, the case worker can update the participant’s record - specifically a field like “street name” once.

The key takeaway here is that any change to information in one table may impact other independent tables of records.

About ORS Cases

An ORS “case” is created when ORS is involved in establishing or enforcing a child support order, paternity or medical support. ORS cases can range from full services, where ORS takes on a wide range of responsibilities, to more specific cases where ORS provides targeted assistance. From an information or database point of view, a “case” component is a single source of truth and

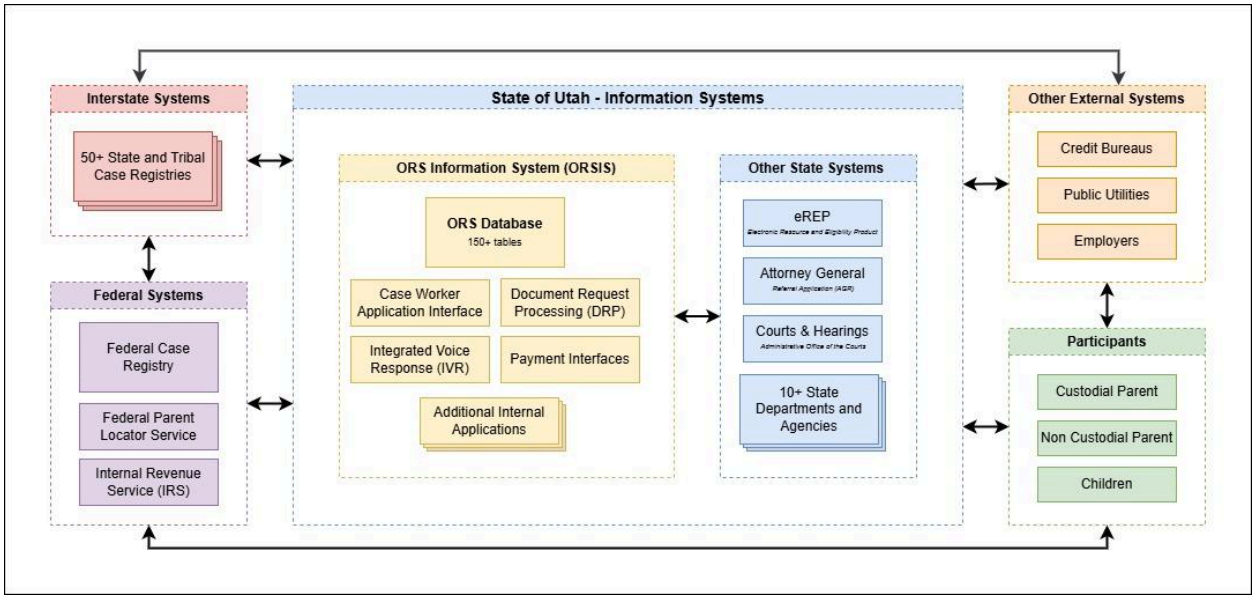
history for the ORS' actions. In the database, the "case" table is the central table to which all other related tables can link. It enables case workers to know the next steps for a case's participants (obligee/obligor of a debt, child, etc.) by linking other related tables such as Debts, Liens, Paternity, Phone Notifications, etc. together. Any actions or events for a case are tracked in the "Case Events" table which is a logged history of all events and details about that event.

The records of all cases and their related data is sometimes referred to as "Utah's Case Registry" in juxtaposition to the "Federal Case Registry." This case metadata is supposed to be aggregated and submitted to the federal OCSS annually to evaluate performance and track spending.

In addition to the ORSIS database itself, OCSS guidance[5] requires ORSIS to interface with at least 22 federal, state, and private external systems to support efforts to locate non-custodial parents such as the Federal Parent Locator Service, the Department of Motor Vehicles, credit bureaus, and public utilities. Further, ORSIS must incorporate internal applications such as an online payment portal, online applications, and integrated voice response systems among others. This increases the complexity of the system and requires significant involvement of DTS to maintain those systems and the interface with ORSIS to ensure data flows between the interconnected systems efficiently and accurately. Figure 1 illustrates how various sources of data and information flows between internal and external systems.

[5] Automated Systems for Child Support Enforcement: A Guide for States pg. 24

Figure 1 Simplified Diagram of Interconnected Information Systems



Findings

Finding 1 - Outdated Database Design and Improper Data Governance Impair Reporting Accuracy and Auditability

The ORS Information System (ORSIS) design and governance under ORS and the Department of Technology Services (DTS) have significant weaknesses that resulted in inaccurate reporting and calls into question whether the system can provide complete, accurate, and auditable information. Despite numerous attempts to replicate the official reported values (case counts, money recovered, etc.) in the 2019 through 2024 OCSE-157 reports using the same method that ORS represented they used to create the report, we were unable to do so. To prepare the OSCE-157 Annual Performance Report, ORS personnel execute a series of queries across various ORSIS tables to compile case counts and financial information on case inventory, paternity establishment, services, medical support, collections, and staffing. The accuracy of the OCSE-157 is important as OCSS analyzes national trends, provides technical support to the states, and makes their reports to congress. The reporting also influences a portion of ORS' federal funding.

After extensive debugging, seeking clarification from ORS personnel to obtain corrections to the queries, and even creating custom SQL queries, we were unable to fully replicate the data reported for the 2019 through 2024 reports. While we eventually replicated one data point (total case counts) to within 5% for most years, most years remained outside an acceptable margin of error.

There are numerous key weaknesses that contribute to ORS' inability to create and reproduce accurate reports. These weaknesses are significant and, in our view, are likely to have broader implications for ORS' ability to effectively perform their core functions.

- **Sole reliance on Operational Database which lacks Analytical Capability:** The ORSIS system is an operational database that, while functional for daily operations, exhibits significant design limitations that hinder accurate historical reporting and auditability. For instance, the system's case "status" fields—vital for determining information inclusion in federal reports—fails to maintain a comprehensive historical record beyond the most recent status. While this information is preserved in the "Case Event" table(s), which records historical events of all case actions, it is not used in the creation of the OCSE-157 report, nor is there a clear way to extract that information from the "Case

Event" table. It is incredibly challenging to fully and accurately reconstruct case histories directly from the operational data at scale due to the variety of interconnected systems.

Analytical Databases (online analytical processing (OLAP)), on the other hand, are engineered for data analysis and sophisticated reporting. Their purpose is to provide insights that support strategic decision-making by aggregating and analyzing historical data. By storing large volumes of historical data—often collected from operational systems and other sources—analytical databases enable complex, reproducible reporting and trend analysis.

Developing an analytical database would enable ORS to meet the federal guidelines for automated systems[6] which are :

- *The system or the state's accounts management system must maintain and generate all information required to complete the OCSE-157 annual data report.*
- *The system must provide management reports for monitoring and evaluating an employee, office/unit, and program performance. . . including online electronic workload management reports that provide information to an employee, office/unit manager, and at the program level on:*

    1. Backlog identification,

    2. Workload allocation, and

    3. Caseload tracking and aging.

- *The system must have online electronic employee and office/unit performance reports that provide information on:*

    1. Caseload statistics (i.e., age of cases, breakdown by category including intergovernmental, and status),

    2. Collections,

    3. Paternity/parentage establishment,

    4. Support obligations,

[6] OCSS "Automated Systems for Child Support Enforcement: A Guide for States" Chapter III.G

5. Cases for which orders could not be established or enforced (indicating the numbers and reasons for failures),

6. Medical support/health insurance, and

7. Employee activity and accomplishments.

- *The system must have a reporting capability to provide management the flexibility to obtain information on an as-needed basis and to satisfy new information needs.*
- *The system must support the expeditious review and analysis of all data*

  that is maintained, generated, and reported by appropriate the system… and must:

  1. *Generate an automated case history for each case that includes all actions taken, the dates of actions, and, if appropriate, the results of these actions.*
  2. *Maintain a complete and accurate case history file online.*

- **Fragmented Architecture:** ORS' operational database is made up of over 150 tables that have been developed over time as needs and circumstances have changed, resulting in a lack of a unified vision, or well-conceived structure. This compels BET analysts to manually and often inconsistently piece together requested information through ad-hoc queries that are subject to errors and don't appear to be routinely updated or vetted.
- **Overwritten Historical Data Attributes**: Since the core "Case" table overwrites historical prior case attributes instead of retaining them, a straightforward reconstruction of accurate case histories, essential for longitudinal analysis and auditing, is difficult if not impossible. The method used by BET and DTS to create the OCSE-157 report is only valid and reproducible for a single day.
  - The central "Case" table only preserves the most recent case status (and change date). If cases had any changes in their status (such as closing, reopening, etc.) then the queries used to create the OCSE-157 report will include/exclude different cases if the OCSE-157 query is run at a later date. This is the primary reason why our office was unable to validate or reproduce the OCSE-157 report. ORS needs to maintain historical data to preserve auditability and to start accommodating better analytics capabilities.

Therefore, ORS case status history is not easily accessible from a reporting perspective and appears to violate OCSS guidelines:[7]

> "To be considered an *operational system* by OCSS: … **The system must contain all data, for the period prior to conversion of a case, necessary to manage the case, currently and prospectively, including data necessary to process or take action on a case and the date of the most recent action that triggered the next appropriate program standards timeframe.** Such historical data, including data necessary to meet federal reporting requirements, may be converted to the system or otherwise maintained. However, readily available data should be converted in order to avoid duplicative efforts in maintaining multiple recordkeeping systems. **The child support cases closed prior to or during conversion should be retained in a form that is easily accessible."**

- **Poorly Maintained Documentation and Queries**: Many SQL queries shared with auditors did not work or contained errors, hampering the accurate reproduction of past reports. This documentation is used by internal ORS staff for retaining knowledge and understanding of ORSIS processes. The fact that the Functional Program Specification (FPS) document does not work and contains errors is concerning since these documents are a part of the criteria used by ORS staff and used by DTS to teach and maintain reporting requirements. The FPS and other related documentation are also used as a signpost and benchmark for ongoing development.
- **Siloed Operations:** ORS business analysts and DTS staff appear to operate in silos, hindering effective collaboration on systems analysis and improvement. The database management and human facing applications used by ORS case workers are primarily maintained and developed by DTS personnel or external vendors. These external parties assist BET with database administration but are not under direct BET management control. BET personnel could not answer many of our questions during this audit, and we were instead forwarded to DTS employees. Other questions or concerns about data behavior were met with statements along the lines of "I only know this small piece of that bigger report, so I cannot tell you why anything else about how the other parts work." See Finding 3 for additional context.

[7] OCSS "Automated Systems for Child Support Enforcement: A Guide for States" Chapter II.A

- **Lack of Data Validation**: There is no robust system for validating data entries or flagging anomalies, such as improbable dates or missing critical fields. This allows input and other errors to remain undetected which could result in incomplete query results.
    - Per the OCSS "Automated Systems for Child Support Enforcement: A Guide for States" D. CASE MANAGEMENT D-2 b: "The system must perform initial edit/validation checks, including numeric and character checks and cross references, to ensure the accuracy and completeness of fields."
- **Flawed Modernization Focus**: Prior modernization initiatives concentrated on migrating legacy systems to cloud infrastructure without fundamentally updating the database architecture and functionality consistent with best practices for operational data management and historical tracking. See Finding 2.

As noted above, federal guidance requires states to provide complete and accurate data for performance reviews, the results of which could directly impact federal funding allocations. Federal reporting guidelines and best practices for data governance require that agencies maintain the ability to produce reporting that is complete, accurate, and that can be audited.

This situation is likely not unique to the ORSIS system within state government. As legacy systems age and technology changes, it becomes a challenge to keep systems up to date with improving technology, maintain high quality data governance, while also maintaining the day to day functionality of complex systems. However, as noted in Finding 2 and 3, it does not appear that ORS has prioritized a true modernization of ORSIS by addressing the weaknesses in the system. It also appears that the ORS views the federal certification requirement as a barrier to making needed system changes which is concerning since the existing system appears to be in violation of multiple federal system guidelines.

As a result, the cumulative impact of these deficiencies has led to significant reporting errors, which undermine the agency's credibility and could potentially jeopardize federal funding tied to performance metrics. Both auditability and trustworthiness in ORS reporting are compromised.

Two specific examples illustrate the effect of these weaknesses:

- During the course of our audit, ORS reperformed and submitted a revised 2024 OSCE-157 Annual Performance Report to OCSS. The revised report corrected 54 of the data points previously reported. The difficulty we had in reproducing our sample reports further supports the conclusion that ORS' process and systems for accurate data

extraction are impaired. We also cannot make any comment to the accuracy of this correction given the system weaknesses identified above.

- Likely due to the weaknesses noted above, we independently identified that ORS had inaccurately reported over 20,000 non-cooperation cases—nearly 20% of the national total—for almost a decade. Even though federal auditors flagged this in 2021, the error persisted in ORS' federal data until its most recent submission at the end of 2024, which reported the corrected figure of approximately 4,000. The persistence of such a significant error for multiple years, even after federal identification, raises serious concerns about internal data governance. Such errors undermine the agency's credibility and could potentially jeopardize federal funding tied to performance metrics.

Due to these pervasive issues, we lack confidence that ORS has consistently reported accurate statistics and financial information to OCSS. Furthermore, we are concerned that similar weaknesses impact ORS' ability to effectively serve its clients. Many custodial parent complaints appear, at their core, to relate to the flow and accuracy of information and difficulty in getting answers to their questions. It is likely that additional errors and inconsistencies exist within the ORSIS database, potentially affecting ORS' timely collection and distribution of funds to those who depend on them.

Recommendations:

We recommend that:

- ORS BET and DTS prioritize a database redesign modernization effort to ensure analytics capacity is central to the information system functionality. This should happen before continuing to add new user interfaces.
    - As a short-term, **temporary** fix, ORSIS Database Administrators should execute nightly "snapshot" exports of key tables to their PostgreSQL database or an analytics warehouse such as Amazon Redshift, Google BigQuery, Snowflake or other comparable solutions. Google Bigquery is already implemented at other offices and departments under DTS. See Appendix A "Suggested Nightly Export Tables" for a list of key tables to the OCSE-157 report.
    - It is important to note that adding analytics capacity or additional tables does not jeopardize federal certification.
        - Per the OCSS "Automated Systems for Child Support Enforcement: A Guide for States" Chapter II A: "*The system must contain, with respect to*

certification requirements, the data necessary to meet all processing requirements. ***The state may exercise discretion regarding individual data elements as long as all processing requirements are met.***"

- Adding an analytics capacity to the database would likely fall under "enhancement" and not require federal recertification - Per the OCSS "Streamlined Feasibility Study Guide" pg. 4: " *If the total amount of available funding (state plus federal) is $50 million or less, these are the steps if the state chooses to enhance (rather than replace) the existing system; or the state can consider replatforming and/or refactoring* ***(enhancing, replatforming, or refactoring does not trigger the FS requirement)****.* ***For replatforming, refactoring, or system enhancement, a re-certification or compliance visit may or may not be required.*** *However, ACF/OCSE reserves the right to review any previously approved Family Support Act of 1988 (FSA-88) and/or Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) functionality if compliance is in question. This will be determined on a case-by-case basis.*"

- It is also important to note, that even though the current modernization effort was chosen to avoid recertification process (as discussed further in findings 2 and 3) the current ORS modernization may still be subject to a recertification:

  - Per the OCSS "Streamlined Feasibility Study Guide" pg. 9: "R*eplatforming or refactoring: Replatforming includes moving to a new environment (platform and/or operating system) and is often augmented with software refactoring (code translation) to a different language. Alaska, Arkansas, Colorado, Idaho, Kansas, Mississippi, Ohio, Pennsylvania, Rhode Island, Tennessee, and Utah have chosen this path of modernization.* ***Although the complexity or risk of this CSES modernization project may not be significant, OCSE – at its discretion and on a case-by-case basis – may require a re-certification review, compliance visit, or both****. Note that this approach needs a modernization project plan, along with a revised AAPDU (or As-Needed APD),and OCSE approval.*"

- ORS establish formal responsibility and procedures for maintaining up-to-date documentation and standardized reporting queries.

- ORS create an integrated data governance team, comprising both ORS business and DTS technical staff, tasked with proactively identifying and resolving data quality problems and enhancing business intelligence capabilities.
- ORS implement robust data validation protocols to detect and flag anomalies at the point of entry.

Finding 2 Very Costly Modernization Efforts Will Not Resolve Underlying Deficiencies nor Improve System Capabilities

ORS, in collaboration with the DTS, and in partnership with Deloitte Consulting (Deloitte) has invested at least $28 million dollars since FY2020 in an ongoing effort to modernize the ORSIS system through cloud migration and user interface redesign. The continuing effort is projected to cost at least another $5 million per year from FY2025 to at least FY2026, when it is anticipated that ORS will execute another contract for $5 million per year until FY2031. We are concerned that despite the multi-year effort and large amounts of money being allocated to "modernize" ORSIS, the current scope of the plan does not address the issues highlighted in Finding 1, particularly those involving fragmented data structures, inadequate validation protocols, and lack of efficient analytic capability. Further, despite their scale and expense, the modernization efforts do not incorporate any significant enhancements to ORSIS that would improve system capabilities such as caseload management, caseworker performance monitoring or data reliability. While ORS has launched these initiatives with OCSS knowledge and approval, we believe that ORS is missing an opportunity to direct substantial federal funding for modernization efforts in a manner that will result in significant improvement to their operations. We discuss the modernization efforts and the related costs in detail below:

Modernization Efforts Will Not Resolve Underlying Deficiencies

ORS, DTS, and Deloitte have pursued modernization efforts since 2020 in two major initiatives:

1. Migration of physical mainframe infrastructure written in legacy programming languages to an Amazon Web Services (AWS) cloud with modern programming languages (Java, Python, etc.).
2. Redesign and rebuild of existing user interfaces and applications that use ORSIS data.

While these initiatives represent a shift from outdated mainframe architecture to cloud infrastructure and focus on an improved user experience, they do not address the foundational problems outlined in **Finding 1**. Instead, the emphasis, as described in contracts with Deloitte,

was a one-to-one functional equivalent of classic ORSIS using a modernized platform with user interface improvements. The scope of work in the contract specifically notes that "no new functionality or features will be added during modernization." Emphasis was also placed on maintaining federal system certification through OCSS.

Some background on why the current modernization effort does not address the issues we have identified:

In 2016 ORS explored options to modernize ORSIS. This system was a legacy mainframe system that used the COBOL computer programming language. Most of the servers were housed in the DTS datacenter in the Capitol North Office Building. This effort to upgrade was motivated by the scheduled demolition of the North Office building's data center and due to the increasingly high cost to hire and train highly specialized staff that could maintain this legacy system.

ORS had some significant challenges to contend with in determining how to approach a modernization effort:

1. The legacy mainframe applications and databases would need to be rewritten into their equivalent modern programming languages that reflects the skillset of the current workforce. Accurate and manual "Refactoring" and "Replatforming" could be time consuming and expensive.
2. There was an ever-shortening deadline of when a new system would have to be completed before the North Building Datacenter demolition.
3. When creating a new information system, ORS is bound by a federal requirement to certify that it meets appropriate standards and security. ORS reports that this certification process can take 5-10 years.
4. Day-to-day operations are already frustrated with the legacy system being slower than desired and user interfaces being clunky. Any additional disruption had to be avoided.

Instead of hiring additional staff to help with this modernization, ORS decided instead to utilize Deloitte's "innoWake" toolset to resolve these challenges. The innoWake toolset performs "automated refactoring" of mainframe applications and data. The promise is to get the "same system in a modern language."

Deloitte's Innowake toolset involved

- Automated refactoring of COBOL code to Java Code

- Replacing the physical mainframe with an equivalent AWS Elastic Compute Cloud
- Migrating the old database to a DB2 Database engine on AWS with the PostgreSQL Relational Database Management System (RDBMS)

This was the preferred solution by ORS since it: 1) avoided federal recertification; 2) could meet the datacenter demolition deadline; 3) ease future modernization since the physical infrastructure would now be "cloud native;" and 4) would save money - BET estimated it would have cost $200 million to manually refactor and replatform ORSIS.

It is not clear that BET and DTS weighed the downside of, or alternatives to, this modernization solution.

- Vendor Lock-In: While the refactoring and replatforming do not necessarily lock ORS into using a specific vendor for the modernized system, Deloitte as the primary developer of new code makes ORS and DTS reliant on them for ORSIS functionality and new development.
- Lost Codebase Knowledge and Developer Experience: While it is certainly costly to hire and retain highly skilled information system experts, it is likely cheaper to do so within ORS (or within DTS) than pay Deloitte developers. See Finding 3 for more details on developer pay costs. There is also a knowledge loss for ORS employees since key developers may no longer be available in the future.
- Fully functional and federally certified systems already exist, such as the State of Florida's system (see finding 3 recommendations), and could be used by Utah without having to reinvent/develop modern functionality.

In our view, strategic modernization projects should be designed to address critical existing deficiencies and achieve demonstrable improvement in core operational performance. While the ORS modernization has succeeded in some aspects of this such as no longer relying on older mainframe technology, the fundamental reporting errors do not appear to have been addressed.

Cost of Modernization Initiatives are Concerning Given the Lack of Substantial Improvement to ORSIS

ORS made management decisions in 2020 as described above in their modernization efforts. Table 1 shows the past and projected future payment to Deloitte. Substantial ORS BET and DTS

personnel costs related to the initiative are not included here but would increase the costs further.

Table 1: Payments to Deloitte for Replatforming and Refactoring

Note: ORS and DTS personnel costs are not included

Fiscal Year	**Past Investment** in Cloud Migration and User Interface Improvement	**Projected Future Investment** in User Interface Improvements	Running Total
2020	$6,662,000		$6,662,000
2021	$5,431,720		$12,093,720
2022	$544,000		$12,637,720
2023	$5,183,880		$17,821,600
2024	$5,750,273		$23,571,873
2025		$5,000,000	$28,571,873
2026		$5,000,000	$33,571,873
2027	*Current Contract ends in 2027*	$5,000,000	**$38,571,873**
2028		$5,000,000	$43,571,873
2029		$5,000,000	$48,571,873
2030		$5,000,000	$53,571,873
2031	Projected End	$5,000,000	**$58,571,873**

As shown above, ORS pays large sums of money outsourcing their development and testing. Deloitte staffed over a dozen employees, charging high hourly rates for one-time development and testing. This money could have been used for hiring, training, and developing staff internally to conduct this development and testing, likely at a lower cost. Table 2 below shows the hourly rates for Deloitte personnel, as listed in a 2022 change order to the existing contract. The reason for the change order is described in Finding 3, however the rates and projected hours shown below, average to an hourly rate of $221.35 for Deloitte personnel's work on the project during this period.

Table 2: Deloitte Resource Plan Table [8]

Deloitte is proposing a resource plan to meet these estimates as follows:

Role	Estimated Person Hours	Rate Card Position Title	Rate Card (hourly fee)	Fee based on Rate Card
Project Director	280	Project Director	$320	$89,600
Project Manager	1,272	Project Manager	$300	$381,600
Technical Architect	1,272	Lead Product Developer	$250	$318,000
Project Management Analyst	2,280	Business Analyst – Junior	$180	$410,400
Developer 1	2,220	Product Developer – Experienced	$225	$499,500
Developer 2	2,000	Product Developer – Junior	$175	$350,000
Developer 3	2,000	Product Developer – Junior	$175	$350,000
Developer 4	2,000	Product Developer – Junior	$175	$350,000
Developer 5	2,000	Product Developer – Junior	$175	$350,000
Developer 6	2,000	Product Developer – Junior	$175	$350,000
Developer 7	2,000	Product Developer – Junior	$175	$350,000
Database Migration Engineer 1	900	Product Developer – Experienced	$225	$202,500
Database Migration Engineer 2	2,280	Product Developer – Experienced	$225	$513,000
Testing Engineer 1	2,280	QA / Test Lead	$220	$501,600
Testing Engineer 2	1,680	QA / Test Analyst – Senior	$160	$268,800
Testing Engineer 3	1,680	QA / Test Analyst – Junior	$120	$201,600
Testing Engineer - Performance	1,360	QA / Test Analyst – Senior	$160	$217,600
Total	**29,504**		**Total**	**$5,704,200**

We compared Deloitte's 2022 rates to the May 2025 median state-wide market hourly and annual rates reported by the Utah Department of Workforce Services (DWS) for the same or similar roles. While the DWS rates likely don't include benefits, and therefore would likely be

[8]ORS and Deloitte Change Order #00008 - subsection 8 Resource Plan -(pg. 20-21) Deloitte Resource Plan Table

higher for comparison purposes, it is clear that the Deloitte rates are significantly higher than the median state-wide job market rates.

Table 3: Comparison of Deloitte Contract Rates to DWS Rates

Role	**Deloitte Hourly Rate Range**	**Statewide Median Hourly Rate** Utah DWS Workforce	**Deloitte Fee** (based on Rate Card and estimated work hours)	**Statewide Median Annual Pay** Utah DWS Workforce
Software Q&A Analyst	$120-$225	$39.05[9]	$201,600-$501,600	$81,230[9]
Database Architect	$225-250	$71.73[10]	$318,000 - $513,000 *(the lower end employee did not work full time on this scope of the project)	$149,200[10]
Software/Product Developer	$175-$225	$56.17[11]	$350,000-$499,500	$116,830[11]

We also compared Deloitte's rates to those paid to Master Engineers employed by the State of Utah in 2024. A Master Engineer is a senior level role with a deep knowledge of technology combined with project management skills. Wages and benefits for a government employee within the State of Utah were between $193,413 to $247,485, still significantly lower than Deloitte's rates.

[9] "Software Quality Assurance Analysts and Testers" *Department of Workforce Services - Occupation Explorer Data Viewer* https://jobs.utah.gov/utwid/occupation-information/151253/overview Accessed (2025-05-30)
[10] "Database Architects" Department of Workforce Services - *Occupation Explorer Data Viewer* https://jobs.utah.gov/utwid/occupation-information/151243/overview Accessed (2025-05-30)
[11] "Software Developers" Department of Workforce Services - *Occupation Explorer Data Viewer* https://jobs.utah.gov/utwid/occupation-information/151252/overview Accessed (2025-05-30)

Table 4: DTS - Top 10 Highest Paid DTS "IT Master Engineers" FY 2024[12]

Title	Employee	Gov. Type	Entity	Year	$ Wages	$ Benefits	$ Total
It Master Engineer	Silcox, Diane	State of Utah	State of Utah	2024	$172,978.96	$74,506.42	$247,485.38
It Master Engineer	Spainhower, Randy	State of Utah	State of Utah	2024	$158,932.34	$69,685.72	$228,618.06
It Master Engineer	Walker, Keaton	State of Utah	State of Utah	2024	$154,743.60	$74,171.81	$228,915.41
It Master Engineer	Smith, Robert	State of Utah	State of Utah	2024	$151,604.66	$73,429.12	$225,033.78
It Master Engineer	Foster, Jonathan	State of Utah	State of Utah	2024	$151,182.14	$73,162.25	$224,344.39
It Master Engineer	Davis, Jordan	State of Utah	State of Utah	2024	$146,617.53	$65,567.10	$212,184.63
It Master Engineer	Swanepoel, Willia...	State of Utah	State of Utah	2024	$143,310.46	$50,102.22	$193,412.68
It Master Engineer	Ford Iii, Donald	State of Utah	State of Utah	2024	$142,854.41	$65,217.55	$208,071.96
It Master Engineer	Love, Robert	State of Utah	State of Utah	2024	$140,706.52	$69,545.08	$210,251.60
It Master Engineer	Haws, Austin	State of Utah	State of Utah	2024	$138,703.17	$68,447.14	$207,150.31

ORS BET has traditionally hired high performing case workers and trained them as analysts rather than recruiting highly skilled data analysts. While hiring from within is likely appropriate for certain types of positions, it is not effective for those positions that require a higher level of skill.

As a result of the investment in a third party to perform modernization initiatives that do not fix systemic weaknesses, ORS remains vulnerable to the same data quality problems previously documented, including unreliable reporting and inconsistent system performance. If flaws persist in the core application logic, case statuses may be inaccurate, audit trails may remain incomplete, and federal reports may continue to suffer from inaccuracies. This disconnect between system infrastructure and operational capability raises serious questions about the return on investment for current modernization efforts.

Recommendation:

We recommend that ORS should:

- Re-evaluate the current modernization strategy, including its contract with external vendors such as Deloitte, to ensure that the scope of work reflects the system's business needs. Future modernization phases must go beyond infrastructure and interface design

[12] Transparent Utah - Job Title Search for "IT Master Engineer"- Accessed 2025-05-30.

to include substantial reform of the database architecture, coding logic, and data validation frameworks. BET should be more strategically deployed and supplemented with personnel who possess advanced data engineering and systems architecture skills. Without this recalibration, ORS risks continued inefficiency, despite spending millions in public funds on modernization efforts that do little to improve functionality, accuracy, or effectiveness.

- Invest in hiring and retaining experienced and skilled developers that can maintain and develop key components of ORSIS. While experienced and qualified staff are costly, ORS should compare that against the costs of paying millions to Deloitte to provide equivalent expertise.

Finding 3: Lack of Codebase Understanding and Ownership

Given the size and complexity of ORSIS, the siloed operations discussed in Finding 1, and our interactions with ORS BET and DTS personnel, we believe that no single employee or party fully understands ORSIS or how modifications to one table or process might impact other parts of the system. Our attempts to recreate the OSCE-157 reports indicated that ORS BET does not fully understand its system architecture's codebase and database. Further, while certain DTS developers are supposed to collaborate and ensure knowledge transfer of code developed by Deloitte (as a part of the IT modernization process), this collaboration and knowledge transfer is not being effectively passed along to the BET team and ORS management.

ORS' IT modernization contract with Deloitte does not include actual code review by key ORS BET staff. The bulk of code base development, changes, and testing is done by Deloitte and DTS employees - not actual ORS or BET staff. ORS provides common "user stories" or expected outputs (see End-to-End Scenarios), but does not actually review the code itself. This is equivalent to a home inspector only looking at the outside of a home. While some issues might be apparent from the outside, many could exist undetected without proper review by ORS staff.

As part of the IT Modernization Contract, Deloitte's Developers conduct code review with DTS developers. "*Code review entails looking at the logic of the code to see if the code makes sense and follows DTS coding standards. It involves running provided unit tests, making sure the unit tests provide 80% code coverage and functional tests, and then presenting the code and the results of these tests for review by DTS developers after the tests are run.*" However, since DTS staff are often not fully aware of the day-to-day ORS business logic, it is unclear how they

ensure proper code review beyond verifying that similar inputs yield similar outputs. Given the issues raised in Finding 1, at best, the modernized codebase will maintain the status quo.

As a part of the ORSIS database migration change order,[13] the actual ORSIS codebase changes (ie: new stored procedures, SQL changes to batch jobs, SQL changes to online screens in ORSIS, and SQL changes to non-ORSIS web applications) were performed either by Deloitte or DTS - not BET or ORS. While "End-to-End (E2E)" test scenarios (ie: test steps, input data, and expected results) were provided and reviewed by ORS - the actual execution of those tests was performed by Deloitte and DTS.

For application or user screen interfaces, the same concern exists. The scope of work order references that a Deloitte key activity is "Review legacy code and identify reusable components that can be converted into Python, Angular, Java, or native AWS services, and reused in modern architecture" and "Create and/or update FPS for the screens in the release scope". While there is a mention that ORS gets to have up to two workshops where they can review the UI/UX design of a feature,it is critical to note that ORS' own staff is not a real participant in this review or update to documentation.

Effective IT project management requires robust knowledge transfer protocols to ensure internal staff gain a comprehensive understanding of newly developed or modernized systems, facilitating long-term maintenance and strategic flexibility. Further, OCSS guidelines mandate:[14]

- "*To be considered an integrated system by OCSE, certain principles apply: … **The child support agency will control, account for, and monitor all software development and maintenance efforts for the system, even if the system is developed or maintained by the state's IT organization or other agency***."
- "*The state must have procedures in place for the retrieval, maintenance, and control of the application software. … a. **Change control procedures must be established to verify and validate changes to master files and application software**. b. Change control procedures must ensure that only authorized changes are made to the application software and **that these changes are fully tested, approved, migrated into production in a controlled manner**, and documented to provide an audit trail of all system maintenance.*"

[13] Deloitte Change Order #00008 under 7. Responsibility Assignment Matrix, Table "7.4 Migration Phase" pg. 15

[14] OCSS "Automated Systems for Child Support Enforcement: A Guide for States" Chapter II .A and Chapter III.H.3

ORS does not account for and monitor all software development and maintenance of ORSIS. This oversight and review of codebase changes has been outsourced to Deloitte and DTS employees.

As a result, an ongoing $5 million annually will be spent on the next stage of IT modernization of a codebase without sufficient oversight and review from the ORS technology team. This will result in severe consequences as follows:

- **Costly Maintenance.** Lack of codebase understanding complicates on-going (and future) maintenance since future development and updates will rely on DTS or Deloitte staff to implement.
- **False Code Accuracy Perception & Rubber Stamping**. DTS and Deloitte are only providing coverage for test scenarios explicitly made by ORS. This means that edge cases or abnormal data flows may not be covered by the current codebase. Defects could exist without knowledge by either Deloitte, DTS, or ORS. Based on the actual contract, only 80% of unit tests and code coverage are even required to satisfy a code review.
- **ORS internal skilled staff development opportunity cost.** As discussed in Finding 2, ORS pays a large sum of money outsourcing their development and testing. This money could have been used hiring, training, and developing staff internally to conduct this development and testing - likely at a cheaper rate.

Finally, this lack of codebase understanding likely creates many of the issues identified in Finding 1. The following example illustrates how these weaknesses contributed to prolonged inaccurate reporting of data:

> When the Office of the State Auditor noted a discrepancy in reporting and asked over email exchange “Why does Utah’s Preliminary 2023 federal report (table P-90) show over 20,000 non-cooperative cases, while the 2024 report shows closer to 4,000?” The answer from ORS was, “There was a coding issued[sic] that was counting all participants that ever had a non-cooperation placed, even if ORS coded the system to release the client from non-cooperation. ORS workers update the system with a release code of RPPS to release the non-cooperation, but when the batch was run, the code on the back end was not excluding any of those with RPPS.”
>
> When asked if the issue had been persistent: ORS replied: “in 2021, OCSS compared the last 5 years of data and noticed the non-cooperation numbers were extremely large.

They notified us in May 2021. Upon reviewing prior years reports, it appears the coding issue may have resulted in a persistent error until it was corrected in September 2023."

This example illustrates a situation where ORS case workers and employees had a certain business rule understanding, but there was a miscommunication with the database administrators and report creators over how the SQL script should filter cases - which are then used in official federal report case counts.

This issue persisted throughout the modernization redevelopment of the ORSIS database from IBM DB2 to Aurora PostgreSQL. That change order amendment was signed 8/23/2022, and involved a year of development. The above example, which was known to ORS employees, because it was flagged by OCSS, was not corrected or caught by Deloitte and DTS until September 2023 (over one year after the change order began). It is likely that ORS informed Deloitte and DTS of this issue at certain points in the process, but without being involved in the development themselves this error persisted much longer than it should have.

Through interviews, emails, and review of ORSIS it is clear that no single employee or party fully understands the ORS Information System or how modifications to one table or process might impact other parts of the system. This means ongoing reporting and development may rely on false assumptions or errors yet to be found.

Recommendation:

- ORS and BET must be more involved in the code development and code review process of ORSIS. While certain employees of each division may specialize in relevant expertise, the working relationship between DTS and ORS' business analysts team must be regular, and responsibility for data accuracy should be jointly shared.
- ORS should require that at least one experienced technical developer engages in the code development process with Deloitte and DTS.
- ORS should require that at least one experienced technical developer engages in the code review process with Deloitte and DTS. The reviewer must be a different employee than the employee who developed the code.
- ORS should maintain ownership and responsibility of all ORSIS documentation, codebase changes, and Functional Program Specification (FPS) documents - NOT DTS or an external vendor.

- ORS, specifically BET, should conduct a thorough review and inventory of how modernization changes have interacted with legacy system flaws. Since BET is primarily staffed by former caseworkers trained in basic programming — a workforce with strong institutional knowledge but often lacking the specialized technical expertise required to architect and implement systemic database reforms, it will require mutual training and knowledge sharing between DTS and ORS employees.

Appendix

A. List of Suggested Nightly Export Tables

Name	Table Name (from WERPUDB)	Reason
Case	T_CASE	This table maintains high level information about an ORSIS case (e.g., case type, case status, referral source, etc.). Each case represents a group of one or more Participants associated with the Office of Recovery Services.
Participant	T_PARTICIPANT	The Participant table stores demographic information about each participant in a case. Different types of data are collected depending on the type of Participant.
Participant-Case Association	T_PARTIC_CASE	This table establishes the details about an ORSIS case and the group of Participants on that case. The primary information collected includes the relationship of the Participant to the Case (i.e., Obligor, obligee, child, etc.).
End-Of-Month Balance	T_EOM_BALANCE	This table maintains the end-of-month balances for all debts and Financial Accounts in ORSIS. This table is used by programs that need to know the balances of debts and accounts at a prior point in time. Without this table, the balances would have to be reconstructed from the journal transactions. The EOM BALANCE table is created by a batch process run on the last day of the month.
Paternity	T_PATERNITY	The Paternity table contains the information required to support the establishment of paternity within a child support Case.

Financial Account	T_FINANCIAL_ACCT	The Financial Account table is maintained to keep the financial balances and related information for a Participant, Case, or System accounts. The data in this structure is composed primarily of derived information that can be extracted from the Financial Transactions.
Financial Event	T_FINANCIAL_EVENT	The Financial Event table provides a financial audit that contains summary level information about an event (such as a payment) in the ORSIS financial management system. All detailed financial transactions (i.e., allocations, distribution, disbursement, etc.) performed because of this event are associated with this base Financial Event. Financial Events consist of five types: Adjustment, Payment, Refund, Transfer, and General
Financial Transaction	T_FINANCIAL_TRAN	The Financial Transaction table contains all financial transactions that are associated with a financial event. Each occurrence represents the movement of money from one financial account to another. This table provides a detailed audit trail of the source and target accounts of the money to be applied by the transaction.
Case Interstate	T_CASE_INTERSTATE	This table maintains detailed information for an ORSIS case where the obligor or obligee resides in another state. ● If the obligor is in another state, ORS may have several Outgoing Interstate cases. ● If the obligee lives in another state and the obligor lives in Utah, the ORSIS case will have one Incoming Interstate case. ● An ORSIS case may have several active Outgoing Interstate cases, but only one active Incoming Interstate case.

Case ROAD	T_ROAD_CASE	This is the junction between the Referral Other Agency Details (ROAD) and the Case table. This table resolves the many-to-many relationship between the Case table and the ROAD table.
Federal Case Registry	T_FCR_CASE	This table maintains case information that was sent to the Federal Case Registry (FCR) and also the corresponding response from the FCR. The FCR is a national registry of child support participants and cases. Each state must maintain its own State Case Registry, and forward this information to the FCR. Utah's "State Case Registry" is simply referred to as the "Case" table.
Obligation	T_OBLIGATION	An Obligation is the legal or administrative basis for a Debt. It is usually expressed in terms of payment due over a period of time and recorded in a document such as an order. The Obligation table collects all the general information related to an Obligation.
Obligation-Debt Junction	T_OBLIGATION_DEBT	The Obligation Debt table is maintained to define the specific terms and conditions for each Debt established within ORSIS. This structure is maintained as a historical audit trail documenting the initial Debt information and each subsequent revision, if applicable.
Liens	T_LIENS	The Liens table maintains tracking information on the establishment and execution of an ORS lien against an Obligor's assets. The liens are abstracts filed with the courts, and are created at the time of docketing.
Enforcement	T_ENFORCEMENT	This table maintains enforcement information reported to the credit bureau. The Credit Bureau Interface program (B2X05) submits information to the Credit Bureau from two different processes.

Debt	T_DEBT	The Debt table maintains all current balance information specific to a liability for an express sum of money as specified in an order (obligation). The Debt table is considered the 'live' file on which ORSIS performs financial processing whereas the Obligation Debt table is the history. A historical audit trail of all financial activities that have occurred during the life cycle of the Debt is stored in the Obligation Debt table.
Case Control Order	T_CASE_CTRL_ORDER	This table maintains information about which state has control over the order or obligation for a specific FSTR, IVDS, or YCOR case.
Attorney General Actions	T_ATTORNEY_GENERAL	This table maintains information about actions performed, or that will be performed, when an obligor Participant's case is referred to the Attorney General's office for enforcement actions. AG attorney referrals are linked to the Attorney General Referral (AGR) web application where actions can be tracked between that system and ORSIS.
Genetic Lab History	T_GENETIC_LAB_HIST	The Genetic Test Lab History table collects information on genetic testing including the cost, the dates of the tests, the date ORS received the bill, and the invoice number of the bill. This information is used to help track the establishment of paternity and to issue transmittals to the lab which identify what comprises the check's dollar amount.
IVR Outbound	T_IVR_OUTBOUND	This table contains a call request record for each outbound dialing call that has been requested. Batch programs add records here daily, and another batch process sends the new call requests to the system. The IVR makes the calls and the associated Outbound Dialing records are updated with the results.

Case Event	T_CASE_EVENT	This table maintains detailed information for an action that occurred in a case. ● Various actions, some automatic and some manual, cause events to be created for the case. ● These events help the ORS worker determine what has happened and what the next action should be. ● Some events have notes attached to them which are linked to the NOTES table.
Case Lien	T_CASE_LIEN	This table maintains information specific to the type of Lien that will be put on an obligor's asset due to non-payment of an obligation/debt.
Case Process SVC	T_CASE_PROCESS_SVC	This table maintains the relationship between a document that was served to an ORS Participant and the cases that were included in the document. Examples of documents that may be served are Notice of Agency Actions, Medical Insurance Letters & Forms, Guideline Worksheets, etc.
Tax Information History	T_TAX_INFO_HISTORY	This table contains a row for each Federal Tax data access event. When a worker views or updates any Federal Tax information a row is created to record the event. The data can then be used to monitor and audit the activity against any IRS data.
Criminal Case	T_CRIMINAL_CASE	This table maintains the court and case information for an obligor Participant convicted of a crime. Typically, this is for criminal non-support and is used by the appropriate ORS teams and the AGl's office.
Participant Hearings	T_PARTIC_HEARINGS	The Participant Hearings table tracks the status of a participant's activity as it relates to their involvement with the Office of Administrative Hearings.

Agency Response

State of Utah

SPENCER J. COX
Governor

DEIDRE M. HENDERSON
Lieutenant Governor

Department of Health & Human Services

TRACY S. GRUBER
Executive Director

DR. STACEY BANK
Executive Medical Director

NATE CHECKETTS
Deputy Director

DAVID LITVACK
Deputy Director

NATE WINTERS
Deputy Director

June 13, 2025

Tina Cannon
Utah State Auditor
Utah State Capitol, Suite 260
Salt Lake City, Utah 84114

Dear State Auditor Cannon,

Thank you for the opportunity to respond to the recommendations in *A Limited Review of the Office of Recovery Services* (Report No. ORS25PA-03). This letter includes the response from the Utah Department of Health and Human Services (department) and its Office of Recovery Services. We appreciate the work of the Office of the Utah State Auditor in providing this review.

We appreciate the professionalism and engagement of your staff as we collectively strive to improve financial support for children in Utah. The department finds the insights and guidance offered by your review regarding existing challenges within the child support system to be invaluable.

On behalf of the department, we agree with the recommendations in this report and the response outlines our actions and timelines to demonstrate our agreement. The department is committed to ensuring children in Utah lead safe and healthy lives.

Sincerely,

Tracy S. Gruber
Executive Director

State Headquarters: 195 North 1950 West, Salt Lake City, Utah 84116
telephone: 801-538-4001 | email: dhhs@utah.gov | web: dhhs.utah.gov

Recommendation 1-1. We recommend ORS BET and DTS prioritize a database redesign modernization effort to ensure analytics capacity is central to the information system functionality. This should happen before continuing to add new user interfaces.

Department Response: The Utah Department of Health and Human Services (DHHS or department) concurs, in part, with this recommendation.

What: DHHS is a data-driven and data-informed organization. It relies on data to ensure it is operating at a high-level of quality and takes data integrity seriously.

The vast majority of the federal Office of Child Support Services (OCSS) requirements are focused on transactional requirements around locating participants, initiating and maintaining cases, enforcing support orders, and collecting and disbursing child support, which support the mission of ORS to serve customers. While the ORSIS system is designed to fulfill these functions and has been affirmed by the U.S. Department of Health and Human Services as performing those functions effectively, DHHS understands that the system is not as effective for performing data analytics functions highlighted in the audit.

As a result of the findings of this audit, ORS will evaluate the feasibility of developing an analytics database to assist with reporting. This evaluation will include whether a separate analytics database is necessary or whether this function can be properly embedded in ORSIS.

How: ORS will conduct the evaluation needed to establish the analytics database. Upon completion of the evaluation, it will create a plan to implement the development of the database. The plan will include an evaluation of the financial resources needed to develop the data analytics capabilities. Further, the plan will include analysis of whether relevant portions of the existing database may be imported into another platform and

restructured to support analytics.

When: July 1, 2026

Responsible Staff: Bart Mason, ORS BET Electronic Business Project Manager; Gene Riggs, DTS Lead Manager

Recommendation 1-2. We recommend ORS establish formal responsibility and procedures for maintaining up-to-date documentation and standardization reporting queries.

Department Response: The department concurs with this recommendation.

What: Currently, ORS has existing guidance that details the development process for ORSIS, including drafting business requirements, system requirements and functional programming specifications. ORS will formalize this guidance and establish responsibility and procedures for maintaining up-to-date documentation and standardization reporting queries.

How: Procedures will be formalized and business requirements will be documented for reports, including one-time reports such as legislative requests. Reports supporting federal reporting, financial, and personnel management, as required by OCSS, will become a part of the ORSIS code base. Additionally, ORS will establish a regular cadence for reviewing and updating procedures to ensure all procedures remain current and up-to-date.

When: July 1, 2026

Responsible Staff: Bart Mason, ORS BET Electronic Business Project Manager; and Georgeia Wood, ORS Director

Recommendation 1-3. We recommend ORS create an integrated data governance team, comprising both ORS business and DTS technical staff, tasked with proactively identifying and resolving data quality problems and enhancing business intelligence capabilities.

Department Response: The department concurs with this recommendation.

What: ORS and DTS have an existing data team. A sub-group focused on proactively identifying and resolving data quality problems and enhancing business intelligence capabilities will be added to this inter-agency team.

How: ORS will coordinate with DTS to establish a sub-group of its existing inter-agency team focusing on these matters.

When: January 1, 2026

Responsible Staff: Bart Mason, ORS BET Electronic Business Project Manager; Gene Riggs, DTS Lead Manager

Recommendation 1-4. We recommend ORS implement robust data validation protocols to detect and flag anomalies at the point of entry.

Department Response: The department concurs, in part, with this recommendation. It's important to distinguish between ORSIS data and data reports created outside of ORSIS. All data ingested into the ORSIS system is validated and is re-validated upon modification or deletion. The ad hoc reports, which were outside the ORSIS system, lacked those controls. Lack of validation when it comes to querying also highlights the difference between ORSIS code as a transactional database and the ad hoc reporting. DHHS agrees that data utilized to inform effective, efficient, and high-quality operations must be reliable. The audit raises concerns with data integrity, that the department agrees, must be addressed through

enhanced policies and procedures for reporting.

What: ORS has well-established data validation protocols. However, the audit demonstrates that these protocols should be evaluated and potentially modified to address data validation concerns. ORS will review its current protocols and make necessary modifications with respect to procedures for data validation. These protocols will be extended to the reports supporting federal reporting, financial, and personnel management as required by OCSS.

How: This will happen as part of implementation recommendation 1-2. All reports brought into the ORSIS code base will be brought up to and held to the same standards as the other ORSIS code. Data validation protocols and procedures will be evaluated and potentially modified.

When: July 1, 2027

Responsible Staff: Bart Mason, ORS BET Electronic Business Project Manager

Recommendation 2-1. We recommend that ORS should re-evaluate the current modernization strategy, including its contract with external vendors such as Deloitte, to ensure that the scope of the work reflects the system's business needs. Future modernization phases must go beyond infrastructure and interface design to include substantial reform of the database architecture, coding logic, and data validation frameworks. BET should be more strategically deployed and supplemented with personnel who possess advanced data engineering and systems architecture skills. Without this recalibration ORS risks continued inefficiency, despite spending millions in public funds on modernization efforts that do little to improve functionality, accuracy, or effectiveness.

Department Response: The department concurs, in part, with this recommendation.

What: The initial modernization efforts moved ORSIS from a tightly coupled and more difficult-to-maintain-and-update non-modular proprietary system to a cloud system. Current modernization efforts aim to continue dividing the software framework into more independent and interchangeable modules or components allowing ORS to better meet the demands of modern data processing. ORS continuously evaluates the modernization strategy, including the use of its vendor and their proprietary software. ORS will evaluate the need for additional data engineering staff.

How: ORS currently evaluates modernization efforts with DHHS and ORS leadership. ORS will continue to look for ways to ensure business needs are met. A cost analysis will be included as part of the evaluation to determine if current staffing needs to be supplemented with data engineers and architects. The evaluation will also determine whether it is viable to repurpose staff in other areas of ORS to address any observed needs.

When: January 1, 2026

Responsible Staff: Bart Mason, ORS BET Electronic Business Project Manager; and Georgeia Wood, ORS Director

Recommendation 2-2. We recommend that ORS should invest in hiring and retaining experienced and skilled developers that can maintain and develop key components of ORSIS. While experienced and qualified staff are costly, ORS should compare that against the costs of paying millions to Deloitte to provide equivalent expertise.

Department Response: The department concurs, in part, with this recommendation. While the department agrees that it should evaluate its need for additional staff and the costs associated, it believes that developers would be employed by DTS.

What: Noting the temporary nature of the contract with Deloitte, ORS will continue to evaluate the cost of hiring full-time, permanent and internal DTS staff. This evaluation will continue to include a comparison against the costs of utilizing Deloitte. Utah Code CA §63A-16-104 requires that IT developers must be DTS staff and not agency employees. ORS will work with DTS to evaluate whether developers should be hired to support ORS.

How: ORS will evaluate budgetary implications of hiring additional, permanent, full-time DTS staff to support ORS versus a continued contractual relationship with Deloitte.

When: January 1, 2026

Responsible Staff: Bart Mason, ORS BET Electronic Business Project Manager; Gene Riggs, DTS Lead Manager; and Georgeia Wood, ORS Director

Recommendation 3-1. ORS and BET must be more involved in the code development and code review process of ORSIS. While certain employees of each division may specialize in relevant expertise, the working relationship between DTS and ORS' business analysts team must be regular, and responsibility for data accuracy should be jointly shared.

Department Response: The department concurs, in part, with this recommendation.

What: As noted above, Utah Code §63A-16-104 requires that development positions must

be DTS staff. DTS will continue to do code development. ORS and BET currently meet regularly with DTS to ensure awareness of code development, as well as share responsibility of code review and data accuracy. ORS and BET will be more involved in the code review process of ORSIS and continue to maintain a positive working relationship with DTS.

How: Technical code review functions will continue to be performed by DTS. ORS will improve on its involvement by conducting additional functions within the code review process. This will include performing functional, regression, and other testing, as part of that process.

When: July 1, 2026

Responsible Staff: Bart Mason, ORS BET Electronic Business Project Manager; Gene Riggs, DTS Lead Manager

Recommendation 3-2. ORS should require that at least one experienced technical developer engages in the code development process with Deloitte and DTS.

Department Response: The department concurs, in part, with this recommendation. While the department agrees that it should evaluate its need for a technical developer, it believes the developer would be employed by DTS.

What: The BET team has a Scrum Master who engages with Deloitte and DTS on code development. While UCA 63A-16-104, requires that employees engaged in code development are employed by DTS rather than the department, ORS and DTS will evaluate the value of adding an ORS employee with technical experience in code development. This analysis will include a review of state law and HR rules to determine if ORS is allowed by

statute and rule to employ an individual experienced in code development to engage in the code development process. The review will also include a review of the costs associated with the hiring of an employee with this skillset.

If ORS and DTS determine that it is not necessary to employ an individual within ORS with this background, ORS will enhance its involvement in the code review process.

How: ORS will do an analysis that will include a review of whether state law and HR rules allows for ORS to employ an individual experienced in code development to engage in the code development process, and the costs associated with the hiring of an employee with this skillset.

When: July 1, 2026

Responsible Staff: Bart Mason, ORS BET Electronic Business Project Manager; and Georgeia Wood, ORS Director

Recommendation 3-3. ORS should require that at least one experienced technical developer engages in the code review process with Deloitte and DTS. The reviewer must be a different employee than the employee who developed the code.

Department Response: The department concurs, in part, with this recommendation. The department acknowledges that the code developer and the code reviewer must be two different individuals given that the industry standard practice is that developers cannot review their own code.

What: This recommendation will be satisfied as recommendation 3-1 and 3-2 are implemented. As required by statute, DTS will continue to perform the technical review

functions. DTS follows the industry practice for code review to be performed by a developer's peer. However, ORS will work with DTS to determine whether it should hire an additional ORS employee with the technical experience to engage in code review. ORS will follow the same evaluation process outlined in 3-2 to make that determination.

How: ORS will do an analysis that will include a review of whether state law and HR rules allow for ORS to employ an individual experienced in code review to engage in the code review process, and the costs associated with the hiring of an employee with this skillset. ORS and DTS will look for additional opportunities to enhance code review capabilities.

When: July 1, 2026

Responsible Staff: Bart Mason, ORS BET Electronic Business Project Manager; Gene Riggs, DTS Lead Manager; and Georgeia Wood, ORS Director

Recommendation 3-4. ORS should maintain ownership and responsibility of all ORSIS documentation, codebase changes, and Functional Program Specification (FPS) documents - NOT DTS or an external vendor.

Department Response: The department concurs with this recommendation.

What: ORS will maintain ownership and responsibility of all ORSIS documentation, codebase changes, and Functional Program Specification (FPS) documents. It will ensure that its policies and procedures reflect this responsibility. Additionally, ORS will review its contracts and agreements with external partners to ensure that it is clear that ORS maintains ownership and responsibility of all ORSIS documentation, codebase changes, and FPS documents. It will also review the Utah Code to ensure that these responsibilities are exclusively ORS' and not the role of DTS.

How: ORS will develop a clearly written policy that states that it maintains ownership and responsibility of all ORSIS documentation, codebase changes, and Functional Process Specification (FPS) documents. Additionally, it will coordinate with the DHHS Office of Procurement and Contract Management to review its agreements to ensure this recommendation is implemented and amend any agreements accordingly.

When: July 1, 2026

Responsible Staff: Georgeia Wood, ORS Division Director.

Recommendation 3-5. ORS, specifically BET, should conduct a thorough review and inventory of how modernization changes have interacted with legacy system flaws. Since BET is primarily staffed by former caseworkers trained in basic programming - a workforce with strong institutional knowledge but often lacking the specialized technical expertise required to architect and implement systemic database reforms, it will require mutual training and knowledge sharing between DTS and ORS employees.

Department Response: The department concurs with this recommendation. However, it notes that the role of ORS in system design and development is limited by statute which places the responsibility for technical expertise within DTS. It acknowledges that even within that statutory constraint, there is value in ensuring ORS staff have additional training in system design.

What: ORS will follow-up with the auditor on specific legacy system flaws that were identified. BET will conduct a thorough review and inventory of how modernization changes have interacted with legacy system flaws. Additionally, ORS will work with DTS to develop opportunities for the BET staff to enhance their technical knowledge of system architecture, including the databases.

How: Existing ad hoc reporting supporting federal reporting required by OCSS will be reviewed for legacy system flaws. Existing difficulties and limitations with analytical reporting will be included in the design of a new analytics component. If other identified legacy systems flaws exist, analysis can be made to determine how these flaws interacted with modernization.

DTS and ORS will work together to evaluate additional core competencies needed, if any, of the BET staff. If additional competencies are needed among BET staff, this evaluation will identify any training to obtain these competencies and the costs associated.

When: January 1, 2027

Responsible Staff: Bart Mason, ORS BET Electronic Business Project Manager; Gene Riggs, DTS Lead Manager

Response to Agency Response

June 16th, 2025

The Office of the State Auditor (OSA) received the official response from the Utah Department of Health and Human Services, dated June 13, 2025.

What follows are detailed clarifications and, as necessary, rebuttals to comments identified in the formal response.

The report and these further clarifications provide meaningful insight into systemic challenges that currently affect ORS' operations and highlights a number of key opportunities that, if addressed with urgency and focus, will strengthen ongoing IT efforts and positively impact families. We reiterate, because of the magnitude and severity of these issues, they must be addressed and in a timely manner.

Summarily, our review revealed a number of concerning systemic issues and problems with database architecture, ORS data quality, reporting integrity, the need for qualified internal IT professionals and the agency's full ownership of the information system functions. We are confident in the accuracy and relevance of the issues identified. Most importantly, families' lives are and will continue to be negatively impacted until these issues are remedied.

Tina M. Cannon
Utah State Auditor

1. Analytics and Reporting is NOT separate from the ORS Information System. It is a core function of any information system.

In response to Recommendation 1-4, which called for ORS to implement robust data validation protocols, DHHS concurred in part, then stated: “It’s important to distinguish between ORSIS data and data reports created outside of ORSIS. All data ingested into the ORSIS system is validated and is re-validated upon modification or deletion. **The ad hoc reports, which were outside the ORSIS system, lacked those controls. Lack of validation when it comes to querying also highlights the difference between ORSIS code as a transactional database and the ad hoc reporting**.”

This distinction is fundamentally flawed. The assertion that reports and queries generated from the ORS Information System database are “outside the ORSIS system” is an untenable position. An information system, by definition, includes its data, the processes acting upon that data, and the outputs—such as reports and analytics—that provide insight. To argue that standard outputs like SQL queries and official reports are separate from the system itself is a semantic distraction. This perspective reveals a critical misunderstanding of foundational information system principles.

Furthermore, the justification that the database is exclusively "transactional" fails to address the core of our concern. While we acknowledge the technical distinctions between transactional and analytical optimized databases, no significant barrier prevents ORS’s database (PostgreSQL) from performing both functions. Citing the system as "transactional only" is an insufficient defense for its lack of reporting integrity. An information system of this importance must support both reliable transactions and validated analytics; it should not be limited to one at the expense of the other.

2. DTS Statute(s) do not prohibit ORS from hiring qualified internal staff.

The agency’s responses to Recommendations 2-2, 3-1, and 3-2 reference Utah Code §63A-16-104 (and by extension extend to responses to Recommendation 3-3, 3-4, and 3-5), which the Agency perceive as requiring information technology and development staff to reside within DTS. ORS acknowledges that even within that statutory constraint, there is value in ensuring ORS staff have additional training in system design and involvement in code review.

We would like to clarify that this is not a sufficient barrier to the recommendations. While it is accurate that the statute, in general, prohibits agencies from creating their own IT department, it is not true that statute prohibits ORS from having full-time equivalent positions for development, analytics or code review of ORSIS. The statute specifically provides exceptions if:

1) DTS' Chief Information Officer approves it; or
2) there is a "unique or mission-critical function of the agency" that requires certain IT staff; or
3) the hiring of that staff "results in net cost savings or improved service delivery to the state as a whole or to the unique mission critical function of the executive branch agency."

This demonstrates that there are three different pathways for ORS, under the statute, to hire developers, data analysts, and code reviewers. In our view, this would result in substantial cost savings and improve the function of the agency. The relevant code sections have been referenced, and highlighted below:

We are not asking ORS to staff networking or server technicians - we are recommending that they have specific staff on their team that fully understand and have responsibility for ORSIS.

§63A-16-208[15]. Delegation of division staff to executive branch agencies -- Prohibition against executive branch agency information technology staff." States:

(2)(a) An executive branch agency may not create a full-time equivalent position or part-time position, or request an appropriation to fund a full-time equivalent position or part-time position under the provisions of Section 63J-1-201 for the purpose of providing information technology services to the agency unless:

(i) the chief information officer has approved a delegation under Section 63A-16-207; and

(ii) the division conducts an audit in relation to Section 63A-16-102 and finds that the delegation of information technology services to the agency meets the requirements of Section 63A-16-207.

[15] *§63A-16-208:* https://le.utah.gov/xcode/Title63A/Chapter16/63A-16-S208.html

63A-16-207[16] "Delegation of division function" states:

(1)(a) If the conditions of Subsections (1)(b) and (2) are met and subject to the other provisions of this section, the chief information officer may delegate a function of the division to another executive branch agency or an institution of higher education by contract or other means authorized by law.

(b) The chief information officer may delegate a function of the division as provided in Subsection (1)(a) if in the judgment of the director of the executive branch agency and the chief information officer:

(i) the executive branch agency or institution of higher education has requested that the function be delegated;

(ii) the executive branch agency or institution of higher education has the necessary resources and skills to perform or control the function to be delegated; and

(iii) the function to be delegated is a unique or mission-critical function of the agency or institution of higher education.

(2) The chief information officer may delegate a function of the division only when the delegation results in net cost savings or improved service delivery to the state as a whole or to the unique mission critical function of the executive branch agency.

16 https://le.utah.gov/xcode/Title63A/Chapter16/63A-16-S207.html?v=C63A-16-S207_2021050520210701