

# NASCIO 2019 State IT Recognition Awards Emerging & Innovative Technologies

# LaMEDS

Louisiana Medicaid Eligibility Determination  
System

## Louisiana Department of Health Contact

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**LaMEDS Release Date: November 13, 2018**

Component Release Dates:

- Private Cloud (Enterprise Architecture): December 2016
- Real-Time Eligibility: November 2018
- Louisiana Workforce Commission Interim Wage Check Process: February 2019
- Intelligent Process Automation: April 2019
- Analytics/Dashboards: May 2019
- Federal Tax Information: June 2019

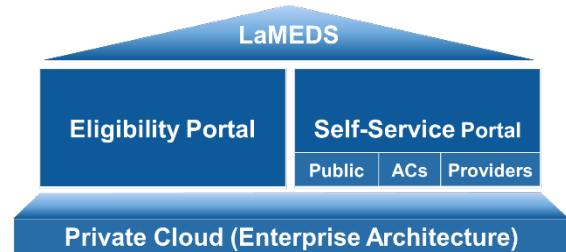
\*Planned releases through 2019

## Executive Summary

With approximately 1.6 million Medicaid beneficiaries (nearly 34% of Louisiana residents) and over 2,000 internal and external users of the Medicaid eligibility system, it was clear that Louisiana needed to modernize and streamline its disparate mixture of mainframe and web-based systems that formed silos of eligibility information, verification documents, resource records, and more.

In February 2015, the Louisiana Department of Health (LDH) released an RFP for this Medicaid modernization. By December of that year, the procurement process was complete and the Louisiana Department of Health (LDH), the Office of Technology Service (OTS), and Deloitte began the ambitious undertaking of designing and building the Louisiana Medicaid Eligibility Determination System (LaMEDS), which went live in November 2018.

The foundation of LaMEDS is a statewide private cloud that supports an agency-facing Eligibility Portal and a Self-Service Portal for three distinct external groups: public users, application centers, and providers.



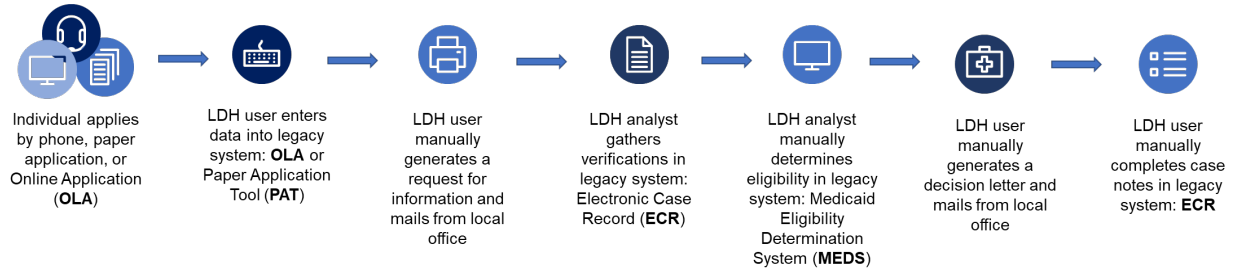
While LaMEDS shares many features with other state integrated eligibility systems, the project team set out to innovate and create *the* most modern integrated eligibility system in the nation. Fueling this innovation was a shared goal of increasing automation, improving performance, and minimizing duplication of work. To that end, LaMEDS has six features that uniquely position it on the cutting edge of eligibility determination systems:

1. **Enterprise Architecture (EA):** a set of shared services created on a private cloud for all Louisiana state agencies, with LaMEDS as one of the first consumers
2. **Real-Time Eligibility (RTE):** a feature that allows applicants and enrollees to see their eligibility results immediately after submitting their applications and renewals
3. **Intelligent Process Automation (IPA):** a mechanism that automates tasks that would have required manual intervention by LaMEDS workers
4. **Louisiana Workforce Commission (LWC) Interim Wage Check Process:** a check that uses LWC income data to proactively and automatically assess current enrollees' continued eligibility on an interim basis between application and renewal
5. **Analytics:** a set of 6 interactive dashboards that help to anticipate and plan for fluctuations in case worker workload
6. **Federal Tax Information (FTI):** a distinct system from LaMEDS that allows authorized workers to assess the eligibility for Medicaid coverage by retrieving tax return information provided by IRS

These state-of-the-art features have enabled LDH to significantly transform the way Medicaid eligibility is determined and improve the way Louisianans are served.

## Concept

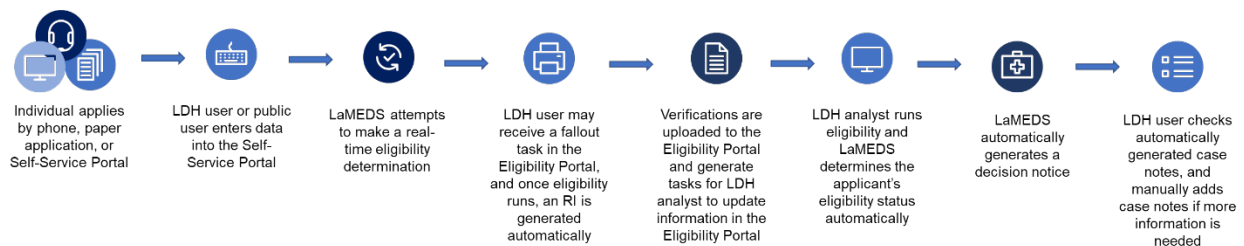
Prior to LaMEDS, a single Medicaid application would need a minimum of 4 separate legacy Medicaid systems to determine eligibility (more systems were required for certain types of assistance like long-term care and waiver programs).



Once eligibility was established, LDH processed case changes for households out of the Application Suite system and processed monthly renewals using Excel spreadsheets that were manually created by supervisors. Often one or more of these systems would experience unplanned outages, halting work for LDH workers.

A modern Medicaid eligibility system with new tools and technology was needed to support the work of LDH workers, improve the service provided to Louisiana residents, and strengthen program integrity for Louisiana taxpayers.

LaMEDS provides all of that. A simplified Eligibility Portal has all the information an eligibility analyst needs to establish and maintain a household's Medicaid eligibility, as well as automated features that help LDH enforce the complex rules and policies that govern Medicaid. A Self-Service Portal automatically transfers information from applicants and enrollees to the Eligibility Portal, eliminating numerous manual steps that used to be performed by an LDH user. The figure below illustrates how LaMEDS has streamlined the eligibility process; features like Real-Time Eligibility are further reducing the number of steps that must be performed by a user.



*“Workers no longer have to key functions into an antiquated, circa-1992 disk operating system, (DOS)-based platform, which relied heavily on individual determinations and paperwork.”*

*-Elizabeth Crisp. Louisiana's state-of-the-art Medicaid enrollment system goes live after years in the works. The Advocate*

## Significance

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Louisiana's RFP for Medicaid modernization sought the typical characteristics of a consolidated Integrated Eligibility system. However, the project team raised the bar higher from the outset – challenging itself to set LaMEDS apart with even more innovative ideas and modern technologies to exceed the expectations of both the State and the people it serves. The design of LaMEDS reflects a deliberate pursuit of innovation for the benefit of LDH's employees and the State's Medicaid recipients.

### Enterprise Architecture (EA)

While LaMEDS was in its design phases, LDH, OTS's Enterprise Architecture team, and Deloitte began to consolidate IT systems to comply with CMS requirements. This evolved into the establishment of a revolutionary private cloud in 2016 with a service-first framework that serves as the foundation for the LaMEDS application. The LaMEDS design capitalized on every opportunity to leverage this new Service-Oriented Architecture (SOA) which contains 7 key components:

1. **Business Rules Engine (BRE):** defines and executes LaMEDS eligibility rules to automatically determine the correct Medicaid benefit external to the core application.
2. **Enterprise Document Management System (EDMS):** stores verifications, notices, and other documentation that are critical to successful eligibility determination and record keeping
3. **Enterprise Service Bus (ESB):** serves as an integration layer between systems and acts as the "broker" for all communication with internal and external systems
4. **Consumer Communications:** generates emails, text messages and correspondence for enrollees with content that is tailored to the household's unique composition and circumstances
5. **Identity Management (IDM)/Single Sign-On (SSO):** enables supervisors to request and remove security permissions for LaMEDS, enables workers to access LaMEDS without needing to enter a user name or password after signing into their state computers, and enables external clients and partners to self-register and establish user accounts.
6. **Master Data Management (MDM):** stores demographic information for individuals known to LaMEDS and helps identify potential duplicate applicants
7. **Data Warehouse:** houses LaMEDS pre-built and ad-hoc reporting and makes data accessible to all LaMEDS workers with the appropriate security roles

In the years since the SOA was established, it has been featured in [Forbes](#), [GCN](#), [Business Wire](#), and other local and national publications. The architecture has also received recognition in the form of over 15 awards and speaking engagements. LDH serves as a pioneer for other Louisiana state agencies in standardizing governance and implementing best practices. Louisiana's Child Welfare agency is now utilizing the private cloud and modernization efforts using the enterprise architecture are underway at other agencies.

### Real-Time Eligibility (RTE)

Though Real-Time Eligibility is not a new concept for integrated eligibility systems, LaMEDS takes it further, including both Modified Adjusted Gross Income (MAGI) and non-MAGI Medicaid programs in RTE determinations. Thirty percent (30%) of applications submitted through the Self-Service Portal by public users, application center representatives, LDH customer service workers, and LDH administrative coordinators receive immediate feedback with an eligibility determination, as well as a personalized list of verification documents that are needed to finalize eligibility.

LaMEDS also provides enhanced algorithms for person clearance so that even when applicants do not provide a Social Security Number, LaMEDS can use other information to help prevent duplication of individuals in the MDM (one of the EA components).

The investment in enhanced processing algorithms has yielded an improved user experience for both Louisiana residents and LDH employees.

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### **Intelligent Process Automation (IPA)**

Following the statewide launch of LaMEDS in November 2018, LDH faced the expected challenges of workers learning new technologies and business processes. To decrease processing time for providers and recipients, while alleviating administrative work for LDH staff, LDH and OTS implemented an Intelligent Process Automation (IPA) solution (including Intelligent Optical Character Recognition (IOCR) for the processing of Provider Forms 148 – Status Change tasks. This was done in just 8 weeks and consistent with LDH/OTS’s strategy and vision.

Prior to IPA, LaMEDS generated tasks that were automatically routed to a Long-Term Care (LTC) analyst based on availability, capacity, role, and user characteristics. Now, when a form is submitted, these tasks are routed to the IPA for processing. IPA can handle a significant number of forms automatically and tasks deemed “unworkable” (due to image quality, missing information, etc.) are assigned back to a case owner. IPA automatically enters case notes relevant to the work it was able to perform and the next steps that should now be performed by the case owner. LDH plans to expand use of the IPA functionality to include additional forms.

### **Louisiana Workforce Commission (LWC) Quarterly Process**

Renewals are typically performed yearly for most Medicaid programs. While annual checks on a household’s eligibility may be effective for other states, Louisiana chose to be more proactive in preventing fraud by checking for wage changes on an interim basis. This enables LDH to identify and remove enrollees who are no longer eligible and allocate the budget savings to other important agency priorities.

LDH, in cooperation with The Louisiana Workforce Commission (LWC), checks all active adults in LaMEDS against the LWC interface to identify changes in wages between application and renewal. The LaMEDS business rules engine automatically uses the new wage information to determine eligibility, and LaMEDS sends a Request for Information asking enrollees to submit income verification documentation when wages are above eligibility thresholds.

For enrollees who do not respond to the Request for Information, no worker intervention is required, and the cases are automatically closed. For enrollees who do respond, LaMEDS workers receive a task to update the case with the latest information, reducing the manual work that would have to be done once the household is up for renewal.

The first run of the interim wage check process occurred in February 2019 and received statewide media attention ([https://www.theadvocate.com/baton\\_rouge/news/politics/article\\_b0e03ac6-361f-11e9-b8a0-17839264511c.html](https://www.theadvocate.com/baton_rouge/news/politics/article_b0e03ac6-361f-11e9-b8a0-17839264511c.html)).

### **Analytics**

Following the implementation of LaMEDS, LDH executives, regional managers and supervisors needed to fully understand how the new system would enable them to quantitatively measure staff workload and efficiency, while providing insights into the Medicaid population to prepare LDH’s budgets for current and future fiscal years. To meet this need, an interactive reporting solution was implemented that aligned with LDH/OTS’s strategy and overall vision. The initial phase of the solution included operational and program administration dashboards that addressed LDH’s immediate reporting needs while setting up an analytics foundation for the future.

The interactive reporting solution, “Louisiana (LA) Health and Human Services (HHS) Interactive” is a full-scale enterprise reporting platform that integrates data into a unified data repository, providing a “single

version of truth” supported by custom data visualizations and advanced analytics that allow users to interact with, analyze and better understand Medicaid eligibility and enrollment data.

In the first phase of this project, a total of six dashboards were developed that included Pending Workload, Work Completed, Applications and Renewals Monitoring, Enrollment Trends, and Applicant Tracking. Each dashboard can be configured to display information that suits the business needs of executive leadership, regional managers and supervisors. Shortcuts and buttons are also included on the dashboards to allow users to interact with the data and drill into transaction-level data for further analysis, especially in circumstances where immediate action is required.

LA HHS Interactive provides LDH stakeholders with interactive dashboards that enable the department to more proactively manage their workload rather than simply reacting to workload issues.

### **Federal Tax Information (FTI) System**

With the belief from the Legislature that using individual tax return data would provide an additional resource for LaMEDS to access while determining eligibility for beneficiaries of the Medicaid program, LDH began planning to implement the Federal Tax Information (FTI) system in June 2019. It will be used to assess the eligibility for Medicaid coverage by retrieving tax return information provided by IRS. To safeguard and restrict access to critical tax information, the FTI system will be separate from the Eligibility Portal and Self-Service Portal to make sure that no state employee accesses tax information unless specifically authorized under certain provisions and have undergone a background check.

In LaMEDS, when eligibility runs for a household, the FTI interface is invoked to see if any of the household members receiving specified MAGI programs have a significant income discrepancy between what is reported in LaMEDS and what the IRS has on file or a spousal discrepancy. From there, FTI creates records for authorized workers to determine if the eligibility outcome should be different, and the authorized workers modify information in LaMEDS accordingly.

## **Conclusion/Impact**

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LaMEDS has fundamentally changed the way LDH does business. The innovative approaches that have been applied to all aspects of the system enable LDH to serve Medicaid applicants and enrollees in a more cost-effective, timely and accurate manner and to create a better user experience for both LDH employees and Louisiana residents.

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“The old one was like using a Sony Walkman. It was incredibly difficult. This new system is world class and the best in the country.”

-Dr. Rebekah Gee, LDH Secretary

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LaMEDS Feature	After LaMEDS
Enterprise Architecture	<ul style="list-style-type: none"> <li>• More than 60 SOA services across 7 EA components enable reuse and collaboration among customer departments.</li> <li>• Single-sign on enables workers to spend more time processing tasks and less time entering passwords.</li> </ul>
Real-Time Eligibility	<ul style="list-style-type: none"> <li>• Approximately 30% of applications submitted in the Self-Service Portal receive real-time eligibility results (other eligibility systems are typically in the single-digits).</li> </ul>
Intelligent Process Automation	<ul style="list-style-type: none"> <li>• IPA is processing 38% of the Provider Forms 148 – Status Change tasks end-to-end, contributing to a savings of roughly 40 hours a week. At current rate, this represents an annual labor savings of roughly 693 hours or 7 working weeks for 1 FTE. <ul style="list-style-type: none"> <li>○ To-date, 90.4% of tasks are successfully processed by IPA.</li> </ul> </li> <li>• With a 38% decrease in processing time and an ability to process tasks 24/7, IPA helps expedite task processing, and enables providers to receive more timely payments.</li> <li>• Reallocating the hours saved from IPA, enables long-term care eligibility analysts to focus even more on customer service and professional development.</li> </ul> <p>*All results are within 5 weeks of implementation of IPA</p>
Louisiana Workforce Commission Interim Wage Check Process	<ul style="list-style-type: none"> <li>• In February 2019, the LWC process identified approximately 40K enrollees with wages in excess of the income eligibility limit, 30K of whom were unenrolled from Medicaid coverage, primarily for failure to respond to LDH’s letter requesting proof of ongoing eligibility.</li> <li>• In May 2019, the LWC process identified approximately 17K enrollees with wages in excess of the income eligibility limit, whose continued coverage depends now on their timely response to LDH’s letter requesting proof of ongoing eligibility.</li> </ul>
Analytics	<p>Analytics have provided:</p> <ul style="list-style-type: none"> <li>• increased identification of and visibility into transferred and overdue tasks;</li> <li>• the ability to analyze key operational metrics such as timeliness, compliance, backlog and throughput of applications and renewals processing;</li> <li>• the ability to reallocate resources to meet demand and benchmark overall performance through office or parish comparisons;</li> <li>• transparency into workload management and worker productivity across all levels of LDH leadership including regional managers and supervisors;</li> <li>• greater insights into enrollment trends and applicant history; and</li> <li>• a positive impact on LDH’s administrative costs and budget.</li> </ul>
Federal Tax Information System	<ul style="list-style-type: none"> <li>• Allows LDH to identify significant income and household composition discrepancies</li> </ul>

Within six months of LaMEDS’s statewide go-live on November 13, 2019, Louisiana’s investment in innovation and state-of-the-art technology has delivered a substantial return and set the standard for other integrated eligibility systems.