



Making the case for incremental modernization



States seek to improve operations and decrease their total cost of ownership (TCO) by incrementally enhancing existing solutions as opposed to performing a complete system replacement.

According to NASCIO's 2022 State CIO Survey, legacy system modernization has become an increasing priority for states. It jumped from #5 to #2 on the list of top 5 business processes, practices or investment changes that CIOs believe will continue after the COVID-19 pandemic.¹ In addition, states are seeking innovation and digital transformation without significant cost, effort and disruption. At the same time, the people they're serving want an easier, more consistent user experience when interacting with various state systems.



What is your current situation?

Do you have a pathway to modernize without disruption?

This paper examines how states can continuously innovate by complementing or enhancing their existing product ecosystem, as opposed to removal and replacement. Modernization and innovation do not necessitate a complete rebuild or replacement. Rather, they require different thinking by approaching modernization incrementally to improve user experiences, productivity, system performance and ultimately outcomes. This approach, as described here, minimizes disruption and contains investment while increasing the time to value.

1. NASCIO. The 2022 State CIO Survey. nascio.org/resource-center/resources/the-2022-state-cio-survey/.

Compounding challenges

States with outdated legacy systems face a range of challenges.



Internal experience

Disparate data sources with no unified method to consume insights or drive outcomes

Lack of visibility into system performance for leadership, managers and other stakeholders

Static or incomplete workflow processes

Inability to provide an intuitive and modern user experience

Hard-coded systems that prevent quick response to changing rules, waivers or new provisions

High total cost of ownership and slow time to value

Collectively, these challenges create a domino effect that demands technology modernization. Some states do not have the tools they need or a clear pathway toward modernization of their legacy solutions. Rapidly evolving expectations further compound the situation. Both internally and externally, end users expect systems to be simple, elegant and easy to use. They naturally compare them to intuitive solutions they use in their daily lives, such as Amazon, Google or TurboTax. And the influx of transformational solutions being implemented across other aspects of state government add pressure to expectations around Health and Human Services (HHS) solutions.

In response, states often turn to their legacy vendors who propose a new transfer system as a way to modernize. Unfortunately, when finally completed years later, the results may fall short of true modernization. This begs the question:



Citizen experience

Poor, repetitive or inefficient experiences that do not meet expectations

Lack of simplicity where systems are misaligned with modern-day mobile applications

Lack of coordinated systems



How can states provide a transformed experience across applications at a faster pace without starting from scratch?



Evolution rather than revolution

Technology advancements offer a more efficient and timely path to modernization using a state’s existing ecosystem. Incremental modernization allows states to innovate piece by piece without disrupting the agencies relying on the system for day-to-day operations.

Rather than a revolutionary “big-bang” approach, we propose an evolutionary path to upgrading a system that incrementally and continuously modernizes. With incremental modernization, the state can upgrade its legacy solution one module at a time. This allows for a quicker implementation of enhancements to the overall system and provides for easier end-user adoption of the changes.



Define your strategy

Modernizing a state’s legacy solutions is a process requiring dialogue and strategy. This checklist can help jump-start the conversation and planning.

1

Identify your pain points. What challenges are you facing today?

- User experience engagement
- Inefficient operations
- Limited adoption
- Difficulty making program/system changes quickly
- Lack of automation
- High cost of support
- Software supportability (EOL concerns)
- Security compliance
- Workflow issues:
 - Stoppages and related issues
 - Business processes that must change
- Other _____

2

Prioritize pain points based on what will provide the greatest return

- Determine which challenge, if addressed, you believe will provide the greatest return on investment – then prioritize accordingly.



3

Take a human-centered design approach to each of your pain points

- Assess the human problem. Think through the perspective of the individuals who engage with the system to truly understand and unearth the underlying pain points and needs.
- Consider both user communities:
 - Citizens who use the platform
 - Staff and supervisors who need a better picture of the individual they're assisting without logging in to multiple systems
- Create personas coupled with a holistic journey map of the workflow process that shows the current state as well as ideas on what the optimized future state should look like.

4

Develop your modernization pathway

- The next key step is to develop your state modernization roadmap based on your priorities and technology capabilities to help optimize your system. Identify your 3-, 4- and 5-year plans based on the analysis you completed above:
 - What human problems are you solving and when?
 - What solutions and technologies are you adopting to solve those problems?
 - When are you adopting them?

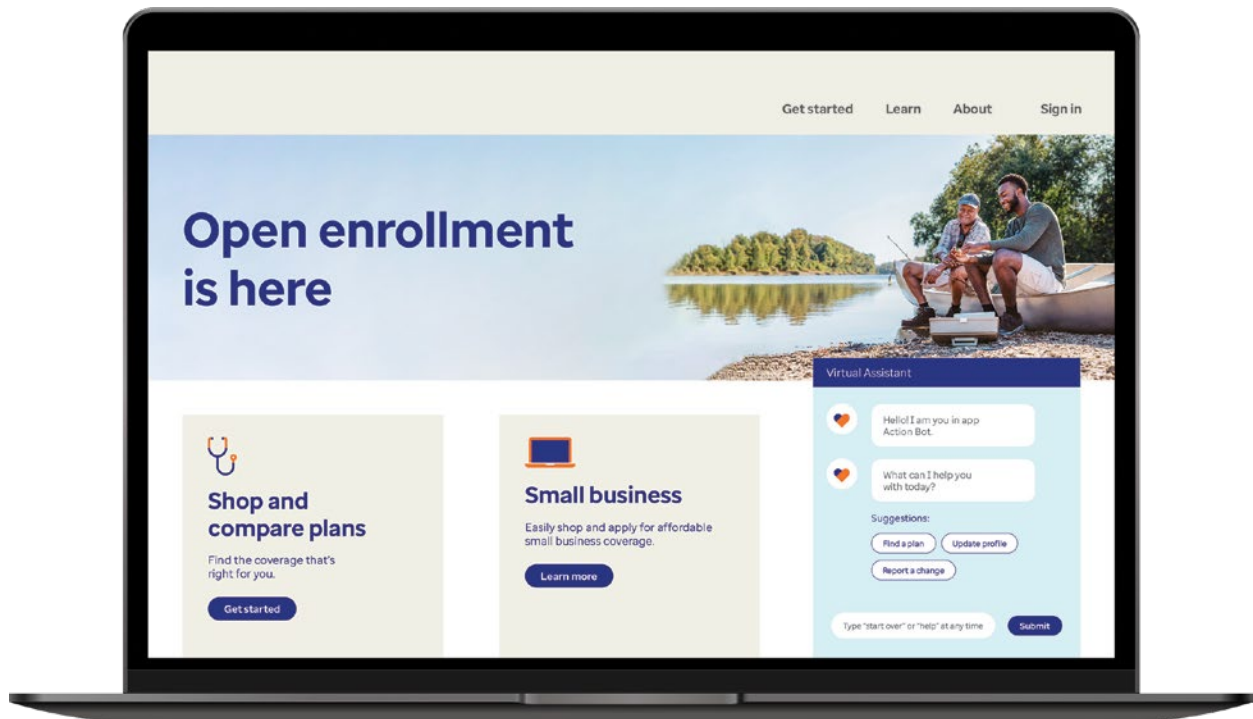


Ideas for developing your modernization pathway

The following examples show how states can begin modernizing an existing ecosystem now without disruption by leveraging market-leading technologies like the following.

Embed AI-powered assistance

Use chatbots, virtual assistants and voice assistants to automate communication and create a personalized customer experience – scaling support and reducing costs.

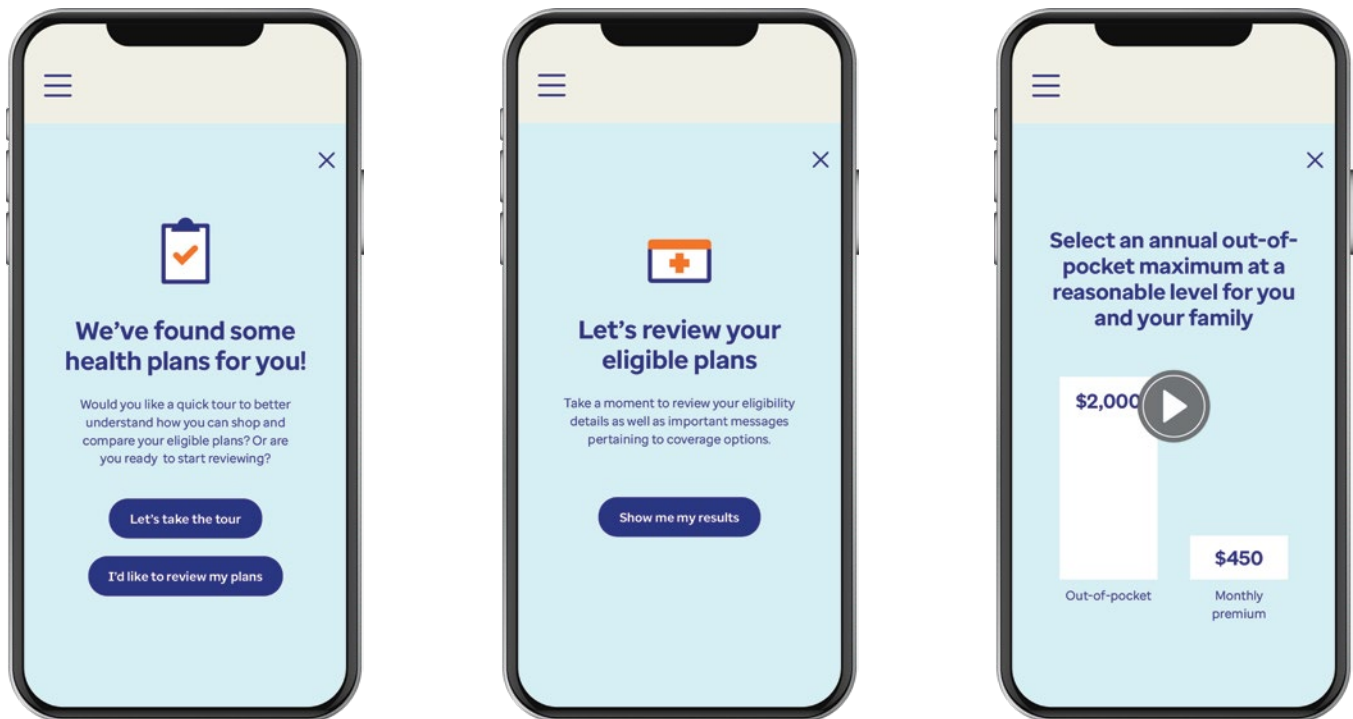


Intelligent virtual assistants like chatbots use artificial intelligence (AI) to allow self-service options available 24/7/365 to better respond to member needs, even outside of typical business hours.

Apply a digital adoption platform

A digital adoption platform layers on top of existing applications to help facilitate learning and proficiency by guiding users through key tasks and providing contextual information as users navigate an application. End users can easily access interactive online help, navigation and training embedded within the user interface to provide a more intuitive user experience.

- Simplified the user experience
- Utilizes low-code/no-code solutions to quickly add value in the short term
- Continuously adds incremental value with data, workflows, AI and machine learning
- Allows you to monitor usage and continually adjust approach to ease user experience



Applying digital adoption software can simplify the user experience for existing applications by providing interactive support like guided tours to help users to navigate complex workflows.

Implement business process management and mining

States do not have to be beholden to the process and workflow capabilities of existing legacy solutions. In fact, new business process management solutions can seamlessly integrate with existing products to facilitate methods that optimize and, in many cases, automate business processes. To solve system problems, you must first understand underlying elements causing the problem. Business process mining leverages data based on operational processes to help identify bottlenecks. Steps can then be taken to optimize new or existing business processes while monitoring for continuous improvement.



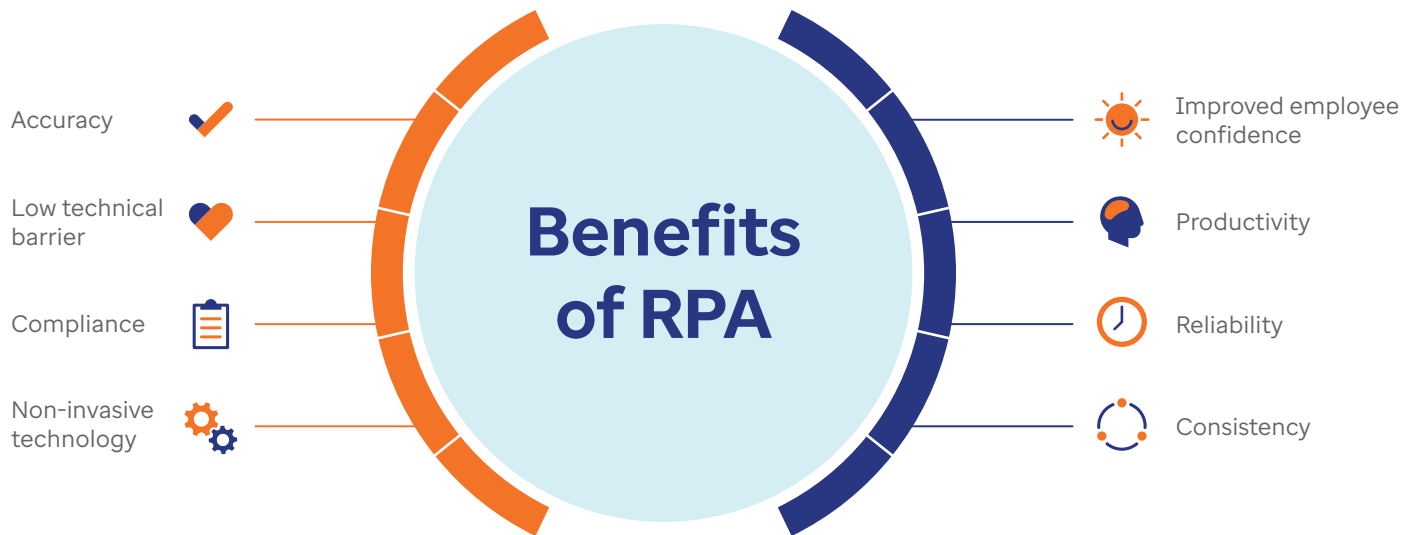
Business process management and mining enables the modeling, design, execution and optimization of operational processes, resulting in improved overall efficiency and agility. Start with process capture through workflow modeling, followed by mining and analysis through conformance checking. Then implement the re-engineered workflows and finally, monitor and optimize the same.

Leverage robotic process automation (RPA)

RPA can reduce or eliminate time-consuming manual processes that delay or disrupt the work of making sure people can get the benefits, care and services they need.

Examples of how RPA is advancing health care:

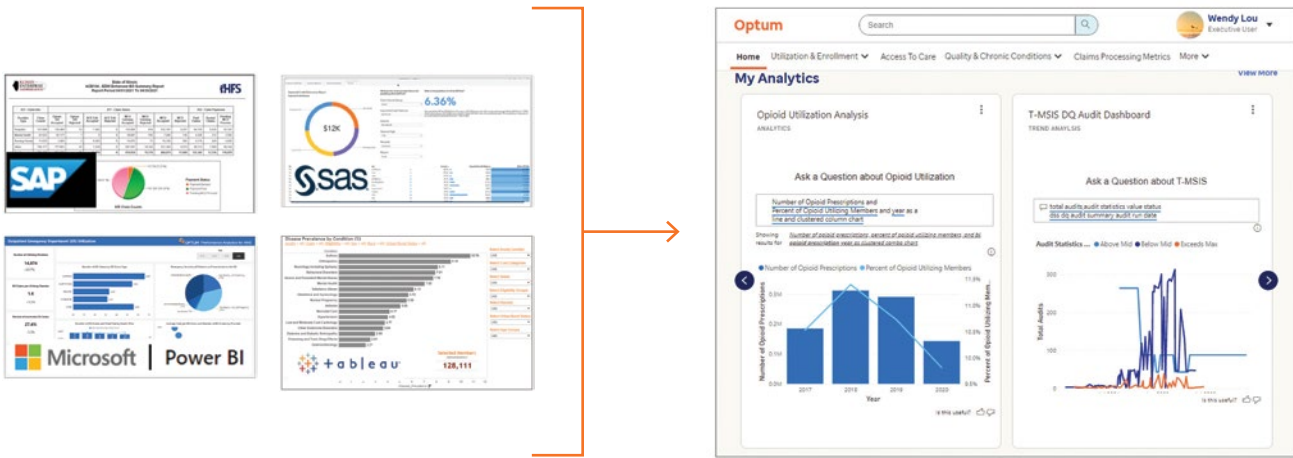
- **Automate provider enrollment processes:** States can leverage RPA to develop and automate a variety of manual provider enrollment processes. For example, automated provider database checks, quality checks and validating provider forms can help to streamline the provider credentialing process by eliminating the huge manual effort spent on manual processes. RPA can help to automate other manual activities as well. For example, auto-generated notifications, encounters and reporting/dashboards can reduce staff hours spent on these manual activities. Overall, RPA can help to reduce the manual effort while improving the quality of the program and reducing the risk of manual errors.
- **Automate clinical assessment applications:** Manually entering clinical assessment data into a case system can be burdensome and runs the risk of human error. RPA can be used to automate the data entry process by mapping data to the correct files and importing the information directly. It can also enable automated alerts if quality checks are breached, thereby increasing both quality and efficiency.



Automating repetitive processes can increase throughput, improve quality, increase compliance and ultimately lower the total cost of ownership. It also frees up staff to focus more time on strategic initiatives.

Provide a unified user experience

States are searching for solutions that provide seamless, elegant and intuitive user experiences that have the potential to combine multiple applications. The industry is shifting toward a platform strategy because of the benefits it provides both product companies in driving down TCO as well as customers in their ability to adopt new innovations – all coupled with a consistent, elegant end-user experience. There are platforms available in the market that can support states in their efforts to seamlessly engage across multiple disparate systems and technologies leveraging a unified user experience. Below is an example of how this type of platform can be leveraged in the area of analytics.



Multiple, disparate business intelligence solutions

Unified, configurable analytics engagement experience embedding existing business intelligence solutions

Technology alone is not the answer

The technology examples above can facilitate the enhancement of your state's legacy application. But there's more. As you consider vendors for your modernization effort, keep in mind that modernization without disruption requires three areas of expertise:



Blending these areas of expertise reveals more than just the business or technical issues your legacy system has. Collectively, they will shine a light on the human problems within the system for citizens as well as customer service representatives. Through customer experience research including interviews, ethnography, usability studies and keystroke-level modeling, you can prioritize human-centered issues and their potential solutions. Finally, aligning with a vendor that has HHS, Medicaid and CMS system knowledge will help ensure your system adheres to federal and state guidelines while helping you improve performance.

The following questions will help you identify vendors with this unique blend of expertise:

- What is your domain experience as it relates to health care?
- From a human-problem perspective, what is your consumer experience research process?
- How do you leverage human-centered design to identify business process improvements?
- What is your HHS, Medicaid and CMS system knowledge and experience maintaining, operating and enhancing Affordable Care Act and Medicaid systems?

Take the next step toward modernization without disruption

At Optum, we are committed to modernizing without disruption. Your state will experience a modern user experience for internal and external users, improved workflow processes, automation and advanced analytics without the time and expense of a system transfer. The approach to modernization is on your timeline and would align with your priorities.

State governments trust Optum:

- Dedicated to transforming Medicaid and HHS performance and improving outcomes, Optum has over 25 years of experience working on state government projects.
- Unlike other vendors that serve multiple industries, we are solely focused on HHS and Medicaid programs. As a result, we provide unmatched expertise.
- Many at Optum have worked in state government. We apply that experience when adapting technology to meet HHS challenges and improving outcomes.
- We can scale our offerings according to your needs.
- Optum is committed to states and focused on their success through advisory and focus groups.
- Clients have direct access to the Optum® State Government product team and leadership.
- We can drive down costs to achieve lower TCO as you strive to innovate and modernize.

Contact Optum today at optum.com/stategovcontact to learn how we can partner with you to start modernizing your legacy systems now.



Turn your data into insights

Optum provides clients with the resources and tools to systematically manage the data and analytics that:

- Transform program outcomes
- Contain costs
- Improve stakeholder engagement

Today, Optum works with 41 state governments and Washington, D.C.

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