

### IT Modernization Grants – Promising Practices and Sample Projects

The Department has identified the following promising practices for states to consider when developing their Full Project Plans as described in Section 4.d.iv.C. of this Unemployment Insurance Program Letter (UIPL).

- **Targeted and High-Value Changes:** The funds should be utilized for specific improvements that enhance the flexibility and performance of state systems in measurable ways. It is important to focus on making incremental and high-value changes rather than complete system overhauls.
- **Software Reuse and Collaboration:** Given the goals of this UIPL and the Department’s vision for an Unemployment Insurance (UI) technical ecosystem built around open and modular solutions, states are encouraged to consider using open-source software produced by other states through this grant opportunity, or through other means. Additionally, the Department encourages states to consult with each other on which open-source components they plan to build, or invest in, to maximize the potential for software reuse across states.
- **Agile and Human-Centered Approach:** States should adopt agile software development methodologies, including DevOps and Continuous Integration & Continuous Deployment (CI/CD), and prioritize a human-centered approach. This means delivering software in iterative and incremental cycles, seeking early and frequent feedback from users and other stakeholders, and using that feedback to inform the evolution of solutions. Together, these approaches help ensure that user needs are met effectively, and that software can be delivered more efficiently, with fewer defects and less risk.
- **Continual Process of Modernization:** Modernization is an ongoing process that involves changes to technology, people, and processes. States should consider how new technologies will require corresponding process changes and evaluate the need for new or different skills to fully support the modernized systems.
- **Augmenting, not Replacing, Staff with Technology:** When considering the use of technology to streamline or automate functions, states should prioritize augmenting current staff rather than replacing them. They should carefully evaluate how to implement appropriate safeguards and controls to ensure the effective, accurate, and ethical deployment of technology.<sup>26</sup>

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<sup>26</sup> Reference UIPL No. 12-01, Change 2, for the Department’s latest guidance on merit staffing principles.

In support of these promising practices, the following table describes an array of sample projects in line with the categories described in Section 4.d. and Attachment VI to this UIPL.

<b>Sample Project</b>	<b>Associated Activity</b>
States may choose to migrate systems, or specific applications, from legacy hosting platforms to the cloud. By doing so states can realize several benefits, including reduced infrastructure costs, improved scalability, and improved performance, particularly during periods of high claims volume, as well as improved security, accessibility, and collaboration between agencies.	Cloud Migration
States may choose to decouple system components, like claimant portals from mainframes, so that those new components can be managed independently and are easier to maintain and change.	Modular & API-driven Approaches
States may choose to implement application programming interfaces (APIs) to enable more seamless integration and interoperability between different systems and platforms, including new components that may interface with existing vendor or home-grown solutions.	Modular & API-driven Approaches
States may choose to adopt DevOps, a software development approach that emphasizes collaboration, communication, and automation between software and business teams, to drive faster and more frequent software releases with fewer defects. Adopting a practice like DevOps requires new skillsets and cultural shifts, but also automating processes and tools, such as automating builds, tests, and deployments, implementing continuous integration and continuous deployment (CI/CD) pipelines, and embracing infrastructure as code that allows for infrastructure to be managed and scaled programmatically.	Modular & API-driven Approaches
States may choose to implement robust error handling mechanisms and improved data validation to measurably reduce error rates.	Modular & API-driven approaches
States may use funds to hire technologists, or other staff, that enable an iterative and data-driven approach to improving the customer experience. This staff could work on efforts that span digital and non-digital channels, including how call centers and in-person experiences affect the overall customer experience; however, in all cases, these projects must involve collecting and leveraging feedback from individuals and employers to shape solutions.  Some examples of the types of roles states may choose to invest in include product managers, user researchers, service-designers, and content designers.	Improving the Customer Experience
States may choose to update legacy code to comply with accessibility standards, such as Web Content Accessibility Guidelines (WCAG) to improve access for individuals with varying needs, such as visually-impaired individuals who require screen-readers to access the web.	Improving the Customer Experience
States may choose to invest in a content management system (CMS) that allow staff to make public-facing content changes more quickly and easily.	Improving the Customer Experience