

# IT modernization strategy

By: Larry Bafundo - May 3, 2023

## Background

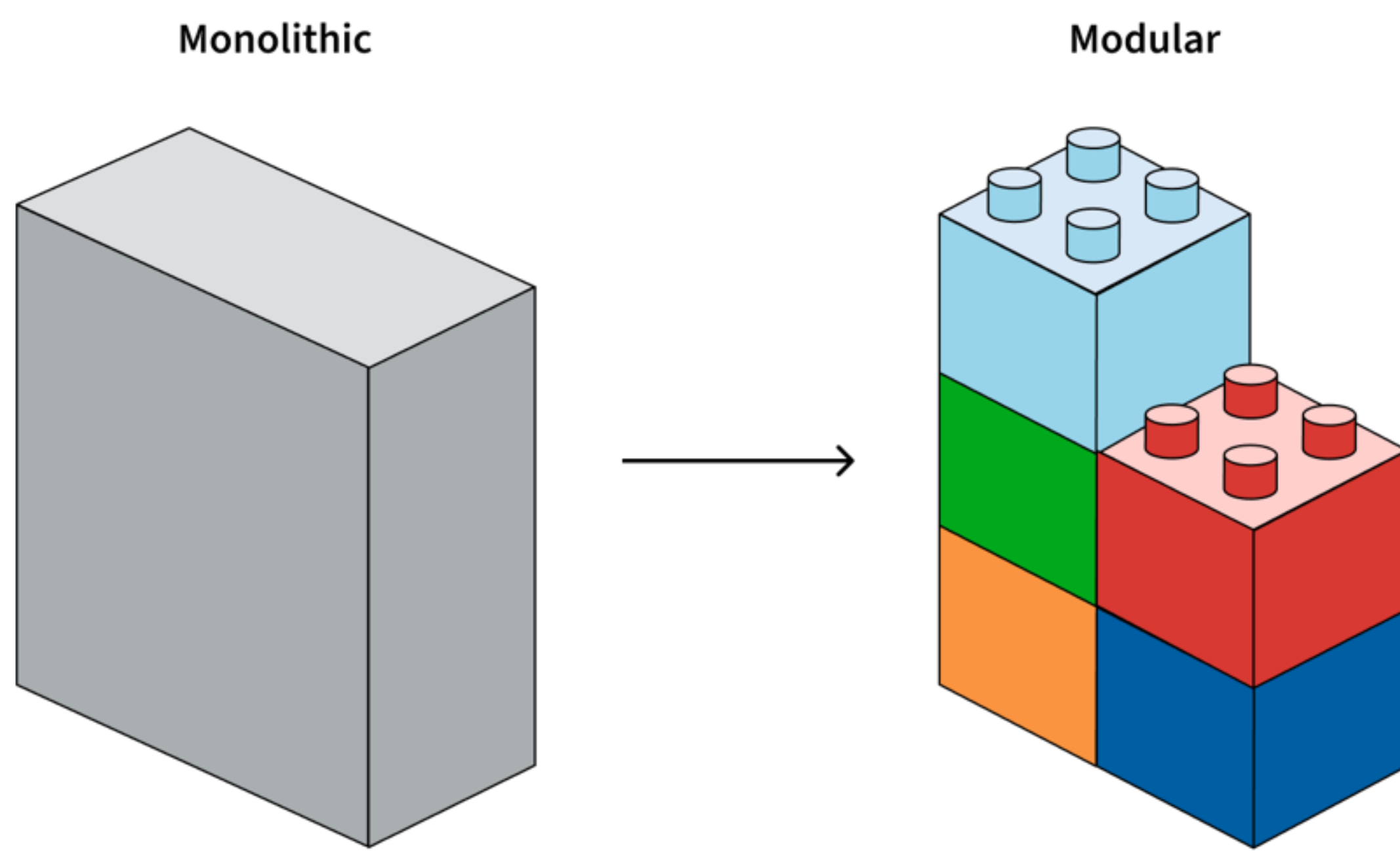
The COVID-19 pandemic sparked a \$2 billion mandate to modernize the country's unemployment insurance (UI) programs as part of the American Rescue Plan Act (ARPA). This effort is led by the Office of Unemployment Insurance Modernization (OUIIM), which was established within the Office of the Secretary of the Department of Labor in 2021. OUIIM coordinates across other agencies within DOL, and works closely with states, advocates, and the employer community, to build towards a more responsive and resilient UI system.

## Key challenges to UI modernization efforts

State workforce agencies have faced many long-standing barriers to modernization, such as inadequate administrative funding, outdated technology, and staffing challenges. These issues were exacerbated by the pandemic, during which an unprecedented surge in claims left the system vulnerable to technology breakdowns, delays, and new attacks from fraudsters.

The biggest obstacle states face is the high cost of adapting systems to meet changing needs, due to how those systems are designed and managed. This leaves states with IT systems that are brittle and inflexible to new requirements, such as a sudden increase in claims volume. It also means that even "simple" changes can be prohibitively costly, time-consuming, and risky, which leaves states with an "all or nothing" choice: holding onto antiquated systems or embarking on a risky system overhaul.

The technical term for the brittle and inflexible systems in use today is called "monolithic." Monolithic software is designed to operate as one big chunk rather than as a series of independently managed parts. The challenge with monoliths is that while they may be easier to implement initially, they are more difficult to maintain because the various components of the system can't be easily changed or replaced without affecting the system as a whole.



"All or nothing" to interchangeable parts: Moving from monolithic designs, where aspects of systems are tightly intergrated, to modular approaches, where components can be managed independently and more easily replaced with new solutions.

## DOL's Vision for IT modernization: an ecosystem built around open and modular solutions

Unemployment insurance programs are jointly funded by the federal government and administered by states. Eligibility requirements, maximum potential benefit amounts, and other program details vary greatly across states. Each state also has its own IT system for administering the program, which means the ease of use, efficiency, and effectiveness of different solutions can vary.

Given these differences, there is no "perfect IT system" or singular solution to guide states toward, but there are effective values and characteristics to orient around. These include:

- Cloud-based infrastructure that provides flexible computing resources, which enable systems to more easily scale to meet changing demands
- Strong customer experiences that enable effective self-service
- Automated workflows that minimize the need for manual intervention and empower, rather than replace, staff
- Data analytics that help identify patterns, protect against fraud, and support continuous improvement
- Integration with other systems and services, such as tax systems,
- Job training programs
- Open source or reusable solutions, including those used for fraud detection and prevention
- Agile software practices that allow for iterative development, continuous integration, and test-driven development

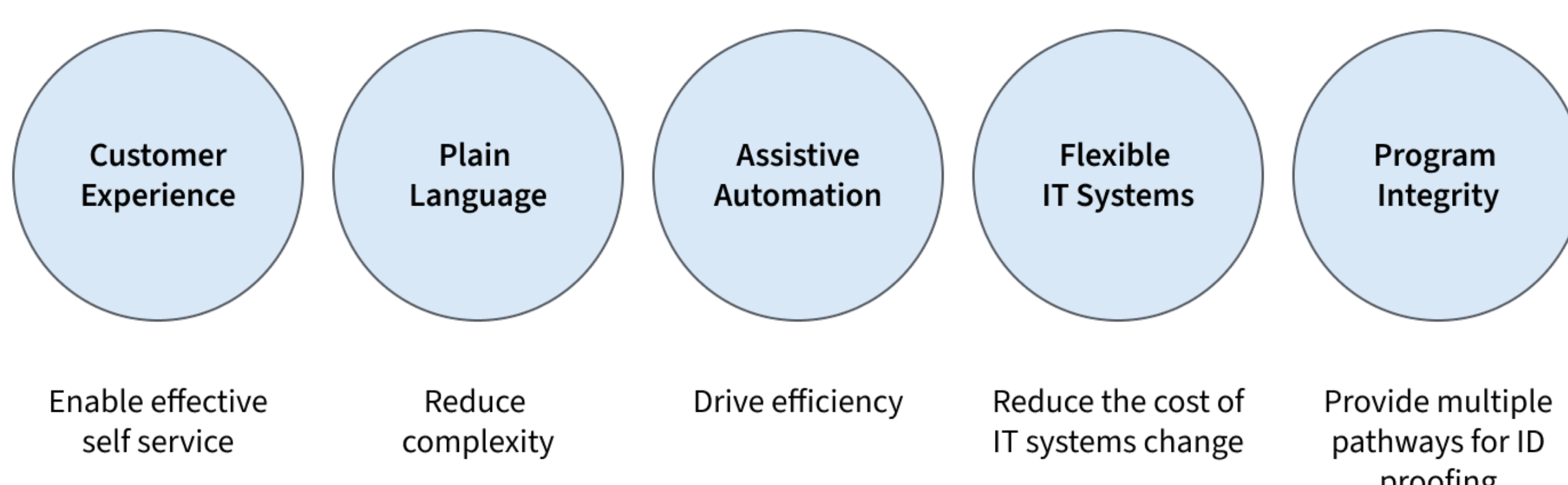
**Effective modernization involves more than just technology. It also requires a new mindset and approach to building and buying technology that centers on modernization as a continual process and the belief that IT systems are never complete.** At OUIIM, we define technology modernization as the ongoing process of meeting unmet needs. Not only do states need to update their technology, they also need to structure their systems in new ways so they can be updated more easily when the next set of new federal unemployment programs are unveiled, or as fraudsters evolve their tactics. As part of this change, states need to adopt modular approaches so that components can be developed, tested, and deployed separately, and so that changes can be made incrementally, rather than all at once.

## Strategy & approach: building capacity in key areas & promoting modular approaches

Achieving this long-term vision will require sustained investment in the UI program and a new ecosystem built around open and modular solutions that promote innovation, software reuse, and incremental – rather than all-or-nothing – approaches to modernization.

It will also require the Department to serve as a "helper agency" to state workforce agencies. The Department can do this by providing foundational perspectives around "what good looks like" across the various dimensions of modernization, as well as providing core infrastructure, or building blocks, for states, vendors, and other groups to build on and extend in ways that strengthen equitable access, timeliness, and program integrity. As a helper agency, we are developing technology modules for use by states. This includes a claimant experience pilot in the state of New Jersey, and customization of the General Service Administration's login.gov platform for digital identity verification for the UI program in the State of Arkansas.

The Department is making significant resources available via the ARPA program to help states improve through various means, including open-source solutions, guides and references, and direct technical and financial assistance, across the following 5 areas:



### Enabling effective self-service through improved customer experiences (CX)

Ineffective user experiences create barriers to access, especially for marginalized and non-English speaking populations, and add burden for staff by requiring unnecessary manual intervention for tasks that could otherwise be completed by people online.

Some of the ways in which DOL is helping states enable self-service through improved customer experiences include:

- Defining guiding principles and metrics for effective customer experiences, as well recommended approaches for how states can achieve them, such as [how to go mobile responsive](#).
- Publishing references, such as the [Claim Status Playbook](#), and an upcoming model claimant application, that states can use as a guide for developing their own solutions, and or when working with vendors.
- Providing hands-on assistance, such as our [claimant insights service](#), that helps states design surveys and analyze customer feedback to inform modernization strategy.
- Developing open-source solutions, like New Jersey's new claim intake experience launching in August 2023, and making these components available for reuse by other states.

### Simplifying complexity through plain language

By presenting information in a clear and easy-to-understand way, states can help people navigate the system with greater confidence, reducing call center volume and the potential for costly errors and delays.

Some of the ways DOL is helping states simplify complexity include:

- Publishing resources, like [the UI Lexicon](#), [a repository of sample notices](#), and other tools, that help states improve how they communicate with the public.
- Building capacity among states for content strategy and user testing through workshops and limited engagements with states focused on helping them make high value plain language changes.

### Building capacity through technology

New tools, like robotic process automation (RPA) and some types of artificial intelligence (AI), including natural language processing (NLP) and chatbots, may help states automate workflows and improve the accuracy and efficiency of their programs.

Given that technology is constantly evolving, DOL is helping states more effectively leverage existing tools to drive efficiency, as well as exploring how this landscape may change with the emergence of new solutions. Some examples of these efforts include:

- Conducting pilots with states to help them leverage technology, like Robotic Process Automation (RPA), and publishing related guides, like [the RPA Toolkit](#), to help states adopt similar approaches.
- Establishing partnerships with groups like [Stanford's RegLab](#) to explore effective and equitable use cases for emerging technology, like Artificial Intelligence, to assist state workforce staff in streamlining workflows to improve timeliness.

### Improving the flexibility of IT systems through modular approaches

To reduce the cost of IT system change, states should adopt modular systems that are easy to maintain incrementally, reuse existing software, and integrate new solutions through standard interfaces and an API-first approach.

Some of the ways DOL is helping states improve the flexibility of their state IT systems include:

- Making \$600M available to the UI system aimed at helping states improve the modularity of their systems by embracing cloud technology, using open-source software, and adopting agile practices, like DevOps and Continuous Integration & Deployment (CI/CD).
- Providing states with IT assistance to help them replace legacy systems and implement strategies that help make systems easier to change and maintain.

### Ensuring multiple pathways to service via in-person and remote public options for ID proofing

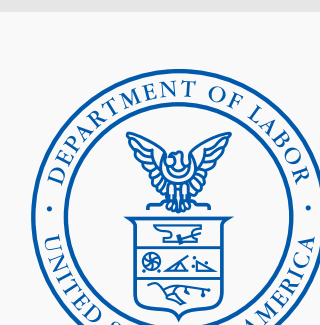
While digital verification solutions are important tools in preventing fraud, they should not create additional barriers for eligible claimants. By offering both in-person and remote options, states can provide multiple pathways to access UI benefits.

- DOL will be offering states hands-on support to implement Login.gov for digital ID proofing
- DOL will be offering states an in-person ID proofing product via USPS locations
- In addition, DOL will cover related costs for a period of 3 years

## 2023 Roadmap

Below are some upcoming milestones for the ARPA UI Modernization program. For more information about the items below, or assistance with the areas of focus described earlier, please see our reference website or contact your regional office.

May	June	July	August	Sept
\$200M ID verification UIPL	Guiding principles & metrics for CX	Town hall with states	Launch new claims intake experience with NJ; available as open source to UI system	Publish sample application with supporting examples & best practices
Launch AI prototyping effort with Stanford	(\$600M IT Mod ("resilient") UIPL			Forum with industry/vendors
	Launch national ID proofing service			



### Employment & Training Administration (ETA)

An agency within the U.S. Department of Labor

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Washington, DC 20210  
1-866-4-USA-DOL  
1-866-487-2365  
[www.dol.gov](#)  
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