Robotic Process Automation (RPA) in State UI Agencies

American Rescue Plan Act
UI Modernization

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Introduction

- The Office of Unemployment Insurance (OUI) is seeking to create awareness around the use of Robotic Process Automation (RPA) to help with the reduction of the backlog of Unemployment Insurance (UI) claims nationwide, to improve timeliness in all areas, and to help state UI agencies prepare for future increases in workload.
- This presentation will inform states of the benefits and challenges of RPA, how RPA has been used by states, and how OUI can help.

What is RPA?

- RPA refers to a software solution that makes it easy to build, deploy, and manage virtual robots (also known as bots). These bots mimic staff interactions with existing unemployment insurance systems and software.
- Bots can perform non-discretionary tasks like recognizing what's on a screen, performing data entry, navigating systems, identifying and extracting data, and performing a wide range of well-defined actions quickly and accurately.

RPA Benefits

- Improves preparedness for increases in work volume
- Helps staff work more efficiently by removing burdensome, repetitive administrative work
- Reduces errors
- Works as a scalable solution that can be implemented quickly
- Helps managers shift staff from low-value work to high-value work
- Allows staff to focus on other, more complex tasks during the workday by completing repetitive tasks outside of regular business hours
- Serves as a low-risk, high-impact approach to introduce artificial intelligence (AI) to the business process
- Is a comparatively low-cost automation tool

What are Bots?

Robots (often shortened to bots) in the context of RPA refers to a type of software solution that performs tasks on the front end of a system, mimicking steps a staff person would normally take. RPA bots are programmable and work in digital environments including legacy mainframe systems and modernized systems. Bots can also interact with different systems and applications in one use case. A “use case” refers to staff processes and/or tasks that are automated by the RPA.

ATTENDED BOTS

Attended bots work collaboratively and on demand with staff like virtual assistants.

UNATTENDED BOTS

Unattended bots work on demand or on a schedule independently from staff.

Who is Using RPA?

INDUSTRIES

Banking and finance

Federal and State government

Healthcare

Human resources

Information technology/

telecommunications Insurance

Manufacturing

Retail

Supply chain management and logistics

FEDERAL AGENCIES

Centers for Medicare and Medicaid

Services Department of Labor

Department of Veteran Affairs

General Services Administration

Internal Revenue Service

NASA

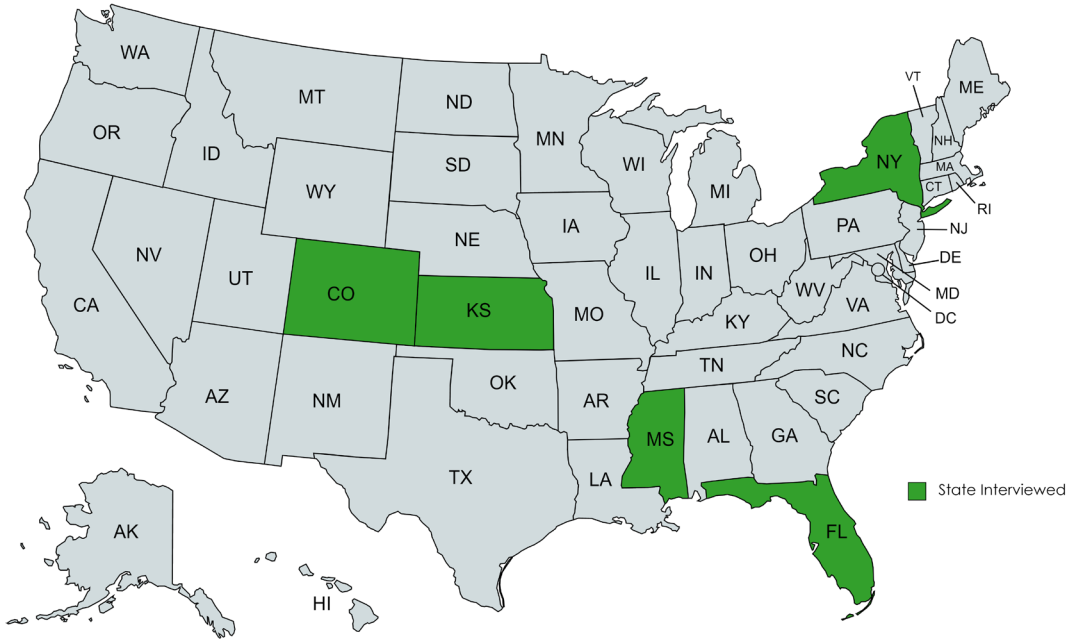
RPA in UI

Ideal use cases for RPA include processes that are simple, repeatable, and manual.

Here are a few of the processes that are common candidates for automation:

- Data entry of employer separation reason
- Pandemic Unemployment Assistance wage verification
- Processing appeals requests
- Removal of verified fraudulent claims from the system
- Work registration validation

RPA in States



- We interviewed 5 states that are currently using RPA. These interviews revealed:
- Over 25 identified use cases
- High state satisfaction with RPA results
- Increased efficiency with fewer errors

RPA in Colorado

"RPA has helped the Colorado UI Program realize substantial measurable efficiencies, resulting in over 300,000 person hours saved which equates to roughly $2 million. RPA technology does not serve as a substitute for improvements to primary technology systems but provides agility and scalability that are complementary. In addition to these tangible benefits, RPA technology has changed the way we in Colorado think about our work to see more opportunities for automation across the UI Program."

The Colorado Department of Labor and Employment (CDLE)

Example Use Cases

- **BAM case files** – This bot builds the case packet for the Benefit Accuracy Measurement team weekly from several different systems, taking snapshots of the claimant's claim on the date that the assignments are made.
- **Failure to Respond notifications** – This bot checks all potential databases to see if fact finding was returned from the claimant and if not, creates a failure to respond notification that lets the claimant know what information is needed for the issue pending investigation to be processed and how to provide this information.
- **Undeliverable mail** – This bot takes scanned letters that have been returned by the post office and (after being validated by a human) enters a note on the claim of the claimant's address that the post office is returning mail from, including the date of correspondence.
- **Appeals packet creation** – This bot creates appeals packets that are sent to the interested parties and the Hearing Officer/Administrative Law Judge prior to the appeal hearing.

RPA in Florida

"We experienced a hiring freeze and downsizing prior to the pandemic and then experienced a 6,000% increase in claims during the pandemic. RPA has helped us to reduce our backlog by automating more repetitive tasks and re-allocating merit staff to more complex tasks."

The Florida Department of Economic Opportunity (FDEO)

Example Use Cases

- **1099G duplicate requests** – Claimants use an external form to request a duplicate 1099G. After validating the account through analysis against our database, this bot sends the duplicate 1099G to claimants.
- **Consolidation of unidentified employer accounts** –This bot searches databases to match up the correct employer account with the information provided by the claimant. If the search does not meet the criteria to be updated, it is routed to a staff person for review.
- **Employer identification resolution process** – This bot looks up and identifies the employers that will appear on the monetary determination form and submits the information needed to generate the monetary determination form.
- **Password Resets** – This bot responds to user password-change requests by collaborating with a chatbot that collects and verifies data while the RPA uses structured data to change the password in the background.

RPA in Kansas

"In Kansas, we used RPA for several workstreams. We saved hundreds of human-hours by using bots to organize files and autofill forms. KDOL was able leverage RPA technology to sort and process determinations, applications, and other paperwork quickly. The bot handled repetitive, paper-driven tasks more efficiently and accurately, freeing up staff to focus on call volume. The bot also helped KDOL wage investigations by compiling detailed claimant and employer wage information across multiple quarters to timely complete the review."

Kansas Department of Labor (KDOL)

Example Use Cases

- **Data entry of employer separation reason** – This bot reviews the employer separation fact finding request and enters the reason into the benefits system before sending the issue to a staff person for determination.
- **Electronic document routing** – This bot organizes documents sent to adjudicators and routes to a centralized document location.
- **Employer notices** – This bot sorts employer notices into folders by reason for separation, which allows staff to focus on specific types of separations.
- **Potential unreported earnings backlog** – This bot pulls potential unreported earnings backlog (and other necessary data sets) from various systems and documents to determine if there is a potential fraud case to investigate.
- **Shared work** – This bot creates automation for end-to-end processing of weekly certifications by separating attachments from emails, digitizing through Optical Character Recognition (OCR), and processing though a mainframe. A real-time dashboard was also implemented to provide audit tracking and a daily action item list.

RPA in Mississippi

"RPA has reduced some of our processing times by 70-80%. We're looking forward to identifying other areas for target use cases to clear bottlenecks and optimize processing times."

The Mississippi Department of Economic Security (MDES)

Example Use Cases

- **IB6 process enhancement** – This bot downloads incoming IB6 discrepancy reports and attempts to process and clear discrepancy items. Most discrepancy codes are processed, but a select few codes are reassigned for manual processing.
- **Process employer response work item** – This bot checks the data of current and previous responses from employers, as well as checking other information such as income, reason for separation, and many other datapoints to determine if an item can be resolved as previously, currently, or never adjudicated, have an issue created for it, or address employer chargeability depending on a set of parameters.
- **Removing/recategorizing verified fraudulent claims from the system** – Once fraud investigators determine a claim to be fraudulent, this bot automates the process of removing the claim from that SSN so that the SSN is available for the real claimant to file.
- **Social Security Number, driver's license, and voided check verification** – These three bots check claimant documents for identity confirmation. The bot reads items and compares this information to information that's already known (name match, etc.). Matching document uploads are verified while non- matches are reassigned to be double-checked manually (just in case the bot misreads something).

RPA in New York

"RPA allowed New York to tackle a wide range of processes that wouldn't have been possible without a solution like RPA. Due to the flexibility of RPA, we were able to train the bots to work in many different systems quickly and complete processes which would have taken months or years to do the traditional way."

New York State Department of Labor (NYS DOL)

Example Use Cases

- **UI dashboard** – NYS DOL uses a COBOL mainframe UI system. NYS DOL built a modern web application that allows internal DOL staff to view data from the mainframe and act on unemployment claims; this application uses bots to enter the appropriate transactions on the mainframe. The application simplifies complicated mainframe screens so DOL staff with less experience can still understand and take appropriate action on claims.
- **Fraudulent claim processing** – Once a claim is determined to be fraudulent by merit staff investigators, this bot completes the necessary action to prevent further payment on the claim.
- **Identity Verification** – Once a claimant has proven their identity, this bot processes the data file from our identity verification vendor and clears claims for payment.

Return on Investment

The states interviewed that collected data on their RPA projects reported the following returns on investment:

- One state eliminated a backlog of 32K+ emails with RPA that scans messages, routes them to the appropriate team for further action, or dispositions the email automatically, if possible.
- A state that automated the development of the criminal investigation case file now saves up to 12 hours per case.
- One state saved 103,642 staff hours and $1,993,743 (an ROI of 223%) over the course of two years via multiple RPA projects.
- Another state automated New Hire and Quarterly Wage Cross Match process to clear two-year backlog largely without human intervention in just a matter of months, eliminating the need for additional FTEs.

What are the challenges?

RPA is not without challenges. These are some of the lessons learned by states:

- Setting up infrastructure to support the RPA
- Keeping the bots updated when systems, policies, or procedures change
- Staff lack of trust in technology
- Identifying all possible scenarios
- Not doing change management to support staff in adopting the change

States have struggled with…

Building the IT Infrastructure for RPA

- There are security requirements and firewalls that must be opened for the RPA.
- States can avoid this by working closely with their IT office to identify and complete requirements prior to deployment.

Resource: **RPA Playbook - Security**

Getting started

- States have reported difficulties in identifying processes to automate.
- States can address this by soliciting ideas from management and staff, reviewing use cases from other states, performing a Business Case Assessment, and using a Return on Investment (ROI) Calculator.

Resources: **ROI Calculator**, **RPA Business Case Assessment**, **RPA White Paper (Use Cases)**

Shifting bottlenecks

- RPA can cause bottlenecks for staff downstream due to the increased productivity of the automated upstream process.
- States can avoid this by using process analysis and resource planning prior to deployment.

Resource:
Process Identification Worksheet

Lessons Learned

Communicate

- Clearly communicate to staff about expected changes of RPA, anticipated benefits, and how it will affect their jobs.
- Create feedback loops for staff and answer their questions to help to build staff support and buy in for the RPA project.

Identify use cases

- Ideal RPA processes are infinitely repeatable without discretionary decision making.
- Consider all the ways a process could go and decide whether it is best completed by a bot or staff person.

Constant monitoring

- RPA requires constant monitoring to ensure automated processes are working as intended, efficiently and without errors.
- Additionally, RPA program managers must monitor to ensure that exceptions are identified and addressed by appropriately by staff.



Next Steps

The Office of Unemployment Insurance (OUI) is available to provide technical assistance in this space and facilitate knowledge-sharing amongst states about their RPA experiences.

OUI can provide customized support in the following areas:

- Procurement support
- Process identification
- Process analysis
- Change management
- Technology consultation

QUESTIONS?

For technical assistance or more information on RPA, please contact your Regional Office and CC the Office of Unemployment Insurance at ETA-UI-Inquiries@dol.gov.