How Agencies Are Using RPA Today

#RPA20
AGENDA

• What can RPA do for government agencies?
• RPA at NIH
• RPA at HUD
• RPA at DoT
• Questions

PANELISTS

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What can RPA do for government agencies?

**CHALLENGES IN GOVERNMENT**
- Outdated technologies and processes that lack integration and full of bottlenecks.
- Increased demand from constituents and businesses.
- Shifting workforce demographics.
- Fluctuant regulations.
- Budget constraints.

**HOW CAN RPA HELP**
- Simplify legacy integration and drives process optimization.
- Inject agility in requests processing and improves customer experience.
- Retains knowledge of critical processes, augments high value strategic work.
- Maximizes quality, ensures compliance and establishes an audit trail.
- Generates operational efficiency to do more with less.

- Free employees from tedious but necessary work.
- Analyze customer issues and improve their experience.
- Decrease agencies costs with employees working smarter.
- Reduction in errors and rework.
- Elimination of backlog and bottlenecks.
- Adherence to regulations and enforcement of audit trails.
- Flexibility of the 24/7 digital workforce.
What can RPA do for government agencies?

Challenges
• Resistance to automation
• Lack of skillset
• Security
• Where to start

RPA at NIH

Glenda Conroy
Deputy Chief Financial Officer and Director of the Office of Financial Management at NIH
NIH - Background

• NIH’s Office of Financial Management (OFM) has for the last several years been undergoing transformation to be nimble in aligning with the new financial management regulations and policies in a timely manner.

• OFM is approaching this transformation using the People, Process and Technology Framework.

• In alignment with the President’s Management Agenda Cross-Agency Priority (CAP) goal – shifting from low-value to high-value work, OFM identified RPA as one component of the technology framework that will help OFM transform into the envisioned nimble organization.

NIH - Path to present state

• Learning Phase
  • Attended various RPA government-wide sessions
  • Toured agencies that were early adopters of RPA

• Implementation Phase
  • Introduced staff to RPA
  • Encouraged staff to participate in HHS’ RPA Challenge
  • Selected use cases suitable for RPA based automation
  • Involved Security and Technology partners early & often
  • Developed “As-Is” process flows
  • Identified areas for improvement in the “As-Is” process flow
  • Develop “To Be” Process flow using RPA automation
NIH - Path to present state

• Stabilization Phase
  • Monitored the performance of the bots.
  • Gathered feedback from the staff and quickly implemented timely stabilization fixes to the bot.
  • Gathered the lesson learnt and implemented government-wide best practices (including security properly aligned to the scale of automation)

NIH - Current Bots at NIH OFM

• Email Based Invoice Sorting Bot
  • Unattended bot (Scheduled with no user intervention required).
  • Reads the incoming vendor emails with invoices attached based on email predefined logic and assigns the invoices to staff members for processing transactions into the accounting system.
  • Provides statistics on how many invoices were sorted
  • Runs every hour, seven days a week.
NIH - Current Bots at NIH OFM

IPAC Disbursement Matching bots

- Consists of two Automation bots (One Attended bot and one Unattended bot)
- Attended bot (Execute by the User)
  - Utilized to download the IPAC transactions from Treasury IPAC system.
  - Bot preprocesses critical transactional data and using a built-in assignment logic, assigns the IPAC transactions to staff for processing into the accounting system.
- Unattended bot (Scheduled)
  - Uses the IPAC transactions to validate the IPACs based on predefined rules and identifies the detailed information required to be used for processing the transactions and provides results to each assigned users via email for processing into the accounting system.

Path Forward

- Develop a streamlined repeatable process for implementing automation bots properly scaled to the organization.
- Incorporate Artificial Intelligence and Machine Learning concepts to the automation.
RPA at HUD

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HUD - Background

• HUD is using RPA to shift from Low-Value to High-Value supporting the President’s Management Agenda.

• After attending numerous training sessions, discussing with other agencies, and attending the Federal RPA Community of Practice (CoP) functions:
  • HUD completed research and selected UiPath for the Robotic Process Automation (RPA) software.
  • HUD implemented RPA in an Enterprise Cloud environment and created the Digital Services Office (DSO) in the office of the CIO to centrally manage the RPA program.
HUD - Path to present state

- HUD contracted for the initial development of Bots.
- HUD maintained security and centralized management under the CIO.
- After thorough testing, HUD moved one attended Bot into production with a risk acceptance letter signed by security and the CIO.
- The Authority to Operate (ATO) was signed for attended Bots in June 2020.

HUD - Current Bots at HUD

- In Production:
  - Multifamily Housing Virtual Assistant / MFHVA
    - Allows Multifamily management and invested stakeholders an automated mechanism to receive early warning emails regarding HUD Subsidy programs contracts (like Section 8, 202, 811. Etc.) due for expiration within next 180 days.
    - Currently attended but moving to unattended.
HUD - Current Bots at HUD

• In Dev/Test:
  • Many Bots for OCFO
    • Updating spreadsheets from reports and generating reports from spreadsheets
    • Tracking querying systems for obligations/de-obligations and account reconciliations
    • Periodic reviews and anomaly reporting (for example travel and credit card review for potential misuse)
    • Budget process review and format justifications
  • Bot for OCHCO for Award review (thousands of annual submissions)
  • Bot for OGC to assist with comment review (thousands)

HUD - Path Forward

• HUD has a small federal staff in training to develop selected use cases with high return on investment (ROI).
• HUD has developed a shortened lifecycle with standardized documentation requirements for moving Bots from Dev/Test to production.
• HUD currently has several attended Bots completing those additional privacy and security requirements.
• HUD is working on the ATO and processes to move unattended Bots to production.
• HUD is researching the incorporation of Artificial Intelligence and Machine Learning to the program.
Glossary

**Automation** – Automation is the use of robotics, software, or other technology to replicate or replace human-based activities via workflows; a sequence of steps involved in moving from the beginning to the end of a working process.

**Automation Process** – Software completing automated tasks on a physical or virtual machine, essentially a “Virtual Assistant.” Bots emulate human interaction and must be registered with the Orchestrator to receive a UiPath software license. Multiple automated processes can run on one machine in sequence. Machines running a process (attended or unattended) cannot be used by any other robot or user until an intervention is required or the process has completed.

**Bot execution types:**

a. **Attended** – An attended robot requires the initiation of human agents. The process will handle the task of an individual user and require occasional interaction from the user, such as validating a password, etc. to complete the processes. Attended robots are used in manual, repetitive, highly rule-based activities containing decision points that require human intervention.

b. **Unattended** – An unattended robot is a robot that works independent of human interaction. An unattended bot/license is used in office activities that do not require any human intervention. Robots that run either as a result of data being made available that triggers the initiation of the process or at a scheduled time and are monitored and controlled by a robot management team.

c. **Hybrid** – Combines features of attended and unattended bots.

**Robotic Process Automation (RPA)** – RPA is delivered through a suite of software tools that is configured to undertake rule-based functions and repetitive activities that traditionally rely upon human skills and manual effort, such as routine keystroke operation, application interfacing, and data collection and manipulation. By converting these manual tasks into ‘Bots’, cost savings are recognized, human error is minimized, and staff can focus on more strategic tasks.

**UiPath** – An RPA vendor software application.

a. **Orchestrator** – A web application that enables an Automation Process to be scheduled and deployed. It will also monitor the processes.

b. **Studio** – A software tool that enables a developer to design automation processes in a visual manner. The UiPath Robot executes the processes built in Studio, as a human would.

**User** – The person who launches an attended bot and provides their User credential to the attended bot's workflows.

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Questions

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