ROBOTIC PROCESS AUTOMATION (RPA) AT THE DEFENSE LOGISTICS AGENCY (DLA)

ASMC PDI 2019
Agenda

- Intelligent Automation Overview – Kirke Everson (KPMG)
- History of RPA at DLA – Michael Lyons (DLA J8)
- RPA Delivery at DLA – Randall Walker (DLA J6)
- Center of Excellence (COE) and Other Considerations – Kirke Everson (KPMG)
- Panel Discussion
- Questions
Disruptors in government

Disruption is not new - the speed is faster and continues to accelerate

- Constituent experience centrality
- Big data
- Emerging technology
- Mission expansion
- Aging workforce
- Legacy IT modernization
- Shifting regulatory environment
- Budget pressures
The spectrum of technologies range from basic automation to intelligent

**ACT**

*like a human*

<table>
<thead>
<tr>
<th><strong>RULES</strong></th>
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<tbody>
<tr>
<td><strong>Basic process automation</strong></td>
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<tr>
<td>— Macro-based applets</td>
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<td>— Screen level &amp; OCR data collection</td>
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<td>— Workflow automation</td>
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<td>— Process mapping</td>
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<td>— Self executing</td>
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**LEARN**

*Enhanced automation*

| — Built-in knowledge repository |
| — Learning capabilities |
| — Ability to work with unstructured data |
| — Pattern recognition |
| — Reading source data manuals |
| — Natural language processing |

**REASON**

*Cognitive automation*

| — Artificial intelligence |
| — Natural language recognition & understanding |
| — Self-learning (sometimes self optimizing) |
| — Processing of super data sets |
| — Predictive analytics/hypothesis generation |
| — Evidence-based |

**THINK**

*like a human*
What is Robotic Process Automation (RPA)?

Robotic Process Automation tools help businesses improve the effectiveness of services faster and at a lower cost than current methods.

RPA is software programmed to perform repeatable tasks. Using recorders and easy programming language, bots are programmed to replicate repetitive human tasks.

RPA operates in the User Interface layer. It is able to automate rules-based work without compromising the underlying IT infrastructure.

RPA can be implemented at the desktop or virtual environment to interact with a wide range of business applications.

RPA provides flexibility to quickly deploy bots onto existing desktops or virtually to save on additional hardware costs.

Unattended Robot
- Runs on a server or virtual machine
- Can be used for longer tasks that would otherwise hinder efficiency by using an employee’s machine, tasks that require no human interaction.

Attended Robot
- Runs alongside a human operator on their machine
- Triggered manually by the operator when needed
- Better for short, mid-volume tasks or those that require frequent human intervention
- Uses the human operator's credentials
Michael Lyons, Lead Weapon Systems Analyst, DLA
History of RPA in DLA

The DLA Finance office began its RPA journey in August, 2017 with a workshop conducted by KPMG’s commercial Intelligent Automation (IA) practice. KPMG supported DLA through the software selection process and is currently supporting J8 and J6 in the development of new bots, attended and unattended, as well as the creation of the DLA Finance Center of Excellence (CoE) for bot development:

KPMG hosted RPA workshop with DLA CFO
Completed DLA’s first RPA Pilots
UiPath procured, CFO begins bot development
DLA CFO delivered first attended bot to UAT
First unattended bots expected

FY17 Q4 FY18 Q1 FY18 Q2 FY18 Q3 FY18 Q4 FY19 Q1 FY19 Q2 FY19 Q3

Sample of DLA Finance Bots in Production

- Evidential Matter (EM) documentation retrieval >3,000 hours saved per audit cycle
  - WAWF, EDA, LDG EM Retrieval
- Financial Report retrieval >1,200 hours saved
- Goods Receipt Posting in EBS >1,000 hours saved
- AMPS account creation and EDIPI syncing >1,000 hours saved
History of RPA at DLA

• Currently automating nine (9) processes across J6 (Information Operations) and J8 (Finance). Processes include:
  • New employee onboarding, processing Evidential Matter requests, and retrieving and distributing Financial Reports.
  • Estimated to decrease across the board Level of Effort (LoE) by over 15,000 hours.

• Sustaining automations within DLA’s IA environment through:
  • Perform monitoring and evaluation of execution reports and the incorporation of lessons learned.
  • Facilitate the adoption of IA within the DLA through the development and implementation of a mature IA capability that governs everything from Use Case evaluation, to automation testing, to deployment and maintenance.
Randall Walker, Enterprise Data Solutions Portfolio Manager, DLA
• RPA Solution Architect(s) with capability knowledge involved during initial business outreach and opportunity assessment to ensure automation opportunities entering the pipeline result in deployable automations, with Process Owner approval
  • Automation Workshop sessions with colleagues from the Business and IT designed to incubate automation opportunities, and help to create an agile mindset and pipeline
  • Ensure the appropriate automation solution is pursued for each opportunity
• Steering Committee consisting of DLA Process Owners (J Codes) and Supply Chain Leadership responsible for collaborating across business lines to establish automation backlog priorities, while being mindful of overall business strategy
• Prioritization will be approved by Alignment Group on a monthly basis
Traditional Software Delivery Lifecycle approach used today results in lengthy delivery lifecycle.

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<tr>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
<th>Month 4</th>
<th>Month 5</th>
<th>Month 6</th>
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</thead>
<tbody>
<tr>
<td>Design</td>
<td>Build</td>
<td>Test</td>
<td>Deploy</td>
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RPA team’s Software Delivery Lifecycle approach will increase the speed of delivery by focusing on individual use case requirements and business collaboration.

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<td>Use Case</td>
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★ = Expectation that standard use case will achieve FOC on within 8 weeks, depending on complexity
RPA team is leveraging Agile delivery methodology to implement RPA BOTs to improve speed of delivery and customer satisfaction. Consistent business engagement will be required during 2 week sprint cycle.
Logistics Data Gateway (LDG) for order acceptance and fulfillment demo
Kirke Everson, Principal, Public Sector Leader for Intelligent Automation, KPMG
Common Intelligent Automation Operating Components

Strategic, Governance, Risk Mgmt.
Outlining the defined strategic intent and governance of Intelligent Automation -- its purpose, risk and controls, and demand management.

Automation Development
Designing and monitoring Intelligent Automation while catering to an organization’s specific requirements.

People / Change Management
Engages stakeholders and utilizing delivery channels to drive the intended business value of Intelligent Automation.

Run / Operate
Planning and managing Intelligent Automation at the organization (e.g. end user support and production support).

Knowledge Management & Transfer
Training / coaching to certify the workforce and managing the automation library.

Technology Management
Using technology infrastructure and architecture to assess risk and operate within the organization. Includes vendor / software management.

Value Management
Measuring Intelligent Automation performance and progress in an objective manner (e.g. opportunity management and benefits management).
### Governance Models for RPA

#### Most Common Model

**Centralized**
- **Requirements**
  - Business Unit
  - Business Unit
  - Business Unit
- **CoE**
- **Governance, Development, Support**

+ Quicker update and lower cost of delivery
+ Centralized management and oversight
+ Training, toolkits and methodology easier to manage
  - Requires strong demand management
  - Requires bench strength centrally
  - Requires business model clarity (e.g., charging)

**Hybrid**
- **Requirements and Development**
  - Business Unit
  - Business Unit
  - Business Unit
- **CoE**
- **Governance, Development and Support**

+ Drives deployment scale
+ Allows standards to be set by CoE
+ Enables ownership by the business
  - Requires strong delivery model and governance

**Distributed**
- **Requirements and Development**
  - CoE
  - CoE
  - CoE
- **Business Unit**
- **Steering Committee**

+ Faster opportunity identification and deployment
+ Capability resides in the business
+ Drives deployment at largest scale possible
+ Requires most effort for CoE Governance and support
+ Decisions may conflict with strategy
+ Dispersed model drives cost and duplication

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COE Functional Capabilities
Allocated across the Enterprise

Strategy & Opportunity Qualification
- Intelligent Automation Strategy & Use Case Prioritization
- Intelligent Automation Business Partner Service
- High Level Requirements Gathering
- Business Process Analysis & Documentation
- RPA / Cognitive Value Assessment
- Business Case Development

Intelligent Automation Technology Evaluation
- Market Intelligence & Leading Practices
- Vendor Assessment
- Technology Assessment & Prototyping
- Technology Roadmap

Architecture & Integration
- Intelligent Automation Technology Licensing
- Tier 3 Operational Support (Tech. Vendor Collaboration)
- Platform & Solution Architecture
- RPA Data Management and Governance

Bot Stand-up & Deployment
- Simple Bot Design, Build & Functional Test
- Complex Bot Design, Build & Functional Test
- Bot Production Readiness Testing & Deployment
- Employee Training
- Bot Training
- Infrastructure Setup

Intelligent Automation Operations
- Bot Run & Monitor
- Operational Support (Tiers 1/2)
- Infrastructure Services & Hosting
- Service Management

Security & Compliance
- Compliance Management
- Issue & Risk Management / Business Continuity
- Information Security Management
- Infrastructure Security Monitoring & Incident Management

Governance (Intelligent Automation Capability Management)
- Pipeline, Project / Program Mgmt. & Funding
- Relationship Management
- Bots Library Management
- Policies, Methods, Tools Standards, & Templates
- Contract & Licenses Management
- Change Management
- Financial Management
- Performance / Benefits Mgmt. & Reporting
- Resource & Talent Management

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Key considerations for automation opportunities

Below is a list of questions to consider when brainstorming candidates for automation.

- Is the process/task highly manual and repetitive?
- Is the process/task prone to errors or re-work?
- Does the process/task require "stare and compare" activities with multiple systems?
- Does the process/task require "copy and paste" activities between multiple systems?
- Does the process/task require "swivel-chair" navigation of multiple screens? (e.g., using several different systems to complete the process)
- Does the process/task require searching, collating, researching and/or updating information?
- Can the process/task be decomposed into unambiguous rules?
- Is the technology/application environment relatively stable for the process in question?
- Does the process involve complex calculations and/or logic (judgment based decisions)?
- Is there extensive internal company knowledge needed to process the transaction?
Financial Management Heat Map
RPA Risk Considerations

<table>
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<th>Inputs</th>
<th>Controls Framework</th>
<th>Risk Areas</th>
<th>Key Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bot Lifecycle</td>
<td>Entity Level Controls</td>
<td>Inadequate bot oversight, ownership and governance</td>
<td>RPA Program Governance and Assurance</td>
</tr>
<tr>
<td>Governance &amp; Strategy</td>
<td>Technology Risk Controls</td>
<td>Failure to govern outsourcing decisions</td>
<td>RPA Policy and Procedure</td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td>RPA Ownership and responsibilities</td>
</tr>
<tr>
<td>Configure &amp; Test</td>
<td></td>
<td>Inadequate staff knowledge or skills</td>
<td>Bot Access Management</td>
</tr>
<tr>
<td>Deploy</td>
<td></td>
<td>Increasing risk of unauthorized or inappropriate developments, access change, incidents, backup etc.</td>
<td>Bot process change management</td>
</tr>
<tr>
<td>Operate &amp; Optimize</td>
<td></td>
<td>Inadequate security and privacy considerations</td>
<td>Bot Logging and Monitoring</td>
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**Internal Considerations**
- Bot Logic & Functionality

**Leading industry standards and frameworks**
- COSO,
- COBIT,
- NIST,
- ISO 27001

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Panel Discussion
Thank You