Transforming a Utility

The Optimization & Automation Journey at Eversource

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Jack DePerrior
Introduction

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- Intelligent Automation COE Leader, Eversource
- Competencies: Transformational delivery, operational change, employee engagement
- 15+ years of industry experience
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Jack DePerrior
- Consultant, EY Intelligent Automation Advisory
- Competencies: Intelligent automation delivery, opportunity assessment, RPA development
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Building a digital workforce for the future

Digital Worker Profile
_The Virtual Worker (a/k/a The Doer)_
- 24x7/365 – Immune to pandemics and can’t call out sick
- Works well with others and won’t leave or retire
- Completes work accurately, consistently, and always on time
- Reduces risk while improving efficiency and creating workforce resiliency
- Enhances customer and employee experiences
- Development is capitalized and runtime/support costs are economical
Business process automation tools

Attended Automation (RDA)
• Human intervention is required - UI for bot/user communication
• Real-time & task-oriented processing
• Manually triggered for specific workflow/tasks

Best fit for: Partial/Fragmented Automation (e.g. parts of Live Calls in Contact Centers)

Unattended Automation (RPA)
• Human intervention is not required - Full end to end automation
• Self-triggered batch processing - 24/7/365 scheduling availability
• Managed remotely through a control center

Best fit for: Full End-to-End Automation (e.g. working Skip-Tracing queues ‘after hours’)

Real-time feedback
Bot & human processing

Batch Model Processing
Run on schedule
Bot processing

User-Assisted

Batch Processing
Eight strategic elements of the PO&A CoE facilitate sustainability of our business process automation program.

Mission
Identify, optimize & automate the right processes to empower employees, deliver value to the enterprise, and enhance how we work.
Business process automation – ‘Day in the life’

**Identify**
- Analyze processes together with process owners and capture business requirements
- Agree on process scope with process owners based on performed review

**Design**
- Design the future state process in close collaboration with the business through deep-dive sessions
- PDD document of the processes in scope for automation

**Develop, Test and Deploy**
- Build test cases and perform unit and integration testing based on test cases
- Perform UAT and required process updates to ensure that automated process reflects business requirements

**Ongoing Operations**
- Develop user aid documents (Placemats) to manage change
- Release approved automated process into production

**Input**
- Capture as-is process steps
  - Understand as-is process flow and business requirements
- Establish automation scope or non-automation solution
  - Automation process scope defined or alternative recommendation made
- Future state design solution and develop user stories
- Automate business processes
  - Process Definition Document (PDD) built
  - Iterative automation development & demos to BU
- Test automated process
  - Finalized process configuration and approved test cases
- Perform UAT
  - Automation Placemat business readiness
- Finalize process documentation and execute training
- Package and deploy processes into production
  - Process implemented and running in production environment

**Process**
- Automation process scope defined or alternative recommendation made
- Future state design solution and develop user stories
  - Process Definition Document (PDD) built
- Test automated process
  - Finalized process configuration and approved test cases

**Output**
- Process implemented and running in production environment
### Agile Delivery Framework

**Identify, Assess & Prioritize**
- **Process Assessment**
  - Work with business teams to understand business processes and automation potential. Prioritize the list of business processes based on benefits, cost, and complexity.

**Backlog of Opportunities**
- Gather feedback from the business; evolve requirements to meet changing demands and continuously improve.

**Iterative Development**
- Iterate quickly in a collaborative approach to ensure an appropriate solution is developed.

**Iterative Testing**

**Continuous Improvement**

**Deploy, Test and Deploy**
- Deploy solutions into production and train the business teams for working alongside robots.

**Hypercare/Ongoing Operations**
- LEARN
  - Deploy into production, control, and monitor
- EVOLVE
  - Realize benefits and scale infrastructure as required
  - Realize benefits & scale

**SPRINTS**
- Continuous improvement
- Iterative development
- Iterative testing
Eversource’s Journey into RPA

**RPA Initiation**
Completed RPA PoC, illustrating the benefit of RPA

**RPA Operating Model**
Developed Operating Model
Playbook to serve as backbone for enterprise Automation Product Center operations

**Unattended Automation**
Delivered 30+ automations including process identification, design, configuration, deployment & hypercare Support

**Attended Automation**
Delivery of 8+ automations which directly aid the frontline in reducing call time and increasing customer satisfaction

**Benefit Delivered**
- $1.2M Reduction in annual Bad Debt
- $12M+ Steady State Financial Value
- $500k+ Steady State O&M Savings

**CY20 Opportunities**
- Continued Enterprise Expansion
- Capability Exploration/Expansion
  - Virtual Agents
  - Process mining
  - Document Intelligence
  - Computer Vision
  - Geospatial
After successfully surveying employees to get their opinions and thinking, we discovered they **WANT** us to automate away their pain points.

60-70% of business processes contain manual activities that could be automated. - IDC

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<thead>
<tr>
<th>Engagement</th>
<th>Pre-automation</th>
<th>Post-automation</th>
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Eversource’s RPA Program Progress & Benefit Realization

Through Q4 2019

**Quality Delivered**

- **Delivery Efficiency**
  - \( \approx 192k \)
  - Avg. O&M Benefit Provided Per Month
  - \( \approx 2.3M \) Steady State O&M benefit delivered in 30+ automations over 12 months iteratively

- **Development Quality**
  - <1%
  - Production Defect Rate

- 0.03% of defects to requirements raised post-production implementation (<15 defects in >600 user stories)

**Benefits Delivered**

- **Workforce Capacity**
  - >52k
  - Hours of Capacity Created (Back Office)

- allowing the organization to handle a greater workload with digital staff augmentation

- **Customer Satisfaction**
  - \( \approx 100k \)
  - 1 Customer Interactions eliminated

- improving the overall experience for Eversource customers

- **Employee Experience**
  - >300k
  - Manual Transactions Processed

- allowing employees to focus on more value-added work

- **O&M Benefit (Back Office)**
  - \( \approx 1.9M \)

- through 22 back office focused automations

- **O&M Benefit (Desktop Assisted)**
  - \( \approx 518k \)

- through 8 user assisted Contact Center automations

- \( \approx 100k \)
- 1 Customer Interactions eliminated

- improving the overall experience for Eversource customers

- \( \approx 300k \)
- Manual Transactions Processed

- allowing employees to focus on more value-added work

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- through 22 back office focused automations

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- 1 Customer Interactions eliminated

- improving the overall experience for Eversource customers
We’ve partnered with several business areas to deliver and measure RPA value and continue to evangelize the success stories for continued growth!

**Credit & Collections**
- Delinquent order cancellation
- Critical transaction audit
- Deposit refunds

**Contact Center**
- Payment processing
- Move-in/ move-out orders
- Paperless billing enrollment

**Billing**
- Supplier write-offs
- Large power billing
- Net metering allocations

**Material Planning**
- Expediting material delivery
- Requisition date management
- Reservation management

**Procurement**
- Invoice reconciliation
- Advanced shipping notice
- Direct order receipt entry

**Automation hot spots**

**Vegetation Management**
- Service notification routing
- Capital work alignment
- Order routing prioritization

**Plant Accounting**
- Journal entry processing
- Duplicate invoice search
- Work order closing

**Accounts Payable**
- Electronic invoice upload
- Corporate expense audit
- Invalid PO detection

**Solar Program**
- Allocation program validation
- Solar credit allocations

**Meter Operations**
- Meter retirement
- Duplicate order cleanup
- Meter order processing

**Material Planning**
- Service notification routing
- Capital work alignment
- Order routing prioritization

**Procurement**
- Invoice reconciliation
- Advanced shipping notice
- Direct order receipt entry
Case study - Requisition date management

Supervisor/Team Lead Process Metrics:
- **Current State Risk exposure** – Reduced risk (stability)
- **Customer Impact** – Increased accuracy in transaction processing
- **Process Criticality** – Increase stability in critical process
- **Employee Engagement** – FTE freed capacity
- **Processing Time** – Large decrease in processing time

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100% Automated transaction reconciliation
- Error-free steps where data handling is fully automated
- Minimized validation effort (exception cases only)
- Improved SLAs due to reduced backlog build up

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1. **Requester**
   - Requisition date management (100% Automated transaction reconciliation)
   - 5%

2. **Automation Support**
   - 90%
   - Run query to identify past-due requisitions in asset management system
   - Bot notifies requester of a past-due requisition in asset management system via email
   - Bot continually checks Outlook for replies from requester
   - When reply is picked up, bot will act appropriately

3. **Supply Chain Team**
   - Change requisition status to ‘Complete’
   - Repeat processing for each unread requester email
   - Resolve case exceptions (Data/System issues)
   - 5%

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**Will respond to email to determine if bot takes action**

**Bot notifies requestor of a past-due requisition in asset management system via email**

**Bot continually checks Outlook for replies from requester**

**When reply is picked up, bot will act appropriately**

**Change ‘Requested By’ date in asset management system to requesters preference**

**Change status to ‘Complete’**

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Intelligent Automation Spark Lab overview

Automation-enabled transformation

Automation Spark Lab - objectives

► Quantifies the potential automation “value on the table” for the enterprise & BUs and provides suggested automation technologies for end-to-end process automation
► Provides a baseline of current processes and automation potential for each process
► Identifies areas of greatest benefit potential – to be explored further through deep dives prior to development
► Provides input to a business case: estimates benefits and implementation costs
► Provides a candidate prioritization and directional implementation roadmap

Workshop & Analysis

IA Capability Overview
Discuss IA capabilities, success drivers & lessons learned

Best in Class
“Art of the possible” look for the areas that are most applicable to you

Rave or Rage
Discuss rave and rage moments which are the problems worth solving

Readiness
Discuss readiness across people, process & technology (prioritisation)

Ideation
Breakout into ideation pods, led by IA CoE Experts, and define opportunities and benefits

Prioritized Roadmap
Work together to align on immediate next steps & to validate opportunities and the potential business case

Robotic Process Automation (RPA)
“The Virtual Worker”

Virtual Agents (VA)
“The Virtual Conversationalist”

Document Intelligence (DI)
“The Virtual Reader”

Natural Language Processing (NLP)
“The Virtual reader / listener”

Machine Learning (ML)
“The Virtual Thinker”

Computer Vision (CV)
“The Virtual Observer”

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Innovative Automation
Spark Lab
Overview

Automation-enabled transformation

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Lessons Learned

1. Select the RIGHT processes for bots.
   • Evaluate holistically.
   • Challenge established norms
2. Engage the RIGHT SMEs & resources for automation delivery.
   • Self-contained cross-functional team.
3. Optimize BEFORE automating.
4. ‘Goldilocks’ communication and collaboration.
5. Stagger deployment as needed.
Thank you! For more information on the Intelligent Automation Program at Eversource, please feel free to contact us at...

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