Prodapt powering global telecom

Breaking down the barriers to scale RPA across the enterprise

Credits

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RPA Centre of Excellence – A definitive answer to DSPs' scalability challenges

DSPs across the globe are leveraging robotic process automation (RPA) to increase their operational efficiency and are at various stages in their journey. Most of them have at least tested waters with a POC, if not actual implementation. But scaling RPA and making it an organization-wide success is a big challenge.

As per Deloitte's Global Robotics Report 2018, over **80% of organizations implementing RPA were happy with the results**, but only 1% of them were able to scale considerably in past 1 year (50+ bots in a year). Inability to identify appropriate use cases after initial implementations serves as the major bottleneck. Lack of end-to-end visibility of the process by the siloed business units further adds to this cause.

One definite answer to this is to **develop a robust Centre of Excellence,** which not only defines the best practices but also devices appropriate tools to implement them and achieve organizational goal.

Components of an ideal RPA CoE.

- **Demand generation and prioritization**
- Process analysis
- Bot development
- Bot verification and deployment
- Bot production operations and fall-out handling
- Organizational change management
- RPA governance and benefits reporting

To scale up RPA, an organization should have a continuous pipeline of suitable processes.
This insight is focused on techniques which can help to create and maintain a steady pipeline of processes ready for RPA.

Demand generation techniques as per DSPs' RPA implementation maturity

RPA Demand Generation Methodologies

Comprehensive Analysis

Identifies simplest and small processes suitable for RPA within the organization. Such processes are usually handled by small group.

Design Thinking Workshop

Identifies complex processes spanning across multiple business units. Builds consensus amongst business units and IT for RPA initiatives.

Process Mining

A tool-based approach to get a 100% true visualization of the process to identify areas of automation.

Increasing level of RPA maturity in the organization

Comprehensive analysis – For DSPs looking to automate simple processes

1 **Goals** - Comprehensive analysis helps in identifying high value RPA opportunities for the DSPs who are just adopting RPA and are in early stages of their journey.

2 **Considerations –** This technique takes into consideration level of maturity, proportion of processes done in-house vs. outsourced, process details available etc.

3 **Approaches -** The two approaches in comprehensive analysis are:

Top down approach - It is based on FTE allocation and analyses following operational metrics:

- FTE strength in operations
- Cost of these FTEs
- Cost allocation across functions
- FTE allocation across functions
- Level of manual intervention required in various functions

Bottom-up Approach - It focuses on getting into details of processes and improving them using lean Six Sigma methodologies. It analyses:

- Process complexity and standardization
- Volume and repeatability of processes
- Identifies non-value added tasks in the processes and analyzes how to remove them

It involves both organizational as well as process improvement.

4 **Prospective Processes & ROI Calculations -** On the basis of combined results of these approaches, joint solutioning workshops are conducted. This is where both IT and business leadership teams are involved to narrow down on prospective processes and to create ROI projection and roadmap of automation.

5 **Deliverables -** The aim of this technique is to deliver:

- Process documents (As-Is and To-Be)
- Process improvement opportunities
- Automation opportunities
- Automation architecture and cost projection

Comprehensive analysis helped a Swiss DSP in identifying 8 high ROI processes available for immediate automation

Situation

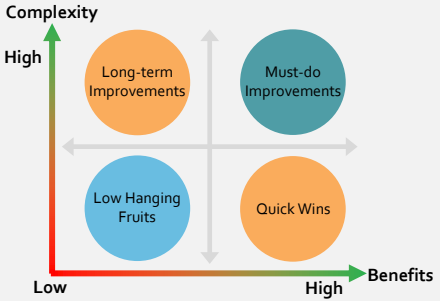
A Swiss telecom behemoth made a strategic decision to invest in RPA. Their plan was to start small by automating few processes and ramp up over the next 3 years. **The challenge** was identification of processes, which can be easily automated while giving good ROI.

Solution

Few core processes were picked for detailed process and technical assessment. Factors considered were:

Automation potential review factors

- Process standardization
- Process complexity
- Throughput/ volume
- Target systems
- Number of distinct screens
- Input and output format
- Number of exceptions
- Security – thin client, special access
- Environment – reusability, test data etc.



Based on this assessment, the processes are mapped in complexity vs. benefits priority quadrant. This helps in identifying immediate high ROI targets and creating a long-term pipeline

Result

8 high ROI processes identified for immediate implementation. Examples include network inventory reconciliation, alarm and fault monitoring etc.

20% increase in automation potential as a result of lean Six Sigma techniques used in comprehensive analysis.

50% increase in savings as a result of process redesign.

Result of comprehensive analysis – sample output shows achieving 61% FTE variance and 70% ROI for 3 years

The comprehensive analysis of any process takes into consideration multiple factors that give details about automation potential, ROI, process complexity and number of bots required. All these parameters help in identifying and prioritizing processes for automation.

Potential to reach 61% FTE variance in this process (FTE count reduced from 28 to 11)

"Yellow" color highlights the process under analysis has "medium" level of complexity

Opportunity ID	Required FTE	FTE Variance	Residual automation capacity (in mins)	Automation Potential (%)	Automation Complexity	Effort Required (in days)	BOTS Required	Projected Savings (Annualized)
I2031	10.9375	61%	5	71%		40	1.79	$ 1,535,525

Opportunity Name	Business Unit	Department Name	Process Description
Order Entry Process	Service Delivery	Order Processing	Validating the requests submitted by Sales and capturing the orders in order management system once validation passes.

FTE estimation

Actual FTE	28
Avg. daily volume	750
Avg. handling time (in mins.)	7
No. of working days / Yr.	240
Avg. productive hours / day	8
Accuracy level	95%
Rate / hr.	$ 40.87

Effort Calc

No. of target systems involved	over 10 systems
No. of screens involved	over 20 screens
No. of scenarios involved	over 10 scenarios
No. of output destinations	Up to 5 destination
No. of output formats	Up to 5 format
No. of inputs in digital format	All
Rate of re-usability	No components exist

Automation potential estimation

Effort spent on data intepretation (in mins)	0
Effort spent on manual activity (in mins)	2
Effort spent on decision making (in mins)	0
Estimated exception level (%)	10%
Process definition document level	Detailed Doc. Available
Subject matter expert	SME has good knowledge
Process complexity	Easy - Single queue

RPA Cost Calc

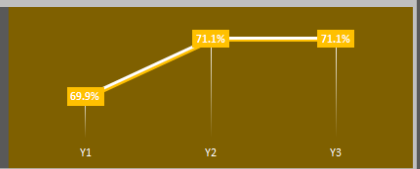
License Cost, if any	$	2,800.00
Training Cost, if any	$	483.00
IT Infrastructure Cost, if any	$	800.00
Physical Infrastructure Cost, if any	$	600.00
Direct Loaded Cost, if any	$	-
Implementation Cost, if any	$	27,000.00
Total RPA Cost	$	**31,683.00**

Complexity Calc

Host Application Matrix					
% HTML / Windows	% Java, .NET	% Citrix	% Mainframe, SAP	PDF	SOAP, REST
10%	20%	60%	10%	0%	0%

Validated

ROI Projection



Bot Performance Indicator

Current AHT (in mins)	Bot AHT (in mins)
7.00	2.57
Productivity per FTE/day	**Productivity per Bot/day**
51.43	420.00
Current cost/transaction	**Bot cost/transaction**
$ 4.77	$ 1.75
ROI % - Y1	**ROI % - End of Y3**
69.9%	70.7%

Expected ROI:
- First year – 69.9%
- Second year – 71.1%
- Third year – 71.1%

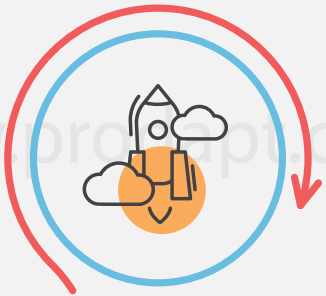
Overall ROI of 3 years - 70.7%

ROI calculation for a sample process (order entry process)

Design thinking workshop – Ideal for complex processes, which spans across multiple business units

1 As RPA initiatives advances in an organization, it moves from automating a simple task to large and complex processes. Such **processes traverse through multiple teams and business units**. For example – Quote and invoice validation, service work-order status, promotion notifications service etc.

2 This causes **lack of end-to-end visibility of the process across business units**, leading to incomplete analysis. Also, in such processes, a lot of inefficiencies occur at the hand-off stage rather than at the siloed team stage.



3 Design thinking workshop brings together diverse set of stakeholders, from IT and business units, and get their support and consensus for RPA initiatives. It enables them to gain a holistic bird's-eye view of organizational operations and ideate automation strategy while collaborating with each other.

4 Techniques used - affinity cluster review, experience diagramming and creative matrix.

Affinity Cluster - Use cases suggested during the focus interviews are visually mapped out on the walls in clusters of similar functional areas.

Experience Diagramming - Teams to develop process maps capturing key personas, waypoints, & systems. **Rose/Thorn/Bud** used to highlight issues and opportunities.

Creative Matrix - A large format poster to be assigned to each team with a grid mapping key personas to solution areas. Timeboxed activity where each team is supposed to come up with creative ideas for intersection areas.

Design thinking workshop helped a Canadian operator to save a projected $25.5 Mn

Situation

A leading Canadian operator underwent design thinking workshop to identify high potential processes as a part of the RPA CoE initiatives.

Result

150+ total use cases identified for implementation over a targeted timeline

$4 Mn savings achieved in 9 months

30+ high value use cases identified for immediate implementation

$25.5 Mn projected savings

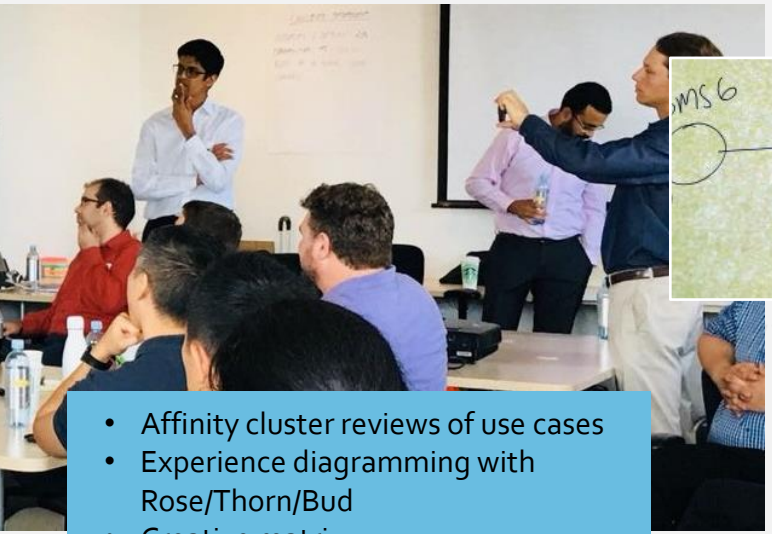
Solution

- **Focus interviews** of senior management employees resulted in identifying **70+ use cases**
- Use cases grouped together as clusters of similar functional areas

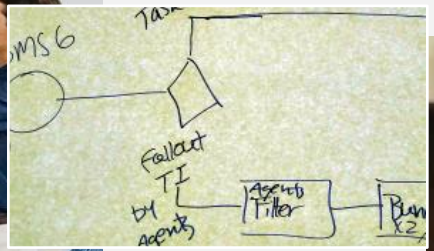
- **4 cross functional teams** formed – representing both business and IT members
- Teams performed **affinity cluster review, experience diagramming and creative matrix** exercises on the clusters
- Result is identification of **150+ multi-function processes** suitable for RPA

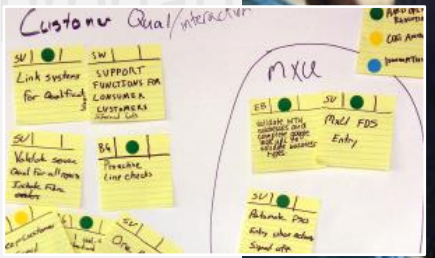
- Teams asked to prioritize use cases on the basis of **importance and difficulty**
- **Consensus** on performance measurement, KPIs and other success factors built

Design thinking workshop in action in a leading DSP's headquarter



- Affinity cluster reviews of use cases
- Experience diagramming with Rose/Thorn/Bud
- Creative matrix





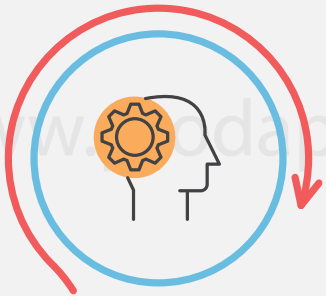
- Triage using Importance/difficulty matrix
- Buy a feature

Design thinking workshop develops a holistic view of the complex processes by bringing in diverse set of stakeholders, leading to identification of automation opportunities and building consensus.

Process mining – Ideal for processes with limited documentation

1 For any process improvement, process models are created, which are either based on **incomplete or outdated process documentation or flawed perceptions of the stakeholders**. Also, multiple stakeholders may have multiple ways of doing the same process and all of them can be inefficient.

2 Process mining tools help in **visualizing all the possible paths of doing a process using event logs** created by information systems. It builds the exact As-Is flow of the current state and aids in detailed analysis of the process.



3 These tools observe how the process is executed, how much time it takes to complete, which steps are repeated, what can be automated etc. and **helps building automation roadmap based on empirical data**.

4 All these insights help in qualifying processes for automation, which are not obvious choices otherwise.

5 These tools also help in measuring benefits of ongoing automation, as it can breakdown any process and identify magnitude of automation for individual sub-processes.

6 This technique is suitable for organizations who have already matured in their RPA journey.

A leading DSP in UK leveraged process mining to identify and automate opportunities in highly complex purchase operations process

Situation

A UK-based telecom giant wanted to eliminate inefficiencies in its source-to-pay process. This will result in maximizing catalogue buying and accelerating the release order to a supplier. The goal was to increase error-free purchase orders from 73% to 80%.

Solution

- Process mining tools were implemented to identify inefficiencies and deviation, which were increasing cost and delivery time.
- The DSP's ERP systems were gathering 10 terabytes of event logs. **Process mining tools extracted real-time insights from these event logs** about the process discrepancies.
- It helped in identifying areas of low automation where RPA can be implemented.

Result

73% to 85%
increase in perfect purchase orders generated

11%
cost-saving improvements

20%
improvement in time to market

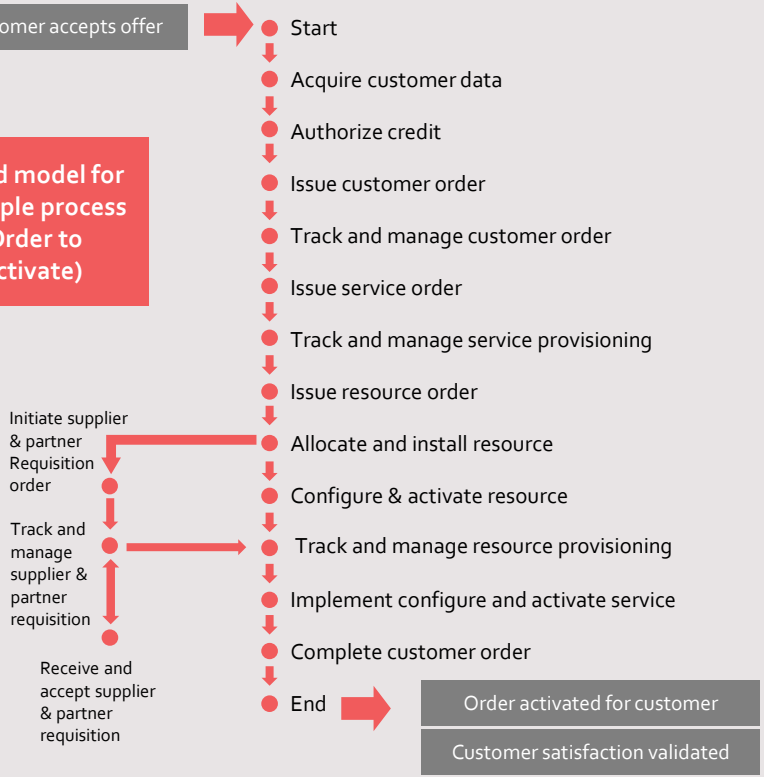
Root cause analysis reduced from **2 days to near real time**

Process mining helping in end-to-end visualization of the process and identifying potential automation opportunities

Process mining tools gets integrated with all the underlying O/BSS stacks and pull event logs to design accurate visual representation of process.

Mining Techniques

Mined model for a sample process (Order to Activate)



Process mining of a DSP's order to activate process

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THANK YOU!