

Prodapt powering global telecom

Recipe for managing the digital workforce effectively
Reduce 30% of operations efforts and meet SLAs

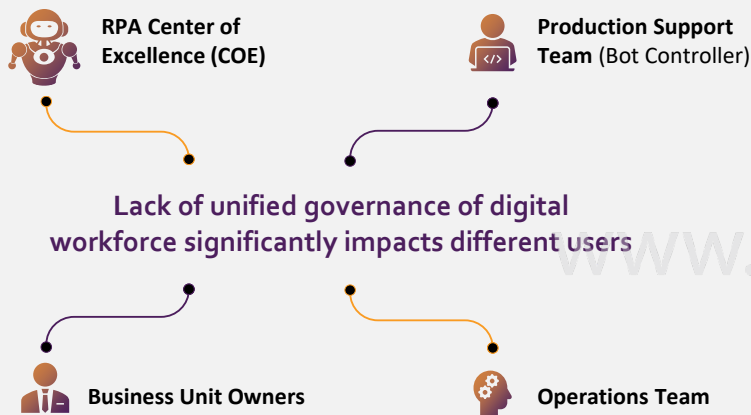
Credits






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Governance of Digital Workforce is Becoming a Consistent Challenge in the Course of Adopting Robotics and Cognitive Automation

The telecom industry, today, is riding the automation wave. Painful manual tasks, which burdened staffs for ages, can now be easily handled by the software bots. However, in the process of onboarding the digital workforce, most DSPs have missed to establishing strong unified governance.



-  **Bot orchestration across different platforms is very difficult**
Different platform technologies and multiple application servers drain out manual efforts
-  **Improper utilization & management of the digital workforce**
Increases costs for bot controller to manage the bots
-  **Analysis of Bot KPIs to measure performance is time-consuming & exhausting.**
Real-time unified visualization of vital stats of all the bot metrics across technologies for hybrid orchestration is not available
-  **Bot licenses and application credential management is tedious & complex task**
Frequent account lock and license expiry issues significantly impact the running processes
-  **Lack of real-time alerts on process failures & forecast often leads to missing the SLA for critical deliveries**

Findings from a Forrester Consulting report show that the majority of DSPs struggle with RPA Bot governance in their organization.

Survey question - With which technical & deployment issues is your organization struggling with when it comes to RPA technology?

Top 4 results

61% Control & operations of RPA bots are immature

69% Difficulty in managing rules that guide bot behavior

70% Performance & Scalability

58% Insufficient reporting of the complete E2E process

Focus Areas to Consider for Establishing an Effective RPA Bot Governance Model

Integrated Visual Control Room

For a single view and management of the digital workforce across COTS and open-source platforms such as Blueprism, AutoHotKey, Automation Anywhere, UIPath, etc.

Real-time Unified Analytics

To illustrate bot metrics and KPIs like,

- Delivery trend, Exception trend with bifurcation
- Bot utilization and availability
- Project outage and bot downtime trends

Unified Bot Infrastructure Manager

Include Infra tracking tools like,

- Bot Farm Manager
- Database Health Monitoring
- Bot License come Utilization tracker
- Strong Identity, access and authorization management

Real-time Alerting

To notify users on vital indices like,

- Inflow Alert
- Project Outage
- Bot Downtime
- Database Occupancy
- License Expiry
- Password Expiry

Real-time Delivery Forecast

To provide insights to business owners in estimating the delivery time and optimize resource to meet SLA

One-touch Real-time Report Generator

To provide business owners the downloadable performance reports both hour-wise and day-wise

Integrated Visual Control Room to Efficiently Manage a Digital Workforce

Higher levels of collaboration & transparency while managing bots across processes & platforms

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The **Production support team** lacks an integrated view of all the bots deployed across different processes and platforms. They need to manually login to each bot machine, analyse issues and then take subsequent action.



An integrated visual control room can address this problem more efficiently

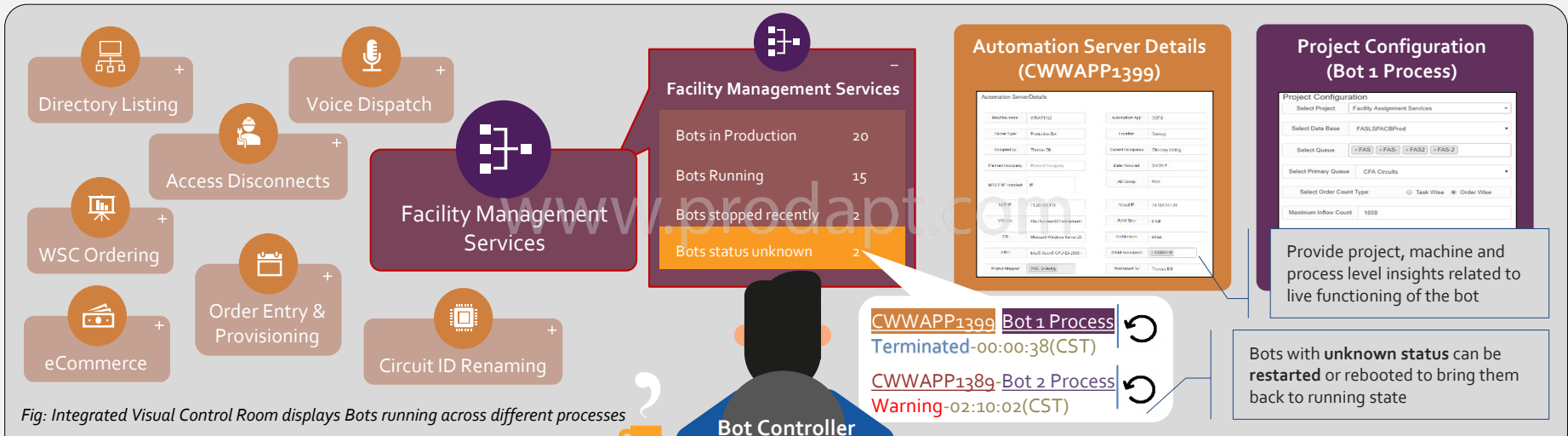


Fig: Integrated Visual Control Room displays Bots running across different processes

- Provide real-time tracking of all bots **across COTS and open-source platforms** like Blueprism, AutoHotKey, VB Macro & Automation Anywhere, under one roof.
- Collaborate all the bot sessions running **across processes** in different application servers.
- Quickly find the root cause of non-functioning bots

Identify why bots are in **unknown status**

- **Terminated:** Abrupt interruption or the application is down
- **Warning:** Bot performs action on infinite loop due to code bug or lack of inflow
- **Pending:** Bot is in the queue and it is not started
- **Debugging:** Coder/Developer debugs the code.

Real-time Bot Delivery Forecast & Inflow Alert Mechanism

Visualize key metrics in real-time to meet the required SLA



Business Unit Owners Lacks real-time visibility in the running processes.

Production Support Team Not aware of inflow in real-time and if the bot has stopped picking orders. Such production outage issues easily take 20-30 mins even to be detected.



These issues can be addressed using a Bot Delivery Forecast & Inflow Alert Mechanism

Process Automation	Order Details			Bot Details		Hours to Complete	Inflow Alert
	Estimated Inflow / day	Current Inflow	Completed Orders	Average Handling Time (in mins)	Bot Assigned		
Directory Listing	800	2	1	1.85	1	24.64	Receiving Inflow
Access Disconnects	800	117	97	2.3	1	32.81	Receiving Inflow
Voice Dispatch	120	3	0	6.23	1	12.46	No Inflow
Order Entry and Order Provisioning	550	28	16	4.56	10	4.06	Receiving Inflow
Facility Assignment Services	1000	98	63	12.6	16	12.3	Inflow

Fig: Sample Image of Delivery Forecast & Inflow Alerts for Different Processes



Real-time notification of inflow alert to the production support team. Quickly detect the issue, thereby reducing any downtime impact.



Estimated delivery forecast for each running process. Facilitates BU owners to add additional resources for on-time delivery.



Helps RPA Center of Excellence (COE) team to reallocate required number bots for different processes from the unused/underutilized ones.

Delivery forecast for a process can be calculated by capturing following details:

- Average Handling Time for an order to be completed
- The estimated Inflow for the day
- Number of bots assigned
- Number of orders completed

Reallocate or scale-up bots for any specific processes, which are lagging behind.

A B E.g. Bots can be switched from Order Entry & Order Provisioning Process to Access Disconnects Process, ensuring SLAs for both the processes are met for the day.

Inflow alert status type:

- **Receiving-Inflow:** Indicates bot is active and acts on the input from the source
- **No-Inflow:** Indicates bot is not in a position to consume the orders even though it is in active & running state.

C E.g. For **Voice Dispatch** Processes, though the bot is in running status, it is not picking the orders. This requires immediate action or else can impact the SLA for this process.

Automated Application Credential Management & Bot License Tracker

Prevent production outage by avoiding account lock & license expiry issues

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Automated Application Credential Management

- Manually managing credentials is a complex & lengthy process
- Build a strong Identity, access and authorization management
- Automate credential management process along with data privacy

S.No#	GID	ExpireDate	Project	View	Edit
1	G9984776	2019-10-30	WSC Ordering		
2	G9989074	2020-02-03	Directory Listing		
3	G9989075	2020-02-03	Directory Listing		

GID: G9989074

Password: *****

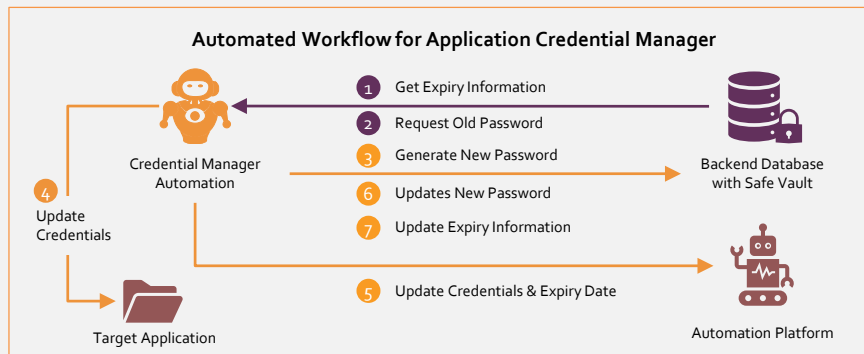
Expire Date: 2020-02-03

Expire Period: 80

Project Mapped: Directory Listing

Data Virtualization: Dev Test

Fig: Sample Image of Application Credential Tracker



Bot License Expiry & Occupancy Tracker

- Licenses once purchased, get used across different processes over time.
- Tracking license usage & expiry across processes gets complicated with more automation.
- A bot license expiry and occupancy tracker is vital to tackle this tedious task.

S.No#	License Name	license Owner	Start Date	Expire Date	License Count	Un Used	View
1	Facility Assignment Services - 5 licenses	James Smith	2019-12-19	2021-12-18	5	0	
2	Service Activation 16 Bot License	James Smith	2019-12-13	2022-12-12	16	0	
3	Voice Dispatch - 4 License	James Smith	2019-10-09	2021-10-08			
4	CLLI Code Standardization	James Smith	2019-10-01	2022-09-30			

License Name: Facility Assignment Services - 5 licenses

License Count: 5

Projects Mapped: Facility Assignment Services (1 Bot), Voice Dispatch (3 Bot), Directory Listing (1 Bot)

Environment: [dropdown]

Automation Tool: Blue Prism, AHK

Close

Fig: Sample Image for Bot License expiry & Occupancy Tracker

Functionalities to be built



License Utilization Tracker

- Provide a holistic view on all the license purchased for each process
- Keep a track of unused licenses across processes to re-use them more efficiently.



License Expiry Notification: An automated alert can be sent to RPA COE & Production Support on prior notice (e.g. 45 days before license expiry)

Database Health & Occupancy Tracker

- Database health check assessment is crucial to avoid instability and performance issues
- Having real-time health monitoring to keep track of multiple databases across processes can avoid such impacts

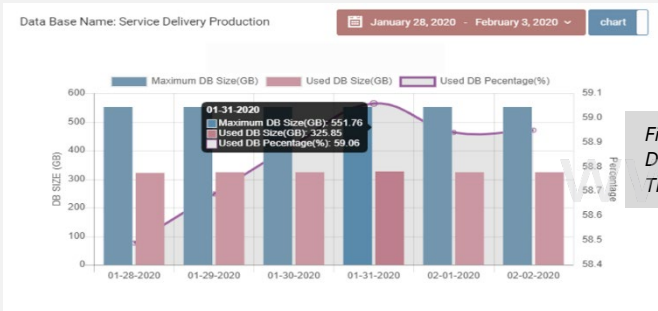


Fig: Sample Image of Database Occupancy Tracker



Database Occupancy Notification & Warning Alerts

Generate real-time reports for stakeholders to take necessary actions



Automated Database Housekeeping

Unwanted logs can be cleared intelligently to keep database occupancy under control



Email Alert Notifications can be sent to RPA COE and production support once the threshold is reached

Bot Infrastructure Manager

- Managing the Automation Infrastructure by traditional methods limits visibility to availability, searchability, integrity, and consistency. This leads to improper utilization of resources.
- Unified Bot Infrastructure Manager can bring more visibility & transparency

S.No#	Machine Name	Automation App	Server Type	Current Occupancy	GID	Location	view	Edit	Delete
1	VIRWF1162	COTS	Production Bot	Directory Listing	X9984776	Conway			
2	VIRWF1688	Open Source	Production Bot						
3	VIRWF1665	COTS	Production Bot						
4	VIRWF1666	COTS	Production Bot						

Automation ServerDetails

Machine name:	VIRWF1162	Automation App:	COTS
Server Type:	Production Bot	Location:	Conway
Occupied by:	Thomas Bill	Current Occupancy:	Directory Listing
Planned Occupancy:	Planned Occupancy	Date Procured:	5/1/2017
MSS EXE installed:	<input checked="" type="checkbox"/>	AD Group:	Prod
NAT IP:	71.29.163.118	Actual IP:	10.104.147.34

Fig: Sample Image of Bot Infrastructure Manager

Bot Farm Manager

Keep track of availability of resources and provide configuration details such as Bot machine details, Associated Bot ID and Physical, Network and Logical Configuration

Benefits RPA COE, Production Support & Operations Team in effective management of infrastructure

Dynamic Bot Utilization, Project Outage and Bot Downtime

Cross-utilize bots across different processes and identify real-time production outages

Understanding and tracking bot utilization is very complex & time-consuming process for RPA COE and respective BU owners



Analysing trends based on historical information can help in extracting actionable insights

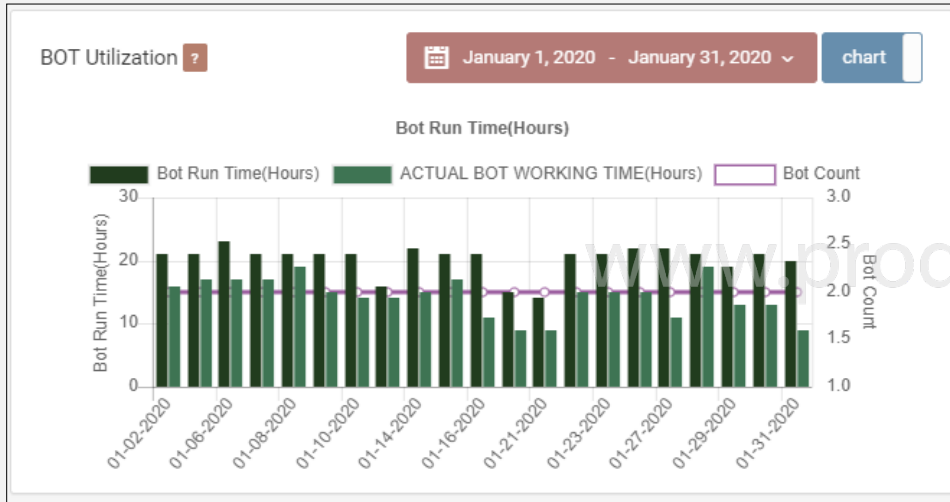


Fig: Sample image of Bot utilization over a period of time

Analyze the average number of hours bots remain idle per day

- Monitor the difference between Actual bot Run time vs. Actual bot working time

RPA COE can use these insights to cross-utilize bots across process

- Find what processes are lagging behind by looking at the delivery trends and reallocate the bots accordingly

S.No#	Process Name	Resource Name	Start Date	End Date	Current Time	BOT Start & Stop Time	Status	Time Difference(M)
1	DIRFOC Process	CWWAPP1156	02-21-2019 08:11:45	02-21-2019 08:11:50	02-03-2020 05:39:15	00:00:00-23:59:00	Terminated	339
2	DIRLIST Process	CWWAPP1155	01-30-2020 20:52:29	01-31-2020 16:25:23	02-03-2020 05:39:15	00:00:00-23:59:00	Completed	339
3	DIRCOMP Process	CWWAPP1161	01-31-2020 15:09:04	01-31-2020 16:23:44	02-03-2020 05:39:15	00:01:00-23:59:00	Completed	338
4	DIRFOC Process	CWWAPP1160	01-31-2020 15:09:04	01-31-2020 16:23:26	02-03-2020 05:39:16	00:00:00-23:59:00	Terminated	339

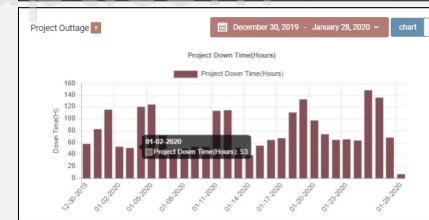


Fig: Sample images of real-time Bot status, Project Outage trend and Bot downtime trend



Send real-time email alerts on production outages



Bot downtime hours is a clear indication to find gaps in the workflow. These insights can be used to optimize the processes



Historical trend for project outages shows for how long the project was consistently down

Business & Operational benefits Achieved by a Leading Digital Service Provider (DSP) in North America

The service provider faced huge challenges in establishing strong governance over the RPA bots, which were deployed across different processes and different COTS & Open Source platforms such as Blueprism, AutoHotKey, and VB Macro.

Establishing an effective **RPA bot governance model** as mentioned in this Insight, helped the DSP to realize major benefits

Key Benefits



Reduced operations efforts by **30%**, optimizing bot utilization and effectively managing the bots across processes and platforms



Realized \$312K savings annually
~\$152K saved annually by automating the application credential and bot license management
~\$160K saved annually with unified infrastructure management and real-time database health monitoring.



87% reduction in time for detecting production outages

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THANK YOU!