Automation and BOTS for Scaling Value Transformation

Technology companies have been leveraging automation for the past decade to drive outsized competitive advantages in garnering large market share with their customer offerings and turning these advantages into re-defining their internal processes to drive similar advantages. Tesla calls itself a technology company and updates its cars over the air. Uber calls itself a mobility company and knows where all its drivers are and tracks all rides globally. A lot of these paradigm shifts were possible due to automating customer products and services. The backbone of these offerings were significant investments made by these companies in large development teams that are in a continuous development and continuous integration mode. DevOps and ITOps became the bridge between the developers and customers to keep things smooth and customer experience high.

Enterprises in other industries are going through their digital transformation and adopting some of the same methodologies for their customer interactions but their internal IT operations are still not transformed to drive similar changes to the customer experience. And script based and developer dependent approaches to automation are falling short of the expectations due the lack of talent and high costs.

The advances in artificial intelligence and machine learning only compounded the problems for enterprises to leverage data insights in their transformation and automation efforts.

Existing automation approaches do not provide the transformational needs that enterprises require. They either provide limited automation of simple repetitive tasks through Robotic Process Automation (RPA) or legacy rule based automation tools that are not scalable in the data and API driven world that enterprises want to go to.

Software applications for the last decade was mostly to service human decision making and simplify/improve traditional workflows. With the rise of BOTS and BOTS economy, it is possible to rethink the enterprise architecture to include a layer of bots that will drive automation and tasks that will involve some simpler decisions that humans make today. Botprise Hyperautomation platform is designed ground up to leverage data to drive the workflows through smartbots that will make simpler decisions and also collaborate with humans. Over time we expect other bots to communicate with and interact with these smartbots in the enterprise context.
Security Operations are Expensive

Let’s take the example of a small enterprise seeing 100 security alerts per day. An average of 30 minutes is the TTR per alert. Leveraging Botprise, time and thereby costs are reduced by 30% and to as much as 85% over time.

100 Alerts/Day
$2600 Per Day
$949k Per Year

Cost per alert $26 (North American Average)

85% saving
Enterprise Automation Opportunities

Hyperautomation enables business process automation by combining the process flows and data between multiple applications with the decision making capabilities of artificial intelligence and machine learning. Smart bots are making the simpler decisions that humans are delegating to the bots to drive enhanced customer experience.

Hyperautomation opportunities extend across enterprise functions from IT Operations to Sales and Marketing, Finance and HR. Enterprise architecture will rapidly evolve to include the smart bots layer with hyperautomation capabilities to provide agility across multiple applications within the function and across multiple functions.

Enterprise Automation Challenges

- IT Operations are converging rapidly with increasing complexity and costs
- Complexity of multiple tools with a lot of manual steps
- Challenges in dealing with cloud, open source and legacy tool services
- Enterprise architectures are designed to human actions with limited automation of discrete tasks with RPA
- Legacy automation approaches with scripts and rule-based are failing to meet requirements
Key features

**Smart Bots**
Smart bots learn IT operational issues and apply the right workflows to resolve them including involving human in the loop as needed for information and decisions.

**Automated Operations**
Botprise AI driven automation helps enterprises autonomous IT Ops and DevSecOps processes at scale both on-premise and in the cloud.

**Bot and Domain Analytics**
Continuously monitor, analyze and optimize smart bots performance and relevant domain analytics through analytics that deliver key KPI’s on performance.

**Auto Remediation**
Botprise smart bots read ticket information and other data to understand the intent to take the appropriate remediation to resolve the issue, gather/analyze relevant information or updating the user with additional information to solve the issue quickly.

**Smart Workflow Studio/Intelligent Decision Studio**
Operational teams can easily design their workflows with Botprise drag and drop studios using automation units (BAU) and decision units (BDU) to build complex workflows for different situations with scalable and reusable BAU and BDU.

**Integration Mesh**
Botprise platform is integrated with ITSM (eg: ServiceNow), Monitoring systems (eg: DataDog), collaboration (eg:Slack) tools with an open integration framework to seamlessly integrate with all your on-premises/cloud infrastructure and applications. 400+ integrations are supported!
Botprise Smartbots and Catalogs

a. Botprise Smartbots

- BDU - Botprise Decision Unit
- WF1 - Workflow Step 1
- BAU - Botprise Automation Unit
- BWU - Botprise Workflow Unit

b. Scalable Platform and Use Cases

- Botprise Units:
  - BDU
  - WF1
  - BAU
  - BDU
  - BWU

- Smartbot Catalog:
  - ✔ Smart Ticketing
  - ✔ Security
  - ✔ Cloud Ops
  - ✔ Customer Experience
  - ✔ DevOps/SRE
  - ✔ Testing/QA

- Benefits:
  - ✔ Re Use
  - ✔ Drag and Drop
  - ✔ Leverage AI/ML
  - ✔ Build Simple to Complex Bots
  - ✔ Large Enterprise
  - ✔ Automation as a service
Incident Response

Any action on a security incident or alert involves people, process and tools. Botprise smartbots can perform the tasks that people do (playbook automation), emulate your incident process programmatically (with workflows) and work with all your tools (with our integration mesh) to give you the digital workforce to complement your security operations. Automate your incident response with our smartbots and see how your team performs better!

Cloud Security

Is my cloud secure enough? You want deep insight into your cloud landscape’s security posture. Compare all your cloud assets with industry and cloud provider security best practices and know where you stand. Our smartbots does the work of comparing hundreds of rules against every cloud asset and reports non-conformances. You can use our remediation smartbots to close those security gaps as well.

Cloud Compliance

Botprise’s compliance bots come equipped to run compliance assessments with over 200 rules to assess you cloud’s PCI compliance effectiveness. What’s more, you can even write out custom rules as automation units and integrate them into your assessment runs. These smartbots can be activated either manually or at the instance a change is performed on your cloud infrastructure. The bots can continuously monitor your cloud infrastructure and detect policy violations on the run. Continuous compliance achieved!

Patching

Botprise patching workflows can work with your vulnerability tools, work with your ITSM to open change requests, seek approval and deploy the patch. Further to patch deployment custom testing workflows can test the infrastructure (for performance or application availability) and certify the success of the deployment. If testing is not successful rollback workflows can be brought into play to revert the patch deployment. Imagine doing this across hundreds or thousands of your devices. Time, cost and effort saved!

Botprise Customer Value Addition

Our customers are realizing over 50% savings in costs and 90%+ time savings through use of Smartbots and Hyperautomation.

Automate existing workflows and data with Botprise Automaton Units – Enterprises have made significant investments in designing workflows and monitoring/security tools. However they fail to realize the benefits with lack to automated processes for driving closed loop process automation due to lack of automation between various tools with costly human involvement for even repetitive tasks

Drive precision with Botprise Decision Units – Leveraging AI/ML on the data that enterprises have around their process is challenging and Botprise Decision Units enable easy to use decision units that can be incorporated in workflows to drive precision in execution

Reduce human error and speed up execution – Over 90% of outages or security events are due to human error and Botprise automation reduces the human error and speeds up the execution. Enterprises generate a lot of data that is not humanly possible to be analyzed for improving customer experience and Botprise provides an easy to use, open framework and tools to leverage the data in all areas of IT Operations and DevSecOps cycle.
Automated Incident Response - Use Case

Problem statement
Many organizations lack the resources and staff needed to tackle the growing number of threats to their organization. In large organizations it is typical to have between 10,000 and 100,000 security alerts every day. Based on the severity of the incident it can take up to 30 minutes to manually investigate a single alert. The sheer volume of alerts and the rate at which they arrive makes investigation humanly impossible, thereby most alarms end up not being investigated. First line analysts rely on playbooks for response management, but with increased volume alert management suffers and becomes highly inefficient.

Outcome
An automated incident response solution provides organizations with the tools to model and automate many of the manual and time-consuming response processes. Botprise can work with your current security event management system(s) and integrate each alert with workflows that represent a playbook execution model specific to the alert type. No more is volume a concern nor is there worry of missing out on responses. Be it, cross referring to threat intelligence sources, investigating incidents involving log analysis, updating tickets, gathering metrics, creating reports, sending email alert, escalation or resolving alerts, get it all done on Botprise.

Alerts are investigated or responded to. No stones left unturned. 100% retained actionable knowledge created

Reduction in time consumed or involvement by teams responsible security alert management. Consequent reduction in analyst toil/burn out, improved morale and retention

Reduction in cost of managing a security alert. 70% and upwards costs reduction over a period of time and with more alert type responses process being automated
Cloud Security - Use Case

Problem statement
A global company has a large and distributed cloud-based (AWS) application deployment. They use cloud for the test, pre-prod and prod environments. Due to the continuous requirement to add features and release new updates to their application, their cloud infrastructure is constantly scaling and evolving. This put immense pressure on the teams responsible for cloud security as the assessment & remediation was purely performed by skilled staff at that point. Delays here meant delays in feature release or new application rollouts.

Outcome
With Botprise’s Security Smartbot deployed, discovery of cloud assets, security assessment runs and reporting is now fully automated and can even run more frequently or upon security events arising without consuming valuable resources time. What’s more, is that the Smartbots are able to inform the security teams on the security gaps identified and re-run assessments when fixes to previous non-compliances are performed, thereby ensuring that the cloud infrastructure is secure and compliant at all times. Notifications and remediation actions were automated on the Botprise automation framework.
Cloud Compliance - Use Case

Problem statement
A global retail chain that hosts 100s of applications in an ever growing multi-cloud environment. With PCI DSS or cloud security compliance mandate in such an environment, manually performing compliance checks once or twice a year was no longer acceptable. Moreover, there was a need for building an automated compliance framework to ensure the compliance requirements are being met across the cloud deployments, no matter where the data was stored, transmitted or accessed.

Outcome
With Botprise’s Compliance Smartbot deployed, the organization’s compliance process was re-mapped to automation workflows Botprise. This helped compliance and governance become an automated, repeatable and a more reliable process. The Smartbots were modelled to use specifically designed PCI DSS and cloud security compliance bundles comprising of over a hundred checkpoints. Each assessment run performed against the cloud assets reported a pass or a fail and identified what policy changes need to be made in the environment to stay compliant at all times.

- **100%**  
  PCI DSS and security compliance with automated assessments triggered manually, specific times of the month or by a cloud infrastructure change.

- **90%**  
  Reduction in time consumed by teams responsible for cloud compliance.

- **70%**  
  Increase in reliability and reduction on errors in the compliance and governance process.
Automated Patching - Use Case

**Problem statement**
Most organisations have vulnerability scanning tools in place to scan their infrastructure on a regular basis. These tools typically generate reports that run into hundreds of pages that must be analysed and turned into actionable information. The security teams perform the tedious, time-consuming task of analysing the reports and planning their remediation which includes mapping the vulnerabilities to the infrastructure involved, mapping them to a patch, analysing vulnerability severities, determining which business services are at risk, setting priorities, initiating the change management process, deploying the patch, verifying successful installation, and closing it out in the change management system. It’s obvious how resource and time intensive this process is.

**Outcome**
Most vulnerabilities can be addressed with a patch, configuration change, or image update. Often the major obstacle is the time and manual effort involved. Using Botprise in automating the patching deployment process along with integration to your vulnerability management system can help streamline this process, speed up remediation efforts, and save costly resource time at the same time. Furthermore, with Botprise’s other automation capabilities such as automated change management, testing and patch rollback you can ensure that your patch deployment is in-line with your organisation’s process and successful.

- Elimination of human effort in the patching process, success rate with patch deployment (roll back if testing fails) - 100%
- Fewer security breaches - 70%
- Reduction in cost of patching and compliance - 50%
Conclusion

Botprise Hyperautomation Platform and Solutions free up expensive and high-value resources, FTEs, from more manual and repetitive tasks to put them back on the front line assisting your customers. Smartbots and Hyperautomation have the great potential to bring about significant changes in the enterprise applications and process architectures to drive significant competitive advantages and cost savings. Botprise Hyperautomation platform with Smartbots, will automate your workflows, leverage your data for driving precision to workflows, reduce human error and speed up execution of your business processes.

About the company

Botprise Inc - Hyperautomation Platform for IT Operations - We are enabling agile enterprise in Hyperautomation using smart bots with advanced AI and workflow automation.

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