AUTOMATION – AN IMPERATIVE TONIC FOR SERVICE OPERATIONS

Executive Summary

This article illustrates the need for IT automation. In this article, Balbhas explores various aspects of IT automation and highlights its unique automation framework called ***B-Bots™***. This framework essentially contains a robust ***automation diagnostics***, automation solution development and automation implementation methodologies. An **automation catalogue** is built as a repository of automation good practices to reuse the automation components for various customers.

1 Background

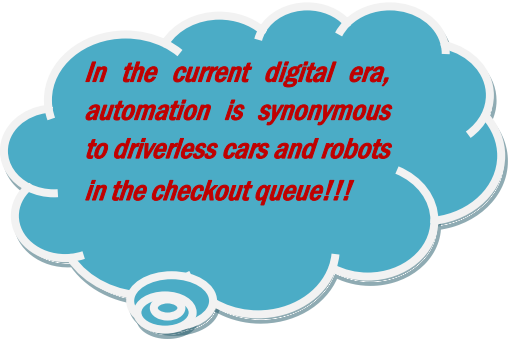
IT is the least automated department in many business firms. More than 30% of efforts in infrastructure and application management go towards non-value added activities, rather than on planning and resolving business critical issues. These activities would include responding to minor user incidents, carrying out routine procedures or checking for errors, responding to simple queries, checking for daily activities etc.

> *"The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency"……Bill Gates*
>
> *"As technology advances, it reverses the characteristics of every situation again and again. The age of automation is going to be the age of 'do it yourself'"……Marshall McLuhan*

There is a pressing need to eliminate these labour-intensive, manual interactions, inefficient activities by means of mechanizing the core IT backbone such as systems, networks and applications. We don't want to under-utilize a human being for such low-end tasks!!! In the current world of competition and with stringent cost pressures, many of the aforementioned activities are ideal candidates for either ***elimination*** or automation. While certain activities are bound to happen on a frequent basis, *the other non-significant activities can be once-and-far-all killed (eliminated)*. This article focuses on those automatable activities.

2 Automation in Balbhas™

Balbhas™ is one of the thought leaders in revolutionalising the IT and Business processes. Balbhas™ is destined to provide greater economies of scale and higher return on investment (ROI) for customers. Balbhas considers automation is a key means to achieve these. The focus of automation would be on automatically streamlining data, eliminating manual data entry, reducing the steps needed to fulfil an action or doing that action seamlessly by the machine and multi-tasking.



Some of the most common pain points we have experienced are:

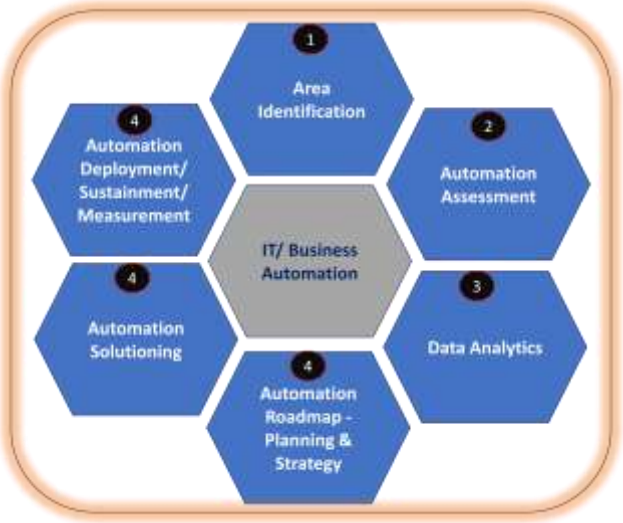
- Loss of productivity due to task switching
- Managing workloads
- Manual intervention of systems sizing
- Too much human involvement in break-fixing
- Lack of team collaboration
- Too much of manual data handling
- Lack of customer behaviour analysis
- Manual document management…

3 Balbhas Framework

Balbhas has evolved an automation framework called "***B-Bots***^{TM}" that steers the IT and Business Process automation in a scientific manner. It focuses on ***the systems that do, think and learn***. This framework caters to the following objectives:

- *Be Scale up* - Automate a large variety of processes and systems across an enterprise
- *Be Faster* – Do the automation quickly and reliably
- *Be Flexible* – Make the automation flexible enough for various processes and systems, making the investment economical and widespread
- *Be Adaptive* – Be nimble, agile, respond to any change
- *Be Secured* – Don't compromise on security and compliance aspects

The ***B-Bots***^{TM} framework revolves around 6 building blocks.



1. As customers may not fully know what to automate, it is important to identify the specific area, process/sub-process where automation can significantly yield solid effort savings and maximize operational efficiency. Examples: Service Desk, User Access Mgmt. Since automation can be a potential hotspot in many domains/ portfolios/ business units, it is important to enumerate the scope for automation. This will answer questions such as: (a) why we need to automate; (b) what we need to automate; (c) what savings we can derive; (d) what timelines are needed
2. The assessment module ascertains the "*automatability*" of certain existing processes/ systems. This assessment is generally performed by an Automation Champion, who does the assessment for a given customer engagement by discussions, review of reports and other facts & figures. This assessment is designed to easily automatable cases such as "automatic conference call".
3. Besides the automation assessment, a deeper analysis of the operational data is a good means of detecting the cases for automation.
4. Once the automation areas/ processes/ sub-processes/ activities are determined, it is important to plan and strategise in terms of investment, resources, tools, timelines etc.
5. Once the Automation Expert gets the buy-in from the customer, s/he sets the seed for automation in terms of automation SPOCs within an engagement to support him/her to evolve the automation solution. Automation Catalogue is referenced for ease of solutioning and reuse of the contents/ algorithms.
6. Once the solution is created/ tested successfully, the Automation team deploys the solution in either a small scale or across the enterprise, ensures the continuity of business.

3.1 Automation - Why is a proactive approach needed?

As a leader in Managed Services market, Balbhas^{TM} is committed to provide productivity improvements to our customers. Balbhas views automation as a proactive rhythm ingrained in service delivery eco-system.

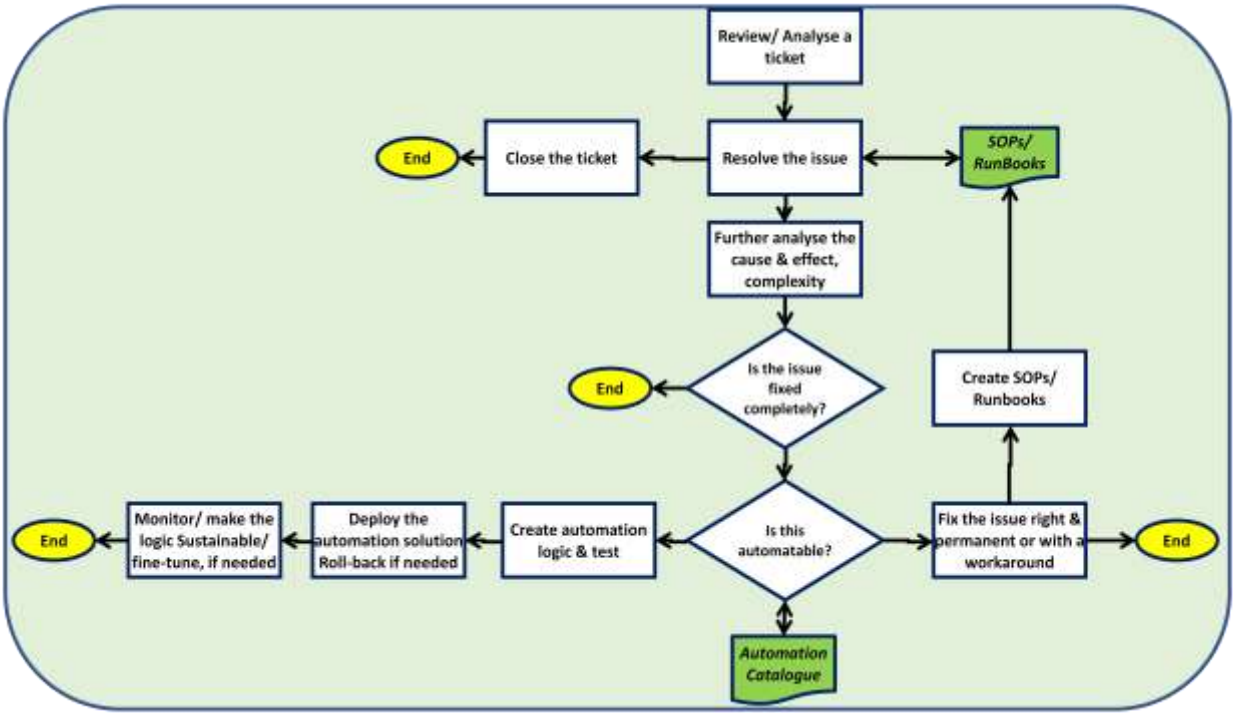
This approach involves a periodical diagnostics of IT processes, IT systems and human resources to detect the areas of inefficiencies or wastages as potential automatable areas.

This assessment is carried out in the customer environment in a dedicated manner with a lot of rigor and purpose, by an Automation Expert. It covers, but not limited to the following:

- What are the processes (IT process or business process) good candidates for automation?
- What are the prime sources of inefficiencies and wastages?
- What are the main delivery pain points that negatively impact the service delivery staff and the customers?
- Are the application interfaces cohesive and information exchange between the applications is fast and robust?
- What is the current level of maturity in terms of ticket life cycle management, assisted/ unassisted trouble-shooting, systems behaviour & performance?
- What will be the potential benefits if inefficiencies and wastages are ironed out?
- What processes/ systems would be suitable to start the automation pilot?
- …….

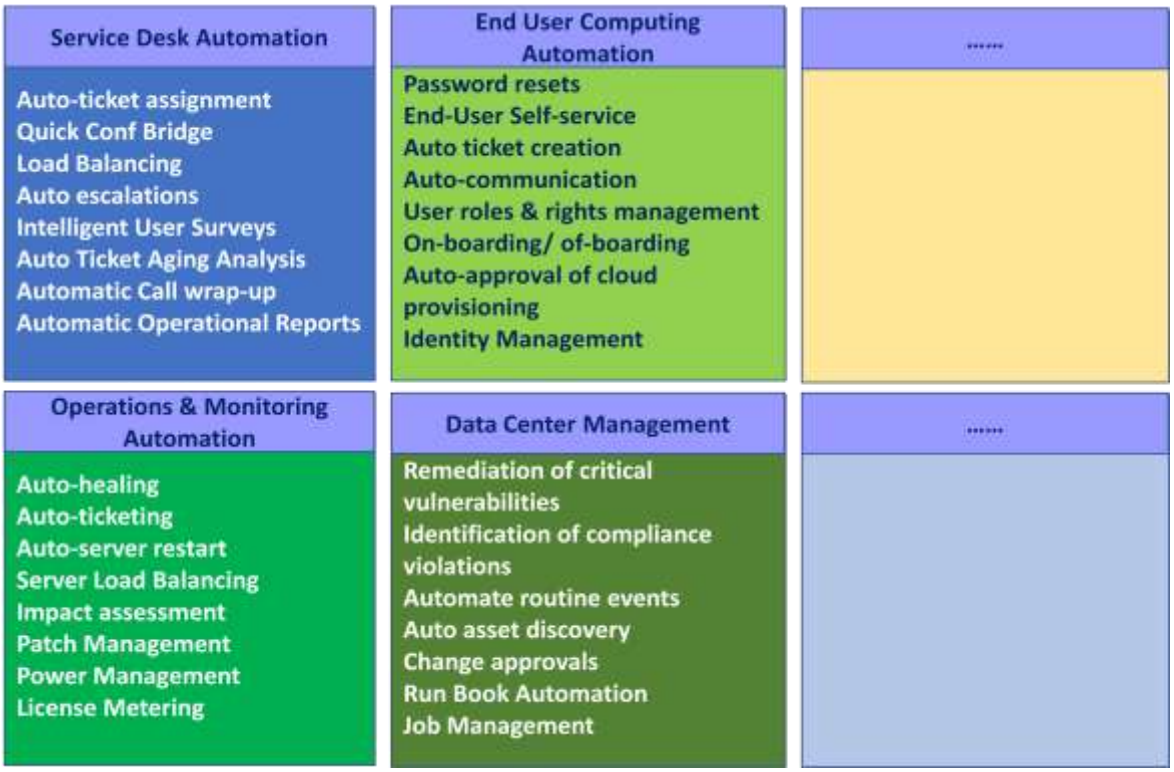
At the end of this assessment, the cases for automation are identified, finalized and an automation implementation roadmap is evolved.

As we cannot get all automation opportunities in a proactive manner, it is very logical to sense the automatable opportunities by looking at the operational transactions, on an on-going basis. Balbhas uses an "*automation sensing*" process (as shown in Figure). This process is designed to work at a resource level or lead level. The intent is that once a ticket is resolved, the lead or agent needs to verify if the issue needs to be eliminated or automated. The "***B-Bots***^{TM}" framework recommends creating a new "*automation ticket*" for every automation opportunity, deduced by this "***sensing***" process.



3.2 Automation Catalogue

An Operations Manager should always be concerned about the automatable areas. Hence, knowledge on known automation examples is very useful to keep the automation initiative in motion and rapid. For a quick understanding, some of the automation areas and the automatable opportunities are shown here.



Based on its experience, Balbhas™ has evolved the Automation Catalogue that contains standardised solutions for certain automation opportunities. This catalogue contains a pre-defined list of automatable activities in several process-technical-functional areas. The table shows an abridged version of the automation workflow.

Area of Automation	Component/ Item	Specification	Data Involved	Automation Workflow
Service Desk	Quick Bridge	Quickly open the conf bridge & make the required participants to join automatically	P1 incident/ Confirmed Outage SLA breach Security Incident	Service Desk Lead/ Incident Mgr. confirms the P1/ Security Incident situation → SLA breach is likely to happen → S/he decides to declare emergency & invokes conf call → Tool sends auto-messages to the leads in shift & their next upper levels → Once everyone is alerted, within 30 seconds, an automatic call is initiated. → By accepting the call, required participants join the conf bridge on-time, automatically
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Systems Monitoring	Disk space	Addition of disk space, based on the current usage and time	No of users Disk space available/ used Current time	
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4. Selection of Automation Tools

There are various automation tools available in the market. How to select a tool, on what basis? For example, if we are attempting to choose one tool for test automation, the selection should be based on what we want to achieve:

- Improved test effectiveness
- Improved quality
- Increased test coverage
- Reduced time to run repetitive tests
- Effort/ Cost Saving

In general, the parameters to be applied in selecting the automation tools are:

- Ease of adoption
- Degree of coding/ scripting/ configurations needed
- License cost
- Level of vendor support
- Report generation capabilities
- Ease of metrics gathering
- Compatibility to various browsers/ operating systems
- Multi-Device support

A brief note on some of the frequently referenced tools in the market:

Ayehu eyeShare is a light-weight IT toolbox that lets one to automate IT processes within hours by using visual workflows and several pre-built activities

UIPath is a leading platform for Robotic Process Automation

Arago is a pioneer in the field of artificial intelligence and one of few companies worldwide to offer a commercially proven general artificial intelligence platform.

WorkFusion - Cognitive Automation is one of the tools in WorkFusion's automation toolkit. Paired with RPA, Cognitive Automation can automate more complex judgement activities like data entry and reconciliations, even when unstructured data is prevalent.

5 Concluding Remarks

As we need to justify the investment in automation, it is important to capture certain metrics to determine whether automation is valuable or not. Balbhas™ proposes to measure the automation maturity at various levels such as project, portfolio, engagement, business unit etc. Some of the KPIs prescribed for automation are:

- Automation Maturity Index
- % reduction in effort in a period
- % reduction in resources in a period
- Number of failures related to automation
- Number of active "bots"

The success of automation depends not only on the technology, but also, on

- Tighter Governance & Control
- Appropriate Tools, Partners and their continued support
- Adherence to Security & Compliancy requirements
- Presence of Automation-specific roles in service delivery