Point of View

Automation of Business Processes: Just like an Iceberg

Automation Is The New Fabric For Digital Business

Technologies Converge To Create New Opportunities For Holistic Automation

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FORRESTER

In June 2021, Leslie Joseph and his team of analysts at Forrester (a leading research and advisory company) published a report* where they coined the term "Automation Fabric." According to them, it is where diverse automation options coevolve and converge into a broad weave—a "fabric"—that sits above the application layer and enables business users and non-coders to build bespoke workflows and functionality.

Simply put, it is the amalgamation of multiple automation technologies to achieve an inclusive digital business transformation. If one were to look deeper into the business transformation journeys adopted by a few automation pioneers, this automation fabric pattern will come to light prominently in each of them.

But it is not a common pattern across all automation initiatives. Most businesses only chalk out a business automation roadmap but overlook IT automation (referred to as AIOPS in the industry), a critical element for digital-led transformations to be fully realized. Automation can be broken down into two broad areas

Automation =
Business Automation + IT Automation

But often, organizations tend to focus on just the business automation piece like the Automation of customer support or a financial reconciliation process. It is like they view Automation as only the portion of the iceberg that is above water. That is why despite all the effort in making manual business processes automated or digital, the true value of digitalization is either not realized or is not consistent.
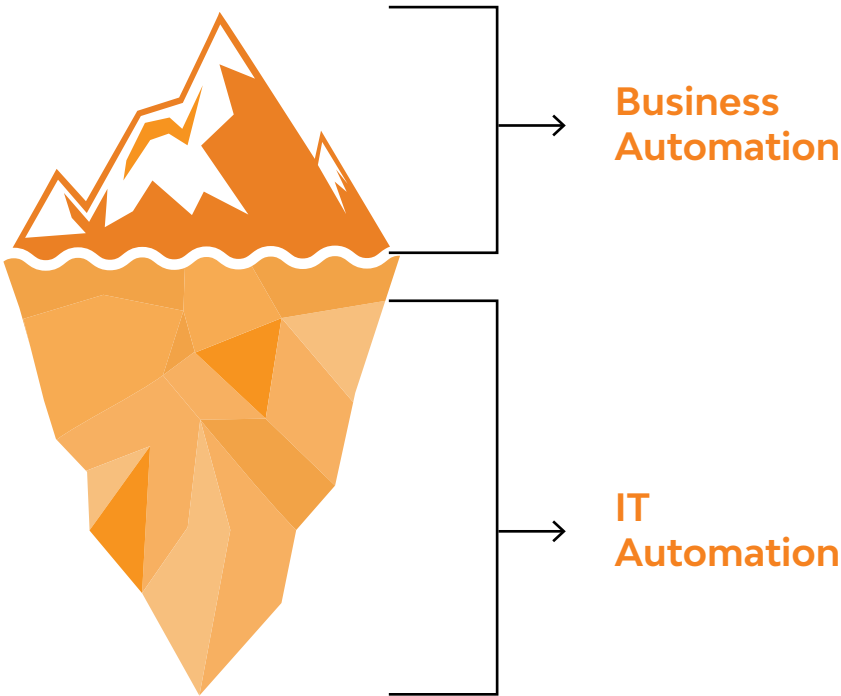

Business Automation
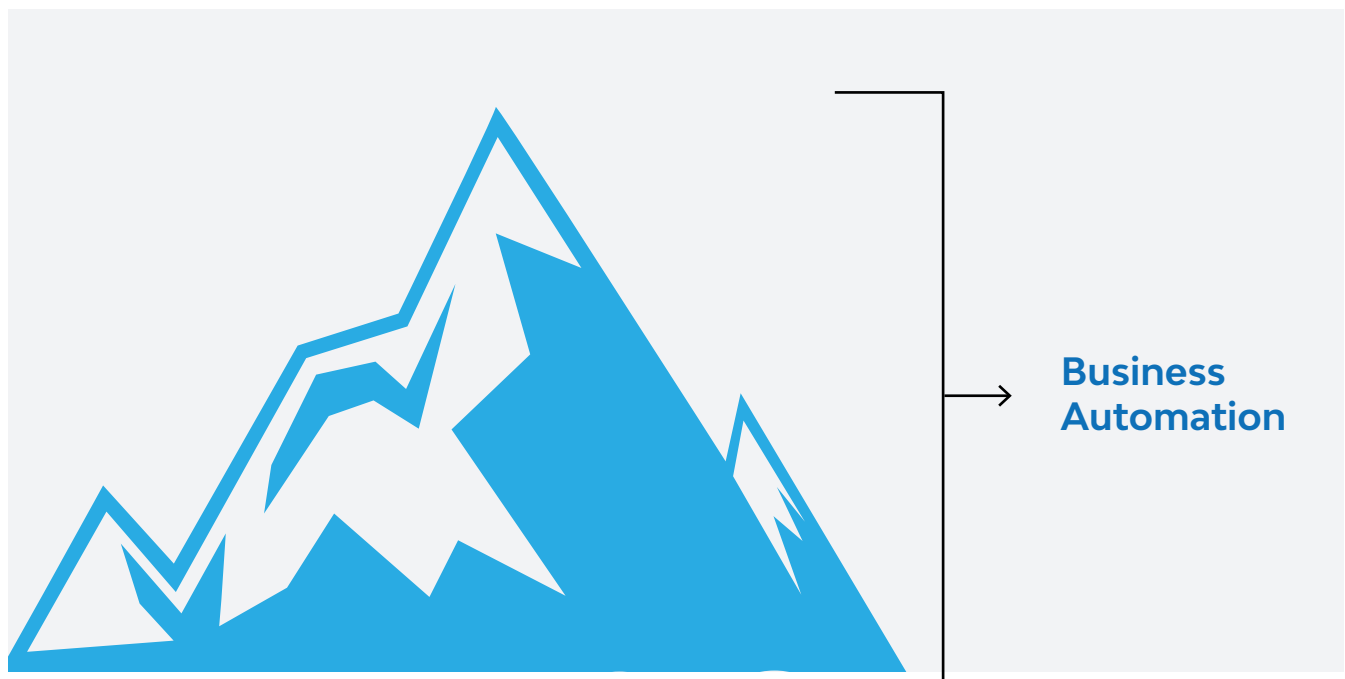
Let us take an example of a large toy manufacturer that focused only on business automation and understood what went wrong there. Its HR Head (let's call him Dylan J) was excited as he was a specialist in new technologies. A few months ago, he seemed rather pleased cutting a cake at his organizational event. It was a party organized to celebrate the launch of his automated payroll platform. The platform was built to automate the HR payroll process, and Dylan was the brains behind the project. With great pride, he introduced the platform to all present at the event "...So you see, going ahead, the system automatically reviews the employee timesheets and validates their salary structure to compute the final amount to be credited. It then auto processes it to every employee's bank account," he said as he bit into another piece of cake.

But weeks later, his stomach was hurting, and it wasn't because of the cake he had eaten. The payroll platform had encountered a major failure, and by the time the issue was identified, it was too late. A payroll fiasco that just occurred. Some of the employees were underpaid, and some were yet to receive their paychecks even after the due date. What was probably keeping Dylan sane were the prayers of those whose accounts were credited with a higher amount than they deserved.

Now there wasn't any fault in Dylan's reformed process. If anything, it was revolutionary with high amount of effort-saving and the accuracy it provided. Yet, like Dylan, several senior executives have had to deal with failures in their envisaged automation of processes. The reason – a focus on only business process automation. They viewed Automation as the tip of the iceberg. And the impact of such a narrow-minded view can be worse. In the above example, it was a single business process that failed. Imagine when business processes become more integrated, and a single failure has a ripple effect.

Therefore, business organizations need to start holistically planning for automation programs by emphasizing IT and business automation.

Business Automation

IT Automation

But why is IT Automation or AIOPS equally important, and how can it prevent such automation failures as described in the above example. First, let us take a deeper look at these automation elements and how they can help businesses.

Business Automation

Simply put, business automation is the ability to automate business processes that would have been earlier carried out by the organization's employees manually. Business automation can be achieved in multiple ways. It could be through the adoption of RPA (Robotic Process Automation) to execute repetitive processes that business employees otherwise performed. It could be through the adoption of AI (Artificial Intelligence) for processes requiring cognitive skills, or it could even be through the adoption of IoT-based technologies to enable data exchange between devices and fill the missing thread for end-to-end process automation. Few of the most common use cases of business process automation include

> Vendor Invoice management and processing

> Automating HR processes like recruitment management or onboarding

> Inventory management, including reordering

> Automating documentation such as the Bill of Material

The Forrester report*, as introduced at the start of this document in fact highlights how businesses are adopting multiple automation options which they see converging into a fabric

Now the way this is done will differ as per the organization's business needs and IT landscape. So its best to first assess the individual clients' landscape & goals and enables business automation by tapping into the relevant threads of the automation fabric like RPA, BPM, OCR, NLP, and ML.

IT Automation

The second piece of Automation is IT automation or AIOPS. By and large, it refers to the use of automation techniques to ensure the high availability of the underlying applications and systems on which business processes automation are built. Here enterprises move towards 'DIGITAL IT Operation' by leveraging Artificial Intelligence technologies in IT Tools & Automation to gain benefits like

> Optimized TCO and operation metrics

> Enhanced information security & regulatory compliance

> Enable-IT enterprises to provide 'Business persona' centric IT services

> Reduce Human dependency and other operational risks

IT Automation can be broken down into two major categories, i.e., IT Automation for applications and IT Automation for infrastructure

IT Automation for Applications

Adopting automation technologies like AI/ML and big data in application monitoring and maintenance activities ensures that business applications operate uninterrupted. So unlike traditional application maintenance, where resolutions were primarily reactive and mostly manual, there are opportunities for issue prevention or proactive/automated resolution with IT automation.

In short, it is akin to vaccinating your IT operations to prevent them from failing, or in case they do fail, to deliver a faster resolution, made possible through interventions like

> Proactive monitoring and reporting of potential application failures

> Faster resolution of application errors

> Preventive solutions through identification of recurrent issues

And just like business automation, the possibilities of IT automation depend on the organization's IT landscape and its IT partner. The tools or platforms for IT automation are also other factors that need to be considered. Some platforms cater to different use cases and should be adopted if these are the biggest challenges business IT teams encounter.

An ideal partner is one that offers bespoke AIOPS solutions with a mix of 3rd party platforms as well as proprietary platforms. that it has built where whitespaces exist in IT automation or where other 3rd party platforms ddont offer a significant advantage.

IT Automation for Infrastructure

As in the case of applications, IT Automation for infrastructure refers to adopting automation techniques to ensure no/minimal failure within the infrastructure layer that supports the business applications. Landscapes today are becoming more diverse with a mixture of cloud and on-premise hosted applications. Likewise, as business processes get more integrated, their underlying applications cut across multiple varied infrastructure elements. As a result, enabling AIOPS or IT automation for infrastructure becomes important. Some of the examples of IT automation interventions for infrastructure include.

> Reduction in time for infrastructure changes & unplanned downtime

> Automated provisioning and scalability

> Automated resolution of infrastructure environments

There are multiple 3rd party applications and platforms through which business IT teams can enable this.

What makes IT automation equally important

While business processes are getting automated, the applications and infrastructure on which these business processes run mustn't fail. So, the flawlessness of the systems running these business processes is the key to achieving that reduced time to market or lower delivery time. The best way to keep the systems from failing is to prevent issues or let the system automatically resolve them, or enable your support team to resolve them faster. **In short, you need IT Automation for improved top-line/bottom line or customer service.**

And combined with business automation, it can also offer a significant advantage to a business organization.

Business + IT Automation = Automation Fabric

When organizations focus on business and IT automation, they begin to attain a complete automation fabric that offers value over long periods, involving different levels of investment, but the returns can well justify these. By combining both pieces of Automation, businesses can derive numerous benefits. Some of those include

On-Time Delivery and not just one-time delivery

While the business automation accelerates process execution, the adoption of AIOPS will ensure that it stays that way consistently.

Dylan J, whom we met with earlier, didn't sulk from that payroll fiasco. He analyzed what went wrong and realized that the system issue was not too grave or unique. It was the time by which they identified the issue that prevented them from acting in time and stopping the disaster. If the toy major had a good AIOPS mechanism in place, the payroll platform integration failure would have been highlighted to the IT team much earlier. With proactive monitoring, an anomaly would have automatically been detected. The system would have then notified the IT team along with a self-resolution request for approval. And all of this would have occurred in a matter of minutes. The following month Dylan worked with his IT partner to create and implement a robust IT automation strategy. It has been months since that issue, and it is not that there haven't been other errors since then. And, in Dylan's words, "they seem to automatically disappear."

Business transformation but with reduced TCO

With an integrated automation journey, while the business processes get digitalized and transformed, there is actually a reduction in TCO (Total Cost of Ownership). Because not only are organizations able to reduce their IT staff, but they also ensure they are not scaling up with the increase in business automation efforts. Thus, what is reduced at one end isn't getting added to the other, which is a blindside that organizations often ignore.

Keeps the organization nimble

Organizations benefit from being flexible and pragmatic in their digital transformation journey. As business process automation interventions are planned, they can be realized quicker with IT automation levers like DevOps-led Automation. As a result, changes can be quickly adopted or previous processes resolved in case of failures with no impact on customer service.

Scalability

Another important value through an integrated automation approach is the ability for organizations to scale up their automation goals due to the availability of bandwidth for IT operations teams. The IT operations teams can now be part of business strategy workshops and act as strategic advisors to the business leaders on automation technologies instead of just IT issues resolvers.

What it takes to achieve
Business + IT Automation

Now we have looked at how Automation needs to be holistic to prevent failures and gain significant value add, and how one can adopt it. The way business and IT automation can be achieved is multi-pronged and is dependent on several variables. But here are some best practices that can be considered to achieve this all-inclusive Automation.

Invest in Pre-planning

While it is common knowledge and an existing practice to first lay out a strategy for business automation, it is also imperative that organizations also assess the maturity of the underlying IT applications and infrastructure in advance or in line with the business automation assessment ensuring that the gaps, if any, can be cemented in time to meet the requirements.

Adopt a Big Picture View

Organization should have the business transformation plans validated by the IT operations managers. If there are external partners responsible for the IT operations, it can help to gain their perspective too. It enables these teams to be onboarded early and to voice their opinions from an IT operations perspective. At times business-sponsored initiatives might be short-term and based on technologies that may not be scalable. For example, the IT operations team may have heavily invested in a public cloud provider considering its scalability and suitability, and if the business is planning to adopt another PaaS (Platform as a Service) cloud provider to create a solution, it creates a mess.

One Jersey approach

It is good for the business and the IT automation team to work together and not in silos, helping have all automation interventions centralized and consistent across the organization. It also ensures that the IT automation roadmap is then aligned towards the respective digitalization plan. For example, the IT operations team can assess and plan the cloud monitoring processes and gaps if procurement moves to the cloud. Author Swati Kamat *in this PoV on 'Sustaining Automation'* highlights the importance of having a Central Automation Team (CAT)

Look for unified solutions

Where ever possible, it is necessary to identify a single or integrated platform that can deliver business and IT automation, which will help minimize the investment in multiple platforms and tools. While the scope of these solutions is limited, it will help to minimize the TCO and be easier to manage such solutions where they do exist. The Canvas BRAIO is one such Automation Orchestration platform with the capability to automate end-to-end 'Business + IT Operation process workflows with multi-tenancy

Don't get sold on tools

While organizations plan their automation journeys, they should not blindly adopt them to support the journey. They must conduct proper due diligence, preferably with their automation partner, to decide what platforms to leverage or invest in. Also, the AIOPS as a platform must have the ability to integrate Processes, Persona's, BOTs, Tools, Data, and other platforms seamlessly

But watch out for those roadblocks

However, bringing the automation fabric to life is easier said than done because It is not about deploying a team of technology ninjas or deploying automation tools or getting management sponsorship but a combination of multiple factors that need to be in sync. Here are some of the common barriers that can be anticipated

Change Management

One of the biggest barriers in a holistic automation program is the element of change management. Most organizations do anticipate and strive to manage business user change resistance in business automation programs. But there are seldom such initiatives planned for IT automation engagements owing to the misconception that IT teams won't encounter a change in their working methods with a new monitoring or alerting platform. But, the reality is that IT Automation is not just a replacement

of tools but also involves a human element. Thus, all automation programs must always factor in a plan to manage resource change resistance. Here employee training programs can also help. One method is establishing an Automation academy with simulation-based training model for resources in Artificial intelligence & Automation

Lack of management sponsorship

Organization leaders always get excited about business automation initiatives because there is a direct link to a reduction in inventory or improvement to other business KPIs. However, the excitement withers when probed about IT automation initiatives. Unless an organization has encountered a bad experience due to IT operations failure, there isn't enough seriousness and support towards IT automation. Here CIOs and IT leaders need to guide business leaders by linking the impact of AIOPS to the business KPIs to get the management buy-in

Gap in expectation and reality

In this article, author Navin Singh explains how there is still a limited understanding of the AIOPS amongst organizations and, as a result leading to a gap between how AIOPS is perceived and what it actually. This leads to chaos and complexity in the landscape preventing the true value of Automation. It is important that the organization leaders educate themselves on the IT automation landscape and how elements are involved beyond just tools, preferably with the support of the right IT operations partner.

IT considered a cost center

Another barricade to holistic automation programs is the 'IT equals cost' mindset. It inhibits the organizations from investing in relevant automation initiatives. One of the ways this can be avoided is to start with frugal automation solutions and validate the ROI or TCO savings possible to help change the mindset within the organization's business leaders. for example, organizations will find seamless buy-in if they adopt AIOPS solutions that can be easily integrated with their existing platforms and won't cost them to revamp the landscape.

Security

As processes get automated and digitized, there is a constant risk of data and organizational information security. Additionally, regulatory compliance needs like GDPR also need to be adhered to. The automation program needs to factor these elements as part of the solution being realized. And the needs again vary from customer to customer.

Tendency to take a myopic view

In the report* published by Forrester, one of the challenges highlighted is the common phenomenon of companies undertaking multiple automation programs in silos. It highlights an example of a company's finance team adopting RPA while the IT team champions low code or AI and the contact center moving towards chatbots. This prevents the value of business + IT Automation, and leaders should ensure that this myopic intervention is prevented for long-term success.

Conclusion

What processes get automated to what extent and the mechanism to enable it depends a lot on the organization's strategy. But in doing so, it is important that -

> Business Leaders ensure the automation fabric is holistic with equal emphasis on business and IT automation.

> The approach to Automation is well planned, preferably planned with a partner and not just an investment in tools.

The weight of business automation will lie on the underlying systems and landscape that supports it, i.e., the IT automation

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*Report in Reference
Forrester Report on 'Automation Is The New Fabric For Digital Business'

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