



ALIGNING IT TO BUSINESS WITH A NEXT-GEN APPLICATION MANAGEMENT SOLUTION STRATEGY

Organizations are unable to realize business value from their application management services, and associated tools and systems. The reason is that their application management is out of step with their business objectives and goals. Enterprises must build an application management solution that is closely aligned to their business objectives in order to turn it into a key business differentiator.

Today, IT metrics and business metrics are not aligned in most businesses. This is a big challenge when dealing with the fast-moving demands of the global pandemic and the speed of the economy as we open back up.

Businesses are projected to spend about \$235 billion on enterprise application management solutions in 2021. Organizations are investing heavily in these solutions but are not always satisfied with the results. Eighty percent of companies struggle to meet expectations from their existing IT application landscape, according to IDG research.

The issue is that the IT department tends to look at metrics such as application uptime, initial response time for incidents raised, and mean time to resolve them. But these often do not have any direct link to the business value that the application generates.

Moreover, the IT department tends to use a fail-and-fix model. When a problem is spotted, a team digs into the root cause and fixes it. It's a time-consuming, labor-intensive, slow, and costly way to proceed. Also, past experience often doesn't help predict future problems.

Today's digital enterprises need a platform-centric application management services strategy built on these three pillars (see Figure 1):

- Business and IT alignment.
- Focus on resilience.
- A zero-touch approach.

IT needs to align with business

Organizations need to align their application management services closely to their businesses. The failure to connect these sides of the enterprise can often be costly.

A business-aligned application management solution anticipates and identifies anomalies in business processes, resulting from the disruptions in the IT layer, and instantly triggers self-healing automated resolution

For example, a U.S.-based health insurance company once struggled with this kind of mismatch. The firm paid millions of dollars every year in interest and penalties when it missed

business service level agreements (SLAs) for claim settlements. Company leaders learned — after a long investigation — that the combined time of all steps in the company's backend process was longer than the SLA. In isolation, each backend step met its deadlines. But the end-to-end business process had never been measured against the SLA the firm had with its customers and regulatory authorities.

Business-aligned application management can anticipate and identify anomalies in business processes, pinpoint the IT layer causing the disruption, and instantly trigger self-healing automation to address the failure points.

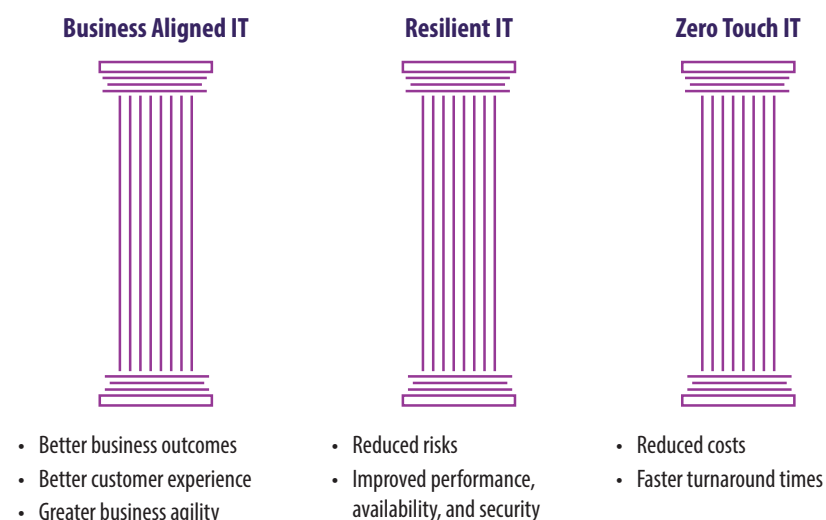
Resilient IT to reduce disruptions

Downtime or slow performance is costly for IT systems, no matter how brief the disruption. Factory operations can come to a halt if the IT system stops even for a few minutes. Retailers can lose potential sales — short and long term — if their e-commerce platform is slow. These risks put enormous pressure on the resilience of IT systems.

Most enterprises have some form of telemetry for the automated monitoring of applications, servers, interfaces, and logs. But this collection is often done in a disjointed manner. Meanwhile, manual analysis slows data correlation and delays company efforts to gain insights and take actions.

Next-gen application management should bring together the real-time monitoring of data, applications, infrastructure alerts, errors, job logs, and tickets. Then it can analyze, correlate, and develop insights. Through cognitive automation, such application systems can self-heal and resolve potential problems before they affect the business.

Figure 1. Infosys' next-generation application management strategy



Source: Infosys



One Infosys client in the apparel and footwear industry faced frequent downtime on its e-commerce platform. Infosys helped the firm install automated probes that continuously monitored the health of the platform, set off threshold-based alerts, and recommended actions. This helped the enterprise increase its sales by 15% over the year.

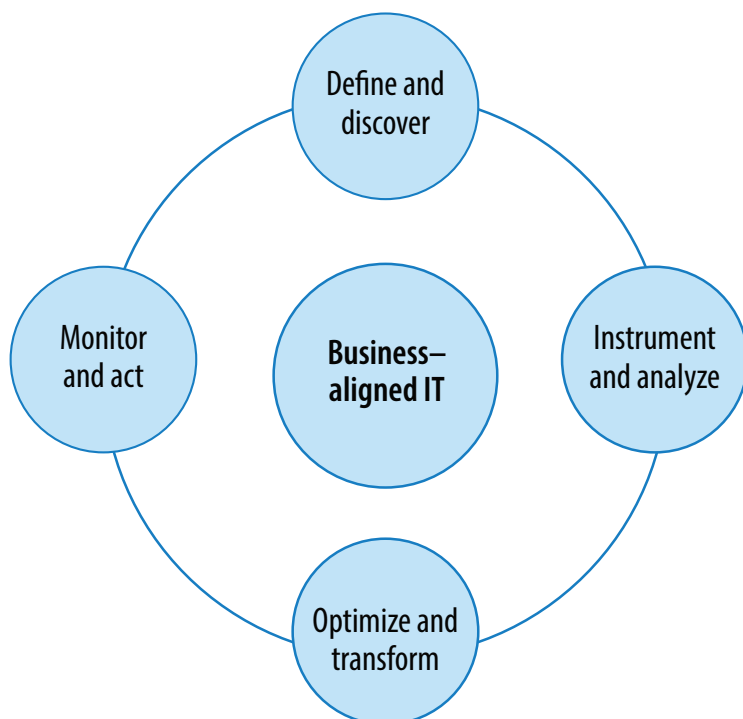
Zero-touch IT

Manual intervention is the traditional way to identify and resolve problems, but this can be onerous and expensive. Automation, can significantly reduce turnaround times and improve the end-user experience. For example, a large banking client of Infosys was able to save thousands of dollars per day by automating the extraction of 20 different types of reports generated for the reconciliation of commercial banking transactions.

AI led cognitive automation can help organizations analyse, decide and act quickly on the data collected from multiple sources

Applying AI and cognitive solutions to identify resolutions based on historical patterns, and correlation algorithms can significantly elevate the benefits of automation. This sort of automation for example can benefit large manufacturers, which often deal with the problems created by having hundreds of invoices stuck in their enterprise resource planning system. The cause is usually either incomplete reconciliation between upstream and downstream applications or unavailability of master data. Cognitive solutions that use machine learning can identify these errors, choose a bot from a repository, and process the stuck invoices without any manual intervention.

Figure 2. Infosys framework to align IT management with business outcomes and maximize value



Source: Infosys

Next gen application management in action

Reckitt, a British consumer goods company, has been recognized as one of the winners of the 2021 Digital Awards from The Hackett Group for transforming their IT operations to Next Gen IT Ops. Reckitt used cognitive automation, advanced analytics, and AI to achieve self-healing and autonomous operations. Reckitt collaborated with Infosys to conceptualize Living Lab – a sandbox for incubating innovations - to drive automation at scale. and transform into an Experience-First and Cognitive-First Enterprise. And the results were spectacular.

The system paid for itself in seven months and gave additional cost savings of 20%.³ Every British pound invested in the program is estimated to deliver fourfold returns over five years. Most remarkably, employee net promoter score has risen from 65 in 2020 to 81 today.

Eighty percent of the high priority tickets are now automatically resolved by Iris, a multilingual, persona-based, omnichannel chatbot. Another 15% are resolved between machines, with no human intervention. Reckitt has also introduced an advanced observability and self-healing capability that it calls Elixir, to improve user experience. Digital Brain, an AI based app predicts

future events, recommends solutions and finds ways to improve service quality.

In a conversation with Infosys Reckitt's service modernization and automation head, Prashant Arora explained the steps Reckitt is taking to future-proof their next gen IT Ops journey. "Elixir is becoming a central place to view and autonomously ensure resilient IT services. Elixir's is being integrated with Digital Brain and automation factory to provide prediction capabilities and enable auto-remediation using AI/ML, RPA techniques. Elixir footprints in Reckitt are set to grow including, but not limited to monitoring of applications, end-user experience, security, digital workforce, infrastructure and cloud."

How to align IT services with business objectives

Infosys has developed a framework to deliver application management services that are aligned to business outcomes (see Figure 2). The framework will allow companies to:

Define key performance indicators (KPIs) for value drivers.

Discover as-is processes, process variations and friction points.

Instrument the infrastructure, applications and processes for observability.

Monitor business health and KPIs constantly, and automate the execution of self healing remediation actions.

Analyze potential failure points, anomalies and deviations.

Optimize and automate remediations for issues.

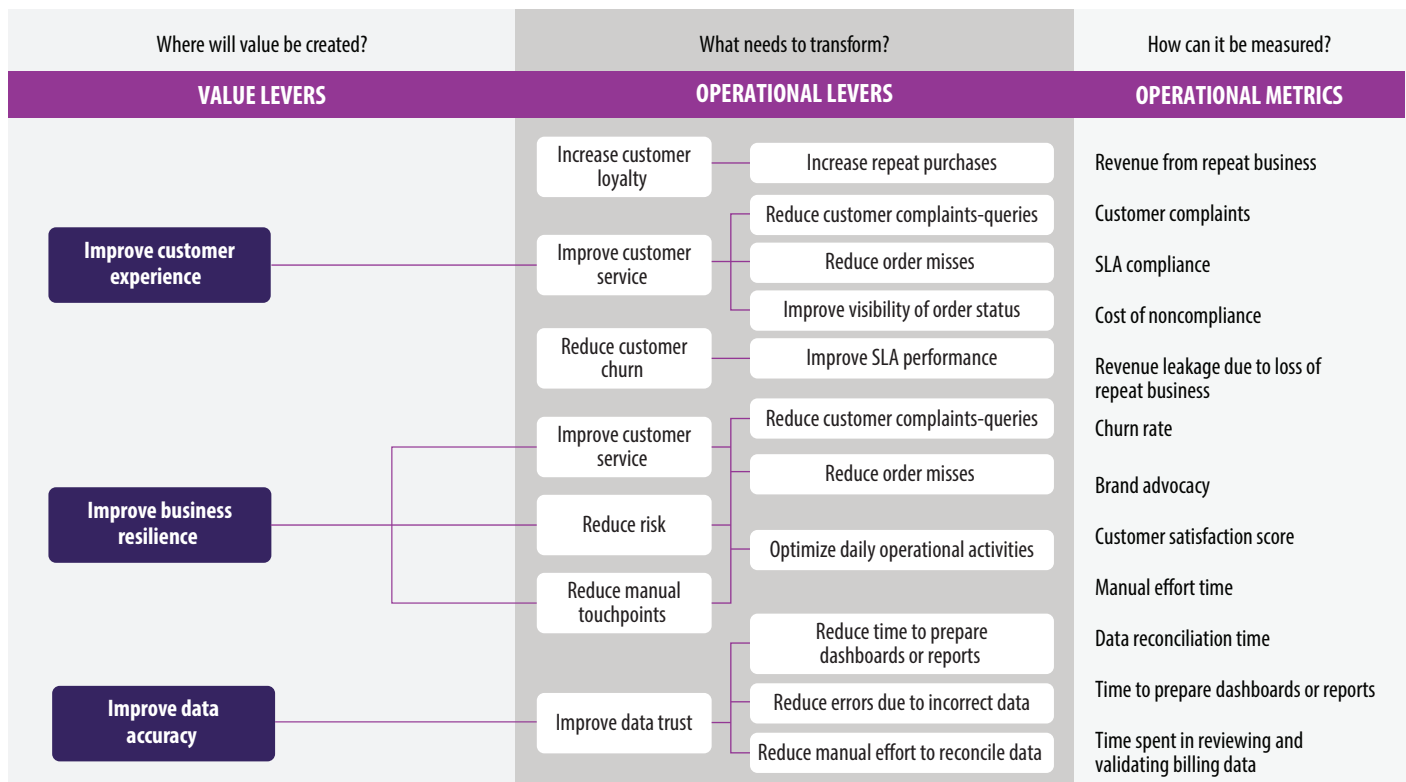
Transform and enhance processes and systems where needed.

Define and discover: Identifying and linking value drivers to IT

Organizations must identify the key value drivers that impact their business and the associated operational levers and metrics and KPIs. For example, the key value drivers for a retailer would be customer service, data accuracy, and business resilience. The corresponding operational levers might be improving customer service, increasing data trust, and decreasing manual touchpoints (see Figure 3).

The next step is to link the health of these value drivers to the performance of the underlying IT applications. One possible KPI in the payment

Figure 3. Identifying the operational metrics from value drivers



Source: Infosys



process is that invoices should be generated within 30 seconds of when the order is placed. The IT KPI of the invoice management application can then be directly linked to this process.

Organizations need to understand existing business processes and customer journeys, and identify the friction points, failure points, and process deviations that are causing inefficiencies or eroding customer experiences. Process mining tools can help understand how business processes are being performed currently in the organization by mining information from the digital footprints that various process activities leave behind, which can help discover the existing processes, identify deviations and potential friction points, and uncover opportunities for optimization and automation.

Companies can rely on failure point analysis to understand disruptive patterns in the business process value chain and their associated business impacts

Instrument and analyze: Failure point analysis

Organizations need to add telemetry and observability capabilities to their infrastructure, applications, and business processes. This can help them capture operational metrics and perform analytics on the captured metrics to identify potential failure points, anomalies, and friction points. AI and graph analytics algorithms can help in the analysis and can also help predict potential areas of disruption. Tools such as the Infosys Knowledge Graph and Digital Brain can correlate and then analyze data from different sources. The Knowledge Graph connects islands of information across the enterprise and maps interactions among entities, events,

and information. The Digital Brain continuously learns from this data and uses automated reasoning and machine learning to provide users with guided feedback. The insights are based on what the user is currently doing and tied to information that the Digital Brain has previously learned. This analysis can automate remediation through intelligent automation technologies and bots. Monitoring should be combined with Digital Brain capabilities to enable predict potential disruptions and initiate self-healing actions to prevent disruptions.

Monitor and act: Observe, predict and self-heal

Once KPIs are established, organizations must constantly monitor their IT systems to identify the root causes of business disruptions and quickly eliminate them. A digital business control center can provide executives with a real-time view of the performance of their company's processes and automate responses. This tool can monitor progress made on critical business transformation initiatives, status of their critical assets like factories, and performance of their supply chains. Monitoring should not just stop at reports that point out faulty processes but should help drill down to the exact issue, suggest possible remedies, and enable perform the necessary remediation actions.

Optimize and transform: Refine and reimagine business processes

The discovery step exposes inefficiencies and possible failure points so the organization can then examine these issues and optimize, automate, or transform the processes. Automation techniques like Robotic Process Automation and Cognitive

automation can be leveraged to automate repetitive tasks and improve efficiencies. Digital Workers and AI Virtual assistants can augment and assist the human workforce in handling repetitive tasks.

This framework of define, discover, instrument, analyze, monitor, act, optimize and transform does not have to be applied in the same order. Enterprises can start with any step based on their digital transformation objectives, current stage of transformation life cycle they are at, the maturity level of their digital journey, and their business environment.

Turning application management from business enabler into a business differentiator

IT is increasingly becoming the core of every business. Enterprises are relentlessly pursuing digital transformation programs that they hope will offer competitive advantages. But too often, these efforts fall short due to a fragmented IT landscape that is out of step with the business.

Organizations need an integrated platform for application management with goals that are tightly coupled with the organizations' business objectives. Such a platform would be able to sense the business and IT health, analyze the root causes for issues, anticipate potential disruptions, recommend ways to fix them, and automate the remediations. It would also be a self healing, and a continuously learning system. This business-centric approach would lead to a highly agile and responsive IT landscape that can become a business differentiator rather than just a business enabler.



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0.64	0.64
0.71	0.71
0.78	0.78
0.85	0.85
0.92	0.92
0.99	0.99

References

- 1 "Forecast: Enterprise Application Software, Worldwide, 2019-2025, 1Q21 Update", Gartner, 2019
- 2 "80% of Organizations Struggle to Meet Application Delivery Requirements With Existing Infrastructure, NS1 Study Shows", August 2020, Business Wire
3. "Reckitt Wins The Hackett Group's 2021 Digital Awards Leveraging Infosys Technologies", Infosys

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