

IT AND BUSINESS
OPERATIONS —
TOWARD A
DECENTRALIZED
DIGITAL
ECOSYSTEM



Contents

Enterprises migrate across three horizons	6
Digital experiences	9
Business process as a service	11
AI operations and automation	14
Agility and innovation	16
Resilient operations	18
Hybrid cloud	20
Service management	22
Advisory council and contributors	24

Enterprises must deliver digital and intelligent experiences to stay ahead. With rapid strides in IT business operations, the focus has shifted from cost reduction to business agility and customer experience. Business and IT operations assume significant importance in this context, as they exponentially increase synergies across digital transformation programs for a perceptive customer and employee experience.





Technologies such as artificial intelligence (AI), internet of things (IoT), big data analytics, hybrid cloud, and conversational experiences carry immense opportunities, but simultaneously pose unexpected threats. Organizations struggle to sense these threats beforehand, and thus, fail to take adequate measures.

Enterprises relentlessly drive digital transformation programs to gain a competitive edge, but siloed and complex implementations of IT-run services make the current IT landscape extremely complex.

Organizations should adapt IT and business operations (ITBizOps) for business outcomes that foster integrated end-to-end enterprise management services. This approach unlocks a gamut of synergies. It transforms enterprise management services from traditional

IT service level agreement (SLA) governed services to business services, driven by key performance indicators (KPIs). For business operations to flow smoothly, collaboration is required throughout the enterprise, and not just in IT. This kind of operating model comprises small teams of agile practitioners who cocreate value and ensure employee and customer experiences are as good as those offered by the leading tech giants.

That said, ITBizOps helps transform a slow, reactive organization with departments working in silos into an integrated work environment that is adaptive, evolving, and continuously learning — a live enterprise.

Enterprises migrate across three horizons (H1 to H3)



Several trends are shaping the ITBizOps arena over the next few years. In this report, we have discussed these trends across three horizons, where Horizon 1 (H1) is the current state, Horizon 2 (H2) is the forecast for the next one to two years, and Horizon 3 (H3) is beyond that.

Traditionally, most organizations viewed IT as a business enabler, which made low-cost IT operations a key driver. Now, technologies such as AI and extreme automation lead to brilliant efficiency and cost savings. With this, business agility and customer experience become key priorities. It is essential to understand customer journeys and identify and eliminate friction points in real time. For this, organizations adopt development operating (DevOps) models with integrated businesses, application development, and operations teams. They use extreme automation powered by AI and cognitive bots to make operations zero touch. H2's focus is to make enterprises more nimble, resilient, and sentient.

As technologies like distributed ledgers will mature in H3, blockchain-based ecosystems will form across various domains. This will make the entire value chain responsive and robust, driven by smart contracts.

We have explored ITBizOps key trends across the following domains:

Digital experiences

Business process as a service

AI operations and automation

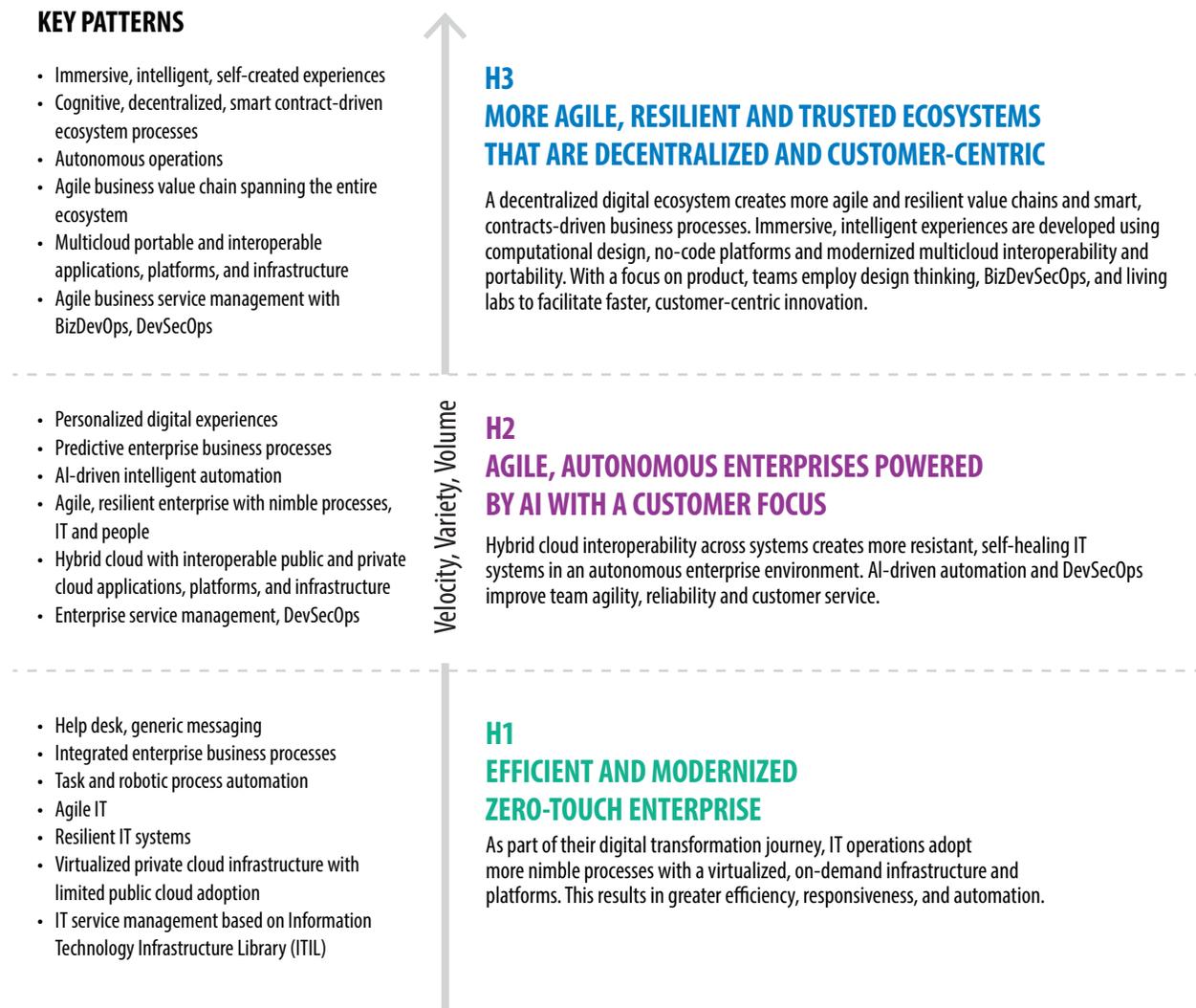
Agility and innovation

Resilient operations

Hybrid cloud

Service management

Figure 1. Market dynamics across the three horizons



Source: Infosys

Figure 2. Key trends across technology domains



Digital experiences

Trend 1 – Conversational customer service and experience augment user experience

Trend 2 – Enterprises quickly enhance user experience with micro-feedback and nudges

Trend 3 – More immersive experiences for field service operations



Resilient operations

Trend 12 – Increased adoption of AIOps-driven site reliability engineering and edge resiliency

Trend 13 – Performance management to become integrated and ecosystem-driven



Business process as a service

Trend 4 – Enterprises increasingly use process mining solutions to fix upstream root causes to prevent downstream issues

Trend 5 – Industry data exchanges and vertical/enterprise outcome-based platforms gain prominence

Trend 6 – Cognitive, extreme automation, and digital worker management with a focus on risk and compliance



Hybrid cloud

Trend 14 – SRE-driven, multicloud management to achieve operational efficiency and better service availability

Trend 15 – Cloud-native technologies adoption to build platforms for accelerated innovation and speed to market



AI operations and automation

Trend 7 – Shift to a sentient digital workforce from simple runbook automation

Trend 8 – Ticket triaging, solution prediction, and auto resolution become eminent

Trend 9 – Rapid advancements in computer vision and AI ease field service operations



Service management

Trend 16 – Business outcomes become the new measure of service management

Trend 17 – Upgrade from IT service management to enterprise service management



Agility and innovation

Trend 10 – Shift of innovation centers and rapid innovation delivery

Trend 11 – BizDevSecOps to drive agility in business operations

Source: Infosys

DIGITAL EXPERIENCES



Organizations increasingly shift from traditional, siloed channels to collaborative and cognitive networks. The focus is to provide a personalized experience, where channels comprise intelligence layer support to understand the user's needs and suggest relevant alternate options. This macro-trend is possible by advancing more interactive channels and personalized context based on user preferences for different user groups within same domains or subgroups.

Individual experience configurations, combined with interactive channels that provide instant feedback, enhance the overall digital experience. Conversational chatbots, democratized user experiences, personalized customer journeys, and contextual interactions take digital experience to the next level.

Trend 1 – Conversational customer service and experience augment user experience

Enterprises once relied on traditional channels like e-mails, the web, and SMS messages to facilitate the digital experience. But these siloed channels forced customers to complete their interactions within a single channel. The need for collaboration led to new communication channels like Microsoft Teams and WhatsApp Business, which removed the silos and created a consistent omnichannel experience. Demands for a personalized experience have led to more interactive conversations between customers and fulfillers through these channels. Powered by interactive chatbots and integrated across modern channels, traditional customer care centers are evolving into customer experience centers. This is good for employees and customers.

Contact centers still deal with a dissatisfied and disengaged workforce – primarily due to the lack of efficient tools that empower agents with the right knowledge and behaviors. With new technology, customer experience centers can automatically analyze voice data to generate insights that can detect a customer issue in its infancy. AI-based systems help employees access holistic customer data, generate real-time transcriptions for smoother transfers, understand customer's tone and intent, and identify learning requirements.

A major telecom company, in partnership with Infosys, built a cognitive chatbot solution for automated query resolutions and better collaboration across its global tax audit team. For the firm's chatbot system, Infosys implemented the multichannel IBM Watson with Genesys solution. The firm also utilized Amazon Connect (an AWS CCaaS Platform) to modernize its contact center.

Trend 2 – Enterprises quickly enhance user experience with micro-feedback and nudges

Managing customer feedback and preferences via digital experience management fosters customer satisfaction and new business opportunities. The customer experience center has become a customer engagement center with proactive nudges, which combines the customer's data elements, past interactions, and current preferences. This new customer engagement framework allows enterprises to timely address and resolve a customer's requirements.

A UK-based consumer goods company partnered with Infosys to reimagine the digital experience through a cognitive-first approach. Moving away from traditional channels like e-mails, the digital experience is now powered by the Live Enterprise Application Management Platform, along with Digital Brain, to bring in a proactive nudge framework for various personas. The agents working on top of a knowledge graph drive intelligence with personalized experiences for different roles.

Trend 3 – More immersive experiences for field service operations

Technologies such as IoT, AR, and VR have become game changers for field service operations. VR solutions efficiently train engineers and AR solutions provide right information to them during field visits, making it easier to fix issues and avoiding multiple visits. AR solutions also ensure that precious knowledge is kept in-house while making new engineers more productive in the shortest duration. In this paradigm, details of target hardware components can be displayed on a smartphone, tablet, or wearable glass device. AR-component infused applications increase first-time resolution rates by offering contextual help in real time.

A multinational conglomerate, in collaboration with Infosys, developed an AR/VR-driven field services operations solution. The firm produces fire, HVAC, and security equipment for buildings. The solution extracts and displays details about field equipment to field engineers, enabling better equipment maintenance and issue resolution.

BUSINESS PROCESS AS A SERVICE



Companies now use predictive and cognitive process management to drive efficiency, effectiveness, and stakeholder experience. This allows them to understand their process landscape better, promote decision making, and review their operating models from a fresh perspective.

More recently, enterprises have employed a more proactive, exception-based management approach, driven by process discovery and automation solutions. These systems enable early adoption of automated root cause identification and analysis. Now, decision support systems focus on the next best action/predictive process monitoring analytics and recommendations, which lead to the early evolution of proactive command centers for end-to-end process landscapes. Operating models are also impacted, as enterprises move to industry platforms focused on touchless processing and enhanced customer experience, extreme automation/digital worker management, and low-code, no-code (LCNC) business process management orchestration.

The H3 horizon map moves toward automated process optimization, with a focus on proactive risk and compliance flagging. Enterprises adopt more intuitive bots, AR assistants, and deep learning assisted business resiliency to shift to cognitive process management. AI will lead enterprises to explore cross functional data exchanges, industry-specific, machine learning (ML) trained virtual agents, and blockchain-based trust systems and processes.

Trend 4 – Enterprises increasingly use process mining solutions to fix upstream root causes to prevent downstream issues

Most enterprise resource planning solutions focus on seamless processes within the boundaries of the organization/functions. However, the fallouts at the boundaries lead to massive inefficiencies.

Enterprises need to adopt process mining solutions that provide visibility across the value chain beyond functional silos, enabling upstream root cause fixing to prevent downstream issues. Process mining is about applying data science to discover business processes. Mining helps teams understand process performance in terms of key business metrics and highlights process steps contributing the most to inefficiencies. Taking this a step further, many forward-thinking firms have used process analysis to identify parts of their supply chain that are falling foul of ESG commitments and rectify them in real-time using a sense-analyze-respond-evolve digital backbone that acts on insights to meet business SLAs. These solutions also help understand customer journeys and identify friction points, optimizing business processes.

A leading process mining technology vendor partnered with Infosys for end-to-end visibility of several business processes, including order to cash, purchase to pay, accounts payable, accounts receivable, production planning, quality management, and manufacturing execution system. End-to-end visibility of finance processes helped the firm reduce lost cash discounts from 85% to 60% in just months.

Trend 5 – Industry data exchanges and vertical/enterprise outcome-based platforms gain prominence

More enterprises now prefer stack-based solutions to address industry problems. Delivered as a managed service, businesses utilize a domain with digital LEGO blocks and an operations approach. Evolving from function-focused transaction platforms on the cloud, these industry platforms now focus on touchless processing and enhanced customer experience.

Industry platforms and exchanges will significantly enhance stakeholder experience while accelerating process effectiveness. This will enable organizations

to stay current on the technology roadmap while improving cost efficiencies in their IT spend and operations management.

Enterprises need to identify areas that can drive end-to-end user experiences and business outcomes that can be moved to cloud-based industry platforms.

European mortgage providers increasingly adopt digital mortgage platforms stacks, as customer preference shifts toward digital and self-service capabilities, with simple, transparent, personalized, and consistent journeys in an omnichannel environment. These platforms deliver scale and efficiency through fully interconnected digital applications. Stater NV platform in Europe manages 1.7 million loans and a €310 billion primary residential servicing portfolio. It drives adoption as a European mortgage full-service provider, with balanced assets across the mortgage lifecycle — origination, servicing, and collection.

Trend 6 – Cognitive, extreme automation, and digital worker management with a focus on risk and compliance

Enterprises rapidly move beyond rule-based automation and adopt AI/ML-based automation and manage an extended bot landscape. Businesses now focus on AI/ML-enabled monitoring and the prevention and control of risk and compliance.

Companies have evolved from task, bot, and robotic process automation (RPA) to extreme automation and digital worker management. They will soon move to cognitive bots such as real-time, sentiment-based response systems, AR field-service assistants, and automated process optimization.

Extreme automation, combined with decision-making effectiveness and a better understanding of outcomes, will continue to create an agile and evolving process landscape. It helped enterprises reorient focus from efficiency to service recovery and business resiliency during COVID-19.

With the help of HumanWare assistive technology, we expect seamless interaction across AI and subject matter experts. However, organizations need to identify key outcomes, engage in a reimagined design model, and create new ways of working.

A global healthcare devices major, with the help of Infosys, created a resilient and efficient BOT-enabled process landscape to become cognitive and responsive. On the first day of the pandemic outbreak, 97% of the 1,132 live BOTs remained effective and worked seamlessly, demonstrating the solution's effectiveness.

AI OPERATIONS AND AUTOMATION



Rapid digitization has influenced companies to reflect on their current strategy and explore a new, always on, IT model. Customer transactions driven through apps and online portals require a highly available IT environment and the ability to handle large data volumes. This demand for high availability extends throughout the ecosystem, including the infrastructure, network, applications, and databases to ensure access to all stakeholders anytime, anywhere.

Today's IT ecosystem is dynamic, distributed, and componentized, in all, complex. The traditional IT operations model is unscalable and fails to deliver on commitments. Operations teams now implement AI to comprehend the data generated and derive meaningful insights to prevent outages, maintain ecosystem uptime, and accomplish service assurance goals. As AI advances, AI operations (AIOps) will become sentient and autonomous by combining data points with various datasets and tools.

We already have natural language processing algorithms that can identify IT service ticket trends and analyze patterns to identify potential failures. AI/ML algorithms can now extract content from structured documents and comprehend text from images. Thus, processing unstructured documents is not far behind.

Automation is the key to future success. Automation scripts will help build a digital workforce, where a core set of humans are augmented by digital workers who think, act, and analyze.

Trend 7 – Shift to a sentient digital workforce from simple runbook automation

Organizations now realize that digital workforce performs cognitive functions that help them move toward self-learning autonomous systems. A repository of bots accelerates this adoption, led by varied inbuilt functions — from sensing an anomaly to resolving the failure and learning from the episode to improve the prediction. The key to this acceleration is the ability of bots to interact across multiple RPA and non-RPA technologies.

Consolidated automation workflows drive a successful digital workforce under a unique identity to create a digital twin of a human worker. This aggregation with the identity is also critical for auditing and tracing the actions of the digital workforce. The depth of the evolving cognitive system capabilities will define the acceptance and transition to these digital workers.

A leading European consumer goods manufacturer built a sentient enterprise by leveraging three critical solutions from Infosys: Digital Brain, Live Enterprise Application Platform (LEAP), and Infosys Cognitive Automation Studio. Digital Brain builds knowledge graphs that validate enterprise-wide data, LEAP provides a cognitive-first dashboard to detect anomalies and predict failures, and Infosys Cognitive Automation Studio builds a cluster of cognitive bots to leverage Digital Brain and LEAP.

An Asian tax regulatory body used Infosys' in-house solutions, including an intelligent automation tool, to classify, enrich, and route their tickets to the right support engineer efficiently. It reduced the entity's MTTR by 20%.

FINACLE automated its ticket classification and analysis through Infosys NIA to identify top solutions. It a self-learning solution that improves accuracy and relevance based on user feedback.

Trend 8 – Ticket triaging, solution prediction, and auto resolution become eminent

A critical task in IT operations is to service tickets that either report failures or user requests. However, improper routing and wrong categorization of tickets are typical challenges, resulting in delayed mean time to resolve (MTTR). Previously, deterministic automation routed the tickets to the correct assignee based on defined rules. Today's AI solutions learn from historical data and identify the right category of the ticket based on the problem/request details. These solutions aid in faster response and resolution, greatly reducing MTTR.

Now, systems rely on deterministic rules to identify the resolution path and corresponding automation, if available. While this is a step forward from the manual triggering of a relevant automation solution, the technology is still limited by defining the rule upfront for identification. New AI developments predict solutions based on historical trends and knowledge artifacts. Once the resolution is identified, performing that action becomes just a matter of triggering the right bots. This helps create, in essence, self-healing systems.

Trend 9 – Rapid advancements in computer vision and AI ease field service operations

Rapid advancements in AI and its applications in fields like computer vision through object detection, image classification, speech processing like voice to text, sentiment detection, and autonomous driving create intelligent robots that automate and simplify several tedious tasks in field service operations. AI in field service operations includes better information sharing, real-time technician updates, automated workflows, digital form data collection, and improved data analysis. This gives technicians more freedom and flexibility to perform higher value work, leading to improved customer experience and employee experience outcomes. Scheduling and managing tasks become easier, matching the right technician to the right job.

An overhead conductors manufacturer wanted to apply specialized coating on its installed power conductors to extend their lives and evade expensive replacements. Intelligent robots controlled remotely via cellular/RF used advanced vision and control systems to automate and perform the coating process.

AGILITY AND INNOVATION



Enterprises rapidly employ agility and innovation with evolving business and technology paradigms. As businesses move toward a more collaborative and connected ecosystem, they need a more responsive value chain both inside and outside the enterprise. They must adopt specific processes within applications and operations to remain responsive and advanced.

Design thinking and cocreation now support a value-based delivery model. To sustain this, development security operations (DevSecOps) and business operations (BizOps)-based pipelines deliver rapid application changes. While these processes become more standardized and digitized, they are also auto discovered using AI. App change delivery has shifted from IT to business users, thanks to LCNC platforms.

Additionally, integrated decision support systems become more intelligent and autonomous leveraging serverless, container-based apps and provide omnichannel help to end users via the web, mobile, and edge devices.

To stay relevant, innovation centers shift from an enterprise center of excellence (CoE) to a partner-driven, cocreated environment. The speed of delivering advancements is achieved by reusing

entire gold standard process implementations and shifting from a traditional RPA to an industry-relevant bot ecosystem.

Trend 10 – Shift of innovation centers and rapid innovation delivery

With a fast-evolving ecosystem and advancements from crowdsourcing, businesses inevitably embrace innovations beyond enterprise walls. Enterprise-specific technology or business CoE are still prevalent. However, a paradigm shift is happening to cocreate the value with nonenterprise entities. The partners in innovation have evolved from employees to service providers, and now, to external entities and partners. These visionary networks comprise cross-domain, -technology, -region entities. They include businesses, open-everything communities, and university research collaboration through private equity investors like The House Fund, as well as various niche technology providers.

Innovation labs take a broader approach, providing quicker proof-of-concept delivery and maturing into large-scale implementations. Problem-focused innovation is a reality now, where businesses explore newer arenas and deliver greater value at a lower cost.

They bring on a dedicated innovation champion and a team that understands the finer details of cofunding, coingenuity, cocreation, codelivery, and cobenefits. A design-thinking approach in a lean, responsive culture fosters advancements across the entire value chain. Enterprises adopt a rapid experimentation-based approach, leveraging open platforms like Kaggle and Uearthed, and use hackathons to promote collaboration and develop newer solution methods.

One of the world's largest telecommunication service providers established an innovation lab with Infosys' Living Labs offering. It delivered over 15 innovations in rapid joint-innovation cycles using existing Infosys solutions and developed a new IP. Some of the advancements include AI-driven stock replenishment, integrated supply chain, automated contract compliance testing, biometric security, real-time network visualizations, operation efficiency, and rapid business value.

Trend 11 – BizDevSecOps to drive agility in business operations

The traditional touchpoints between business requirements and IT application delivery are changing. While embracing agility, enterprises also adopt DevSecOps and MLOps practices to deliver continuous app, ML model changes and ensure security compliance. The need for continuous value delivery is challenging businesses to adopt BizOps principles, using a more integrated and intelligent decision support system. Thanks to advancements and the commoditization of day-to-day ML, the decision systems have become more autonomous. Development in the infrastructure space has propelled container-based applications hosted on the cloud, and simultaneously manifested them as serverless as a service apps.

Enterprises try to support web, mobile, and edge device-based application delivery through DevOps principles. Omnichannel apps reduce the time to deploy changes while supporting end-user operations. A left shift of application change does — from developers to business requirement owners — helps deliver changes quickly and without information loss. LC platforms enable businesses to manage their apps without relying on IT teams and cutting down the entire cycle time.

Power app platforms now support LC solutions and serverless app deployment and allow power users to define the apps for enterprise use. To embrace this change, enterprises need to reskill their domain experts to deliver quicker app changes using such technical advances. Additionally, the entire noncore support ecosystem (where the business functionality is core and technology is noncore) should be fully automated and, in essence, invisible to take app change productivity to the next level.

A major automotive company collaborated with Infosys to develop continuous integration, continuous delivery (CI/CD) pipelines. It helped the firm quickly deliver app changes to end users, on cloud. Beyond build and test automation, Infosys also built a cloud-agnostic, scalable security check, and compliance automation as part of DevSecOps. Real-time status updates and infrastructure and business metric tracking optimized cloud component costs, fastened app releases, minimized onboarding duration of newer apps due to reusable infra as a code (IaaS) library.

RESILIENT OPERATIONS



Availability, business continuity, security, compliance, and performance management are key enablers of resilient operations. Businesses are forced to implement digital technologies and move to the cloud to remain viable during and beyond COVID-19.

In the '90s and early part of 2000, many organizations developed siloed IT-centric operations resiliency through disaster recovery planning/testing and disparate application and infrastructure-level event monitoring/reporting. Enterprises now implement proactive monitoring combined with automation to provide self-healing capabilities.

With advances in AI and ML applications, the focus has shifted to building a strong business enterprise through predictive and unified solutions that cut across applications, infrastructure, and business processes.

To become adaptive and sentient, organizations must reach beyond enterprise boundaries. They should connect with ecosystem partners and edge computing devices such as supply and healthcare value chains, which require cognitive and connected enterprises.

Most established software product vendors help organizations become more robust by upgrading their offerings to cater to future needs. Still, several new vendors bring niche AI/ML and domain-specific capabilities to the market.

Trend 12 – Increased adoption of AIOps-driven site reliability engineering and edge resiliency

A well-tested disaster recovery backup for data and applications is crucial for organizations. Many industry verticals shift from on-premises to a collaborative strategy using a hybrid cloud on the hosting side. Several organizations have increased their reliability on cloud-native applications and adopt a multicloud strategy.

To ensure business operations availability and continuity, organizations also establish proactive event monitoring and alerting through various application, infrastructure, and network tools. More companies adopt AIOps-based intelligent correlation, self-healing

actions, and site reliability engineering (SRE) principles. As edge computing devices integrate into business processes, their resiliency will be a top priority going ahead.

Traditional market leaders like Splunk, Zabbix and Nagios are enhancing their AIOps capabilities in alignment with this trend. Established tech companies like AppDynamics and ScienceLogic augment their AIOps self-healing capabilities and improve process-centric operations, while products like KubeEdge, Microsoft’s Azure Stream Analytics, and SAS Analytics for IoT bring ecosystem and edge stability.

A large consumer packaged goods company leveraged Infosys LEAP’s SRE capabilities to proactively monitor its 20 business-critical applications across three geographies. The firm used AIOps engine and cognitive-first automation bots to enable self-healing and availability improvement.

monitoring. Now, their focus has shifted to monitoring end-to-end live enterprise business services management by constantly probing the enterprise for friction and taking intelligent actions. This requires mapping business processes to underlying applications and infrastructure assets through comprehensive configuration management.

The future of IT and business resiliency will be performance management across a partner ecosystem based on industry vertical-focused solutions like consumer retail, supply chain, healthcare, energy, and utilities segments with services hosted in a multicloud environment.

A large soft drinks manufacturer partnered with Infosys to develop IoT-based industrial vertical resiliency for real-time plant visibility. This resulted in increased plant throughput and profitability: efficiency improved by 45% to 60%, zero data duplication, and manual effort reduced by 70%.

Trend 13 – Performance management to become integrated and ecosystem-driven

Application performance management providers helped enterprises monitor end-to-end applications across IT asset layers by assessing infrastructure availability, service responses and synthetic transaction

HYBRID CLOUD



With digital advancements, enterprises continue to move toward a hybrid multicloud. And the benefits are considerable. According to our [Cloud Radar 2021](#) analysis, organizations can boost profits by \$414 billion through deep adoption and careful decisions in cloud deployment. Cloud migration requires certain remediation to adhere to cloud standards. However, the advancement of cloud-native solutions such as containers will enable seamless migration of workloads between a private and a public cloud. The applications will have no cloud lock-in, and enterprises will migrate workloads seamlessly without additional effort or downtime.

Hybrid multicloud management platforms will provision, orchestrate, and manage workloads across the cloud. Key capabilities will be implementing software engineering principles to empower developers and CI/CD pipeline builders, an advanced observability platform to manage the diverse platform landscape, and amplified automation using self-healing techniques. These platforms will use AI/ML capabilities for effective event management, create meaningful insights, and help build autonomous systems.

With workloads spreading across private cloud, public cloud, and SaaS applications, users will require direct access to corporate data from their enterprise-owned and personal devices. Rather than routing traffic to a central VPN gateway, they will use a combination of software-defined networking and a wide-area

network to provide secure access from their user devices to cloud-hosted applications with committed performance.

Trend 14 – SRE-driven, multicloud management to achieve operational efficiency and better service availability

We see a paradigm shift in managing cloud operations as SRE-driven management offers more efficiency, productivity, better customer experience, and improved availability.

Traditional operations followed an ITIL framework for managing incidents. The L1/L2/L3 support structure based on experience and domain knowledge was created to solve issues and incidents based on their complexity. Moreover, the support was more tower-centric with regards to network, compute, and storage.

SRE brings together engineering aspects in five operational dimensions: engineering-focused teams, a collaboration between Dev and Ops teams, unified observability across platforms, automation and platform architecture to drive enhanced application availability. SRE adoption brings higher efficiency and drives higher reliability of cloud-hosted applications.

SRE also plays a large role in accelerating digital transformation and enhancing the user experience. It powers emerging digital solutions like digital virtual assistants, AR/VR-based troubleshooting, and agent-

less service desks. SRE-based hybrid cloud operations help businesses to innovate faster, launch new products and offerings with a higher pace and reduce stress on service desk/IT teams.

Organizations need to focus on three key areas: SRE resources in terms of training and certifications, next-generation observability and automation platforms, and redefined operations structure and processes to align with the SRE way of operations.

Well-orchestrated cloud management platforms enable SRE-driven operations and empower developers to publish faster releases. Advanced observability platforms transform reactive, alert-based monitoring into pre-emptive event logs with trace-based observability. The AI/ML-powered platform performs real-time event correlation, noise suppression, anomaly detection, and potential root cause to precipitate faster resolution.

A leading US-based fast-food retailer implemented SRE to improve operational efficiency and application availability by partnering with Infosys. The program included implementing an automation and observability solution, re-skilling its existing team on full stack technologies and driving the SRE culture through coaching and training programs. The program delivered a 30% reduction in incidents, a 25% decrease in self-healing incidents, and reduced environment provisioning time from two days to just two hours.

Trend 15 – Cloud-native technologies adoption to build platforms for accelerated innovation and speed to market

Enterprises adopt container platforms to develop next-generation business applications. Containers decouple underlying operating systems and infrastructure and enable developers to build applications on

any platform. The technology also offers seamless migration of applications across the cloud without any remediation or downtime.

Applications were once tightly coupled with the operating system and underlying infrastructure, which required significant remediation, testing, and validation effort to migrate applications to the cloud. Further, any patching/update in an operating system requires applications retesting. When applications are containerized, there will be no cloud lock-in, and applications will move seamlessly across the cloud. These efficiencies will help achieve real-time cloud brokerage capabilities.

Container technology is quite promising for developing and hosting next-generation digital applications. With built-in redundancy, containers offer extremely high-platform availability — a critical business requirement. Container solution eliminates the application’s dependencies on underlying cloud-native technologies, enabling enterprises to move applications across hyperscalers without worrying about compatibility and migration costs.

Enterprises should build capabilities to provision, manage, and orchestrate container platforms. They should integrate containerized platforms with a DevOps toolset to ensure developers deploy their codes seamlessly without any complexity of the underlying container platform.

A leading US-based semiconductor manufacturing company and a top global financial management company partnered with Infosys to modernize their platforms to host and develop digital solutions. The firms improved their new service launch frequency by leveraging cloud-native technologies offered by various hyperscalers. This also helped their solution architects create and develop application deployment blueprints in a more automated manner, bringing reusability and speed.

SERVICE MANAGEMENT



Service management is about selecting the right products and vendors to plan, design, deliver, operate, and maintain the overall lifecycle of IT and business-enabler services. They aim to reduce costs, improve efficiencies, and ensure the best customer experiences while maintaining business agility, reliability, and innovation. Service management involves adapting skilled processes like DevSecOps that enable faster release cycles. Team structures become product-centric, with business sponsors, application developers, and operations specialists making decisions collectively in responsive sprints for better collaboration. Google introduced site reliability engineering to apply an engineering mindset to the operations' context, which several organizations now adopt.

Trend 16 – Business outcomes become the new measure of service management

Organizations increasingly shift from IT SLAs to business KPIs. Most organizations face the watermelon effect, where their IT metrics appear green (positive) from outside, but the business is red (negative) inside due to unsatisfied end customers. Here, tools like HP BSM software can help define, monitor, and manage business SLAs. AIOps tools such as Moogsoft and BigPanda correlate IT metrics to business KPIs and

forecast potential issues for proactive interventions. Firms can also use OKRs (shorthand for objectives and key results) to govern on business value outcomes. Here, objectives are the “whats” of the transformation, and key results are the “hows”. In a product-centric operating model, OKRs amplify service management by converting business objectives to key product KPIs. This alignment helps the team focus on outcomes, without losing the flexibility to manage their backlogs and roadmaps.

A large insurance company faced frequent issues with on-time adjudication of claims. Despite meeting IT SLAs, they were penalized for the issues. The company leveraged Infosys' Live Enterprise Application Management Platform to implement a business control center to define, monitor, and manage its business KPIs. The firm correlated metrics such as claims' auto adjudication rate with underlying IT disruptions, which helped them meet KPIs and prioritize and resolve any issues.

Trend 17 – Upgrade from IT service management to enterprise service management

Enterprises benefit from processes like ITIL that take a service-centric approach to IT functions, ensuring all lifecycle aspects are addressed systematically. Service management tools like ServiceNow and Remedy currently support corporate functions such as HR, finance, and facilities and support complex processes like supply chain, logistics, and others beyond enterprise boundaries. Enterprise service management extends IT infrastructure library and IT service management into business functions beyond IT. It helps standardize service delivery across the business, a prerequisite for automated fulfillment. Enterprise service management also improves service delivery, and provides omnichannel, self-service, easy-to-access knowledge, and social collaboration for more efficient business operations.

One of the largest privately owned engineering firms collaborated with Infosys to implement enterprise service management. The firm's business and IT functions now operate through a consolidated cloud-based platform based on Infosys' ESM Café built over ServiceNow, making them a fast-moving, ready-for-anything live enterprise.

Advisory Council

Mohammed Rafee Tarafdar

SVP - Chief Technology Officer

Anantha Radhakrishnan

EVP – Chief Executive Officer & Managing Director – BPM

Shaji Mathew

EVP and Service Offering Head – Health, Insurance & Life Sciences

Balakrishna DR

SVP, Service Offering Head – Energy, Utilities, Communications & Services

Pandiyakumar R

VP – Delivery Head

Saju Sankarankutty

VP – Delivery Head

Satish Nair

VP – Business Head – BPM

Srinivas Kamadi

VP – Service Offering Head – Enterprise Integration & Services

Saket Singh

AVP – Delivery Head

Shyam Kumar Doddavula

VP, Emerging Technology Solutions

Contributors

Ashok Kumar Panda

Kamlesh Kumar

Lakshminarayana Indraganti

Palani G. Sankar

Ritesh Saluja

Saju Sankarankutty

Sameer Govind Joshi

Satish Nair

SeshaSai Koduri

Shyam Kumar Doddavula

Vamsi Oruganti

Vinay Shrivastava

Vineeth A V

Producers

Ramesh N

Infosys Knowledge Institute
ramesh_n03@infosys.com

Pragya Rai

Infosys Knowledge Institute
Pragya.raio3@infosys.com



About Infosys Knowledge Institute

The Infosys Knowledge Institute helps industry leaders develop a deeper understanding of business and technology trends through compelling thought leadership. Our researchers and subject matter experts provide a fact base that aids decision-making on critical business and technology issues.

To view our research, visit Infosys Knowledge Institute at infosys.com/IKI or email us at iki@infosys.com.

For more information, contact askus@infosys.com



© 2022 Infosys Limited, Bengaluru, India. All Rights Reserved. Infosys believes the information in this document is accurate as of its publication date; such information is subject to change without notice. Infosys acknowledges the proprietary rights of other companies to the trademarks, product names and such other intellectual property rights mentioned in this document. Except as expressly permitted, neither this documentation nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, printing, photocopying, recording or otherwise, without the prior permission of Infosys Limited and / or any named intellectual property rights holders under this document.

