

Taking a platform-based approach to build and run IT operations automation enables organizations to achieve innovation, speed, and reliability goals, while addressing scale, collaboration, and security challenges.

The Benefits of Automated Build and Run IT Operations Using an AI Platform

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Introduction

Organizations increasingly rely on IT services to adapt quickly to evolving business needs. Keeping pace with the demands of digital transformation requires a robust, yet flexible architecture to support innovation. This architecture needs to be embedded with automation to drive speed and efficiency, analytics and artificial intelligence (AI) to improve insight and prediction, and a human-centric approach designed to appeal to a wider range of technology users, including nontechnical business users. While a shift to automated, intelligent IT operations is inevitable to meet these demands, organizations must also address significant challenges along the way. These include poorly defined use cases and key performance indicators, siloed IT and business processes, diverse stakeholder needs and priorities, limited skills in new technologies, and increasing governance and security requirements as IT environments grow in scale and complexity. This IDC Technology Spotlight examines the role that a platform-based approach can play in enabling organizations to mitigate these challenges and achieve desired business outcomes from build and run IT operations automation.

Trends

Automation is fast becoming an integral component of digital business and future enterprise strategies, with the IT department frequently blazing the trail for its adoption within organizations. According to IDC's *Intelligent Automation Services Survey*, conducted in September 2021, more than half of organizations have already deployed intelligent automation in their IT processes, and nearly all of the rest are either evaluating or piloting the use of intelligent automation services for IT processes (see Figure 1).

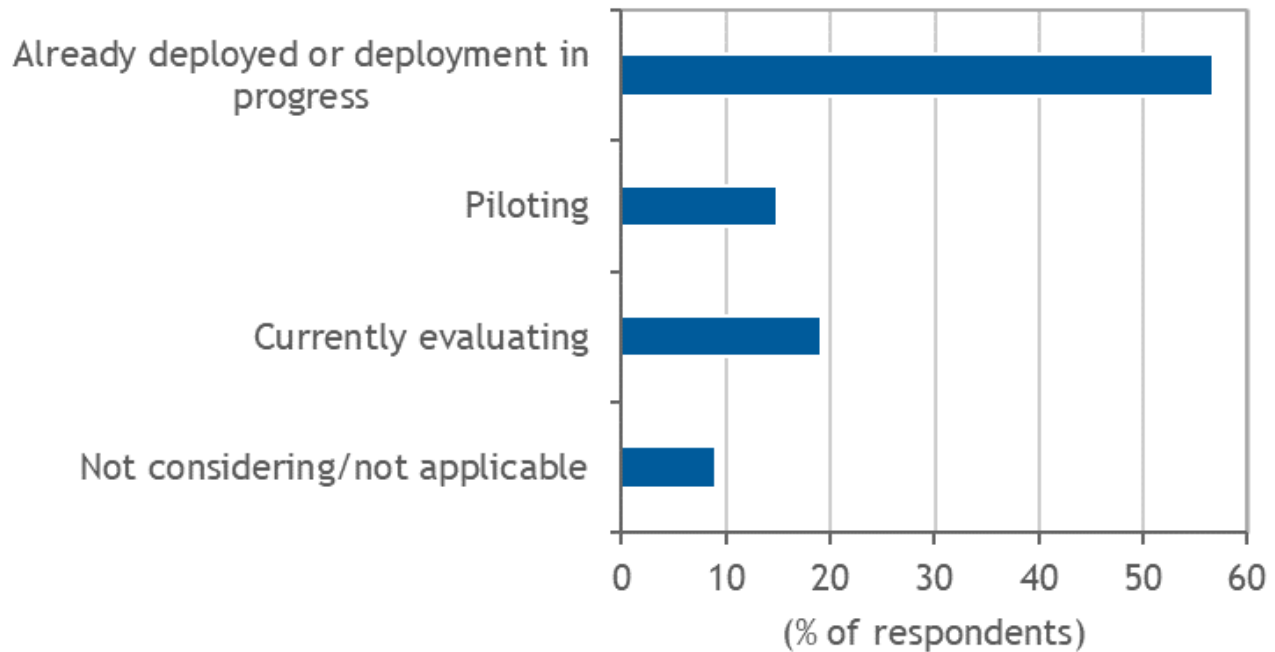
AT A GLANCE

WHAT'S IMPORTANT

Automating IT build and run operations plays an essential role in IT organizations' ability to meet increasing business expectations for innovation, speed, and reliability. A platform-based approach to IT operations automation enables companies to achieve benefits while mitigating adoption challenges.

FIGURE 1: **Adoption of Intelligent Automation Services in IT Processes**

Q At what stage is your organization today with regard to the adoption of intelligent automation services across the following processes [IT]?



n = 308

Note: Data weighted by country GDP. Responses are for "IT" processes only.

Source: IDC's Intelligent Automation Services Survey, September 2021

IDC has observed several business priorities driving the adoption of intelligent automation services in IT processes, including:

- » **Preparing for tomorrow's business needs.** IT departments are expected to support organizations' transition to future business models that leverage cloud and emerging technologies such as AI, IoT, augmented reality and virtual reality (AR/VR), and robotics. Agile innovation practices, access to the latest and greatest technology tools, and a strong data and insight foundation are critical for these technologies.
- » **Improving operational efficiency.** Organizations increasingly incorporate AI and automation technology to optimize IT build and run operations. IDC predicts that by 2024, 60% of enterprises will have operationalized their machine learning (ML) workflows through MLOps/ModelOps capabilities and AI infused their IT infrastructure operations through AIOps capabilities (see *IDC FutureScape: Worldwide Artificial Intelligence and Automation 2022 Predictions*, IDC #US48298421, October 2021,). Key operational capabilities that need to be AI infused include predictive intelligence, incident prevention, troubleshooting, event correlation, reduction in incidents, faster root cause identification, and keeping up with ever-expanding data volumes, scale, and complexity.

- » **Expanding capacity of existing workforces.** The shift to digital-first and automation-driven operating models enable organizations to decouple output and head count growth, with strategies increasingly oriented toward improving employee productivity and experience and, by extension, customer experience. IDC predicts that by 2024, 70% of Global 2000 enterprises will gain twice as much, in terms of meaningful returns, on technology investments that augment employee or customer activities compared with ones that automate individual processes (see *IDC FutureScape: Worldwide IT Industry 2022 Predictions*, IDC #US48312921, October 2021). Emphasizing augmenting and upskilling employees involved with IT build and run operations with intelligent automation, rather than replacing human skills, positions organizations to take full advantage of capacity gains.

Generating excitement about automation's potential is easy, but achieving that potential can bring some significant challenges to the surface that need to be addressed, such as:

- » **Data quality, management, governance, and security.** Automation at any level depends on access to high-quality data to execute functions. Siloed systems, manual workarounds, and overly complex workflows can cause data errors requiring human intervention, which can negate the efficiency benefits of automation and, worse, waste opportunities for enterprise visibility and intelligence. The negative impact of poor data quality intensifies as the scope of automation increases from tasks to activities to processes and as the decision-making power shifts from humans to machines. Moreover, governance and security risks increase as pockets of innovation and automation activity by nonprofessional developers arise across the organization.
- » **Complex IT environments.** As application modernization initiatives expand, IT departments already have a wide range of legacy and new applications to support. At the same time, individual automation technologies — such as codeless workflow, business application development, application integration, intelligent document processing (IDP), and task and process mining — are becoming more accessible to a new audience of users and nonprofessional developers through cloud offerings and by making studio environments much easier to use. This development further pressures IT departments to manage more diverse application stacks and multicloud environments, as well as support business end users with limited technical skills. IDC has observed the emergence of vendor strategies aimed at pulling together a platform or portfolio that combines diverse types of automation technologies to create what we call "multimodal automation platforms" that support end-to-end automation, process improvement, and application development by using the appropriate technologies where they fit from a single unified platform (see *IDC FutureScape: Worldwide Artificial Intelligence and Automation 2022 Predictions*, IDC #US48298421, October 2021). However, enterprises are still in the early stages of implementing such platforms.
- » **Unclear business benefits and stakeholder management.** The instinct to start small and fail fast (or generate quick wins) is prevalent among organizations deploying intelligent automation. Taking the plunge into a single use case (or multiple, uncoordinated use cases) without appropriately defining the business goal for automation or considering the impacts on various stakeholders is often at the root of downstream challenges with data quality, process workflows, IT governance, and employee change management. If IT and business leaders are not aligned on objectives and responsibilities, automation solutions may not deliver desired outcomes, or worse, may introduce new business risks. And if organizations fail to communicate the goals for automation and determine the role employees will play in the future of the automation-enabled process, employees may resist or fear introduction of automation technologies.

Benefits

Broad adoption of intelligent automation requires tight-knit collaboration between IT and the functional stakeholders to ensure that the processes or elements being automated are done so properly. A platform-based approach enables collaboration and provides the architecture to bring together the necessary technologies, capabilities, and data to support IT build and operations at enterprise scale. Such an approach includes:

- » **Automation across multiple functions.** IDC research indicates that satisfaction with benefits achieved from intelligent automation services tends to increase with deployment across more process areas. Platforms help eliminate silos and drive extreme automation across IT and business workflows.
- » **Centralized data architecture.** Collecting data from across the organization at one central location enables comprehensive monitoring of and visibility into IT build and run operations. It also provides the data foundation required for expansion of AIOps and DevSecOps capabilities, from AI-assisted individual management tasks such as event correlation or anomaly detection to automating entire operational processes such as closed-loop incident detection, classification, resolution, and remediation.
- » **Integration and orchestration of diverse tools.** Interoperability with a broad range of technologies provides organizations with the flexibility to "plug and play" to take advantage of modern tools and microservices that best fit emerging needs while also leveraging existing enterprise application and infrastructure investments, with the ability to optimize performance and cost.
- » **Democratized access to technology innovation.** As digital enablement spreads beyond IT to lines of business, a new audience of users with different levels of technical ability will need to access tools, data, and tailored insights to be effective in their roles. A platform can provide a range of capabilities that cater to IT professionals, nonprofessional developers, and data consumers, at the appropriate level of abstraction.
- » **Governance and security.** The proliferation of digital enablement capabilities creates complex IT environments with many moving parts at scale and speed, and thus the need for sophisticated governance and security protocols. A robust automation platform can provide the necessary guardrails to enable consistent, continuous, and proactive application of standards, compliance, access controls, and security across build and run functions.

Considering Hexaware's Tensai Platform

The evolution of automation services from managing a collection of discrete tools and products to a platform-based approach is no easy feat. A year ago, Hexaware began a journey to bring together its diverse portfolio of products under the name Tensai into a platform that would host all these products, as well as those of partners, and provide a layer of organizational intelligence. The company first collected feedback from customers, including both IT and business users, on what worked or didn't, what future capabilities they would like to have, and what would help them do their work better. Hexaware then re-architected the Tensai portfolio into the Tensai "2.0" platform (see Figure 2), aligning with what the company calls "Digital 2.0," or the ability to access anything, anywhere and anytime.

FIGURE 2: *Genesis of Tensai 2.0: Challenges and Focus Areas*

GENESIS OF TENS^{AI} 2.0

CHALLENGES & FOCUS AREAS



Source: Hexaware, 2021

In an effort to realize its "Automate Everything" strategy, Hexaware organized the Tensai platform around three main pillars:

- » **Agility for build-to-release automation.** Hexaware designed the platform to support organizations at various stages of hybrid cloud adoption, offering customers a cloud-like experience even in their on-premises environments. Tensai supports continuous integration, delivery, testing, and security with capabilities such as automated multicloud deployments, resiliency orchestration, autonomous testing (see *Using Autonomous Testing to Power Next-Gen Application Delivery*, IDC #US46870820, September 2020), and application security automation. The platform also includes a compliance-driven release framework that addresses both security and regulatory compliance needs.
- » **Efficiency for release-to-retire automation.** AIOps capabilities within Tensai 2.0 enable adaptive intelligence spanning from observability, correlation, and remediation to security orchestration and automated response to intelligent process automation. It also supports optimization of cloud environments with modules for serverless computing (also known as functions as a service) transformation, spend optimization, and continuous security posture management.

- » **Experience for employee services automation.** The platform delivers personalized, self-service experiences for employees with a variety of bots that handle requests such as password resets, remote access, and paid leave balances. It also provides organizational insights to help managers measure team effectiveness, engagement, and productivity. Hexaware also plans to build out experience features to enable smart workplaces.

Tensai 2.0 binds these capabilities together into a "multi-experience" providing end-to-end visibility across the organization, with features that include:

- » **Identity orchestration** to provide seamless authentication and authorization services at the platform level and federation with customers' identity access management to minimize onboarding time
- » **Enterprise discovery** to enable drilling into IT build and run operations for improved visibility of various metrics around provisioning, release, assurance, spend, and security at the level of individual infrastructure assets and applications
- » **Persona-driven dashboards** to provide 360-degree views for different roles and levels within the organization, as well as the ability to build custom dashboards from a library of drag-and-drop widgets
- » **Centralized AI engineering** to aid in proactive resolution of IT operations issues and provide insight into the causes, enabled by Hexaware's data science team and data lake that comprises data ingested from Tensai's products
- » **Modular, plug-and-play architecture** to support a partner-agnostic ecosystem, which could include a combination of tools from Tensai 2.0's factory of more than 450 plug-and-play bots as well as the customer's existing bots that can be onboarded through a growing array of partner ecosystem adapters

Hexaware's approach focuses on enabling customers to start small, prove the benefits, and then eventually automate everything, rather than positioning intelligent automation as a complete paradigm change from the start.

Challenges

Having a platform to ease customers' transition to automated IT and business services is a great start (and, IDC believes, will be necessary to compete in the market in the long term). However, customers expect more from service providers than technology solutions. Despite powerful technological advancements, automation success is highly dependent on internal organizational factors, such as how automation is viewed in terms of strategic priorities, involvement of key stakeholders in automation solution design and deployment, availability and quality of relevant skills to develop and sustain automation programs, and cultural or change management issues. Hexaware and other intelligent automation services firms need to be prepared to address unique customer needs that have nothing to do with technology. Our research shows that when choosing an intelligent automation services provider, customers highly value and consider innovation capability, stakeholder management, quality of skills and knowledge, flexible contracting models, partnership with preferred technology providers, and knowledge transfer to internal teams.

Conclusion

IDC believes that a platform-based approach, combined with expertise and support from service providers, will be essential to organizations' adoption of intelligent automation capabilities at scale, particularly in IT build and run operations. Organizations should consider the following to realize the full potential of end-to-end automation:

- » Think through an enterprise strategy for automation — and define KPIs for success up front. Prioritize initial use cases to maximize ROI and build momentum for further adoption.
- » Invest in foundations for deployment across the organization, including technology, data, people, and processes, that enable innovation with appropriate governance and security guardrails.
- » Explore the potential for an intelligent automation platform to improve enterprise intelligence and optimize operations by breaking data silos, monitoring, resolving, and discovering issues continuously and empowering the organization at all levels with valuable insights to drive productivity and satisfaction.

A platform-based approach, combined with expertise and support from service providers, will be essential to organizations' adoption of intelligent automation capabilities at scale.

About the Analyst



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Jennifer Hamel is a Research Manager for IDC's Worldwide Services team, responsible for the Analytics and Intelligent Automation Services research program. In this research, she covers the entire life cycle of services related to adoption of analytics and intelligent automation technologies, which include information and data management, BI tools— and analytics application—related services, advanced analytics, big data, and artificial intelligence services.

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Tensai is an automation platform that offers a robust and financially sustainable solution with enhanced capabilities powered by Natural Language Processing (NLP), Machine Learning (ML), and Deep Learning (DL) capabilities. The platform has benefited several customers across the globe in transforming their business, with outcomes of 4x savings on operational efficiencies and 3x faster application releases.

Interested in hyper-automation across the agility, efficiency, and experience dimensions of IT build and run operations? Contact us at Marketing@hexaware.com.



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