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Point of View

Cloud-Native Service Management

How to Leverage New Platforms and Find the Right Partner

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Acceleration of Cloud adoption

Since 2020, businesses have seen a tremendous acceleration in Cloud adoption worldwide, with pandemic-driven changes increasing the load on storage and processing power. Besides, massive, innovative partnerships between hyperscalers and enterprises were conceived in the same duration to deliver end-to-end "Move-to-Cloud" in less than three years. The market capitalization of hyperscalers such as Amazon and Microsoft has more than doubled in two years to touch USD 3 trillion—a meteoric growth augmented purely by service consumption.

Such acceleration also created opportunities for market consolidation on the technology side to address challenges such as Cloud security and the cloud-managed services side, with some significant acquisitions since the beginning of 2021. This demand is rising as businesses move their legacy workloads to the Cloud and adapt to managing new Cloud-native applications leveraging hyperscalers services, such as CaaS, FaaS, or PaaS. There is also an increased momentum toward adopting practices such as GitOps, Infrastructure-as-Code, as well as building new-generation applications.

New operational challenges of Cloud-native applications

New-age applications have a different DNA compared to legacy ones. First and foremost, they leverage hyperscalers services in a big way. It is common to see combinations of more than 10 PaaS services delivering one single application or service, such as serverless, messaging, data processing, storage services, and so on. The deployment of these applications leverages full end-to-end automation through technologies such as Infrastructure-as-Code and GitOps, while legacy applications continue to use more classical operations based on ITSM processes. Hence, many organizations need continuous support to manage a multi-speed operating model. Site reliability engineering is the new way to operate those applications at scale, with practices such as observability to monitor the four applications' golden signals.

Cloud-native applications can even go a step further and leverage containerization, microservices, and service meshing to deliver hybrid applications spanning multiple Clouds (public and private). Compared to the previous situation, where hyperscalers' native services can be used to manage the stack fully, managing end-to-end application performance requires a different strategy, alternative technologies, and advanced management skills.

Cloud-native service management and finding the right partner

New Cloud operating models expand traditional service management (the core practices) with new capabilities that leverage automation (the Cloud practices) to manage hybrid Cloud-native applications (the service practices) fully. Hence, Cloud-Native Service Management (CNSM) is the convergence of new practices emerging from Cloud including DevOps, SecOps, GitOps, and ChatOps as well as the existing core ITSM practices.

Core practices include legacy ITSM processes such as incidents and changes that evolve to cope with the new Cloud-native world. For instance, a container has a very simple lifecycle (a live and let die approach, if you will), and managing its configuration must be done differently. On the other hand, Cloud practices are new ways of operating brought in by hyperscalers with extreme automation to streamline the continuous deployment phase and automate practices to maintain resiliency and compliance. Moreover, the service practices take care of all the activities required to support services and applications health from technical, performance, and financial standpoints.

When looking to streamline migration and deliver this new operating model, it is vital to partner with a service provider to make the transition as seamless as possible. For instance, they should be able to help:

- Enhance existing core ITSM processes with Cloud-native specifics such as pipeline change approvals
- Deliver a single pane of glass for all DevSecOps activities required in the new operating model
- Control compliance and suitability of "as-code" artifacts before injecting in integration and deployment pipelines
- Provide fine-grained control of financial consumption of public resources
- Support new end-to-end Site Reliability Engineering practices at the core of this new operating model
- Integrate with the Cloud-native software factories to ensure the IT system of records is always up-to-date

Look for a service provider with the right expertise, experience, and capabilities to extend the platform with custom applications. It is imperative to ensure a structured journey to adopt new Cloud-native ways of working at your pace and deliver a unique approach to leverage investments and accelerate the journey to the Cloud. A service provider with the combined strength as a Cloud-managed service provider and a platform provider operating "Cloud natively" will provide the competitive edge. Besides, rich domain knowledge in Cloud migration and expertise in new Cloud-native technologies as well as hyperscalers is an added advantage. Finally, a service provider with managed services capability will bring the required extra workforce capacity as businesses transform their IT operating model.

Success Story
How LTIMindtree enabled a financial institution in the Nordics to migrate to the Cloud

A leading Nordic financial institution that was closing its data center to move to Microsoft Azure leveraging Kubernetes technologies, wanted to enhance its IT service management capabilities to ensure an up-to-date and compliant system of records, their Cloud Management Database.

By leveraging ServiceNow modules such as ITOM, LTIMindtree helped the customer fully control and automate deployments with multiple integration points. All the business services were modeled and automatically populated upon deployment, leveraging inception workshops to have a "business-first in the Cloud" mindset.

As a result, the customer was able to lower its data center exit time by 25% by creating business service-oriented move groups. An accurate costing of each business service for replication in new regions and geographies, as well as an easy cost computation for new business expansions, further make the transition significantly smooth.

So where to start this Cloud-native operations journey?

The advantage of CNSM is to bring a natural enhancement to the existing ITSM practices and leverage existing platforms such as ServiceNow and investments, assuming they can bring the required additional capabilities.

One way to start is to take the monitoring track and start thinking about end-to-end performance management for Cloud-native applications. Existing processes can be enhanced to support the required functions and features needed to manage them such as the four golden signals detection for observability.

Another way is to start from the deployment of such applications leveraging full automation, and bring Cloud-native practices to ensure the compliance of the configurations to be deployed with enterprise standards as well as the full governance of the DevOps engines.

In both ways, LTIMindtree helps in re-imagining your IT operations experiences without disrupting the ways of working, and this is truly the main key success factor. CNSM is a smooth transition, provided your ITSM platform is able to cross this Cloud chasm too.

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About the Author

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Franck Besnard has over 20 years of experience in the IT industry, both in service companies and software vendors in various technical, commercial and consulting roles.

With more than 10 years of experience in the Cloud field, when asked, he defines his role as CTO as **"Cloud Transformation Officer".**

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