

The enterprise need to create highly agile business operations is placing increasing pressure on managed service providers to provide an "intelligent" set of multicloud management capabilities utilizing innovative processes and technologies.

Managed Multicloud Services: Accelerating the Journey to Hybrid Cloud and Agile Business Operations

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Introduction

Keeping pace with a more dynamic market requires enterprises to create agile IT environments. Today, cloud has become the de facto means of creating such an environment. However, migrating to cloud while ensuring effective management of all IT noncloud and cloud resources involves multiple modernization approaches along with implementing more sophisticated capabilities using multicloud management, which requires new capabilities (e.g., DevOps, continuous integration/continuous delivery [CI/CD], site reliability engineering [SRE]). Further complicating this shift to cloud is the enterprise need to utilize different operating models (e.g., private cloud, public cloud, and hybrid cloud), different types of clouds (e.g., infrastructure as a service [IaaS], platform as a service [PaaS], and software as a service [SaaS]), and an expanding pool of cloud service providers (e.g., AWS, Google, IBM, Azure, ServiceNow, and salesforce.com). In implementing these capabilities, enterprises are utilizing managed service providers (SPs) with the goal of creating an integrated digital services supply chain that links all stages of the services life cycle using highly automated multicloud management platforms, processes, and technologies.

This IDC Technology Spotlight shows how managed multicloud services help create an industrialized approach that seamlessly links both migrating and modernizing enterprise IT environments to the cloud with ongoing management of all IT and cloud resources. This linkage creates a dynamic life cycle of services that enterprises are using to ensure continuous innovation and meet their business objectives.

AT A GLANCE

KEY TAKEAWAYS

- » The combination of legacy processes and use of cloud capabilities is placing pressure on enterprises to shift to new operating models.
- » Creating highly agile business operations involves using innovative processes and technologies along with sophisticated orchestration capabilities.
- » Adopting intelligent multicloud management can help create dynamic capabilities and support continuous innovation.

Definition of Managed Multicloud Services

IDC defines managed multicloud services as an engagement between customers and managed SPs that involves overseeing multiple clouds from different sources, a form of multisourcing that uses different technologies (e.g., cognitive/artificial intelligence, software-defined infrastructure, open source, multicloud management) and intellectual property (IP) as part of a multicloud management platform environment. IDC identifies two fundamental types of these engagements:

- » **Managing two or more clouds from different public cloud providers.** This engagement would involve a managed SP helping support multiple clouds from different public cloud providers across IaaS, PaaS, and SaaS business models.
- » **Managing enterprise private clouds and clouds from public cloud providers (hybrid cloud).** Combining an enterprise private cloud with a public cloud from a public cloud service provider, which could also include noncloud technologies as part of a broader hybrid IT engagement, would be classified as a hybrid cloud engagement (private plus public). This type of engagement can also include managing more than one public cloud from different cloud service providers in addition to supporting an enterprise private cloud (see *Buyer Needs for Managed Multicloud Services for Delivering Multicloud Management Capabilities*, IDC #US45946219, February 2020).

Benefits

Utilizing managed multicloud services can help enterprises meet critical business objectives including growth (e.g., entering new markets, launching new products/services), financial benchmarks (e.g., optimizing ROI, reducing costs, shifting to opex), and compliance and regulatory requirements. Managed multicloud services can also enable enterprises to create agile environments that include restructuring the operational and governance models of designing, developing, deploying, and managing IT (cloud and noncloud resources) across applications and infrastructure. This restructuring involves using new development and engineering processes in moving to a cloud-native, microservices model of consumption (e.g., DevOps, CI/CD, and PaaS) and integration of new operating procedures involving SRE.

Further, managed multicloud services can help enterprises gain access to dedicated centers of excellence (COEs), labs, and innovative technologies such as edge computing or infrastructure as code (IaC) to ensure ongoing innovation. By combining innovation with new development and operating procedures, managed multicloud services can create a highly automated and seamless approach across the life cycle of services, resulting in a digital services supply chain of cloud capabilities spanning from edge and the Internet of Things (IoT) to cloud and enterprise IT. Ultimately, this digital services supply chain can help optimize consumption of resources while meeting critical key performance indicators (KPIs) such as cost reductions or business outcomes and service-level agreements (SLAs) such as provisioning times or availability, enabling enterprises to adopt new business models.

Trends

IDC projects the managed cloud services market will grow at a compound annual growth rate (CAGR) of 15.3% from 2019 to 2024, reaching \$101.2 billion worldwide by 2024. This market encompasses the management of different types of clouds (e.g., private, public, and hybrid) from different sources (e.g., enterprise IT and cloud service providers), which IDC refers to as managed multicloud services.

Increasingly, enterprises view the strategic role of managed SPs as supporting business outcomes. Part of this role is enabling a firm's growth strategy (e.g., entering new markets or mergers and acquisitions), including the speed at which value is generated as measured by critical benchmarking metrics such as ROI, cost savings, and productivity with a focus on providing transparency into the financial impacts of cloud. It also involves tailoring managed multicloud services solutions based on specific geographic and industry requirements including compliance with regulations.

Enterprises also expect to use managed multicloud services to ensure efficient infrastructure and optimize application portfolios. Ensuring that IT is optimized and efficient includes creating agile IT capabilities spanning legacy (noncloud) and cloud resources to support faster time to market, alignment with personas, and ability to repatriate cloud back to internal systems. Achieving agility involves incorporating innovative technologies such as cognitive, containers, open source, and edge computing as well as utilizing newer processes involving DevOps, CI/CD, and SRE. Collectively, these technologies and processes can help enterprises select the right migration and modernization strategies (e.g., rehost, replatform, or recode) in moving to cloud-native microservices that can accelerate use of innovation, enhance coordination across organizations, and create a new means of managing IT.

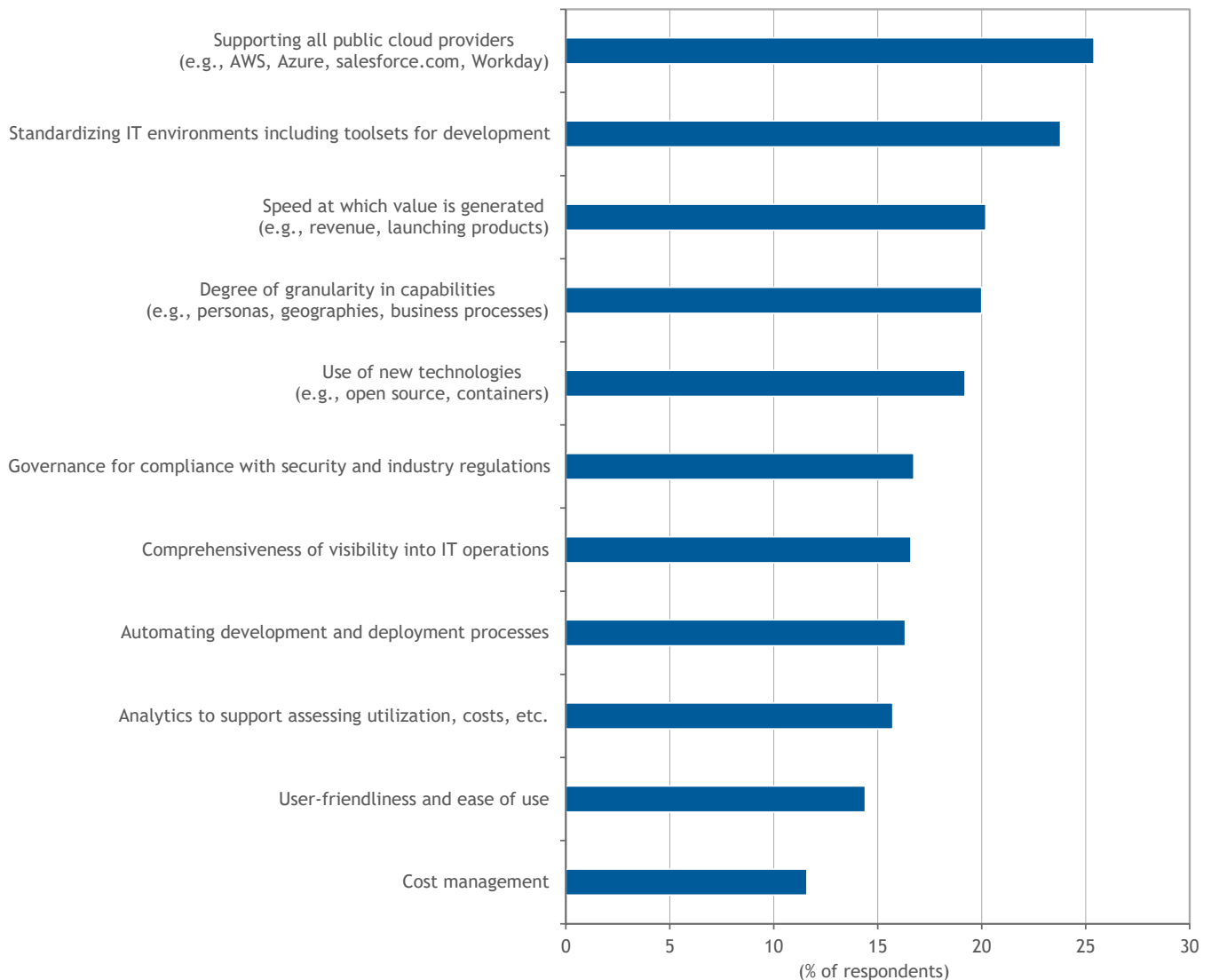
Further, enterprises look to managed multicloud services to gain access to any cloud platform, cloud operating model, and cloud service provider. This includes the enterprise need for managed SPs to align use of public cloud providers by different types of competencies (e.g., applications, analytics, IoT, cognitive, blockchain, DevOps, infrastructure), new delivery models (e.g., edge computing), and platforms (e.g., PaaS, containers). Firms also expect managed SPs to integrate security as part of managed multicloud services that include advanced cloud detection and analytic techniques such as sandboxing, behavioral assessment, and predictive capabilities.

Enterprise Priorities for Multicloud Management Environment

Figure 1 highlights the value that enterprises are seeking in using a multicloud management platform environment as part of managed cloud services. Enterprises want to use multicloud management capabilities to support all public cloud providers, standardize IT environments including toolsets for development, ensure the speed at which value is generated, and enable a degree of granularity in capabilities.

FIGURE 1: **Worldwide Value of a Cloud Management Platform**

Q What are the top 2 areas in which your company/organization sees value in using a cloud management platform to manage across all your IT assets and cloud resources, both private and public, including all cloud service providers (e.g., IaaS, PaaS, SaaS) with managed cloud services?



n = 1,500

Source: IDC's Worldwide Managed CloudView Survey, 2020

Considering Wipro

Wipro has created BoundaryLess Enterprise (BLE), a comprehensive multicloud management platform (see Figure 2). The platform is designed to help enterprises automate and accelerate their transformation to cloud and gain access to capabilities that can help continuously align their business objectives and requirements with consumption of any type of IT resource. BLE uses industrialized solutions involving reusable blueprints, which include a mix of Wipro's own IP and those available through partnerships with cloud service providers. Customers are provisioned with a ready-to-use, plug-and-play IT services platform in which data is decoupled. The result is that the BLE platform is able not only to ensure the sovereignty and integrity of all sources of data managed for enterprises and their users but also to support individual requirements and personas (e.g., IT, LOB, CXOs).

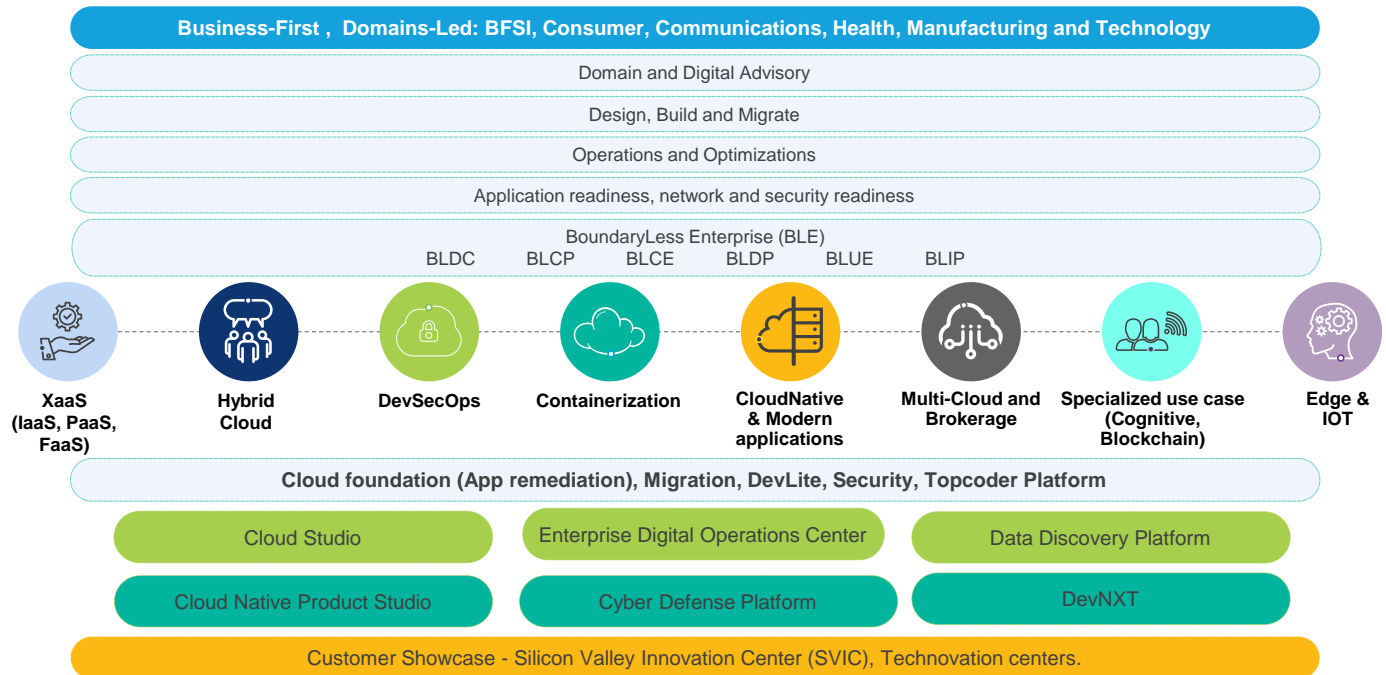
BLE enables developers to focus on business outcomes and provides enterprises with an efficient means of managing all their cloud and IT resources via a single pane of glass that delivers performance benchmarking, analytics, and flexible pricing options. BLE is also designed to accelerate the move to cloud by utilizing CI/CD and DevOps, coupled with SRE and advanced automation in the form of AIOps. The plug-and-play capabilities of the BLE platform utilize reusable assets (e.g., accelerators, templates, and reference architectures) that can support clients based on where they are in their journey to and use of cloud. In addition, Wipro's BLE platform helps address critical business concerns involving trust and sustainability. While BLE incorporates a holistic approach to ensuring security of IT and information across all technology resources that comply with data privacy standards, it also helps address energy efficiency by using analytics to drive decisions on energy use, provide telemetry to measure and report real-time usage, and enable continuous improvement.

Wipro positions its BLE platform as providing a digital services supply chain that spans from edge to cloud to enterprise across the full stack of technology, including infrastructure and applications. The BLE platform includes integrating the full life cycle of services that involve architecting, designing, developing, testing, deploying, and managing any IT and cloud resource, which includes resources involving edge computing and IoT-enabled environments. The platform provides customers with a choice of any cloud resource and technology, thus ensuring that there is no lock-in.

Wipro's BLE platform consists of the following elements:

- » **BoundaryLess Datacenter (BLDC).** BLDC offers an "Uber-like" experience that enables dynamic self-service across any cloud resource while optimizing financial management and ensuring agility and scale.
- » **BoundaryLess Container Platform (BLCP).** BLCP provides a single control plane for managing across all container types, regardless of location, to enable development teams to focus on innovation.
- » **BoundaryLess Data Protection (BLDP).** BLDP is a data protection platform with a single pane of glass to help enterprises connect, secure, back up, recover, manage, and control enterprisewide data located anywhere.
- » **BoundaryLess Universal Edge (BLUE).** BLUE is a framework to support provisioning production-grade edge services utilizing accelerators such as reference architectures, reusable components, and shared services.

- » **BoundaryLess Integration Platform (BLIP).** BLIP provides a unified integration platform using open standards, different integration styles (e.g., APIs, event-driven architecture), and standardized assets to enable migration and innovation on an as-needed basis.
- » **BoundaryLess Cloud Exchange (BLCE).** BLCE provides enterprises with a single pane of glass for IT and network infrastructure, enabling seamless and secure workload deployment across any cloud resource.

FIGURE 2: *Wipro's BLE Platform*

Source: Wipro, 2021

Critical capabilities that further differentiate Wipro's BLE platform in helping enterprises meet business and IT objectives involve the company's Cloud Studio and Innovation Centers, Enterprise Digital Operations Center (EDOC), and Topcoder crowdsourcing platform.

Cloud Studio and Innovation Centers

Wipro's Cloud Studio allows for cocreation/coinnovation with enterprises. The studio supports enterprises with a physical environment and highly automated, industrialized processes in developing next-generation solutions for any type of technology environment using public clouds and hyperscalers. Support is provided for multiple pathways to cloud (e.g., lift and shift, refactoring, replatforming), involving cloud-native development and DevOps that incorporate a wide array of innovative technologies (e.g., cognitive, IoT, augmented reality/virtual reality, and blockchain) and vendors. This support is complemented by Wipro's innovation centers.

EDOC

Wipro's EDOC is a fully integrated, modular platform that provides a 360-degree view of enterprise operations. This platform offers a single pane of glass for service aggregation and procurement using a service catalogue and an automated fulfillment process. It supports cloud capabilities such as IaaS, PaaS, DevOps, microservices, and containers.

Topcoder

Topcoder is a crowdsourcing platform that rapidly delivers a wide array of services to address multicloud needs in areas such as visual design, code development, data science, and QA. It is supported by technology experts such as data scientists, QA testers, UI designers, and niche developers who utilize industry standards, cloud-agnostic blueprints, and DevSecOps pipelines designed to shorten time to market and ensure that industry compliance requirements are met.

Challenges

IDC research shows that enterprises still face some challenges that managed SPs, such as Wipro, need to address in optimizing the value in utilizing managed multicloud services that span migrating to and management of all IT and cloud resources. In making the journey, enterprises continue to face significant organizational barriers and legacy processes that impede the creation of a seamless life cycle of service delivery needed to meet key enterprise objectives. Overcoming these obstacles will require managed SPs to implement critical processes and robust governance that involve multicloud management platforms and technologies.

At an operational level, enterprises show concern that managed multicloud services cannot support the performance requirements of important applications and meet SLAs such as availability and speed of provisioning. There is also concern about losing control over the management of IT, particularly as enterprises use more cloud service providers. By executing the right governance, management platforms, automated processes, and standards, managed SPs can help ensure availability of any cloud service when needed for any purpose and user requirement.

Conclusion

Ensuring effective use of managed multicloud services requires enterprises to consider an array of factors. In addition to providing client referrals, managed SPs need to assure customers that these services can:

- » **Support making strategic changes to enterprise operations.** Utilizing new capabilities, including DevOps, CI/CD, and SRE, will provide a robust foundation by which to effect the right organizational and process changes required to provision cloud resources in a more agile environment.
- » **Provide a platform that integrates the life cycle of cloud services.** Incorporating reusable assets (e.g., blueprints, reference architectures, and accelerators) with advanced automation (cognitive) as part of a multicloud management platform can support provisioning of an integrated "supply chain" of cloud services for delivering dynamic business and IT operations.
- » **Offer a means of enterprisewide control and user alignment.** Implementing multicloud management capabilities should help ensure the governance required to optimize utilization of all IT assets (cloud and noncloud), ensure cost management, meet compliance requirements, and align usage of resources by personas.
- » **Ensure continuous innovation.** Supporting dynamic enterprise needs requires investing continuously in identifying and integrating critical technologies and service provider capabilities that enable enterprises to adapt to new business models and maintain competitiveness.
- » **Optimize use of public cloud providers and platforms.** Optimizing utilization of public cloud provider capabilities requires a mapping of client preferences in deploying application and infrastructure assets by preferred cloud type (e.g., private, public, hybrid) and by preferred cloud service provider and platform (e.g., IaaS, PaaS, SaaS).

The primary use of multicloud management platforms is to support all cloud providers, standardize IT, and ensure the speed at which value is generated.

Today's market is placing increasing pressure on enterprises to utilize cloud as a means of supporting business and IT requirements. To reap the benefits of cloud, enterprises must make fundamental changes in how they design, build, and operate highly agile IT capabilities. This task is further complicated by the enterprise need to utilize multiple cloud operating models, platforms, and cloud service providers. Making the necessary changes to deliver on the promise of agility will require enterprises to combine a broad set of capabilities spanning new processes (e.g., DevOps, CI/CD) and critical IP and technologies that utilize a highly automated multicloud management platform. The goal is to enable enterprises to continuously adapt to a highly dynamic market while ensuring competitive advantage.

About the Analyst



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David Tapper provides research on emerging services areas including mobility, social media, analytics, automation, IoT, and cloud services as well as provides strategic thought leadership on the transformation of the services industry to newer models of delivery including cloud computing, managed cloud services, and software as a service (SaaS).

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