Industry Developments and Models

Effective Multicloud Management Strategies Support Digital Transformation and Business/IT Collaboration

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IN THIS EXCERPT

The content for this excerpt was taken directly from IDC Industry Developments and Models: Effective Multicloud Management Strategies Support Digital Transformation and Business/IT Collaboration (Doc #US41672016). All or parts of the following sections are included in this excerpt: IDC Opinion, In This Study, Situation Overview, Future Outlook, Essential Guidance, and Learn More.

IDC OPINION

As the number of clouds used to support enterprise IT and DevOps programs expands, many organizations are struggling to eliminate cloud silos, optimize cost and performance, and ensure that DevOps and line-of-business (LOB) teams remain agile while still protecting confidential information and adhering to corporate and industry security and regulatory policies. Effective multicloud management strategies built on modern management platforms and collaborative processes and governance are critical enablers of digital transformation and business innovation. By reducing operational silos and simplifying the way LOB and developer teams access resources, unified multicloud management will enable enterprises to better optimize cloud investments while more quickly developing and deploying applications that will differentiate the business and drive revenue growth. IDC’s recently completed Multicloud Management Survey finds IT, DevOps, and LOB managers must work together to effectively harness multicloud environments. Specifically, they must:

- Focus on workload-specific requirements for many cloud investment and sourcing decisions.
- Invest in unified management processes and tools to streamline operations and optimize costs.
- Take full advantage of on-premise and public cloud management services.
- Rely on modern big data IT operations analytics to fully assess dependencies and automate operations.
- Accelerate the shift to defining IT activities in terms of services, policies, and SLAs that can be consistently applied, in an automated way, across multiple dedicated and share IT resources including public, private, and noncloud environments.
IN THIS STUDY

This IDC study, written for senior IT and DevOps executives, details IDC’s July 2016 Multicloud Management Survey of 200 United States–based IT and DevOps decision makers focused on understanding priorities related to multicloud management operational strategies, management tools selection, process improvements, and governance requirements. Survey results show that these key decision makers recognize the value of multicloud architectures but also recognize that current management processes and tools are not sufficient to optimize performance and costs across diverse public and private clouds as well as traditional-dedicated IT. The study identifies the major new areas of management investment and process improvement required to effectively manage multicloud environments and arms readers with an actionable framework for crafting a successful multicloud management strategy for their own unique organization.

Note: All numbers in this document may not be exact due to rounding.

SITUATION OVERVIEW

In today’s information economy, businesses in all industries are investing in digital transformation programs to access new markets, interact with customers, and gain deeper insights into buyer and competitor behaviors. Powered by big data, continuous development, API integrations, social media, automation, and cloud, business today depends on rapid and flexible access to computing, storage, and networking resources that can meet the ever-changing needs of legacy applications and modern cloud and mobile innovations.

Many organizations are embracing shared, dynamic cloud services and infrastructure to better match IT resources to business needs and to provide applications developers and business analysts with self-service and on-demand access to state-of-the-art analytics and development platforms. Many organizations are choosing to work with multiple cloud platforms including on-premise private clouds and on-demand public cloud IaaS, PaaS, and SaaS. IDC’s recent survey of United States–based enterprise IT and DevOps decision makers found that 77.5% of organizations plan to use three or more clouds by 2020 (see Figure 1).
Q. In total, how many different clouds (public and/or private) do you expect your total organization to use by 2020?

![Pie chart showing distribution of expected cloud usage by 2020.](image)


The decision to use multiple clouds, or to rely on traditional-dedicated infrastructure or outsourced or hosted solutions, is largely based on the needs of applications as defined in terms of cost, performance, security, and the availability of internal staff and skills to support a particular set of business and workload requirements.

Among organizations that plan to use at least one type of cloud (public or private), business agility is consistently the primary decision driver. Organizations planning to use five or more clouds are more likely to emphasize digital engagement and interest in increasing use of automation as important drivers as well (see Figure 2).
Top Five Drivers for Multicloud Strategies

Q. What are the most important drivers and requirements shaping your organization’s overall IT strategy from today through 2020?

![Bar chart showing the top five drivers for multicloud strategies]

Note: Respondents are cloud users.

Source: IDC’s Multicloud Management Survey, July 2016

Agility is driving the need to use multiple clouds. DevOps teams and line-of-business decision makers need to focus on business innovation without having to concern themselves with operational logistics of procuring, configuring, and deploying infrastructure and middleware. They want to be able to quickly and consistently define the functionality and services required to get their job done and have the required enabling management services included as needed.

The downside of this race to innovate is that organizations often end up with business and information silos tied to different clouds. These can be difficult to integrate and coordinate from a business process, risk management, and cost optimization perspective.

FUTURE OUTLOOK

As organizations are maturing, many are finding that it makes sense to take a more unified and coordinated approach to use and manage multiple clouds. Sometimes referred to as hybrid clouds, well-managed and integrated multicloud environments allow organizations to mix and match a range of public clouds, on-premise private cloud and hosted, and/or virtual private cloud options depending on business and workload requirements. Multicloud environments promote cross workload data integrations and workflows and help to standardize approaches for integrating with established physical and virtual systems and legacy workloads. They also enable IT teams to consistently monitor
and maintain compliance with security, confidentiality, and regulatory requirements and to take greater advantage of overall buying corporate purchasing power.

As a result, IDC’s research shows that implementing an effective, unified multicloud management strategy is a vital enabler of successful digital transformation efforts. As shown in Figure 3, almost three quarters (73.5%) of decision makers believe they will need to use the same management tools and processes to manage across all their cloud resources if they are to be able to support business, IT, and DevOps goals.

**FIGURE 3**

**Need for Unified Multicloud Management**

Q. *Do you expect your organization will use the same management tools and processes to manage all clouds by 2020?*

![Pie chart showing 73.5% Yes and 26.5% No.](image)

Source: IDC’s Multicloud Management Survey, July 2016

Operational efficiency is a primary driver for unified multicloud management, particularly for organizations that plan to use five or fewer clouds. As shown in Figure 4, among organizations that plan to make use of more than five clouds, the top drivers are improving their ability to better monitor and control cloud service provider contracts and to improve end-user experience levels. These decision makers recognize that as the number of cloud increases so does the risk of the organization spending too much by fragmenting rather than aggregating its cloud service spending.
Drivers for Multicloud Management: Using the Same Tools and Processes

Q. Which of the following objectives are driving your organization’s decision about using the same tools and processes to manage all clouds?

The emergence of multicloud strategies signals an era of increasing collaboration among LOB leaders, development teams, cloud managers, and IT executives. While some DevOps teams initially opted to use public cloud services because they could get resources faster than internal IT could provision them, these same decision makers are starting to see that large-scale applications running on public clouds need to be managed and monitored on a consistent basis. Many organizations are beginning to see the value of having skilled cloud management staff assigned to monitor and support the full range of on-premise cloud resources side by side with multiple public cloud services. Cloud administrators can help to monitor and optimize public cloud usage, ensure workload integration and portability, unify contracts and optimize buying power, build and maintain standard images, support integrations with on-premise resources, and ensure adherence to business risk management and compliance requirements.

Most organizations (84.5%) polled by IDC believe they will need to purchase net-new cloud systems management solutions (either on-premise software or as part of a public cloud service) in order to be able to manage multicloud environments consistently and effectively (see Figure 5).
FIGURE 5

Need for New Cloud Management Solutions

Q. Do you expect that your organization's cloud strategy will require the purchase of net-new computing and application management software or SaaS solutions to supplement or replace existing management solutions between now and 2020?


Organizations that expect to purchase net new cloud management solution are most often looking for:

- State-of-the-art big data IT operations analytics
- Improved visualization and reporting
- Better integrations across on premises resources and public cloud services
- Better support for modern open source APIs and management technologies
- Greater overall management flexibility

As shown in Figure 6, automation for cloud resource provisioning and workload migration is an important new area for many organizations. Cloud service brokering and analytics, application performance monitoring, public cloud service monitoring, and capacity planning analytics are also top new requirements for multicloud management.
Organizations with larger number of clouds tend to recognize the need for updates to processes and governance more than organizations with just a few clouds. As shown in Figure 7, the more complex the environment, the more important it becomes to define IT services in terms of SLAs and policies that can be applied consistently across multiple clouds and use to drive automated solutions and workflows. More collaborative business and IT governance and policy making are also frequently cited as being important among organizations that use a larger number of clouds.
Organizational and Governance Changes for Multicloud Management

Q. What types of organizational and governance changes is your organization expecting to implement by 2020 to help optimize your IT management organization and operations?

![Diagram showing percentages of respondents for various organizational and governance changes.]

Note: Respondents are cloud users.


ESSENTIAL GUIDANCE

As use of multicloud strategies matures, enterprise IT, DevOps, and LOB decision maker need to carefully review the range of clouds being used by the organization in light of costs, performance, and management needs and concerns related to managing confidential data and business risk. Most organizations will find they need to rely on multiple clouds to hit the right mix of business agility and operational priorities. They will need to make decision in a collaborative manner with a focus on digital
To ensure that their organization's multicloud management strategy is ready for whatever business requires, these organizations should:

- Evaluate the organization's current ability to monitor, provision, and optimize multiple clouds on a consistent basis and explore whether addition capabilities such as advanced IT operations analytics or automate provisioning tools will be needed.
- Define common policies and SLAs that can be applied on a consistent basis across multiple clouds to ensure reliable end-to-end performance, scalability, and cost control.
- Make use of API-based integrations between on-premise and public cloud service management APIs to ensure that the organization has a full view of all cloud resources.

A unified approach to multicloud management will pay off not only in terms of IT operations productivity but in terms of being able to provide business and development teams with a comprehensive view of resource availability and consumption, compliance reporting, end-to-end service levels, and end-user experiences.

LEARN MORE

Related Research

- North American Enterprise Hybrid Cloud Managers Prioritize Automation and Orchestration (IDC #US41177116, April 2016)
- IDC MaturityScape: Cloud (IDC #259534, October 2015)
- IDC MaturityScape: Hybrid Cloud Management (IDC #253611, January 2015)

Synopsis

This IDC study, written for senior IT and DevOps executives, details IDC's July 2016 Multicloud Management Survey of 200 United States-based IT and DevOps decision makers focused on understanding priorities related to multicloud management operational strategies, management tools selection, process improvements, and governance requirements.

"As organization make use of more cloud services and run more production workloads across public and private cloud platforms, cost, security, and consistent operational performance can be difficult to guarantee," explains Mary Johnston Turner, research VP, Enterprise Systems Management Software, IDC. "A unified approach to multicloud management will pay off not only in terms of IT operations productivity but in terms of being able to provide business and development teams with a comprehensive view of resource availability and consumption, compliance reporting, end-to-end service levels, and end-user experiences."
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