Modernizing Private Cloud Workloads in Midsize Enterprises

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Initiatives: Midsize Enterprise IT Leadership; Cloud and Edge Infrastructure

Building cloud solutions is complex, as is selecting the correct technology combinations. For I&O leaders in midsize enterprises, solutions proven effective in similar-sized organizations are the key to successful private cloud workload modernization projects.

Overview

Key Findings

- Although public cloud adoption is progressing, less than 15% of IT spend within midsize enterprises was allocated to public cloud in 2020.
- Workloads running on private cloud infrastructure continue to be critical for most midsize enterprises.
- Midsize enterprises are hampered in their private cloud modernization initiatives unless they adopt public and private cloud in parallel.

Recommendations

Midsize enterprise I&O leaders tasked with workload modernization must:

- Mitigate the risk associated with mission-critical workloads by leveraging the predictability, reliability and security of private cloud.
- Avoid a blanket approach and ensure only the most appropriate mission-critical workloads are migrated to the public cloud.
- Minimize the risk of failure by selecting the simplest combination of approaches to a targeted workload modernization.

Strategic Planning Assumption

Sixty percent of midsize enterprise workload will remain on-premises through 2025.
Introduction

Private cloud workloads continue to be a critical part of the ecosystems within midsize enterprises, with 40.7% of MSE I&O leaders actively using private cloud and/or 54.8% leveraging hybrid.¹ As MSE I&O leaders look to the cloud to modernize workloads they must understand that not all workloads are ideal candidates for modernization and/or public cloud environments. Modernization can take many forms, and modernization decisions must be made objectively with the requirements specific to each workload in mind.

Although public cloud adoption is progressing rapidly, less than 15% of IT spend within midsize enterprises in 2020 was allocated to public cloud (see IT Key Metrics Data 2021: Industry Measures — Insights for Midsize Enterprises). It is worth noting that the top outcomes midsize enterprises were able to achieve by adopting cloud (see Figure 1) were not achieved through public cloud adoption exclusively, but rather as part of an effective hybrid strategy consisting of a combination of private and public cloud services.

Figure 1. Top Outcomes Achieved by Adopting Cloud

Top Outcomes Achieved by Adopting Cloud
Sum of Rank (1-3) Versus Rank 1

- IT Modernization: 21% (Rank 1), 42% (Sum of Rank)
- Improved Efficiency: 16% (Rank 1), 41% (Sum of Rank)
- Improved Productivity: 10% (Rank 1), 30% (Sum of Rank)
- Increased Data Security: 8% (Rank 1), 28% (Sum of Rank)
- Increase Agility and Innovation: 7% (Rank 1), 25% (Sum of Rank)

n = 263 MSE respondents, excluding “Don’t Know/Not Sure”

Q: Please rank the top 3 outcomes your organization has achieved so far by adopting cloud.
Source: 2020 Gartner Cloud End User Buying Behavior Survey
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Analysis

Gartner, Inc. | 4002378  Page 2 of 7
Leverage the Predictability of Private Cloud

Private clouds can take many forms (see The Many Faces of Private Cloud), but private cloud modernization within midsize enterprises has been built on a foundation of hyperconverged and software-defined infrastructure (see Note 1). Solutions such as integrated systems using hyperconverged and software-defined infrastructure are designed for operational simplification. Hyperconvergence provides a building-block approach to compute, network and storage on standard hardware under unified management.

Simplified management through a converged interface rather than multiple specialized interfaces is ideally suited to a small team of IT versatilists whose responsibilities and expertise span a multitude of technical disciplines.

Although much of the attention in today’s technology world is focused on public cloud services and hardware-agnostic, software-defined solutions, a significant percentage (40.7% to 54.8%) of midsize enterprise portfolios continue to reside and rely on private cloud architectures.¹ When you juxtapose the inherent benefits of private cloud (see Figure 2) with the most significant challenges faced by MSE I&O leaders (insufficient skills/resources, managing technical debt, insufficient budget) ² and the most frustrating aspects of working with public cloud (cost control, migrating mission-critical applications, availability and reliability) the benefits of this approach for MSEs are clear.
Figure 2. Top 2 Reasons for Choosing Private Cloud for Workloads

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability - More Robust and Proven Approach</td>
<td>40%</td>
</tr>
<tr>
<td>Control - Best Value for the Money Spent</td>
<td>39%</td>
</tr>
<tr>
<td>Performance - Lower Latency for Network Sensitive Application</td>
<td>38%</td>
</tr>
<tr>
<td>Legacy Support - Maintaining Our Existing Systems</td>
<td>23%</td>
</tr>
<tr>
<td>Compliance - Allows for Better Governance</td>
<td>20%</td>
</tr>
<tr>
<td>Cost-Effectiveness - Best Value for the Money Spent</td>
<td>20%</td>
</tr>
<tr>
<td>Lack of Skills - Ability to Adapt Internal Expertise to Leverage Other Cloud Styles</td>
<td>16%</td>
</tr>
</tbody>
</table>

n = 208 MSE respondents, currently use private cloud, excluding “Not Sure”

Q: For your organization’s workload using private cloud, what are the top two reasons for choosing?
Source: 2020 Gartner Cloud End User Buying Behavior Survey

For MSE I&O leaders tasked with meeting and/or exceeding service levels without a dedicated 24/7 operations staff, the importance of attributes such as reliability, control and performance are elevated. Simplifying and standardizing the infrastructure on which private workloads are run has proven a reliable, cost-effective approach for similar-sized organizations. It is also the best means by which to improve efficiency while simultaneously laying the groundwork for future automation efforts.

Avoid a One-Size-Fits-All Approach to Workload Placement

Many midsize organizations’ expectations for public cloud do not align with their ability to execute, which makes it difficult for I&O leaders to design a strategy that meets business goals. When it comes to modernization and cloud strategy, most midsize enterprises have adopted a “cloud first” or “cloud smart” approach (see Move from Cloud First to Cloud Smart to Improve Cloud Journey Success). That being said, cloud first and/or cloud smart do not implicitly require public cloud. Putting the emphasis on the most significant technical aspects (see Figure 3) in a cloud first/smart approach, rather than a public cloud ideology, will ensure technical priorities are addressed and warrant the most attention when workload placement decisions are being made. Organizational as well as individual workload characteristics also weigh heavily on decision making within midsize enterprises.
IT teams with limited infrastructure and application development resources are challenged in moving their legacy workloads to a public-cloud-native architecture. This is particularly true for workloads that for a multitude of reasons (e.g., a high degree of customization, regulatory or data sovereignty requirements) must remain private. While private cloud technology may not deliver the breadth, depth or innovation of public cloud providers, rarely do those capabilities and the requirements of midsize enterprise align.

Putting the emphasis on the most technical aspects during workload modernization will provide much needed clarity when making public/private cloud decisions. Highly commoditized, cost-effective services, with little customization lend themselves well to multi-tenant public environments, but not all workloads fall into this category.

As cloud vendors’ offerings grow more complex, it adds to confusion and slows MSE I&O leaders’ efforts to orchestrate a successful cloud migration. Public cloud migrations are difficult, as is the cost and complexity of building an internal as-a-service environment. However for MSEs, private cloud is a known quantity. MSE I&O leaders have leveraged private cloud for years to run their small-scale highly
virtualized server environments upon which their business-critical applications, which are typically one or two generations old, reside.

**Evidence**

¹ 2020 Gartner Cloud End User Buying Behavior Survey was conducted to understand how technology leaders approach buying, renewing and using cloud technology.

The research was conducted online from July through August 2020 with 850 respondents from midsize and larger organizations (with revenues of $100 million or more) in the U.S., Canada, the U.K., Germany, Australia and India. Industries surveyed include energy, financial services, government, healthcare, insurance, manufacturing, retail and utilities. All organizations were required to currently have cloud deployed. This study focuses on the 263 respondents in organizations with revenue between $100 million and $1 billion.

Respondents were involved, either as a decision maker or decision advisor, in new purchases, contract renewals, or contract reviews for one of the following cloud types in the past three years: public cloud infrastructure (IaaS), public cloud platform (PaaS), public cloud software (SaaS), private cloud infrastructure, hybrid cloud infrastructure, or multicloud infrastructure. Respondents were also required to work in IT-focused roles, with a small subset of procurement respondents.

The study was developed collaboratively by Gartner analysts and the primary research team.

Disclaimer: The results of this study do not represent global findings or the market as a whole but reflect sentiment of the respondents and companies.

² 2020 Gartner I&O Leader Survey (MSE Respondents)

**Note 1: Examples of Hyperconverged and Software-Defined Infrastructure**

Cisco HyperFlex HCIS, Dell EMC VxRail, HPE SimpliVity, Huawei HCIS, Microsoft Windows Server Software-Defined, Nutanix, Red Hat Hyperconverged Infrastructure for Virtualization, VMware Cloud Foundation

**Recommended by the Authors**

- Using a Single IaaS Provider Ecosystem Is Sound Infrastructure Strategy for Midsize Enterprises
- Top 3 Midsize Enterprise I&O Cost Optimization Investments and Approaches for 2021
- Tool: 1-Page Cloud Strategy for Midsize Enterprises
- How Midsize Enterprises Can Prevent Cloud Overspend
- The Many Faces of Private Cloud