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How Organizations Are Evolving Their Infrastructure Environments to Meet the Requirements of GenAI Initiatives

Overview

TechTarget's Enterprise Strategy Group recently completed research in partnership with Dell Technologies to better understand several concurrent market dynamics. How are organizations evolving their infrastructure environments over time? How does generative AI (GenAI) factor into this evolution? What do organizations seek from GenAI solutions they will invest in and the technology partners that provide these solutions? The goal of the research, and the eBook it underpins, is to deliver peer-based insights to help decision-makers map out an effective GenAI adoption strategy.

The research consisted of a comprehensive online survey of 350 IT decision-makers involved in their organizations' purchase process for their compute infrastructure and/or AI/ML technologies. Organizations surveyed span private- and public-sector verticals, including technology, manufacturing, financial services, communications and media, etc. All organizations were U.S.-based, and 19% had less than 1,000 employees, while 81% employed 1,000 or more staff.

Highlighted Findings

Key learnings span several different aspects of enterprise IT, including private clouds, compute infrastructure requirements, GenAI plans, and primary vendor concerns:
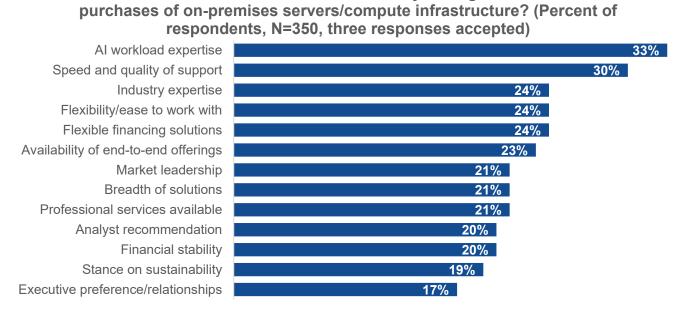
1. **Private clouds are ubiquitous and growing.** 98% of surveyed organizations have adopted private cloud approaches, and 82% expect their private cloud to grow over the next 24 months.

2. **Relative to public cloud infrastructure, private clouds are seen as having an edge in terms of security.** This makes them attractive locations for GenAI workloads that will leverage organizations' proprietary data and is likely a contributing factor to why 43% of organizations expect to primarily run these workloads on on-premises infrastructure versus just 26% expecting to run these workloads primarily in the public cloud.

3. **AI is a key driver scaling IT environments.** 82% of respondents report that AI is among the workloads that will most drive the need to grow computing environments, and only 1% of organizations have no plans or interest in adopting GenAI technologies.

4. **Organizations have a strong desire to develop custom GenAI solutions, but they need help to do so.** Over 90% of surveyed organizations are looking to create, train, and/or deploy GenAI applications leveraging their proprietary data. However, 99% expect that they will need technology partners to help them design, deploy, and/or manage generative AI solutions.

5. **GenAI solutions must be scalable, secure, and end-to-end.** 91% of respondents said it is important to find a solution that can scale across multiple lines of business and use cases, 92% said they are seeking GenAI infrastructure with integrated security capabilities, and 91% reported that it would be important for their organization to adopt a turnkey or fully end-to-end solution.

Enterprise Strategy Group
by TechTarget

Research Summary: How Organizations Are Evolving Their Infrastructure Environments to Meet the Requirements of GenAI Initiatives

6. **GenAI expertise is going to be the key determining factor in infrastructure purchases.** AI workload expertise is the No. 1 vendor consideration in the minds of compute infrastructure buyers, outstripping traditional considerations like service and support, industry expertise, ease of working with the vendor, and more (see Figure 1).

7. **Dell Technologies' efforts in building its [Validated Designs for Generative AI](#) appear to have been recognized in the minds of buyers.** Respondents most often said they would evaluate Dell if they were embarking on a new, major purchase decision. Specifically, 75% of all respondents said they would consider Dell—21 percentage points ahead of the closest competitor.

Figure 1. What IT Buyers Prioritize in Infrastructure Vendors Today

What vendor attributes are most critical to your organization's future purchases of on-premises servers/compute infrastructure? (Percent of respondents, N=350, three responses accepted)

Attribute	Percent
AI workload expertise	33%
Speed and quality of support	30%
Industry expertise	24%
Flexibility/ease to work with	24%
Flexible financing solutions	24%
Availability of end-to-end offerings	23%
Market leadership	21%
Breadth of solutions	21%
Professional services available	21%
Analyst recommendation	20%
Financial stability	20%
Stance on sustainability	19%
Executive preference/relationships	17%

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

While there is growing interest in and adoption of generative AI to improve business processes and workflows, there are several key issues to overcome. Skill gaps related to GenAI and changing infrastructure requirements mean that organizations must seek out strategic partners for help. However, this is not the only recommendation we can make based on the data. To review Enterprise Strategy Group's full analysis, read the research eBook via the link below.

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