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Small and Midsize Organizations Modernize for Productivity and Security, While Embracing an AI Future

Research Analysis on Current Infrastructure Modernization Priorities of Small and Midsize Organizations in the Wake of the AI-era

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ENTERPRISE STRATEGY GROUP

FEBRUARY 2025

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Introduction

Technology fuels almost every aspect of modern business. As a result, organizations of every size rely on infrastructure and operations for everything from customer engagement to internal operations. Given the influence infrastructure has on business success, modernization initiatives offer a path to competitive differentiation as technical advances fuel productivity improvements. For small and midsize organizations, the rapidly evolving cybersecurity and artificial intelligence (AI) landscapes are beginning to affect executive priority lists. The need to modernize infrastructure has become a matter of urgency. Simply being fast, resilient, and affordable is no longer sufficient for infrastructure environments, as modern businesses of every size are demanding more.

In this eBook, you will learn:

1. The current and most pressing IT and server-related challenges of small and midsize organizations.
2. How Dell Technologies can help modernize an organization's IT environment while preparing its business for the future of AI.
3. Top priorities when it comes to IT modernization.
4. How AI and generative AI are impacting IT strategy.

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"**The need to modernize** infrastructure has become a matter of urgency."

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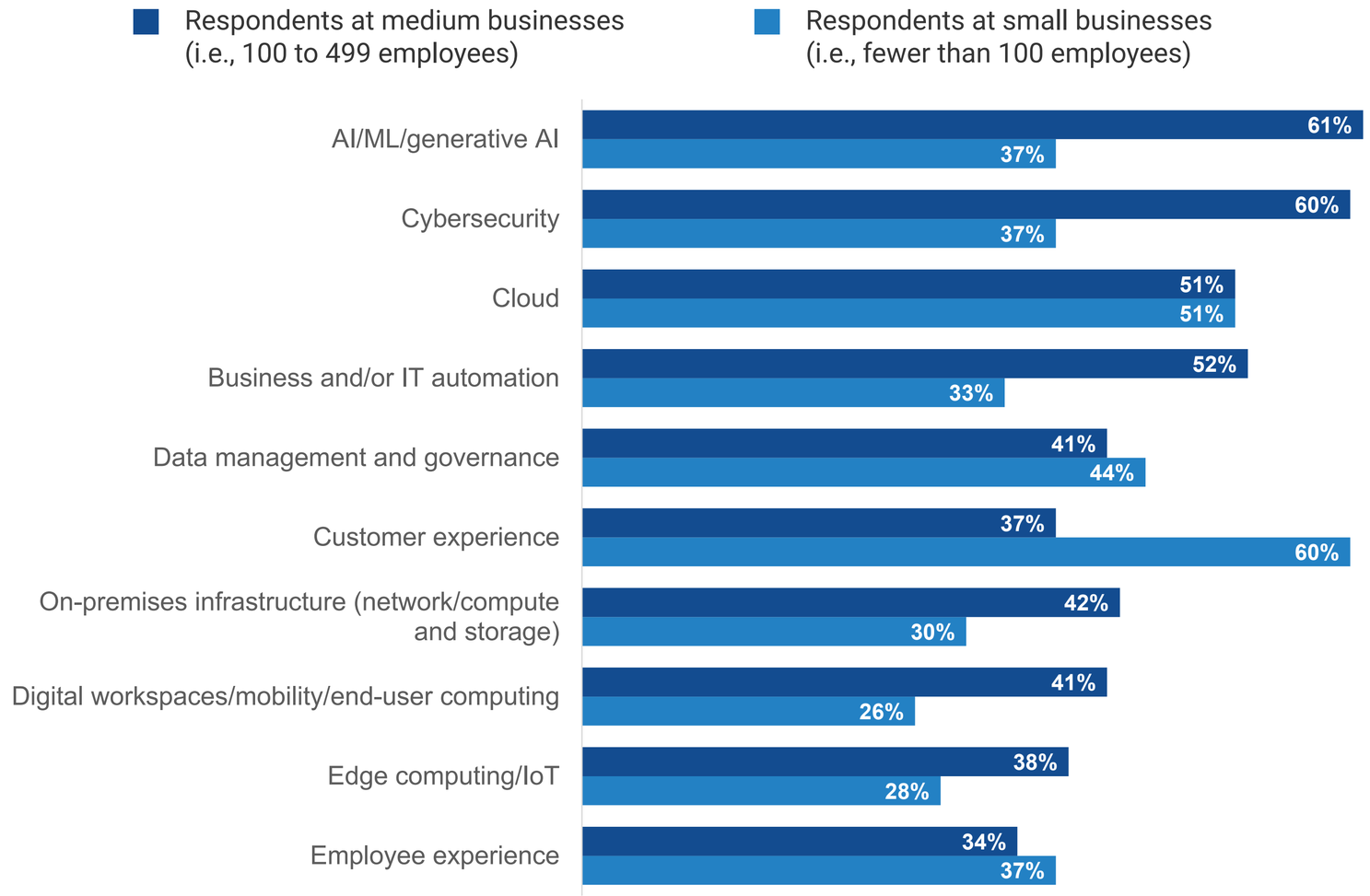
Source: Enterprise Strategy Group custom research commissioned by Dell, Server Compete 2024. All Enterprise Strategy Group research references and charts in this eBook are from this research study unless otherwise noted.

Small and Midsize Organizations Face Current Challenges in Reliability and Security, While Embracing Future Demands for AI

While Small Businesses Focus on Customer Experience and the Cloud, Midsize Firms Turn Their Attention to Cybersecurity and AI

As businesses scale in size, the scale and value of data tends to increase, and as a result, the importance of cybersecurity and AI increases substantially. As AI adoption matures and the cost of entry declines, the prioritization of AI within smaller-sized firms is expected to increase. Illustrating this point is the fact that 61% of respondents at organizations with 100 to 499 employees reported that AI and generative AI have become more important to their organization over the past 12 months.

Top 10 Technology Initiatives That Have Become Significantly More Important to an Organization's Success Over the Past 12 Months



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As Success Factors Evolve, Organizations Struggle With Reliability, Security, Compliance, and Cost

For modern IT, whether in small or midsize firms, digital resilience surpasses cost when organizations evaluate their most significant infrastructure-related challenges. Addressing the challenges of their infrastructure is essential to business continuity. Therefore, businesses wisely more often prioritize mitigating reliability issues, security incidents, and even compliance violations above reducing costs. If their IT environment encounters a disruption, the business experiences a disruption as well, which can be costly for larger firms and devastating for smaller ones.

Top Compute Challenges Organizations Prioritize to Resolve/Mitigate Over the Next 12 Months

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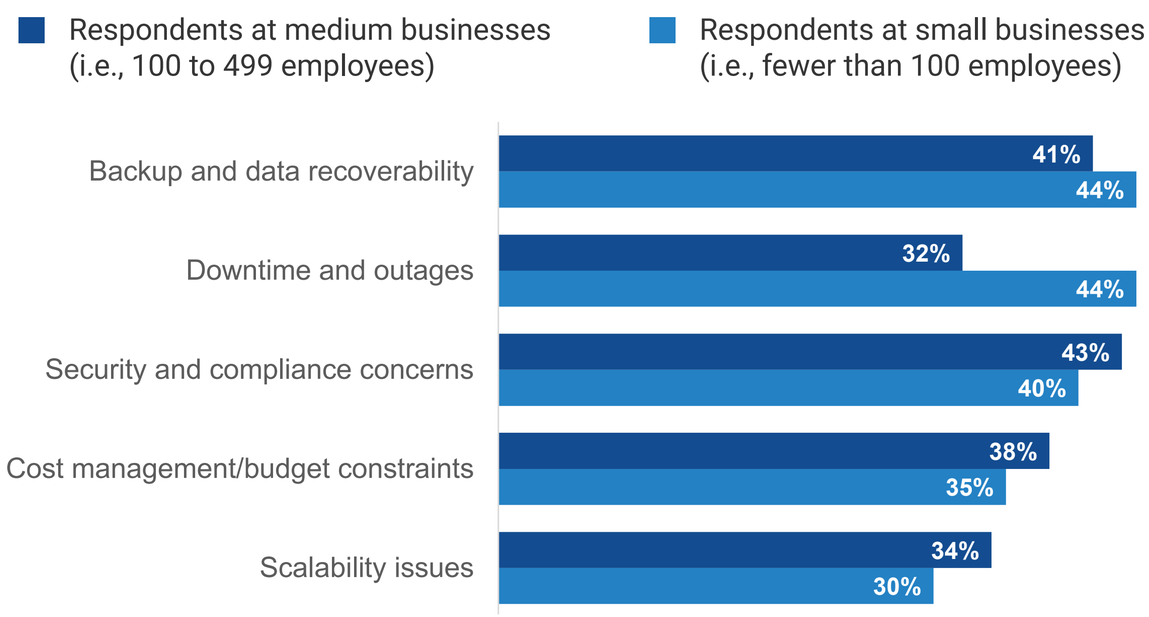
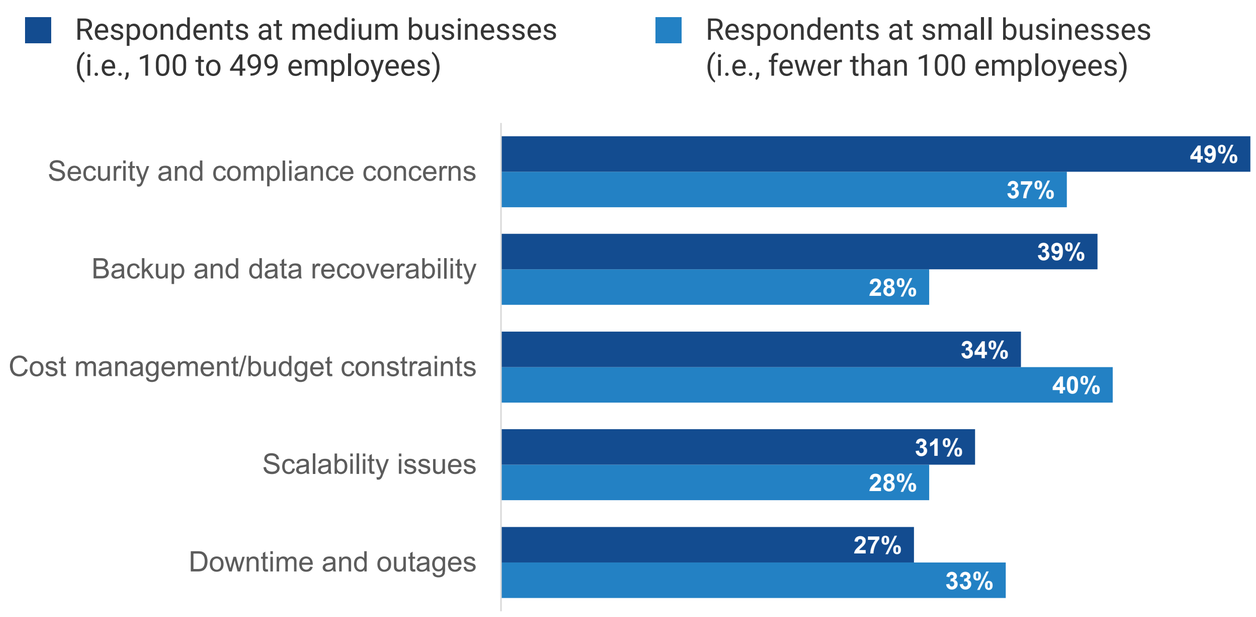
Resilience Continues to Surpass Cost When Organizations Identify Most Problematic Challenges in Both Hybrid Cloud and Servers

The top challenges of IT often extend to on-premises environments as well. Technology drives business productivity, and as a result, small and midsize organizations place high priorities on security and recoverability, with both outpacing cost management and budget constraints as problematic concerns for on-premises environments. In addition, the fact that hybrid cloud and on-premises server concerns closely mirror one another highlights the pervasiveness and importance that hybrid cloud adoption has on modern IT environments.

Top Five Most Problematic Challenges With Hybrid Cloud and Server Environments





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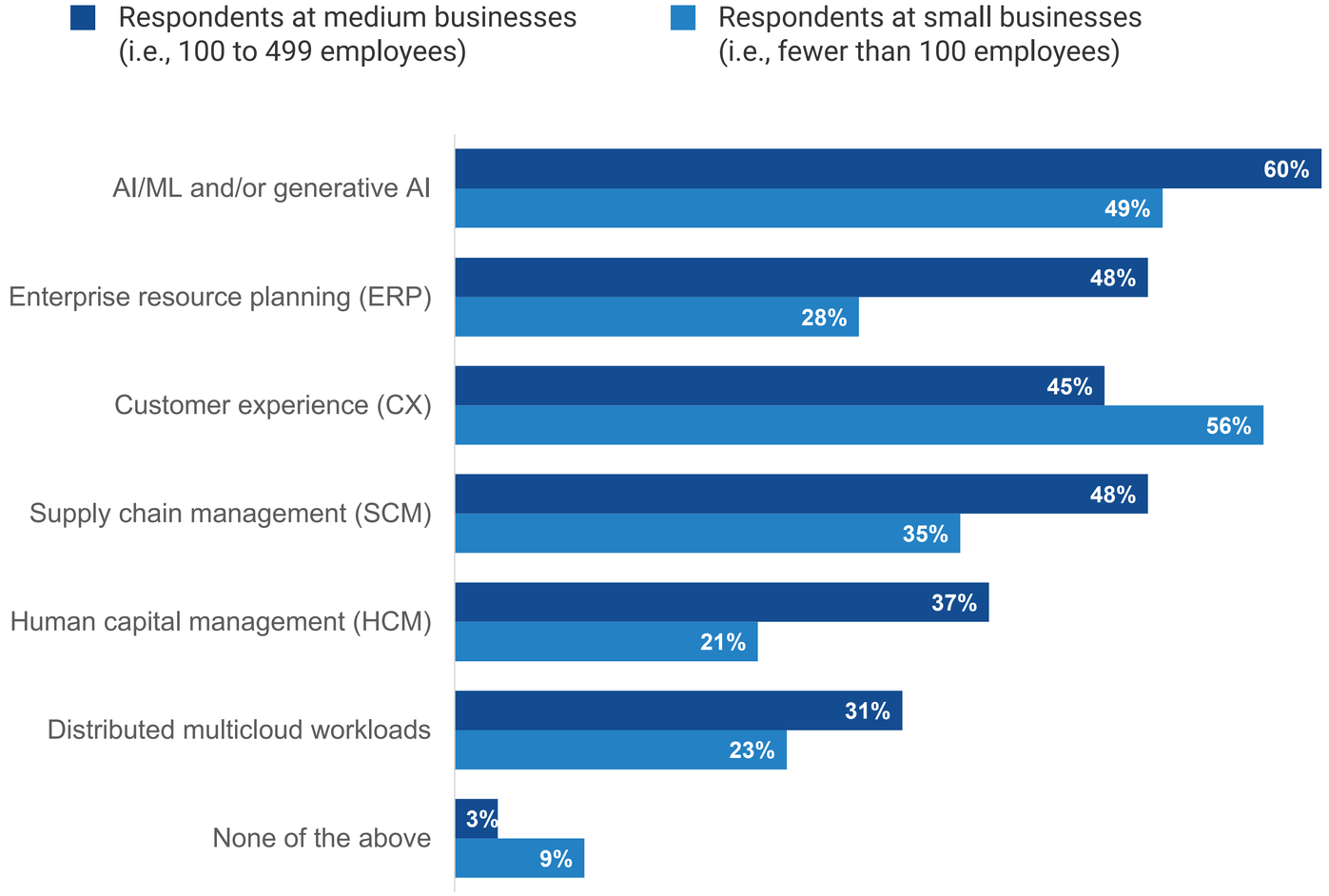
Infrastructure Modernization Initiatives Fueled by a Desire to Differentiate and Prepare for a Future With AI

For the Immediate Future, AI and Generative AI Are Poised to Drive Significant Server Investment

The potential of AI and generative AI to create transformational benefits in both operational efficiency and business opportunity has led to a significant increase in modernization initiatives.

Top Workloads Expected to Increase Demand for Servers Over the Next 12-24 Months



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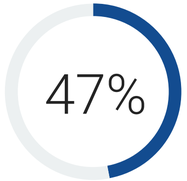
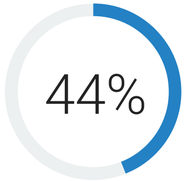
Small and Midsize Organizations Have Similar Priorities for Data Storage as They Prioritize Upcoming Investments in AI and Security

Prioritization of AI and security extends to storage requirements as well as servers. Nearly half of smaller-sized organizations that have an active or planned on-premises storage project identified AI or security as the driver behind that project. The significant role that AI and security initiatives are having on business is leading to investments across multiple on-premises infrastructure areas, servers, and storage.

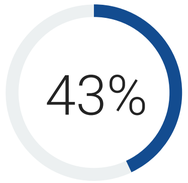
Top Workloads Expected to Increase Demand for Servers Over the Next 12-24 Months



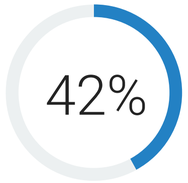
Artificial intelligence: predictive (e.g., to support machine learning or deep learning to improve predictions, recommendations, decisions, etc.)



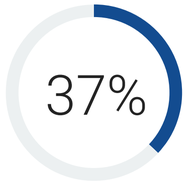
Artificial intelligence: generative (e.g., to support projects with large language models for data insights, chatbots, improved productivity, content creation, etc.)



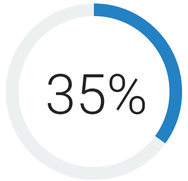
Security initiative (e.g., upgrading/changing infrastructure to better protect from security threats such as ransomware)



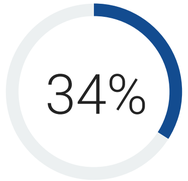
Digital business or growth initiative (e.g., expanding storage capacity or HCI to keep pace with business/organizational development)



Modernization initiative: as-a-service (e.g., to adopt an on-premises as-a-service or consumption-based procurement model for infrastructure)



Cloud repatriation/rebalancing (e.g., to support workloads/data sets moving back on premises from a public cloud service)



Modernization initiative: applications (e.g., to support modern applications, such as rising container adoption, microservices use, and increased application development)

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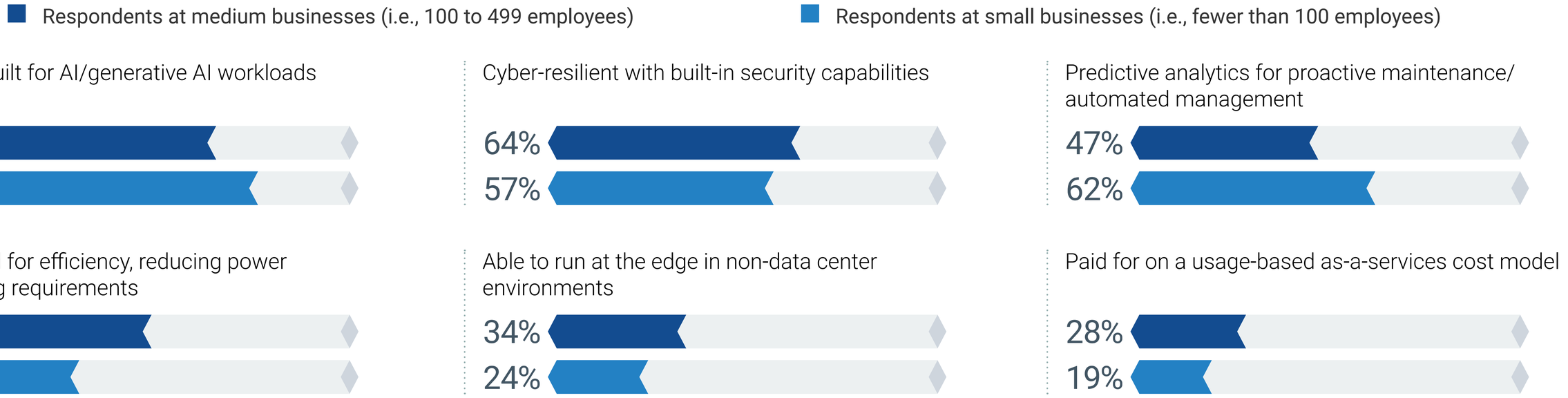
Predictive, Cyber-resilient Infrastructure Is a Must-have

Purpose-built and secure-by-design attributes resonate most strongly when IT decision-makers of midsize organizations consider servers to support AI workloads. For small firms, there is a higher prioritization upon using AI for predictive analytics to better ensure resilience and faster recovery, highlighting the importance of infrastructure uptime and the ability of the infrastructure to simplify root cause analysis and recovery when issues do occur. As the value of data is expected to increase with the increased adoption of AI, small and midsize organizations must ensure their high-value workloads stay secure and will continue to prioritize cyber resilience.

Top Solution Requirements for Servers Running AI Workloads



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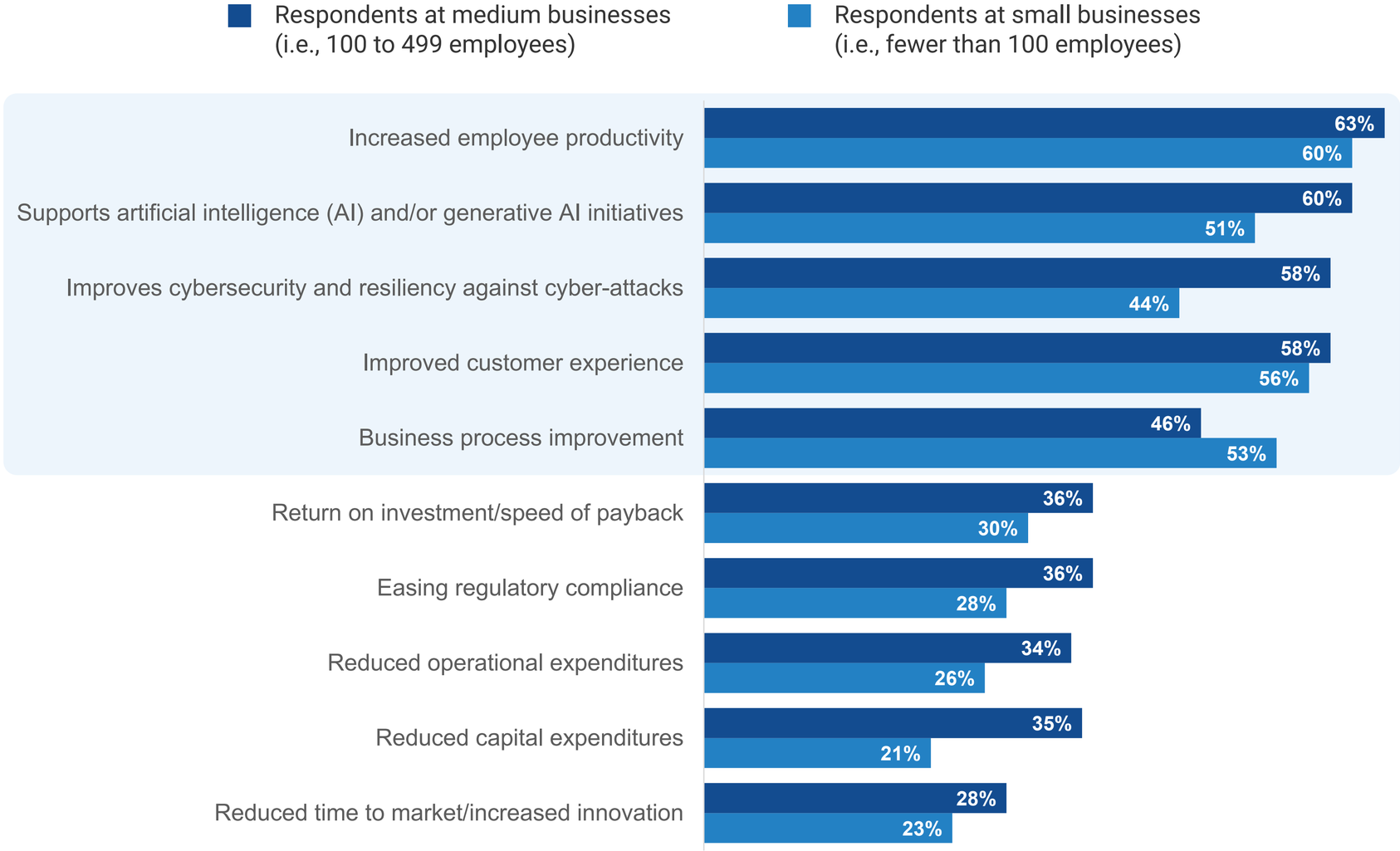
Productivity, Customer Experience, and AI Are Top Justifications for Infrastructure Budgets

When it comes to justifying new technology expenditures, growing businesses focus on the core tenets of empowering AI, improving productivity, and enhancing cybersecurity. Meeting these three requirements is strategically essential for any business if it wishes to outperform its competition and maximize its return on investment.

Top Justifications for New IT Investments Over the Next 12 Months



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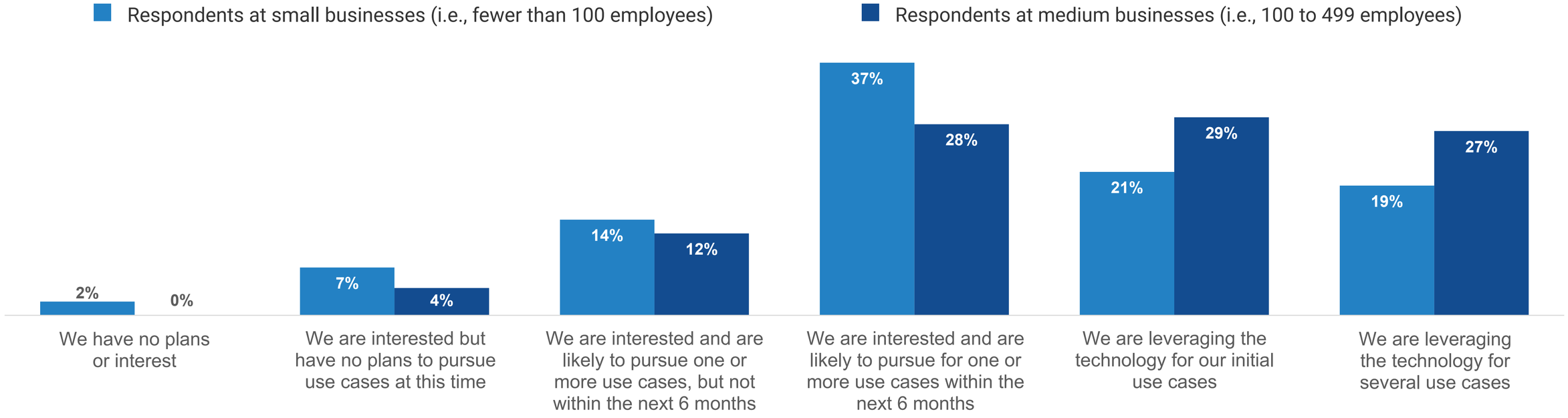
AI Is Still Early in Consideration, but the Opportunities Are Strong

The Majority of Organizations Are on Their Initial Generative AI Use Case or Plan to Start in 6 Months

Even with a high prioritization on supporting AI initiatives, generative AI is still relatively nascent in its adoption. Less than a third of small and midsize organizations are leveraging generative AI for multiple use cases. While adoption is expected to take place quickly, those that have yet to begin adopting generative AI will likely not be too far behind the competition when they choose to start their AI initiatives.

Current State of Adoption of Generative AI Initiatives That Leverage Proprietary Data



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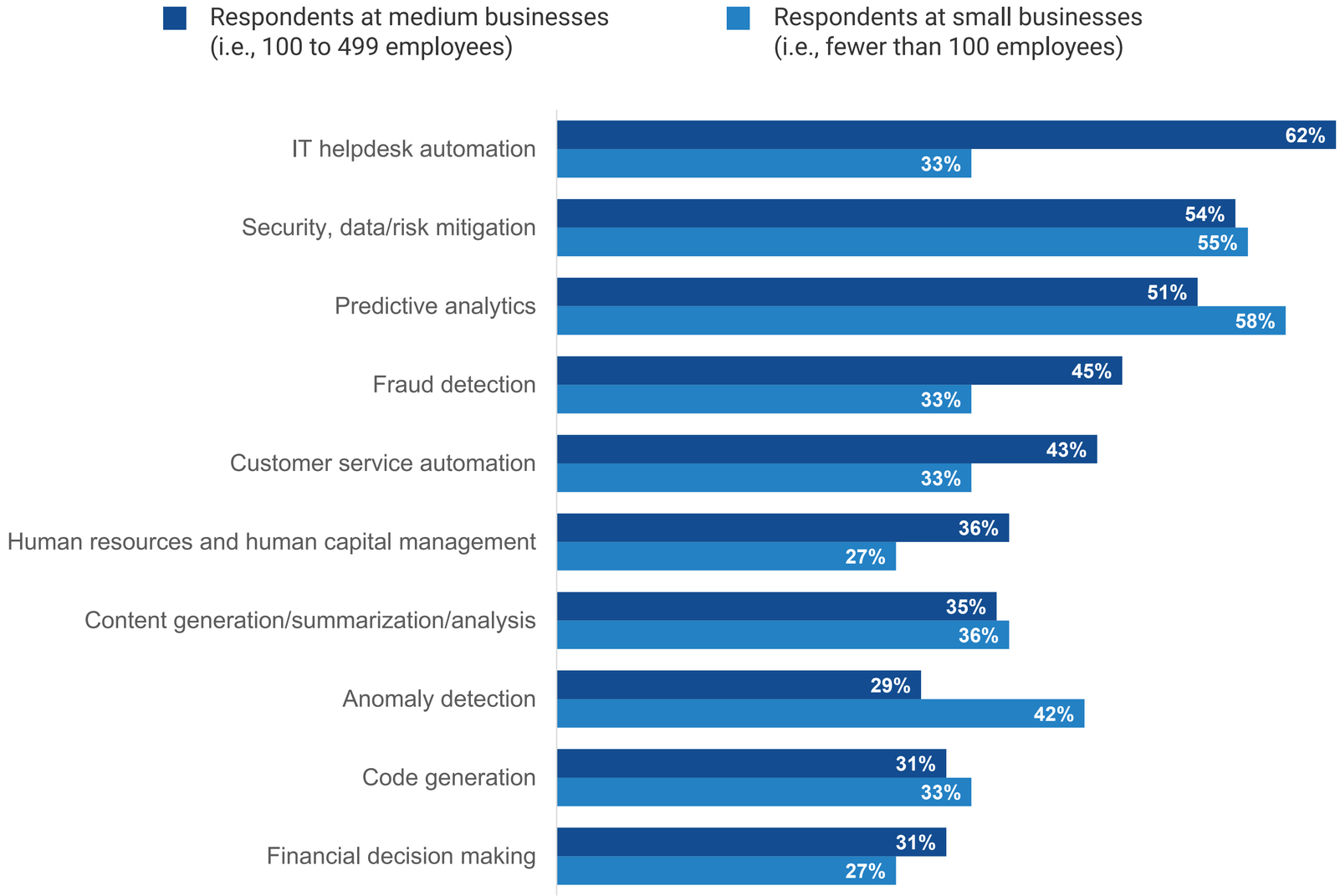
“This space is still evolving, and the use cases will **most likely shift over the coming years.”**

Midsize Firms Turn to AI for Help Desk Automation, as Smaller Firms Seek to Improve Cybersecurity

AI presents a broad opportunity to transform internal operations and customer engagement. Smaller firms are more likely to look to AI to help improve the productivity of internal operations from initiatives in security and predictive analytics, while midsize firms most often look to start with IT help desk automation. As organizations ramp up investments and identify use cases, the ability to start small with an internal use case and leverage an already prepared and well-understood data set is often a wise move to help ensure a quick path to returning business value with minimal risk. This space is still evolving, and the use cases will most likely shift over the coming years.

Top Generative AI Use Cases for Organizations



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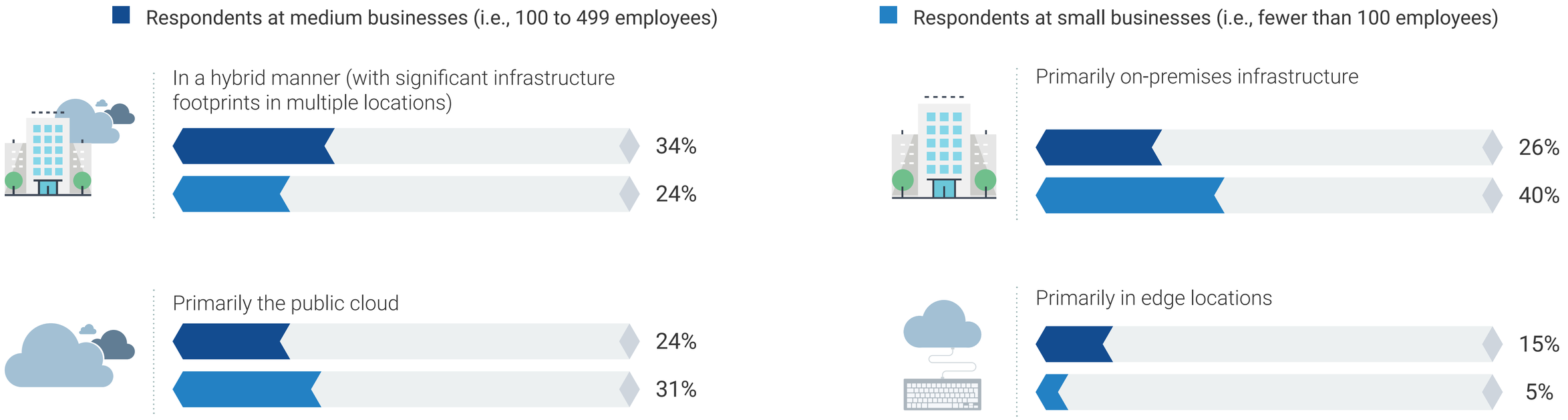
AI Workloads Are Expected to Reside Both On and Off Premises

While early expectations of AI deployments might have favored the public cloud, research from Informa TechTarget's Enterprise Strategy Group revealed a near-even split between the public cloud and on-premises infrastructure for where midsize firms are most likely to run the infrastructure needed to support generative AI. Additionally, respondents at midsize organizations most commonly identified that their organization would likely run the infrastructure in a hybrid manner. Small firms were even more prone to choose on-premises deployments for AI. Determinants for the deployment location of generative AI workloads will likely depend on a variety of factors, including cost, time to value, and the location of the data used for the models, as well as the sensitivity and regulatory compliance/locality requirements of that data. The main takeaway is that on-premises infrastructure and at the edge should be in consideration for generative AI deployments.

Most Likely Deployment Location for Generative AI Solutions



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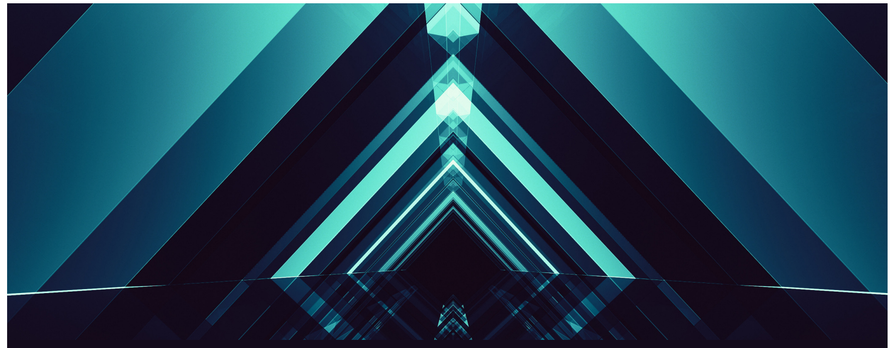
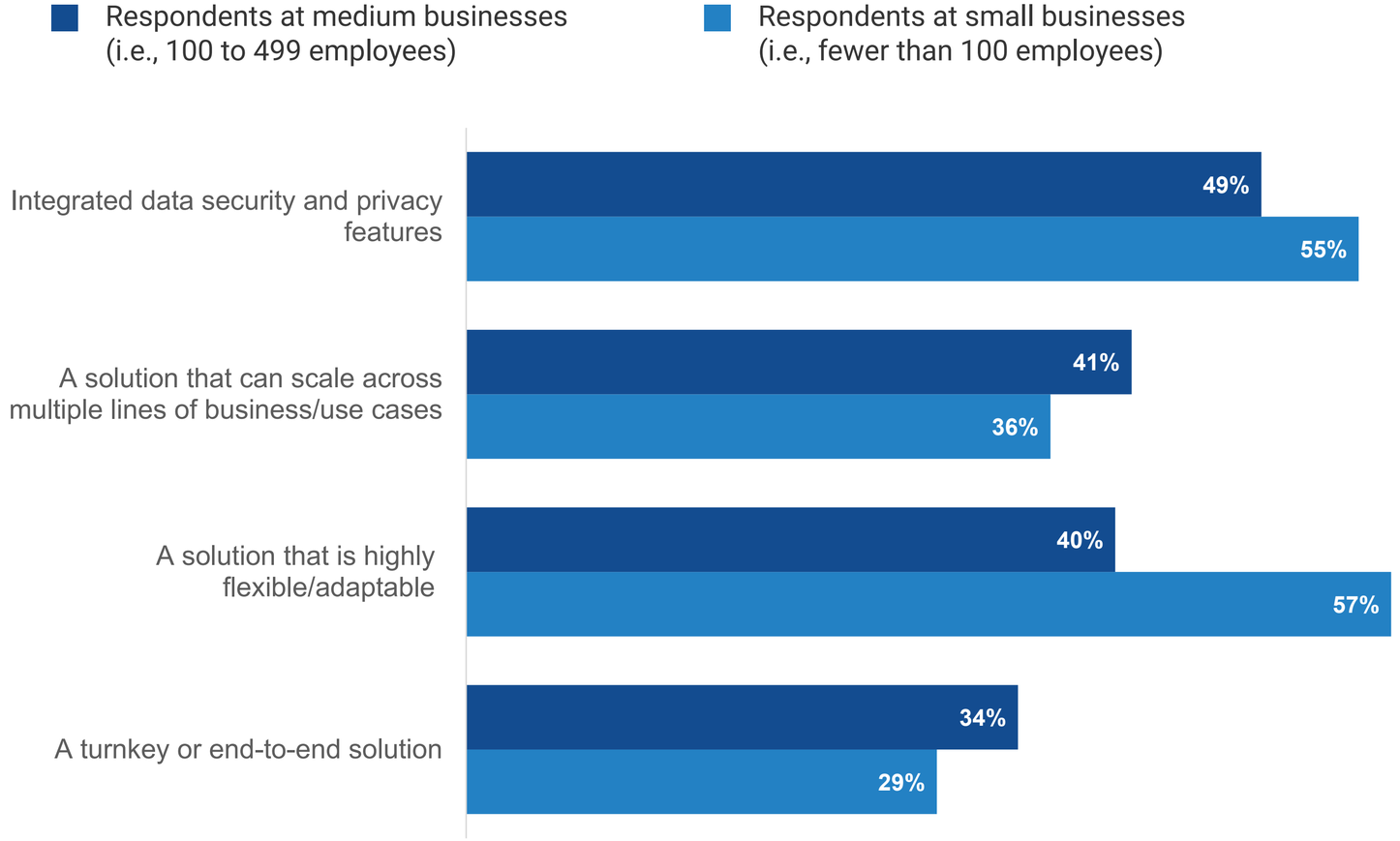


For Generative AI, Organizations Need Secure, Scalable, Flexible, Turnkey Infrastructure

When evaluating infrastructure for generative AI, multiple factors and capabilities play a role in determining the success of the initiative. The vast majority of organizations (86%+) of both small and midsize firms require infrastructure that is turnkey to accelerate and simplify deployment, secure to the reduce the risk of the generative AI initiative, and flexible and scalable enough to adapt to new use cases and ever-evolving businesses requirements.

Importance of Infrastructure Features When Evaluating Generative AI Solutions



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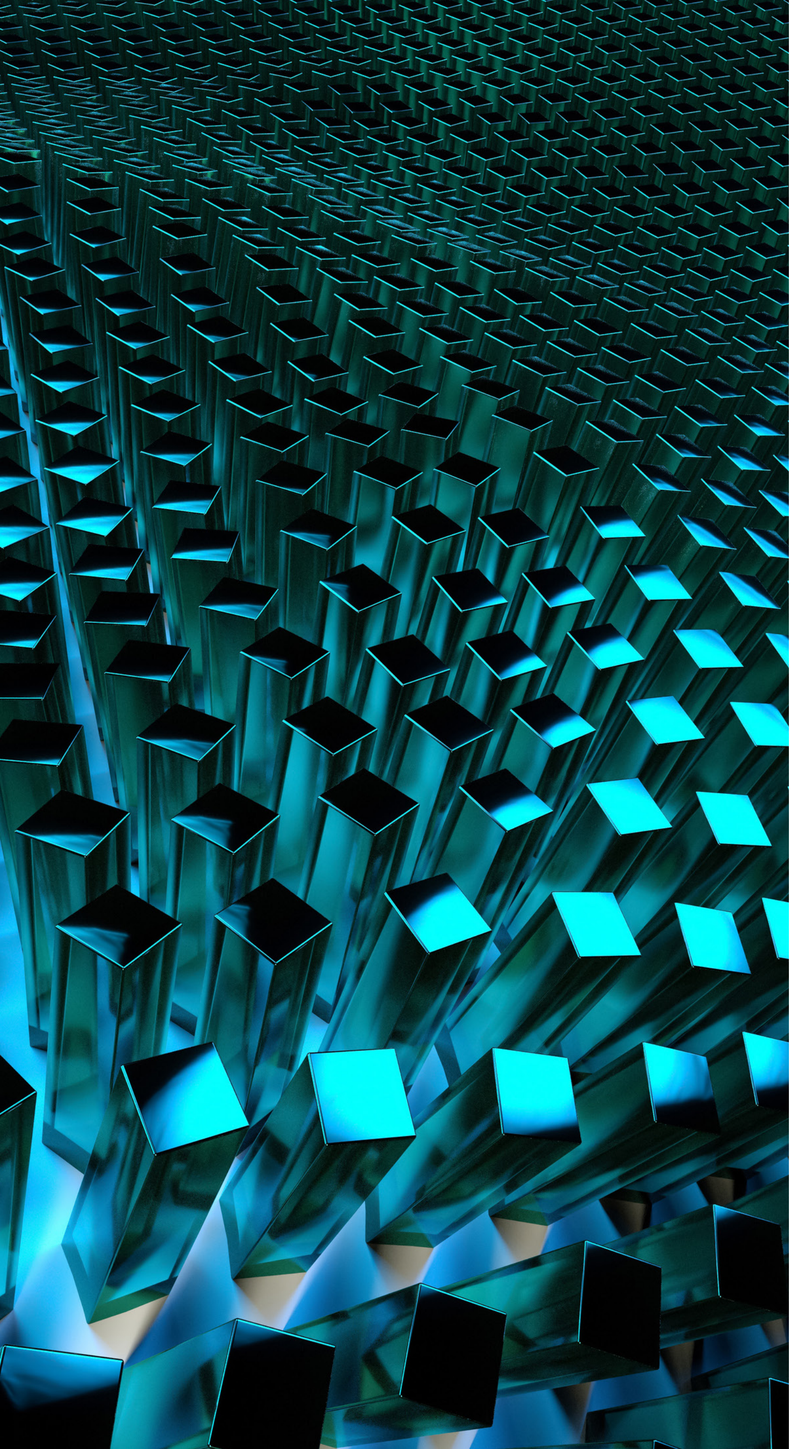
Dell Technologies: A Leader in Infrastructure for Small and Midsize Organizations

> “Given the essential nature of digital operations to business productivity and viability, artificial intelligence and security must be **top priorities.**”

Conclusion

Integrated capabilities to improve security, productivity, the hybrid cloud, automation, and AI and generative AI support have become top consideration factors for new infrastructure investments regardless of the size of the business. Given the essential nature of digital operations to business productivity and viability, security is and must be a top priority. The inclusion of the hybrid cloud and automation into the top consideration criteria represents the modern reality of application environments: They are distributed across on-premises infrastructure and clouds, and their massive scale places an increased burden on internal personnel. As a result, organizations are investing in servers that are purpose-built for the task at hand, along with robust automation tools to help keep pace with current and future demands. In addition, both small and midsize organizations recognize the potential of AI for the business and are investing accordingly. For organizations that have yet to begin their AI journeys, it is still early, and there is time to find competitive success. As organizations embrace this need to modernize, selecting the right infrastructure technology becomes even more important to staying competitive.



Dell Technologies Full Stack Infrastructure to Modernize Business

For the modern business, IT infrastructure defines both the customer and the employee experience. To this end, modernizing your infrastructure, especially from a leader like Dell Technologies, delivers a competitive advantage for businesses of all sizes.

Modernization plays an essential role for organizations seeking to achieve competitive success while navigating the rapidly evolving security and AI landscapes. For small or midsize organizations, selecting the right infrastructure is even more important, as the cost of missteps has a greater effect on the overall budget.

Dell Technologies offers a full infrastructure stack portfolio that includes client devices, servers, networking, data storage, and data protection. For example, Dell PowerEdge offers purpose-built, intelligent, and cyber-resilient server technology that can deliver up to a 60% performance improvement[1] and enable seven to one consolidation,[2] reducing cost and complexity.

Dell also augments its portfolio with advantages via energy-efficient power and cooling strategies, modular infrastructure, and a choice of silicon options. The net result is a single, trusted, experienced partner that can span the full breadth of IT demands along with enterprise-level support capabilities.

Dell Technologies also offers a strong channel partner ecosystem for its clients, further expanding the offerings available to businesses. As a result, Dell Technologies is well equipped to address any IT-related need with the combination of its broad technology portfolio and its extensive partner ecosystem, from startup organizations with their first set of venture funding all the way to the largest global enterprise environments.

For more information on how Dell Technologies can help improve your organization's cyber resilience, follow this link to take the Enterprise Strategy Group cyber-resiliency assessment.

→ Cyber Resiliency Vulnerability Assessment | ESG Research (esg-global.com)

[1] Based on Dell internal analysis of available front drive slots going from a maximum of 24 drives in prior-generation configurations to 32 E3.S drives config option in the latest-gen 2U platforms and 10 to 16 drives for 1U platforms. Available storage will depend on configuration and drives chosen.

[2] Based on Dell analysis comparing the SPECint and SPECFP scores of the AMD EPYC 5th Gen 9965 in a Dell R7725 (2980 and 2350) with the same scores for an Intel Xeon 8280 in a Dell PowerEdge R740XD (375 and 296). The ratio of the scores shows that 7 of the R740xd servers would give a total score similar to that for the single R7725 as configured above. Data accurate as of 10/2/2024. Actual performance will vary.

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The Dell AI Factory

AI is poised to fully transform nearly every aspect of business operations and customer experience over the next decade. Wherever a business is on its AI journey, Dell Technologies has technologies, tools, services, and partners that can help. The Dell AI Factory strategy encompasses multiple aspects to reliably take an organization's AI initiatives from inception to production.

The Dell AI Factory approach helps organizations of all sizes accelerate innovation, control costs, and protect data with the industry's broadest AI portfolio.[3] It comprises Dell's leading infrastructure, an open ecosystem, and services, all designed to combine with an organization's data to deliver faster AI outcomes. Validated, integrated solutions and best practices offer targeted and repeatable success for deploying AI that considers technical and business requirements. Dell AI Factory solutions are flexible to address an organization's unique needs. They can operate in public clouds, on premises, workstations, AI PCs, and edge locations to bring AI to an organization's data.

[3] Based on Dell analysis, December 2024. Dell Technologies offers hardware solutions engineered to support AI workloads from Workstations PCs (mobile and fixed) to servers for high-performance computing, data storage, cloud native software-defined infrastructure, networking switches, data protection, HCI, and services.

The Dell AI Factory approach can help organizations:

1.
Determine their ideal use cases with the help of Dell's experts.

2.
Prepare their data with a secure AI-ready data platform.

3.
Right-size their investments with the broadest portfolio of AI infrastructure.

4.
Collaborate with leading AI partners that meet their unique needs.

5.
Augment their AI capabilities with services that span from establishing strategy to adopting at scale.

As a result, Dell Technologies is well positioned to help organizations wherever they are in their AI journeys, even if they don't know where to start, are just getting started, or already have models in production and are looking to optimize and scale.

For more information on how Dell Technologies can help your organization in its AI journey:

→ Take an AI-readiness assessment

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Dell Technologies Can Help

Dell Technologies' portfolio of infrastructure, solutions, tools, and partners are well positioned to help any small or midsize organization with their technical initiatives. Given the increased importance and complexity related to both cybersecurity and AI, Dell offers specific and simple ways to start the conversation to see how they can help you.

To learn more about Dell Technologies products and services, follow these links:

→ **AI Services | Dell USA**

→ **The Dell AI Factory with NVIDIA | Dell USA**

→ **Servers – Rack, Tower, and Edge Servers | Dell USA**

→ **Data Storage | Dell USA**

→ **Data Protection – Data Backup Solutions | Dell USA**

→ **Dell Technologies APEX | Dell USA**

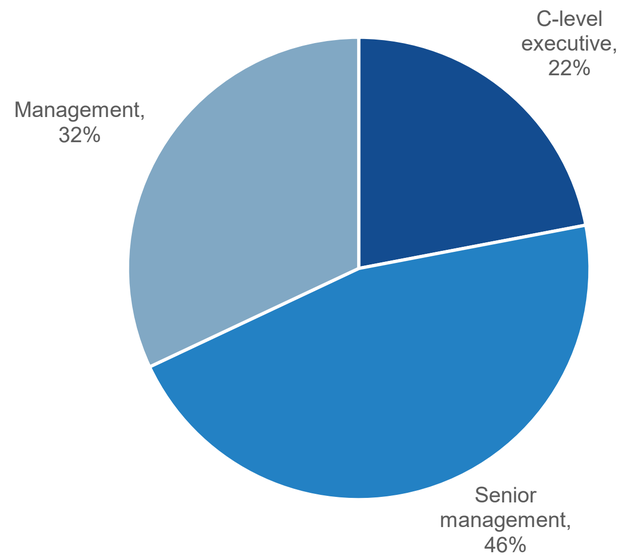
RESEARCH METHODOLOGY AND RESPONDENT DEMOGRAPHICS

Data in this report references a comprehensive online research survey of 500 IT decision-makers involved with their organization's purchase process for compute/server infrastructure.

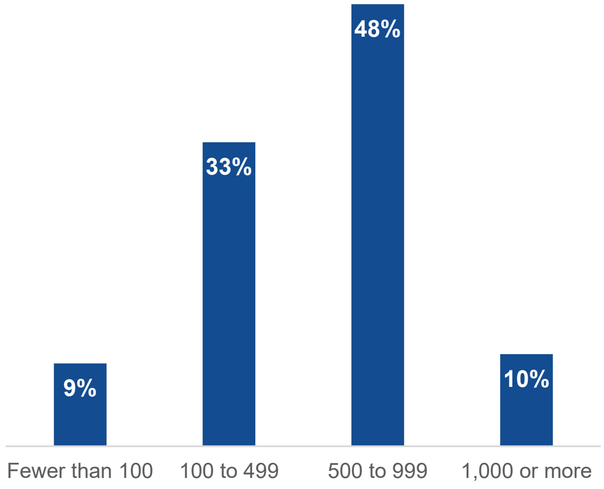
The survey included multiple industry verticals, including technology, manufacturing, financial, and retail/wholesale, among others. All respondents were based in the US. The survey was fielded between May 17, 2024 and June 4, 2024. The margin of error at the 95% confidence level for this sample size is + or - 4 percentage points. The figures that follow show the demographics of survey respondents.

Note: Due to rounding, the totals in figures and tables throughout this report may not add up to 100%.

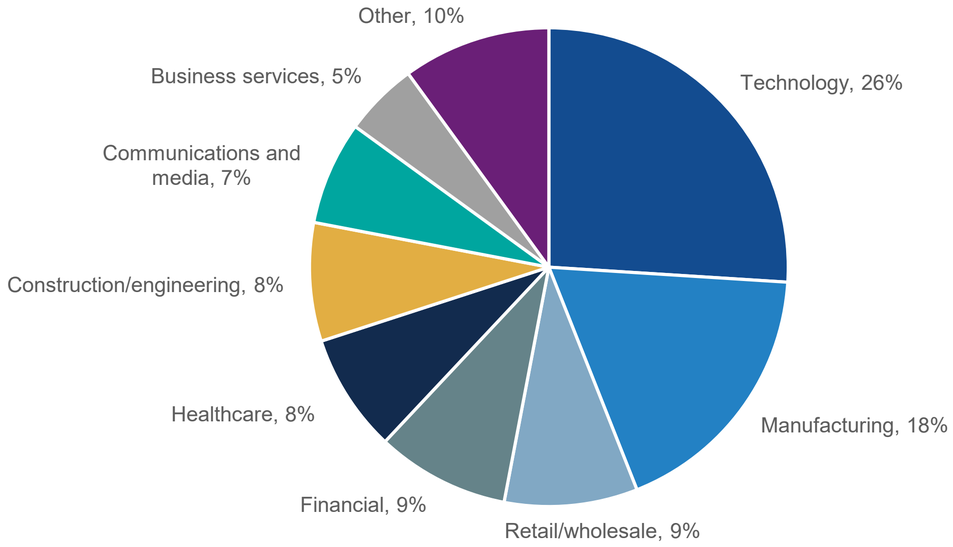
Respondents by Job Title/Level



Respondents by Number of Employees



Respondents by Industry



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