DATA REPORT

Most operators plan to spend more on rising demand

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Data center organizations continue to plan for greater spending in 2024, compared with 2023. This is driven primarily by capacity expansion, which is needed to meet rising demand. A greater number of colocation operators than enterprises expect budgets to increase — and a growing number report sustainability and efficiency as the main cause. However, higher costs for power and labor, ongoing supply chain challenges and market dynamics around IT hardware add uncertainty to spending strategies.

The Uptime Institute Data Center and IT Spending Survey 2023 asked data center owners and operators about how these factors have shaped their organization's financial planning decisions.

The Uptime Institute Data Center and IT Spending Survey 2023, conducted online in September and October 2023, had more than 360 end-user respondents. This report highlights some of the findings.

KEY POINTS

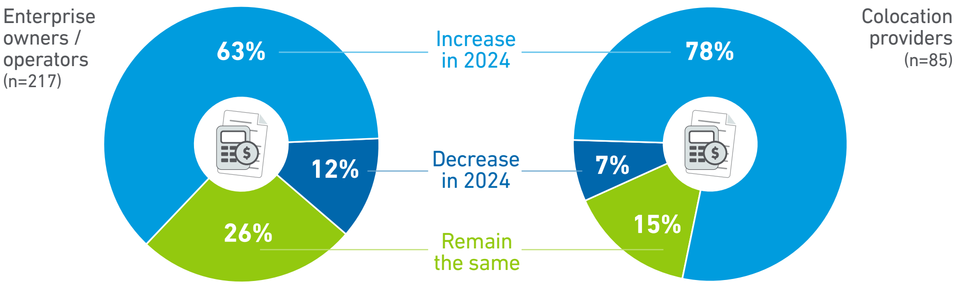
- Expanding capacity is the primary driver of planned budget increases for 2024, but more colocation operators are expecting to spend on sustainability and efficiency.
- While colocation providers and enterprises are both vulnerable to capital project delays, companies in Europe and North America are more likely to complete projects on schedule.
- Fewer data center operators report significant per unit cost increases for IT hardware in 2023 compared with 2022. However, this will likely shift due to surging demand for high performance chips and AI compute.
- Despite a shrinking talent pool of data center professionals, labor spend is increasingly focused on staff retention over recruitment and training strategies.

More colocation providers expect budget increases

Most data center organizations expect to spend more in 2024 compared with 2023, but this is particularly true of colocation providers — almost eight out of 10 respondents are increasing their budgets (**Figure 1**). Colocation providers are investing in new facilities and infrastructure to support growing demand and compute performance requirements. Meanwhile, the majority of enterprises anticipate higher rack power densities, although more than one-third cannot accommodate them with existing, on-premises infrastructure (see *Colocation and public cloud growth masks enterprise expansion*). Alongside supply chain issues and staffing shortages, the need to meet these higher densities will continue to drive colocation expansion over the medium term.

Figure 1

Regarding your company's budget for its own data centers (such as facilities, power and IT hardware), do you think you will see an increase or decrease in your data center budget for 2024, or will your data center budget remain the same?



(Responses for "Don't know" and "No IT spending in 2024" are not included.)

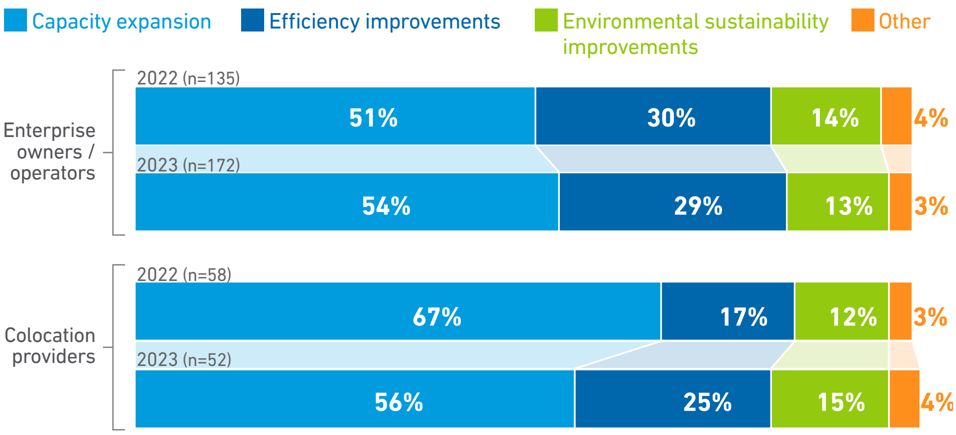
UPTIME INSTITUTE DATA CENTER AND IT SPENDING SURVEY 2023

Capacity growth and efficiency drive budget increases

Data center budgets continue to increase primarily due to the need to expand capacity and, to a lesser extent, improve efficiency (**Figure 2**). However, more colocation providers highlight a drive to make efficiency and sustainability improvements in 2023 compared with 2022. Colocation companies face growing scrutiny from regulators, customers and investors to reduce their environmental footprint. As a result, new infrastructure investment is likely to include efficiency and sustainability projects as part of these companies' capacity expansion programs. It is also likely that colocation providers are making these efficiency and sustainability investments to combat rising energy costs.

Figure 2

Which of these factors is the biggest overall driver of your planned spending increase?



(Only the top three responses and "Other" are included. All figures rounded.)

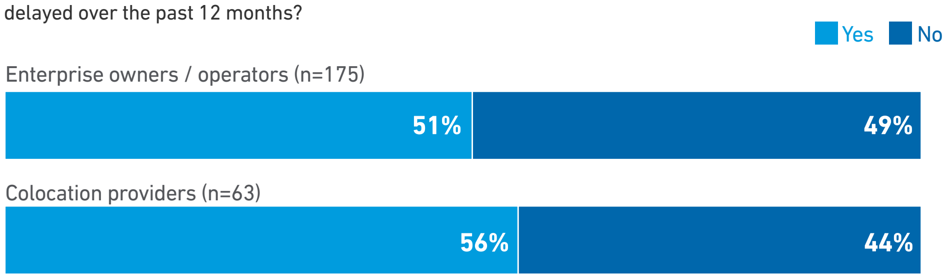
UPTIME INSTITUTE DATA CENTER AND IT SPENDING SURVEY 2023

Enterprises and colocation providers face capital project delays

Colocation providers and enterprises are equally vulnerable to supply chain disruptions (**Figure 3**). For companies that have experienced capital project delays, manufacturing and equipment issues are the main cause (50%, n=146). This suggests that the effects of supply chain disruptions are ongoing, and often outside of the data center operator's control — even if their capital projects have substantial financial flexibility. Nonetheless, an increasingnumber of colocation providers are investing in hyperscale campuses, from which high volume equipment purchases may benefit from economies of scale (see *"Hyperscale colocation": the emergence of gigawatt campuses*).

Figure 3

Focusing on your data center capital projects, have any of your organization's capital projects been delayed over the past 12 months?



(Responses for "Don't know" and "There were no capital projects in progress in the past 12 months" are not included.)

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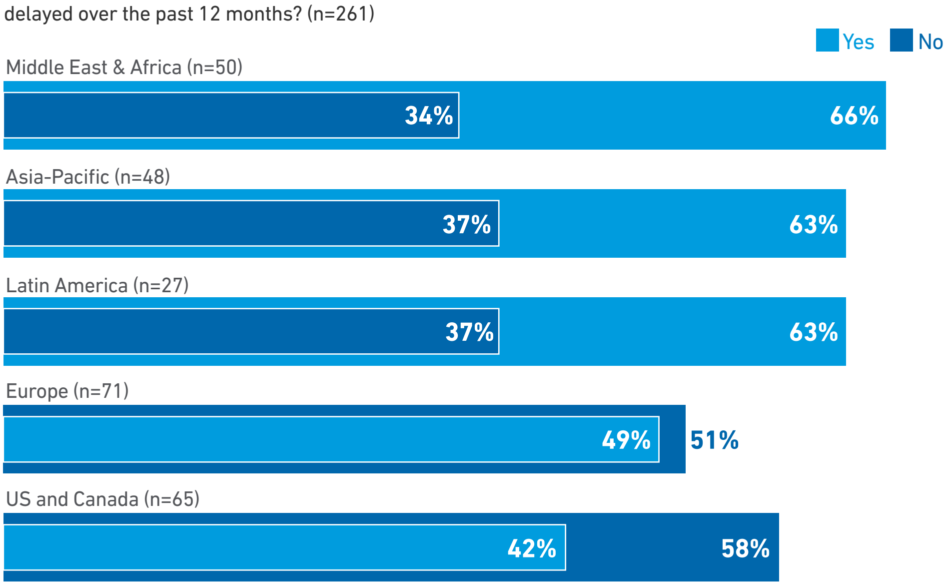
Fewer delays experienced in N America and Europe

Capital project delays are not experienced across all regions equally. While 55% of data center owner and operator respondents globally report delays in the past 12 months (n=273), a regional breakout shows that North America and Europe have been less affected (**Figure 4**). This could be due to these two regions being more mature with well-established, secure supply chains that allow for faster project deployments. The Middle East and Africa report the highest rate of delays, which could be exacerbated by geopolitical conflicts that surfaced in late 2023.

Figure 4

Focusing on your data center capital projects, have any of your organization's capital projects been delayed over the past 12 months? (n=261)



(Responses for "Don't know" and "There were no capital projects in progress in the past 12 months" are not included.)

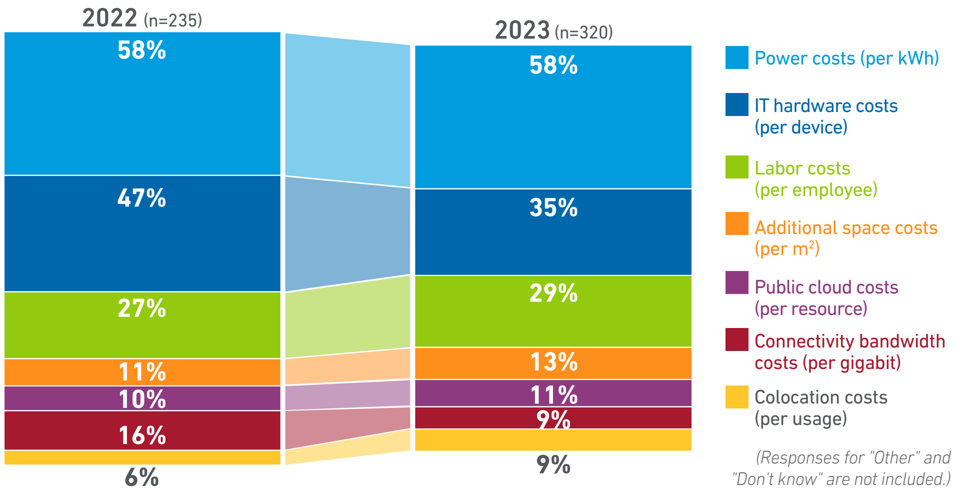
UPTIME INSTITUTE DATA CENTER AND IT SPENDING SURVEY 2023

Rising IT hardware costs show signs of a slowdown

While power costs (per kilowatt-hour) continue to see the greatest increases for most operators, there has been a notable decline in those experiencing per unit cost increases for IT hardware compared with 2022 (**Figure 5**). However, this shift is likely to change in the near term. Prices for some chips, such as the graphics processing units (GPUs) used in artificial intelligence (AI) training models, are expected to increase due to limited supply. This can have an indirect effect on the IT hardware market for data centers as component vendors strive to include AI capabilities in their products (see *Hunger for AI will have limited impact on most operators*).

Figure 5

Regarding your organization's data center expenses, in which areas has your organization experienced the greatest unit cost increases over the past 12 months? Choose no more than two.



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Colocation costs are higher than expected for many

More enterprises surveyed in 2023 say colocation costs are higher than expected compared with 2022. This is primarily due to colocation companies passing higher costs for power onto their customers (see **Figure 6**). While nearly half (49%) consider these higher costs to be the same as had been expected, this group likely includes businesses that had also anticipated higher prices through cost analyses. For example, a separate survey question found that 53% of enterprises compared the cost of running workloads on-premises against in a colocation facility (n=186) and 56% of these enterprises found that using corporate data centers was less expensive than migrating to a colocation facility (n=154). This is a 10 percentage point increase from 2022 (46%, n=112).

Figure 6

Taking all colocation costs into account, would you say the use of a colocation facility is costing your organization more than, less than or the same as initially expected when it decided to make use of a colocation facility?

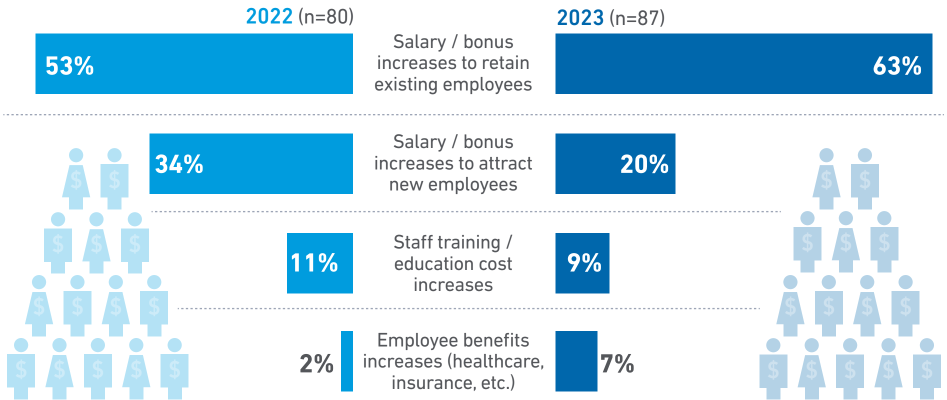
UPTIME INSTITUTE DATA CENTER AND IT SPENDING SURVEY 2023

Labor spend shifts further away from recruitment

Data center staffing strategies are shifting further toward retaining existing staff and away from attracting and recruiting new employees (**Figure 7**). The primary driver of this is most likely competition for skilled workers within the industry. For example, separate Uptime research finds that 40% of data center organizations have experienced staff being poached by competitors (see *Operators struggle to overcome ongoing staff and skills shortage*). While efforts to retain staff are essential, allocating resources away from attracting and training new employees can create longer-term challenges for organizations. As the existing data center workforce shrinks due to employee retirement, investments in attracting and training new staff will become increasingly critical.

Figure 7

Which of the following has been the primary driver of increased unit labor costs (per employee) over the past 12 months?



(Responses for "Other" and "Don't know" are not included.)

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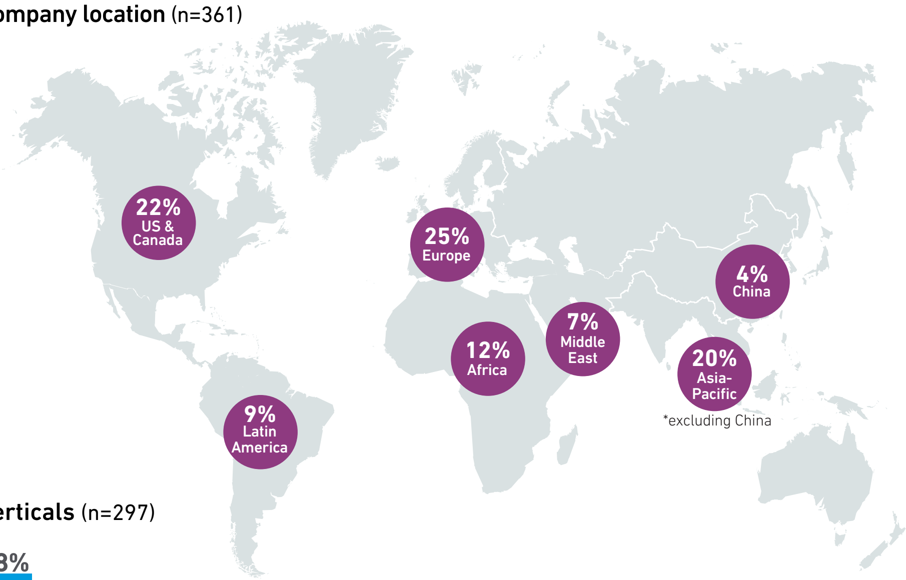
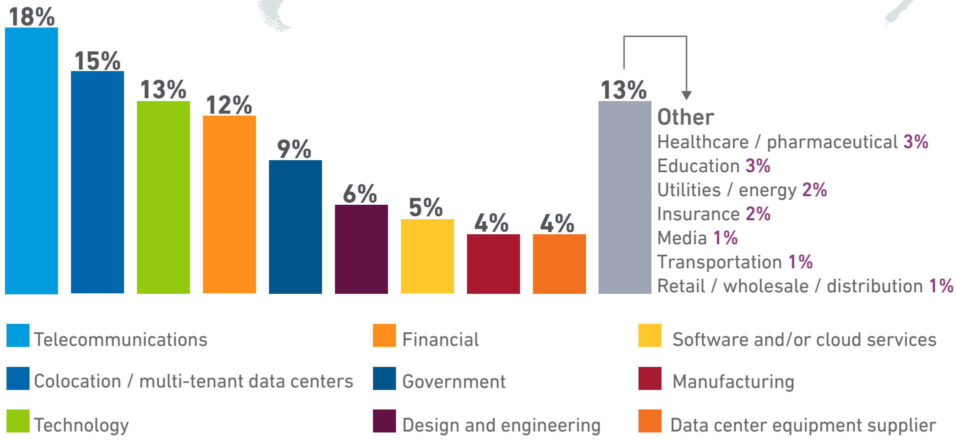
Demographics:
Uptime Institute Data Center and IT Spending Survey 2023

Company location (n=361)



Verticals (n=297)



Digital infrastructure environment (n=362)

63%	9%	8%	8%	11%
Enterprise data center owner/operator	Data center design or engineering firm	Cloud/hosting/ SaaS provider	Vendor/ product supplier	Other

0% Colocation provider 0% Consultant / advisory firm

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All general queries
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About Uptime Institute

Uptime Institute is the Global Digital Infrastructure Authority. Its Tier Standard is the IT industry's most trusted and adopted global standard for the proper design, construction, and operation of data centers – the backbone of the digital economy. For over 25 years, the company has served as the standard for data center reliability, sustainability, and efficiency, providing customers assurance that their digital infrastructure can perform at a level that is consistent with their business needs across a wide array of operating conditions.

With its data center Tier Standard & Certifications, Management & Operations reviews, broad range of related risk and performance assessments, and accredited educational curriculum completed by over 10,000 data center professionals, Uptime Institute has helped thousands of companies, in over 100 countries to optimize critical IT assets while managing costs, resources, and efficiency.

Uptime Institute is headquartered in New York, NY, with offices in Seattle, London, Sao Paulo, Dubai, Singapore and Taipei.

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