

# Uptime Institute Data Center Capacity Survey 2021

Q2 2021

## KEY FINDINGS

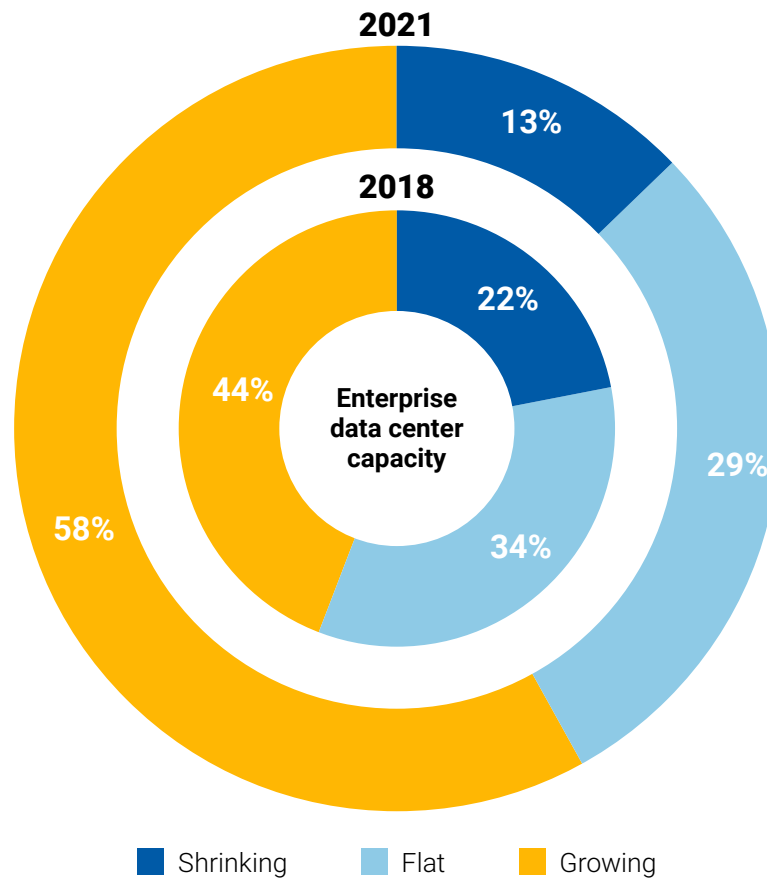
- Capacity growth is accelerating in enterprise and colo data centers. Virtualization and software containers are most effective at mitigating sprawling footprints.
- Server upgrades now deliver less of a return; capacity demand is outpacing processor efficiency gains. Many operators are straining their data center's infrastructure.

### ABOUT THIS SURVEY

The Uptime Institute Data Center Capacity Survey 2021 was conducted in May and June 2021 and had over 570 global respondents. This report highlights responses from the 360 data center user/owner/operator participants.

## Enterprise capacity is growing

Is the overall capacity (in megawatts) of your enterprise-owned data center(s) growing, flat or shrinking?

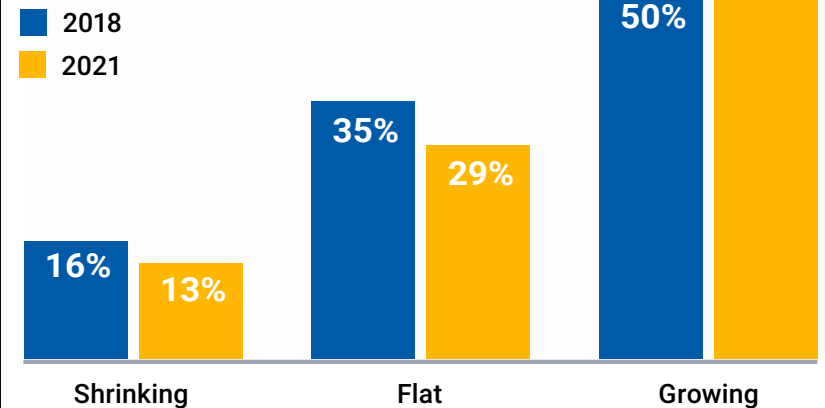


UPTIME INSTITUTE DATA CENTER CAPACITY SURVEY 2018 (n=313), 2021 (n=168)

## Most are increasing capacity in colos

Is your overall capacity (in megawatts) inside leased colocation data centers growing, flat or shrinking?

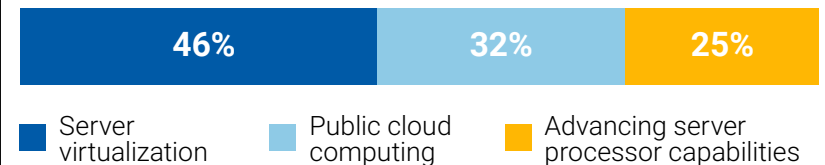
### Enterprise capacity inside colocation data centers



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## Virtualization: Highest impact on capacity

Which of these technologies has the highest impact in terms of reducing your organization's data center capacity demand?



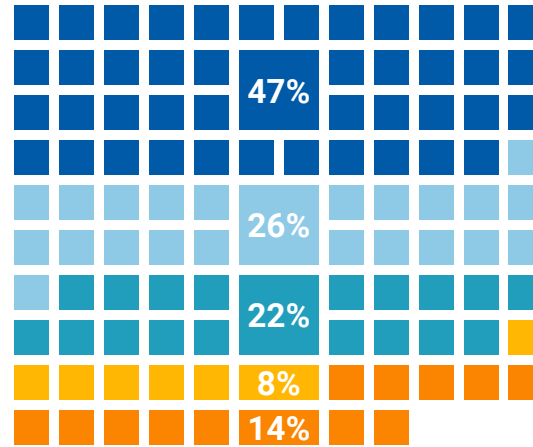
UPTIME INSTITUTE DATA CENTER CAPACITY SURVEY 2021 (n=176)

### Virtualization frees up capacity

Which statements describe your organization's experience with server virtualization? (Choose all that apply)

- Continued adoption of server virtualization is reducing data center capacity demand in our owned or leased facilities
- Capacity has increased over time because of virtualization
- Server virtualization previously caused an internal reduction in data center capacity demand but is not a factor now
- Server virtualization has had no impact on capacity demand
- None of the above

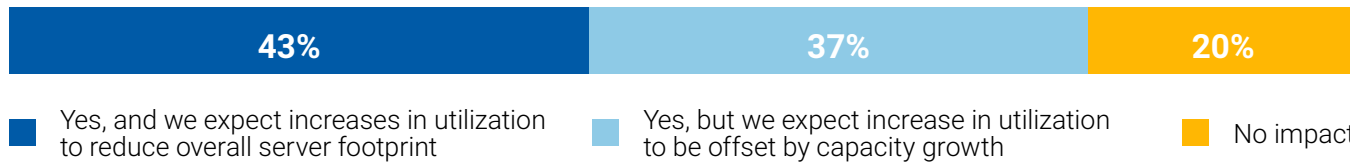
UPTIME INSTITUTE DATA CENTER CAPACITY SURVEY 2021 (n=194)



### Software containers reduce footprint

UPTIME INSTITUTE DATA CENTER CAPACITY SURVEY 2021 (n=115)

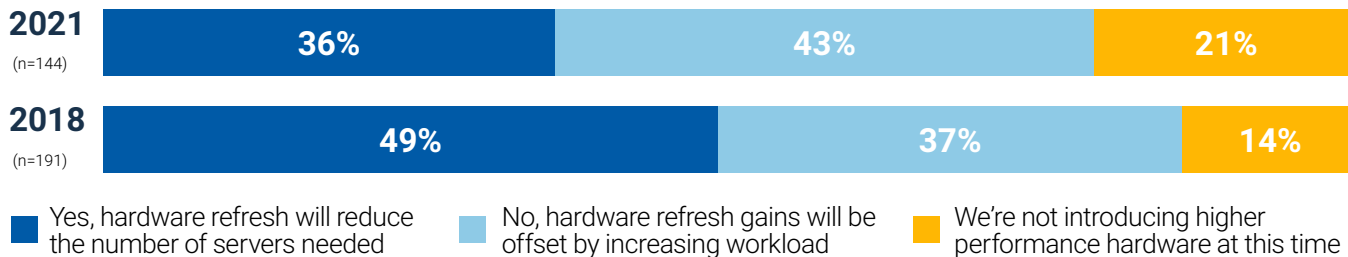
Half of respondents use or plan to use software containers. Asked of those who use/plan to use: Do you expect your organization's use of software containers will impact your physical server footprint?



### Capacity growth outpaces IT upgrades

UPTIME INSTITUTE DATA CENTER CAPACITY SURVEY 2018, 2021

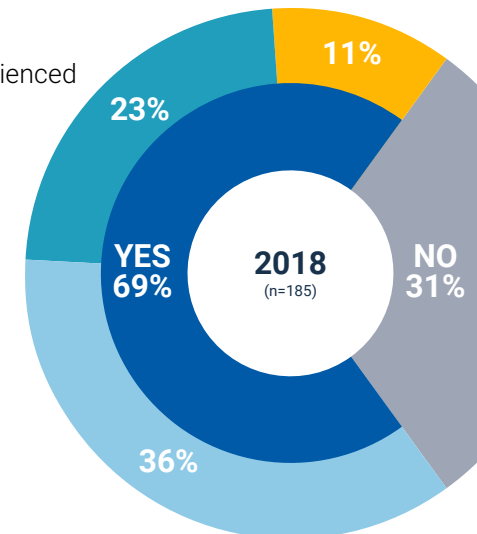
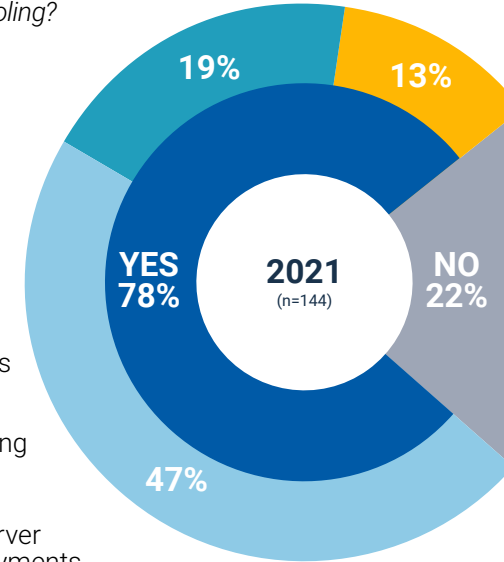
Assuming you are upgrading to the latest generation of x86 processors (e.g., Intel, AMD), will this upgrade reduce the number of servers needed in your organization?



### IT refreshes impact power, cooling

Do you think deploying the latest generation of x86 server hardware will affect your organization's data center power/cooling?

- Yes
- Yes – We've experienced or are expecting higher power/cooling densities and can accommodate them with existing infrastructure
- Yes – Future server hardware deployments will lower power/cooling densities
- Yes – We've experienced or are expecting higher power/cooling densities and cannot accommodate them with existing infrastructure
- No – Future server hardware deployments will not affect power/cooling densities

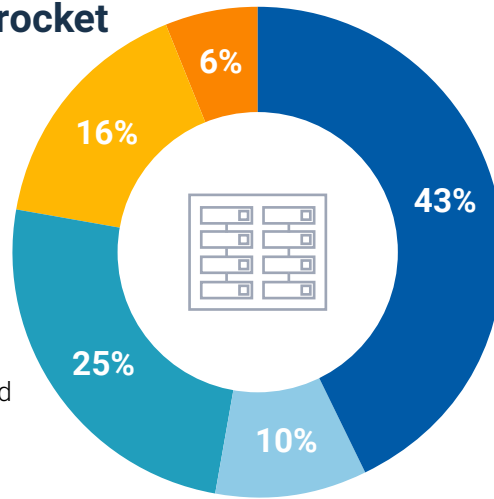


UPTIME INSTITUTE DATA CENTER CAPACITY SURVEY 2018, 2021

## Most expect storage to skyrocket

Which of the following best describes current storage demand in your organization's data centers and/or colocation data centers?

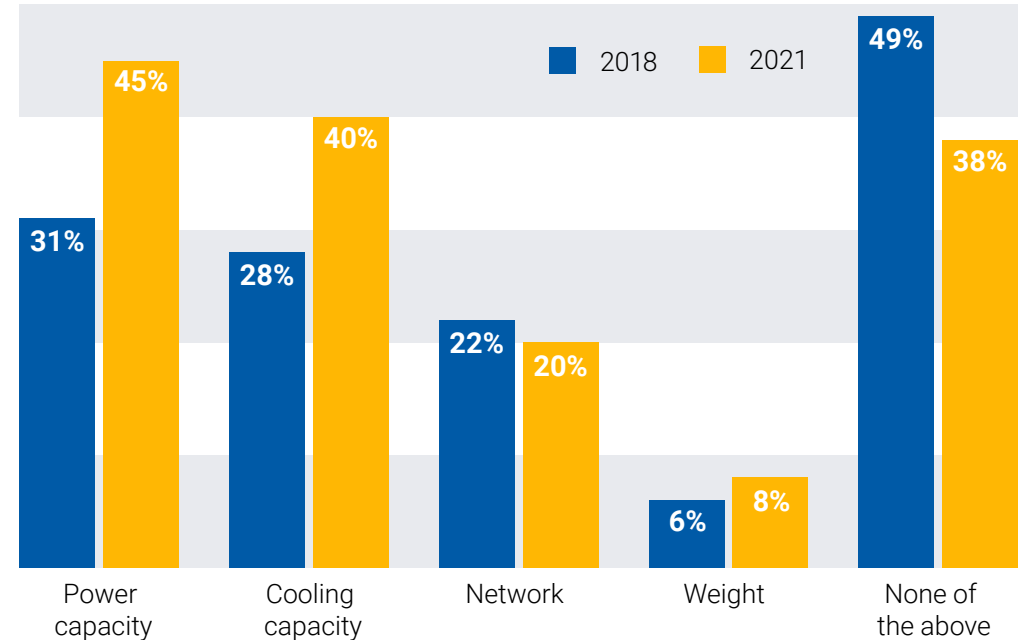
- Major uptick in storage demand – expected by our organization
- Major uptick in storage demand – unexpected by our organization
- Minor/gradual uptick in storage demand
- No change
- Decrease in storage demand



UPTIME INSTITUTE DATA CENTER CAPACITY SURVEY 2021 (n=153)

## Hardware choices strain capacity

Are any of your organization's hardware deployment choices straining capacity in your owned data centers? Choose all that apply.

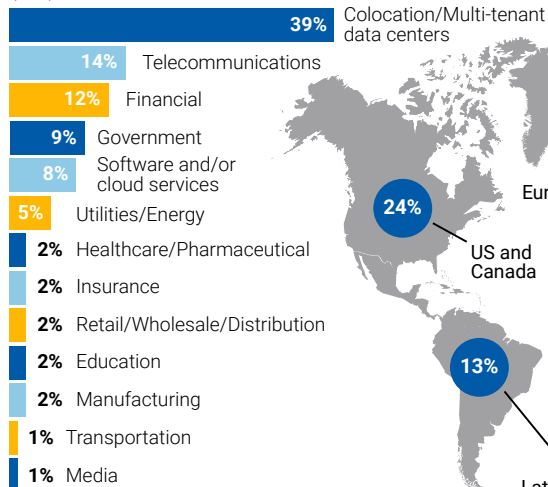


UPTIME INSTITUTE DATA CENTER CAPACITY SURVEY 2018 (n=186), 2021 (n=152)

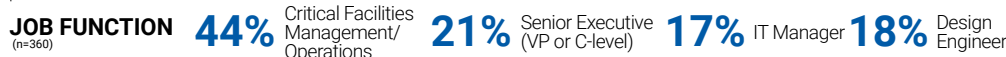
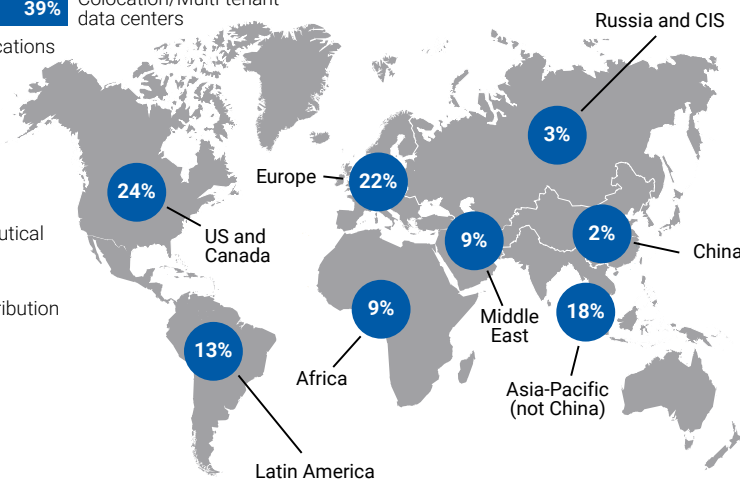
## End user demographics

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### VERTICALS (n=356)



### COMPANY LOCATION (n=359)



## ABOUT UI INTELLIGENCE

Uptime Institute (UI) Intelligence is an independent unit of Uptime Institute dedicated to identifying, analyzing and explaining the trends, technologies, operational practices and changing business models of the mission-critical infrastructure industry. For more about Uptime Institute Intelligence, visit [uptimeinstitute.com/ui-intelligence](https://uptimeinstitute.com/ui-intelligence) or contact [research@uptimeinstitute.com](mailto:research@uptimeinstitute.com).

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