

IT PRIORITIES & INFRASTRUCTURE REPORT

2018 DATA CENTER STRATEGIES AND
THE OUTLOOK FOR THE FUTURE

PRESENTED BY  SERVICE
EXPRESS

OVERVIEW

THE ISSUE IN BRIEF

Managing an organization's IT infrastructure is a demanding responsibility. At all levels, IT professionals must be adaptive, strategic thinkers ready to meet current technology challenges and anticipate future demands.

Service Express surveyed a broad array of IT professionals on a variety of topics from the challenges of changing technology in business they face, to their plans regarding the use of cloud-based services. This report represents what we learned. We think you will find these insights useful to your organization and specifically, your data center operations.

▶ OPENING COMMENT

From manufacturing to healthcare, communications to retail, and for-profit to not-for-profit, today's organizations are heavily dependent on information technology. As a result, IT professionals identify new opportunities and face new challenges on a daily basis. In this report, we explore a diverse range of topics IT professionals encounter. We appreciate the time and insight provided by the 450+ participants who participated in the survey.

KEY FINDINGS



Cybersecurity continues to be a priority and a challenge for today's IT professional.



Off-premises server deployment usage is expected to increase over the next 12 months. For “Off-premises – Public cloud or IaaS through a public cloud provider” and “Hybrid cloud – Using cloud platform to manage both on- and off-premises cloud resources” is expected to increase by 24 percent and 16 percent respectively. **On-premises server deployment** usage is expected to decrease for “On-premises – traditional data centers without a cloud” and “On-premises – Private cloud and virtualization oversight tools” is expected to decrease by 58 percent and 27 percent respectively.



The decision to move **from on-premises server deployment to off-premises deployment** is being driven primarily by the need to address “Disaster recovery and business continuity.”



The use of “**Virtualization**” will gradually increase over the next 60 months. Estimates indicate virtualization is expected to increase from 67 percent to 85 percent by 2023.



“**Colocation**” and “**Cloud-based Operations**” is also expected to see significant increases over the next five years. Colocation will increase roughly by 57 percent by 2023 while Cloud-based operations will increase by 61 percent over the same period.

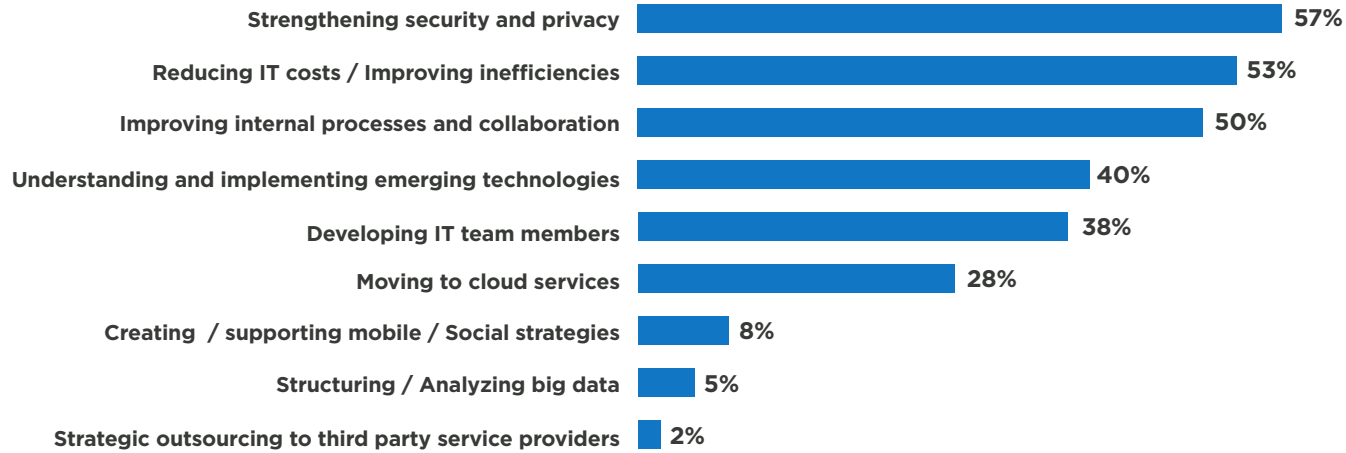
SURVEY OBJECTIVE

The following research is based on Service Express' 2018 Survey of IT Priorities and Infrastructure of more than 450 IT professionals in the United States.

- ▶ Identifying the top priorities and challenges of changing technology in business IT professionals are facing in the next 12-month cycle
- ▶ Insights into current server deployment methods and anticipated changes
- ▶ The current outlook on strategic planning for data center infrastructure, virtualization, colocation and cloud-based operations

Participants identified their top three priorities in 2018:

TOP PRIORITIES



“Strengthening security & privacy” is the top priority for organizations with estimated revenues of less than \$50 million (38 percent); followed by \$51 million to \$500 million (28 percent); \$501 million to \$1 billion (12 percent); and \$1 billion plus (9 percent).

TOP PRIORITY OF 2018:

57% STRENGTHENING SECURITY & PRIVACY

Given the frequency of cyber-attacks and the potential damage an attack can cause an organization, it is not surprising that participants selected “Strengthening security & privacy” most frequently (57 percent).

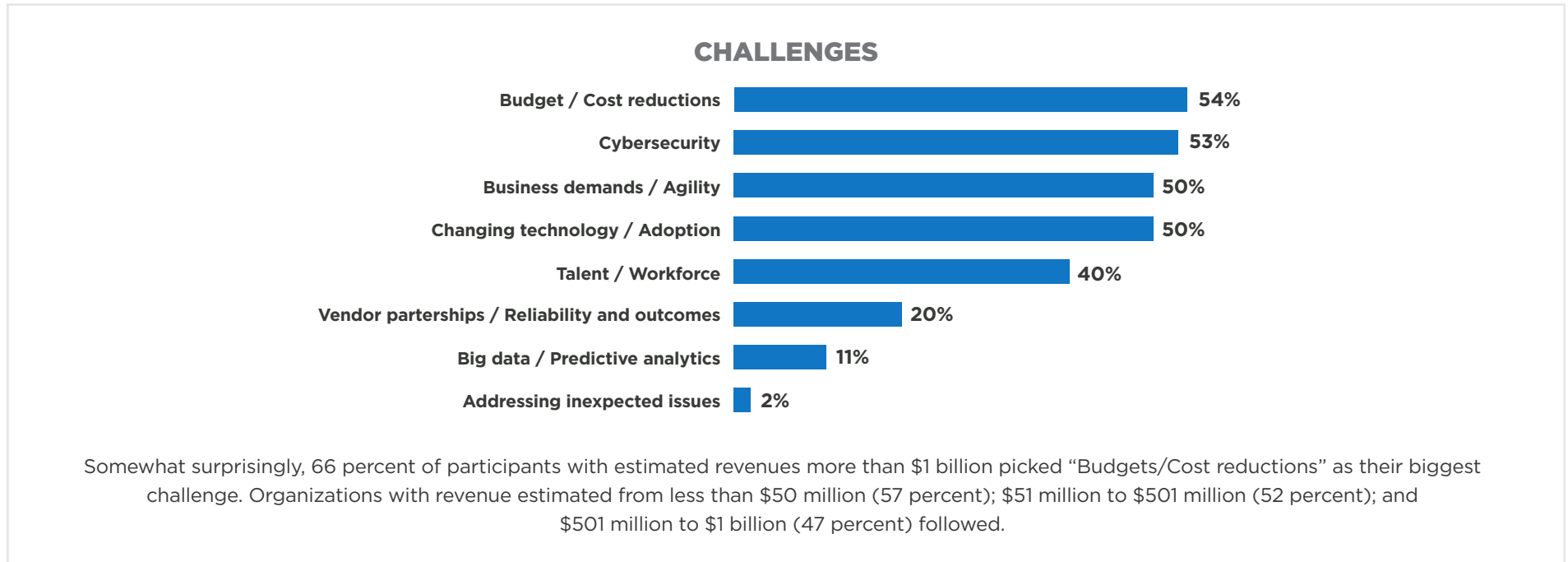
The impact of the security and privacy issue is far and wide. It’s in the news, it’s on social media, Europe’s new privacy law is in effect and the list of account breaches continues to grow.

IT departments need to be highly organized and efficient to meet the threat of information technology security leaks, attacks and future exploitation.



CHALLENGES

Next, we provided survey participants with a list of challenges they might encounter during 2018. Participants selected three challenges from a list that covered:



TOP CHALLENGE OF 2018:

54% BUDGET / COST REDUCTIONS

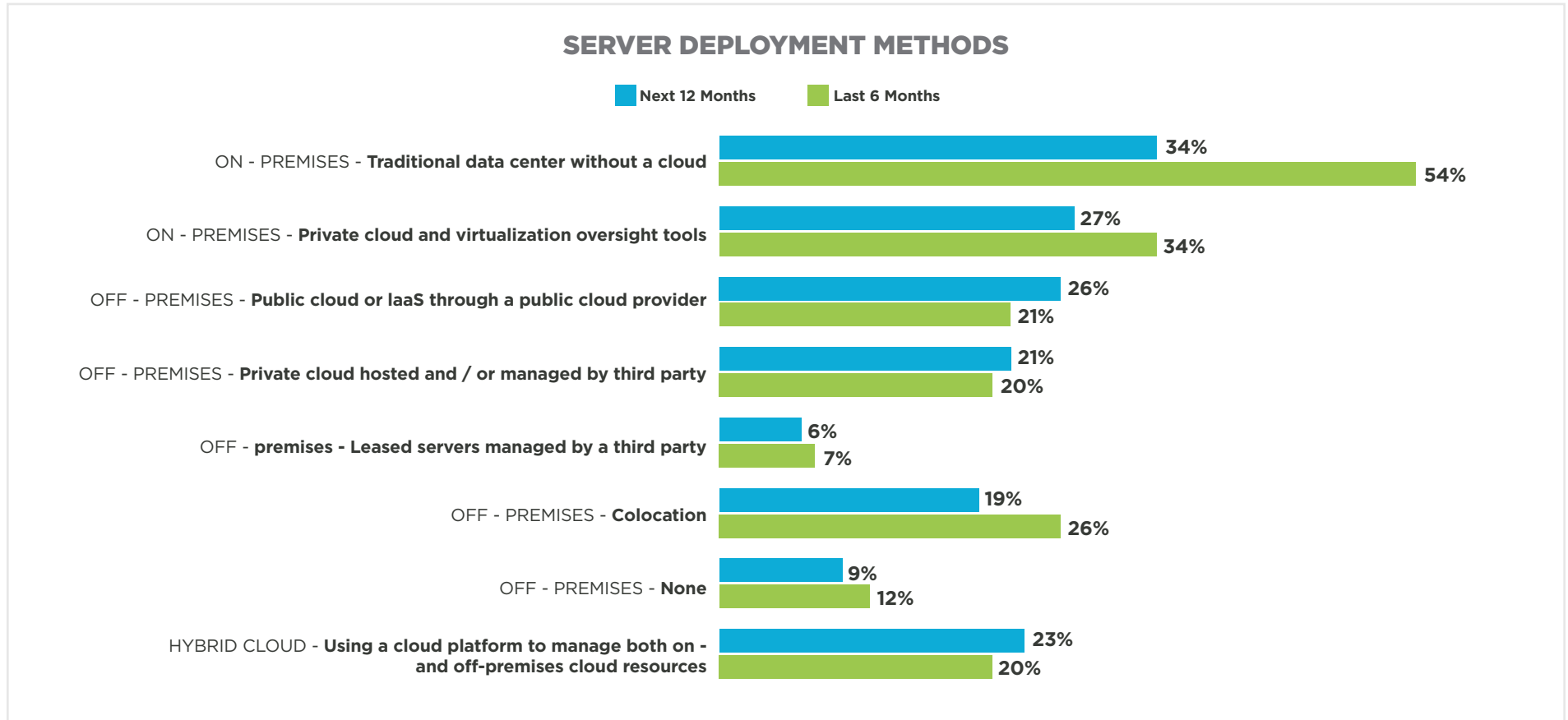
The most frequently selected challenge was “Budgets/Cost reductions” (54 percent). Regardless of the organization, size or vertical, controlling and reducing costs is a universal issue.

IT departments experience continual pressure to do more with less. Unrelenting expectations from all sides of an organization call on IT to improve efficiencies, increase responsibilities and meet more demands - but often without a budget to match.

IT leaders are required to be extremely proficient on external and internal solutions, agile to meet the changing environments, and focused on the most important priorities, all while acting within a stagnant IT budget.



Participants selected which methods they currently utilize and which means they plan to employ over the next 12 months from the following:



SERVER DEPLOYMENT METHODS – LAST SIX MONTHS

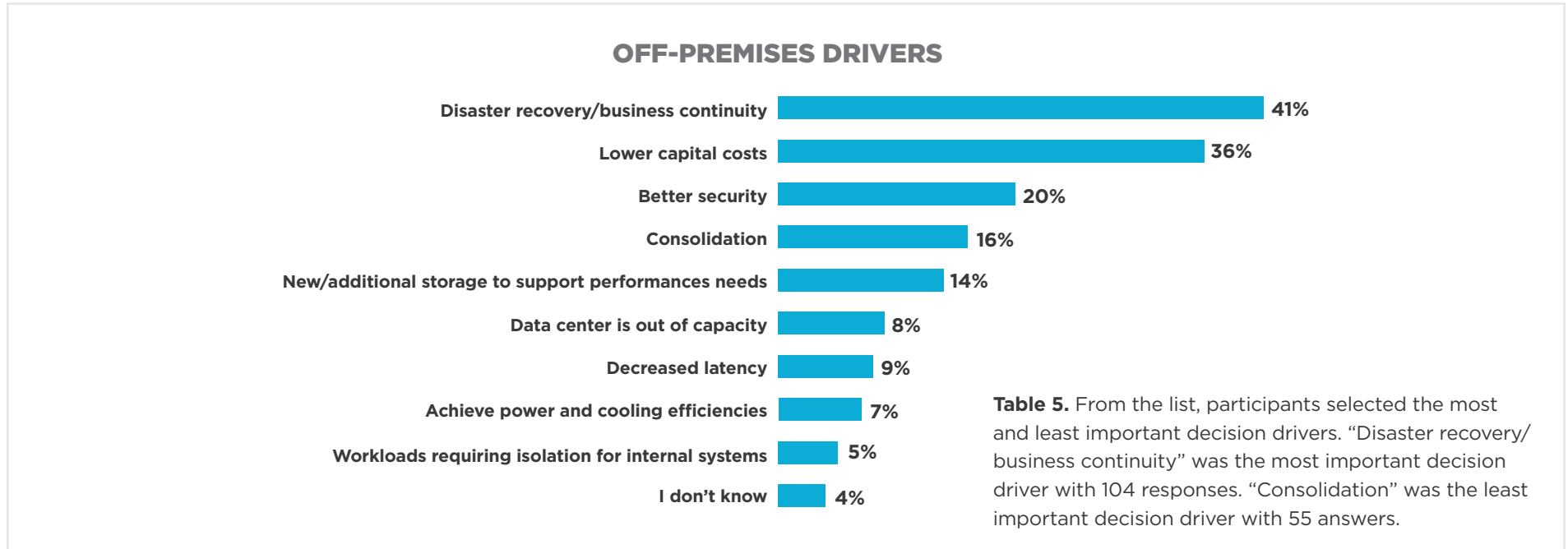
When asked to select which server deployment methods participants utilized during the previous six months, 54 percent, or 247 participants, chose “On-premises – Traditional data center without a cloud” “On-premises – Private cloud & virtualization oversight tools” and “Off-premises – Colocation” followed with 34 percent and 26 percent of participants.

SERVER DEPLOYMENT METHODS – NEXT 12 MONTHS

When asked to select which server deployment methods participants expect to employ over the next 12 months, 34 percent, or 156 participants, chose “On-premises – Traditional data center without a cloud” “On-premises – Private cloud & virtualization oversight tools” and “Off-premises – Public cloud or IaaS through a public cloud provider” followed with 27 percent and 26 percent of participants respectively.

OFF-PREMISES - DRIVERS

What are IT professionals considering when they decide to deploy off-premises? Participants selected drivers from a list that included:



TOP DRIVER TO DEPLOY OFF-PREMISES

DISASTER RECOVERY / BUSINESS CONTINUITY 41%

“Disaster recovery/business continuity” represented the most frequently selected driver with 187 responses (41 percent). “Lower capital costs” (36 percent) and “Better security” (20 percent) represent the second- and third-most frequent drivers.



Our customers are using a hybrid strategy for cloud. Cloud is a valuation for a new business process. It’s about evaluating the “build or buy” model – keep it in-house or go external. Businesses have to determine which process is best on-premise or in-cloud and survey responses indicate that customers are not taking an “all or nothing” approach.

VIRTUALIZATION

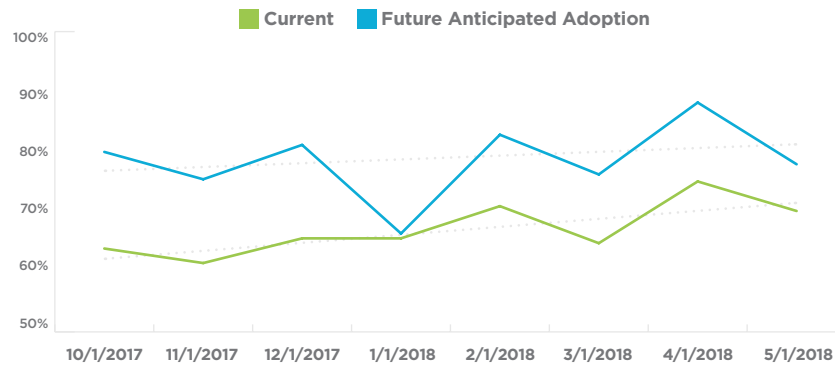
Virtualization is taking on an increasing role in the data center. Service Express asked IT professionals whether they plan to increase, decrease, or hold steady the level of virtualization in their organization.

FUTURE VIRTUALIZATION



An overwhelming majority plan to increase the use of visualization (323 responses, or 71 percent). Twenty-two percent plan to keep the virtualization level steady, while only two percent plan to decrease the level of virtualization.

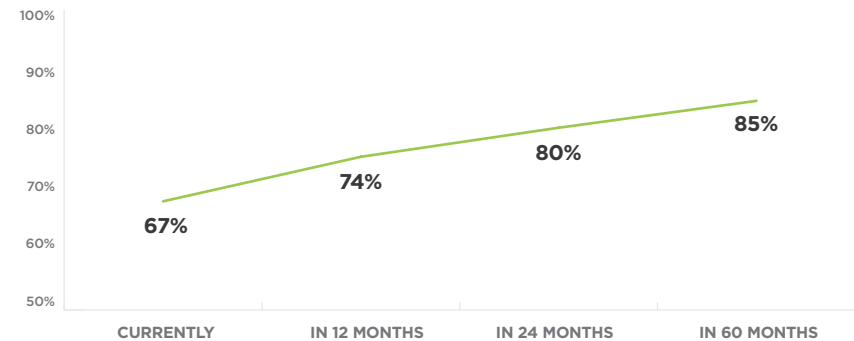
PERCENT OF VIRTUALIZATION INTEGRATION



* Only two respondents in the month of 1/1/2018

Participants estimated what percentage (0 to 100 percent) increase in virtualization they anticipate in 2018. Additionally, participants were asked to forecast increases for the next 12, 24, and 60 months.

VIRTUALIZATION TRENDS



Virtualization has reached maturity. Most companies have hit an equalization equilibrium where they are comfortable with their level of virtualization. From the data here and what we have seen with our customers, 60-80% virtualized appears to be the sweet spot.

71% PLAN TO INCREASE USE OF VIRTUALIZATION

Virtualization is a popular solution in the data center due to its efficiency and resiliency.

COLOCATION

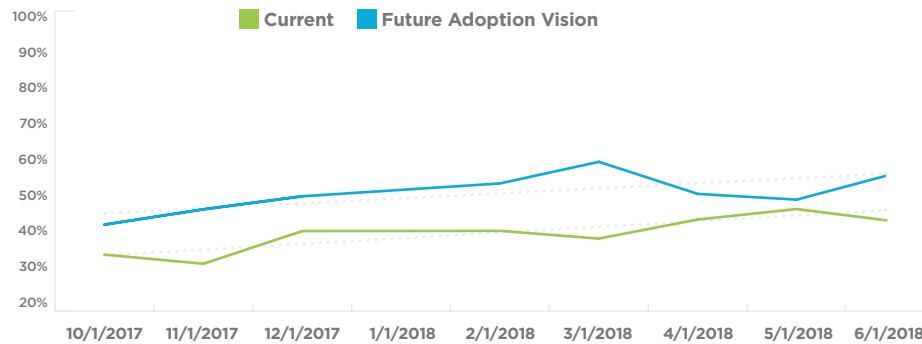
According to syndicated research, the process of deploying and hosting an organization-owned server within a managed service facility/environment or data center colocation facility has an essential role in an organization's IT strategy.

FUTURE COLOCATION

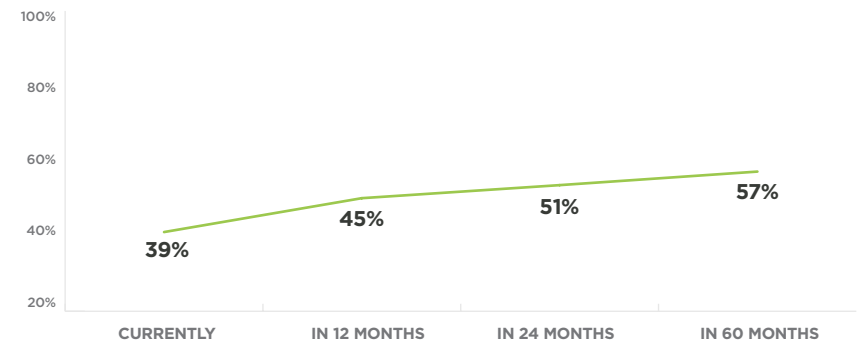


179 of 458 participants indicated that the percentage of colocation at their organization would increase in the future.

PERCENT OF COLOCATED OPERATIONS



COLOCATION TRENDS



To get a better understanding of the status on colocations, we asked participants to estimate what percentage (0 percent to 100 percent) increase in colocation they anticipate in 2018. Additionally, participants forecasted increases for the next 12, 24, and 60 months.

Organizations with \$501 million to \$1 billion in estimated revenue indicated the highest likelihood to increase the use of server colocation in the future. Twenty of thirty-eight participants, or 53 percent, indicated that their organizations plan to increase data center colocation in the future.

53% PLAN TO INCREASE COLOCATION IN THE FUTURE



In the next 3-5, years we expect a greater focus on network latency to push more companies into colocation environments.

Currently, there is a dramatic uptick in colocation growth which is putting a downward pressure on price. There are niches in healthcare, financial services, cloud - making data center real estate a hot commodity. IT professionals are able to shift their mindset - instead of building a million-dollar data center and then reacting to shrinkage or explosive growth in the following three to five years, they can opt for the flexibility that colocations provide. It also changes the expenditure category from a substantial, one-time CAPEX cost to lower (and adjustable) OPEX monthly costs with a colocation company.



To better understand why IT professionals are moving to cloud-based operations, we asked participants to reveal their rationale by selecting from a list of 10 reasons. The process of managing and delivering cloud and infrastructure services to either an internal or an external user base is otherwise known as cloud operation.



TOP REASON FOR CLOUD-BASED OPERATIONS IN 2018 **DISASTER RECOVERY 67%**

“Disaster recovery” represents the most frequently selected reason for cloud-based operations with 308 responses (67 percent). “Flexibility” (249 or 54 percent) and “Work from anywhere” (184 or 40 percent) represent the second- and third-most frequent reasons for moving to cloud-based operations.

FUTURE CLOUD-BASED OPERATIONS

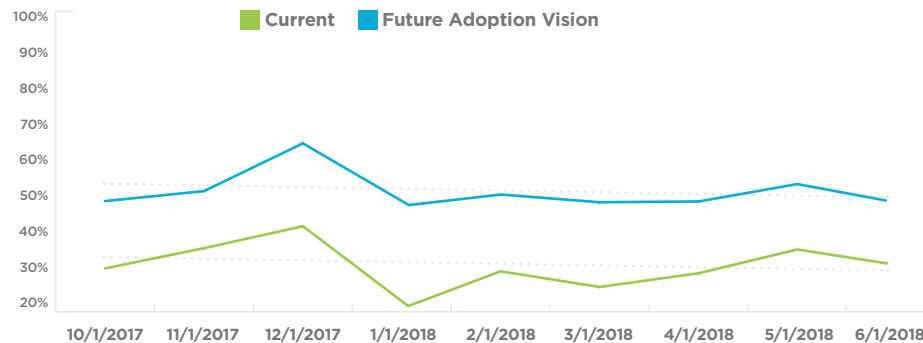
■ Decrease ■ Stay the Same ■ Increase



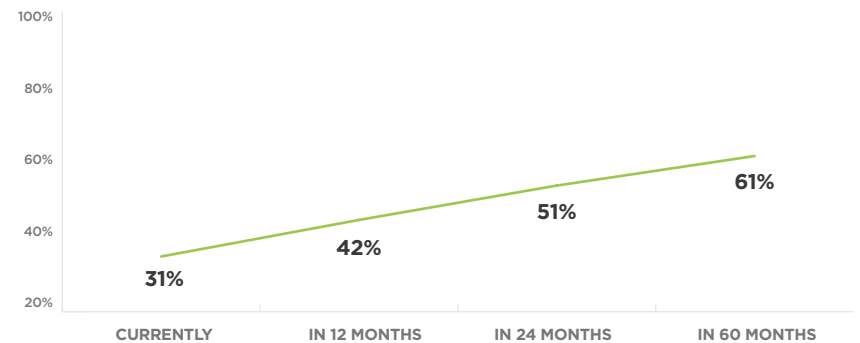
In the future, an overwhelming number of participants (349 of 458) indicated that they anticipate an increase in cloud-based operations. Only 11 revealed that they plan to decrease cloud-based operations.

Organizations with estimated revenue exceeding \$1 billion exhibited the greatest inclination to increase the use of cloud-based operations the future. Forty of forty-seven participants, or 85 percent, indicated their organization’s plan to increase cloud in the future.

PERCENT OF CLOUD-BASED USAGE



CLOUD-BASED TRENDS



Service Express asked participants to estimate what percentage (0 percent to 100 percent) increase in cloud-based operations they anticipate in 2018. Additionally, participants were asked to forecast increases for the next 12, 24, and 60 months.

Companies will always be faced with a “build or buy” decision for their data center optimization strategy. Factors to consider go beyond costs and include a good fit for the software, business practices or compliance. Cloud-based operations should be approached per application or business practice rather than as an all-inclusive solution. Commodity services – payroll, email, document management – are typically a good fit for the cloud.

OUR CTO PERSPECTIVE

Jake Blough, Service Express

IT professionals are tasked with both the day-to-day and what's next for their infrastructure. Measuring the performance of current strategies and evaluating the promise of future solutions for the data center is essential. There are vying technologies and philosophies that impact the growth of the infrastructure. Research houses tend to overstate the rate of adoption, hyping virtualization, then cloud, then colocation, then Edge as the silver bullet. In reality, the best plan is to take a hybrid approach and to avoid making the switch too early.

Stay connected to peer groups and related forums. The advice, experiences, cautionary tales and resounding successes offer applicable insights and remove much of the hype surrounding a solution.

- ▶ Keep all of the options in perspective - new strategies, a hybrid approach, growing or shrinking the physical space.
- ▶ Adopting new technology in business always takes longer than expected.
- ▶ IT professionals are always being questioned about the bleeding edge technology versus the reality of their data center needs, business objectives and budget capabilities.

SURVEY BACKGROUND

Over 450 participants took part in the 2018 Survey of IT Priorities and Strategies survey conducted by Service Express. Participants represented organizations of differing sizes and held a variety of responsibilities within their respective organizations.

PARTICIPANTS BY ROLE

ROLE 1: 98 TOTAL

Responsible for the upkeep, configuration and the reliable operation of an organization's computer systems

ROLE 2: 96 TOTAL

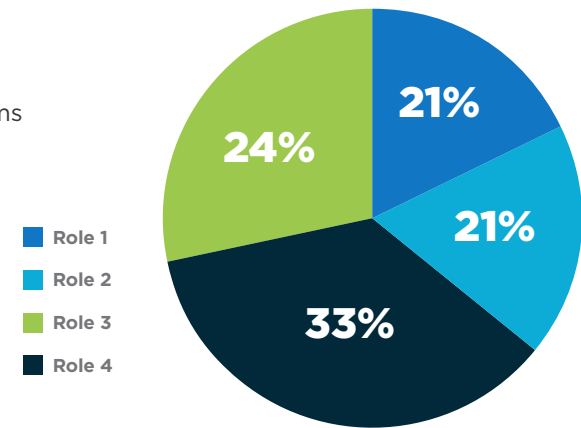
Responsible for implementing and maintaining an organization's technological infrastructure

ROLE 3: 111 TOTAL

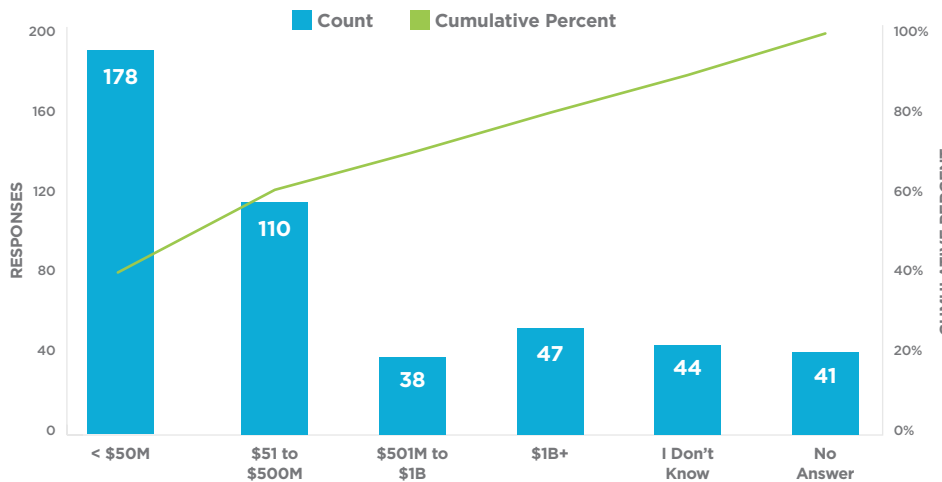
Oversees the information technology strategy for an organization

ROLE 4: 153 TOTAL

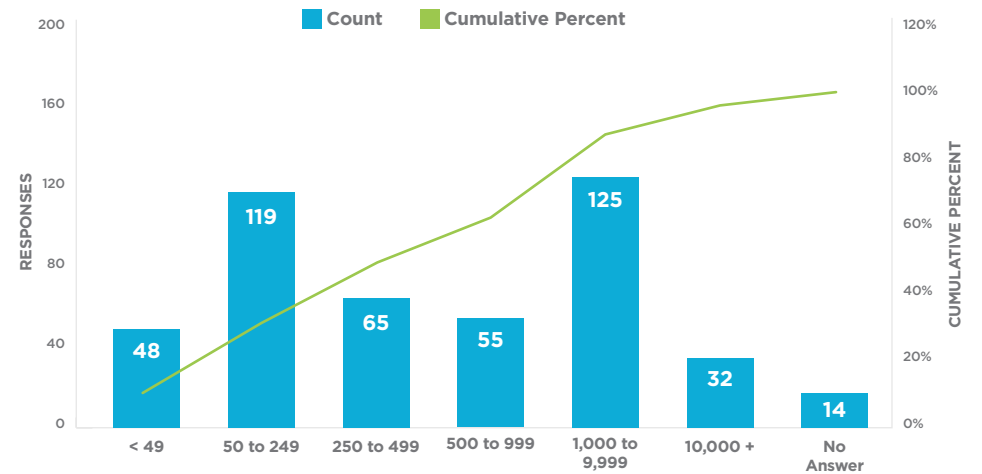
Administrative and/or supervisory authority of IT in an organization



PARTICIPANTS BY REVENUE



PARTICIPANTS BY NUMBER OF EMPLOYEES



ABOUT SERVICE EXPRESS

Service Express is a leading third-party maintenance (TPM) provider of hardware support for data center infrastructure focused on mission-critical server, storage, and network equipment. In addition to post-warranty maintenance, Service Express offers hardware system solutions, sales and upgrades, OS support, IT asset recovery and data center relocation services.

Founded in 1993, Service Express maintains multivendor data center equipment for hospitals, manufacturing plants, universities, banks, Fortune 500 companies, financial institutions, government agencies, and other mid-to-large companies worldwide. For more information about Service Express, visit serviceexpress.com.



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