



The 2021 State of the Data Center Report

March 2021

The 2021 State of the Data Center Report

A LOOK AT THE EVOLUTION OF OUR INDUSTRY
5TH EDITION

Report Compiled by:

Bill Kleyman, Executive Vice President of Digital Solutions, Switch AFKOM Contributing Editor AFKOM Leaders Lab Speaker and Leader
Data Center Knowledge Contributing Editor
Informa Engage Analyst

Report Edited by:

Brian Gillooly, Content Director, AFKOM and Data Center World

Statistical Analysis by:

Kristin Letourneau, PhD
Director, Market Research
Informa Engage

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Note from the Author



Welcome back to May, everyone. A lot has happened.

If 2020 taught us one thing, it's that data never sleeps. We saw a massive proliferation of connectivity, user distribution, and a greater focus on the systems that keep everything running: our

data centers. A recent Domo [report](#) indicated that by the end of 2020, an estimated 1.7 MB of data was created every second for every person on earth.

However, the boom in data growth has been evident far before we were all locked down for a year. The amount of content and information being created and shared has been steadily rising long before the pandemic. This indicates that these data growth trends are here to stay and are likely going to proliferate.

If we look at the global population, we see that, according to an April 2020 [report](#), 59% of the world's population has access to the internet, with 4.57 billion active users. That represents a nearly 3% increase from January 2019. Of those people, 4.2 billion are active on mobile, and 3.81 billion use social media.

Prior to the lockdown, roughly 15% of Americans worked from home. Now, it's estimated at 50%—a boon for collaboration platforms like Microsoft Teams.

Using Teams as an example, that platform alone has an average of 52,083 users connecting per minute. Similarly, video conferences saw a sharp increase in their user base. Zoom sessions jumped from more than 2 million in February to nearly 7 million in March. At the peak, Zoom was supporting approximately 208,333 people meeting per minute.

These are truly extraordinary times. And even though we were all in the same 'ocean,' trying to navigate the pandemic's vastly challenging waters, our boats certainly looked different.

The one factor that I've seen through all of this is our ability to support people, process, and our industry. There has been so much collaboration and effort to help people and the way they connect. We are genuinely builders of the digital age.

Your data center will continue to support the best and sometimes most challenging aspects of business and life.

Thank you to all the front-line workers and people who have kept our systems up and running.

“Your data center will continue to support the best and sometimes most challenging aspects of business and life.”

Cloud and Data Center Maturity Leading to New Data Center Responsibilities – FinOps

The good news is that we're having far fewer conversations about the cloud displacing the data center. Based on various reports, research, and findings, we finally see a new maturity level for the cloud and data center market. It's a maturity that translates to a deeper understanding of what needs to be on-premises and what should live in the cloud.

In our 2021 State of the Data Center Report, we found that more than half of respondents (58%) reported noticing a trend for organizations to move away from the public cloud and look to colocation or private data centers. It's important to note that the cloud isn't going anywhere. However, there are still real concerns regarding how enterprises want to use cloud computing. So much so that an entirely new position has been created to deal with cloud costs and 'sticker shock.' According to a recent [blog](#), the tremendous savings seen from the switch to up-front CapEx investments in information technology to subscription mode is becoming muddled. That's because rising monthly bills come in for services, and nobody knows where and when they were used. And so, new technology and operational disciplines were born: FinOps. In this profession, people leverage tools and new methodologies to monitor, measure, and mitigate the costs and value delivered from the cloud. FinOps practitioners' perspectives (yes,

they are out there) provide a good understanding of what lies ahead in the cloud.

"The dirty little secret of cloud spend is that the bill never really goes down," says J.R. Storment, executive director of the [FinOps Foundation](#).

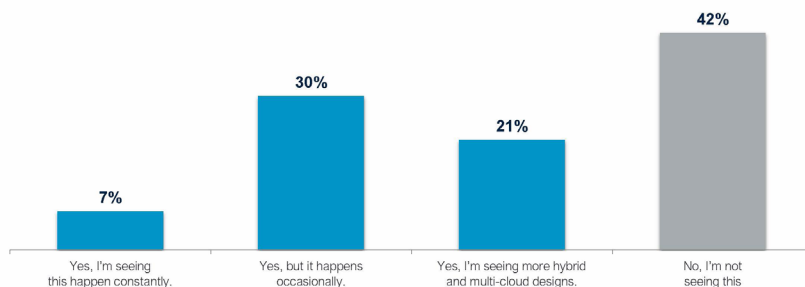
This year, according to our survey, the number of people seeing repatriation of workloads from cloud back to on-premise data centers or colocations dropped from 72% to 58% of all respondents. Nevertheless, this indicates that a majority are still working to figure out what should live in colocation and what should reside in the cloud. The good news is that these exercises are great for everyone.

Workloads that belong in the cloud will be more adequately provisioned, while expensive dedicated resources in the cloud are moved on-premises. We'd expect this trend to continue along with the industry's maturing approach to workload deployment, cloud utilization, and data center resource utilization.

The one clear statistic we can pull from this is that the data center continues to grow in importance as more organizations repatriate workloads and see the value of working with a colocation, hyperscale, or data center partner.

Seeing Repatriation of Workload from Cloud Back to On-Premise Data Centers or Colocations?

A majority of respondents (47%) are seeing a repatriation of workloads from cloud computing back to on-premise data centers or colocations, but few are seeing it happen at a high frequency (7%).



Question: In your opinion, are you seeing a repatriation of workloads from cloud computing back to on-premise data centers or colocations?
 Base: All respondents (n=135).

The 5th State of the Data Center Report

The conversation around the modern data center is shifting in fascinating directions. New discussions around automation, AI, and even robotics are emerging as being impactful on our data center ecosystems. From the previous reports, we've seen evolution happen around digital infrastructure.

Users, workloads, and even deployment strategies are all changing. From edge to cloud, automation to mechanization, security to data integrity, data center leaders have a lot to consider. Take robotics, for example. Over 40% of respondents believe that robotics and automation will be leveraged in the data center. This means that our industry sees the benefit of leveraging more intelligent, autonomous systems for smaller tasks, and distributed environments. These machines are being built as human-centric solutions. They are designed to augment our capabilities and allow humans to bring more value to the business.

Robotics aside, this report will look at some of the most impactful trends in our industry. With new sections, and all-new questions, the report will help you gain a broader picture of digital infrastructure and where your data center plays a critical role.

In the 2021 report, we reviewed:

- ▶ Data center deployment plans
- ▶ DCIM strategies and new technologies
- ▶ Data storage capacity and growth
- ▶ Robotics deployments
- ▶ Renewables
- ▶ Hiring practices and challenges
- ▶ Generational trends, diversity, equality, and inclusion programs
- ▶ Factors driving IT investment
- ▶ 5G deployment
- ▶ Edge deployment
- ▶ Cloud trends
- ▶ Security models, infrastructure threats, and zero trust

State of the Data Center Industry Report

This year, we saw growth across industries responding to the annual survey. First, we saw a 12-point jump from last year to 54% for respondents who have more than 1,000 employees. We also saw a great mix of industries represented in the report this year. The top five represented industries include:

- 1. Healthcare and Pharma: 13%**
- 2. Education: 13%**
- 3. Computer/Data Processing/IT Services: 11%**
- 4. Finance/Banking/Investment: 8%**
- 5. Construction/Engineering/Architecture: 7%**

Another significant finding is that we got responses from all walks of data center life, including:

- ▶ **Data Center IT Ops: 32%**
- ▶ **Build and Design Professionals: 17%**
- ▶ **Data Center IT: 17%**
- ▶ **Technology Consultants: 10%**
- ▶ **Data Center Facilities: 8%**

Regarding longevity in the industry, we saw some interesting trends that point to a need for action in the training and hiring fields. In 2019, 50% of respondents reported being in the industry for at least 10 years. In the 2020 report, that number jumped to 56%. The 2021 report shows an increase in length of time working in the industry. Three in four respondents (72%) have more than 10 years of experience in the data center and facilities management field. Although we'll discuss this later, this is a prime reason for an increased focus on getting more millennials and Gen Z people into our industry. Here's an important stat: Eighty-percent of respondents are 45 or older. And 45% of all respondents are 55 or older. We'll touch on hiring and personnel a bit later.

Although these trends already give you something to think about, they will get a lot more interesting in the upcoming sections. So, please sit back, and let's dive in.

The Data Center Industry is Growing ... Right?

For the second year in a row, we continue to see a plateau for data center building, renovation, and management. Data center and technology leaders actively focus on density and ensure that they utilize the space they already have appropriately allocated.

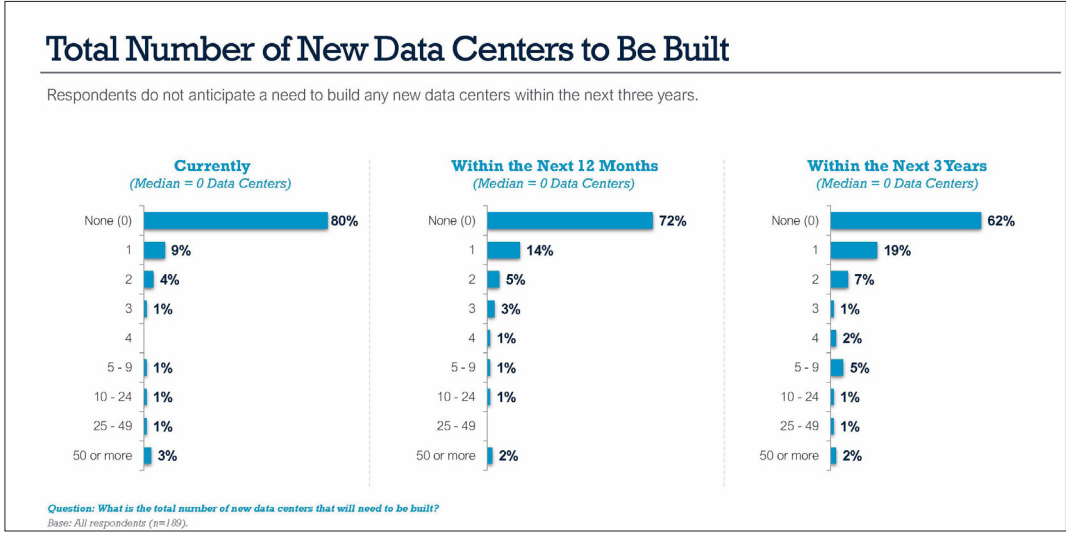
Regarding the last point, although 62% of respondents indicated that they're all set for the next three years, 48% did state that they'll be building data centers between 12 and 36 months from now. Nineteen percent stated that they'd be deploying at least one new data center. Another 19% said that they'd be building at least two facilities. About 5% stated that they'd be building 5-9 new locations over the next 36 months.

So, why are we continuing to see a broad plateau regarding data center renovation and construction? After further deep-diving, we see that the individuals building, renovating, and expanding their data centers come mainly from the colocation, hyperscale, and multi-tenant space. Essentially, there continues to be a slow decline

in enterprise data centers as leaders in the space focus on the business's core competencies. Most of the time, it's not managing data centers.

The other factor is the expansion revolves around edge computing deployments and a further focus on density. The way we design and build data centers is undoubtedly changing as well. Trends are indicating a broader focus on performance, density, and efficiency. For example, most (62%) report their rack density has increased over the past three years. One in four (25%) of respondents indicates an average rack density of about 7-10kW.

As an ever-changing piece of our technology landscape, data center requirements continue to evolve. This evolution is based on enterprise, hyperscale, colocation, and cloud requirements. Where areas of development might slow in one area, there's growth in the overall data center market. To further understand these findings, we turned to the AFCOM DCI Board members for their review.



DCIM Integration Initiatives

Data center infrastructure management has advanced as an evolutionary platform. We've seen all sorts of new solutions and features added to increase data center management platforms' value. This includes data-driven features, AI integration, and even augmented reality in the data center.

We found similar trends and interest during the 2019 AFCOM Leaders Lab on the future of DCIM. Here's the big takeaway from that lab: DCIM is no longer just a piece of software. It has become an entire practice of managing the data center.

In speaking with leaders in the data center management space, we see that the landscape around both the data centers and how we manage them is growing more innovative every day.

With regard to changes in DCIM strategy, respondents are most likely to have currently implemented security (69%) and environmental management (65%), followed closely by facility management (61%), power/energy management (61%), and asset tracking/management (60%).

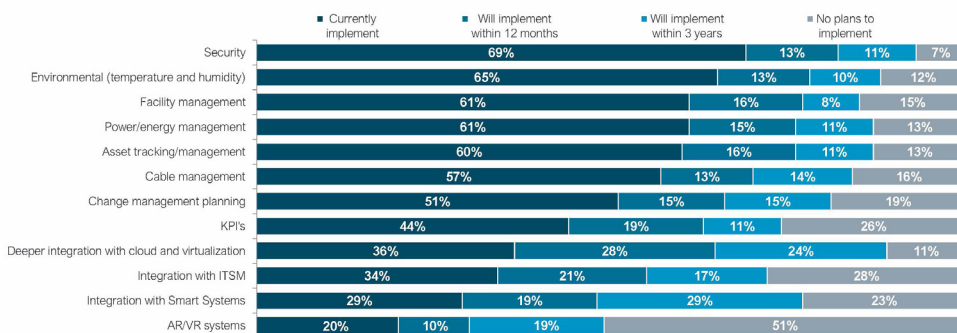
Another exciting area of DCIM involves integration with augmented reality and virtual reality solutions. In 2020, 16% stated that they already have some augmented or virtual reality solution deployed as a piece of their DCIM strategy. In 2021, that number increased to 20% currently deploying the solution, and another 29% with plans around AR/VR over the next 12-36 months.

Finally, we wanted to know what future DCIM systems integration looks like regarding ITSM and data center sensors and intelligent systems.

Thirty-four percent of respondents stated that they already have some integration with ITSM/ITOM tools, with another 38% indicating plans for more deployment over the next three years. Similarly, just about 30% of respondents integrate DCIM with intelligent systems and advanced data center intelligence. Underscoring this growth in DCIM and intelligent systems, 48% of respondents showed that they'd be working with the smart system and DCIM integration over 12-36 months. This, and deeper integration with cloud and virtualization (36% report leveraging this now), are some of the fastest-growing trends in DCIM.

DCIM Implementation Plans

Respondents are most likely to have currently implemented security (69%) and environmental (65%), followed closely by facility management (61%), power/energy management (61%), and asset tracking/management (60%).

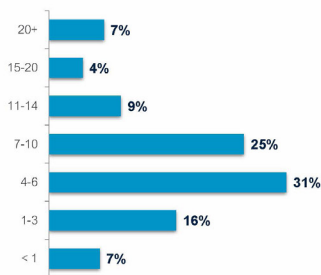


Question: What are your implementation plans for each of the following with regard to DCIM?
Base: All respondents (n=189).

Rack Density (kW) in Primary Data Center

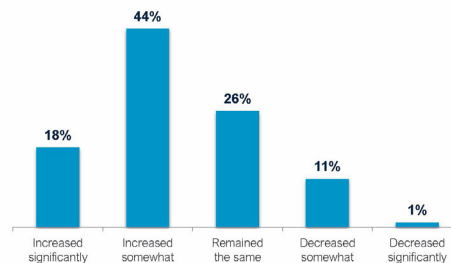
The typical respondent reports an estimated mean rack density of 7.8 kW in their primary data centers. A majority (62%) report their rack density has increased over the past three years.

Average Rack Density - Primary Data Center



Question: What is the average rack density (kW) in your primary data center?
Base: All respondents (n=189).

Change in Rack Density - Past 3 Years



Question: How has the density changed over the past 3 years?
Base: All respondents (n=189).

Growing Requirements Around Density and Technology Implementation

Since the first AFCOM State of the Data Center report, we have continued to see rack density increase. In our 2018 report, the average data center density was about 5 kW per rack. This year, the typical respondent reported an estimated mean rack density of 7.8 kW in their primary data centers. This is down by less than 0.5kW per rack from 2020. Still, most (62%) report their rack density has increased over the past three years, and 18% of respondents indicated that the change in rack density increased significantly.

Data center leaders are turning to new solutions to support increased density levels and more technology deployments. One way to accomplish this is by deploying more effective infrastructure components like all-flash, software-defined solutions, and hyperconverged architecture.

Investment in Renewable Energy

Going green has been a significant initiative for data center and technology leaders. Entire programs that were developed around green technologies are making waves in our industry. Most respondents (65%) are seeing an increase in renewable energy utilization.

This is a pivotal trend. As data centers and edge environments are being built, there is a clear focus on ensuring that these facilities run green. With 20% indicating that they have an active renewable energy strategy, many more are within the three-year range of deploying further initiatives.



Key Trends Around Technology Implementation

When compared to 2020, there was an increase in implementation in practically every category in this section. Respondents are most likely to have already implemented IT asset management (67%), followed by flash storage (59%), and cloud security (58%).

There were other key areas that experienced growth in adoption as well. Consider the following:

	2020	2021
Flash Storage	49%	59%
Multi-Cloud	37%	42%
Software-Defined Networking (SDN)	36%	42%
Hyperconverged Architecture (HCI, CI)	34%	37%

Other fascinating bits of information regarding technology deployment include implementing white-box/OCP solutions, cognitive systems in the data center, and robotics/

autonomous systems. Currently, more than one in four (26%) leverage white-box or commodity systems in their data center. Another 31% indicated that they'd be deploying these systems over the next 12-36 months. White-box solutions can prove to be highly effective for purpose-built deployments. It's a growing consideration for turnkey designs, cloud computing, and even new cooling solutions.

Leveraging AI and cognitive solutions are growing in popularity as well. Twenty-five percent are currently leveraging some solution. Nearly 50% indicated that they'd have more cognitive solutions in their data centers over the next 12-36 months. This is a key trend to keep an eye on. We believe we'll see smarter data centers where more sensors and autonomous integration will make management more effortless.

Finally, 16% stated that they're already leveraging robotics and autonomous systems in their data centers. Another 35% said that they'd deploy these solutions in the next three years.

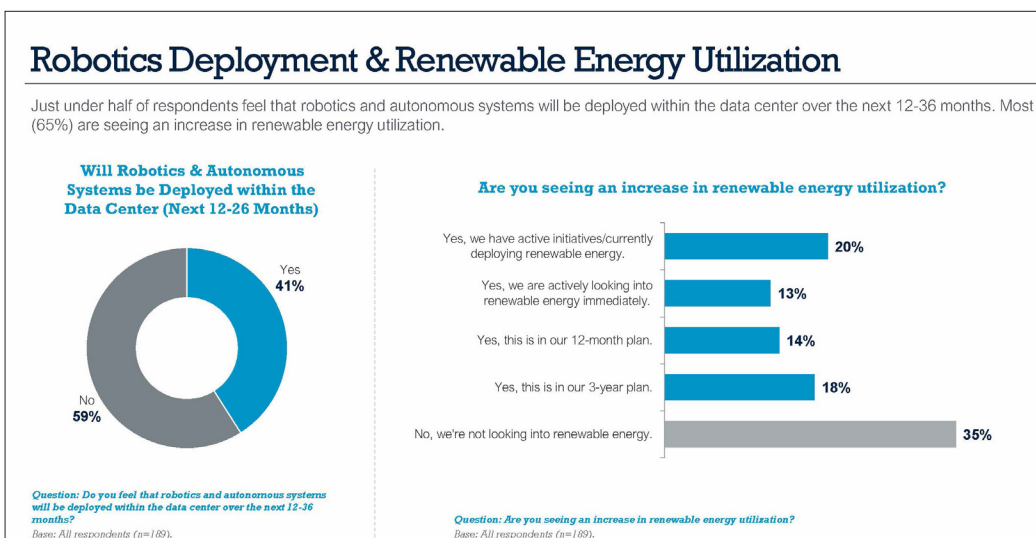
“We believe we'll see smarter data centers where more sensors and autonomous integration will make management more effortless.”

Robots in the Data Center? Why not!

Although we are still far from having robots rack and stack traditional servers and data center racks, robotics' adoption continues to grow and cannot be ignored. According to the [IDC](#), worldwide spending on robotics systems and drones rose to about \$130 billion in 2020, an increase of 17.1% over 2019. By 2023, IDC expects this spending will reach \$241.4 billion with a compound annual growth rate (CAGR) of 19.8%.

Let's look at robotics-influenced security at data center facilities and even at the edge. A recent [study](#) from Mordor Intelligence defines security robots as machines with locomotive capabilities that can collect data for security purposes, and in some cases, act upon this data if required. This information is collected through various sensors, such as ultrasonic or infrared devices, cameras, radars, thermal sensors, LiDAR, and others.

As it relates to the AFCOM State of the Data Center report, just under half of the respondents feel that robotics and autonomous systems will be deployed within the data center over the next 12-36 months. This is a relatively high percentage of people seeing a direct benefit from robotics and autonomous systems. The key point is that these technologies are here to augment peoples' capabilities and not necessarily replace them. Between security, concierge services, and even facility [construction](#), robotics will continue to impact the data center industry.



Significant Trends: Cloud, Edge, Storage, Infrastructure, and Security

Just like data never sleeps, neither does the data center. We continue to see exciting points of evolution as new technologies help support a growing digital economy. It's time to look at some key trends around cloud, edge computing, 5G, and security.

As we discussed earlier, we see a more mature market related to cloud and infrastructure deployment. This maturity means that leaders are more aware of what needs to be developed in the cloud and what requires a home on-premises. Fifty-eight percent of respondents indicated that they see repatriation of workloads from cloud to on-premises data centers or colocations. However, this number is smaller than in previous years. We still see a

growing understanding regarding the optimal deployment of critical workloads. That said, the data center is certainly not taking business away from the cloud.

Growth in the digital landscape means more services, more solutions, and more offerings from cloud providers. It's a big reason why, as it relates to technology implementation planning, data center leaders are actively investing in containers and microservices. Thirty-six percent have some containerization solution in place, with another 31% aiming to deploy containers in the next 36 months. We're seeing a more solid connection between cloud and data center providers.



Cloud

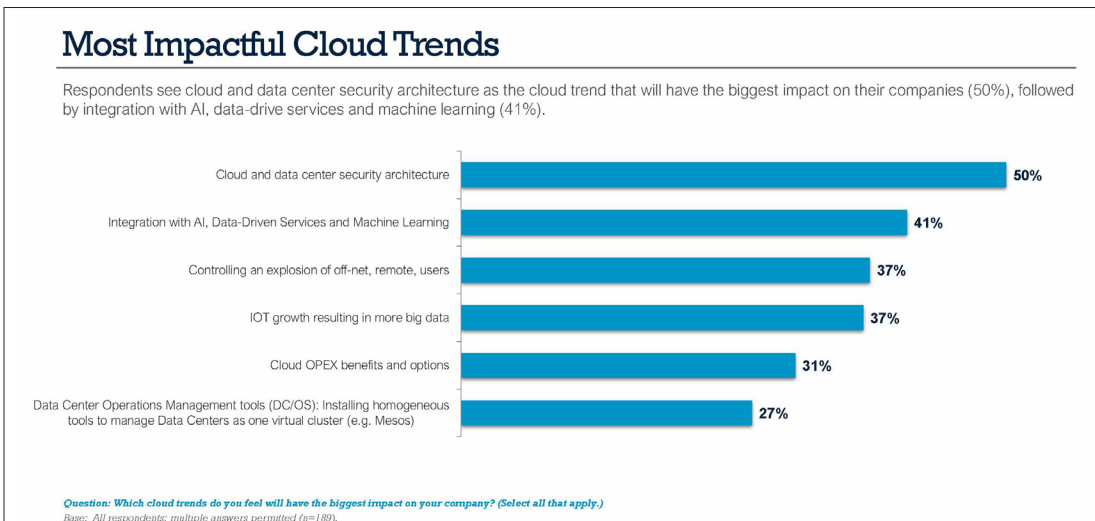
Focusing on crucial cloud trends specifically, we saw an interesting trend from 2020 to today. In 2020, 52% of respondents stated that they had deployed some private cloud solution, and 48% were leveraging public cloud architecture. In 2021, 63% indicated that they have a private cloud design in place, and 52% stated that they leverage the public cloud. Even though public cloud adoption rose 4% from last year, private cloud utilization jumped 11%. Leveraging public cloud infrastructure means that more leaders invest in colocation, hyperscale, and multi-tenant data centers. To support their private cloud requirements, business leaders turn to data center partners to empower their cloud solutions. Again, this indicates a general pull-back from the public cloud into more multi-tenant, private cloud data center solutions.

We also saw growth in hybrid and multi-cloud ecosystems. Making the list for the first time last year, multi-cloud is a

popular solution to help organizations stay agile between cloud and data center providers. In 2020, 25% of respondents were leveraging multi-cloud. Today, that number jumps to 31%. Similarly, 38% stated that they were using hybrid cloud solutions in 2020. In 2021, hybrid cloud deployments grew to 48%. The good news is that our industry leaders are seeing use-cases more clearly and employing suitable types of adoption models.

As far as impactful trends within the cloud and why leaders are moving, respondents see cloud and data center security architecture as the trends that will significantly impact their companies (50%). This is followed by integration with AI, data-driven services, and machine learning (41%).

Thirty-seven percent said that they'd be leveraging cloud services further to support the rapid expansion of offsite, remote users.



Edge

Supporting a distributed architecture requires a new approach to workload, application, and data delivery. Whether software-driven or hardware-based, edge solutions are popular for supporting new initiatives and business operations. Most respondents have implemented or plan to implement edge locations within the next three years (87%). That’s a massive jump from last year, where just over half of all respondents (55%) reported edge computing plans over the next three years.

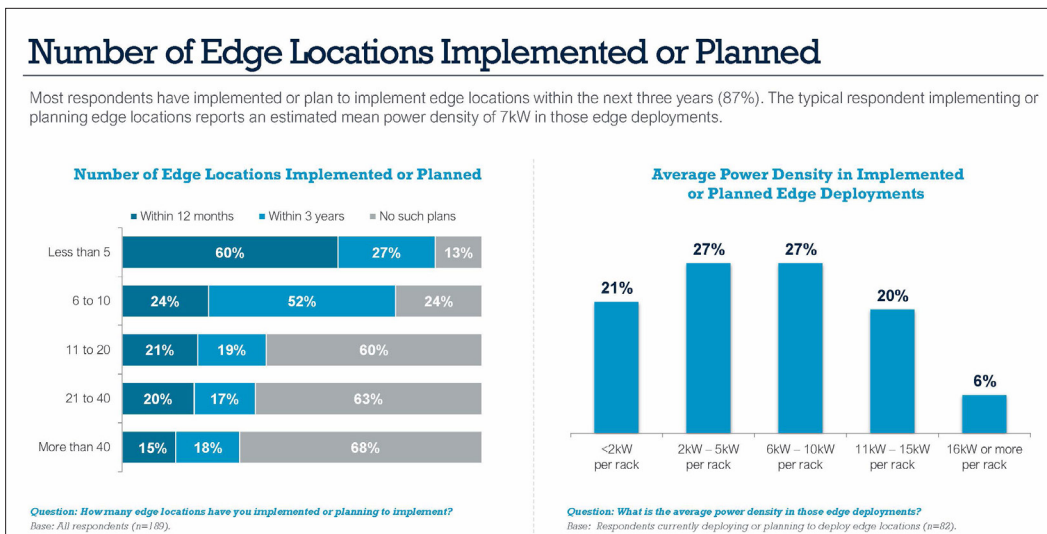
As far as the density at the edge, the typical respondent implementing or planning edge locations reports an estimated mean power density of 7kW in those edge deployments. This figure is in line with findings from last year.

While researching the edge topic more closely, we learned that software is a critical part of edge design. So, for the first time in our annual survey, we asked respondents about their plans to deploy software-defined solutions to help

impact the edge. The findings illustrate that investment in software-driven edge solutions is a critical consideration. A majority of respondents (57%) have either implemented (27%) or plan to implement (30%) software-defined solutions to impact edge.

This is something to keep an eye on as edge proliferates further to support a very distributed user base.

Finally, we also know that connectivity at the edge is a common topic regarding edge architecture. Leaders in the space are actively designing their edge solutions to support emerging connectivity options, like 5G. Just shy of half of the respondents (45%) will leverage 5G and (46%) plan to implement 5G solutions to impact edge. Furthermore, 46% state that they are deploying 5G as a direct part of their edge strategy. Much like software-defined edge architecture, connectivity and 5G will be critical parts of edge computing and its respective design considerations.



Follow the Data: Growth in Data Storage Capacity

According to [Cisco Systems](#), global IP data traffic increased from 96,054 petabytes per month in 2016 to 150,910 petabytes per month in 2018 and is anticipated to reach 278,108 petabytes per month by the end of 2021.

In our State of the Data Center Report, the most significant jump in storage expansion expectations came from those anticipating 5PB of data or more in the next 36 months.

Thirty-five percent of respondents indicated that they’d have at least 5PB of storage to manage. And 11% stated that they’d have 50PB or more.

Although these trends might not be altogether surprising, data center and technology leaders must keep pace with data growth. This means continuing to invest in security, density, and data compliance controls.

Security

As a statistic that will probably surprise no one reading this, ransomware took top spot on the list for the fifth straight time on our report. We continue to see advanced persistent threats hit the data center and the workloads that they house. It's not a matter of if, but when, an attack might happen in our digital landscape. This is a crucial reason why we, for the first time, asked in our survey about zero trust and adoption of zero-trust models.

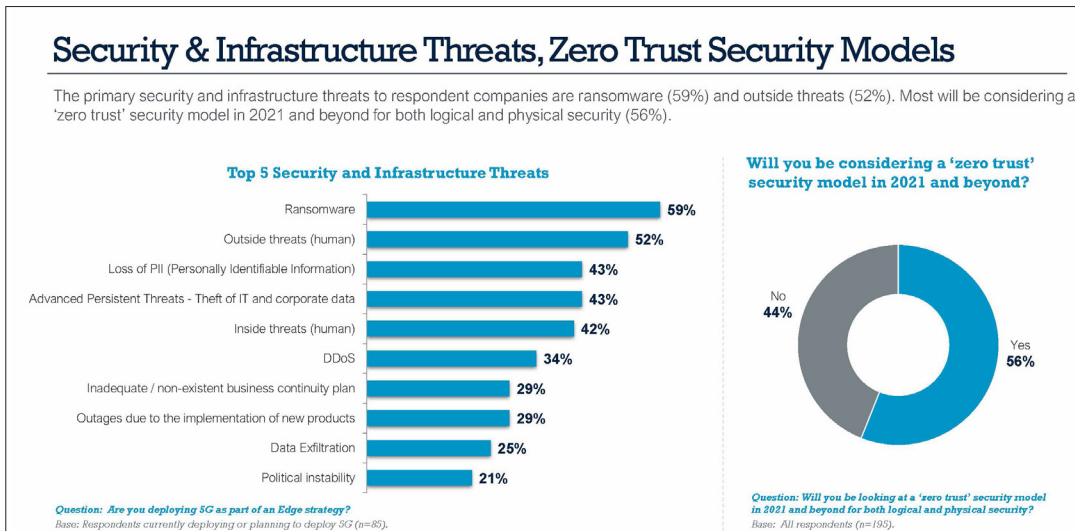
As it relates to the top security and infrastructure threats, consider the following:

- ▶ **Ransomware: 59%**
- ▶ **Outside threats (human): 52%**
- ▶ **Loss of PII (personally identifiable information): 43%**
- ▶ **Advanced Persistent Threats (theft of IT and corporate data): 43%**
- ▶ **Insider threats (human): 42%**
- ▶ **DDoS: 34%**
- ▶ **Inadequate or non-existent business or disaster recovery plan: 29%**

There are a couple of critical trends here to digest before we move on. First, ensuring that you create a good security posture means taking on a layered approach to security. Ransomware not only impacts your systems but potentially your customers as well. Be aware of this, and be sure to segment and protect your data.

DDoS attacks have been growing in size and ferocity. For example, the FBI is alerting healthcare technology leaders to the rise in DDoS attacks against their most critical health service systems. This is something to be aware of as you design your connectivity and telecommunications architecture. DDoS scrubbing solutions and protection can help you mitigate DDoS threats.

Finally, ensuring that you have a current and up-to-date disaster recovery and business continuity (DRBC) plan is an absolute must. Take the fire that destroyed the OVHcloud data center in Strasbourg as an example. Many organizations hosted within those facilities believed that since they were in the 'cloud,' they were backed up. Many of those leaders learned the hard way that this was not necessarily the case. Keep your DRBC plans updated.



The Future of Security: An Era of Zero Trust

There isn't a piece of technology or a single solution that creates the zero-trust standard. Instead, it's an entire approach and philosophy to securing data and devices both inside and outside your network. Zero trust is a security concept developed in 2010 that outlines that an organization must contextually verify anything and everything trying to connect to its systems before granting access.

Asking in our survey for the first time, we wanted to know how respondents view zero-trust adoption. Our results

indicate that leaders in the technology space actively look at zero trust as a real-world model to shape their security standards. Most respondents (56%) will be considering a zero trust security model in 2021 and beyond for both logical and physical security.

The core belief around zero trust is that organizations should not automatically trust anything inside or outside their perimeters. This is an excellent time to review your security measures to ensure you don't have blanket policies governing vast amounts of data, devices, or services.



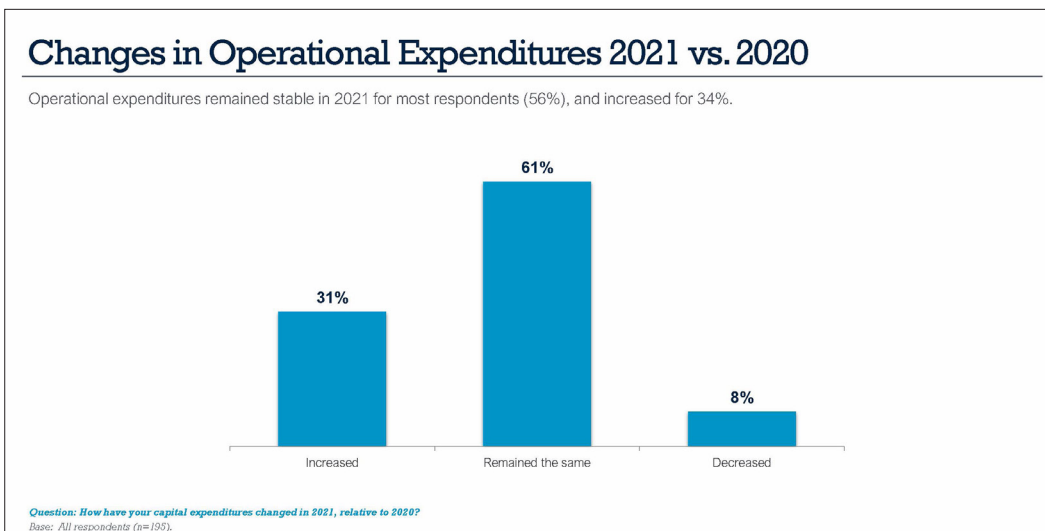
Shifting Budget and Spending Trends

Starting with OpEx, operational expenditures remained stable in 2021 for most respondents (56%) and increased for others (34%). Last year, the factor that increased OpEx the most was growing personnel costs. Although that was still important this year, the number one factor this year was pandemic-related operational costs. Here’s the interesting point: Pandemic-related operational costs were also the reason that OpEx decreased for some. Essentially, that makes sense. On the one hand, we needed to support more people operating remotely. On the other hand, we had fewer OpEx costs because we had fewer people in the office.

Overall, a variety of factors contributed to increased operational expenditures in 2021, including pandemic-related operational costs (49%), increasing equipment service costs (49%), and increasing personnel costs (43%). The primary driver of decreased operational expenditures is pandemic-related operational costs (75%). To lower OpEx costs further, 50% of respondents indicated using more outsourced IT services.

Like OpEx, capital expenditures mainly remained stable in 2021 for most respondents (61%) and increased for other respondents by 31%. The primary factor contributing to increased capital expenditures in 2021 is an investment in existing facility infrastructure (68%), followed by pandemic-related capital costs (50%). From there, we saw that investment in IT refresh, over and above annual refresh targets (48%), was also a factor in the increase of CapEx.

Again, much like OpEx, the decrease in CapEx also was related to pandemic-related capital costs (53%). With more people working remotely, there was no need to expand physical space. Another reason that CapEx went down was due to infrastructure and business modernization. Upgrades, refurbishments, and modernization efforts helped 40% of respondents lower their CapEx.



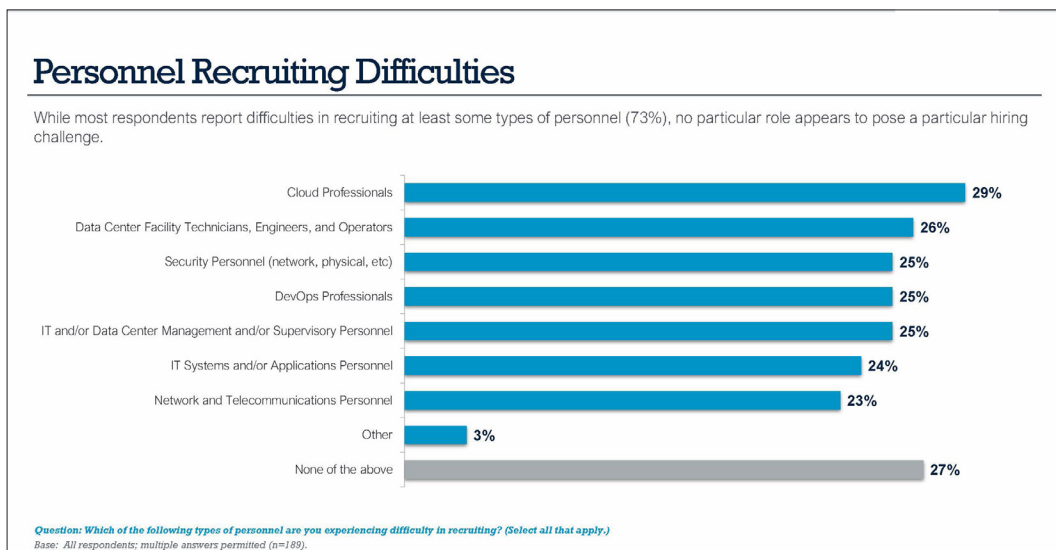
Working in the Data Center Industry

However, finding those people continues to be a challenge. Interestingly, there is no one area of data center or infrastructure support suffering from a lack of talent more than another. Data center leaders need help across the board. While most respondents reported difficulties recruiting at least some types of personnel (73%), no particular role appears to pose a specific hiring challenge. Help is needed in the cloud (29%), data center facilities engineering and technicians (26%), security professionals (25%), DevOps (25%), and so on.

Investment in personnel is a significant initiative for digital infrastructure leaders. Respondents are more likely to anticipate increased investment in training data center personnel (56%) than in hiring data center personnel (43%). However, it's still a sign that there is direct spending to get good people either trained or through the data center doors.

There are many reasons for increased investments in IT or data center personnel. According to the report, no single factor appears to be a dominant cause of increased investment in IT and Data Center Facility personnel in the past three years. The most commonly reported factors include pandemic-related staffing challenges (37%), increased demand for on-site coverage (35%), and retention costs for existing staff (34%).

Many leaders in the space continued to go after good talent to help support growing business requirements. Across the entire digital infrastructure landscape, challenges getting skilled folks into the data center continue. The challenge is compounded when we consider the efforts to get millennials, GenZ's, and people of diversity into our environments. This is a key reason we included generational trends, and equality and inclusion programs in this year's report.



Young People and Diversity in the Data Center

As a millennial, a large part of my effort is to educate our community around digital infrastructure and what it means to build a connected future. In the report, we asked about efforts to get both millennials and Gen Z people to enter the data center market. Respondents are more likely to report seeing an increase in millennials entering the data center industry (63%) than Gen Z (46%). Either way, large numbers of our respondents indicate that they will see a boom in young people entering the data center industry. The goal will be to overcome misconceptions and challenges in getting these young people into our data centers.

With that, the big question is this: How ready are you to accept these new entrants, and what will you do to empower them?

Gen Z [accounts](#) for 61 million people in the U.S., a number that's already larger than Generation X and two-thirds the size of the baby boomers. And this generation was to become the first real balance between digital and interpersonal interactions. A study from Robert Half, the hiring company, says that GenZ workers prefer to collaborate in small groups in office settings.

The least preferred approach? Generation Z does not like working offsite as part of a virtual team, which is almost everyone's life at the moment.

As strange as it might sound, GenZ would much rather talk to you in person than over a device. [Seventy-four percent of Generation Z](#) prefer to communicate face-to-face with colleagues.

It will be necessary for data center leaders to understand young peoples' value systems and learn how they can be motivated. Most of all, young people want to know what they can do to impact a business and, at least in some capacity, be a part of the decision-making process.

To attract this young talent, leaders in the data center space need to get creative. A clear majority of respondents (78%) are actively trying to entice your people into their organizations, most commonly by offering continued education and training (51%) and offering flexible hours and work environments (48%).

Here are the top five ways leaders in the space are working to attract and retain young talent:

- ▶ Offer continued education and training: 51%
- ▶ Offer flexible hours and work environments: 48%
- ▶ Modify corporate culture to attract young talent: 35%
- ▶ Modify management styles to support GenZ and millennial candidates: 32%
- ▶ Offer new types of benefits (e.g., gym memberships, paid meals, dry cleaning): 26%

Let's focus on corporate culture and new programs to entice young leaders into the data center industry.



Diversity and Inclusion in the Data Center

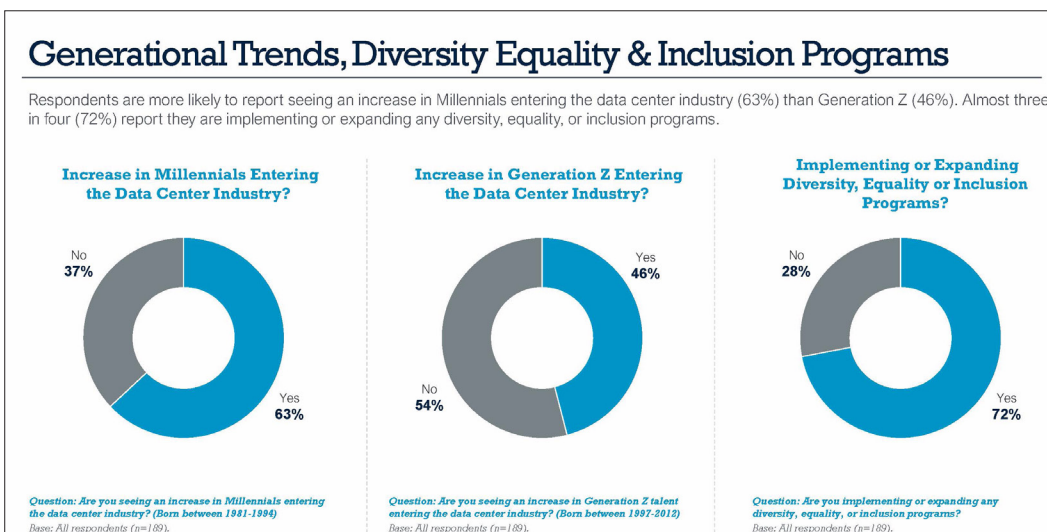
For the first time in our report, we’re asking diversity and inclusion questions related to digital infrastructure. As it relates to young people, a recent study indicated that **77% of Generation Z** said that a company’s level of diversity affects their decision to work there. Furthermore, **93% of Generation Z** said that a company’s impact on society affects their decision to work there.

Diversity and inclusion initiatives carry a lot of benefits. First of all, an inclusive organization’s culture will attract GenZ talent – not to mention a diverse workforce. There are business gains as well. Deloitte’s recent report stated that

organizations with inclusive cultures are **two times as likely to meet or exceed financial targets!**

The good news is that the data center industry wants to be more inclusive and actively find ways to open the doors to more people. In the AFCOM report, almost three in four (72%) report they are implementing or expanding their diversity, equality, or inclusion programs.

This is a positive for everyone. Creating a more diverse technology landscape for people means we’ll be able to access more ideas, more innovation, and new ways to solve complex challenges.



Final Thoughts: A Look to The Future

We are living in a truly disruptive time. The technology landscape continues to evolve with new solutions around data-driven designs, edge computing, connected systems, and so much more. Our digital infrastructure is so much more than big buildings and blinking lights. Today’s systems are the foundation for our digital tomorrow.

From a business perspective, many are working hard to impact the trajectory of today’s digital economy. To get on that ship, you need to understand something important:

To become a leader in a disruptive market, you and your business may need to be disrupted.

Our report learned that leaders would be leaning outside of their traditional comfort zones to meet anticipated data center needs. Fifty-two percent of respondents indicated that they would leverage edge compute capacity to meet current and future infrastructure demands. Similarly, 41% stated that integration with AI, data-driven services, and machine learning are vital areas where both cloud and data center solutions impact their business.

As you look to the future, these technologies must not be seen as something frightening or challenging. By opening your aperture and learning more about these solutions, you’ll see how they can contextually apply to your business, better preparing you for a much more connected future.