

Just Keeping The Network Running Isn't A Strategy for Growth

Companies: AAPL, AMD, AMZN, CRM, CRWD, CSCO, CTXS, CYBR, DDOG, DELL, FFIV, GLW, GOOG/GOOGL, HPE, IBM, INTC, MDB, MSFT, MU, NVDA, ORCL, PANW, PSTG, QCOM, SMC, SNOW, SPLK, WDAY

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“Heard, tracked, understood, witnessed, confirmed, and you should really think about paying attention to this stuff.”

Research Question:

As IT budgets come under increased scrutiny and tighten up, where are customers turning for answers as they upgrade systems, manage cloud deployments, and support mobile workforces? What tech categories and companies are best positioned to benefit in this climate?

Key Findings

- Microprocessors; laptops; remote access; cloud data security; ultrafast upgrades to data-center servers; cheap, fast, solid-state data storage; and the proliferation of fiber networks into smaller communities outside urban areas are the safe havens in information technology as seismic changes begin to restructure how enterprises and organizations, including government, evolve their digital communications, according to every source interviewed for this Tech Trends report on IT spending. Smaller vendors offering similar solutions and software companies that have products which customers can do without in a tight economy will suffer. As always, the major threat looms in the form of cloud computing.
- Fast chips, fiber optics, advanced wireless access, and automation tools will benefit as the digital world decentralizes.
- As the economy worsens, end customers who make the decisions are circling the wagons. “The old, centralized models of business institutions are falling apart,” said an executive at a tech talent agency. “You have layoffs at the same time you have to make sure your enterprise continues to function. Enter the mobile freelance workforce. We are in a balancing act where customers will buy services from the cloud. But they will still hang onto portions of their in-house networks, especially bulk data storage and, of course, their data security implementations and core application software that isn't already running in the cloud. In this patchwork style of IT, you need a different type of worker that is comfortable with cloud deployments and legacy systems, because we are never going back to the way things were before the pandemic.”
- “Keeping the lights on” is another term sources use to describe how customer spending is trending as organizations are suddenly less interested in large-scale upgrades to existing systems, opting instead to control costs.
- As a result, remote work will become the operating standard by the end of the year. This will be to the detriment of dense urban areas with what sources call a real estate problem. “Trying to force people back to an office commute just because you have a big building is going to fail,” said the CEO of a network integration company that has seen an explosion in remote workers this year. “We provision so many laptops for our big customers, we lost count. Apple [Inc./APPL], HP [Hewlett Packard Enterprise Co./HPE], Dell [Technologies Inc./DELL], Lenovo [Group Ltd./LNVGY], and Microsoft [Corp./MSFT] Surface. ... The central access for our customers is Microsoft's cloud, although we can provision for any situation.”
- The IT vendors that will hang in the best, sources said, are the ones that have locked in a significant number of recurring-revenue customers, especially companies that know how to serve customers in hybrid network settings where resources are on-premise and in the cloud. Cisco Systems Inc. (CSCO) topped the list of survivors simply because of the sheer numbers of customers it has. “I guess it is a safe haven, to a degree,” said one network integration executive.
- “It is a game now where you try to get customers to slow down their movement to the cloud so you can keep licensing for on-premises because the margins are higher,” said the CEO of a security monitoring company. “You have [Amazon.com Inc./AMZN] AWS, or [Microsoft] Azure taking a cut of the licensing revenue when outside software operates in the cloud. That said, you will not see any of the big software and security guys trying to block customers from using them in the clouds because, let's face it, if they do not migrate with their customers, they will eventually go out of business. ... That pushes security to the front of the line on recurring spending because you must have it no matter where your applications sit. ... The clouds are taking over more and more of that responsibility. That means, as we have discussed for a long time, that the big security vendors will be hard-pressed to control the game anymore.”

Positive: AAPL, AMD, AMZN, CRWD, CYBR, GLW, GOOG/GOOGL, INTC, MSFT, MU, NVDA, PSTG, QCOM, SMC

Neutral: CSCO

Negative: CRM, CTXS, DDOG, DELL, FFIV, HPE, IBM, MDB, ORCL, PANW, SNOW, SPLK, WDAY

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Sources Rank Categories And Companies In The New Age Of Dispersed IT

Enabling the remote workforce and dealing with accumulated data are now the top priorities. Every remote worker is an endpoint who needs a computer of some kind and reliable wired or wireless access to the internet, with the pathway in and out of data applications and stored data to be secure from hackers. That helps specialist endpoint companies such as CrowdStrike Holdings Inc. (CRWD) and smaller ID and application access permission companies such as [Cyberark Software Ltd. \(CYBR\)](#). It does not help the massive, do-it-all security companies such as Palo Alto Networks Inc. (PANW) because they try to sell too much to customers that are looking to cut back spending if they move to the cloud. In those clouds, Microsoft and Alphabet Inc.'s (GOOG/GOOGL) Google offer extensive, rapidly expanding suites of security capabilities to their customers, as noted in [Blueshift Research's June 17 Tech Trends report](#).

We have arrived, sources say, at the convergence of personal and business technology, and one source's comments encapsulate the broader view among all the sources interviewed for this report:

"It's all the same suddenly," said an executive at a value-added reseller/integration company. "Everything is digital. There is no difference between personal and business tech at the edge. The Apple machines that used to be your personal computer are running business applications in the cloud. Those laptops and tablets sync with Apple smartphones. We have clients with workers who are taking conference calls on watches. They can be anywhere. It doesn't matter. We used to be in client offices all the time working on desktops and wireless LANs (internal local area networks) that were IBM (Corp./IBM), Dell, or HP, with Cisco switches. Since the pandemic, there is virtually none of that except for a couple hospital accounts we have. We sell pre-configured Surface Pros that are synced with our clients' Microsoft cloud accounts and locked down with security. It is automated. We are seeing lower-tier IT people being let go. We see middle-manager IT guys we have worked with for years have their networks turned off in the office. It's all remote now. The middle managers who used to run offices are out of work, or soon will be."

Said the CEO of a UK-based IT management company with strong ties to Microsoft: "Our entire practice has shifted to remote-work enablement. If you follow current events, you'll see we are beset with rail strikes, airline chaos, inconceivable petrol prices, and a general resistance amongst workers who traditionally commuted into London and other large metropolitan areas for work to not commute into those areas any longer, even if it means losing their positions. The rails situation may prove to be the final blow, as it is literally blocking millions from getting around the country. We are right back in a pandemic-type lockdown, in essence, and it proves that remote work is again keeping what remains of the economy functioning. Broadband replaces commuting. The former way of doing things is finished. Perhaps it is good for the environment, everyone just staying put."

Some on-site storage still sells. Dell supplies EMC and other arrays, but storage-focused sources say it is not a growth area. All flash arrays from lower-priced [Pure Storage Inc. \(PSTG\)](#) were favorably mentioned by sources. Two sources pointed to the company's new [Flash Blade S//](#) system as particularly well-suited to higher-end companies in sectors such as biomed and pharma development, as well as other sectors where fast access to stored data is crucial for research and development, among other uses. "They have a better system than anything Dell can offer," said one source who sells several storage vendors' products. "If you are keeping storage on site and are looking for an expandable system at a good price that is very high-performance, Pure has it."

At ground level, sources said, chip makers Advanced Micro Devices Inc. (AMD), Intel Corp. (INTC), Nvidia Corp. (NVDA), Qualcomm Inc. (QCOM), and Micron Technology Inc. (MU) are all in a position to supply the processors that will anchor new data center capabilities in public and private clouds, enable mobile communications, provide the memory for next-gen servers, and continue to power mobile laptops and tablets. Apple was also cited for its fast and reliable M-series chips that are being incorporated into the company's newest machines. Several sources pointed to [Super Micro Computer Inc. \(SMCI\)](#) as being well-positioned in the custom server industry, able to incorporate the latest processors from companies such as Nvidia. Super Micro is adding Nvidia's new [Grace CPUs](#) into a line of advanced data center servers that will be available by the third quarter. Data center sources said the machines will open doors to [a new type of artificial-intelligence computing](#) that will enable next-generation digital capability.

Sources were also positive on fiber-optic network expansion actually increasing as suburban and rural communities open fast broadband opportunities to lure companies away from urban cores as a way to promote quality of living in recruiting workers. That will continue to benefit fiber-optic cable maker Corning Inc. (GLW), the sources said, as wireless and wireline broadband supplies need fiber cable to backhaul traffic to the internet.

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On the traditional vendor side, the established players of the past 30 years are seeing a fractured demand for their wares. Sources said many vendors supply pieces and parts of the new reality—as opposed to the past, where IBM, Cisco, HP, Dell, Oracle Corp. (ORCL) and companies such as Citrix Systems Inc. (CTXS) and F5 Inc. (FFIV) had a stranglehold on core IT networking. The notable thriving survivor of that era is Microsoft because it has invested billions in building out its global data center and network infrastructure so that its dominant suite of enterprise software has a place to run where customers can use it on a pay-as-you-go basis.

“Dell sells laptops, but they don’t own the category. That is the way it is now,” said the CEO of a West Coast network integration and cloud application management firm. “Cisco sells a lot of networking equipment, but the cloud has eaten away at so much of the global installed base of enterprise switching that it is, at best, a maintenance business. IBM and HP are in the same boat. They have a piece here and a piece there. IBM is especially vulnerable to downsizing in their largest corporate accounts because so many of their biggest customers are laying off people and bringing in cloud automation that is not being supplied by IBM. What you see is this fight to supply services for recurring revenue. Cisco, HP, and Dell want to run your network for you. If you let them do that, you are stuck in the past, because you can run applications in the cloud, and your workers can directly access them. Why would any midsized to large company pay to hold onto old network practices when the workforce is at home?”

“We run numbers for clients all the time on different combinations of doing it yourself vs. using a cloud solution. If you are careful in deploying the cloud, you save money in several ways. That then puts network acceleration in an old business category, and that’s why you see Citrix going private. F5 is hanging onto a passing world as well. Oracle is trading water with its software. Salesforce [Inc./CRM] and Workday [Inc./WDAY] don’t have anything that you can’t get from Microsoft, more or less. The fight there among all these companies is to keep existing customers as long as possible while trying to become something different. Over the next five to 10 years, it is not sustainable, in my opinion, based on what we see every day.”

Sources continued to be negative on what they call “overlap” companies—where a vendor offers a software service that is available from a cloud vendor, especially Microsoft or AWS. Salesforce, Workday, Datadog Inc. (DDOG), MongoDB Inc. (MDB), Snowflake Inc. (SNOW), Splunk Inc. (SPLK), and Oracle were all mentioned as being faced with the slow erosion of their base businesses because of the cloud. “There are too many similar businesses offering many of the same things already,” said an executive of a cloud management business based in the Northwest. “If it is a software services platform, that means it has to be hosted. If a customer of ours is utilizing the cloud, particularly Azure, and they are on a back-office system and database from any of those vendors, you have to look at what is overlapping what they can do with the same services in [Microsoft Dynamics 365](#), for example; and make a determination regarding cost and the ability to migrate off of something like Salesforce or Workday, which are both expensive and have different features, some of which overlap. Remember, if it is a cloud subscription application, and the platform does not have its own native hosting—as none of them do, because they don’t own the data centers—the guys who have the data centers can price the outsiders into the dust over time. That is what AWS has been doing to Oracle.”

Database expert sources said the classic way to understand the dynamics of native cloud vs. outside vendors that are able to run anywhere is to evaluate where and how a customer wants to run a database. In almost every instance, sources agreed, customers will never spread their data across the big three clouds at AWS, Microsoft, and Google. “You never see it,” said one database management consultant. This executive said you can then look at comparisons, pointing to [Microsoft’s Cosmos](#) vs. [MongoDB Atlas](#). “Both are very good, and developers have limitless opportunities to customize the databases. The key is that Microsoft owns the metal, and Mongo lives there as a dependent organism. That means Microsoft has the opportunity to offer its customers on Azure native hosting and operational freedom, and that figures into pricing. If both databases are highly rated, the edge goes to the cloud operator over time because they have the hosting and native environment. That put Mongo at a disadvantage of having to rely on outside developers working at end-customer companies to keep Mongo in the running. And that is a very precarious position to be in because, over time, those developers who have jobs in those customer settings are going to be let go because they will become redundant to automation. In other words, the clouds win because they have the developer world largely under their control already.”

Background

Senior Technology Researcher John Harrington has been reporting on IT spending trends on a twice-yearly basis since February 2014. For this report, he interviewed 21 sources across all areas of data networking, from fiber networking, data center networking, enterprise networking, mobile workforce provisioning, cybersecurity, data storage, and the software-as-a-service sector spanning several categories. Sixteen sources are based in the United States, one is in Canada, and four are based in the

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UK and Western Europe. Nineteen are repeat sources from previous Tech Trends reports. Two are new sources involved in data storage and remote-worker staffing. Interviews were conducted in the second half of May and the first three weeks of June.

About the Author

John Harrington is an award-winning investigative reporter and veteran Wall Street researcher. John previously served as senior editor and senior researcher at OTR Global and was a three-time Emmy Award-winning TV journalist.

John brings expertise and relationships in internet networking, network security, fiber-optic communications, and data center computing to Blueshift Research. John will contribute regularly, sharing deep insight into tech and communications trends, often before they are recognized by Wall Street.

Report Coverage Areas and Companies

Blueshift Research has been reporting on the following technology areas since Feb. 14, 2014, covering these public companies:

- Cloud Computing/On-Demand Hosted IT (AMZN, CRM, GOOG/GOOGL, IBM, MSFT, ORCL, WDAY)
- Enterprise IT Networking (ANET, CSCO, CTXS, DELL, FFIV, HPE, IBM, JNPR, MSFT, ORCL, RHT)
- Data Security (CHKP, FEYE, FTNT, INTC, JNPR, MSFT, PANW, SYMC)
- Data Storage/Management/Analysis (AMZN, BRCD, CSCO, GOOG/GOOGL, HPE, IBM, INTC, MSFT, NTAP, ORCL, PSTG, RHT, TDC, WDC)
- Data Centers and Fiber Optic Networking (AMZN, CONE, DFT, DLR, EQIX, GOOG/GOOGL, IBM, INTC, MSFT, NVDA, QTS, ZAYO)
- Fiber Network Construction and Implementation (ALU, CIEN, CSCO, DY, GLW, IESC, JNPR, NOK)

To access these reports, please contact your Blueshift Research sales representative or [John Harrington](#).

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