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Top Network Trends for 2023

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If you are conflicted about what to prioritize for budgeting, resource allocation, and investing in the best technology tools for the year ahead, you're not alone. The news industry is always abuzz with predictions about the upcoming year with pundits offering insight into how technology will impact business over the next 12 months.

With the possibility of an economic downturn looming in 2023, many IT teams will try to do more with less. However, with the right research, a recession can be the perfect time to invest in new technology, as companies seek to cut costs and increase efficiency. There is no more powerful tool than investing in digital transformation because automation, cloud computing, and other advanced technologies can help organizations streamline processes, manage budgets and free up staff to focus on more strategic business goals.

Despite fears of a recession and belt-tightening, a large majority of enterprise IT investments over the coming year are expected to focus on the enablement and acceleration of digital transformation because it is necessary to stay competitive and relevant. This will involve introducing new technologies, leveraging existing technologies in new ways, and applying new technologies to create new business models.

The first priority will be IT modernization; it includes hardware, software, cloud and managed services that will further support the shift to growing distributed workforces and the data processing demands of operational technologies. As many businesses move toward developing and implementing their own digital transformation strategies, they're quickly learning that their existing legacy infrastructure just isn't robust enough to balance competing demands of internal

infrastructure needs and business opportunities presented by AI, machine learning, cloud computing and IoT. In order to leverage data for better business decisions, the IT architecture must be in place to support it.

My sense is that 2023 will be a landmark year when the impact of 5G and edge cloud technologies to enable and accelerate digital transformation will be fully evident. The specific technologies discussed below will become more prominent next year, to foster and drive digital transformation.

5G for connected operations and location-based services

An excellent example of the impact digital transformation has on business is in the connected operations market. Connected operations help companies prepare for an economic downturn by enabling them to become more agile and efficient at responding to changes in market conditions. 5G will be a boon for businesses that rely on connected operations, as it enables applications that require high throughput and low-latency connectivity for devices and sensors that are part of a Connected Operations system, leading to more reliable and efficient data collection and analysis. This makes it easier for organizations to accurately identify areas where efficiency can be improved, and costs can be cut. A connected enterprise can react and respond based on context and location to make smarter, safer, and better business decisions.

Acceleration to close the digital divide

According to Pew Research, recent federal funding toward state infrastructure has created a surge in job openings in state broadband offices to manage the funds. This has enabled 5G service providers and ecosystem partners to join forces with local communities and bring connectivity to those in need. Bridging the digital divide in rural and underserved areas not only enables and accelerates digital transformation for businesses, but also provides them with access to resources and infrastructure such as cloud computing, AI, and Big Data. This access can help businesses increase their efficiency, improve customer service, create new jobs, and introduce new products and services to more areas. Technology can be used for good to create access and opportunity for everyone; this trend will continue well beyond next year.

Cloud security

The prevalence of digital transformation has highlighted the need for improved edge and cloud security. Older systems are especially vulnerable, lacking the necessary modernization to keep up with cloud, container or edge technology. This has driven demand for IT modernization and cybersecurity, with the global cybersecurity market projected to reach $170 billion by 2023.

Technology spending is increasingly being devoted to software, hardware and cloud security, as reflected in a recent Spiceworks Ziff Davis survey. In 2023, cybersecurity will be in high demand due to the growing attack opportunities and unchanging software running corporate IT networks; sophisticated attack tactics such as quantum computing and geo-targeting phishing will be used

to steal sensitive data or disrupt critical infrastructure, while increased global regulation with directives from the EU, US, and China will affect any business operating in those markets. To address this, 5G will be a critical enhancement, offering improved authentication, encryption, AI and machine learning, plus more granular control to help detect and respond to security threats. This extra control makes it easier to segment devices and data into smaller groups and target specific devices or data, enabling the adoption of zero-trust policies and design in both the public and private sectors. A healthy digital transformation is directly dependent on best-of-breed cloud security.

5G edge cloud to enable hyperautomation

As mentioned earlier in this article, while many advancements have been made in the last couple of years, the ability to scale will be prominent in 2023. IT infrastructure built years ago is no longer supported at the level cloud-native platforms are today. Cloud technologies must become core to operations to deliver digital capabilities anywhere and everywhere.

We are seeing this in the world of operational technology. Organizations are investigating areas where they can automate as many business processes as possible, and hyperautomation is one area that many operations teams are evaluating and testing for their own digital transformation strategies. These advanced automation technologies include artificial intelligence (AI) and robotics. 5G edge cloud technology will bring the capabilities and benefits of cloud services closer to the user equipment at 5G speeds, which allows automated processes to run quickly and efficiently with even greater low latency and security—right when and where business happens. Due to their cloud-native architecture, edge cloud technology is easily scalable, allowing more connections and data to be accessed and processed faster. The automation of routine tasks and decisions allows valuable staff members to focus on strategic business decisions that emphasize value and lead to innovation.

My advice for IT professionals grappling with decisions about balancing resources and watching the bottom line is to take a step back and view the new year as an opportunity to invest in the future with new tools that exist now. We know that 5G, edge cloud, machine learning and automation are foundational to modernizing IT and building a better business. Do your research and embrace the plethora of exciting technologies that will allow all of us to innovate and reimagine how businesses connect and use information.