ESG SHOWCASE

Maximize Investments for a Flexible Network Edge

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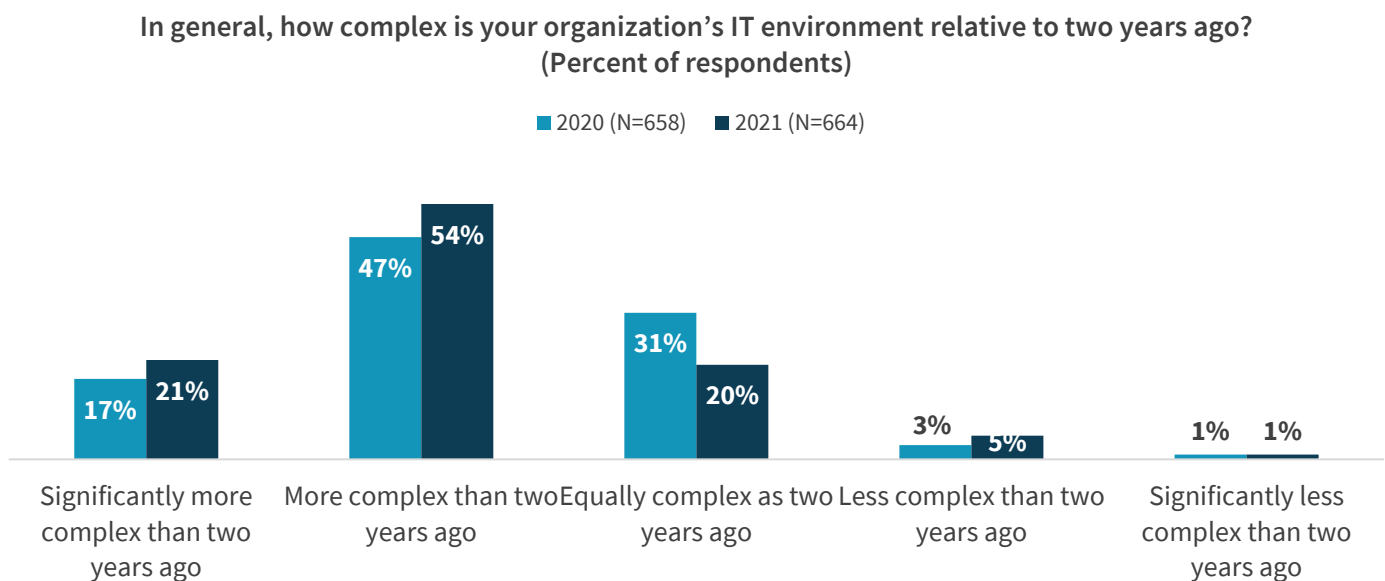
ABSTRACT: Edge environments are becoming increasingly important for organizations across industries. The data created in these locations can be critical for businesses to analyze and then leverage in order to drive successful business outcomes. However, organizations require flexible edge platforms to meet their current secure connectivity needs as well as future requirements. The Dell Technologies Virtual Edge Platform (VEP) solution, an open yet fully supported solution, can maximize an organization's investment in edge platforms.

Edge Environments are Rapidly Evolving

Modern application environments are rapidly becoming distributed. Massive numbers of applications are increasingly moving to public clouds and edge locations, which mandates that all of these locations must be securely connected.

There is no doubt that these highly distributed environments are creating substantial network complexity. According to ESG research, 75% of organizations believe IT complexity has increased over the past two years (compared to 64% last year), with 21% citing it as significantly more complex (see Figure 1).[1]

Figure 1. IT Complexity Has Increased Over the Past Two Years

In general, how complex is your organization's IT environment relative to two years ago?
(Percent of respondents)

■ 2020 (N=658) ■ 2021 (N=664)

	Significantly more complex than two years ago	More complex than two years ago	Equally complex as two years ago	Less complex than two years ago	Significantly less complex than two years ago
2020	17%	47%	31%	3%	1%
2021	21%	54%	20%	5%	1%

Source: Enterprise Strategy Group

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[1] Source: ESG Research Report, *2021 Technology Spending Intentions Survey*, January 2021.

Organizations must assess the type of solutions they require and determine which supplier will best support their highly distributed and rapidly changing environments. Businesses must ensure they have access to the capabilities they need *without* incurring vendor lock in, which could potentially force them to make highly disruptive hardware upgrades in the future as their software needs change.

In essence, organizations require flexible edge platforms to maximize their technology investments and should possess a good understanding about choosing the most appropriate platform to fit their specific needs.

Top Five Criteria for Selecting a Flexible Network Edge Platform

When evaluating edge platforms, organizations should consider the following:

1. **Open standards-based or proprietary hardware platform**. Will the hardware be limited to a single function or vendor, or will organizations be able to leverage the hardware for multiple, different purposes? Being open standards-based should not equate to being a "science experiment," but rather it should imply that an organization can leverage the platform to deploy a number of potential solutions. Given how quickly markets and environments change, organizations should determine whether they can afford to be locked in. Also, does the platform use proprietary application-specific integrated circuits (ASICs) or does it use general purpose, industry-standard integrated circuit chips (e.g., Intel, Broadcom, etc.).

2. **Support for global deployments**. These new, highly distributed environments will require edge platforms to be deployed across the globe. In order to support always-on environments, it is critical that organizations' partner/s maintain parts and support in every country in which they do business—potentially, even in China.

3. **Level of pre-validated support**. Does the hardware platform include any preconfigured and tested support for SD-WAN/SASE or other solutions? Organizations must consider what they will require at the edge. Typically, this would include SD-WAN and SASE at the very least. Because the market is quickly evolving, additional ecosystem support is beneficial as well.

   This pre-validated support is an essential criterion as the pace of business accelerates and organizations find themselves short on time and resources to perform baseline testing and certifications for white box hardware and then retest when a new requirement arises. Keep in mind, pre-validation support should also include service agreements that would allow organizations to provide warm handoffs to software vendors when troubleshooting problems (cloud service appliance, or CSA).

4. **Proven technology**. Any edge platform will need to consistently perform without issue, and organizations must ensure that the chosen technology will work in demanding environments. Given supply chain issues, organizations should also verify the timeframe for replacement parts and potentially even determine if the vendor has a diversified supply chain themselves. It is essential that organizations look for reference customers who clearly demonstrate this technology can perform at scale.

5. **Extensible platform**. The definition of edge is rapidly changing. As a result, it is vital for organizations to know if the edge provider employs a variety of platforms to accommodate diverse needs—from platforms that accommodate home offices to platforms capable of running multiple applications or functions that can be deployed in ruggedized or hazardous environments. Additionally, edge platforms should also include the ability to support different CPUs to ensure optimized performance yet remain simple to install/deploy. Organizations should also

investigate if the edge platform is an isolated solution or part of an extensive portfolio that also covers core and cloud requirements.

How Dell Technologies Can Maximize Investments for a Flexible Edge

A long-recognized leader in the industry, Dell Technologies is focused on delivering robust, proven technology in an open edge platform to support a wide range of enterprise and service provider needs. Dell Technologies Virtual Edge Platform (VEP) offers flexibility and choice for organizations looking to deploy edge platforms at their distributed sites.

The Dell Technologies VEP delivers the following:

Proven technology. Dell Technologies builds its edge solutions using a wide range of reliable Intel-powered CPUs. The vendor is committed to being open but at the same time understands that organizations need to be agile, as a result. Dell Technologies provides preconfigured and validated solutions to ensure that organizations can quickly and easily deploy a number of different edge solutions.

Using an open platform that leverages Intel technology ensures that virtually any SD-WAN or security software can be deployed on it. This technology has been proven effective in the field, as demonstrated by Dell Technologies' partnership with telecommunications provider Verizon, which is using the VEP to power its universal customer premises equipment or uCPE.

Ecosystem of partners. Organizations can choose from several different solutions for their VEP environments, including SD-WAN solutions from VMware (VeloCloud), Versa SD-WAN, and Versa SASE. For optimal flexibility, organizations may select ESXi or ADVA software, with the latter now supporting up to 60 different virtual network functions. In addition, by leveraging industry-standard Intel processors, organizations are assured that virtually all internally developed custom solutions will be supported.

Global services and support. As environments become increasingly distributed, it will become more important that they are able to fully support any edge solution, regardless of its location. Dell Technologies has an extensive service and support organization that spans more than 160 different countries, including China. The vendor also holds cooperative service agreements with its supported edge software partners, ensuring improved troubleshooting capabilities.

Reduced complexity. Dell Technologies' preconfigured and supported edge solutions enable organizations to rapidly deploy solutions with confidence. Standardizing on an open edge platform also means that organizations are able to enjoy the flexibility to switch to a different edge solution without performing a forklift upgrade. Additionally, if properly equipped, the same platform may be used to accommodate future growth and innovation.

Part of an extensive portfolio. Dell Technologies offers comprehensive coverage from the edge to the data center core to the cloud. Organizations looking to standardize in order to gain economies of scale and drive operational efficiencies can deploy Intel-powered Dell platforms as part of an end-to-end solution.

The Bigger Truth

In the near future, the edge will play an increasingly important role in highly distributed modern environments. Thus, organizations should do their research, selecting an edge platform that doesn't lock them in to using a single solution. Organizations need an edge platform that provides a choice of solutions to solve their current requirements—yet one that also offers the flexibility to support future needs with minimal disruption (i.e., no rip and replace of hardware).

Dell Technologies Virtual Edge Platform (VEP) can maximize an organization's edge investment. VEP is open, yet has options for preconfigured and tested solutions, is fully proven in demanding telco and enterprise environments, and

provides global service and support. This means that organizations can quickly deploy the edge platform with confidence, enjoy the flexibility to change or add software technologies when required, and have trust in Dell Technologies' global supply chain, services, and support.

Enterprise Strategy Group is an IT analyst, research, validation, and strategy firm that provides market intelligence and actionable insight to the global IT community.

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