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## Business Value Highlights

### Market Opportunity:

\$3.7billion

market with

27%

CAGR through 2022

55%

SDN market-leading share  
for NSX

### Incremental revenue:

36%

five-year revenue CAGR for  
direct monetization of NSX  
by cloud providers

54%

faster customer deployments  
for improved time to revenue

# Monetizing NSX: The Business and Operational Value for VMware Cloud Providers

## EXECUTIVE SUMMARY

IDC spoke with select VMware Cloud Provider Program (VCP) partners (VMware Cloud Providers) about their experiences using VMware NSX. These cloud providers reported that NSX not only enables automation and efficiencies around their core IaaS offerings but also offers them the opportunity to create new revenue streams with differentiated, value-added networking and security services that drive higher margins.

The VMware Cloud Providers interviewed described three ways in which they monetize NSX:

- **Indirect monetization** where NSX is used to enable the delivery, automation, and growth of the cloud provider's core IaaS, such as enabling static or dynamic routing
- **Direct monetization** where unique NSX features, such as edge load-balancing or distributed firewalls, are sold as value-added services — typically delivered through a self-service model
- **Services monetization** where the cloud provider delivers NSX-related value-added professional or managed services, such as assessment, design, migration, transformation, and technical support services around networking and security

Based on these interviews, IDC projects strong revenue growth in services directly enabled by NSX (36% five-year CAGR). With regard to indirect and services monetization, the interviewed cloud providers are projecting strong growth in their overall cloud business enabled by NSX (21% five-year CAGR).

Interviewed cloud providers attributed the impact of NSX on their businesses to the following factors:

## Operational efficiencies:

12%

higher productivity for IT networking teams

10%

higher productivity for IT network security teams

13%

greater use of self-service

- **NSX creates operational efficiencies** in providing IaaS and PaaS and helps cloud providers grow at scale. For example, NSX enables network and security automation.
- **NSX is tightly integrated into other VMware or third-party solutions**, which can deliver a better customer experience and create unique value. For example, NSX is integrated into VMware solutions like vCloud Director as well as third-party IDS/IPS solutions.
- **NSX offers features and functionality** that can differentiate the cloud provider and that customers value as a standalone service, driving incremental revenue. For example, NSX enables security microsegmentation to create a “zero trust” security posture.
- **NSX enables faster time to value and creates new service opportunities**, including value-added professional and managed services to accelerate the journey to cloud for cloud providers’ customers.

These cloud providers also explained that NSX has helped them establish more efficient and effective network operations in support of their own internal businesses. With network virtualization, microsegmentation, and policy-based network automation, NSX allows network operators and security teams to work more collaboratively and efficiently while enabling application development and line-of-business teams to collaborate more effectively to deliver new business applications across their hybrid cloud environments.

## SITUATION OVERVIEW

As virtualization grew, its effects were felt throughout the datacenter. It is now understood that traditional datacenter network architectures were designed to meet the needs of client/server applications residing on physical servers, characterized by single tenancy and relatively predictable north-south traffic patterns. These traditional network architectures were not designed for virtualized or containerized applications with intensive east-west (server-to-server and rack-to-rack) traffic flows, which require rapid network setup and teardown. Neither the traditional three-tier network (core, aggregation, and access) nor manual CLI-based provisioning practices were built to accommodate cloud-native application environments or to facilitate operational agility.

While virtualization initially exposed the limitations of traditional networking, cloud computing has made those limitations untenable. It’s in this context that we have seen software-defined networking (SDN) arise as an architectural approach suited to datacenter networking in the cloud era.

A popular means of implementing datacenter SDN is through a network virtualization overlay (NVO), a logically separate software-based network that runs over an underlay composed of network switches. VMware NSX is the market leader in the software category of NVO/SDN controllers, capturing 55% of a market that was worth nearly \$1.1 billion in 2017 (source: IDC's Worldwide Datacenter Network QView, 3Q18).

With NSX, network functions (such as switching, routing, and firewalling) reside in the hypervisor and are distributed throughout the application environment. The resulting virtual network is provisioned programmatically and managed separately from the underlying physical network (underlay). The software-based NSX overlay is designed to enable datacenter operators to achieve network agility and security as well as operational efficiency.

One of the notable use cases for NSX in enterprise datacenters has been in providing security for the growing wave of east-west (server-to-server) application traffic. Through microsegmentation, NSX enables enterprise IT to logically segment and isolate workloads. As a result, IT teams can define security policies for each workload based on dynamic security groups, ensuring containment of threats inside the datacenter through security enforcement on individual virtual machines (VMs), effectively thwarting propagation of lateral threats inside the datacenter.

NSX provides network agility through automated network provisioning and configuration management, expediting the execution of traditionally manual tasks that are labor intensive and error prone. Additional automation benefits can accrue from integration of NSX with cloud management platforms such as VMware's vRealize or OpenStack.

While security and network agility represent NSX's principal use cases, application continuity is also relevant for organizations seeking to replicate application environments in remote datacenters for disaster recovery, to move applications from one datacenter to another, or to deploy applications in hybrid cloud/multicloud environments. NSX's ability to abstract network functions from underlying network hardware makes it possible to support the previously mentioned application continuity scenarios without having to contend with the complexity of managing the underlying physical network.

VMware's vision is to deliver a Virtual Cloud Network, built on NSX technology, to enable a ubiquitous software layer and network fabric from on-premises datacenters to cloud to edge infrastructure. This Virtual Cloud Network enables consistent networking, security, and visibility across a multicloud landscape. For example, NSX is already an integral component of VMware Cloud on AWS. Furthermore, VMware offers NSX as a cloud service (NSX Cloud) to support applications running natively in public clouds such as AWS and Microsoft Azure.

The extension of consistent network and security services from on-premises datacenters to public clouds will become an essential feature of network virtualization overlays and other approaches to datacenter SDN as the adoption of multicloud grows.

## VMWARE CLOUD PROVIDERS AND NSX

As the VMware partner ecosystem continues to move its focus to cloud, multicloud, and hybrid architectures, NSX becomes an important product for cloud provider partners to include in their solution offerings. Its inclusion can help differentiate them and provide greater value to the customer. All partners are increasingly providing their own professional and managed services that build upon vendor technologies. The VMware service framework facilitates this effort.

NSX's extensions expand partners' managed services portfolio by leveraging VMware's NSX Data Center platform. These extensions allow cloud providers and other partners to integrate and/or extend NSX leveraging the distributed service framework of NSX Data Center. The service insertion platform allows service composition at multiple points in the virtual network and cloud. The result is a simplified way for partners to add services from other vendors and enable seamless integration with any cloud management platform.

IDC forecasts that the market for NVO/SDN controller software, where VMware's NSX is the market leader, will grow at a CAGR of more than 27% through 2022, when the product category will be worth approximately \$3.7 billion (see Worldwide Datacenter Software-Defined Networking Forecast, 2018–2022, IDC #US43862418, June 2018). In ensuing years, enterprise embrace of multicloud and cloud-native application environments should provide further impetus for growth of SDN and network virtualization.

## THE VALUE OF VMWARE NSX FOR VMWARE CLOUD PROVIDERS

### Study Demographics and VMware Technology Use

IDC spoke with nine cloud providers about their experiences supporting their businesses and developing new services with VMware NSX. As shown in Table 1, these cloud providers were characterized by geographic diversity, with EMEA, APAC, and North America represented in

the sample. Interviewed organizations varied by size, with an average employee size of 14,318 (315 median) and average revenue per year of \$7.65 billion (\$125 million median).

These cloud providers view their partnerships with VMware as fundamental to their business success. One interviewee credited VMware with helping the organization embrace and succeed in moving into cloud services: *"We weren't even talking about cloud before partnering with VMware, but we embraced it with VMware. Today we are far ahead on our curve compared with our competitors, right from integrating into a cloud player to the hybrid cloud player we have now."* Another cited pricing flexibility as important to the business: *"The biggest benefit for us is that we pay as we go, so we're not tied to a lot of investment, so it's really flexible in that once we get a customer we have to pay, but we will have somebody supplying that revenue."*

Study participants support substantial business with VMware technologies, including vRealize, vSAN, and vCloud Director. They counted 313 customers on average (by average percentage of customers per organization, 50% of total customers), with an average deployment per customer of 67 virtual machines and using 7TB of storage capacity. The cloud providers' VMware-based business is growing rapidly at an average of 44% per year.

**TABLE 1** Firmographics and VMware Environments of Interviewed Cloud Providers

	Average	Median
Number of employees	14,318	315
Annual revenue	\$7.65 billion	\$125 million
Number of customers	313	225
Average percentage of customers by organization	50	60
Annual growth (%)	44	25
Average number of VMs per customer	67.1	25
Average number of terabytes per customer	7.1	4.5
Region	EMEA, APAC, and North America	

*n=8 Source: IDC, 2018*

## Vision for NSX

Interviewed cloud providers explained that they view NSX as a competitive differentiator. They cited virtualization, automation, policy-driven security, and improved network performance driven by NSX as providing opportunities for differentiation in terms of service types, levels,

and efficiencies. They uniformly described an approach for leveraging NSX to drive their existing business, open up new business opportunities, and operate their businesses more efficiently.

These cloud providers spoke about how they are using and intend to use NSX to create differentiation for their hybrid cloud and multicloud managed services business that will increasingly become the engine for their business growth. As their customers increasingly seek robust multicloud and hybrid cloud solutions, these cloud providers see NSX as playing an important role in helping them meet this demand. They described the role NSX will play as follows:

**“** We started using NSX with a vision of interconnecting multiple datacenters to create a multicloud environment. We extended the cloud network that we’ve been running in our datacenters to our customers’ premises so that they have a seamless network view between their local and our local datacenters. **”**

- **Foundation for hybrid cloud and multicloud services:** *“We started using NSX with a vision of interconnecting multiple datacenters to create a multicloud environment. We extended the cloud network that we’ve been running in our datacenters to our customers’ premises so that they have a seamless network view between their local and our local datacenters.”*
- **Extending automation across the network:** *“We are focused on fully automating workflows on our network with NSX. . . We’ve really needed to figure out how to automate more, and NSX helps us make this very much more efficient.”*
- **Customer differentiation through functionality:** *“Lately, we’ve been moving into cloud services that require microsegmentation. So it’s a big benefit to be able to sell microsegmentation with NSX and differentiate ourselves competitively. . . Also, our customers have learned that NSX and its benefits can save them from having to buy network resources such as firewalls.”*

Interviewed cloud providers consistently returned to these themes in describing the role of NSX in supporting and enabling their delivery of hybrid cloud and multicloud services, suggesting the extent to which NSX will factor into their business plans going forward.

## Business Opportunity to Monetize NSX

Interviewed VMware Cloud Providers uniformly see opportunity to monetize the functionality and features of NSX but view the path to best accomplishing monetization slightly differently. All interviewed cloud providers reported that NSX underpins significant amounts of their businesses, noting that they consistently monetize NSX indirectly through sale of cloud services that run on a VMware stack. In other words, NSX makes up a core component of their core cloud services’ value proposition, but its functionality is not separately marketed or sold as a standalone service offering.

However, several cloud providers reported that they are not only monetizing NSX as part of broader VMware-based cloud service offerings but also selling or planning to sell separate services based on NSX. For these organizations, NSX represents an opportunity to develop incremental revenue streams through entirely new managed services; they intend to directly monetize NSX by selling services based on its features and functionality. These cloud provider partners described this “dual monetization” model and their approach to unlocking the potential revenue that NSX can generate as follows:

- **Identifying market opportunities for direct monetization:** *“First, there are services that we are monetizing, the ‘edge services.’ Second, there are additional capabilities through NSX that are customer facing, but they’re just part of our core service offering and we don’t charge additional for them . . . I think the market is ready for us to charge additional for NSX services and understands these functionalities, but we have to analyze it and decide how to charge for it.”*
- **Substantial monetization, whether directly or indirectly:** *“We monetize the majority of our NSX services, whether indirectly as part of an infrastructure offering or directly in the case of some of the load-balancing services.”*

On the whole, VMware cloud provider partners perceive significant growth opportunity for selling services that monetize NSX’s features and functionalities both directly and indirectly. IDC projects that the cloud providers interviewed for this study will achieve a five-year CAGR of 21% for their total NSX service portfolios, including services directly monetizing NSX, professional and managed services directly tied to NSX, and other services running on VMware stacks with NSX.

### **Opportunity for Direct Monetization of NSX**

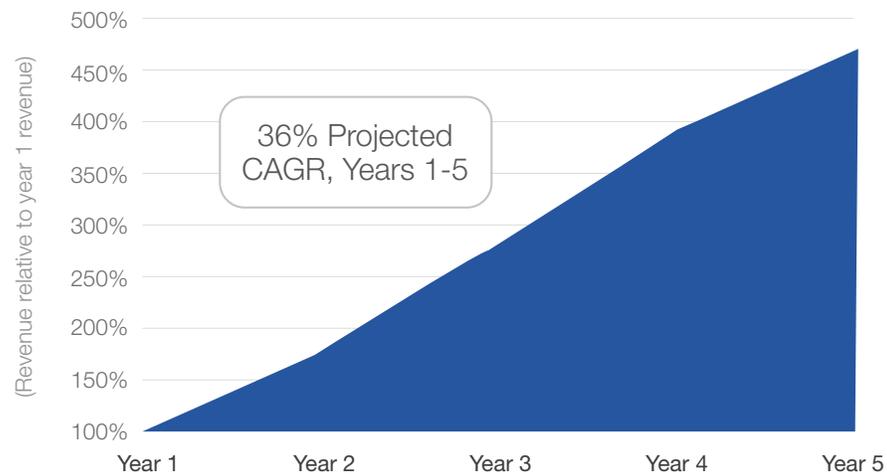
A number of interviewed cloud providers reported already seeing the potential for direct monetization by offering value-added services based on NSX’s unique features. They believe their customers will find these features sufficiently attractive to buy in addition to and separately from their other cloud services. In particular, NSX allows VMware Cloud Provider partners to offer additional services, such as distributed firewalls, VPNs, and load-balancing solutions, that deliver unique and incremental value. Interviewed cloud providers shared several examples of NSX features that they will monetize directly:

- **Firewall as a service:** *“We are turning our NSX firewall capabilities into a ‘firewall as a service.’ We’re starting to monetize, and customers are willing to pay because they need somebody to manage this because it’s partially self-service . . . So that is really something positive for our business.”*

- **Distributed firewall services:** *“The value of our distributed firewall service through NSX is that its one of the key components of our architecture. It’s easy to set up because we use native components for providing an add-on service.”*
- **Edge services gateway:** *“The ability to do self-directed firewall and load inside of edge gateways, especially in multiple clouds, in the future will become important for our customers from a consistency standpoint.”*

Interviewed cloud providers are still in the early days of developing standalone value-added services based on NSX. Nonetheless, four of the nine interviewees reported already establishing separate revenue streams for NSX-enabled services into the hundreds of thousands or even millions of dollars per year. They expect these NSX-based services to gain momentum as their customers better understand the incremental value proposition. As shown in Figure 1, IDC projects a five-year CAGR of 36% for services offered by these cloud providers that directly monetize NSX features, bringing average revenue per surveyed cloud provider well into the millions of dollars annually.

**FIGURE 1** Projected Revenue Growth Directly Enabled by NSX



n=9 Source: IDC, 2019

### Development of NSX-Related Professional and Managed Services

Beyond revenue from value-added services that directly monetize NSX, interviewed VMware Cloud Providers also expect to sell professional and managed services in support of these NSX-enabled capabilities. For example, cloud provider partners can offer a variety of value-added services around NSX including:

- Assess on-premises networks, applications, and dependencies
- Design and deploy stretched networks for hybrid cloud/multicloud environments
- Define, implement, and manage security policies
- Migrate existing workloads/applications
- Manage, support, and operate network and security services
- Transform security and networking to enable improved business agility and outcomes

Several interviewed VMware Cloud Provider partners reported already monetizing NSX services. For example, one interviewed cloud provider already sells managed services worth more than \$1 million per year related to optimizing its customers’ development environments and expects to see continued growth alongside its NSX portfolio of services.

For interviewed VMware Cloud Provider partners, the opportunity to sell more professional and managed services is important in the context of their overall business plans. Monetization of NSX-related services offers them the opportunity to deepen existing customer relationships while increasing sales of higher-margin service engagements. Further, professional and managed service engagements often focus on challenges related to networking and security where VMware Cloud Provider partners have differentiated expertise and can provide real incremental value for their customers while making the case for even deeper partnerships. For these reasons, as shown in Figure 2, interviewed VMware Cloud Provider partners see significant opportunity to develop revenue streams associated with NSX-related professional and managed services, with a projected five-year CAGR of 21%.

**FIGURE 2** Projected Revenue Growth: NSX-Related Professional and Managed Services



n=9 Source: IDC, 2019

## ***Opportunity for Indirect Monetization of NSX***

While interviewed cloud providers reported making strides in developing value-added services that directly monetize NSX, they still mostly monetize NSX by embedding its capabilities into their cloud service (IaaS) offerings. As a result, NSX-based functionality has become a core component of these services' value propositions and sales pitches.

One interviewee commented on his organization's current strategy of blending NSX into the company's core product even as it looks for direct monetization opportunities: *"We don't yet charge for NSX features but include it in pricing. We're looking at how to commercialize more with the NSX features, for example, the advanced gateway or distributed router services and everything connected to firewalls. In the future, there will definitely be more aspects that we will try to sell to our customers. But right now, it's all part of the core package that we sell."*

Interviewed cloud providers stressed the importance of NSX to the performance and functionality of their broader service portfolios. One interviewed partner explained: *"We call one of our services onsite private cloud with disaster recovery with push button DR, and that is definitely one unique aspect of our product that we're offering with NSX. Now we're rolling NSX into what we call enterprise cloud, which is our new technology stack for public and private cloud. NSX is one of the key technologies that we're using to develop that service." Another commented, "NSX allows us to build a virtual datacenter for our customers instead of just a flat virtual backup server. We're enabling our customers to build their own datacenters with microsegmentation and all of the functions of the datacenter running on VMware technology."*

Table 2 shows how most cloud providers initially focus on indirect monetization of NSX, enabling providers to deliver a more automated and secure cloud service that resonates with their customers. However, cloud provider partners expect substantial growth around direct monetization of NSX features. They predict 79% year-over-year growth for direct value-added NSX services in the next two years compared with 44% year-over-year growth for their overall cloud service and product portfolios enabled by NSX. Further, the average revenue associated with directly monetized NSX services and related professional/managed service engagements suggests that cloud providers can potentially increase the value of their average deals to a significant extent. As shown in Table 2, the combined value of average deal sizes for those two categories exceeds that of a typical deal (\$119,300 [\$61,800 + \$57,500] compared with \$115,400).

**TABLE 2** Metrics Related to Monetization of NSX

Average per Organization	Direct Monetization	Managed Services	Indirect Monetization
Number of customers, current	15	12	201
Expected annual growth rate, near-term growth (%)	79	26	44
Average value per deal/engagement	\$61,800	\$57,500	\$115,400

Source: IDC, 2019

Figure 3 presents IDC’s projections for growth for interviewed cloud providers’ cloud service (IaaS) offerings in which they have embedded NSX functionality. Figure 3 demonstrates the substantial growth that these partners expect to continue to achieve with these services, with a forecast five-year CAGR of 21%. For these partners, such growth would bring revenue for services that indirectly monetize NSX well into the many tens of millions of dollars per interviewed organization, reflecting NSX’s status as a core enabling technology for these VMware Cloud Provider partners

**FIGURE 3** Projected Revenue Growth Indirectly Enabled by NSX



n=9 Source: IDC, 2019

### Accelerating Customer Deployments and Time to Value

VMware Cloud Provider partners highlighted that NSX has helped them better deliver services by speeding up deployment times. As with services, their ability to minimize deployment-related friction relates back to automation, virtualization, and microsegmentation delivered by NSX, all of which reduce manual touch points and the likelihood of error during migrations and deployments.

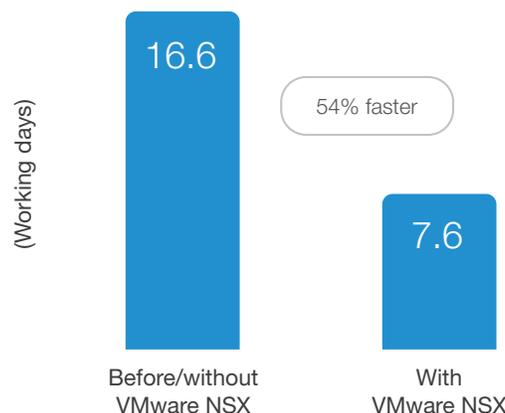
As a result, as shown in Figure 4, participants reported speeding up customer deployments by 54%, going from over 3 work weeks to only 1.5 work weeks per deployment. This means that customers get improved service functionality quickly, resulting in faster revenue recognition.

Interviewed cloud providers described the ease of deployments and efficiencies gained with NSX as follows:

**“NSX opened easy automation for customer deployments. A few years ago, when we set up one-directional migrations, it took three days, and now we can do the same in eight hours . . . Overall, we can do transformations or migrations for deployment three to five times faster with NSX.”**

- **Removal of friction associated with network deployments:** *“NSX simplifies networking deployment to speed up the process of building a network. Specifically, it takes much less time with NSX to deploy a network with network virtualization than, for example, with all the tasks associated with a physical router. Also, we can do this with a lot more reliability.”*
- **Much faster customer deployments and migrations with automation:** *“NSX opened easy automation for customer deployments. A few years ago, when we set up one-directional migrations, it took three days, and now we can do the same in eight hours . . . Overall, we can do transformations or migrations for deployment three to five times faster with NSX.”*
- **Immediate functionality for customers:** *“We have to prepare environments for our customers so that as soon as we give access for them to manage their cloud, they can immediately utilize networking functions in NSX.”*

**FIGURE 4** Time to Complete New Customer Deployment



n=9 Source: IDC, 2019

## Improving Operational Efficiencies

For interviewed cloud providers, NSX also delivers value by enabling them to operate more efficiently and cost effectively. This means leveraging NSX functionality, such as virtualization, policy-based network automation, and microsegmentation, to enable more efficient processes across their network and IT operations and taking advantage of cost efficiencies in building their networks.

A core benefit of NSX for VMware Cloud Providers is reducing the burden on their IT networking teams. Traditionally, IT networking infrastructure and security teams have faced escalating demands on their resources as their businesses have grown and they have needed to provision and secure expanding environments. These demands have not only increased the amount of time they must spend on such day-to-day activities but also prevented them from allocating sufficient time for delivering innovative services to their customers.

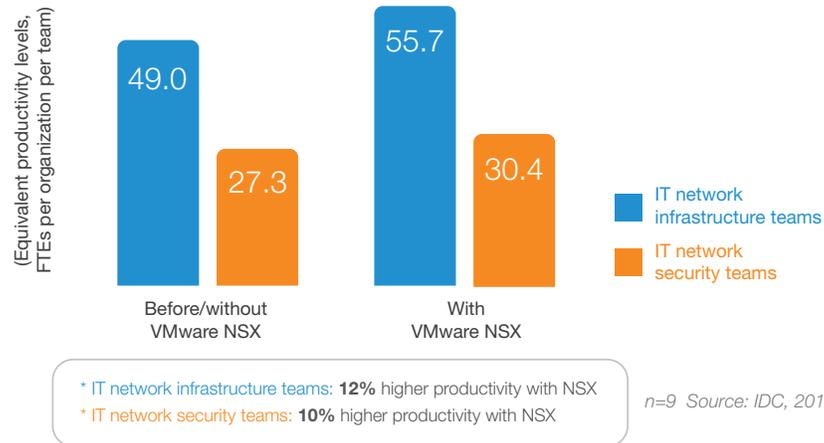
NSX has helped ease the burden of such activities on these teams. Several partners noted that NSX has enabled greater use of self-service capabilities, including attributing 13% increased use of self-service capabilities to NSX. Increased use of self-service means that IT networking teams spend less time reacting to and delivering on service requests, freeing up their time to take on other activities. Meanwhile, other functionalities of NSX free up staff time on infrastructure- and security-related matters. Interviewed partners identified the following areas of efficiency for these teams related to NSX:

“A benefit of NSX is increased accuracy as in reducing human error on firewall changes because you make the change once on a policy rather than implementing it on a number of interfaces . . . Once they’re scheduled, the actual implementation to change is probably half the time, contributing to an overall time savings of maybe 20%. ”

- **Security management automation:** “With NSX automation, firewall rule management is more efficient — specifically, being able to define firewall rules once as a policy and have those apply consistently across the distributive firewalling in NSX. This is a big time-saver compared with having to manage firewall rule sets across a whole bunch of physical firewalls.”
- **Quality of change implementation:** “A benefit of NSX is increased accuracy as in reducing human error on firewall changes because you make the change once on a policy rather than implementing it on a number of interfaces . . . Once they’re scheduled, the actual implementation to change is probably half the time, contributing to an overall time savings of maybe 20%.”

As shown in Figure 5, these types of efficiency benefits contribute to higher productivity for IT networking and security teams. These cloud providers experienced an average of 12% higher productivity for their IT network infrastructure teams and 10% higher productivity for their IT network security teams by having VMware stacks on NSX. For the average cloud provider in this study, this has meant gaining the equivalent in higher productivity of almost 10 full-time equivalent staff members, which has enabled interviewed organizations to grow their businesses and develop new services more efficiently and maintain lean staffing in terms of running and supporting their IT foundations.

**FIGURE 5 IT Staff Team Productivity Levels**



*“To have a network with physical appliances would require additional costs to scale . . . With the NSX virtual network, once we couple the function with the data point of control, then we can add as many ports as we need. So there’s flexibility in deployment that improves our scalability. That’s definitely lowered our cost of ownership. A rough estimate is that we are reducing costs by about 60–70%. ”*

Interviewed cloud providers also noted that NSX is helping them build and run cost-effective IT infrastructures for their businesses even as they see the benefits of improved network performance and security. In particular, network virtualization enabled by NSX allows them to make more efficient use of network equipment and to distribute network resources with more agility, thereby ensuring improved performance.

As one interviewee explained: *“The advantage of NSX is that we don’t have to buy as much network equipment, including firewalls. We have set cost and extended longevity . . . Also, NSX transforms environments from shared to distributed firewalls. When firewalls are shared, a problem can occur for everyone, but if we distribute them, then the problem affects only one customer.”* Another cited the significant cost advantage of having a virtualized network environment with NSX as opposed to investing in additional equipment to scale to meet business demand: *“To have a network with physical appliances would require additional costs to scale . . . With the NSX virtual network, once we couple the function with the data point of control, then we can add as many ports as we need. So there’s flexibility in deployment that improves our scalability. That’s definitely lowered our cost of ownership. A rough estimate is that we are reducing costs by about 60–70%.”*

## CHALLENGES AND OPPORTUNITIES

For VMware, making its worldwide partners fully cognizant of the use cases that NSX can serve and the business value that it can deliver will facilitate its success. It might be paradoxical, but in a cloud era when applications have gained unprecedented importance, the importance of

the network has also grown. The network, after all, is the conduit through which applications are supported and delivered so that they can fulfill their business value. Today's network must not only be reliable and scalable but also be agile, flexible, secure, and extensible. Many VMware partners are not yet fully aware of NSX's considerable capabilities as an SDN platform and network virtualization overlay technology. The relatively rapid evolution of the NSX product portfolio itself, which continues to extend outward to new use cases in public cloud, hybrid IT, multicloud, cloud-native, security, and intelligent edge environments, will continue to provide incremental benefits to VMware partners.

Indeed, as VMware partners and cloud providers gain a deeper understanding of NSX's evolving features and functionality, particularly pursuant to VMware's vision of the Virtual Cloud Network, they should be well placed to meet enterprise requirements for agile, flexible, and scalable networking solutions in a multicloud context, where the network will be increasingly integral to the delivery and support of business-critical applications and cloud services.

## CONCLUSION

For both VMware and its cloud provider partners, the opportunities related to NSX are compelling. As enterprises and other organizations recognize the criticality of network virtualization, network automation, and microsegmentation in the context of private cloud, public cloud, and multicloud, NSX is well placed to address their needs. NSX already is the leading NVO/SDN controller software in the market today, and its further evolution should ensure that it continues to serve the needs of organizations worldwide pursuing their digital transformation objectives through the embrace of cloud operating models and technologies.

IDC's research with VMware Cloud Provider partners demonstrates the substantial opportunity that NSX presents from both a business and an operational perspective. On the business side, interviewed cloud providers are monetizing NSX to a significant extent by embedding it in their core IaaS offerings, while developing separate lines of service that directly monetize NSX features and functionalities, as well as selling professional and managed services engagements related to services directly enabled by NSX. IDC projects a five-year CAGR of 36% for value-added services directly enabled by NSX, reflecting a significant business opportunity for VMware Cloud Provider partners.

Meanwhile, interviewed VMware Cloud Provider partners are also benefiting from their use of VMware stacks with NSX that make their operations more efficient and cost effective. As NSX extends virtualization, policy-based network automation, and microsegmentation across their IT environments, surveyed organizations have enabled greater use of self-service and freed up

time for valuable IT networking team staff members. The result is both increased focus on supporting business initiatives and cost optimization, both of which further help interviewed cloud providers maintain and improve their competitive positions.

### Message from Sponsor

*If you have any questions or want more information on NSX, contact your VMware or Aggregator contact. Alternatively, you can email VMware at [VCPG\\_GTM@vmware.com](mailto:VCPG_GTM@vmware.com) or visit [CloudSolutions.VMware.com](https://CloudSolutions.VMware.com).*

## APPENDIX: BUSINESS VALUE METHODOLOGY

IDC's standard Business Value methodology was utilized for this project. This methodology is based on gathering data from VMware partners that sell and intend to sell services either directly based on NSX or running on VMware technology stacks that include NSX. Based on interviews with these VMware partners, IDC has calculated the revenue and gross margin that these partners will expect to realize on a per-organization basis over a five-year period in terms of business directly enabled by NSX, professional and managed services revenue related to NSX-related services, and total business related to NSX. IDC also asked these organizations about the impact of NSX on several aspects of their internal operations, including staff time requirements for IT networking infrastructure and security activities, self-service use, and costs of building and running network environments.

*Note: All numbers in this document may not be exact due to rounding.*

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