



Cisco, Verizon, Versa: SDN in the Real World

By Jeffrey Burt

Channel Partners™

Cisco, Verizon, Versa: SDN in the Real World

By Jeffrey Burt



Channel Partners™

OCTOBER 2017 | US\$25 | S341017

Table of Contents

Cisco & Trace3: A Better Way to Sell [5](#)
Verizon: Listening to the Customer is Crucial [7](#)
Making SD-WAN an Easy Sell [8](#)
Voice of the Customer:
Digital Brings Risk for CIOs. [10](#)

About the Author



JEFFREY BURT has been a journalist for three decades, with more than half that time spent covering enterprise technology for eWeek. During his years as a senior editor, Burt wrote about all things data center, including processors, GPUs, servers and networking gear, as well as PCs, collaboration tools, virtualization, the cloud, SDN and, more recently, emerging technologies such as artificial intelligence, deep learning and autonomous vehicles. He continues to write about technology for a variety of publications.

 [linkedin.com/in/jrburt](https://www.linkedin.com/in/jrburt)

 [@jburtech](https://twitter.com/jburtech)



Cisco, Verizon, Versa: SDN in the Real World

FOR MOST OF THE LAST DECADE, THE NETWORKING BUSINESS WAS RATHER DULL. THAT ALL CHANGED WHEN SDN

hit the scene. Promising more agile, programmable and affordable networks for a world that is now cloud-centric and mobile, software-defined networking and its cousin, [network-functions virtualization](#), calls for the decoupling of the control plane and networking tasks from underlying hardware.

Need a channel-focused primer? [View this previous Channel Partners' report](#).

It didn't take long for established vendors and start-ups alike to offer SDN in all shapes and sizes and flavors, creating a lot of confusion. In fact, Gartner analyst Andrew Lerner just wrote [a blog post](#) about "SDN-washing" — the practice of pinning the "SDN" label on offerings that may or may not fit under the standard definition. Has that hype storm deterred some customers?

Maybe. Lerner estimates that, despite all the marketing spend, there are fewer than 2,000 deployed networks that meet what he, and the Open Networking Foundation, say are [the architecture requirements](#) to be considered SDN. That is: directly programmable, agile, centrally managed, programmatically configured and based on open standards to remain vendor-neutral.

The reasons for the small numbers are varied, from the general conservative nature of networking buyers and concerns about the stability and scalability of SDN, to difficulty in proving ROI, a lack of immediate business drivers and the technological immaturity of standards.

Transforming an enterprise network from a brittle, legacy setup to an SDN environment is a difficult task, says Patrick Moorhead, principal analyst with Moor Insights & Strategy. There are a lot of vendors with SDN offerings, and enterprises bend toward heterogeneous environments, so there is significant integration work that needs to be done. Many customers will turn to their partners to help them pull it all together, Moorhead said.

“SDN is complex, and where there is complexity, there is opportunity for the channel,” he said.

Managed service providers, system integrators, resellers and telecom agents, and other service providers are creating ways to make SDN work for their customers and their own bottom lines. If you’re not developing a practice, you’ll fall behind because your competitors are.

Need a jumpstart? We sought out suppliers and partners that illustrate what’s happening now in SDN.

Cisco & Trace3: A Better Way to Sell

When Ryan Marsyla joined the cloud team at Cisco partner Trace3, he found that members of the account teams selling SDN and NFV would contact their clients’ IT managers, sell them [Application Centric Infrastructure](#) (ACI) technology — essentially Cisco’s SDN platform — and move on to the next customer. But Marsyla believed that path was shortchanging customers and keeping Trace3 from fulfilling a greater role in improving those customers’ overall business operations.

SDN is not a single thing unto itself, but part of a larger digital transformation businesses need to go through to remain competitive in a cloud-based and software-defined world. That means not only addressing the needs of the IT manager, but also the operations’ team and the line-of-business folks, Marsyla said. Doing so will help customers break down the silos that have crept up in their business operations over the years.

DevOps groups are becoming as important as IT, and the needs and experiences of operations and C-level executives must also part of the equation.

At the same time, digital expands the partner’s role, from selling products, to helping to shape the customer’s transformation.

“We’re not just building and putting all these different tools inside their data center without a purpose, but we’re starting to architect the next experience,” he said. “We’re trying to build what [Amazon Web Services] has accomplished out there in

Trace3: In Brief

PROBLEM

Trace3 wasn’t taking full advantage of the services aspect of SDN much less aiding digital transformation.

FIX

Take a lesson from AWS, convince account managers to take a more holistic approach to a customer’s business.

OUTCOME

Gained trusted adviser status

the public cloud space, which has been essential to users. ... We're trying to make that something we can realize for all customers to build inside their own cloud environment or inside their own data center, to create that private cloud environment."

The first step was to convince the account teams within Trace3 that using SDN to begin taking a more holistic approach to a customer's business was the best way to go for both the customer and Trace3. It took a while to get people on board, but once they started to see successes, their view came around. It involves selling not only SDN, but the services that support it, and then showing customers how other technologies – such as application performance monitoring and network automation – can address the needs of not only IT, but operations and line-of-business as well, which all have different needs and experiences that need to be addressed.

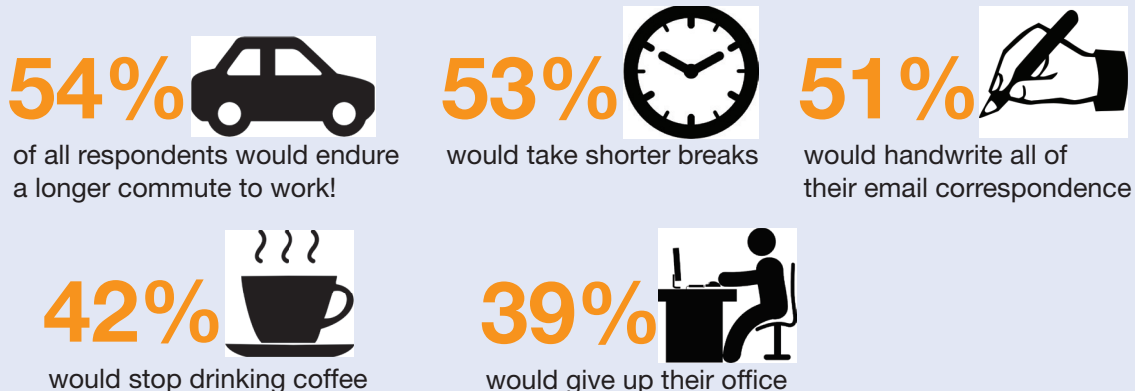
"It's something [account team members] have never really ... never looked at in that way," Marsyla said, noting a similar pattern in other places he worked before coming to Trace3. "They never really thought that there is a user experience they have to be concerned with. We didn't understand the bigger picture. You just ... inserted a server, you configured the storage, you administered the network and that was it. But now ... it's about how to make these tools seamless."

A key is finding the right person to orchestrate all this, to ensure the needs of operations and executives are addressed in the same way those of IT are, that the holistic view of the business is taken, and that silos are taken down and everyone is pushing in the same direction. Many times, businesses will turn to their partners to take on that role, he said. That can be a boon.

How Bad Do They Want It?

In its just-released [Global Future of Networking Survey](#), Riverbed says making changes, such as upgrades and patch deployments, to legacy networks designed during a time when IT resources were fixed involves manual configuration, usually for each individual device. That's time consuming and risky. Partners can help by adding SDN, eliminating most of that manual labor.

When asked what IT decision makers would be willing to do if it meant their teams no longer needed to manually configure hardware to make application or network policy changes, their responses were eye opening, if a bit tongue-in-cheek:



Marsyla pointed to work he had done with a big customer on the East Coast as an example. He was able to sell the client an ACI platform for its SDN ambitions, but then used that platform to talk with executives about what they were trying to accomplish with their larger digital transformation efforts. Those talks led to Trace3 selling more products and services that addressed other parts of the initiative.

“It was a big win to put in a couple million of dollars of networking equipment in there,” he said. “But now it’s morphing into us getting that trusted adviser status.”

Marsyla said the approach Trace3 and its account reps are taking is in the early stages, but that the company is refining the approach “getting good with this.”

“It’s still very new, and there are still some account teams that are struggling to really understand the value behind it,” he said. Until now, he says, they’ve not been challenged to sell services.

“They’ve only been challenged with implementing products,” he says. “If I say I am selling [Cisco’s] Nexus 9K [9000 switches for ACI] or I’m going to sell the software license to implement it, I haven’t sold SDN, I’ve only sold the mechanisms for enabling it. The services ... behind it are what make software-defined networking really tick.”

Verizon: Listening to the Customer is Crucial

With something as wide-ranging as SDN, and network virtualization in general, trial and effort and adapting to what you’re seeing in the market are key. Telecoms and service providers are aggressively building out software-centric infrastructures that leverage a broad array of network virtualization technologies, from SDN and NFV, to VNFs and SD-WAN. AT&T officials have been vocal about their plans to have 75 percent of the telecom’s network virtualized by 2018. While not pinning particular figures to their efforts, Verizon officials as well have talked openly about what they’re doing in transforming their network to more quickly and affordably deliver services to customers, and bring greater network capabilities to their end users. Verizon is

also an example of a company that is adapting as it goes — that is, listening to customers and then addressing their demands and concerns.

It’s been two years since Verizon officials unveiled SDN plans, and the carrier has created network virtualization labs at sites across the country, including California, Massachusetts and Florida, as well as commercial data centers.

Verizon: In Brief

PROBLEM

SDN and NFV are moving targets as technology evolves. Investment protection is key, but difficult.

FIX

Look to carriers who have an incentive to keep their offerings hardware-agnostic.

OUTCOME

Via NFV and white-boxes, telecom agents will gain an incredibly broad portfolio of services to sell. Customers move to OpEx and minimize hardware spend.

“This is super-exciting [because] it is a fundamentally disruptive technology,” said Shawn Hakl, vice president of business networking and security solutions at Verizon, noting that one of the technologies the carrier first focused on was SD-WAN. “We view it as foundational with the whole SDN environment.”

Verizon has collected a set of VNFs that it includes in its Virtual Network Services lineup, including WAN optimization, WAN routing and security, from such vendors as Cisco and Riverbed, that can run on customer-premises equipment (CPE) or virtual CPEs. The carrier has also has partnered with Cisco and Viptela (which Cisco bought this year for \$610 million) for SD-WAN. Their efforts in SD-WAN mirror what many other telecoms are doing: Partnering with vendors both big and small to deliver SD-WAN services to their customers.

This summer, Verizon announced its Hosted Network Services, which customers can deploy via access modes from broadband and wireless to MPLS from more than two dozen locations. Businesses also have access to an application library and various network services like orchestration. In addition, Verizon also extended its network-as-a-service (NaaS) into the cloud, putting its Virtual Network Services on the Amazon Web Services (AWS) cloud.

But as mentioned, transforming a business to embrace a disruptive technology means having to be agile to adapt to the demands of the customers. Verizon found that out with the CPEs it was offering to customers to run those Virtual Network Services. The carrier initially offered customers “gray boxes,” hardware that comes from other OEMs but that can run third-party software. In this case, the CPE included systems from Juniper (NFX series from the company’s Cloud CPE offering) and Cisco’s Unified Computing System (UCS) integrated solution.

“Market acceptance of the gray boxes was mixed,” Hakl said.

Some businesses were uncomfortable with anything that had the whiff of a big-name vendor and the possibility of some degree of lock-in. So this year the telecom moved to a white-box strategy, offering universal CPEs (uCPEs) based on off-the-shelf servers. Enterprises can run their virtual services on these low-cost, bare-bones systems that are configured over the internet. It’s a good deal for Verizon, which can carry a lot of these systems to distribute to their broad array of commercial customers.

Hakl said the white-box model is similar to the openness of Android, which can run on multiple devices and supports myriad apps, compared with the walled garden Apple model, in which the hardware comes from a single vendor. Verizon customers have embraced the white boxes in a way they never would the gray boxes, he said.

“There’s the perception of low risk, of not being committed to technology,” Hakl said. “You’re buying off-the-shelf and you’re very comfortable with it. ... When your customer wants something, it seems sensible to listen to them.”

Making SD-WAN an Easy Sell

The SD-WAN space is the fastest-growing segment of the larger network virtualization market. IDC analysts are predicting that revenues for SD-WAN infrastructure and services will grow almost 70 percent per year over the next several years, [hitting \\$8.05 billion by 2021](#). Driving that demand is the embrace by businesses of such fast-growing technologies as the cloud, mobility and big data and analytics, and the adoption of software-as-a-service (SaaS) applications, all of

which means more workloads on the network and a need for policy-driven central network management. Also factoring into the equation is the ongoing use of SDN technologies, the analysts said in their report.

SD-WAN gives businesses that find themselves in a cloud-centric, highly mobile world the ability to create branch and remote networks that are more simple, agile and affordable by leveraging such technologies as broadband and wireless LTE to complement traditional transport modes like MPLS for moving data and applications. Top-tier service providers like Verizon, AT&T and CenturyLink are offering SD-WAN services to end users that combine their infrastructures with SD-WAN offerings from the likes of Cisco, VeloCloud, CloudGenix and Silver Peak.

Demand for SD-WAN services is growing, but smaller service providers and managed service providers don't have the resources giants like Verizon and AT&T do. That said, SD-WAN technology vendor Versa Networks and VergX, which offers an array of cloud-managed reseller solutions, are aiming to level the playing field.

VergX is leveraging Versa technologies to build a cloud-based turnkey SD-WAN and software-defined security (SD-Security) service that second- and third-tier service providers, MSPs and resellers can deliver to their customers. Rather than having to build out their own infrastructures to host the service, these MSPs and resellers now have a ready-made cloud-based managed network-as-a-service (NaaS) offering they can get up and running within a matter of weeks, according to VergX board member Brian Fink.

"This allows them to compete at every level with the tier-one guys," Fink said. "We view SD-WAN as the great enabler to get these guys to compete with the big guys. ... It's a low-risk, high-value proposition for them."

The tiered service offering includes not only SD-WAN, but also next-generation firewall and unified threat management. It comes with Versa's Director integrated portal, which delivers management and reporting capabilities.

There are myriad advantages, says Versa Chief Marketing Officer Mark Weiner. There is the fast time-to-market, and having a complete, ready-to-go cloud-based solution enables MSPs to focus on selling the service rather than having to run the infrastructure as well.

"You can get it, you can sell it and you don't have to build your own solution," Weiner said.

The Versa-VergX solution comes at a time when organizations are increasingly rethinking how they want to run their businesses.

"We have hit the pendulum where enterprises want to ... cloud-source the majority of their IT," he said.

SD-WAN: In Brief

PROBLEM

A full SDN transformation is a huge project.

FIX

Get an early win with SD-WAN.

OUTCOME

Save eye-opening amounts of money, while boosting the performance of cloud services.

Voice of the Customer: Digital Brings Risk for CIOs

A [recent Ovum report](#) showed the increasing impact of digital across industries is placing significant pressure on your customers' tech leads. Besides embracing a software-defined network, the consultancy advises that CIOs:

Examine the Skills Gap: CIOs must strike the right balance of digital and established IT roles. Ovum suggests establishing a reskilling strategy for existing employees and engaging HR to develop a staff retention and talent acquisition plan. Partners can aid in the transition by having those digital skills ready to deploy.

Embrace “Platformization:” Siloed applications are out. If you haven't heard the term “platformization,” you likely will soon. The aim is to help customers build a flexible underlying architecture (read: software-defined) that can support a mix of apps and respond to rapidly changing business needs. It can be cloud, on premises or a mix. The important characteristics are flexibility and ease of integration. Ovum says a platform-based architecture is core to delivering digital services and infrastructure.

Manage IT's Brand: Ovum points out that few CIOs recognize the concept of brand identity and brand management in the context of the IT function. How is your customer's IT team perceived by business stakeholders? If the terms “cost center,” “slow” or “walled garden” come to mind, it's smart for partners to proactively help manage the brand of IT and illustrate the value it provides in business terms. Ovum says reframing the perception of IT, with the CIO positioned as a flexible internal business partner delivering digital services, is critical.

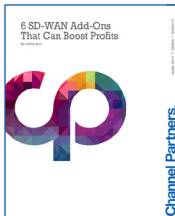
Partners must help CIOs evolve the role of the IT team, changing how it provides services to the business from a predominantly “solution builder” paradigm to a “service broker” that embraces a flexible procurement model.

Related Reports



[SD-WAN: A Branch Office, Remote Site Savior](#)

Got clients that want to transition to SD-WAN but see remote site connectivity as a roadblock? That's where you come in. This Report explains how a hybrid WAN can bundle multiple connection types and provide customers with business-class features, security and connectivity to locations where traditional circuits would be prohibitively expensive.



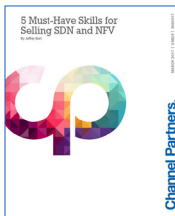
[6 SD-WAN Add-Ons That Can Boost Profits](#)

Customers are highly mobile and increasingly cloud-centric, and that's driving huge growth in software-defined WAN sales. Once you've selected your SD-WAN suppliers, the question becomes: How do I stay sticky and add services revenue while helping clients achieve greater flexibility and performance at a lower cost?



[SDN & Security: The Future Is Now](#)

The move to SDN/NFV will not be limited to a few functions or services — it is a ground-up shift from on-premises legacy systems and operations to more cloud, agile/microservices development and delivery approaches, and DevOps organizational structures. Helping customers successfully navigate this transformation will require the right skills and partnerships — but growth is off the charts.



[5 Must-Have Skills for Selling SDN and NFV](#)

Carriers, open-source consortiums and big IT vendors have laid the groundwork for SDN and NFV. Demand is there, so what's stopping widespread use? Complexity, a skills shortage and confusion. Channel partners who can clear all that up can write their own tickets.



[Channel Guide to NFV: Faster, Better, Higher-Margin Services](#)

Services delivered in a software-defined model — from firewalls to UC to SD-WAN — represent significant opportunity for channel partners. In this Report, we provide a primer on network functions virtualization (NFV) and related technologies, tips on how to sell customers on the concept and recommendations for moving your business into the virtual era.