CHANNEL VISION magazine

2017

Channel Manager's Playbook

Volume 4: SD-WAN & SDN

PARTNERS TRUST BULLSEYE FOR HOSTED PBX NATIONWIDE

17-Years of Experience
Professionally Installed Solutions
Nationwide Coverage

PICK YOUR PAYOUT

Upfront | Residual | Combo

Payouts require a three-year commitment. Business rules apply.

Bundle with POTS Lines, Broadband or Managed Services

It's time to cash in on Hosted.
Contact your Channel Manager or call

877-298-4539

agents@bullseyetelecom.com • www.bullseyetelecom.com

BULLSEYE TELECOM®

AT&T Made Easy with Telegration

It's true.

For 27-years Channel Partners just like you have trusted Telegration to make selling easy.

The best providers nationwide.

Whether you're selling AT&T, Comcast, or any of the best providers in the industry - we can help.

From simple Fiber and Hosted, to Complex Enterprise Networks - we've got you covered.

Maximize your time and profit.

We know you'd rather be selling than staring at a laptop. So stop. Let our team of AT&T experts help you sell more, install quickly, and enhance your client relationships.

If you need AT&T without the hassle, let Telegration help you. Put our team to work for you.

Call us today!
1-800-835-4786

DEDICATED RESOURCES

Experienced Pre-Sales Support

- ✓ Sales Engineering
- ✓ Pricing Specialist
- ✓ Paperwork Preparation
- ✓ Technical Support

Expert Post-Sales Support

- ✓ Project Management
- ✓ Service Implementation Management
- ✓ Commissions Audits and Verification

AT&T Solution Provider

Telegration
It's better here

CONTENTS

Advertiser Index

CHANNEL VISION magazine

Martin Vilaboy
Editor-in-Chief
martin@bekapublishing.com

Tara Seals
Contributing Editor
tara@bekapublishing.com

Percy Zamora
Art Director
percy@bekabusinessmedia.com

Berge Kaprelian
Group Publisher
berge@bekabusinessmedia.com

Rene Galan
Associate Publisher
rene@bekabusinessmedia.com

Beka Business Media

Berge Kaprelian
President and CEO

Neil Ende
General Counsel

Jim Bankes
Business Accounting

BEKA Business Media

Corporate Headquarters
14700 N Frank Lloyd Wright Boulevard, #157
Scottsdale, AZ 85260
Voice: 480.503.0770
Fax: 480.503.0990
berge@bekapublishing.com

Take a **SIP** of the Fusion Cloud

Partner with Fusion, your Single Source for the Cloud.

Call us today **888-301-1721** or visit us online.

fusion SM

www.fusionconnect.com

SD-WAN in 2017 & Beyond

By **Martin** Vilaboy

We probably have to head back to the early years of VoIP to find the type of excitement around a new technology or platform similar to what the channel partner community is experiencing right now with SD-WAN, or software-defined wide area network. Not since VoIP hit the mainstream, one could argue, has there been a development with such a cost-saving and performance-enhancing promise that potentially could displace existing technology across so many businesses.

Also similar to the early history of VoIP, market forecasts are coming fast and furious with some amount of variance. Research and Markets, for one, expects the market to grow to $5.57 billion by 2020, up from $4.66 billion in 2015. International Data Corporation has similar expectations, estimating worldwide SD-WAN revenues will exceed $6 billion in 2020.

IHS Markit, meanwhile, takes a more modest, if not narrower, approach. Cliff Grossner, senior research director for the firm, pegs 2015 SD-WAN revenues at only $37.9 million, moving to $1.3 billion by 2020. Grossner anticipates there will be a slowdown in the SD-WAN market until 2018, followed by an increase in 2020 as more begin to adopt SD-WAN.

P&S Market Research resides somewhere in between. The global SD-WAN market was worth $220.2 million in 2015, according to P&S, and it's expected to top $9.3 billion by 2022.

One thing all these forecasts share is healthy annual growth rates, with expected annual growth rates as high as 90 percent or more, by some counts. It's not hard to understand the optimism; in many ways the network environment is ripe for the benefits SD-WAN brings.

For starters, the need to connect increasingly dispersed and mobilized workforces has led to mix-and-matched enterprise network topologies that can include MPLS, EVPL and wavelength, along with DSL, 4G, cable broadband and Wi-Fi, among other things, depending on remote office or employee locations. At the same time, the rise of cloud computing and services, ranging from on-premises private cloud, public cloud, hosted private cloud and SaaS, has resulted in a type of hybrid IT architecture within the distributed enterprise network.

"The need for software defined networking is driven by the need for enterprises and carriers wanting to manage the complexity of their networks," say analysts at Research and Markets. "As virtualization allows companies to consolidate lots of servers into fewer physical machines, SDN allows them to consolidate switches and routers into virtual devices."

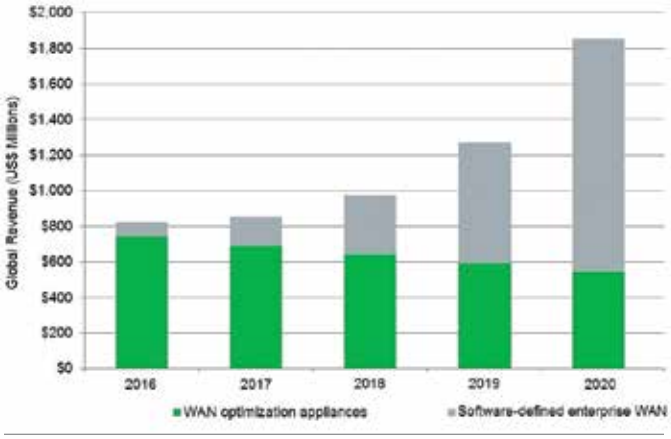
SD-WAN deployed along with hybrid WAN and MPLS solutions, for example, effectively combines those multiple connections into one connection. And since it can be delivered by a service provider from an off-premises cloud, the management of the network and integration of cloud capabilities becomes a centralized function.

"Software-defined networking has already arrived in the datacenter, providing the agility and responsiveness that datacenter networks need to meet the demands of cloud computing," say IDC researchers. "Now the focus is shifting toward wide area networks, which can also be optimized to meet the requirements of cloud applications and services."

Add the fact that SD-WAN solution providers are continuously developing and upgrading their physical and virtual WAN optimization product portfolio, and the technology emerges as a tool to address the cost and complexity of an increasingly important operational asset.

"Virtually all geographically distributed enterprises will continue to require WAN optimization, perhaps not for all locations and offices but certainly for a significant portion of their WAN traffic," argues David Hughes, founder and CEO of Silver Peak. "It will become increasingly attractive to purchase WAN optimization by-the-drip as an integrated service in an SD-WAN solution versus buying it as a stand-alone product deployed at every location."

Software-defined enterprise WAN will soon dominate the global WAN optimization market



Source: IHS Markit

MEET WITH ENZU

BOOTH #226

CHANNEL PARTNERS EXPO & CONFERENCE
APRIL 10-13, 2017 | LAS VEGAS, NEVADA

COLOCATION | BAREMETAL | CLOUD SERVICES | IP TRANSIT

AGENTS AND MASTER AGENTS WELCOME

enzu™

www.enzu.com
10120 S Eastern Ave, #248, Henderson, NV 89052
(702) 965-1615
sales@enzu.com

SD-WAN-based services are expected to make up 71 percent of WAN optimization revenue in 2020, according to IHS Markit figures.

Currently, just more than a quarter of mid-market and enterprise firms surveyed by IDG for Silver Peak report having implemented SD-WAN. “Survey respondents say that landlines and traditional WAN architectures are inadequate to maintain competitiveness as they move more of their applications and data to the cloud,” said the survey.

In addition to this, a third of respondents indicated that they are being held back by existing MPLS contracts. As these contracts expire, IDG expects the move to SD-WAN will rapidly accelerate.

Indeed, as SD-WAN moves to the mainstream in 2017, “the majority of initial enterprise deployments will be hybrid, leveraging both MPLS and a complement of broadband,” says Hughes.

As product offerings gain maturity and businesses gain confidence in the reliability and security of SD-WAN offerings, no doubt it will displace a lot of MPLS sales and deployments. Much like POTS in the VoIP analogy, however, it’s likely the transfer off of MPLS will take longer than most anticipate, meaning MPLS will remain relevant for some time. Right now, for instance, the SD-WAN market lacks security standards, for example, such as a lack of network synchronization and security administration at every level of the network, say Research and Markets analysts.

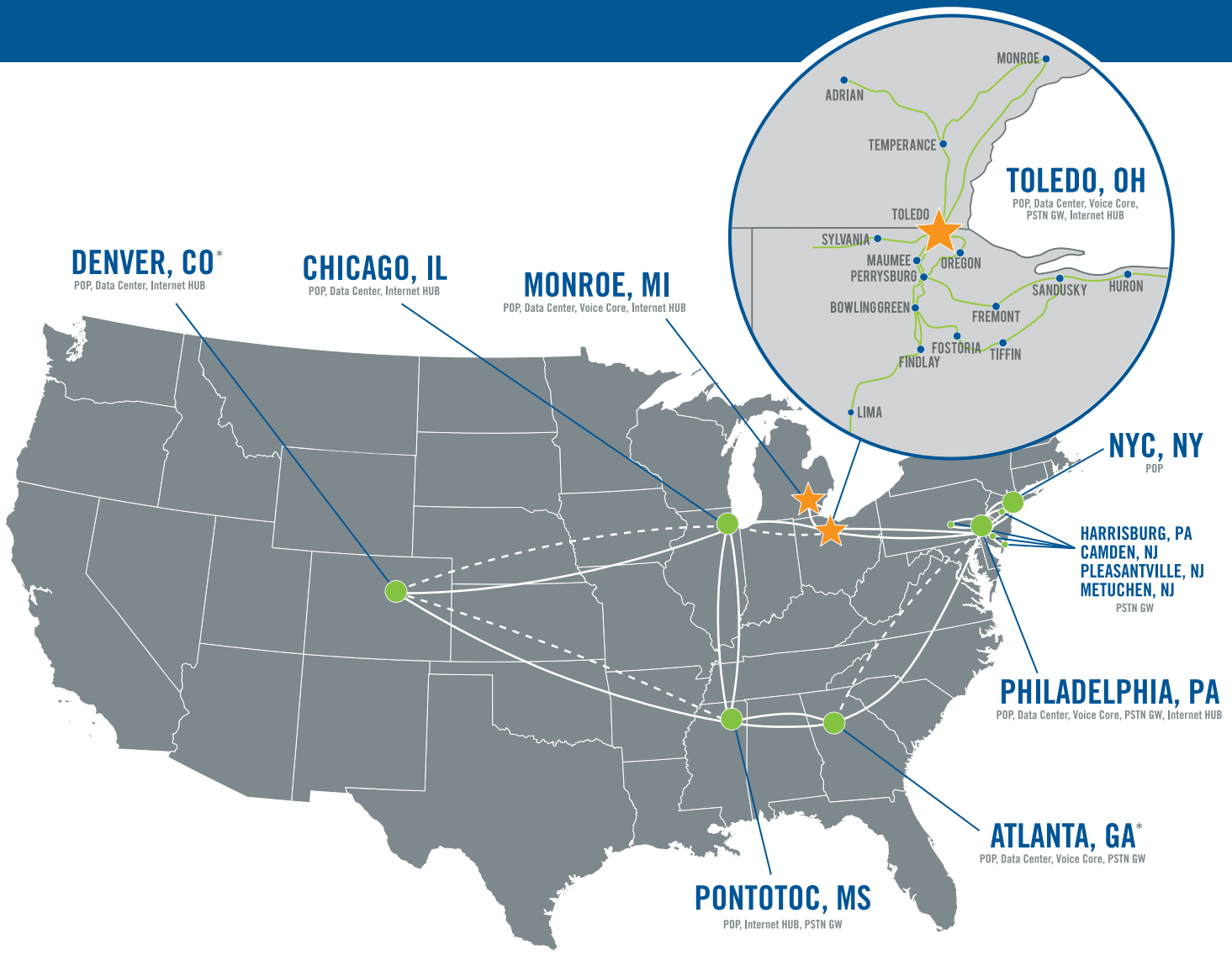
“In 2017, enterprise adoption of SD-WAN over pure broadband will accelerate dramatically as they realize that it’s possible to deliver MPLS-equivalent quality of service and availability when combining any combination of transport, including consumer broadband connectivity,” predicts Hughes. “Whether or not vendors or service providers can deliver on pure broadband SLAs will fast become a key decision criterion.”

Geographically, North America – and the U.S in particular – is seen as the largest potential market for SD-WAN, while China and the Asia-Pacific are expected to experience the highest growth rates through forecast periods. In Europe, Germany is expected to be the major contributor to the regional market, say P&S analysts, who expect healthcare, among various industries, to witness the highest growth in demand of SD-WAN solutions in the near term.

The managed services segment also is expected to be robust early on, suggests Research and Markets. “Managed services provide a combination of SDN-WAN and SD-WAN solutions to end-users, by reducing the operational cost and making it more flexible,” said the research firm. “WAN-based services, such as monitoring and managing real-time traffic are enabled by managed services on deployed network conditions. It further helps in optimizing resources by better planning and facilitating them.”

Ultimately, when it comes to network usage and management, “we’ve reached an inflection point,” concludes the IDG/Silver Peak study. “According to our survey of IT professionals, the combination of expired MPLS contracts, frustration with MPLS costs and complexity, and the emergence of a new disruptive technology designed to connect users to applications of all types indicate that it’s time to make the move to SD-WAN.” ❑

Reliable Voice, Data and Cloud Solutions Over our DDoS Protected Network



2 Privately Owned Data Centers
HIPAA, PCI and SOC 2 Compliant

2,000+ Private Fiber Route Miles
Network DDoS protected

400,000+ On Net Buildings

39 POPs

22 NNIs

*Planned Expansion

- - - - Route in Process

Line Systems
A DIVISION OF
Telesystem

Stronger Network. Expanded Portfolio.
Better Technology Together.

www.linesystems.com | www.telesystem.us | info@linesystems.com

SD-WAN Opportunities Shine in 2017

By **Tara** Seals

Software-defined wide area network are perhaps the hottest market buzzwords at the moment, and no wonder: SD-WAN offers multi-location companies a way to connect their disparate offices via the cloud, over simple broadband connections.

Applications and network resources can be accessed on-demand, and performance management, security and routing combine to make it an effective way to address WAN needs while harnessing the scalability and cost effectiveness of the cloud.

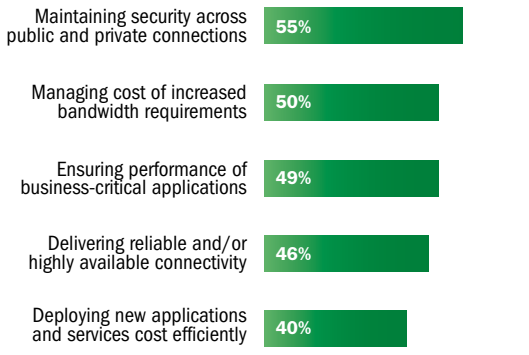
According to research firm Markets-andMarkets, the SD-WAN market size is estimated to grow from $738.9 million in 2016 to $9.1 billion by 2021, at an expected compound annual growth rate of 65.11 percent during the forecast period. A rising need for effective management of networks and the need for better security are increasing the demand for SD-WAN. North America held the largest market share in 2016. And, since enterprises are focusing on improving products and solutions, the managed services segment is expected to witness a substantial growth rate during the forecast period.

"The cloud breaks MPLS," explained Kevin Suitor, chief marketing officer at TeloIP, which offers SD-WAN on a wholesale basis. "You have a massive cloud market out there – by 2020, it will be worth $190 billion – plus there's a second massive mega-market behind it in the Internet of Things. Billions of devices coming online will require a different type of network than what we've had for the last 20 years."

There's a bit of a perfect storm happening when it comes to enterprise realities. CFOs are cutting IT budgets and staff, while deploying and managing broadband, MPLS and cloud links remains a complex enterprise. Meanwhile, emerging unified communications and collaboration apps need voice and video quality control so that calls don't drop out and so video doesn't become pixelated.

"If I wrap all of this up, it's a massive opportunity for channel partners looking to get into a managed service opportunity or to move away from selling boxes," Suitor said.

What are your organization's top challeges in network/WAN management at branch office locations? (Select all that apply)



Source: Forrester, survey of U.S. network/telecom decision makers

Target verticals include retail, financial and insurance, and hospitality – segments where companies tend to have many small sites, including in fairly rural markets where it's possible to get broadband inexpensively.

"Take a money mart type company with storefronts across the country," Suitor said. "If they had MPLS, you pay through the nose. They don't all have the same datacomm environment either. It's so much easier to build a standing SD-WAN that they can just link into. Channel partners that previously sold hardware can now provide managed services on the back of our network."

Most of the channel sales fall into two categories – MPLS replacement and the ability to address issues with hosted PBX, VoIP or unified communications installations.

"All the providers have a different version of the MPLS replacement story to tell," said Brent Baker, network services manager at Powernet. "Cloud-based services are driving the need for bandwidth through the roof, but it's not practical for most businesses to put in 50Mpbs connections everywhere. SD-WAN allows them to make use of performance-based routing with low cost broadband to achieve the same connectivity goals at very close to the same quality as MPLS, and it creates a financial incentive that they can't ignore."

Baker said that moving to SD-WAN can save a customer with 12 locations $12,000 to $20,000 every month.

Mid-Market, Enterprise Timeframe for SD-WAN Implementation

Already deployed	27%
Within six months	44%
Within 12 months	21%
Within 24 months	6%
No plans	2%

Source: IDG Connect, Silver Peak survey of 160 companies

"It doesn't matter if people think SD-WAN is a good idea or not; those savings are impossible to ignore," he said.

The second scenario makes use of forward error correction. "For people that already have broadband but are having problems with hosted PBX, implementing SD-WAN can go a long way to fix quality issues because of the performance routing," Baker explained. "It makes everything run better."

Anton Loon, vice president of sales at Powernet, added, "People with hosted VoIP and real-time apps see the value in this. Some of our agents won't sell hosted anymore unless the customer goes with SD-WAN as well. This gets rid of organizational headaches and saves people's organizational time."

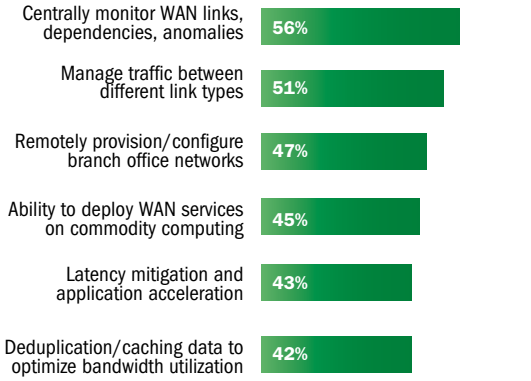
The obvious sweet spot for SD-WAN is multi-location businesses with multiple applications running on the network. But another market approach is for businesses to use SD-WAN for secure best-efforts

traffic, in order to free up MPLS for video and voice.

"SD-WAN is seen as an MPLS replacement product, but the concern is that it sends traffic over the best available connection," said John Cunningham, founder and co-CEO at BCM One. "If there's latency on all the connections, you end up with a not-great experience. If the broadband connections aren't up to the task, SD-WAN can't help with that. So a hybrid approach where some applications are still on MPLS makes sense for a lot of companies."

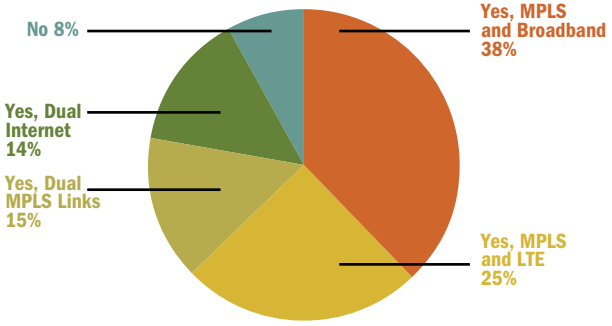
Having a hybrid option is also necessary if customers have contracts with varying termination dates, requiring integrated MPLS and SD-WAN support. "You have to be looking to make sure the network has proper routing support and devices that interoperate with both," said Baker.

What kinds of features or capabilities are you interested in to help manage your WAN? (Percentage rated "very interested")



Source: Forrester, survey of U.S. network/telecom decision makers

Do you currently have multiple connections to your branch offices?



Source: IDG Connect, Silver Peak survey of 160 mid-market & enterprise companies

SD-WAN also brings everything under one roof from a management perspective – the SD-WAN itself along with any cloud applications can be managed from one point.

"Moving into the software-defined realm makes provisioning easier and also easier to support and do everything we need to do through the lifecycle," Loon said. "We can pretty much do everything remotely except plug cables in, and customers like that."

SD-WAN sales aren't automatic, however. Loon explained that getting decision makers to make the jump from dedicated circuits to running things over public broadband can be a bit of a challenge.

"It's not fully understood by your average network manager or IT person, so everyone wants a referral for their exact use case," he said. "This is very similar to the early days of VoIP – people were worried about quality. But eventually everyone got the idea."

There's also market confusion about what SD-WAN actually offers.

"Any time you have a disruptive tech, there's a certain degree of end user and partner education, and with this, everything around orchestration seems to mean different things to different people," Suitor said. "You can say, here's how to get the most utilization I can out of the links, and you can optimize the performance on the up and downlink; you can have voice and video guarantees; you can do this at distances because there are offices spread out; it integrates with legacy MPLS; and you can do all of this with much simpler provisioning, supporting multicast over a fundamentally unicast environment like the Internet. Oh and it's secure. It all sounds great, but from a marketing perspective, it's a huge challenge to explain how that works in practice."

With all of the excitement over SD-WAN, one caveat is to be aware that the market is in its heady early days, and that consolidation will be inevitable.

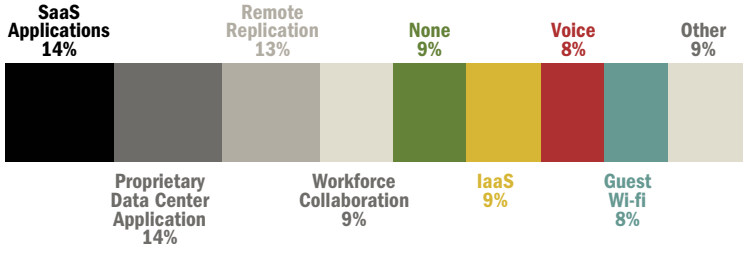
"Not one company we speak to isn't interested in it, and it's a great conversation for channel partners to have in order to be relevant in the WAN spaces," Cunningham said. "But channel partners should understand that the market is going to change.

"Gartner said there are now about 40+ companies offering SD-WAN. Remember when the automobile came along, there was a time when there were a hundred car companies," continued Cunningham. "We ended up with just three. That doesn't mean the other 97 didn't have good cars."

Rather, "the market can't support all of these companies indefinitely, so that's something that CPs should be aware of," he said.

That caveat can also be an opportunity. "Any channel partner with a multi-site customer base should get in now," Baker said. "And you should go after every big chain in your market. There's a lot of money to make, and there's no one established as a dominant player in this yet, so treat it as a land grab and get as much as you can." ❑

Is there one application you wish you could run over the Internet that you are not today?



Source: IDG Connect, Silver Peak survey of 160 mid-market & enterprise companies

BEC
TECHNOLOGIES

4G/LTE CONNECTIVITY SOLUTIONS

Empowering partners to deliver new services!

- Business Continuity WWAN Failover
- Enterprise Connectivity
- M2M/IoT
- Retail POS/ ATM/Kiosk
- Video Surveillance

Enterprise LTE Router

WWAN Failover Manager

Multi-Carrier LTE Router

BECentral

CLOUD MANAGEMENT

Real-time monitoring, management and control. Designed to simplify device access, streamline and speed up deployment, lower support expenses and maximize the operational efficiency and profitability.

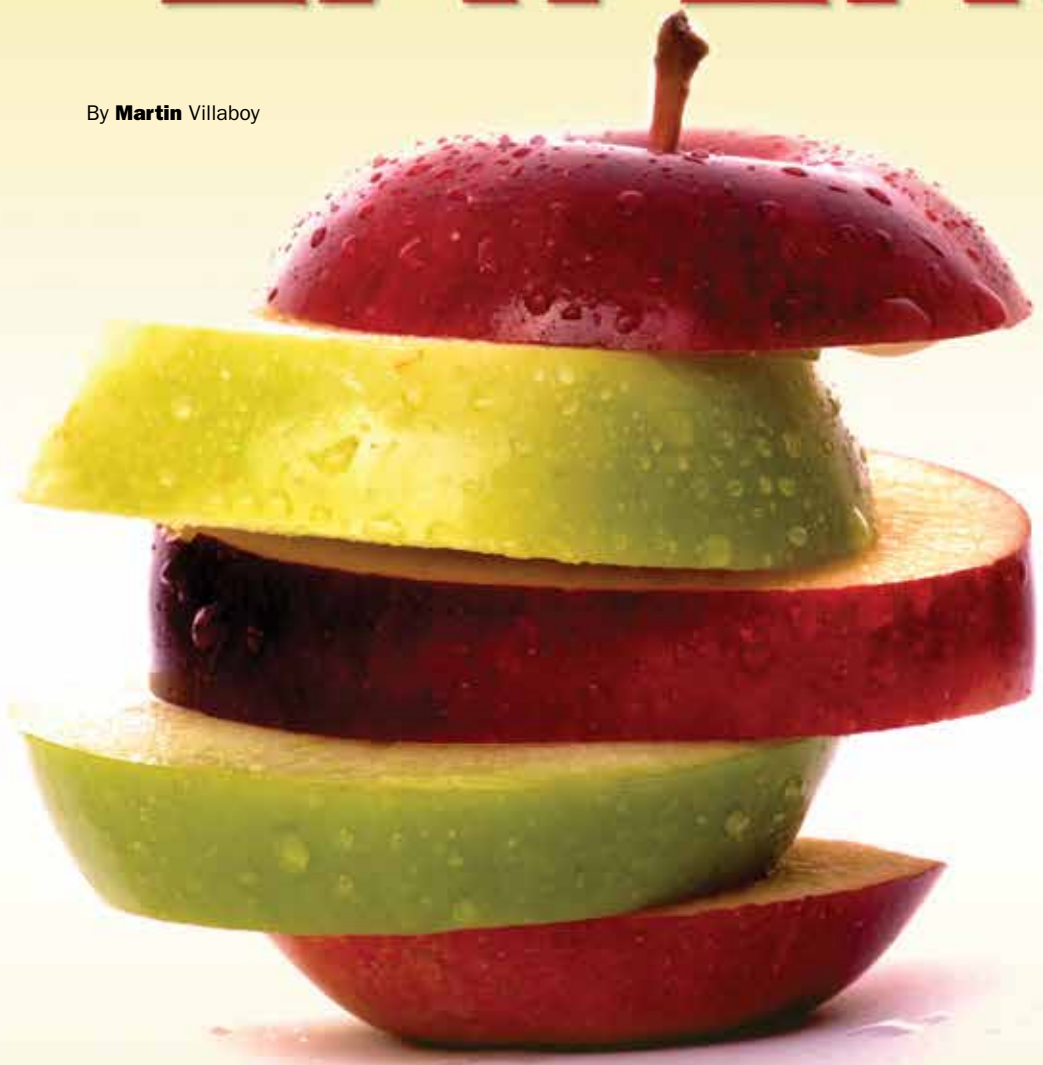
- Device Provisioning and Control
- Real-time Signal Quality and Performance
- Alerts Policy & Notificaiton

Visit BEC in Mobility City Zone at Channel Partner Expo!

BEC Technologies, Inc | www.bectechnologies.net | 972.422.0877 | partner@bectechnologies.net

Separating the LAYERS

By **Martin** Villaboy



SD-WAN and its relationship with MPLS

There are some very good reasons why software defined wide area networking (SD-WAN) currently sits at the peak of Gartner's 2016 Networking Hype Cycle. The demands placed on the enterprise WAN have changed dramatically during the past several years, and SD-WAN represents the first opportunity for a significant upgrade to wide area network architecture and design since multi-protocol label switching (MPLS) established its dominance more than a decade ago.

Quite simply, whereas traditional WAN architectures, including MPLS, were designed and deployed in an era when applications primarily resided in data centers, SD-WAN provides a new strategy for

Keeping You Connected: nCloud Survive Cost, Reliability, Security

What happens on your network, stays on your network.

Don't gamble with your business, have a disaster recovery plan.

- nCloud Survive keeps your business running without the high cost of SD WAN applications.
- nCloud Survive provides last-mile redundancy between multiple WAN connections to ensure that a circuit outage doesn't impact business.
- Constant link monitoring, dynamic VoIP routing, and core-to-edge router peering to accomplish an immediate and smooth transition between connections.
- With nCloud Survive, phone calls remain connected through network outages, keeping you in contact.

Earn up to 3X MRC on Hosted Applications & 2X on Traditional Voice Services.

- VAR Installer Program
- 5% upfront spiff on equipment
- 100% Channel Based
- 24.7.365 U.S. Based Customer Support
- Managed Deployments

855-nCloud4 www.netcarrier.com

connecting business users to dispersed and increasingly prevalent cloud- and SaaS-based applications. In other words, if most applications are in the cloud, a dedicated link between a branch office and a company data center could prove redundant. Some proponents of SD-WAN have even posed questions concerning whether or not SD-WAN is a replacement for MPLS.

Familiarity with SD-WAN Among Network Pros

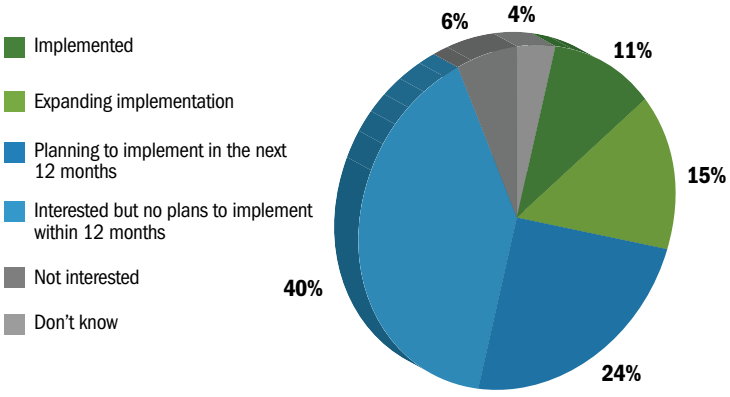
Extremely familiar	11%
Very familiar	22%
Moderately familiar	31%
Somewhat familiar	24%
Not familiar	13%

Source: Webtorials, 2016

The short answer is: no, at least not yet. While SD-WAN can reduce the dependency on MPLS, and may serve as an alternative in some instances, MPLS still provides levels of performance that SD-WAN cannot yet duplicate. What's more certain, however, SD-WAN does have distinct advantages over MPLS in terms of agility, flexibility and simplicity, all of which are increasingly important to operating networks today and in the future.

SD-WAN, which consolidates and virtualizes the control function of a network into an SDN controller that abstracts the user's private network services from the underlying IP network, is still a relatively young and emerging architecture. Various surveys suggest about 3 percent to 11 percent of organizations have implemented SD-WAN somewhere within their networks. Gartner this summer estimated that between 500 and 1,000 organizations have purchased and are deploying SD-WAN products. At the same time, strong interest and intent appear to suggest significant uptake could occur in the near term.

What are your organization's plans for adopting software-defined WAN solutions?



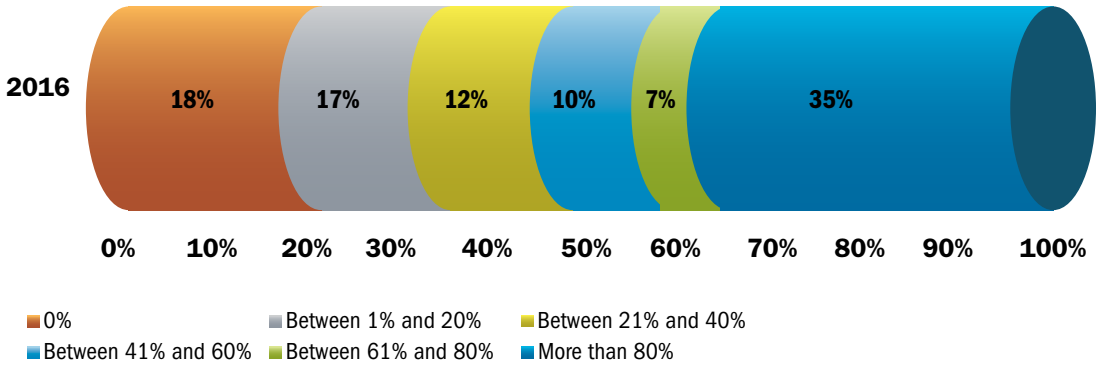
Source: Forrester Consulting

In 2015, for instance, only 15 percent of network professionals surveyed by Webtorials were either very or extremely familiar with the concept of SD-WAN. One year later, bolstered by substantial media coverage and vendor educational efforts, the number of those very or extremely familiar more than doubled to a third of respondents. When asked about their evaluation and implementation plans, 29 percent of network professionals say they are currently actively analyzing the potential value that SD-WAN offers, while another 26 percent say they will likely analyze it sometime in the next year. Just over a third of network professionals either have decided to hold off with plans or have not made any analysis of SD-WAN.

Forrester Consulting, for its part, estimates that about a quarter of telecom and network decision makers at mid-sized to large U.S. enterprises are planning to implement SD-WAN solutions within the next 12 months. That's on top of the 11 percent that already have implemented and the 15 percent that is expanding implementation. In the near-term, adoption of SD-WAN is set to rise to 50 percent of firms by next year, and in the bigger picture Forester says that "90 percent of network managers are looking to evolve their WAN using a software-defined approach."

Gartner, meanwhile, estimates that 10 percent of enterprises will have replaced their WAN routing with SD-WAN by the end of 2018, while researchers at IHS,

How much of your Internet traffic that originates in your branch offices do you currently backhaul to a data center before handing it off to the Internet?



Source: Webtorials

ooma office | **Visit us at Booth #369**
at Channel Partners Conference & Expo

We're ready to talk small business.

Join the Ooma Office Partner Program and earn 4x MRR and more.

It's a great time to sell Ooma Office. Not only is it one of the most flexible small business phone systems available, but PCMag readers selected it the #1 VoIP provider for small business for three years running. **Not a bad calling card.**

Calling all Partners

Ooma Office is a perfect fit for small businesses with 20 users or less—with all the enterprise-grade features your customers need, none of the pricey bells and whistles they don't. Even better, the Ooma Office Partner Program makes selling and referring the Ooma Office system a smart business decision for you.

Partner with the enterprise-grade phone service built for small business

Learn more about the Partner Program, territories, and payment plans. Visit ooma.com/office-partners or call our representatives at 1-888-9500-VAR.

Subject to the terms and conditions of the Ooma Office Partner Program.

bcm one™

Human Focused. Technology Solutions.

Technology Lounge Open. Everyone Welcome!

Room: Islander H

(near the keynote speakerships & educational tracks)

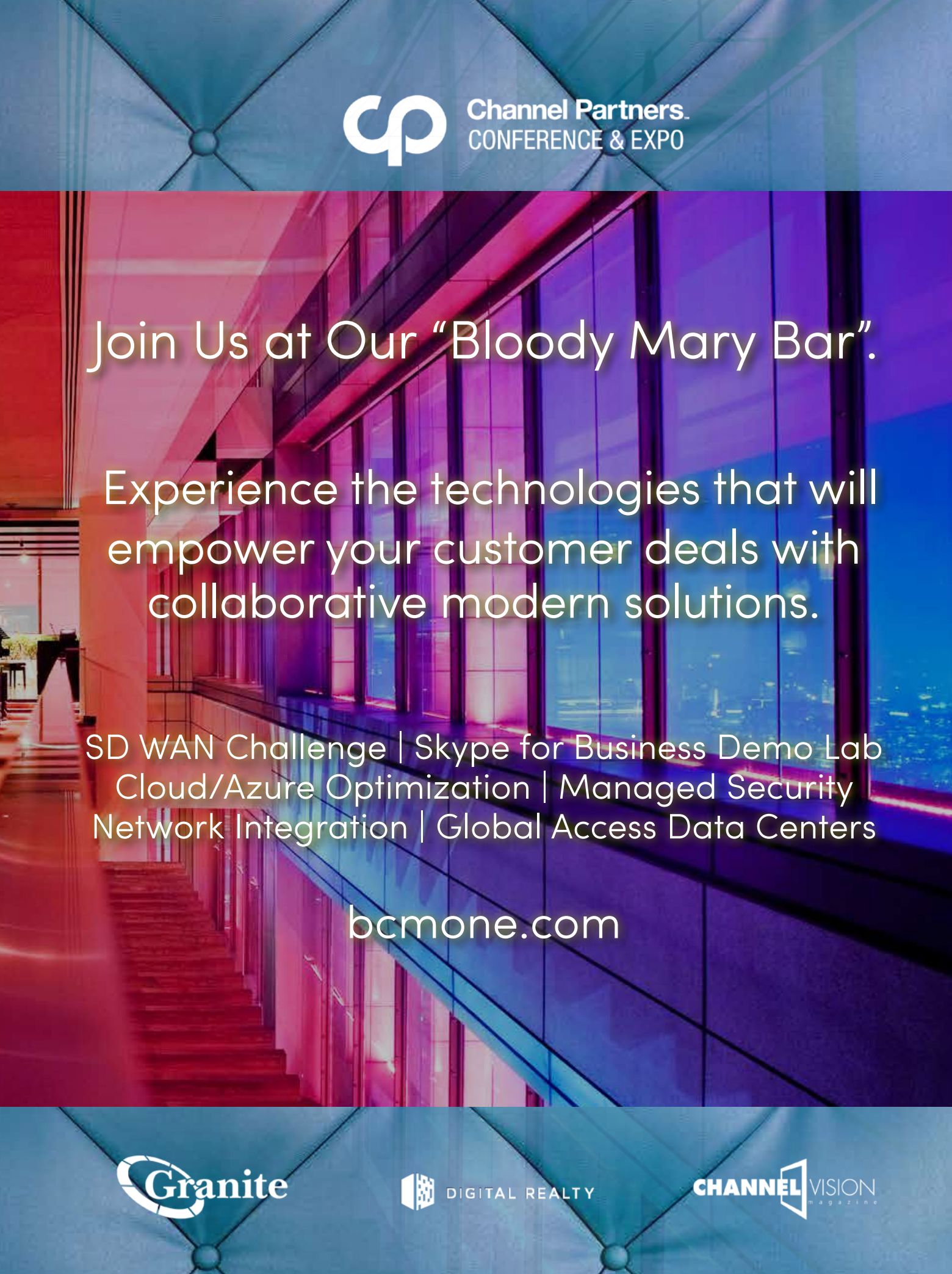
April 11 | 1PM - 4PM

April 12 | 11AM - 3PM

SPONSORS:

verizon partner program - platinum

CLOUDGENIX


Channel Partners
CONFERENCE & EXPO
Join Us at Our "Bloody Mary Bar".
Experience the technologies that will empower your customer deals with collaborative modern solutions.
SD WAN Challenge | Skype for Business Demo Lab
Cloud/Azure Optimization | Managed Security
Network Integration | Global Access Data Centers
bcmone.com
Granite
DIGITAL REALTY
CHANNEL VISION magazine

Inc. value the market at $1.3 billion by 2020. IDC is much more aggressive, pegging the SD-WAN market at $6 billion by 2020. It noted that nearly 70 percent of organizations expect to use SD-WAN within the next 18 months.

Among the top drivers, according to Webtorials' findings, are desires to increase flexibility, improve applications performance and reduce operational expenditures while simplifying operations.

As use of SD-WAN solutions ramp up, it's certainly likely to exit some traffic off of MPLS networks. For starters, that's partly because SDN (software defined networking) allows network operators to look to the Internet, or basic broadband connections, as their WAN (or part of it), hence lowering the cost of network operations compared to MPLS.

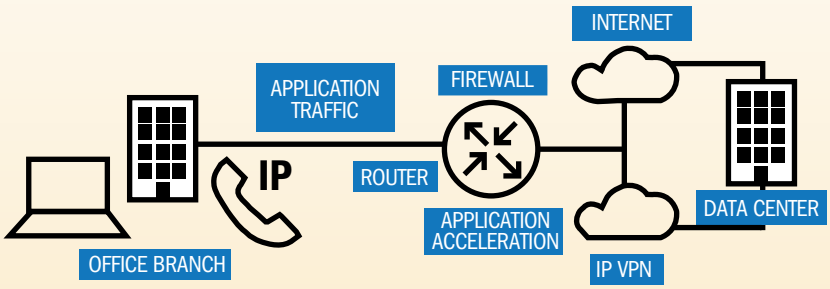
Consider the issue of "backhauling," for instance, otherwise known as the "trombone effect." As Steven Taylor and Jim Metzler of Webtorials explain it, a common

MASTERING AND MANAGING SD-WAN

It's still relatively early in the evolution of software defined networking, but service providers are moving rather rapidly with their respective service evolutions. Among other developments, they are making it simpler, at least theoretically, for enterprises to deploy SD-WAN in their networks with the introduction of fully managed SD-WAN solutions. That includes brands familiar to the channel, as Masergy, CenturyLink, Verizon and Telstra have all unveiled managed WAN solutions within the past several months. EarthLink is expected to soon follow.

Like many other managed services, providers of managed SD-WAN typically install and manage the edge devices for the end user, can source and manage disparate access links and manage the day-to-day. Generally, the solutions can manage connectivity from a wide range of providers as part of an aggregated solution, freeing up enterprise network administrators to focus on revenue and growth initiatives. Proponents also argue that fully managed SD-WAN allows customers to evaluate and adopt SD-WAN in phases.

Example Managed SD-WAN Solution



Source: Telstra

At Masergy, the company touts the ability of its managed SD-WAN to support three deployment models, depending on the customer's needs. Either dedicated premises-based hardware, cloud or distributed virtualized software deployments are managed by the solution.

CenturyLink, meanwhile, says it bundles site connectivity, equipment, software licensing, configuration, performance tuning and monitoring with a comprehensive management and analytics portal. Customers can manage their own WAN policies or have CenturyLink manage their policies.

Organizations interested in giving CenturyLink a try can take advantage of a free-of-charge, 90-day proof-of-concept offer designed for businesses interested in testing SD-WAN within their wide area networks. CenturyLink will provide the customer-premises devices, access to a management portal and full customer support for up to five sites to "showcase the substantial improvements this groundbreaking network technology can bring to businesses," says the company.

Telstra's offering, built on Cisco's Intelligent WAN (IWAN) technology, consolidates routers, firewalls and application acceleration equipment into a single device at the branch. The solution provides application awareness with deep-packet inspection of traffic to identify and monitor each application's performance and data consumption. "This allows [administrators] to determine what traffic is running across their networks, tune networks for business-critical services and resolve any network problems," say Telstra executives. "Application-specific acceleration capabilities can be used to improve response times while also reducing your WAN bandwidth requirements."

At press time, EarthLink was expected to unveil its solution this fall.

Elsewhere, Utah-based master agent Telraus this fall announced a partnership with Ecessa to distribute its SD-WAN solution. Offering a solution that aggregates up to 25 WAN links, the Telarus/Ecessa partnership will allow customers to leverage multiple WAN or Internet connections from different carriers which greatly improves network performance while reducing the overall connectivity costs, said the companies.

This is the second master agent partnership Ecessa has announced since August, when it entered a formal agreement with Telecom Consulting Group.

Join Us to Save Lives!

Granite's annual
'Saving by Shaving' Event
is coming to Channel Partners in Las Vegas.

Wednesday, April 12th, 3pm - 5pm
Mandalay Bay Convention Center
Booth #218

For every head shave and Locks of Love cut, Granite will donate **$5,000** to the world renowned Dana-Farber Cancer Institute.

Be a part of adding to the

$9,000,000

raised in the past 3 years from this event.

Join members of the channel community in making a difference in the fight against cancer!

We will see you at the booth!

CONTACT US

channel-sales@granitenet.com
877.884.5200
www.granitechannels.com

HEAD SHAVES AND CUTS COMPLIMENTS OF
A ROBERT CROMEANS SALON

approach to designing a branch office WAN is to have T1-based access to a service providers MPLS network at each branch office plus one or more high-speed links at each data center. It is not uncommon in this design for a company's Internet traffic to be backhauled to a data center before being handed off to the Internet. In other words, the Internet-bound traffic transits both the MPLS network and the Internet access link, adding both cost and delay.

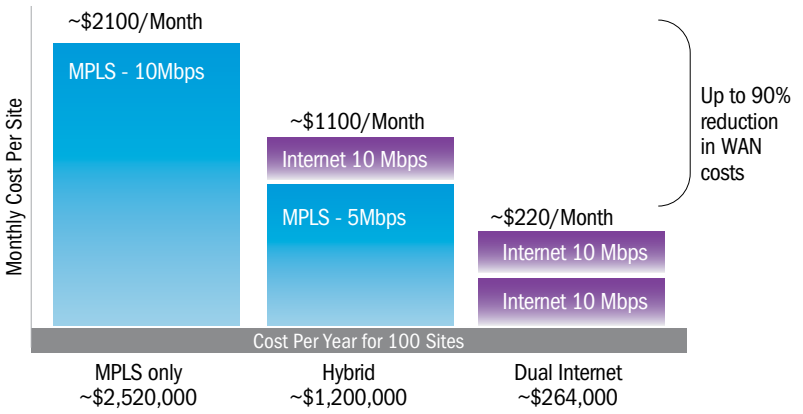
"The penalties associated with backhauling Internet traffic are usually acceptable if the amount of Internet traffic is relatively light," write the Webtorials analysts. "However, the Internet traffic generated by most companies is large and growing."

Again, while MPLS provides a highly stable, high-performance, and highly scalable means of interconnecting multiple data centers and branch offices, it can be expensive, and the expense makes the most sense when applications were largely hosted in data centers and the Internet could not deliver business-grade reliability. Today, applications increasingly are offered on-demand, via the Internet and cloud, and SD-WAN, as a virtual overlay, adds security and reliability to lower-cost broadband connections, say its proponents. One upshot can be a reduced dependency on MPLS connections.

That's not to say SD-WAN eliminates the need for MPLS, at least not in most cases. What SD-WAN does do is bond and support multiple WAN access technologies, such as DSL, LTE, leased lines, MPLS VPN, etc. It creates overlay tunnels on top of available transports links that make up an organization's WAN, while edge devices at customer sites allow IT administrators to manage or automate, via centralized policies, WAN functionality, including configuration, provisioning and security. Users should also be able to dynamically set the path for each application based on their customer-defined policies.

It's a benefit that can't be underestimated as hybrid WAN topologies become the norm. According to one survey by Forrester, for instance, 54 percent of network and telecom managers are dealing with four or more connection technologies within their networks, from private leased lines to carrier Ethernet to 4G/LTE to MPLS to terrestrial fixed wireless. More than three-quarters of firms use more than one, so anything that streamlines management, orchestration and maintenance could be seen as a boon.

Potential Cost Savings from SD-WAN

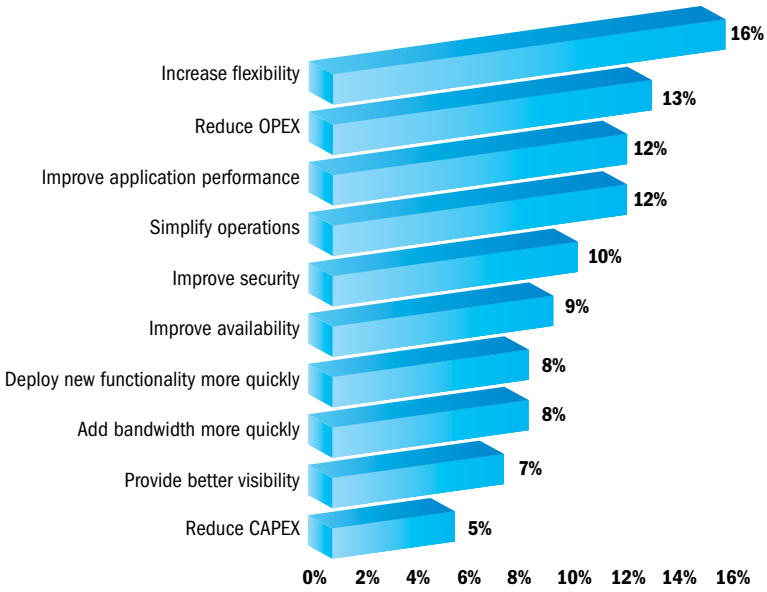


Per TeleGeography.com - Broadband vs. MPLS pricing for San Francisco Q4 2014. Median monthly price: 10-20 Mbps Broadband $110/month, 10Mbps MPLS IP VPN + Local Access $2,100 Month.

Source: Silver Peak Systems

There is a related business case, as well. Network managers can push less-critical, non-real-time data onto less expensive, best-efforts links, while reserving more expensive, dedicated links for mission-critical and real-time data.

What are the primary advantages that would drive your company to implement an SD-WAN?



Source: Webtorials

That's also where MPLS comes in (or in the case of our mixed topology, remains in). With MPLS WAN technology, users have full control over traffic engineering. The intelligence in SD-WAN lies on the edge, via boxes on the

(Continued on page 34)

MOMENTUM
TELECOM

Momentum Telecom provides practical, personalized VoIP and unified communications solutions to businesses across the globe.

- Reliable, Quality Solutions
- On-site Implementation and Training
- Multiple Integration Options
- Partner Marketing Support
- Competitive Commission Plans

Contact us at
1.877.251.5554
momentumtelecom.com

Colt Expands SD-WAN Across Europe

Colt Technology Services has expanded its managed SD-WAN to 13 countries across Europe. The expansion will reach even more countries in 2017.

Also known as hybrid WAN, the service allows business customers to cope with the network requirements of the future digital economy by combining dedicated data connections with low-cost broadband links in their WAN.

"Putting it simply, the customer wants secure, guaranteed delivery with quality of service for their data network," said Peter Coppens, director of network portfolio at Colt. "But they don't want increasing data capacity requirements to mean more expensive bandwidth circuits."

The solution is to use the public Internet for those apps which are not latency-critical, such as email or web surfing, while reserving your data networks for the mission-

critical, high-bandwidth applications, Coppens continued. "Data over the Internet is still secured by using IPSec tunnels; and the customer is free to use their existing ISP if they so wish."

The Colt offering is delivered as a virtualized service with built-in on-demand elasticity and multi-tenancy, combining SD-WAN software with open, scalable general-purpose server hardware at the customer's premises. With a broad set of networking and security virtual network functions, Colt claims both agility and economic advantage in the delivery of network function virtualization (NFV)-based services for the WAN and branch office by accelerating time-to-service while reducing total cost of ownership due to centralized management for all sites.

The service expansion will be based on platform elements provided by Versa Networks. Kumar Mehta, CEO and co-founder said, "Versa has worked with Colt for the last 18 months to create new NFV-based WAN services. We are excited to continue our joint innovation as Colt launches its cutting edge, software-based, managed SD-WAN service across Europe."

For customer sites that are "on-net" (i.e., directly connected with Colt fiber) bandwidth scales in a very cost-efficient way (off-net this is not the case). The introduction of SD-WAN removes these limitations by enabling a path to public Internet for those apps which are not latency critical such as email or web surfing.

Customers can then reserve off-net data capacity for more business-critical applications. The end result is that a hybrid network is formed where non-critical data is offloaded to a secured Internet tunnel, freeing up MPLS bandwidth for business-critical data, efficiently increasing the total bandwidth to branch sites. Data over the Internet is secured by using IPSec tunnels; and the customer is free to use their existing Internet service provider.

Colt is leveraging the intelligent SD-WAN platform to enable its customers to dynamically route data traffic to manage both secure and Internet routing in real time. This can be configured by Colt or the customer.

Coppens added, "The SD-WAN is a new way to architect, deploy and operate the WAN, providing a dramatically simplified way of deploying and managing multi-site connectivity. So much so that it's forecast that by the end of 2019, 30 percent of enterprises will use SD-WAN products across sites, up from less than 1 percent today." ❑

WAN Connectivity Simplified

By **Mary** Stanhope

With the accelerated use of private and hybrid cloud applications and computing, network and application service providers alike are seeing a substantial shift in how businesses want to connect to the cloud – particularly mid-tier and large enterprises. For the past 15 years, companies have used multi-protocol label switching (MPLS) architecture to interconnect branch offices to each other because it offers any-to-any connectivity for thousands of sites combined with quality of service (QoS) for packet prioritization. While MPLS remains a popular wide area networks (WAN) connectivity option, it is no longer the total solution. The connectivity trend is moving to hybrid WAN.

Today, there is no single WAN technology that effectively meets every single requirement to connect all enterprise applications and all locations. Indeed, enterprises have found that one access technology and one service provider can no longer meet their needs, since no one service provider is everywhere and no one technology is the right solution for all applications and locations.

Hybrid is the New Normal

The new enterprise WAN encompasses multiple network-access technologies that are connecting locations to support the variation of security, bandwidths and performance levels needed to meet today's evolving cloud application requirements. Each business location needs the right connectivity for the specific applications used within it; that may mean public Internet, MPLS, EVPL, wavelengths or even wireless. In an age where ensuring the best customer experience is key, everything starts with the customer location and their required destinations. It is up to service providers to advise customers on the best connectivity solutions and connect them to these solutions simply, efficiently and cost-effectively.

At the same time, hybrid networks bring with their own set of new challenges. Identifying, contracting and managing services across multiple suppliers and product offerings is complex, fragmented and inefficient. A lack of expertise in managing multiple suppliers, combined with

limited visibility and control of network capacity and availability means enterprises are challenged to efficiently contract and manage the hybrid network they require. network marketplaces can address this new challenge.

A network marketplace's unique combination of interconnected access networks and software defined service orchestration provides the ubiquitous reach, flexible network options and reliable connectivity solutions to modernize WAN connectivity. The key innovation of the world's first network marketplace is the automation of a hybrid of service provider pricing, infrastructure data and unique business rules, and the real-time delivery of multiple engineered service options.

SD-WAN Raises the Bar

In addition to the complexity and management challenges from choosing a hybrid network, the accelerated use of private and hybrid cloud applications and computing is increasing the need for enterprises to set and control application policy across their WANs. SD-WAN enables enterprises to securely support application growth and network agility, while delivering optimized access to cloud services, private datacenters and enterprise applications.

SD-WAN resolves some of the most pressing WAN problems businesses face when building and managing complex hybrid WAN architectures such as difficulty in load sharing traffic across a mix of access connections; complex, static and manual network configurations that are not easy to map to business-centric requirements; and the lack of visibility and control of connections.

Using SD-WAN, enterprises can dynamically route traffic over a hybrid combination of private and public access types to reach multiple key destinations. SD-WAN solutions uses centrally managed edge devices placed in branch offices to establish logical connections with other branch edge and datacenter cloud devices across the physical WAN. SD-WAN technology determines the most effective way to dynamically route traffic to multiple business locations. Unique policies automatically prioritize traffic, making better use of bandwidth to enhance performance and overall user experience, with flexible access options, and dual active links provide redundant and/or diverse connections at each site, increasing network resiliency.

As SD-WAN services increase in deployment, the demand for hybrid networks grows along with it. As such, the need to manage multiple suppliers with diverse technologies across various cities over a hybrid network is necessary. The combination is a compelling value proposition to any enterprise whatever the industry.

It is not merely about meeting a challenge but developing a simple and cost effective solution that provides flexibility and visibility into performance. Global Capacity's One Marketplace platform is purpose-built to simplify a network of network architecture and deliver innovative new hybrid WAN architectures further enabled with the control and management of SD-WAN technology. ❑

Mary Stanhope is vice president marketing at Global Capacity.

FatPipe Updates, Simplifies SD-WAN Platform

FatPipe Networks recently unveiled its Next Gen Version SD-WAN platform, designed to further simplify the management of a wide-area network in an SD-WAN world. Version 9 of the platform eliminates the need for complex routers, providing load balancing for Layer 2 and Layer 3 networks. Virtual versions are available for Amazon and Azure platforms, along with VMware and other common platforms.

The solution enables a company to integrate its SDN at the data center with the SD-WAN at the branch level, says FatPipe. It includes Layer 2 and Layer 3 support for routed and switched topologies in a global SDN deployment, bridging the LAN and WAN chasm, says the company. New auto-configuration functionality reduces complexity in configuring multiple appliances; MPSec, VPN and policy routing rules are propagated to remote/branch devices automatically from a central location. Adding BGP & OSPF support into the platform improves support for legacy routing protocols, says Fatpipe. A web-based interface automatically scales for all screens: desktop, mobile and tablets.

FatPipe's "branch in a box" SD-WAN product, meanwhile, combines aspects of a branch's requirements, such as multi-line load balancing, firewall, VPN, QoS, local Smart DNS and other features, for a single solution at a branch, making a branch network very simple to deploy.

"This upgrade represents a unified management approach that can be delivered as a comprehensive SDN + SD-WAN architecture − regardless of location, appliances, data center network, routing protocols, types of applications, devices used and configurations, including private, public and hybrid cloud models – and eliminates the need for complex routers," said FatPipe's CTO Sanch Datta.

MegaPath Expands Business SD-WAN

MegaPath announced the expansion of its managed SD-WAN offerings for SMB and enterprise customers. SD-WAN Pro and SD-WAN Enterprise give businesses the flexibility to build a solution that is the right fit for their needs, size and budget, said the company. SD-WAN packages start at $57 per month.

The SD-WAN Pro package is designed to eliminate the complexity and cost of supporting a private network at the branch level. SD-WAN Enterprise combines the ease of multi-location networking with always-on WAN connectivity in order to support mission-critical, cloud-based services such as voice and video. Both offerings include IPsec VPN, application performance monitoring and load balancing and failover. The Enterprise version also provides real-time application failover with guaranteed zero downtime, bi-directional priority routing and true bandwidth aggregation.

SD-WAN Pro supports two WAN links while SD-WAN Enterprise supports up to six WAN links. Optional Managed WiFi provides an end-to-end managed wireless LAN.

"MegaPath uniquely takes a best-of-breed, multi-vendor approach to SD-WAN, giving smaller businesses a low-cost entry point to this popular, private networking technology, while giving distributed organizations access to the industry's most comprehensive SD-WAN feature set," said Dan Foster, president, business markets, MegaPath.

Masters Add SD-WAN to Partner Portfolios

As the cold winter months moved toward spring, the opportunities warmed up for agents and sub-agents to distribute the latest "hot technology," as several master agents added SD-WAN connectivity to their portfolios.

Among the many announcements in the first few months of 2017, channel partners working through master agencies CarrierSales, Telecom Brokers and Sandler Partners now have access to Ecessa's SD-WAN solutions. In the second half of 2016, Ecessa's announced similar partnerships with masters Telarus and Telecom Consulting Group. According to the company, Ecessa allows customers to step into SD-WAN with a "crawl-walk-run" approach, providing a solution based on the differing and unique needs of each customer.

Elsewhere, PlanetOne Communications recently joined Aryaka's partner program, giving its sub-agents the opportunity to deliver Aryaka's global SD-WAN connectivity; CloudGenix added Converged Network Services Group (CNSG) as a master agent for its connectivity product family, which includes SD-WAN connectivity; and Intelisys sales partners can now offer Transbeam's suite of data solutions, including its newly released SD-WAN.

Master agency AVANT, for its part, started 2017 with an expanded list of 11 SD-WAN providers, including Aryaka, CenturyLink with Versa Networks, CloudGenix, EarthLink with VeloCloud, Masergy with Silver Peak, Netwolves with Cisco IWAN and Cisco Meraki and Windstream with VeloCloud, among others.

"SD-WAN is a game changer," said Drew Lydecker, co-founder and president, AVANT. "It lets you build high-performing networks, leveraging broadband Wi-Fi Internet and MPLS networks, to deliver dramatic performance and cost improvements. Traditional carriers are racing to add SD-WAN. Adoption is exploding, and we have all of the top providers that our customers can work with."

Survey: Carriers Moving Fast to SDN

Part of a larger move to automate their networks and also transform internal processes, operations and service offerings, three-quarters of carriers participating in the IHS Markit SDN survey say they have already deployed or expected to deploy SDN in 2016.

A full 100 percent say they will deploy the technology at some point.

That's largely because service providers believe SDN will fundamentally change telecom network architecture and deliver benefits in service agility, time to revenue, operational efficiency and capex savings, said Michael Howard, senior research director, carrier networks, IHS Markit.

"And these operators want SDN in most parts of their networks," he continued. Survey respondents' top three SDN-targeted network domains for deployment by the end of 2017 are within data centers, between data centers and access for businesses.

Not that carrier network executives are throwing caution to the wind. The industry is still in the early stages of a long-term transition to SDN and network functions virtualization (NFV) architected networks, said Howard. Carriers are "biting off small chunks of their networks," or "contained domains," in which they will explore, trial, test and make initial deployments of SDN, said Howard.

It will be many years before bigger parts of networks or entire networks are controlled by SDN, but Howard pointed to a few operators that are leading the way including AT&T, Level 3, Colt, Orange Business Systems, SK Telecom and Telefónica, among others.

Transbeam Announces SD-WAN Solution

Managed service provider Transbeam has launched a VeloCloud Powered SD-WAN solution designed to simplify how medium to large, single or multi-location enterprises manage and implement their WANs.

Transbeam's partnership with VeloCloud enables it to deliver a differentiated set of features including optimized application performance, virtual service integration and zero touch deployment that is cost effective for businesses of any size. Transbeam's SD-WAN provides instant service insertion coupled with flexible business policies enabling rapid customized enterprise solutions for enterprises with networks ranging from a few to thousands of locations. Transbeam leverages its own nationwide core network, providing customized network designs to ensure the most reliable performance and manageability possible, in a boutique, client-focused environment that maintains all the attributes of larger carriers.

Additionally, Transbeam SD-WAN comes with Transbeam Intelligent Network Monitoring (INM) and Partner Portal access, enabling transparency into the network infrastructure and automation of various network operation services. The solution includes link aggregation, dynamic multi-path optimization, application steering, failover and integrated firewall and security.

InfoVista Updates App-Aware SD-WAN

InfoVista has updated its application-aware SD-WAN solution, with the release of Ipanema 9.1.

By providing richer application performance analytics and easier configuration of dynamic path selection, Ipanema 9.1 simplifies enterprise SD-WAN implementations, said the company.

In the fourth quarter of 2016, InfoVista shipped the largest number of Ipanema appliances in its history for a single quarter, and in the second half of the year, 50 percent of new customers used the solution to deploy SD-WANs. The Ipanema solution now supports an estimated 300,000 enterprise sites around the world.

With improved visualization, the software release provides granular application-aware SD-WAN analytics with visibility into application performance and trended user experience. The feature is supported by statistics, filtering options and real-time plotting.

The update also introduces a single screen for configuring global dynamic path selection rules for application profiles, allowing enterprises to better define application policies with fewer clicks. Furthermore, with enhanced virtualization support, Ipanema 9.1 now supports virtual appliances for KVM in addition to VMware.

"Application aware SD-WAN solutions that maximize the user experience while providing easy-to-use management tools will allow enterprises to realize the full business value of hybrid WAN architectures," said Zeus Kerravala, founder and principal analyst with ZK Research.

Nitel to Debut SD-WAN, SD-Security

Nitel is now offering SD-WAN and SD-Security services to channel partners and corporations nationwide through an alliance with Versa Networks. Built for mid-market to large enterprises, Nitel's SD offerings will provide customers with application centric management, greater network reliability and optimized performance over Nitel's global, managed, public and private WAN services, said the company.

Through its accompanying web portal, Nitel will deliver on-demand access to built-in analytics, application-driven routing and network management. Additional benefits and key differentiators within Nitel's new SD-Security services include integrated next-generation firewall (NGFW) and unified threat management (UTM).

"The increasing use of cloud and SaaS has made the WAN, not the LAN, the defining measure of a network's performance and the customer experience," said Rick Stern, CEO, Nitel. "By simplifying last mile access and connectivity, SD-WAN has created a disruptive market opportunity and competitive advantage for Nitel and our channel partners that ultimately benefits businesses and consumers everywhere."

Nitel's new SD-WAN services include advanced design and installation support. Nitel is conducting a beta trial and expects a wide-scale launch in April 2017. To encourage channel partners to learn more about SD-WAN, Nitel is offering access to no-cost, on-demand and live training. Field sales and engineering support are also available. ❑

Hitting the Multilocation Mark

BullsEye looks to channel for success with the distributed enterprise

By **Tara** Seals

BullsEye Telecom is celebrating the channel with an enhanced focus on enabling partners' businesses in a swiftly evolving technology landscape – especially when it comes to multilocation customers.

More than 90 percent of new customer acquisitions for the company comes from its sales partners, and channel recruitment growth has increased by an average of 11 percent in the last two years, thanks to an ongoing strategy of investing heavily into its channel program. BullsEye also has increased the size of the channel management team to north of 10, which is the highest it's been in the company's history.

As part of BullsEye's core commitment to its sales partners, Brian Babich recently moved into a new role with the company as vice president of channel sales. The 22-year telecom veteran, who has served in both direct and channel leadership roles at BullsEye, has advanced some of the organization's most complex sales through partners. It's a move that's in line with the Michigan-based company's continued leadership in the enterprise multilocation telecom space.

Through the company's strategic partnership program, it has implemented business strategy sessions that help partners determine their goals and then develop a roadmap to achieving them.

Part of this strategy also includes offering relevant training in flexible ways. Rather than simply hosting live webinars, for instance, the company will record those events and then make them available on-demand or via a podcast for partners to listen to on their own, at a time that's convenient.

"We want to cater to our partners and their time," Babich said. "We want to get the information out and craft impactful stories in different ways."

The company's multilocation blueprint, meanwhile, outlines BullsEye's four-step process to help these enterprises simplify and manage their telecom footprints. BullsEye's mantra for these customers is "consolidate, optimize, contain and evolve."

"This blueprint breaks down how partners can effectively manage and advance multilocation opportunities," Babich said. "It is really popular with our partners, even among the veterans. As it helps them navigate through the sale with confidence."

He added, "Typically, large enterprises don't have a good handle on their inventory. So there's a lot of potential waste – which is a powerful starting point for us to make an impact. From there we can discuss a strategy for moving from POTS lines; and there are a lot of huge customers out there with store locations still on POTS."

The problem, of course, is that POTS lines are rising in cost, and they could be shut down by the LEC, continued Babich. "These customers have the opportunity to leverage the functionality of VoIP to combat this situation. We present them with a strategy to evolve to this capability. Through our VoIP solution, we offer a great product based on our owned-and-operated soft switch."

BullsEye also will manage the installation and perform a VoIP-readiness test to support optimal performance and generally mitigate any billing and operational issues that may sometimes be a potential concern of having lost a carrier.

As the company remains steady in its focus on the channel and its continued growth, Babich sees great untapped potential in the non-traditional agent space.

"Our multilocation blueprint strategy has started to resonate well with more value-added resellers (VARs) and managed services providers (MSPs), helping them achieve greater penetration in their existing base," said Babich. "We're focused on the future while enhancing what we have, with fresh leadership."

To allow for the different partner business models represented in the program, participants can choose from three compensation profiles, on a deal-by-deal basis: gaining commission upfront, in a residual program or a mix of the two.

"Our partners are the soul of what we do," Babich said. "I could not be more excited to see where things go, as we continue to grow and be the ideal partner for multilocation businesses." ❑

GET VISION

1. CV Media Kit 2017
2. Online Banners
3. Webinars
4. Blogs
5. CV at Telecom Shows in 2017
6. Email Blasts
7. VSA Awards
8. CVx show
9. Digital/Flip Books
10. Newsletters
11. Company Profiles
12. Sponsorships - CVx, Newsletters
13. Enhanced Listings
14. Show Dailies / Show Guides

www.channelvisionmag.com
channelvision@bekapublishing.com
480-503-0770

(Continued from page 22)

customer premises that are controlled centrally. SD-WAN solutions can detect and compensate for issues such as packet loss and latency, but its decisions are made by intelligence on the edge. It can automatically choose the best path among all available paths, and if a connection is showing packet loss, jitter or delay, it can choose another path or avoid that one altogether. That's not the same as ensuring quality of service across the entire route on a best-effort-based broadband link. So it's likely corporate network managers will choose to keep a MPLS link in parallel with their broadband for more-sensitive, real-time traffic (voice, video), as many SD-WAN providers recommend.

Of course, there is still the opportunity to lower overall cost of network ownership through better utilization of resources. So it would be wise for network pros to understand the benefits of increased flexibility, simplified management and improved security that SD-WAN solutions afford. As networks sprawl across multiple data links, devices and remote employees, it's no surprise there is exciting about a development that centralizes network control and operations.

All the while, SD-WAN certainly can, and will, lower the dependency on a given access technology and, one could argue, "private" links in general. Buyers will likely use it that way. We're just not so sure, as yet, that SD-WAN replaces the need for any of them. ❑

Star2Star COMMUNICATIONS

WIN

A Race In Your Dream Car

The Ultimate Exotic Car Weekend For Two Awaits You In Las Vegas!

Stop by our booth to get a picture with a real Lamborghini Gallardo and for a chance to take it out on the track!

We're satisfying your need for speed with a chance to win an exclusive racecar experience for two in Las Vegas! Your victory package includes hotel, airfare, and a $500 American Express gift card.

Zoom Over To Booth #529

Tag your photos with #Star2Star and we'll share them!

Star2StarCommunications @Star2Star Star2Star-Communications-LLC

powernet®

Enabling you to connect®

Certified WBENC Women's Business Enterprise

Any location, all their needs, one provider.

Our elite MDU offering has you covered from low-voltage to telco, to IT Managed Services.

Find new earning opportunities with key clients & room for growth.

Contact:
powerplay@powernetco.com or
call 844.725.4606 to learn more.

DIRECTV
AUTHORIZED DEALER

Voice • Data • Wi-Fi • IT Managed Services | powernetco.com

8805 Governors Hill Drive Suite 250 Cincinnati, OH 45249 | 877.884.6342