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In Conversation

In Conversation with Simon Pamplin

Carol Baker

SD-WAN is a fast moving industry. Established in 2004, Silver Peak (https://www.silver-peak.com) is leading the pack. We talked to the Silver Peak, EMEA technical sales director, Simon Pamplin to find out what makes Silver Peak stand out from the crowd.

***Simon Pamlin** is the EMEA Technical Sales Director for Silver Peak (https://www.silver-peak.com/) and a regular speaker at events on topics ranging from the latest storage technologies and server virtualization to the current shift in data networking towards SD-WAN.*

With over 20 years' experience in enterprise IT Simon is an expert in SD-WAN, IP, Storage, Data Centre and SDN technologies and is driven by the new technologies and the business benefits they can bring.

Simon is experience in working across many countries and cultures within EMEA and Russia in multiple verticals.

Simon puts Silver Peak's success down to "Building a better WAN" - High performance, security, application visibility and flexibility of connection type = the most complete SD-WAN solution on the market and Gartner agrees.

Q: Background on Silver Peak and what your offering better?

A: Way back in 2004, our CEO/CTO/Founder, David Hughes decided that the only way to control traffic on a network was with software – and only if you controlled both ends of the connection.

This meant that for the first ten years of Silver Peak we operated in the WAN optimisation market – but as a software capability – as opposed to competitors, that were producing hardware boxes to do WAN acceleration.

Over this time, we have developed and filed more than 50 patents focused on technologies that optimise sending applications traffic from point 'A' to point 'B' over the worst performing transport links in the most efficient and high performing manner.

In early 2015, industry analysts such as Gartner and IDC coined the term Software-Defined Wide Area Network (SD-WAN). They also decided that in the future software engineers would be moving into virtualisation, and virtual servers, and they began analysing how to the network could be virtualised, also working to define the substantial benefits that could be realised.

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In layman's terms, they basically said that if you take a network connection and automate some of the characteristics, put an orchestration layer on top of it to give a single plane of management – it could be called SD-WAN.

We realised very quickly that what they were talking about was a software platform that we had already been working to deliver for the previous ten years. As we looked at our technologies that we had been developing in WAN optimisation, we realised that we needed to put in place an orchestration layer on top of that, add a few more automation pieces, and then we would have a very strong SD-WAN platform offering. So, in 2015 we launched a new edge platform which we refer to as Unity EdgeConnect™ – and that is our SD-WAN solution.

Now because we had spent the previous ten years plus specialising in WAN optimisation and we were granted over 50 patents around how you deal with poorly performing network circuits, we were able to build our SD-WAN edge platform on top of the technologies we had already built over the prior ten years.

Even though this is a very new part of the market with lots of new start-ups that have just developed basic front-end capabilities, our software had been under development for over ten years with thousands of successful customer deployments in the field.

This means we have a very different philosophy around SD-WAN compared to most of our competitors. If you ask 100 people what SD-WAN means, you would likely hear a 100 different answers.

For us the SD in SD-WAN is not software-defined – it is self-driving. We are very strong on the idea that the network should be driven by top down business intent and that it should learn and adapts to changing network and application requirements in an intelligent and automated manner to deliver the highest quality of experience to end users and IT organisations simultaneously. Today, Silver Peak delivers a software platform that powers a self-driving wide area network, so IT leaders can tell the network what the business wants, then use automation and machine learning to just make it work.

Therefore, we talk about a business-driven network architecture, and that is very obvious when you see our platform – it is all around application SLAs, and covers how a business wants an application to function, how they want it to react in the event if a network link goes down to ensure that the end user has the best possible quality of experience, for instance, by not seeing any interruption in the service, and therefore their productivity.

We are driving huge amounts of automation, and a massive amount of intelligence into our SD-WAN edge platform so that the end user basically sees perfectly functioning applications irrespective of what is happening under the covers. This is what really sets Silver Peak apart from any other competitor in the industry.

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Q: How important to do think the role of SD-WAN is in digital transformation?

A: SD-WAN is fundamental. In the future, we will not be talking about SD-WAN – it simply be how Wide Area Networks (WANs) will be built. They will be software-defined/self-driving wide area networks.

The catalyst for change is that applications which were once hosted exclusively in the data centre are now hosted in multiple locations including multi-cloud deployments – so there is no longer a requirement that all applications traffic be backhauled through a data centre, and there is no longer a fixed configuration from a remote user coming to a data centre to run an application.

However, some applications might still reside in a data centre, or in a remote branch, although it is more than likely that they reside in one of many cloud infrastructures anywhere on the globe. This dynamic change in the market, and the way that you can react to those changes quick enough, will be in software.

If you define something in hardware, it is fixed. You can't change it – its done. Those days are over. This is a fundamental change in the way that we architect and build networks.

If you look at people who are building networks with physical hardware now, they are still designing it in the same way they did back in the 1980s. Whereas everybody in business has since moved on to the 21st century. So, it no longer makes business sense to rely on 1980s technology to address the requirements of the 21st century user.

The software-defined component is the only way organisations can be agile enough and react to change quickly enough to deliver the applications and services that users expect in today's digital world.

Q: What are the primary trends we can expect to see in the SD-WAN?

A: The cloud aspect is obviously critical, because when you go and talk to every customer, they all have a cloud strategy which is absolutely perfect – so they all understand the benefits of cloud.

However, there is one main criterion that Silver Peak is ahead in at the moment – our Unity EdgeConnect™ SD-WAN edge platform has been tested and certified for deployment in Amazon Cloud, Azure for Microsoft, Oracle Cloud, and in Google Cloud. Being certified in these four leading public cloud environments is a first for the industry.

This is likely to change as the competitors catch up with us, but for now we have the widest cloud ecosystem in the industry, enabling customers to

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maintain a consistent network architecture across their network, extending to their public cloud instances.

Now the concept of multi-cloud to us is that it doesn't really matter which cloud you are in, we are certified in all of them. You can deploy our solution within any cloud instance and receive all of the benefits of SD-WAN inside the cloud data centres as well as remotely.

There is probably, one nasty, often overlooked hidden secret with cloud is that it is virtually free to put data into cloud, however you are charged a lot to access and retrieve that data.

For instance, we have had customers who have gone 100 percent cloud, including all of their data backups. Now they thought that this was a great idea that the data backups were going on this big cloud architecture that ultimately appeared free of charge. However, what they didn't factor in is how much it was going to cost them in the event they needed to do a restore.

Now if you can deploy the Silver Peak platform into that cloud you can use our unified WAN optimisation capabilities to de-dupe and reduce the amount of data coming back out of the cloud whilst still achieving the same restore. But, because you have reduced the physical amount of data coming out of the cloud, you have also reduced your costs as well.

So, by deploying Silver Peak you can reduce your costs as you move into the cloud, as well as accelerate the traffic through the cloud to deliver the highest quality of experience to users and IT organisations alike. None of our competitors are able to do this – and this also sets us apart from the pack.

Q: Silver Peak works across a range of industry sectors – are there any industries where the challenges are particular pertinent to that industry or is there just common needs or challenges across all sectors?

A: From my perspective being in pre-sales the lovely thing is that for SD-WAN it is applicable to anyone who has multiple geographically distributed locations.

There really is no one vertical that stands out. We have customers in financial services, legal, construction, retail, government, public sector and so on. Every single vertical that has multiple locations has a requirement for SD-WAN going forward.

The great thing is that with more than 1,000 production customer deployments to date, we can click every industry sector, and we can solve problems for customers of multiple verticals.

The whole concept of SD-WAN is to make networking simple, agile and much easier for a business to understand and deploy.

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Q: Can you tell our readers more about how the SilverPeak Unity EdgeConnect SD-WAN edge platform can be used by enterprises?

A: The Silver Peak Unity EdgeConnect™ SD-WAN platform is designed to liberate organisations from the limitations of conventional network approaches by shifting to a business-first networking model. EdgeConnect replaces routers by unifying SD-WAN, firewall, segmentation, routing, WAN optimisation and application visibility and control in a single centrally managed software platform. EdgeConnect continuously learns and adapts to meet the requirements of the business, delivering the highest quality of experience to enterprise users and IT organisations.

A company's existing network infrastructure could be an existing private network, MPLS, or it could be just be the public internet. For example, I have a Silver Peak appliance at home plugged into my home broadband which connects me to the Silver Peak engineering global network. It is as simple as that. It has an ethernet connection to a network, it will find its other end point and build a network connection to it building a fully encrypted managed automated network that is very simple to deploy.

Now the benefit for enterprises is that – coming back to the 50 plus patents that we have had for the last 10 to 12 years – we have the ability to use any type of network connectivity as long as it is presented to us as ethernet. That means organisations have complete flexibility to use any combination of WAN transport to connect users to applications, including MPLS, broadband, home broadband, 4G LTE, etc.

If you think about the cost of your home broadband you are talking about paying around £20 per month for a 100Mb connection. If you translate that into an MPLS circuit that might be £2k, £5k, £8k per month for the same capacity, so the price differential to enterprises can be quite dramatic.

Now, because of the 50 plus patents that Silver Peak has on how to turn badly performing network connections into nice clean private circuit looking connections, companies have the ability to run their applications at the same level and at better quality, over a much lower cost network link, with the same level of resilience, and at a lower cost. This is a huge benefit to businesses and one of the key benefits of deploying an SD-WAN.

For enterprises, it gives them options of choice. They don't have to go to the same service provider that they have gone to for decades, they now have options. Maybe there are areas in the world where they couldn't get private circuits, or they couldn't trade. With SD-WAN they can use 4G LTE, broadband, private circuits (such as a customer's own satellite links into North Africa for example), in any of those combinations and provide a secure encrypted high performance network connection that can be centrally managed through a single orchestration layer so that the amount of cost to deploy a network, and manage to maintain a network is dramatically reduced with SD-WAN compared with the costs of traditional armies of network


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engineers having to go to every site to execute manual command line configurations.

This is not what gets done with SD-WAN. It is centrally managed. Policies around business applications are defined and then pushed out to remote devices which then build the global networks to build those applications.

Q: Are there still a lot of legacy systems around?

A: I have been at Silver Peak for nearly three years, and I probably spent the first year to 18 months evangelising the concept of SD-WAN which was at the very early adoption stage when I joined.

At that time, there were smaller companies that would be willing to do the leading edge type technology, whilst larger organisations kept a watch and brief on things. That has all completely changed now and we have global organisations with many tens of thousands of employees who are deploying SD-WAN on mass.

When you get to the bigger organisations you do get the larger legacy applications. That is fine and that is OK, but it's when you come to how do you direct that legacy traffic in the most effective way over an SD-WAN that you then need to be able to identify and classify this traffic as legacy applications.

Silver Peak is again unique in that way as we have a user-defined capability where we can effectively identify the legacy application on the very first data packet and automatically steer it accordingly, determining whether it needs to go over an MPLS circuit because it is a business-critical application, or whether it can be sent across a 4G LTE or broadband link because it needs huge bandwidth but we are not worried about any SLA on the circuit.

We are one of the only (if not the only) SD-WAN provider that is able to deal with legacy applications as well as all of the well known cloud based applications such as Office365, and Skype for Business, Sales Force, etc etc.

Q: The IT industry is suffering a skill storage at the moment. Do you think that SD-WANs can help overcome this?

A: Yes. This is a question that comes up a lot and is one that a network professional who has spent many years and many thousands of dollars to be trained up and certified at the highest level, is most concerned about.

It is more a case of how do you use those skillsets of the highly-trained network professional more effectively? Do you really want your highly training engineers to be called out at 4:00 a.m. to go and make a manual command

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line change in a remote piece of equipment, or would you like them to deploy their skillset on architecting the bigger picture for a business?

Whilst SD-WAN does take away the complexity of networking, because we have effectively taken all of the knowledge and skills of a large group of networking professionals and put their intelligence into our software, it means that those network professionals are still required because you will always need those skills to architect the bigger picture.

What you no longer need is an army of certified network professionals to go and do the menial small command line activities, or execute large command line activities that are very laborious and take a long time or are subject to human error through the amount of command lines that have to be entered across each and every site.

Within Silver Peak you do not use any command lines activity to deploy the SD-WAN because our software builds the network for you.

My answer when I am usually confronted by a certified networking engineer is what SD-WAN does is makes their future career much more interesting as we are taking away the mundane day-to-day activities, and we are freeing up their time to work on much more interesting architectural activities.

Q: How can Silver Peak help service providers bring new differentiated, tiered managed SD-WAN services to market quickly?

A: We have a Tier 1 service provider offering that has a separate dedicated team to run with the Tier1 service providers.

Generally, what we are seeing that is quite interesting in the industry – the rise of the reseller converting into small managed service providers. In addition, we have seen a reduction in what I would consider the Tier 1 service provider moving back down into SMB areas.

The challenge for the service provider is that they have a vested interest in the network that they have spent many years investing in, creating, maintaining and managing – and what they are finding is that customers are now looking for (as always) a lower cost alternative but they haven't been able to offer it because they have invested into their own network exclusively.

What we do with SD-WAN is that we say to customers we can help you augment your MPLS service from your service provider with another type of activity. So rather than going to your customer and saying you have to upgrade your MPLS to this bigger MPLS and here is the price tag, we can say you can keep your nice highly performing SLA drive MPLS circuits, but if you need more bandwidth we can add some domestic broadband to that, and we may be able to use 4G LTE as a fail over component of that as well.

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What that has done is to allow service providers to open up completely new markets they couldn't access before because they had a different offering. So, the concept of hybrid networking, with a mixture of private and public connectivity, has opened up new markets for service providers which is getting a lot of interest from not only the Tier 1 providers but also the Tier 2 and Tier 3 providers that realise that with SD-WAN we have helped them open up new markets, and we have shown them how add extra benefits of value to their existing networks, as well as offering new capabilities as part of the same solution – so it is a big win/win for service providers.

Q: Does Silver Peak have any new products launches coming up?

A: The nice thing about Silver Peak is that we have an agile development methodology and we bring out new features and functionality on a very regular basis.

We are exclusively focused on SD-WAN and SD-WAN only. That is our only product and that is what we focus on – and we are extremely good at it.

For next generation firewalls or other cloud-based activities we have a robust technology alliance ecosystem with best-in-class partners in those areas, and we support a technology capability called service chaining so that we can seamlessly link the two capabilities together. This benefits the end customer in that they can maximise existing infrastructure investments as they transition to SD-WAN. If they have a preferred next generation firewall vendor then we are happy to work with that, and they get the leading SD-WAN platform working seamlessly with it. So, it is our strategy and our approach to see a large number of new releases and capabilities going forward – we are constantly agile in development.

Q: Is there anything else you would like to cover?

A: For your readers of **IT for CEOs & CFOs**, the thing to take away is the differentiator going forward with SD-WAN is how intelligent and how automated the solution is because that is what differentiates Silver Peak from the rest of the crowd.

We are proud to be named a Leader in the new Gartner Magic Quadrant for WAN Infrastructure and believe it's a direct reflection of the confidence more than 1,000 forward thinking enterprise customers have placed in Silver Peak in the three years since bringing our Unity EdgeConnect™ SD-WAN edge platform to market.

Simon will be presenting at IPEXPO on 9-10 October 2019 for more details see https://ipexpoeurope.com/europe/en/node/person-simon-pamplin