Beyond the SD-WAN Buzz:

Go-To-Market Considerations for Digital Service Providers

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An NEC Company

Many communications service providers (CSPs) see SD-WAN services as an essential part of their enterprise catalog, driven both by a clear business case and a strong market appetite. In fact, SD-WAN is seen as one of the top services for new revenue in the enterprise market[1]. But going from product blueprint to a commercial service offering is no small feat, particularly when adopting SDN/NFV principles in an industry so defined by proprietary hardware and software.

SD-WAN has compelling economical and operational benefits for both operators and business customers. In addition to a new revenue source, there are significant gains in operational efficiencies (powered by centralized control) that will directly impact OPEX. For enterprises, there's highly flexible and feature-rich connectivity, between sites and the cloud, with self-control and visibility of all their services.

But like any new product launch, the devil is in the detail. This is particularly true for larger CSPs who have often grown via acquisitions and market consolidation, which usually results in intricate processes as well as complex network and technology integrations. CSPs also have regional organization structures that can be very independent from each other, making the national launch of new, disrupting products extremely challenging.

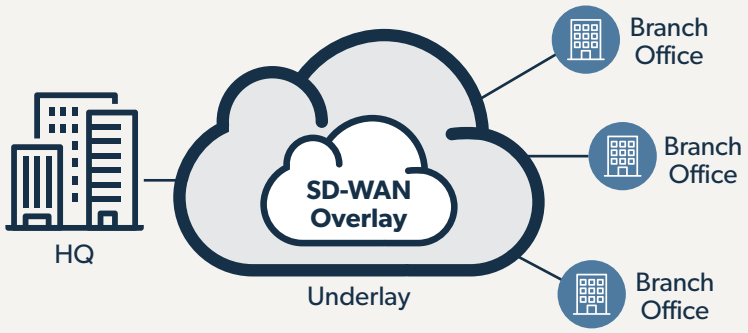
To get beyond the SD-WAN market buzz, Netcracker has put together some key considerations, based on our commercial deployment experiences, to help CSPs navigate the steps to commercialization in the fastest and most efficient way. We have framed this paper around the following criteria:

1. **Sales Enablement** - You can sell it
2. **Service Delivery** - You can activate and bill it
3. **Customer Care** - You can support it

But before we get started, here are the definitions of two terms we will reference frequently:

- **Underlay:** Represents the inter-site connection. For SD-WAN, CSPs would usually leverage the internet or MPLS using their existing fiber network infrastructure (on-net), or through external network access points (off-net)
- **Overlay:** Represents the service that uses the underlay connection to establish IP-based, secure VPN tunnels between sites or locations, as well as to provide access to the SD-WAN controller

Figure 1 – SD-WAN Service Topology



[1] SDN/NFV Pulse of the Industry: Commercial Realities - A Heavy Reading white paper produced for Netcracker (Jan2019)

1 Sales Enablement

SD-WAN introduces a host of new networking concepts and operational considerations that will impact how CSPs manage leads, opportunities, and quotes. Therefore, besides an appealing marketing campaign, it's crucial to take time to thoroughly define the SD-WAN product specifications: offers, features, price, discounts; and most importantly, what customer segments are they targeting. Flexibility and early and continuous education are key to preparing your sales organization.

Identify Target Segments

In a recent Heavy Reading global survey, when asked about the top business challenges being faced with the launch of virtualized products, the most popular response was a lack of knowledge on how to market SDN/NFV services to their customers. This shows the importance of comprehensive product development. Selecting and architecting the technology is essential, but so is defining a detailed product plan with a well-known target market, and the need it is trying to address.

SD-WAN is a commercial product, however, commercial products can be marketed to one or more segments. The demarcation between SMB and mid-market could be subtle; some CSPs base it on revenue, others on number of locations or number of employees. SD-WAN can complicate things.

Referring back to the underlay connectivity layer in SD-WAN, this can either be pre-existing(current customers with some type of underlay service) or completely new for new customers or new locations. The over-the-top nature of SD-WAN can generate interest from existing customers to add an overlay to an active underlay instance. Outline all relevant service use cases early on and discuss with your marketing organization.

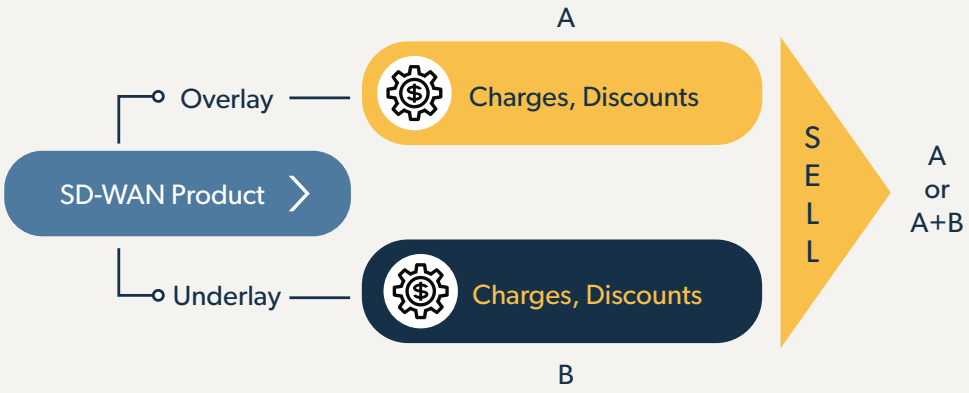
Modularize Your Product

Creating offers for overlay + underlay, as well as just overlay, adds extra flexibility that minimizes customer experience disruptions and broadens the range of potential customers your sales workforce can target for upselling.

For example, let's take a typical SMB customer: SportsCo, a small sports bar chain in New Jersey with 5 locations. For each location, SportsCo has purchased a triple play bundle from WireCo, and as expected with bundles, these services come paired with discounts. SportsCo is interested in managing its network security through the firewall features offered by WireCo's SD-WAN product, and use their existing broadband as the underlay. By now, SportsCo is used to paying a reduced price for their broadband service.

However, WireCo priced their SD-WAN offering combining both overlay and underlay. From a product catalog perspective, this could represent a conflict with SportsCo's installed base: what happens with the long standing triple-play discount on the pre-existing product? Should WireCo break the contract to give way to SD-WAN? And as a result, should they charge the customer more for the broadband connection? How would the customer react?

Figure 2 – Modularize Your Product



Take Care of Sales Engineers

Timely and continuous communications about new products applies to everyone in a sales organization. But in the case of SD-WAN, sales engineers stand out. They need to translate and explain SD-WAN technical specifications and capabilities to customers and how this product can address their particular needs.

As such, they need to understand the SD-WAN product as well as the technology behind it. Sales engineers usually guide customers through a high level design that captures service specifications and sets the expectations on the downstream ordering experience.

Prior to the arrival of SD-WAN, sales engineer focused mostly on Ethernet or MPLS-related services and topologies. Setting the record straight about where SD-WAN fits is the first step.

For example, a common misperception in a CSP sales organization is that SD-WAN could cannibalize their existing physical networking products. On the contrary, it adds flexibility and scalability thorough diverse underlay types and sophisticated traffic steering. Plus, SD-WAN is a feature-rich service that provides out-of-the-box functionality in key areas like traffic management, high availability, and security. Sales engineers need to understand this well to embrace and champion the product.

Outline Serviceable Use Cases

Dependent on a CSP's interpretations of the SD-WAN product based on the technology they choose, whether they use a 'thin' or 'thick' uCPE, or how they decide to market it. Having a clear set of enterprise use cases or service scenarios is a fundamental step in defining the necessary guardrails to enable a smooth transition into service delivery and to successfully place and activate an SD-WAN order.

For example, aside from the service description and technical specifications, who do you want to sell SD-WAN to? There is a strong case to make for SD-WAN when a customer has a large number of sites, say more than 10. But does it make business sense to sell to customers with less than that? How about 1 site?

Joe, a sales engineer at WireCo has a lead on a single site business that's looking to improve their Internet and VoIP service. There is not much routing to manage that could improve the Internet service, but Joe knows about the additional features included with WireCo's SD-WAN offering, which includes QoS. This can be a selling point, as it could improve VoIP quality. However, after closing the deal, Joe has his sales order rejected because WireCo's SD-WAN expects 2 or more sites. Joe now has to have an uncomfortable conversation with his customer, who may now explore other service providers.

A comprehensive communication plan should be developed and initiated early on in the program. Roadshows, newsletters, periodic calls (i.e. by groups, regions, segments), all are valid mechanisms to increase use case awareness and introduce all the key messages and concepts. Training, as a separate phase in the program, should represent a transition to a product and concepts that are already known, rather than introduced for the first time.

2 Service Delivery

Service Delivery can be a complex set of processes in itself. Add SD-WAN's underlay and overlay concepts into the mix, and things get more interesting.

The CSP market has grown and consolidated via many acquisitions over the years. This has translated into diverse technology and process ecosystems that can vary regionally, or when compared to services or accounts managed at the regional vs. national level.

SD-WAN is the perfect product example where the CSP's ability to manage this operational diversity is tested. As mentioned before, most CSPs have organizational structures based in geographical entities (i.e. regions, markets, divisions), and so there might be systems and processes that are more federated/localized, while others are central and managed from HQ.

Embrace Process Engineering

Under this operational diversity, the dots across people, process and systems need to be connected more than ever before.

Customer segments are a big driver. The larger the customer – and geographically disperse – the more centralized the processes to serve them. To successfully provision, activate and bill SD-WAN, CSPs may find themselves having to connect national with regional systems and processes in ways they have not done before, requiring close coordination and collaboration between national and regional teams.

The underlay transport is usually well known, already associated with pre-existing products, processes and systems, while the overlay is new.

This separation should be analyzed early and thoroughly, so the overlay-underlay integration strategy that best suits the business' needs can be identified and documented. Manual process reengineering? Systems integration? Both?

One Customer, One Bill

Billing is one system that may be regional or service specific. It's also not uncommon to have more than one billing solution depending on the market, particularly common in multinational wireless operators. Being regional makes sense for billers, as they need to understand and process fees, taxes and offers that often vary by country, city or state.

When you introduce an overlay, CSPs need to ensure their customers are getting one consolidated bill for their SD-WAN service. As obvious as it sounds, if these national vs. regional disparities apply to your business, these could result in different billing systems for the overlay and underlay. If the proper corrections are not in place to bridge these two, customers could end up with multiple invoices, creating confusion and frustration.

For example, although WireCo has one enterprise-wide system to support sales and quoting, it has different ordering and billing solutions depending on the type of customer: one set of tools for SMB and another for mid-market and enterprise.

SportsCo grows their business and opens a new location in New York. It would like to add this new location to their network and places an order to expand their SD-WAN service to include it, this time with a new broadband Internet instance as the underlay.

WireCo would need to process two main service order components: one for the SD-WAN overlay and another one for the broadband underlay. The overlay has its orders routed through the mid-market/enterprise national systems, but the broadband service order goes through the SMB regional systems. Although SD-WAN is one product, its ordering gets split into two separate workflows, each one ending on a different billing setup. Without WireCo identifying the meeting points to consolidate, SportsCo receives two invoices: one charging for SD-WAN and one for the broadband, even though from the customer's perspective they bought one product.

Be Thorough

It doesn't stop with billing. Other examples of service delivery areas that may require in-depth analysis and reengineering are:

- **Hand-off between sales orders to service orders** – unless order flow-through is in place, a manual hand-off would need to occur between sales and operations to break down and submit one or more service orders. To streamline, have a clear list of SD-WAN order prerequisites, as well as a way to validate that your quote is aligned with your high level design. This will help prevent order rejections and changes that could delay revenue projections.
- **Supply Chain** – if a hardware appliance (i.e. uCPE) is part of your SD-WAN solution, where you store them – regional or national warehouses – can have implications on how these appliances are staged and installed by a technician.
- **Install Technician Workforce Management** – a new set of special skills may need to be configured in your dispatching tool to map technicians familiar with the SD-WAN overlay. Once ready to activate and verify service, technicians may need timely support from engineering or other teams to connect, verify and troubleshoot the SD-WAN service.

Figure 3 – One Customer, One Bill

3 Customer Care

The same operational diversity principles carry over the processes and rules needed to effectively support SD-WAN once it is an active service. CSPs would then have CSRs and tools very familiar with the underlay technologies and services, but inexperienced about the characteristics of SD-WAN as an overlay service, and how it can interact with multiple types of underlay.

Mature/stable underlay troubleshooting guides and ticket management processes would need to be updated to be able to guide calls and escalations through the different support levels, should a call be related to an SD-WAN problem or question.

Depending on their serviceable footprint, CSPs can embark in a significant effort to educate and enable a large—usually geographically distributed—care workforce to identify, understand and troubleshoot potential issues on the new overlay service and technology.

Grow with the Business

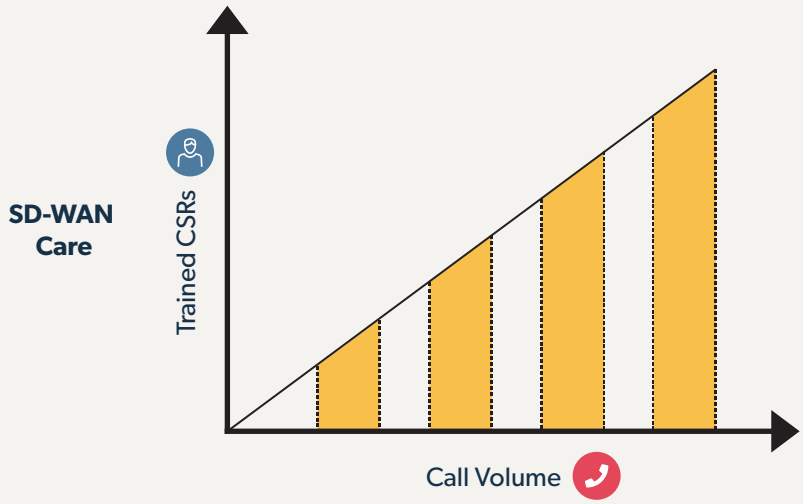
Keep in mind, CSPs already have care agents ready to support half the SD-WAN service solution. The questions, issues, and processes for the underlay would remain essentially unchanged.

This fact, together with typical SD-WAN sales and ordering intervals taking 30 to 90 days, give organizations some extra room to prepare and adjust, even after the service goes live. This by no means is trying to imply that process engineering and training content development should be postponed for care when compared to other organizations and roles, but rather highlight a timing advantage that can be used to refine these activities based on the learnings from upstream teams, and to invest smartly in hiring or training personnel as your volumes grow. This makes it even more important to be able to identify your SD-WAN customers quickly and route them through either an

underlay or an overlay troubleshooting experience. For the latter, options can include an interim SD-WAN 'task force' that combines L1/L2 responsibilities with direct access to product engineering resources to assist before an issue moves up to L3/L4.

As SD-WAN activations increase, and with it call volumes, the size of this taskforce can be increased as needed while transferring some of the experience and knowledge to L1 care agents. Over time, process and knowledge maturity will allow organizations to clearly demarcate L1 from L2 (and size them accordingly), while becoming less dependent on engineering, who can then really focus on L3/L4 type of problems, making a more efficient use of their time and expertise.

Figure 4 – Grow Your Care Organization along with Your Business



4 Preparing for a Successful SD-WAN Launch

Netcracker's approach is to help each customer prepare for the changes introduced by SDN/NFV services in a comprehensive way based on current operational settings and future goals. We enable this journey by leveraging both our professional services and our technology solutions.

Our Netcracker Business Cloud solution, commercially deployed with many service providers globally, can enable successful Sales Enablement and Service Delivery transformations, enabling CSPs to:

- **Deploy SD-WAN in a shorter timeframe** based on our strong ecosystem of pre-integrated partners and extensive deployment experience
- **Expand SD-WAN offers to include multiple SD-WAN and value added services (VAS) vendors** using our service and network orchestration to automate onboarding and lifecycle management
- **Differentiate SD-WAN offers with a digital user experience through our advanced BSS solutions**, giving enterprises the control and visualization from a single GUI and bundling in SaaS and IoT service offerings from a digital marketplace
- **Enable flexible deployment models**, including a hosted/managed cloud service and multicloud to more efficiently use public and private cloud resources

Netcracker Business Cloud is based on a modular cloud native stack with a microservices architecture that is open and fully standards based. Our focus is on reducing time-to-market, simplified operations and scaling multivendor applications.

We also help our customers with a portfolio of professional services to overcome the commercial, operational and organizational challenges faced during Go-To-Market (GTM) initiatives. Leveraging our rich experience and deep knowledge in telecom, we provide a GTM Framework that covers all key commercial and operational pillars including consulting on market offers as well as assistance with sales training, creation of marketing and sales collaterals and execution of customer trials. Our goal is to ensure your business readiness is achieved before a new product is launched.

For more information on Netcracker Business Cloud, please contact sales@netcracker.com today.

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