REPORT REPRINT

Cradlepoint packages up products and pricing, and aims for software-defined branch

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22 JAN 2018

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THE 451 TAKE

Cradlepoint is betting that the WAN and SD-WAN markets will be wireless WANs in as little as three years, given the emergence of LTE-Advanced and 5G cellular technologies, and the growth of wirelessly connected IoT devices and M2M communications. The software-defined branch strategy is consistent with the broadening applicability of SD-WAN into network automation and orchestration, and will serve as a building block toward the wireless WAN. The software pricing model and product packages are also consistent with where the industry is heading in 'as a service' consumption, and should result in more opportunities for Cradlepoint and stickier customer and partner traction. The company's challenge will be to build mindshare among enterprises that have already witnessed success among their peers in stitching together SD-WAN and branch network-as-a-service offerings from Cradlepoint and its competitors, chiefly Meraki.

CONTEXT

SD-WAN is a natural extension of datacenter SDN, and a necessary element in connecting enterprises to the cloud. SD-WAN employs a compelling use of SDN in the enterprise WAN by making a static, rigid, 20-year-old, cloud-unfriendly architecture more nimble and agile, dynamic, and easier and less expensive to operate through software. The market is attracting meaningful attention not only from SD-WAN vendors, but from network operators looking to offer managed SD-WAN services as a means to ensure a consistent experience from the datacenter to the cloud through the branch office, and as a follow-on to legacy but lucrative MPLS services.

451 Research expects the market for SD-WAN products and services to grow at a 25% CAGR between 2015 and 2021. As SD-WAN traction accelerated in 2017, another broader use case became apparent. Although it loosens up the WAN and chains in virtual services such as firewalls and WAN optimization, the virtualization, orchestration and automation enablement of SD-WAN software can be applied across the branch LAN network as well. So the potential opportunity for SD-WAN is much more profound than exists in the enterprise WAN alone.

SD-WAN can usher in the cloud-managed virtual branch – orchestrating and automating the branch office through SDN in a way that dovetails and integrates with datacenter network and IT application and security policy definition and enforcement. This was one of the synergies noted by Cisco and VMware in their respective acquisitions of Viptela and VeloCloud in 2017.

The opportunity for SD-WAN vendors is twofold. First, they can offer enterprises a way to extend application and security policies from the datacenter to the branch office, then into the cloud. They can then provide this capability as a platform for service providers, on which to base a new generation of managed services for enterprises.

Cradlepoint is a privately held company founded in 2006 to provide 4G LTE WAN connectivity – including carrier-certified CPE and cloud management – for fixed, mobile and M2M/IoT networks. It offers a cellular LTE alternative for enterprise connectivity targeted at branch offices, PoS retailers, vehicle fleets, kiosks, digital signage and video cameras.

Although Cradlepoint is best known as a provider of mobile routers and gateways that leverage 4G/LTE and cloud-delivered network services, it expanded into SD-WAN with its December 2015 acquisition of Pertino Networks. The company has subsequently developed NetCloud – its cloud-delivered services offering that connects the company's edge gateways and routers; end-user devices running Windows, Linux, Android or iOS; and third-party routers and computers running the NetCloud client software.

These devices connect to an overlay network with integrated security, management and analytics, which in turn connects to third-party applications via an app gateway. Based in Boise, Idaho, Cradlepoint has approximately 550 employees. Cradlepoint has over 20,000 customers and two million offerings installed worldwide. It says its business has grown in excess of 40% CAGR consecutively over the last five years. We estimate annual revenue in excess of $100m. Cradlepoint products are used by nearly 40% of the Fortune 1000, and by every large city government in the US, the company says.

PRODUCTS

New to the Cradlepoint portfolio are the AER2200 router and AP22 access points. The AER2200 is an LTE router for the small branch office that integrates an LTE-Advanced modem for a maximum download throughput of 600Mbps. The AER2200 supports three-carrier aggregation, an LTE-Advanced feature that increases bandwidth and bitrate. It also supports active and dynamic connections for Cradlepoint's policy-based SD-WAN, as well as the company's NetCloud Software-Defined Perimeter (SDP) for secure IoT networking.

SDP integrates with Active Directory to provide identity-based inclusion and a private address space for IoT elements, with policy-based micro-segmentation of users, devices, groups, applications and resources from a NetCloud management interface. The AER2200 is feature-extensible through an SDK and exposed APIs, and cloud manageable from a single console that can manage other Cradlepoint routers, as well as the company's new access points.

Those new AP22 access points are also targeted at small branches with no more than five APs. They support the IEEE 802.11ac Wave 2 standard for gigabit data rates, multiuser multiple input, multiple output (more efficient use of the spectrum for multiple connected devices) and 2.4Ghz and 5Ghz frequencies. The software subscription packs are called NetCloud Solution Packages. They include a tailored product for branch, mobile (in-vehicle networks) and IoT. For the branch, it includes SD-WAN edge routers – including the AER1600, AER3100 and new AER2200 – Cradlepoint's new APs, and LTE failover capabilities.

For mobile, in-vehicle networks, the package contains the IBR900 ruggedized mobile SD-WAN router and GPS capabilities, and for IoT, it includes the company's IBR600B LTE router and associated software. Each Essential NetCloud Solution Package includes full NetCloud software, including NetCloud OS (SD-WAN), NetCloud Manager and NetCloud Perimeter (SDP), purpose-built hardware for the use case (branch, mobility, IoT), a lifetime limited warranty and 24x7 support.

An Advanced version adds NetCloud analytics and BGP routing software. Each solution pack is a single SKU sold on a one-, three- or five-year subscription. Sold separately, Cradlepoint says a branch product would be 12 SKUs. Each package represents a 6-33% savings over three years, vs. acquiring each component within the package separately.

Cradlepoint adopted this model to make it easier for customers to buy – and partners to sell – its products tailored for specific uses case and quickly realize a return. It's intended to improve customer and partner success and stickiness with Cradlepoint, improve market competitiveness, and provide more predictable revenue streams.

COMPETITION

Cradlepoint competes with Cisco and its Meraki and Viptela/IWAN product lines. It also competes with other established and startup companies targeting SD-WANs, including Aryaka, Apcela, Citrix, FatPipe, Gluware, CloudGenix, Talari, Nuage Networks, Huawei, Riverbed, Silver Peak, Cato Networks and VMware/VeloCloud.

Cisco offers cellular WAN interfaces on its branch routers and LTE gateways for IoT applications. Intel offers cellular IoT modems, and a number of companies offer LTE gateways to aggregated device out-of-band management interfaces. Cradlepoint cites Meraki and Sierra Wireless as its most direct competition.

SWOT ANALYSIS

STRENGTHS

Cradlepoint is clearly differentiated in SD-WAN by offering LTE as the primary medium for branch connectivity, instead of a backup link as most competitors position it. Some SD-WAN players don't even offer LTE or cellular as a connectivity option.

WEAKNESSES

An enterprise needing wired WAN connectivity via MPLS, private lines or broadband might look past Cradlepoint's offerings or rely only on LTE as a backup option from competitors. The IoT gateway market is hotly competitive, and more price/margin sensitive than routers.

OPPORTUNITIES

SD-WAN is a red-hot market, and its potential as a foundation for the software-defined branch expands its use case – and revenue prospects – beyond the WAN. IoT is a prime application for wireless WAN.

THREATS

If the wireless WAN does not flourish, companies targeting it as a primary differentiator will face limited prospects and diminished opportunities, and will be relegated to niche applications and use cases.