Cradlepoint delivers all-in-one routing for small branch offices

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Cradlepoint has introduced a new small- and micro-branch-office routing offering that incorporates multiple wireless WAN interfaces, 802.11ac Wave 1 WLAN, cloud provisioning, management and analytics, and integrated unified threat management (UTM). The new platform is in response to the concurrent trends of cloud management; mobility (micro and pop-up offices); remote devices, such as stand-alone kiosks and digital signage (Internet of Things/IoT); and, increasingly, the availability of a separate on-demand LTE network for security.

THE 451 TAKE

LTE cellular data services are broadly available in the United States and Europe, and can provide an on-demand, relatively high-bandwidth link to complement or even replace conventional enterprise branch network technologies, such as MPLS. Cradlepoint has been a pioneer in providing LTE-based network technology, initially as an always-ready backup link, and increasingly as an alternative to a hardwired link, either until a hardwired link has been provisioned or in locations where a wired connection is difficult. We believe that with 'intelligent' WAN systems (virtual or SD), and with continuing improvements in LTE bandwidth and capacity, the potential TAM is expanding nicely. Cisco's recent announcements in this space will make competitive deals harder for smaller Cradlepoint, but will also grow the overall interest in the larger market to Cradlepoint's benefit.

CONTEXT

Cradlepoint has a long history of providing cellular backup routers, which are starting to be used as primary connectivity for temporary offices and stand-alone 'things' (e.g., a car-rental kiosk in an airport). The widespread availability, increasing link speed and increasing capacity of LTE services worldwide are enabling new markets and uses for the company's cellular routers beyond their traditional fixed-line-backup application. LTE reliability and performance have made it a viable 'second line' connection for additional bandwidth when needed, or for specific non-mission-critical applications. More recently, 'application specific parallel networks' for security or overlay WAN connectivity have opened new potential markets to the company.

Virtual wide area networks (vWANs), also known as software-defined WANs (SD-WANs), present a large incremental opportunity for the company. Virtual WANs abstract the physical network connectivity from applications and offer the opportunity to dynamically steer traffic based on application-performance requirements, cost and security needs. Using one or more LTE modems in Cradlepoint routers, enterprises can create on-demand or full-time secondary networks to carry specific application traffic (guest Internet traffic in a bank branch, for example) without traversing the expensive primary leased line in a branch location. This can have the added benefit of keeping secure internal traffic segregated from customer-facing networks (e.g., providing branch-office customer Internet access without routing that traffic through the internal bank network).

The company is also in an excellent position to benefit from recent growing interest in the Internet of Things and the creation of application-specific parallel networks for the connectivity of vending machines, kiosks and digital signage. The connectivity to these 'things' can be 'bursty' and infrequent – an ideal use case for metered LTE connections versus the sunk cost of a monthly leased line. Additionally, these devices are often in areas without wired network connections, such as a digital sign or a stand-alone video-rental kiosk sitting outside of a pharmacy or grocery store, but which are straightforward for cellular data connections.

PRODUCTS

Cradlepoint has introduced the AER3100 router platform. The new platform extends the capabilities of (but does not replace) the existing AER2100 routing platform, but adds important new features and functionality. The new platform offers two 4G LTE modem slots, each of which are capable of holding two SIM cards, for a total of four potential carrier connections per device. This can be leveraged for 'stacking' additional bandwidth as required, as failover in the event of

a single carrier network failure, for 'field swapping' carriers without a truck roll, or to opportunistically arbitrage traffic between different carriers based on cost structure and time of day.

The platform also leverages Cradlepoint's Enterprise Cloud Manager (ECM), originally introduced in 2013, for initial provisioning and ongoing management, removing the need for expensive initial configuration on-premises. ECM also provides the ability for remote upgrades, bandwidth monitoring (useful for data limits for LTE contracts), location services for security, and signal strength and quality. The platform also joins the AER2100 in offering 802.11ac Wave 1 (3x3 MIMO vs. 2x2 on the AER2100) on the LAN interface.

Cradlepoint has a number of security partners that complement the integrated UTM capabilities within the AER3100 router. Its ECM platform can interface to additional security applications, including Zscaler URL filtering and application policy control, and Trend Micro's intrusion-prevention and -detection deep packet inspection.

COMPANY

Cradlepoint was founded in 2006, and is privately held. The 350-employee company has raised five rounds of funding, most recently a $48m round in Q1 2015. CEO George Mulhern came to Cradlepoint in 2011 after more than 20 years at HP, where he was most recently SVP of HP's LaserJet business unit. Cradlepoint sells nearly 100% of its product through the channel, including product that winds up deployed by carriers. The company maintains an external field sales organization with systems engineers and channel account managers, as well as a smaller inside sales organization.

COMPETITION

Cellular WAN interfaces are an orderable option for Cisco routers, and the company has recently released a new line of low-cost LTE gateways for IoT applications. Cisco's increasing focus on IoT will cause Cradlepoint problems in that sector, but the company has effectively competed against Cisco in secondary WAN applications in the past, so the impact of these new Cisco offerings to Cradlepoint is yet unknown. Other mainstream networking vendors also offer cellular interface cards for midrange routers, such as the HP MSR series branch router, but primarily as an out-of-band management interface and not as a backup WAN interface. Intel is a cellular technology supplier, has introduced a cellular IoT modem (2G for geographic coverage), and provides SoCs and reference designs for cellular-connected IoT gateways. There are a number of companies that offer LTE gateways to aggregated device out-of-band management interfaces, such as Opengear.

SWOT ANALYSIS

STRENGTHS
Cradlepoint's focus on a specific section of the market enables it to compete more effectively than larger general-purpose offerings from competitors. The company's impressive installed base and expertise in IoT applications position it well for the anticipated growth in connected devices.

WEAKNESSES
Competitive offerings from larger vendors leverage customers' existing investment in routing platforms, effectively offering LTE connectivity 'as a feature' to a captive port or slot.

OPPORTUNITIES
Widespread LTE deployments enable virtual WAN applications of Cradlepoint's mobile routing offerings that are mostly incremental revenue to the company, if it can execute in the segment.

THREATS
Smaller Cradlepoint is competing against well-heeled incumbent networking companies that can afford to aggressively price products in areas that they want to gain market share, undermining Cradlepoint's core business.