

On the Radar: Peplink

Multi-link WAN load balancing

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Summary

Catalyst

The Internet and the mobile telephone have changed both business-model and user expectations when it comes to being always on and connected. Businesses now operate multiple communication channels from fixed-line multi-protocol label switching (MPLS) to mobile long-term evolution (LTE) technologies such as 4G. The problem is that these are all separated and are not treated as a single connection. If a service connected via MPLS goes down while the 4G network is active, it cannot just reconnect on the active channel. Peplink has developed a solution to enable all WAN links to be available to all services in order to improve connectivity and reliability.

Key messages

- Peplink can be used as part of an MPLS replacement and augmentation strategy.
- Peplink operates on a “lowest latency first” principle when selecting the link to use when operating in a multi-link mode.
- The solution can be used as part of a hot failover capability in disaster recovery (DR) situations.
- Peplink provides two main offerings: the Velocity series for the consumer and small office/home office (SOHO), and the Blue Chip series for enterprises.
- Peplink works on 4G, 3G, MPLS, very small aperture terminal (VSAT), and asymmetric digital subscriber line (ADSL) links.

Ovum view

The network is the last “black hole”, where resources and how they are allocated remain hidden from the user and the IT department alike. Ovum believes that the utilization of the many different WAN links used by organizations remains an area into which few have visibility, mainly because of the cost and complexity of the tools required. However, the network, and WAN specifically, represents an opportunity for organizations to utilize these links more effectively and even reduce the cost associated with providing WAN connectivity. A secondary benefit that organizations can achieve through using this technology is to resilience of services, thereby reducing the reliance on a single network provider.

The Peplink technology is relatively new to market and while the technology has established itself, Peplink as a company is still very engineering focused. Ovum cautions that Peplink is focused on the channel, and management of channel partners is a critical capability that takes time to master. The threat to Peplink is that if one channel partner provides a poor user experience it will damage the brand equity.

Recommendations for enterprises

Why put Peplink on your radar?

Peplink has some specific use cases where its technology provides a faster time to deploy: on construction sites, for example, where setting up a site office with communications is a requirement before any construction work can begin. The use case in these scenarios allows for the initial use of a mobile network while waiting for a fixed line to be installed, and then for the use of both to provide resilience and increased capacity. Peplink also has more traditional use cases, where it is used for MPLS replacement and augmentation. However, Ovum thinks that the mobile use case represents the area where Peplink has the biggest potential impact. In fact its InControl 2 solution is a cloud management platform that is free of charge for in-warranty devices.

Highlights

The Peplink solution includes five main hardware products: Balance, a multi-WAN router; Max, a cellular router; FusionHub, a SpeedFusion VPN concentrator; AP, a Wi-Fi access point; and wireless bridge, a wireless client with embedded VPN. It also offers two software solutions: SpeedFusion, a VPN bonding technology; and InControl 2, the management, setup, and reporting capability. InControl 2 includes Fleet Management for GPS-enabled devices and centralized reporting and management of all device model configuration with centralized Wi-Fi and firmware management.

Background

Peplink was founded in 2004 by current CEO Alex Chan and a group of engineers. Peplink operates globally with offices in North America, Europe, the Middle East, and Asia.

Current status

Although the core underlying capability of Peplink is multi-link WAN load balancing, Ovum considers the most significant and exciting technology to be multi-link VPN bonding (using SpeedFusion technology). It is VPN bonding that allows for the aggregation of multiple WAN links into a single logical tunnel between two or more devices, and it is the packet-level load balancing within the SpeedFusion VPN tunnel that provides the highly resilient connectivity that Peplink customers desire in order to maintain their VoIP and other important sessions over a point-to-point tunnel even when a WAN link fails.

This is especially true in the multi-cellular deployments where this aggregation of available 3G/4G/LTE connections not only provides more usable bandwidth availability for any single session, but also resilience as the device is moved between and through mobile provider coverage areas (when it is installed in a moving vehicle, for example).

One of the strengths of Peplink is the easy granular control of traffic that is possible across the available WAN links. Peplink has some specific load-balancing algorithms, one of which is lowest latency first – the most popular but not the only one. However, it is the combination of layered outbound traffic policies, and how easy they are to create within the web UI, that is the differentiator between Peplink and its competitors. Ovum highlights one specific capability, the drag-and-drop rule

ordering and point-and-click policy creation, which makes very useful, but sometimes complicated, groups of outbound polices easy to configure.

Case study

Bringing life-saving mammograms to rural Louisiana

The challenge faced by LSU Health Shreveport was that its fleet of mobile mammogram vehicles operated across a wide rural area where cellular coverage was very variable in terms of quality and availability. These mobile mammogram vehicles needed to send large medical images back to the university, as timely diagnosis was needed to save lives.

The solution

A Peplink partner designed and implemented a mobile communications system using Peplink and Pepwave devices. The mammogram vehicles were equipped with a MAX cellular router. The vehicles then had the ability to form unbreakable VPN connections with the Balance multi-WAN router that was installed at the university and provided the ability to bond the bandwidths of the four cellular connections. This gave the mobile vehicles the ability to securely and reliably transmit 600MB 3D tomographic images back to the university.

Data sheet

Key facts

Product name	Peplink	Product classification	WAN optimization
Version number	N/A	Release date	2014
Industries covered	All	Geographies covered	All
Relevant company sizes	All	Licensing options	Perpetual
URL	www.peplink.com	Routes to market	Partner
Company headquarters	Mountain View, CA, US	Number of employees	N/A

Source: Ovum

Appendix

On the Radar

On the Radar is a series of research notes about vendors bringing innovative ideas, products, or business models to their markets. Although On the Radar vendors may not be ready for prime time, they bear watching for their potential impact on markets and could be suitable for certain enterprise and public sector IT organizations.

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