Silver Peak claims proof-positive of network virtualization's agility

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Known for its highly publicized free WAN optimization trial downloads, Silver Peak Systems' new Agility technology initiative claims to give application owners easy control with point-and-click virtual workload acceleration thanks to tight integration with VMware vCenter and other virtual infrastructure management consoles.

As noted in our report WAN optimization vendor Silver Peak widens net with Dell partnership expansion, integration of Silver Peak's VXOA with others' virtualized management architecture would result in a robust network virtualization offer, and VXOA systems integration with VMware is what Agility is all about. The company will demonstrate its Agility integrated management capabilities with vSphere at VMworld in San Francisco, and its first Agility product for VMware's vCenter is expected before the end of 2012. Agility products for Xen, KVM and Hyper-V will follow, we are told.

The 451 Take

Physical network appliance hardware needs to be procured, installed and managed by network engineers with a vendor proprietary management interface. Virtual network appliance software can be downloaded into a hypervisor and integrated with the hypervisor's management interface. Silver Peak's Agility initiative blends its capabilities into a hypervisor in integrated point-and-click pull-down menus that also preserve the Silver Peak brand name. With no changes to the physical network, the operational advantages in savings of time and effort are significant. However, without a network gatekeeper, self-administration by application owners could lead to an enterprise tempest in a teapot, as could multivendor conflicts. But the velocity and ease of use of a virtualized network appliance is impressive, as

shown by Silver Peak's Agility demonstration. Both network virtualization and virtual appliance hypervisor integration are promising new opportunities that can potentially transform the networking vendor landscape.

Context

Founded in 2004 and headquartered in Santa Clara, California, Silver Peak is a venture-backed WAN optimization company. Its enterprise WAN optimization products are sold through reseller channels and over the Web. Major sales partners are Dell, EMC and Hitachi Data Systems. Silver Peak sells both physical (hardware-based) and virtual (software-based) WAN optimization appliances for datacenter-to-datacenter, SAN and datacenter-to-branch applications. All products can be purchased on a perpetual basis, or the virtual VX and VRX appliances on a subscription basis. A promotion for a free 30-day trial with tech support has been offered since earlier this year.

Backed by heavy marketing, the company reports this virtual appliance promotion has been extremely successful in gaining new customers. Silver Peak's virtual appliance differentiator has been support for multiple hypervisors. Silver Peak has also been particularly successful with disaster-recovery support – the use case for almost half of its sales. As datacenters become more virtualized, enterprise buying centers have the potential to shift. The acceptability of SaaS applications, such as salesforce.com, moved buying centers for software out of IT and into the hands of end users.

Silver Peak is looking to capitalize on a shift that allows application developers to have more direct control over their infrastructure. With physical optimization devices, the networking team has to install, cable and configure the system, and is often the gatekeeper in purchase decisions. If optimization capability is integrated into the virtual management system, the networking team no longer needs to be involved. The buying process is streamlined, and decisions can be made directly by those using the technology.

Technology

When it's delivered, the Agility capability will be integrated in to VMware's vCenter management console. VCenter users will be able to enable the connection of any virtual machine to a virtual Silver Peak instance that will then manage its traffic. The integration that Silver Peak is demonstrating is reasonably simple. When a Silver Peak instance is available to a virtual machine, a Silver Peak option will be available in the vCenter configuration menu for it. Enabling optimization

will kick off configuration changes within vSphere that will forward traffic through the Silver Peak instance. Traffic forwarding is possible in vSphere 5 with VMware's vShield Edge technology. Rumored enhancements to vSphere will allow traffic forwarding without the same level of performance and scaling penalties that have been associated with vShield.

The virtual instance of Silver Peak in Agility bears a striking resemblance to the VX and VRX virtual appliances. The capabilities and technologies are the same and, as with the virtual appliances, physical and virtual systems interoperate with each other. Scaling of the virtual instance will be an area of concern. While Agility could make it easy for application developers to add optimization, there will need to be control over use to ensure that an Agility instance isn't overwhelmed with traffic.

Products

Agility will join the suite of Silver Peak's products, and looks to be one more version of the virtual appliances we covered recently. It can be managed by the Silver Peak Global Management System (GMS), a multi-device management system that is available as either a physical or virtual appliance. An Agility instance will look like one more appliance under GMS. GMS gives administrators the ability to manage utilization for each appliance and to add or remove traffic flows that are being optimized. This will help to fend off overeager users that might point-and-click their way beyond the capacity of an instance.

Utilization management will be done manually in the initial release, but it would make sense to add the ability to balance the positioning of workloads and instances automatically at some point in the future. Agility will be sold in the same licensing models available for the virtual appliances, both perpetual and subscription. That will initially tie instances to individual VMware ESX servers. Each instance installed on a server will be treated as a virtual appliance. An opportunity exists to offer a more service-provider-friendly utilization license, but this doesn't appear to be in the cards for the initial release.

Competition

Traditional network service delivery models are being overrun by network virtualization and cloud networking. Services like WAN optimization no longer need to be tied to the physical infrastructure. In many situations, this can add flexibility and create new selling channels. Aryaka is offering WAN optimization as a service over a privately built network. Ipanema is working with service and access providers to prioritize and manage traffic.

Silver Peak, like other network appliance vendors, points out that there is no substitute for hardware for maximum performance. For many users, though, the ability to create many instantiations of lower-performing virtual capabilities that tie more closely with virtual application clusters could bring a flexibility that overcomes any performance concerns. Silver Peak's integration into vCenter will give it an operational edge over stand-alone virtual appliances from vendors like Certeon and Exinda Networks.

It will face a challenge from the recently announced Riverbed Technology integration with VMware's vCloud Director (vCD). This integrates the Cloud Steelhead into application bundles that vCD creates. Riverbed also offers an Amazon Web Services AMI version, which adds an additional deployment option. Silver Peak's lower-level approach may give it the ability to continue to leverage the x86 processor optimizations that it says has given it a performance advantage. As network service capabilities expand, management integration will be the key leverage point that will allow virtual network services to compete with physical performance. The operational simplicity that this type of integration can provide will be attractive and will tempt customers to make the transition.

SWOT Analysis

Strengths

Silver Peak's Agility integration with VMware's vCenter gives it an operational edge over stand-alone virtual appliances. The company's datacenter, storage and enterprise-computing global sales partners also stand to benefit.

Weaknesses

The company is relatively small and still needs to deliver and support vCenter and other hypervisor integrations. Agility scaling could pose challenges.

Opportunities

Silver Peak is well positioned to leverage virtualization integration and its sales partnerships.

Threats

WAN optimization-as-a-service providers and larger players with broader virtualized and integrated offerings pose a threat.