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Top 10 SDN Solution Providers - 2018

The global Software Defined Networking (SDN) market value will reach an estimated USD 70.41 billion by 2024. SDN has had a revolutionary higher demand in the recent years, with it is the multiple advantages over the legacy infrastructure--increasing operability and bandwidth of the carrier networks for service providers as well as large enterprises.

Software Defined Networking (SDN) has so far successfully catered to the software-ization needs of the enterprise networks. Today, nearly every element of IT world is being virtualized to reduce the hardware dependency and bring scalability to operations. SDN, and Network Function Virtualization (NFV), have proved to be crucial in curtailing CAPEX and OPEX by decoupling the functions that historically were sold as specialized, vendor-specific bundles.

SDN has found many takers in the Banking, Financial Services and Insurance (BFSI), Education, Government, and Telecom and IT industries. Most SDN use cases have been enterprise data centers with technologies focused on network virtualization and multi-tenancy to support the business requirements around IT agility and efficiency.

In the last few months, we have analyzed hundreds of SDN solution providers and shortlisted the companies that are at the forefront of tackling challenges in this arena. Enterprise Networking Magazine's editorial board has selected the final list of "Top 10 SDN Solution Providers - 2018". The list provides a look into how solutions for networking sector are put into use so that you can gain a comprehensive understanding of solutions which are right for you and how they can help you in optimizing the business process.

Company:
VirtuLocity Networks

Description:
Develops software acceleration services to speed up Internet, mobile, and Cloud connections wherever and whenever needed

Key Person:
Greg Gum
CEO

Website:
virtulocitynetworks.com

VIRTULOCITY NETWORKS

SDN's newest VNF For Faster Internet and Cloud Connectivity

"Accelerating the Internet Wherever and Whenever You Need It..."–that's the tagline of VirtuLocity Networks, a Silicon Valley cloud software start-up. VirtuLocity provides "virtual velocity" by accelerating enterprise and network operators' broadband connections without buying expensive hardware, extra bandwidth, spectrum, or end-to-end proprietary appliances. "We provide easy-to-use, scalable, public and private cloud-based software solutions that accelerate your existing Internet connections globally by typically 80 percent over wired, wireless, or hybrid (mixed media) connections," states Greg Gum, CEO, VirtuLocity Networks.


Greg Gum

How Does it work? VirtuLocity uses patented algorithms and a patent pending process employing Artificial Intelligence and Machine Learning to efficiently analyze internet connection characteristics and dynamically adjust transmission parameters to improve performance. For instance, their software rapidly calibrates and adjusts how the TCP/IP stack can communicate and send packets efficiently, even when encountering network impairments for optimum goodput from existing Internet connections.

Why does it work? Internet WAN performance is affected by numerous factors causing congestion or delays impacting your connections' overall throughput and efficiency. For example,

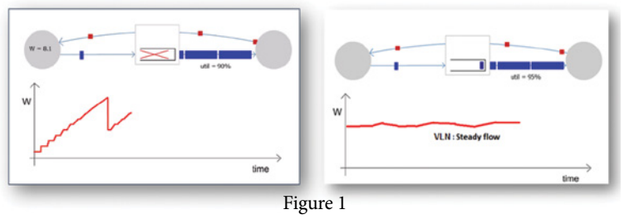

Figure 1

congestion is triggered by factors such as packet losses, excessive hop count, distance, delay, and jitter. Traditional TCP/IP adjusts for these factors by backing off the transmission speed until it acknowledges the congestion has subsided and starts to ramp-up again. This creates a saw tooth-like traffic flow pattern as the connection reacts to various impairments causing congestion (Figure 1 below). Using VirtuLocity's new software defined virtual acceleration, highly compact machine learning algorithms learn and continuously vary the transmission parameters to achieve maximum efficiency as the network connection changes, resulting in smoother transmission and higher overall goodput.

Commercial Products: VirtuLocity offers two products: VLNCloud and VLN software. VLNCloud is an Internet acceleration service available on Amazon AWS Marketplace as a pay-as-you-go Amazon Machine Image or system container running on Linux based operating systems. Customers log into their account, click on the VLNCloud icon and apply the acceleration capability as virtual acceleration instances orchestrated to run in-line with their targeted workloads. The second product VLN, is a licensable, on-premise based software solution running on bare metal, white box servers, networking devices, virtual machines, or VNF's within data centers or enterprise IT environments.

Customer use cases: Initial applications have been content distribution of videos, pictures, or live streaming real-time events. The company has signed a worldwide Content Delivery Network, a European mobile operator, and a live streaming service provider usingVLN software to accelerate content from edge caching and origin servers, directly to consumers. Using accelerated connections not only improves subscribers' access to cached content, but also speeds-up live streams that cannot be cached, such as live events and on-site reporting. As an example, the European mobile carrier had been experiencing packet loss and jitter which impacted users trying to stream videos, games, or anything media-rich. VLN software increased bandwidth throughput by 80 percent while delivering 28 percent goodput improvement across their mobile distribution points, ensuring significantly better user experience without adding infrastructure.

What's Next? VirtuLocity wants to bring these operator-based acceleration benefits and capabilities directly to enterprises and teleworkers. VLNExpress, is a new SaaS based, express cloud storage solution powered by Artificial Intelligence and Machine Learning for agile, automated configuration and management. VLNExpress enables cloud based, voice activated storage management by taking advantage of recent advancements from the Amazon Alexa personal assistant technology. "VirtuLocity's VLNExpress software defined orchestration provides automated, accelerated backups and retrieval from corporate sites or popular cloud services for their employees using an intuitive, well known voice assistant for rapid access, file sharing, and backups wherever, and whenever they need it," says Gum. en