

The Viptela SEN empowers the CIO to significantly reduce costs, dramatically improve time to enable new services, and raise the security threshold across the network.

Executive Summary

Traditional networking infrastructure was deployed when the security perimeter was well defined, most applications were low bandwidth, and most content and applications resided in corporate data centers. Today, enterprises have very different requirements. High-bandwidth, real-time, and big-data applications are pushing capacity limits of the network. In some cases the majority of traffic is destined for the Internet or public cloud, and the security perimeter is fast disappearing due to BYOD, Cloud, and a dynamic B2B partner ecosystem. The downside risks of status quo are significant, and technological innovation has failed to comprehensively address the problem.

Viptela enables enterprises to build a Secure Extensible Network (SEN) that is designed to overcome the critical networking and security challenges and elegantly address the emerging requirements.

Network & Business Challenges

The figure below shows a high-level representation of a traditional enterprise infrastructure. There are multiple networks for different applications and a chaotic distribution of networking functions such as routing intelligence and Layer 4 - 7 services.

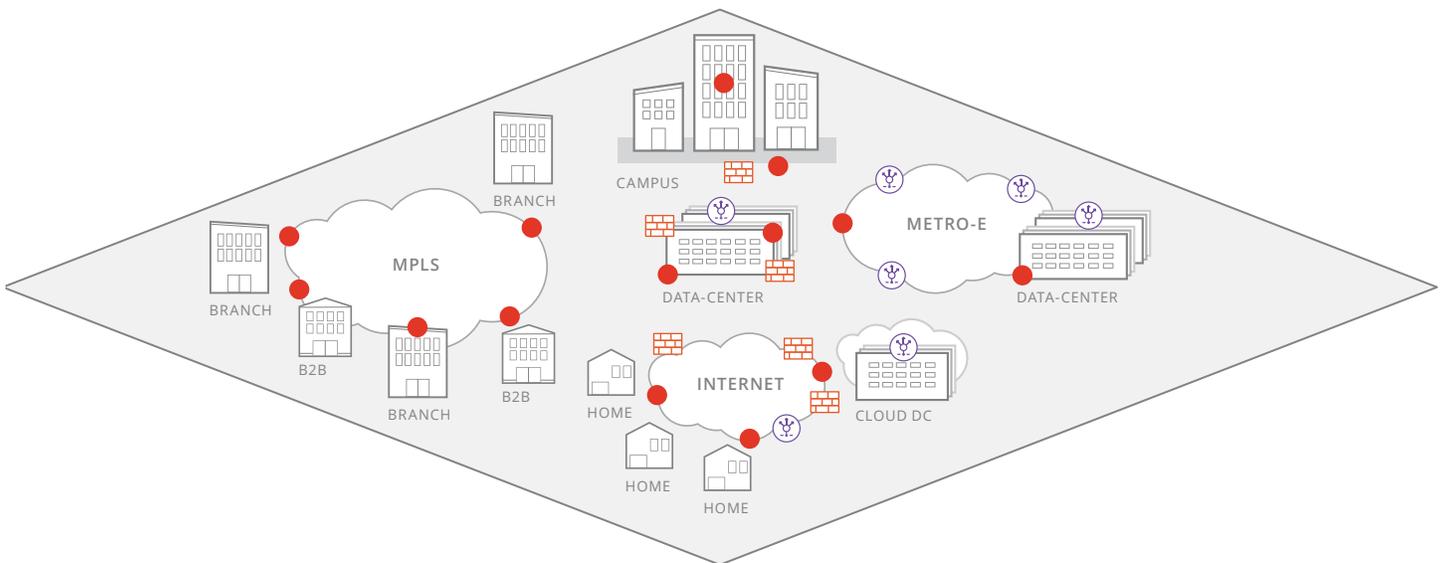
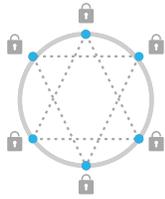


Figure 1: Complexity in today's enterprise network

This poses a problem for

- Business executives wanting to deliver high bandwidth applications and video
- Network architects seeking to deliver end-to-end network segmentation, enable BYOD, and, provide good end-user experience for Cloud and Internet based applications
- Security officers wanting to meet compliance, security and audit objectives
- And, network operation teams wanting to ensure availability and enable rapid change control

These seemingly diverse problems can be traced to three fundamental shortcomings



Secure ubiquitous connectivity is painful

- Complexity associated with interconnecting multiple transport networks like MPLS, Metro-E, Internet, and LTE
- Security vulnerabilities due to weak encryption policies and complex key management schemes for the wide area
- Audit and compliance penalties due to inadequate network segmentation across the lines of business



Benefits of network virtualization do not extend outside the data center

- Poor user experience (UX) with cloud applications and Internet access due to a centralized DMZ architecture
- Growing annual costs to provide bandwidth needed for VDI, video, and other high-bandwidth applications
- Delays and cost associated in translating business logic into network policies



Delays associated with rolling out new applications and services

- Delays in on-boarding a new site or business partner due to rigidity of the carrier's footprint
- Revenue lost while waiting for network infrastructure to come up to speed to business needs
- High cost of change control since policy is embedded at every point in the network

The Viptela Approach and Value Proposition

Viptela has taken an integrated approach to addressing the multitude of challenges. The Viptela Secure Extensible Network (SEN) solution builds an overlay network over any transport network, such as Internet, MPLS, LTE, or Metro-E, and elegantly integrates routing, segmentation, security, policy, and orchestration. The solution is centrally managed and translates business logic into something networks can understand, eliminating a major disconnect between business and IT.

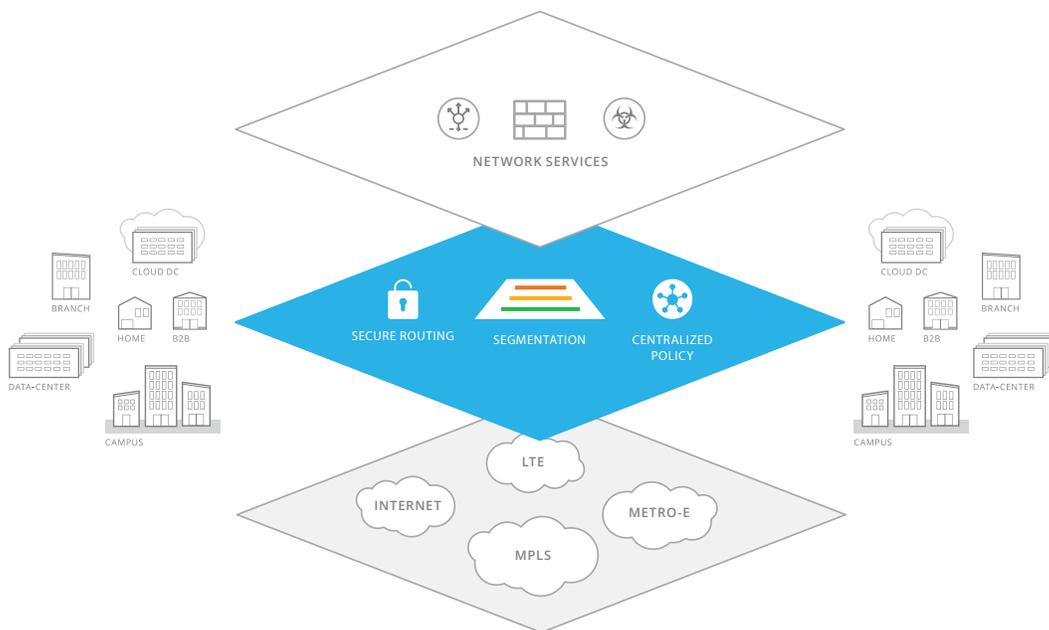


Figure 2: Secure Extensible Network

The Viptela SEN solution enables enterprises to:

- Provide secure connectivity anywhere
- Extend the benefits of virtualization outside the data center
- Rapidly enable new services and applications

For the CIO, these features translate to a savings of up to 80 percent in carrier OpEx, a significant improvement in time to enable new services, and a consistent high level of security across the network.



Figure 3:
The Viptela SEN advantage

Use Cases



Transport-Agnostic VPNs

The Viptela SEN solution provides a cost-effective secure IP fabric over any underlying transport.



End-to-end Network Segmentation

Sensitive traffic among different lines of business and different business partners can be secured by end-to-end segmentation.



Optimized Internet Exit

Enterprises can deliver optimal UX for cloud, VDI, and Internet applications by enabling regional Internet exit points.



B2B Partner Network:

Enterprises with a dynamic partner ecosystem can rapidly on-board business partners over any transport network.



Encryption at Scale

The SEN solution provides powerful encryption capabilities, with automated key management and device authentication to secure any network infrastructure.



Network Service Insertion

Network services like firewalls, IPS, and load-balancers can be consolidated at centralized locations, and traffic can be routed through these services with simple policy changes.



The Viptela Secure Extensible Network

For more information on the Viptela solution and how it can help your network, please contact sales@viptela.com



Viptela Inc., San Jose, California, USA
Tel: 800 525 5033, www.viptela.com

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