

Simple and Secure VM Migration to and from the Cloud

One of the base assumptions of cloud computing is the use of the Internet to connect datacenters regardless of where they are on the globe. Enterprise datacenter to cloud datacenter... cloud datacenters to each other... geographically dispersed, but seamlessly connected. Building on that assumption is the inherent promise of being able to move virtual machines between datacenters without interrupting service. VM migration is key to the value of virtualization, and central to cloud's value proposition of flexibility and dynamicism. However, moving VMs around the globe introduces the problem of networking continuity. VMs in Datacenter 1 are moving packets around on that physical LAN and accessing core services on it. When the VM is moved to Datacenter 2, those links are broken and the VM blackholes.

To address this, there needs to be network transparency between different LANs, regardless of how physically dispersed they are. If geographic differences between the networks become transparent, then VMs can migrate freely and applications will function with no re-architecting needed.

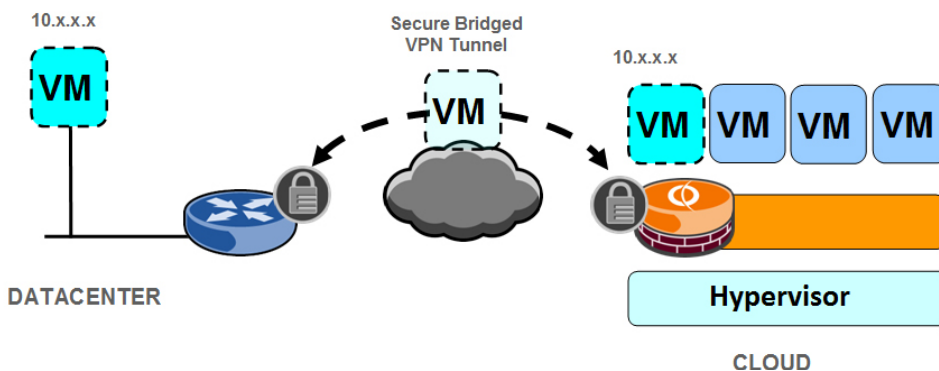
The Vyatta Network OS combines Layer-2 bridging and IPSec/GRE or SSL Tunneling functionality to deliver a cloud bridging solution that allows physically separate networks to securely communicate with each other over the Internet as if they were on a single Ethernet network. This capability simplifies the migration of applications and physical servers between data centers, ensures continuity during a phased migration, and enables the moving of virtual machines between physical servers on physically separate networks.

Cloud bridging creates an extension of the cloud or data center to enable capacity planning and simplify VM migration.

Benefits include:

1. The data center or primary cloud service becomes overloaded by demand spikes
- 2.. Planning for disaster recovery and failure mitigation
3. Cloud strategies are based on phased migration of applications

Vyatta Network OS for Secure Cloud Bridging



Vyatta Network OS Cloud Bridging Highlights	
Feature	Vyatta Network OS
Security	Firewall, VPN
VPN	IPSec & SSL VPN
Management	CLI, GUI, API
Auto-Provisioning	Y
Open Management API	Y - REST
Hypervisor Readiness	VMware, XenServer, Xen, Red Hat KVM

CLOUD



"Vyatta is able to provide the network services and secure connectivity that Dell GIS Cloud

requires in a package that addresses the virtualization, commoditization and cost-benefit requirements of cloud computing."

Sanjay Basu
Principal Architect,
Next Generation Computing
Platform
Dell Services

"Now we can add secure VPN connectivity for all of our DaaS customers on the same VMware server."