

# EQUINIX PERFORMANCE HUB™

Fast, Consistent and Reliable Network and Application Performance for the Enterprise

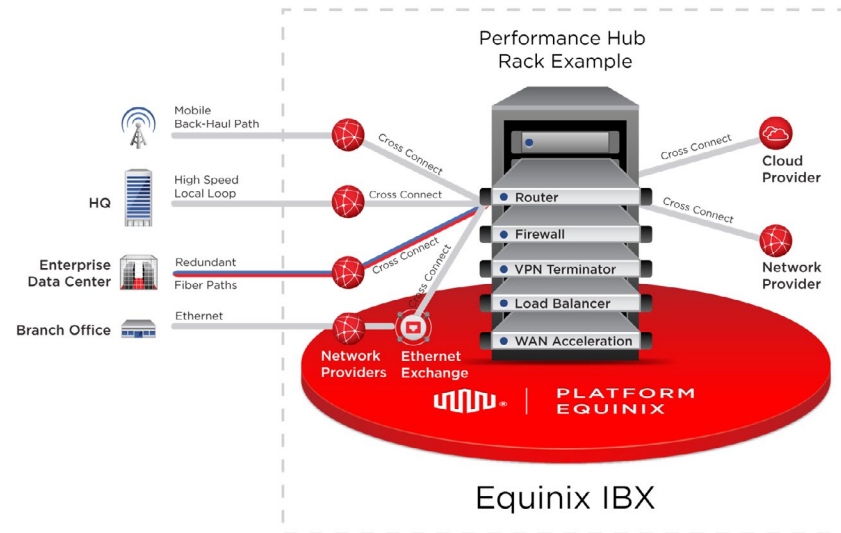
## The Network Reimagined

Enterprise demands a lot from a network. It must be robust, secure, distributed and able to meet on-premise and cloud application performance needs. The Equinix Performance Hub is an extension node of an enterprise's network into an Equinix International Business Exchange™ (IBX®) data center. It enables an enterprise to securely and reliably connect to the network and cloud providers. The deployment in the IBX includes off-the-shelf networking and other infrastructure equipment.

## Benefits

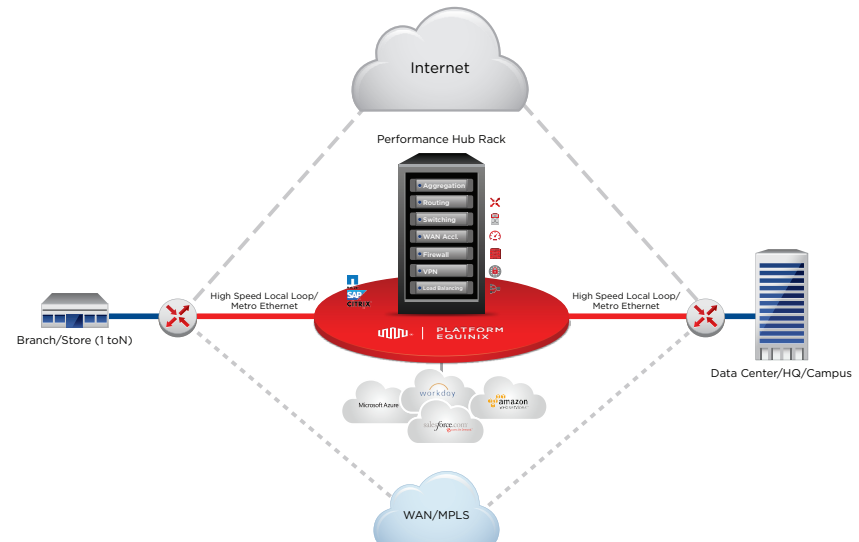
- **Move to Cloud:** Enables easy private cloud deployment, secure and direct connectivity to public clouds, laying the foundation of a hybrid cloud.
- **Efficient Network:** Simplifies the network and provides access to the cloud and the Internet without hair-pinning traffic only via select locations.
- **Improves Quality of Experience (QoE):** Optimizes network and application QoE by offering higher throughput and low latency, and deploying close to end-users.
- **Provider Choices:** Provides connectivity to 1,000+ networks, 450+ cloud providers and 600+ IT service providers.
- **Higher Manageability:** Provides the agility, security and visibility needed to take control of the network.

## Performance Hub Components



## How to Design and Deploy an Equinix Performance Hub

Current IT trends are moving towards cloud computing, but limited skills and experience leave enterprises unsure how to get to the cloud with an efficient, distributed and scalable network infrastructure. Equinix can make this process easier and more efficient with its consulting services and validation design program.



Enterprises can connect their headquarters and branch offices to the nearest Equinix IBX data centers via high speed local loop or Ethernet connectivity. Within the IBX, enterprises can deploy network equipment and connect to network and cloud providers.

Performance Hubs (PH) are usually deployed in local proximity to specific end-user communities. Equinix IBX data centers are prime locations for Performance Hub deployments because they host an expansive mix of network and cloud services. This allows enterprises to easily build future hybrid cloud deployments.

Equinix IBXs offer industry-leading reliability and security and the ability for enterprises to connect to more than 1,000 networks, 450 cloud providers and 600 IT service providers. The Performance Hub solution enables enterprises to easily adopt these deployment elements.

Enterprises can connect their locations to a Performance Hub in the following ways:

Enterprise-WAN Scenarios			Cloud-Connector Scenarios	
Scenario 1 (S1)	Scenario 2 (S2)	Scenario 3 (S3)	Scenario 4 (S4)	Scenario 5 (S5)
Tether an existing enterprise data center to closest IBX	Connect HQ & branch office locations to closest IBX	Connect inter-regional branch offices via IBX Interconnect	Direct connect to public cloud providers through PH	Connect to on-premise resources and public cloud through PH

## Solution Components

The following table summarizes the components of the PH architecture. The hardware and software solution components are recommendations based on EVD benchmark results. Customers are at liberty to choose other products according to their preferences.

Components	Description	Enterprise WAN			Cloud Connectors	
		Scenarios			Scenarios	
		S1	S2	S3	S4	S5
<b>Equinix IBX</b>	Flexspace, Power, Cabinets & Cooling & X-Connect	●	●	●	●	●
<b>Network Connectivity</b>	Long Haul Connectivity (MPLS-VPN)	●		●		●
	Ethernet (Private Line or VPLS)	●	●	●	●	●
	Localloop Connectivity (MPLS-VPN or VPLS or Metro-E)	●	●	●	●	●
	Internet Connectivity		●	●	●	●
<b>Network Equipment</b>	Routing—Juniper MX-5		●	●		●
	Switching—Alcatel-Lucent 7210	●	●	●	●	●
	Firewall—Palo Alto 5020		●	●		●
	SSL-VPN—Palo Alto 5020		●	●		●
	Load Balancer—A10 Thunder 1030		●*	●*		●
WAN acceleration—Silver-Peak VX2000/8000		●	●		●	
<b>Network Performance Management</b>	Thousandeyes.com—SaaS application (latency measurements between locations)	●	●	●	●	●
	Logicmonitor.com—SaaS application (Monitoring, Collecting, Alerting, Trending, Reporting)		●*	●*		●
<b>Application Performance Management</b>	Appneta—APM (Trace, Path, App, FlowView)		●*	●*	●	●
<b>Compute &amp; Storage (Equinix IBX Rack)</b>	Dell PowerEdge R720		●*	●*		●
	VMware ESXi.5.x Hypervisor		●*	●*		●
	Netapp FAS series—Storage		●*	●*		●
<b>Compute &amp; Storage (Public Cloud)</b>	Amazon Web Services (EC2)—Public Compute				●	●
	Amazon Web Service (S3)—Public Storage				●	●

\* Optional: Needed for Application Hosted in Equinix IBX Rack

## Equinix Validated Design (EVD)

Equinix Validated Design (EVD) is a solutions validation program which tests and certifies reference architecture design and solution components (network infrastructure, on-premise and cloud applications) for full-scale deployment.

EVD for Performance Hub provides a detailed design guide for building Equinix Performance Hubs. It offers guidelines for integrating networking, compute, storage and network services, achieving WAN optimization, securely connecting to the industry's leading public cloud providers and deploying the PH in industry-leading Equinix IBX colocation facilities.

## Equinix Professional Services (EPS)

Equinix Professional Services offers guidance every step of the way by performing detailed business and technical analysis and providing recommendations to optimize network and application performance.

## Customer Engagement Flow



All work will be performed and delivered by Equinix Professional Services ("EPS") professionals and/or EPS approved consulting partners.

## For More Information

<http://www.equinix.com/platform-equinix/performance-architecture/network-performance-hubs> or contact us at Email: [global-ask-ph@equinix.com](mailto:global-ask-ph@equinix.com)