Equinix Locations

New Metros gained with Verizon DC asset purchase*

*Pending (announced December 7, 2016). Equinix also gains additional capacity in multiple existing metros.
Disaggregation @Equinix

Goal: enable thriving data center innovation ecosystem with all aspects of design fully available to software and hardware Open Source community

- **Member: Telecom Infrastructure Project (TIP)**
  - Open Optical Packet Transport (OOPT) Operator Council (OC)

- **Very high speed data center interconnect using**
  - Optical packet white boxes
  - Open line systems
  - Open network software with MP-BGP/ECMP/MPLS/VxLAN/VLAN

- **High capacity/speed multi-cloud connectivity**
  - Open network switches
  - Open network routing agents with MP-BGP/ECMP/EVPN/VxLAN/VLAN

- **Programmatic control of interconnection and routing**
  - Open network software API integration

- **Enablement of OCP data center infrastructure**

- **Participation in HW/SW disaggregation and open network software development ecosystem**
Open Compute and Open Network @Equinix

Programmatic Control

Open Optical Packet Router
Open Line System
N x 100/200G DWDM
100/200G Dark Fiber
Open Optical Packet Router

X-Conn Switch
Voyager
Cloud Switch

Backpack
Backpack

Wedge 100
Wedge 100

Compute Servers
Storage Servers
Power/BBU Shelf

CSP1
CSPn

NSP1
NSPN

OpenRackv2
OpenRackv2

Data Center 1
Data Center 2

Rack Scale Control
Rack Scale Control
Open Switch/Router for Flexibility and Openness

- Programmatic access to all system components
- Removable and customizable Forwarding and routing agents
- Easy to use customizable SDKs and API abstractions
- Open Linux NOS
- Common Boot Environment
- Interchangeable Platform Components
- Interchangeable HW Components
Integration of Disaggregation: SDN Level

Software Provider
- LACP
- Port
- VxLAN
- ARP
- DHCP
- VRRP
- NAT
- ACL
- OSPF
- BFD
- BGP
- MP-BGP

Linux User Space
- Optics Daemon
- Platform Daemon
- ASIC Daemon
- Optics Kernel Module
- Platform Kernel Module
- ASIC Kernel Module

Linux Kernel

Integrated SDK
- XPNDR (FW
- XPNDR (Provider 1)

Switch Module Provider
- Switch Module
- ASIC
- ASIC FW

SDK
- DSP (FW
- DSP (Provider 2)

Optical Module
- Integrated by Provider 1

Hardware Platform Provider

Control Code
Mgmt Code
Orchestration Code

Models
Use Cases
- RULE!
  - E.g. Optical DCI
  - With L2/L3
  - BGP/EVPN/VxLAN
Field Trial Between Equinix SV3 and SV8
Open Line System on 50km Dark Fiber Span Between San Jose and Palo Alto