



High-Performance Trading...No Compromise

Cisco Nexus 3064 / Nexus 5K-2K

NX-OS Advantage

Cisco Nexus 3K / 5K-2K Highlights

High-performance without compromise!

- Lowest nominal latency in the industry for 24+ port
- Most comprehensive Layer 2/3 features in industry delivered by NX-OS
- Adequate buffering to handle short-lived congestion due to microbursts
- Extensive troubleshooting capabilities
- Part of end-to-end Cisco Nexus data center solution

Layer 3 feature comparison

- Cisco NX-OS supports most comprehensive L3 features in industry
- Software version used in this comparison
 - Cisco Nexus 3064: NX-OS 5.0(3)U1(1)
 - Cisco Nexus 5K-2K: NX-OS 5.0(3)N1(1)
 - BNT G8264: BLADEOS 6.4.4
 - Arista 7148SX: EOS 4.6.2

Notes: Juniper QFX3500 doesn't support any Layer 3 protocols

All product information extracted from public websites

OSPF Detailed Comparison

Category	Key Features	Cisco Nexus 3000	Cisco Nexus 5500/2000	BNT G8264	Arista EoS
Base & route control	Virtual-Link	Yes	Yes	Yes	No
	Opaque LSAs support	Yes	Yes	No	Yes
	OSPF MIB	Yes	Yes	Yes	No
	Totally Stubby Area	Yes	Yes	No	No
	Route Redistribution between routing protocols	Yes	Yes	Very limited	Very limited
	Route-map to filtering routes	Yes	Yes	Very limited	Very limited
	Limit no. of redistributed route	Yes	Yes	No	No
	Route Summarization- Inter area / External route	Yes	Yes	Internal only	Internal only
	Multiple OSPF instances	Yes	Yes	No	No
HA & Fast Convergence	Graceful Restart helper	Yes	Yes	No	No
	OSPFv2 Stub Router Advertisements	Yes	Yes	No	No
	SPF Optimization - SPF Timers	Yes	Yes	No	No
	Tune timers: LSA Arrival/Pacing/Throttle/Throttle SPF Calculation/Hello	Yes	Yes	Hello/Dead timer only	Hello/Dead timer only

BGP Detailed Comparison

Category	Key Features	Cisco Nexus 3000	Cisco Nexus 5500/2000	BNT G8264	Arista EoS
Base & route attribute control	Route Redistribution from other Protocols w/route-map	Yes	Yes	Very limited	Very limited
	Route Dampening	Yes	Yes	No	No
	Authentication - Simple & MD5	Yes	Yes	Yes	Yes
	Route filtering w/route-map - Match: AS-Number/AS-PATH List /Community-list/IP Prefix-list	Yes	Yes	Very limited (AS-Path only)	No
	MBGP	Yes	Yes	No	No
	BGP ECMP	Yes	Yes	No	No
	Limit EGBP AS-path attribute	Yes	Yes	No	No
	BGP Conditional advertisement	Yes	Yes	No	No
Large Scale BGP	4-byte AS number	Yes	Yes	No	No
	Router reflector	Yes	Yes	No	No
	AS confederation	Yes	Yes	No	No
	Multi-hop EGBP	Yes	Yes	No	No
	Peer-template	Yes	Yes	No	No
HA & Fast Convergence	BGP scan timer, & Best path algorithm	Yes	Yes	No	No
	Graceful Restart helper	Yes	Yes	No	No
	BGP Next-Hop Address Tracking	Yes	Yes	No	No
	Enable/disable fast External Fallover	Yes	Yes	No	No
	Low Memory Handling	Yes	Yes	No	No

IP Multicast Detailed Comparison

Category	Key Features	Cisco Nexus 3000	Cisco Nexus 5500/2000	BNT G8264	Arista EoS
Basic	PIM-SM	Yes	Yes	Yes	Yes
	PIM-SSM	Yes	Yes	No	No
	PIM Static-RP	Yes	Yes	Not on loopback	Yes
	PIM auto-RP	Yes	Yes	No	No
	PIM BSR	Yes	Yes	Yes	No
Advanced	MSDP	Yes	Yes	No	No
	PIM Anycast-RP (RFC 4610)	Yes	Yes	No	Yes
	Neighbor filtering	Yes	Yes	No	No
	Accept register	Yes	Yes	No	No
	Register rate-limiting	Yes	Yes	No	No
	PIM stub	Yes	Yes	No	No
	PIM timer	Yes	Yes	No	No
	Shared tree only/SPT infinite	Yes	Yes	No	No

Services, Virtualization, Security, etc.

Category	Key Features	Cisco Nexus 3000	Cisco Nexus 5500/2000	BNT G8264	Arista EoS
IP service& Security	DHCP snooping	Yes	Yes	No	No
	Dynamic ARP inspection	Yes	Yes	No	No
	Private VLAN	Yes	Yes	No trunk mode	No
	Ingress/Egress ACL	Yes	Yes	Ingress only	Ingress only
	RACL	Yes	Yes	Yes	No
	VACL	Yes	Yes	limited	No
Virtualization	Vrf-lite (OSPF, BGP, EIGRP)	Yes	Yes	No	No
	Vrf-lite multicast	Yes	Yes	No	No
	Vrf-aware DHCP relay	Yes	Yes	No	No
Redundancy, QoS & Others	VPC or similar	Yes*	Yes	No	Yes (L2 only)
	HSRP/GLBP/VRRP	Yes	Yes	VRRP only	VRRP only
	QoS classifying based on IP header information	Yes	Yes	Yes	No
	QoS – bandwidth and queuing management	Yes	Yes	No	No

* Q3 CY2011

Built-in Troubleshooting, Debug Capabilities

Category	Key Features	Cisco Nexus 3000	Cisco Nexus 5500/2000	BNT G8264	Arista EOS
System, L2, etc	Debug platform	Yes	Yes	No	No*
	Debug spanning-tree	Yes	Yes	No	No
	Debug NTP	Yes	Yes	No	No
Basic IP and IP Service	Debug IP ACL	Yes	Yes	No	No
	Debug ARP	Yes	Yes	Yes	No
	Debug ICMP	Yes	Yes	No	No
	Debug IP Packet	Yes	Yes	No	No
	Debug SNMP	Yes	Yes	No	No
	Debug LACP	Yes	Yes	No	No
IP Routing	Debug OSPF & all sub-options	Yes	Yes	No	Very limited
	Debug BGP & all sub-options	Yes	Yes	No	No
	Debug IP routing	Yes	Yes	No	No
Multicast	Debug IGMP & IGMP snooping	Yes	Yes	No	No
	Debug PIM & RP	Yes	Yes	No	No
	Debug mpacket	Yes	Yes	No	No
	Debug mrouting	Yes	Yes	No	No

* notes: EOS has no or very limited built-in debug capability, it has limited debug option through Linux shell

Thank you.

