



BGP EVPN VXLAN Scalability Guide

- [Scale and Performance Capabilities for BGP EVPN VXLAN on Cisco Catalyst 9400 Series Switches, on page 1](#)

Scale and Performance Capabilities for BGP EVPN VXLAN on Cisco Catalyst 9400 Series Switches

This section provides information about the platform capabilities and the scale values for various components of a BGP EVPN VXLAN fabric. The numbers in the following table depend on the ternary content addressable memory (TCAM) scale. Use the SDM configuration templates to adjust the Layer 2 and Layer 3 TCAM forwarding table sizes based on the platform positioning. For more information, see *Configuring SDM Templates* module of the *System Management Configuration Guide* for the applicable release.

The scale values listed here are validated with a unidimensional configuration. The values provided in these tables focus on the scalability of one particular feature at a time.

Product Specification				
Supervisor Engine Module	Sup-1	Sup-1XL, Sup-1XL-Y		
BGP EVPN / VXLAN -- Leaf Scale				
SDM Template	Access	Access	Distribuion	Core
VXLAN Leaf Node (Per Fabric Domain)	500	500	500	500
VRF	256	256	256	256
Layer 2 Virtual Network Instances (VNIs)	1024	1024	1024	1024
Layer 3 VNIs	256	256	256	256
Layer 3 VRF SVI Interface	4094	4094	4094	4094
MAC Entries (Local L2 Network)	64000	64000	64000	16000

Product Specification				
Supervisor Engine Module	Sup-1	Sup-1XL, Sup-1XL-Y		
MAC Entries (Remote EVPN VXLAN Network)	64000	64000	64000	16000
Overlay IPv4 routes (LPM or Indirect Routes)	64000	64000	64000	64000
Overlay IPv4 Host routes	48000	48000	48000	32000
Overlay IPv6 routes (LPM or Indirect Routes)	64000	64000	64000	64000
Overlay IPv6 Host routes	48000	48000	48000	32000
Tenant Routed Multicast (TRM) IPv4	16000	16000	16000	16000
TRM IPv6	16000	16000	16000	16000
TRMv4: Overlay Multicast Routes (*,G and S,G)	16000	16000	16000	32000
TRMv6: Overlay Multicast Routes (*,G and S,G)	16000	16000	16000	32000
EVPN VXLAN Aware Flexible NetFlow - Pv4 Ingress Cache Entries	384000	384000	384000	384000
EVPN VXLAN Aware Flexible NetFlow - IPv4 Egress Cache Entries	384000	384000	384000	384000
EVPN VXLAN Aware Flexible NetFlow - IPv6 Ingress Cache Entries	384000	384000	384000	384000
EVPN VXLAN Aware Flexible NetFlow - IPv6 Egress Cache Entries	384000	384000	384000	384000
Layer 2 VNI (L2VNI) Multicast Replication BUM Rate-Limiter	512	512	512	512
MicroSegmentation - Community VLAN to L2VNI	2000	2000	2000	2000
NanoSegmentation - Isolated VLAN to L2VNI	384	384	384	384

Product Specification				
Supervisor Engine Module	Sup-1	Sup-1XL, Sup-1XL-Y		
Wide Area Bonjour (mDNS) over VXLAN Service Instance Count	10000	10000	10000	10000
BGP EVPN / VXLAN -- Spine Scale				
SDM Template	Access	Access	Distribuion	Core
BGP IPv4 Peer Scale	250	250	250	250
BGP IPv6 Peer Scale	250	250	250	250
BGP L2VPN EVPN Peer Scale	250	250	250	250
Overlay IPv4 routes (LPM or Indirect Routes)	64000	64000	64000	64000
Overlay IPv4 Host routes	48000	48000	48000	32000
Overlay IPv6 routes (LPM or Indirect Routes)	64000	64000	64000	64000
Overlay IPv6 Host routes	48000	48000	48000	32000
BGP EVPN / VXLAN -- Border Scale				
SDM Template	Access	Access	Distribuion	Core
EVPN to Layer 2 Handoff: IEEE 802.1Q	512	512	512	512
EVPN to Layer 2 Handoff: IEEE 802.1ad (QinQ)	512	512	512	512
EVPN to VRF Handoff: IP VRF (IPv4 and IPv6)	256	256	256	256
EVPN to MPLS Layer 3 VRF Unicast Handoff: VPNv4	256	256	256	256
EVPN to MPLS Layer 3 VRF Unicast Handoff: VPNv6	256	256	256	256
EVPN to MPLS Layer 3 VRF Multicast Handoff: mVPNv4	256	256	256	256

Product Specification				
Supervisor Engine Module	Sup-1	Sup-1XL, Sup-1XL-Y		
EVPN to MPLS Layer 3 VRF Multicast Handoff: mVPNv6	256	256	256	256
EVPN to VPLS Layer 2 Handoff: Virtual Forwarding Instances (VFIs)	512	512	512	512
EVPN to VPLS Layer 2 Handoff: Neighbors Per VFI	128	128	128	128
EVPN to VPLS Layer 2 Handoff: Pseudowire	512	512	512	512