Scale and Performance Capabilities for BGP EVPN VXLAN on Cisco Catalyst 9600 Series Switches

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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**			
BGP EVPN / VXLAN -- Leaf Scale				
SDM Template	Distribution	Core	NAT	Custom
VXLAN Leaf Node (Per Fabric Domain)	500	500	500	500
VRF	1000	1000	1000	1000
Layer 2 Virtual Network Instances (VNIs)	512	512	512	512
Layer 3 VNIs	512	512	512	512
Layer 3 VRF SVI Interface	4094	4094	4094	4094

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Product Specification				
Supervisor Engine Module	**Sup-1**			
MAC Local Hosts	82000	32000	32000	128000
MAC Remote Hosts	82000	32000	32000	128000
Overlay IPv4 routes (LPM or Indirect Routes)	114000	212000	212000	256000
Overlay IPv4 Host routes	114000	212000	212000	256000
Overlay IPv6 routes (LPM or Indirect Routes)	114000	212000	212000	256000
Overlay IPv6 Host routes	114000	212000	212000	256000
Tenant Routed Multicast (TRM) IPv4	2000	2000	2000	32000
TRM IPv6	2000	2000	2000	32000
TRMv4: Overlay Multicast Routes (*,G and S,G)	16000	32000	32000	32000
TRMv6: Overlay Multicast Routes (*,G and S,G)	16000	32000	32000	32000
EVPN VXLAN Aware Flexible NetFlow - Pv4 Ingress Cache Entries	98000	32000	32000	64000
EVPN VXLAN Aware Flexible NetFlow - IPv4 Egress Cache Entries	32000	32000	32000	64000
EVPN VXLAN Aware Flexible NetFlow - IPv6 Ingress Cache Entries	32000	32000	32000	64000
EVPN VXLAN Aware Flexible NetFlow - IPv6 Egress Cache Entries	32000	32000	32000	64000
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

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Product Specification				
Supervisor Engine Module	**Sup-1**			
Wide Area Bonjour (mDNS) over VXLAN Service Instance Count	15000	15000	15000	15000
BGP EVPN / VXLAN -- Spine Scale				
SDM Template	Distribution	Core	NAT	Custom
BGP IPv4 Peer Scale	1000	1000	1000	1000
BGP IPv6 Peer Scale	1000	1000	1000	1000
BGP L2VPN EVPN Peer Scale	1000	1000	1000	1000
Overlay IPv4 routes (LPM or Indirect Routes)	114000	212000	212000	256000
Overlay IPv4 Host routes	114000	212000	212000	256000
Overlay IPv6 routes (LPM or Indirect Routes)	114000	212000	212000	256000
Overlay IPv6 Host routes	114000	212000	212000	256000
BGP EVPN / VXLAN -- Border Scale				
SDM Template	Distribution	Core	NAT	Custom
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)	1000	1000	1000	1000
EVPN to MPLS Layer 3 VRF Unicast Handoff: VPNv4	512	512	512	512
EVPN to MPLS Layer 3 VRF Unicast Handoff: VPNv6	512	512	512	512
EVPN to MPLS Layer 3 VRF Multicast Handoff: mVPNv4	512	512	512	512
EVPN to MPLS Layer 3 VRF Multicast Handoff: mVPNv6	512	512	512	512

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Product Specification				
Supervisor Engine Module	**Sup-1**			
EVPN to VPLS Layer 2 Handoff: Virtual Forwarding Instances (VFIs)	512	128	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