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Cisco Group Based Policy Platform and Capability Matrix Release 6.4

(inclusive of TrustSec Software-Defined Segmentation)

Cisco Group Based Policy (also known as TrustSec Software-Defined Segmentation) uniquely builds upon your existing identity-aware infrastructure by enforcing segmentation and access control policies in a scalable manner using the capabilities detailed below. This document summarizes the platforms and features that are validated in the Cisco Group Based Policy testing. It is in current with the validation program for Release 6.4.

Table 1 provides cross-platform group-based policy exchange interoperability testing results. Application Centric Infrastructure (ACI) and Group Based Policy integration enables customers to apply consistent security policy across the enterprise- leveraging user roles and device type together with application context. The validated Open Source Open Daylight SDN use case included Nexus 7k SXPv3, ASA SXPv3, and OpenDaylight SXPv4 (Nitrogen and earlier releases) working together in the Data Center.

| Table 1. TrustSec Group-Based Policy (GBP) Interoperabilit | Table 1. | TrustSec Grou | p-Based Policy | (GBP) |) Interoperability |
|---|----------|---------------|----------------|-------|--------------------|
|---|----------|---------------|----------------|-------|--------------------|

| System Component | Platform | Solution-Level Validated Version | Group Information Exchange | Interoperability Platform & Propagation method | |
|--|---------------------------------------|---|---|---|--|
| Cisco Nexus 9000 Series Switches | Cisco 9000 Series: Spine & Leaf | NX-OS 11.3(2f) | EndPoint Group – | | |
| Cisco Application Policy Infrastructure Controller – Data Center | Cisco APIC-DC | APIC-DC 2.3 Data Plane APIC-DC 1.3(1g) Policy plane; | Security Group Mappings via TrustSec-ACI policy and data plane exchange | Cisco ISE 2.1, 2.2- ACI API | |
| Open Daylight SDN controller | ODL SDN | Lithium, Beryllium, Carbon | SGT via SXP v4 | Cisco ISE 2.1- SXP v4 Nexus 7000 7.3- SXP v3 ASA 9.6.1- SXP v3 | |
| Open Daylight SDN controller | ODL SDN | Nitrogen | IPv4, IPv6 SXP Peering | Cisco ISE 2.4 ASR 1001-X IOS XE 16.5.1b CSR 1000v IOS XE 16.6.3 Cat 6500 IOS 15.4(1)SY2 Cat 3850 IOS 3.6.8E | |

In Tables 2 and 3, Cisco Platform Support Matrix, Dynamic classification includes IEEE 802.1X, MAC Authentication Bypass (MAB), Web Authentication (Web Auth), and Easy Connect. IP to SGT, VLAN to SGT, subnet to SGT, port profile to SGT, L2IF to SGT, and L3IF to SGT use the static classification method.

Cisco DNA Premier is a simple and economical solution for deploying branch and campus switches and wireless access points. It offers an uncompromised user experience in a highly secure and feature-rich access infrastructure and simplify the licensing requirements for Group Based Policy deployment. Cisco DNA Advantage requires Network Advantage hardware licenses.

Solution-level validated versions listed in the tables below may not always represent the latest available platform version and feature set. Releases may encounter issues in other subsystems and be deferred. For latest platform firmware version and feature set, refer to product release notes.

As an aid to deployment, products are grouped into Tier I, II, and III with regard to feedback on design and deployment. Tier I ① products have full Group Based Policy functionality with few caveats, and they are common components in successful deployments. Tier II ② products have full Group Based Policy functionality but there are some caveats involved in their deployment. Tier III ③ do not have full Group Based Policy functionality and support Classification and SXP based Propagation only. These products tend to be older with a less rich feature set and more caveats to consider when deploying. Security products are not listed in a tier. End of Sale Products are listed in Table 3.

VXLAN is supported on several platforms but not all are listed in the matrix pending review of solution test verification.

Table 2. Cisco Group Based Policy Platform Support Matrix

| System Component | Platform | License | Solution-Level Validated Version | Minimum version for all features | Security Group Tag (SGT) Classification | SGT Exchange Protocol (SXP) Support and Version | Inline SGT Tagging | SGT Enforcement Services |
|--|-------------------------------------|--|--|--|---|--|---|---|
| Cisco Catalyst [®] 2000 Series | Catalyst 2960-Plus Series ③ | LAN Base K9 | - | Cisco IOS 15.2(2)E3 | Dynamic, IP to SGT, VLAN to SGT, Subnet to SGT | Speaker V4 | No | No |
| Concs | Catalyst 2960- C Series ③ | LAN Base K9 | - | Cisco IOS 15.2(2)E3 | Dynamic, IP to SGT, VLAN to SGT, Subnet to SGT | Speaker V4 | No | No |
| | Catalyst 2960- CX Series ③ | LAN Base K9 | - | Cisco IOS 15.2(3)E | Dynamic, IP to SGT, VLAN to SGT, Subnet to SGT | Speaker V4 | No | No |
| | Catalyst 2960- X Series ③ | LAN Base K9 | Cisco IOS 15.2(2)E | Cisco IOS 15.2(2)E3 | Dynamic, IP to SGT, VLAN to SGT, Subnet to SGT | Speaker V4 | No | No |
| | Catalyst 2960- XR Series ③ | IP Lite K9 | Cisco IOS 15.2(2)E | Cisco IOS 15.2(2)E3 | Dynamic, IP to SGT, VLAN to SGT, Subnet to SGT | Speaker V4 | No | No |
| Cisco Catalyst 3000 Series | Catalyst 3650 and 3850 Series | IP Base K9 & above or Cisco ONE Foundation & above | Cisco IOS XE 3.7.4E 3.6.8E 3.6.6E | Cisco IOS XE 3.6.4E | Dynamic, IP to SGT (v4,v6), VLAN to SGT, Port to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet; SGT over MACsec (3650 requires 3.7.1) | SGACL, Logging (3.6.6E) ———————————————————————————————————— |
| | Catalyst 3650 and 3850 Series | IP Base K9 & above or Cisco ONE Foundation & above | Cisco IOS XE Denali 16.6.4 | Cisco IOS XE Denali 16.3.1 | Dynamic, IP to SGT (v4,v6), VLAN to SGT, Port to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet; SGT over MACsec; SGT over VXLAN | SGACL, Monitor mode, Logging |
| | Catalyst 3850- XS Series | IP Base K9 & above or Cisco ONE Foundation & above | Cisco IOS XE 3.7.4 | Cisco IOS XE 3.7.4 | Dynamic, IP to SGT, VLAN to SGT, Port to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet Note5; SGT over MACsec | SGACL |

| System Component | Platform | License | Solution-Level Validated Version | Minimum version for all features | Security Group Tag (SGT) Classification | SGT Exchange Protocol (SXP) Support and Version | Inline SGT Tagging | SGT Enforcement |
|-------------------------------------|---|--|--|---|---|--|---|---|
| Cisco Catalyst 3000 Series | Catalyst 3560-CX Series ② | IP Base K9 | Cisco IOS 15.2(3)E | Cisco IOS 15.2(4)E | (L2 adjacent hosts only) Dynamic, IP to SGT (v4, v6), VLAN to SGT, Subnet to SGT | Speaker, Listener V4 | No | SGACL Note15 |
| | Catalyst 3560-C/CG Series 3 | IP Base K9 | Cisco IOS 15.0(1)SE2 | Cisco IOS 15.2(2)E | (L2 adjacent hosts only) Dynamic, IP to SGT, VLAN to SGT, Subnet to SGT | Speaker, Listener V4 | No | No |
| Cisco Catalyst 4500 Series | Catalyst 4500 E-Series Supervisor Engine 8-E and 8L-E | IP Base K9 & above or Cisco ONE Foundation & above | Cisco IOS XE 3.7.1E | Cisco IOS XE 3.6.0E 3.8.0E- Logging | Dynamic, IP to SGT (v4, v6), VLAN to SGT, Port to SGT, Subnet to SGT (Src & Dst), L3IF to SGT Note12 | Speaker, Listener V4 | SGT over Ethernet; SGT over MACsec (See note 2 for supported line cards) | SGACL, Logging SGT Netflow v9 |
| | Catalyst 4500- X Series | IP Base K9 & above or Cisco ONE Foundation & above | Cisco IOS XE 3.6.3E 3.6.6 | Cisco IOS XE 3.5.1E 3.8.0E- logging | Dynamic, IP to SGT (v4,v6), VLAN to SGT, Port to SGT, Subnet to SGT (Src & Dst), L3IF to SGT Note12 | Speaker, Listener V4 | SGT over Ethernet; SGT over MACsec | SGACL, Logging |
| Cisco Catalyst 4500 Series | Catalyst 4500 E-Series Supervisor Engine 7-E and 7L-E | IP Base K9 & above or Cisco ONE Foundation & above | Cisco IOS XE 3.7.1E | Cisco IOS XE 3.5.1E | Dynamic, IP to SGT, VLAN to SGT, Subnet to SGT, L3IF to SGT, Port to SGT Note12 | Speaker, Listener V4 | SGT over Ethernet; SGT over MACsec (See note 2 for supported line cards) | SGACL, Logging [3.8.0E] SGT Netflow v9 |
| | Catalyst 4500 E-Series Supervisor Engine 6-E and 6L-E; ③ | IP Base K9 | Cisco IOS 15.1(1)SG | Cisco IOS 15.1(1)SG | Dynamic, IP to SGT Note12 | Speaker, Listener V4 | No | No |
| Cisco Catalyst 6500 Series | Catalyst 6500 Series Supervisor Engine 2T & Supervisor 6T ① Catalyst 6807-XL | 2T: IP Base K9 6T: IP Services K9 | Cisco IOS 15.4(1)SY2 15.2(1)SY05 15.2(1)SY0a Sup 6T Cisco IOS 15.4(1)SY1 | Cisco IOS 15.2(1)SY0a Sup 6T Cisco IOS 15.4(1)SY1 | Dynamic, IP to SGT (v4, v6), VLAN to SGT, Port to SGT, Subnet to SGT (v4,v6), L3IF-to- SGT (v4,v6) | Speaker, Listener V4 (IPv4, IPv6) | SGT over Ethernet & SGT over MACsec supported on: WS-X69xx modules, C6800- 32P10G/G- XL, C6800- 16P10G/G- XL, C6800- 8P10G/G-XL; SGT over VXLAN | SGACL (IPv4, IPv6), Monitor mode, Logging SGT Caching SGT Netflow v9 |
| | Catalyst 6880-X, 6840-X (incl 6816-X-LE), and 6800ia | IP Base K9 & above or Cisco ONE Foundation & above | Cisco IOS 15.2(2)SY2, 15.2(1)SY0a, 15.2(3a)E | Cisco IOS 15.2(1)SY0a | Dynamic, IP to SGT (v4, v6), VLAN to SGT, Port to SGT, Subnet to SGT (v4,v6), L3IF-to- SGT (v4,v6) | Speaker, Listener V4 (IPv4, IPv6) | SGT over Ethernet; SGT over MACsec | SGACL (IPv4, IPv6), Monitor mode, Logging SGT Caching SGT Netflow v9 |
| | Catalyst 6500 Series Supervisor Engine 32 and 720 | IP Base K9 | Cisco IOS 12.2(33)SXJ2 | Cisco IOS 15.1(2)SY1 | Dynamic, IP to SGT | Speaker, Listener V4 | No | No |

| System Component | Platform | License | Solution-Level Validated Version | Minimum version for all features | Security Group Tag (SGT) Classification | SGT Exchange Protocol (SXP) Support and Version | Inline SGT Tagging | SGT Enforcement ———— Services |
|--|---|--|---|--|---|--|---|--|
| Cisco Catalyst 9300 Series | Catalyst 9300 Series | Network Advantage | Cisco IOS XE Everest 16.6.2 SMU | Cisco IOS XE Everest 16.6.2 SMU (Note 10) 16.8.1 | Dynamic, IP to SGT, VLAN to SGT, Port to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet SGT over VXLAN | SGACL, Monitor mode, Logging SGT Netflow v9 |
| Cisco Catalyst 9400 Series | Catalyst 9400 Series Supervisor Engine-1 & -1XL | Network Advantage | Cisco IOS XE 16.6.2, 16.8.1 | Cisco IOS XE Everest 16.6.2 SMU (Note 10) 16.8.1 | Dynamic, IP to SGT, VLAN to SGT, Port to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet SGT over VXLAN | SGACL, Monitor mode, Logging SGT Caching SGT Netflow v9 |
| Cisco Catalyst 9500 Series | Catalyst 9500 Series | Network Advantage | Cisco IOS XE Everest 16.6.2 SMU | Cisco IOS XE Everest 16.6.2 SMU (Note 10) | Dynamic, IP to SGT, VLAN to SGT, Port to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet SGT over VXLAN | SGACL, Monitor mode SGT Caching SGT Netflow v9 |
| Cisco Connected Grid Router Series | CGR 2010 Series ② | - | Cisco IOS 15.5(2)T | Cisco IOS 15.4(1)T | Dynamic, IP to SGT, VLAN to SGT | Speaker, Listener V4 | SGT over GETVPN, SGT over IPsec VPN | SG Firewall |
| Cisco Connected Grid Switch Series | CGS 2500 Series ③ | - | Cisco IOS 15.2(3)EA | Cisco IOS 15.0(2)EK1 | Dynamic, IP to SGT, VLAN to SGT, Port to SGT, Subnet to SGT | Speaker, Listener V3 | No | No |
| Cisco Industrial Ethernet Switches | IE 2000 & 2000U Series IE 3000 Series ③ | LAN Base | Cisco IOS 15.2(3)EA IE2000U: IOS 15.2(3)E3 | Cisco IOS 15.2(1)EY IE2000U: IOS 15.2(3)E3 | (L2 adjacent hosts only) Dynamic, IP to SGT, VLAN to SGT, Subnet to SGT | Speaker, Listener V4 | No | No |
| | IE 4000 Series ② | LAN Base; IP Services for SGToE & SGACL | Cisco IOS 15.2(4)EA, 15.2(5)E | Cisco IOS 15.2(5)E | (L2 adjacent hosts only) Dynamic, IP to SGT, VLAN to SGT, Subnet to SGT | Speaker Note11 V4 | SGT over Ethernet | SGACL Note15 |
| | IE 5000 Series ② | LAN Base; IP Services for SGToE & SGACL | Cisco IOS 15.2(2)EB1, 15.2(5)E | Cisco IOS 15.2(5)E1 | (L2 adjacent hosts only) Dynamic, IP to SGT, VLAN to SGT, Subnet to SGT | Speaker Note11 V4 | SGT over Ethernet on1G & 10G interfaces only | SGACL Note15 |
| Cisco Access Points | 1700, 2700, 3700, AP Series (Wave 1) ① | - | Cisco AireOS 8.5 | Cisco AireOS 8.5 | Dynamic | Speaker, Listener V4 ^{Note6} | SGT over Ethernet Note6 | SGACL |
| | 1815, 1830, 1850, 2800, 3800 AP Series (Wave 2) ① | - | Cisco AireOS 8.5 | Cisco AireOS 8.5 | Dynamic | Speaker, Listener V4 ^{Note6} | SGT over Ethernet Note6 | SGACL |

| System Component | Platform | License | Solution-Level Validated Version | Minimum version for all features | Security Group Tag (SGT) Classification | SGT Exchange Protocol (SXP) Support and Version | Inline SGT Tagging | SGT Enforcement ———————————————————————————————————— |
|---|---|---|--|--|---|--|---|--|
| Cisco Wireless Controller Series | 8540 Series Wireless Controller ① | - | Cisco AireOS 8.5 | Cisco AireOS 8.5 | Dynamic | Speaker v2 | SGT over Ethernet | No |
| | 5520 Series Wireless Controller ① | - | Cisco AireOS 8.5 | Cisco AireOS 8.5 | Dynamic | Speaker v2 | SGT over Ethernet | No |
| | 3504 Wireless Controller ① | - | Cisco AireOS 8.5 | Cisco AireOS 8.5 | Dynamic | Speaker v2 | SGT over Ethernet (Centralized mode) | Supports AP SGACL in Centralized and Flex Connect mode) |
| | vWLC | _ | Cisco AireOS 8.5 | Cisco AireOS 8.5 | Dynamic | Speaker v2 | | Supports APs in Flex mode only |
| | 5500 Series (5508,5520) 2500 Series (2504) | - | Cisco AireOS 8.3.102.0, 7.6.130.0 | Cisco AireOS 7.6.130.0 | Dynamic | Speaker V2 | No | No |
| | 8500 Series (8540,8510) | _ | Cisco AireOS 8.3.102.0 (pre 8.4) | Cisco AireOS 8.1 | Dynamic | Speaker V2 | No | No |
| Cisco Nexus® 7000 Series | Nexus 7000 with M3- Series modules | Base License NX-OS 6.1 and later | Cisco NX-OS 8.1(2), 8.1(1), 8.0(1) 7.3.2 7.3(0)D1(1) [logging, monitor mode], 7.2(0)D1(1) | Cisco NX-OS 8.0(1) | IP to SGT ¹ , Port Profile to SGT, VLAN to SGT ² , Port to SGT ² Subnet to SGT ⁵ Note13 | Speaker, Listener V4 | SGT over Ethernet ⁵ ; SGT over MACsec; SGT over VXLAN ⁵ : F3 interoperability requires M3 'no propagate- sgt l2 control' command | SGACL, Monitor mode & logging |
| | Nexus 7000 with M2- Series modules | Base License NX-OS 6.1 and later | Cisco NX-OS 8.1(1), 8.0(1) 7.3(0)D1(1) [Monitor mode & limited logging], 7.2(0)D1(1) | Cisco NX-OS 8.0(1) | IP to SGT ¹ , Port Profile to SGT, VLAN to SGT ² , Port to SGT ² Subnet to SGT ⁵ Note13 | Speaker, Listener V4 | SGT over Ethernet ⁵ ; SGT over MACsec ⁵ : M2 cannot link to F3 module. | SGACL Monitor mode & limited logging |

| System Component | Platform | License | Solution-Level Validated Version | Minimum version for all features | Security Group Tag (SGT) Classification | SGT Exchange Protocol (SXP) Support and Version | Inline SGT Tagging | SGT Enforcement ———————————————————————————————————— |
|--|---|--|---|---|--|---|--|---|
| Cisco Nexus® 7000 Series | Nexus 7700 F-SeriesNote4 modules ② F3 modules do not support SGT tagging with other Cisco products unless these products support the SGT tagging exemption feature for Layer 2 protocols. M3 series support this by enabling 'no propagate-sgt 12-control' command. | Base License NX-OS 6.1 and later | Cisco NX-OS 8.1(1), 8.0(1) 7.3(0)D1(1), 7.2(0)D1(1) | Cisco NX-OS 8.0(1) | IP to SGT¹, Port Profile to SGT, VLAN to SGT², Port to SGT² Subnet to SGT⁵ Nole13 ¹:FabricPath support requires 6.2(10) or later ² VPC/VPC+ support requires 7.2(0)D1(1) or later ⁵ Subnet to SGT requires 7.3(0)D1(1) or | Speaker, Listener V4 | SGT over Ethernet ³⁵ ; SGT over MACsec ⁴ ³ : F3 interfaces (L2 or L3) require 802.1Q or FabricPath ⁴ : F2e (Copper) all ports; F2e (SFP) & F3 (10G)- last 8 ports; All others- no support ⁵ : Not supported between F3 and either M2 or F2e | SGACL |
| Cisco Nexus 5000, 6000 Series | Nexus 6000/5600 Series ② | - | Cisco NX-OS 7.1(0)N1(1a) | Cisco NX-OS 7.0(1)N1(1) | (L2 adjacent hosts only) Port to SGT | Speaker V1 | SGT over Ethernet | SGACL Note15 |
| | Nexus 5548P, 5548UP, and 5596UP | - | Cisco NX-OS 7.0(5)N1(1) | Cisco NX-OS 6.0(2)N2(6) | (L2 adjacent hosts only) Port to SGT | Speaker V1 ¹ 1: FabricPath | SGT over Ethernet | SGACL Note15 |
| Cisco Nexus 1000 Series | Nexus 1000V for VMware vSphere ② | Advanced license for SGToE/ SGACL support | Cisco NX-OS 5.2(1)SV3(3.1) [Logging] 5.2(1)SV3(1.3) | Cisco NX-OS 5.2(1)SV3 (1.1) | Dynamic (802.1x) Note14, IP to SGT, Port Profile to SGT | Speaker, Listener v4 v1 (prior to 5.2(1)SV3(3.1) | SGT over Ethernet ^{Note9} | SGACL, Logging |
| | Nexus 1000VE Virtual Edge | Advanced license for SGACL support | Cisco NX-OS 5.2(1)SV5(1.1) | Cisco NX-OS 5.2(1)SV5(1.1) | Port Profile to SGT, IP to SGT | Speaker, Listener v4 | No | SGACL |
| Cisco Integrated Services Router (ISR) | 4000 Series ISR 4431, 4451-X, 4321, 4331, 4351 | IP Base/K9 for classify/ propagate, SGACL; Security/K9 for SG FW enforcement | Cisco IOS XE Denali 16.3.2, Everest 16.4.1 | Cisco IOS XE Denali 16.3.2 | IP to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet, SGT over GETVPN, DMVPN, or IPsec VPN | SGACL, Monitor mode & Logging SG Firewall SGT based PBR SGT Caching SGT based QoS |
| | ISRv ① | IP Base/K9 for classify/ propagate, SGACL | Cisco IOS XE Denali 16.3.2 | Cisco IOS XE Denali 16.3.2 | IP to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet, SGT over IPsec VPN, DMVPN | SGACL, Monitor mode & Logging |
| | 890, 1900, 2900, 3900 Series ② | IP Base/K9 for classify/ propagate; Security/K9 for SG FW enforcement | 890: Cisco IOS 15.4(1)T1 IOS 15.4(3)M 1900/2900/390 0:Cisco IOS 15.5(1)20T IOS 15.4(3)M | 890: Cisco IOS 15.4(3)M 1900/2900/39 00: Cisco IOS 15.6(1)T | IP to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet (no support on ISR G2-Cisco 800 Series), SGT over GETVPN, DMVPN, or IPsec VPN | SG Firewall (890:No services) SGT based PBR SGT Caching SGT based QoS |

| System Component | Platform | License | Solution-Level Validated Version | Minimum version for all features | Security Group Tag (SGT) Classification | SGT Exchange Protocol (SXP) Support and Version | Inline SGT Tagging | SGT Enforcement ———————————————————————————————————— |
|--|---|--|---|--|---|--|--|--|
| Cisco Integrated Services Router (ISR) | 4000 Series (ISR 4451-X validated) ② | IP Base/K9 for classify/ propagate; Security/K9 for SG FW enforcement | Cisco IOS XE 3.15.01S | Cisco IOS XE 3.17.0S | IP to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet, SGT over GETVPN, DMVPN, or IPsec VPN | SG Firewall SGT based PBR SGT Caching SGT based QoS SGT Netflow v9 |
| | SM-X Layer 2/3 EtherSwitch Module ② | IP Services/K9 | Cisco IOS 15.5.2T | Cisco IOS 15.2(2)E | Dynamic, IP to SGT, VLAN to SGT | Speaker, Listener V4 | SGT over Ethernet; SGT over MACsec | SGACL |
| Cisco Cloud Services Router | CSR 1000V | IP Base/K9 for classify/ propagate, SGACL; | Cisco IOS XE 16.6.3 Denali 16.3.2, Everest 16.4.1 | Cisco IOS XE Denali 16.3.2 | IP to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet, SGT over IPsec VPN, DMVPN | SGACL, Monitor mode & Logging |
| | Cloud Services Router 1000V Series (CSR) | IP Base/K9 for classify/ propagate; Security/K9 for enforce- ment | Cisco IOS XE 3.15.01S | Cisco IOS XE 3.11.0S | IP to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet, SGT over IPsec VPN, DMVPN | SG Firewall SGT based PBR SGT Caching SGT Netflow v9 |
| Cisco Aggreg- ation Services Router (ASR) | ASR 1004, 1006, 1013, 1001-X, 1002- X,1002-HX, 1006-X, and 1009-X | IP Base/K9 for classify/ propagate, SGACL; Security/K9 for SGFW enforce- ment | Cisco IOS XE 16.5.1b Denali 16.3.2, Everest 16.4.1 | Cisco IOS XE Denali 16.3.2 | IP to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet, SGT over GETVPN, DMVPN, or IPsec VPN | SGACL, Monitor mode & Logging SG Firewall SGT based PBR SGT Caching SGT based QoS |
| | ASR 1000 Series Router Processor 1 or 2 (RP1, RP2); ASR 1001, 1002,1004, 1006 and 1013 with ESP (10,20, 40, 100, 200) and SIP (10/40) ② | propagate; Security/K9 for enforce- ment | Cisco IOS XE 3.15.0S | Cisco IOS 3.17.0S | IP to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet, SGT over GETVPN, IPsec VPN, or DMVPN | SG Firewall SGT based PBR (1000 RP2) SGT based QoS SGT Caching SGT Netflow v9 |
| | ASR 1001- X and 1002-X | IP Base/K9 for classify/ propagate; Security/K9 for enforce- ment | Cisco IOS XE 3.13.0S | Cisco IOS XE 3.17.0S | IP to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet, SGT over GETVPN, IPsec VPN, DMVPN | SG Firewall SGT based PBR SGT based QoS SGT Caching SGT Netflow v9 |
| Cisco Identity Services Engine | ISE 3515, 3595, 3415, and 3495 Appliance & VMware | Base Plus for pxGrid | Cisco ISE 2.4, 2.3P1, 2.2, 2.1, 2.0, 1.4 | Cisco ISE 2.2 | Dynamic, IP to SGT, Subnet to SGT | Speaker, Listener V4 pxGrid | - | - |

| System Component | Platform | License | Solution-Level Validated Version | Minimum version for all features | Security Group Tag (SGT) Classification | SGT Exchange Protocol (SXP) Support and Version | Inline SGT Tagging | SGT Enforcement ——— Services |
|--|--|--|--|--|---|--|-----------------------|---|
| Cisco Adaptive Security Appliance | ASA 5580 | - | Cisco ASA 9.0.1, ASDM 7.1.6 | Cisco ASA 9.0.1, ASDM 7.1.6 | | Speaker, Listener v2 | | SG Firewall |
| | ASA 5506-X, 5506H-X, 5506W-X, 5508-X, 5516- X | - | Cisco ASA 9.6.1, ASDM 7.6.1 | Cisco ASA 9.6.1, ASDM 7.6.1 | Remote Access VPN (IPsec, SSL-VPN) | Speaker, Listener V3 | SGT over Ethernet | SG Firewall (IPv4, IPv6) ———————————————————————————————————— |
| | ASA 5525-X, 5545-X, 5555-X with FirePower Services | - | Cisco ASA 9.6.1, ASDM 7.6.1 | Cisco ASA 9.6.1, ASDM 7.6.1 | Remote Access VPN (IPsec, SSL-VPN) | Speaker, Listener V3 | SGT over Ethernet | SG Firewall (IPv4, IPv6) ———————————————————————————————————— |
| | ASAv | - | Cisco ASA 9.3.1 ADSM 7.1.6 | Cisco ASA 9.6.1 ASDM 7.6.1 | Remote Access VPN (IPsec, SSL-VPN) | Speaker, Listener V3 | SGT over Ethernet | SG Firewall —— SGT based PBR |
| Cisco Firepower NGFW | Cisco Firepower 2100 | Firepower Threat Defense Base | Cisco Firepower System 6.2.1 | Cisco Firepower System 6.2.1 | - | pxGrid | SGT over Ethernet | SG Firewall (src SGTs only) SGT based PBR |
| | FP 4100 FP 9300 | - | Cisco FXOS 2.0.1.37 Cisco ASA 9.6.1 | Cisco FXOS 2.0.1.37 Cisco ASA 9.6.1 | Remote Access VPN (IPsec, SSL-VPN) | Speaker, Listener V3 | SGT over Ethernet | SG Firewall SGT based PBR |
| | Cisco Firepower Threat Defense Firepower 4100 & 9300 | Firepower Threat Defense Base | Cisco Firepower System 6.1.0 | Cisco Firepower System 6.1.0 | - | pxGrid | SGT over Ethernet | SG Firewall (src SGTs only) ———————————————————————————————————— |
| | FTDv | Threat & Apps (TA) | Cisco Firepower System 6.2.0.2 | Cisco Firepower System 6.2.0.2 | - | pxGrid | SGT over Ethernet | SG Firewall (src SGTs only) ———————————————————————————————————— |
| Cisco Industrial Security Appliance | ISA 3000 Series | - | Cisco ASA 9.6.1 | Cisco ASA 9.6.1 | Remote Access VPN (IPsec, SSL-VPN) | Speaker, Listener V3 | SGT over Ethernet | SG Firewall (IPv4, IPv6) ———————————————————————————————————— |

Table 3. End of Sale Group Based Policy Platform Support Matrix (https://www.cisco.com/c/en/us/products/eos-eol-listing.html)

| EOS System Component | Platform | License | Solution-Level Validated Version | Minimum version for all features | Security Group Tag (SGT) Classification | SGT Exchange Protocol (SXP) Support and Version | Inline SGT Tagging | SGT Enforcement Services |
|--|---|---|---|--|--|--|---|--|
| Cisco Catalyst [®] 2000 Series | Catalyst 2960- S and 2960-SF Series | LAN Base K9 | Cisco IOS 15.0(2)SE ^{Note1} 15.2(2)E | Cisco IOS 15.2(2)E3 | Dynamic, IP to SGT, VLAN to SGT, Subnet to SGT | Speaker V4 Note1 | No | No |
| Cisco Catalyst 3000 Series | Catalyst 3560- E and 3750-E Series | IP Base K9 | Cisco IOS 15.0(2)SE5 | Cisco IOS 15.0(2)SE5 | (L2 adjacent hosts only) Dynamic, IP to SGT, VLAN to SGT | Speaker, Listener V2 | No | No |
| | Catalyst 3560- X and 3750-X Series | IP Base K9 | Cisco IOS 15.2(2)E3 | Cisco IOS 15.2(2)E1 | (L2 adjacent hosts only) Dynamic, IP to SGT (prefix must be 32), VLAN to SGT, Port to SGT (only on switch to switch links) | Speaker V4 | SGT over Ethernet; SGT over MACsec (with C3KX-SM- 10G uplink); SGT over VXLAN | SGACL Note16 (maximum of 8 VLANs on a VLAN-trunk link) |
| Cisco Catalyst 4500 Series | Cisco Catalyst 4948 Series | IP Base K9 | Cisco IOS 15.1(1)SG | Cisco IOS 15.1(1)SG | Dynamic, IP to SGT | Speaker, Listener V4 | No | No |
| Cisco Nexus® 7000 Series | Cisco Nexus 7000 F2- Series*** modules | Base License NX-OS 6.1 and later | Cisco NX-OS 7.3(0)D1(1), 7.2(0)D1(1) | Cisco NX-OS 7.3(0)D1(1) | IP to SGT¹, Port Profile to SGT, VLAN to SGT², Port to SGT² Subnet to SGT⁵ ¹:FabricPath support requires 6.2(10) or later ² VPC/VPC+ support requires 7.2(0)D1(1) or later ⁵ Subnet to SGT requires 7.3(0)D1(1) or later | Speaker, Listener V3 | SGT over Ethernet; SGT over MACsec ⁴ 4: M & F2e (Copper-) all ports; F2e (SFP) - last 8 ports; All others- no support | SGACL |
| Cisco Wireless Controller | 5760 Wireless Controller Series | IP Base K9 | Cisco IOS XE 3.7.1E | Cisco IOS XE 3.3.1SE | Dynamic, IP to SGT, VLAN to SGT, Port to SGT, Subnet to SGT | Speaker, Listener V4 | SGT over Ethernet | SGACL |
| | Wireless Services Module 2 (WiSM2) | - | Cisco AireOS 8.3.102.0, 7.6.130.0 | Cisco AireOS 7.6.130.0 | Dynamic | Speaker V2 | No | No |
| | Flex 7500 Series Wireless Controller | - | Cisco AireOS 8.3.102.0, 7.6.130.0 | Cisco AireOS 8.3 | Dynamic | Speaker V2 | No | No |

| EoS System Component | Platform | License | Solution-Level Validated Version | Minimum version for all features | Security Group Tag (SGT) Classification | SGT Exchange Protocol (SXP) Support and Version | Inline SGT Tagging | SGT Enforcement ———————————————————————————————————— |
|--|--|--|---|---|---|--|--|--|
| Cisco Aggreg- ation Services Router (ASR) | ASR 1001, 1002 | IP Base/K9 for classify/ propagate; Security/K9 for enforce- ment | Cisco IOS XE 3.15.0S | Cisco IOS 3.17.0S | IP to SGT, Subnet to SGT, L3IF to SGT | Speaker, Listener V4 | SGT over Ethernet, SGT over GETVPN, IPsec VPN, or DMVPN | SG Firewall SGT based PBR (1000 RP2) SGT based QoS SGT Caching SGT Netflow v9 |
| Cisco Identity Services Engine | ISE 3315, 3355, 3395, Appliance | | Cisco ISE 1.0, 1.1, 1.2 | | | | - | - |
| Cisco Adaptive Security Appliance | ASA 5510, 5520, 5540, 5550 | - | Cisco ASA 9.0.1, ASDM 7.1.6 | Cisco ASA 9.0.1, ASDM 7.1.6 | | Speaker, Listener v2 | | SG Firewall |
| | ASA 5505 ^{Note3} , 5512, 5515, 5525, 5545, 5555, 5585 | - | ASA 9.3.1, ASDM 7.3.1, CSM 4.8 | Cisco ASA 9.3.1, ASDM 7.3.1, CSM 4.8 | Remote Access VPN (IPsec, SSL-VPN) | Speaker, Listener V2 (IPv4, IPv6) | SGT over Ethernet | SG Firewall (IPv4, IPv6) SGT based PBR |
| | ASA 5512- X, 5515-X, 5585-X with FirePower Services | - | Cisco ASA 9.6.1, ASDM 7.6.1 | Cisco ASA 9.6.1, ASDM 7.6.1 | Remote Access VPN (IPsec, SSL-VPN) | Speaker, Listener V3 | SGT over Ethernet | SG Firewall (IPv4, IPv6) ———————————————————————————————————— |
| Cisco Fire POWER | FirePOWER 7000 and 8000 Series | Threat & Apps (TA) | Cisco FireSIGHT 5.4.0.6, 5.4.1.5, 6.0.1.1, 6.2 | Cisco FireSIGHT 5.4.0.6, 5.4.1.5, 6.0.1.1 | - | - | SGT over Ethernet | - |

Notes

- 1: Catalyst 2960 S/SF Product management recommends 15.0(2)SE which supports SXP v2.
- 2: Product part numbers of supported line cards for SGT over Ethernet and SGT over MACsec on the Cisco Catalyst 4500 Supervisor Engine 7-E, 7L-E, 8-E, and 8L-E include the following: WS-X4712-SFP+E, WS-X4748-RJ45V+E, WS-X4748-RJ45V-E, WS-X4748-RJ4V-E, WS-X4748-RJ4V-E, WS-X4748-RJ4V-E, WS-X4748-RJ4V-E, WS-X4748-RJ4V-E, WS-X4748-RJ4V-E, WS-X4748-RJ4V-E, WS-X4748-RJ4V-E, W
- 3: Cisco ASA 5505 does not support releases after 9.2.
- 4: Cisco Nexus 7000 F1-Series modules do not support Cisco TrustSec.
- 5: Use of inline tagging with LACP requires future IOS XE Denali or IOS 3.7 release (CSCva22545)
- 6: For SXP support, AP must run in FlexConnect Mode
- 7: With IPv6 support, DGT can be IPv4.
- 8: Prior versions of this document listed Cisco Catalyst 3750-X validated version, IOS 12.2(3)E1, and WLC AireOS
- 8.1. These releases have been deferred.
- 9: When inline tagging (SGToE) is enabled with the VIC 12xx and VIC 13xx, packet processing is handled at the processor level which will attribute to lower network I/O performance. An alternative solution is to use Intel adaptors.
- 10: IOS XE Everest 16.6.2 SMU is required for ISE BYOD, Guest, and Posture features. See ISE Compatibility Matrix: https://www.cisco.com/c/en/us/support/security/identity-services-engine/products-device-support-tables-list.html
- 11: The IE 4000 and IE 5000 platforms perform similarly to the Catalyst 3560-X and 3750-X platforms in the reliance on IP Address, MAC Address, and physical port/VLAN of the device, learned via dot1x or MAB or IP Device Tracking (IPDT). These devices cannot use information learned via SXP for either enforcement or tag propagation as the device is not directly attached. SXP v4 is supported in Speaker mode only.

- 12: Catalyst 4500 Series Release 3.9 and later, with the introduction of VRF, an SVI is needed for L3 lookup to derive SGT for switched traffic, and a SVI is also needed on the VLAN for the derivation of source group for L2 traffic.
- 13: The N7K must have an SVI on the VLAN if the mappings reside in the VRF. If N7K is L2 only, create an SVI without IP to be able to utilize the mappings from the VRF. SVI is not required if entered into the VLAN.
- 14: Dynamic classification with IEEE 802.1x on Nexus 1000V requires 5.2(1)SV3(4.1). This is validated with VMware Horizon 7 VDI.
- 15: Port based platforms cannot do enforcement of policy for remote IP addresses, ie. they can only classify or enforce for IP addresses present in the IPDT table (hosts that are L2 adjacent).



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Printed in USA C96-731479-00 v6.4d 3/19