Cisco Segment Routing Unified Fabric

SRv6 Roadmap

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SRv6 Mature Standardization

Record-speed standardization
Strong sign of industry endorsement

- Proposed Standard RFCs
  - RFC8402 SR Architecture
  - RFC8754 SRv6 Data Plane
  - RFC8986 SRv6 Network Programming
  - RFC9352 SRv6 ISIS Extensions
  - RFC9350 IGP Flexible Algorithms
  - RFC9252 SRv6 BGP Extensions
  - RFC9256 SR Policy Architecture
  - RFC9259 SRv6 OAM

- WG Document: Proposed Standard
  - WG draft Compressed SRv6 Segment List encoding in SRH
  - WG draft SRv6 BGP Link State Extensions

SR
Segment Routing
IPv6

RFC 8986
SRv6 Network Programming

RFC 8754
IPv6 Segment Routing Header

100M live subscribers over SRv6

SIMPLICITY ALWAYS PREVAILS

50K+ Nodes Deployed !!

Rich SRv6 uSID Ecosystem

Open-Source Networking Stacks

Network Equipment Manufacturers

Merchant Silicon

Smart NIC

Open-Source Applications

Partners

Disclaimer

Many of the products and features described herein remain in varying stages of development and will be offered on a when-and-if-available basis.

This roadmap is subject to change at the sole discretion of Cisco, and Cisco will have no liability for delay in the delivery or failure to deliver any of the products or features set forth in this document.

SRv6 Platform Support

Supported

Committed

In-planning

7.2.x or earlier

NCS5500 (J, J+)

ASR9000 (THK)

NCS560 (Q-MX)

NCS540 (Q-AX)

XRv9000

7.3.x

ASR9903
+ 5th Gen (LightSpeed+)

NCS540-L (Q-UX)
(Felidae, Darwin)

7.5.x

NCS5700 (J2, J2C, J2C+)

NCS540-Q2A (Arches)

8000-Q200
(Gibraltar)

XRd

CY23

8000-P100
(Core/Edge)
8000-A100
(Access)

Strictly Confidential – Under NDA

IPv6 Routing
- Cisco 12000
- Cisco NCS 6000
- Cisco CRS-1
- ASR900 (XE)

SRv6 Roadmap

Available Now

- SRv6 Transport (ISIS)
- TiLFA, uLoop (ISIS)
- Flex-Algo (ISIS)
- L3 Services: VPNv4, VPNv6, IPv4/IPv6 Inet
- L2 Services: EVPN-VPWS ELINE
- SRv6 OAM (Ping/Trace, SID Verification)
- SRv6/MPLS Interworking Gateway
- SRv6/MPLS Dual-Connected PE

- SRv6 uSID (CSID-NEXT)
- SRv6 PCC/PCE (PCEPv6) for visualization
- SR-PM Link Delay Measurement
- L2 Services: EVPN ELAN

- SRv6-TE Explicit Path
- Path Tracing
- Seamless Migration to uSID
- UPA
- Explicit Anycast End.DT46 using W-LIB

Roadmap (7.10.x +)

- Deterministic Demand Matrix
- gRPC-based API For SRv6TE
- SR-PM HW Offload (w/ 3L)
- Circuit-Style SRv6TE
- Mobile User Plane (MUP-C)
- Per-Flow Steering
- Network Slice Identification
- SRv6 Tree-SID for Multicast
- etc.

| CY2018-20 | CY21 | CY22 | CY2023+ |

NCS5500

ASR9000

NCS560

NCS540

XRv9000

ASR9903
+ 5th Gen (LightSpeed+)

NCS540-L (Felidae, Darwin)

NCS5700 (J2, J2C)

XRd

NCS540-Q2A (Arches)

8000-Q200
(Gibraltar)

8000-P100/A100
(Palladium)
(Argon)

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CY2018-20	CY21	CY22	CY2023+

Crosswork Network Controller (CNC)

CNC Phase 1 (3.0)
PCE 7.3.2

- SRv6 network discovery
- Single domain, Multi-domain, IPv4 & IPv6 topology
- Visualization on Crosswork UI-Topology
  - SRv6 Nodes, links, uSIDs
  - SRv6TE policies
  - Filtering per Flex-Algo
- L3VPN Service over SRv6-TE (ODN AS)
- SRv6 L2/L3 service steering into a FA

CNC Phase 2 (4.1)
PCE 7.7.1

- UI-Topology Visualization Enhancements
  - Filtering of IPv4 or IPv6
- NSO configured explicit path
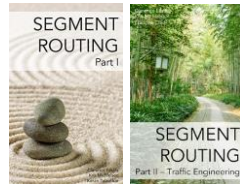- Enhancements – SRv6TE routerID

CNC Phase 3 (5.0)
PCE 7.9.1
- L2VPN over SRv6-TE (EVPN VPWS)
- Service Health and Assurance Ph 1

CNC Phase 4+ (6.0 and beyond)

- SRv6 locator-based visualization enhancements
- BW Optimization on SRv6
- Health and Assurance for SRv6 Ph 2
- Multicast on SRv6 Automation

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