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REFERENCE ARCHITECTURE

Enterprise campus, branch and data-center interconnect on 2026 platforms

CAPABILITY	DOCUMENT	VERSION	DATE
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WRITTEN BY

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CONVENTIONS

Source tags. [S] figure read from the vendor's own current datasheet or reference architecture on Sep 7, 2026, Sep 24, 2026, Sep 28, 2026 and Nov 4, 2026 for the 2026 technology review (§9.2) · [S*] figure from the vendor's page summary where the page itself could not be opened · [A] design assumption for a typical buyer, to be confirmed by the signing engineer. No figure comes from any prior engagement, file or asset. A row with more than one tag is counted once: as a published figure if any tag is [S] or [S*], otherwise as an assumption if any tag is [A], otherwise as a design target.

Table 1. Revision history

Date	Version	Change
Sep 15, 2026	1.0	First issue.
Sep 21, 2026	1.1	Corrections to wording, figure numbering and citations.
Sep 27, 2026	1.2	Revised to current platform versions and the current document format.
Sep 29, 2026	1.3	Data-center interconnect figures confirmed against the vendor's data sheets; source added for the core-switch breakout figure.
Oct 10, 2026	1.4	Approval line now reads: approved by the Founder, issued by Symbeeo. Mark Winston remains the author.
Nov 4, 2026	1.5	Data-center interconnect re-specified on the Cisco NCS 1014 with the 2.4T line card: R10, R11, §4.5, D7, F8, §9.1 and §9.2 updated from Cisco's documents, read Nov 4, 2026.

1 · Scope

Who it is for. The head of infrastructure of an organization with one head office, one to three branches and two data centers, refreshing a campus network that predates Wi-Fi 6E and a WAN that predates SD-WAN, who needs the design to survive a procurement review and an audit.

Typical buyer [A]. 1,500 users at head office, 3 branches of 100–250 users, two data centers 40 km apart, cloud services in two hyperscalers, Wi-Fi 7 devices arriving through 2026–27.

What is in. Campus access, distribution and core; Wi-Fi 7 wireless; branch SD-WAN; data center interconnect over dark fiber or leased wavelength; out-of-band management; the handover documents. **What is out.** Data-center leaf-spine fabrics (SRA-DC-001); zero-trust policy and NAC policy design (SRA-SEC-001, though the enforcement points are placed here); AI compute fabrics (SRA-AI-001).

Assumptions. Cisco is the campus and WAN vendor [A] and carries the optical layer [A]. Fiber between the data centers is available as dark fiber or a leased wavelength, on two diverse paths, one per DCI wavelength [A].

Related documents, read Sep 7, 2026, Sep 24, 2026 and Nov 4, 2026. Cisco Catalyst 9300 Series datasheet · Cisco Catalyst 9500 Series datasheet · Cisco CW9178I Wi-Fi 7 access point datasheet · Cisco NCS 1014 and NCS 1014 2.4T line card data sheets · Cisco CW9800L, CW9800M and CW9800H1/H2 wireless controller datasheets (model family; the Catalyst 9800-40/-80 datasheets they replace are kept for the end-of-sale record) · NIST SP 1800-35, final, June 2025 (for where enforcement sits). Lifecycle notices and recommended software releases read Sep 24, 2026 are listed with their URLs in §9.2. Structural exemplars: Juniper JVD Campus Fabric (structure), Arista DCI design guide (failure chapter), Cisco IT BRKCOC-3005 (cabinet elevations).

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2 · Requirements register

Table 2. Requirements register

#	Requirement	Value	Source
R1	Users and sites	1,500 HQ · 3 branches · 2 DCs, 40 km	[A]
R2	Access port speed and power	10G multigigabit to every Wi-Fi 7 AP; 90 W UPOE+ on AP and OT ports	[S] Catalyst 9300X: 48 × 10G mGig, 48 × 90 W UPOE+ standalone
R3	Stack bandwidth at access	1 Tb/s	[S] StackWise-1T
R4	Access-to-core uplinks	2 × 100G per access stack	[S] 9300X 100G uplinks; 9500X 40/100/200/400G ports
R5	Core	fixed core pair, 400G-capable, StackWise Virtual	[S] C9500X-60L4D: 60 × 10/25/50G + 4 × 40/100/200/400G; C9500X-28C8D
R6	Wireless	Wi-Fi 7, tri-band 2.4/5/6 GHz, 24 Gbps aggregate per AP, dual 10G mGig uplinks	[S] CW9178I
R7	AP count	1 AP per 60–80 m² office, 1 per 25 seats in dense rooms	[A]
R8	Wireless controller	Catalyst 9800 family, HA pair, sized by AP count	[S] CW9800L (500 APs) / CW9800M (3,000 APs) / CW9800H1–H2 (6,000 APs) model set, read Sep 24, 2026; 9800-40/-80 past end of sale Dec 31, 2025
R9	WAN	SD-WAN, dual transport per branch (internet + internet or internet + MPLS), IPsec hub at HQ on a dedicated SD-WAN edge pair	[S] Cisco G2 Secure Router range (§4.4, §9.2); [A] transports and hub throughput
R10	DCI	2 × 400GbE day one, upgradable to 800GbE, on a platform of up to 9.6 Tb/s in 2 RU	[S] NCS 1014 with four 2.4T line cards: 9.6 Tb/s of encrypted trunk capacity in a 2 RU chassis, 100/400/800GbE clients (Cisco data sheets, read Nov 4, 2026)
R11	DCI encryption	line-rate encryption on the wavelength	[S] NCS 1014 2.4T line card: AES-256-GCM OTNSec at Layer 1, up to 2.4 Tb/s encrypted per card; post-quantum preshared keys in the IKEv2 keyring (Cisco data sheet and configuration guide, read Nov 4, 2026) (§9.2)
R12	Availability	99.99 % campus core; 99.9 % branch	[A]
R13	Convergence	< 1 s on any single wired uplink, core-member or wavelength failure (F1, F3, F7); wireless-controller and SD-WAN failover per F5 and F6	[A]
R14	Management	out-of-band console and management network, LTE fallback, telemetry to the client's NMS	[A]
R15	Enforcement points for SRA-SEC-001	802.1X on every access port; SGT capable	[S] Catalyst 9000 platform

Fifteen rows; ten carry a vendor figure, five are typical-buyer assumptions.

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3 · Architecture overview

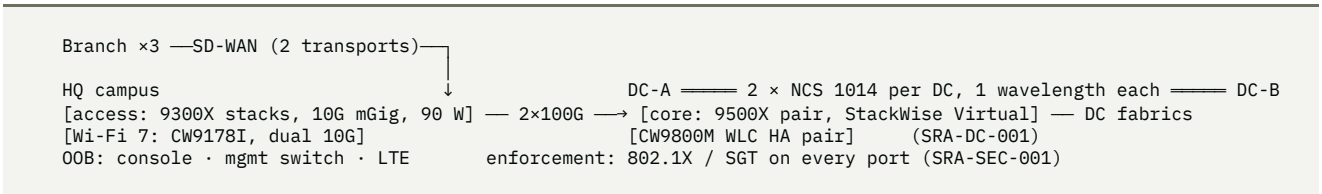


Figure 1. Campus, branch and data-center interconnect

Two-tier campus (collapsed distribution into a fixed 400G-capable core), Wi-Fi 7 at 10G per AP, SD-WAN to branches, two NCS 1014 chassis in each data center, each carrying one of the two DCI wavelengths.

4 · Component design

4.1 Access.

Catalyst 9300X stacks per wiring closet: C9300X-48HX, 48 × 10G multigigabit (10G/5G/2.5G/1G), 48 × 90 W UPOE+, StackWise-1T at 1 Tb/s, 100G uplinks [S]. Stack of 2–8 per closet by port count [A]. Rejected: 1G access — cannot carry a 24 Gbps Wi-Fi 7 AP (R6).

4.2 Core.

Catalyst 9500X pair in StackWise Virtual: C9500X-60L4D (60 × 10/25/50G + 4 × 40/100/200/400G) for port-rich sites, C9500X-28C8D for 100G-dense sites [S]. Collapsed distribution: each access stack dual-homed at 100G to both core members. Rejected: modular chassis core — fixed 400G-capable pair meets R5 at lower power and cost [A]. At HQ the 12 access uplinks land six per member on 400G ports in 4 × 100G breakout; the C9500X-60L4D takes up to 16 × 100G by breakout [S] (Catalyst 9500 data sheet, read Sep 28, 2026, `https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-9500-series-switches/nb-06-cat9500-ser-data-sheet-cte-en.html`).

4.3 Wireless.

CW9178I: four 4×4 radios, concurrent 2.4/5/6 GHz, 24 Gbps aggregate, dedicated WIDS/WIPS radio, IoT radio, dual 10G mGig ports for PoE and link redundancy [S]. Controller: Catalyst 9800 family HA pair (SSO), model by AP count: CW9800L to 500 APs and 10 Gbps, CW9800M to 3,000 APs and 50 Gbps, CW9800H1/H2 to 6,000 APs and 100 Gbps [S], read Sep 24, 2026. The typical buyer takes the CW9800M, Cisco's named migration product for the Catalyst 9800-40, which reached end of sale on Dec 31, 2025 [S] (§9.2). Rejected: Wi-Fi 6E APs — 2026 device fleet is Wi-Fi 7 (R6).

4.4 WAN.

SD-WAN edge per branch with two transports (R9); HQ hub terminates IPsec on a dedicated HQ SD-WAN edge pair (hq-wan-01/02, SDD-NET-001 §3.2), sized at the quote [A]. SD-WAN edge model chosen at the quote from Cisco's current Secure Router range (C8235-E-G2, C8231-E-G2, C8375-E-G2, C8475-G2) [S]; the first-generation C8200-1N-4T, C8200L-1N-4T, C8300-1N1S-*, C8300-2N2S-* and C8500L-8S4X carry end-of-sale notices dated Jul 27, 2026 and are not quoted (§9.2). The model is sized to the transports at the quote [A]. Rejected: MPLS-only — single transport fails R12.

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4.5 Data-center interconnect.

Two Cisco NCS 1014 chassis in each data center, four in all. Each chassis is 2 RU with four line-card slots, up to 9.6 Tb/s of encrypted trunk capacity with all four filled [S]. One NCS1K14-2.4T-K9 line card per chassis: six QSFP-DD client ports, 100/400/800GbE; two trunk ports on CIM 8 coherent pluggables, 400G to 1.2T each [S]. Each chassis pair (DC-A 01 to DC-B 01, DC-A 02 to DC-B 02) carries one of the two wavelengths, and the two wavelengths run on diverse fiber paths [A], so neither a chassis nor a fiber path is a single point of failure (F7, F8). Day-one client: 1 × 400GbE per chassis, so 2 × 400GbE per data center (R10), on a 400G trunk with one CIM 8; the card's second trunk is kept for growth [A]. Upgrade to 800GbE: an 800G trunk carrying 2 × 400GbE clients, or one 800GbE client from IOS XR 26.2.1 [S]. Cisco's feature list for the 800GbE client does not name encryption, so R11 on that client is confirmed against the release at the quote [A]. AES-256-GCM OTNSec encryption at Layer 1, keyed over IKEv2, with post-quantum preshared keys available [S], Cisco data sheets and configuration guide read Nov 4, 2026 (§9.2). Over dark fiber at 40 km (R1) or leased wavelengths. On dark fiber the CIM 8's output of up to +3 dBm and input floor of −12 dBm leave 15 dB [S], against about 12 dB for 40 km at 0.25 dB/km plus connectors [A], so no amplifier is assumed; SDD P3 measures each path. Rejected: router-to-router gray optics over leased fiber — no encryption at the optical layer (R11), no growth path (R10). Rejected: one chassis per data center — one chassis fault would take the whole DCI down.

4.6 Out-of-band.

Console server on every chassis, management switch on its own VLAN, LTE router; reachable before the in-band network exists [A].

4.7 Security enforcement points.

802.1X on every access port, SGT propagation core to access; the policy engine and NGFW are SRA-SEC-001's [S] Catalyst 9000.

4.8 Monitoring and lifecycle.

Streaming telemetry to the client's NMS; software baseline recorded in the as-built; end-of-life date per part number in §9. Planned baseline, read Sep 24, 2026: IOS XE 17.18.4 on Catalyst 9300X and 9500X (Cisco recommended release, alongside 17.15.6); IOS XE 17.18.4a with APSP2 on the CW9800M and CW9178I (TAC recommendation where Wi-Fi 7 features are enabled) [S] (§9.2). Checked again on the day of staging.

5 · Options and platform choices

Decision table. Each alternative carries its "meets §2" and cost band. No row is decided by a published comparison, so no row carries [CMP].

Table 3. Options and platform choices

ID	Decision	Requirement	Alternatives considered	Decision taken	Rationale
D0	Campus and WAN vendor	R2–R9, R15	(a) Cisco: Catalyst 9000 switching, CW9178I Wi-Fi 7, Catalyst SD-WAN · (b) HPE Aruba Networking: CX switching and Wi-Fi 7 access points · (c) Arista: 720XP switching and Arista Wi-Fi 7 access points; figures for (b) and (c) to be read from each owner's datasheet at the quote	**(a) Cisco**	The typical buyer's installed base and operations team are Cisco [A]

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ID	Decision	Requirement	Alternatives considered	Decision taken	Rationale
D1	Campus topology	R1, R4, R5, R12, R13	(a) 9300X access + 9500X core, two-tier: meets §2, cost mid · (b) three-tier with distribution layer: meets §2, cost higher	**(a) two-tier, collapsed distribution**	10G/90 W access, 400G-capable fixed core, one OS [S]; a distribution tier is not needed at 1,500 users and adds a tier to fail [A]
D2	Access platform	R2, R3, R4, R15	(a) Catalyst 9300X-48HX: meets §2 · (b) C9350-48HX smart switch (48 × 10G mGig, 90 W UPOE+, StackWise-1.6T, up to 400G uplinks, IPsec to 100G, IOS XE 17.18.1 minimum) [S], read Sep 24, 2026 · (c) 1G access: fails R2, R6	**(a) 9300X-48HX**	Meets R2–R4 [S]; no end-of-sale notice on Cisco's 9300 listing, read Sep 24, 2026 [S]. (b) exceeds R3 with no requirement that needs the extra stack bandwidth; it becomes the choice if a 9300X end-of-sale notice appears before the quote (SDD §9, no equipment past end of sale) [A]. (c) cannot carry a 24 Gbps Wi-Fi 7 AP
D3	Core platform	R5, R12, R13	(a) Catalyst 9500X pair, StackWise Virtual (C9500X-60L4D / C9500X-28C8D): meets §2 · (b) modular chassis core, now the C9610 (10 slots, 18 RU) [S], read Sep 24, 2026	**(a) fixed 9500X pair**	Meets R5 at lower power and cost [A]; no end-of-sale notice on either 9500X model, read Sep 24, 2026 [S]
D4	Wireless standard and AP	R6, R7	(a) Wi-Fi 7 CW9178I: meets §2, cost high per AP but fewer APs · (b) Wi-Fi 6E: fails R6, cost lower	**(a) CW9178I**	24 Gbps aggregate, 6 GHz [S]; device fleet is Wi-Fi 7 by 2027 [A]
D5	Wireless controller	R8	(a) CW9800M HA pair (3,000 APs, 50 Gbps) · (b) Catalyst 9800-40 HA pair: end of sale Dec 31, 2025 [S] · (c) CW9800L (500 APs, 10 Gbps) [S] · (d) CW9800H1/H2 (6,000 APs, 100 Gbps) [S]	**(a) CW9800M**	Cisco's named migration product for the 9800-40 [S]; (b) cannot be quoted (SDD §9); (c) covers 58 APs but its 10 Gbps ceiling is below the 9800-40 it would replace [A]; (d) oversized for 58 APs [A]
D6	WAN	R9, R12	(a) SD-WAN, dual internet: meets §2, cost low · (b) MPLS only: fails R12, cost mid	**(a) SD-WAN, two transports**	R9, R12; single transport fails R12. Edge from Cisco's current Secure Router range; first-generation C8200/C8300/C8500L parts listed in §4.4 are end-of-sale-announced [S]
D7	Data-center interconnect	R10, R11	(a) NCS 1014 with the 2.4T line card: meets §2, cost mid · (b) gray optics router to router: fails R10, R11, cost low · (c) 400ZR/ZR+ coherent pluggables in the data-center routers, with MACsec: figures to be read from the router vendor's datasheet at the quote	**(a) NCS 1014, two chassis per data center**	Up to 9.6 Tb/s of encrypted trunk capacity in 2 RU, AES-256-GCM optical-layer encryption, 800GbE path [S]; (b) has no optical-layer encryption and no growth path. Two chassis per data center, one per wavelength, so F8 is survivable; the "cost mid" band assumes two chassis and is re-set at the quote for four [A]

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6 · Failure conditions

Table 4. Failure conditions

#	Condition	What the user sees	Recovers by itself	Needs a hand	Time
F1	One access uplink down	none	second 100G uplink	no	< 1 s [A]
F2	One access stack member down	ports on that member	stack re-elects; other members carry	replace member	seconds / next day
F3	One core member down	none	StackWise Virtual pair	replace	< 1 s [S]
F4	One AP down	clients roam	neighbor APs	replace	seconds
F5	WLC active down	none	HA pair	replace	seconds [S]
F6	One WAN transport down	none	SD-WAN steers	no	seconds
F7	One DCI wavelength down (fiber cut on one path)	no outage; DCI capacity halves to 400 Gb/s	second wavelength, on the diverse path [A]	investigate fiber	< 50 ms [A]
F8	One NCS 1014 chassis down	no outage; DCI capacity halves to 400 Gb/s	second chassis pair and its wavelength	replace	0 / next day
F9	Site power lost	site dark	no	—	until power
F10	In-band management lost	none	OOB console + LTE	yes	minutes

7 · Validation

None yet. The acceptance test at first build: uplink failover under load, WLC failover with active clients, SD-WAN transport failover, DCI wavelength and chassis failover, all timed against R13 and recorded here once a build exists.

8 · Operations and lessons learned

Day 2: quarterly software baseline review; AP firmware with the controller; DCI performance monitoring on the four NCS 1014 chassis; capacity review at 70 % of any uplink; availability measured monthly against R12. Lessons: to be written by the signing engineer after the first build under this document.

9 · Appendix

9.1 Bill of materials, typical buyer [S]/[A]:

HQ access: 12 × C9300X-48HX in 6 stacks · core: 2 × C9500X-60L4D · wireless: 40 × CW9178I, 2 × CW9800M (the Catalyst 9800-40 is not used: end of sale Dec 31, 2025) · HQ WAN: 2 × SD-WAN edge from Cisco's current Secure Router range, model sized at the quote [A] · branches: 3 × (2 × C9300X-48HX, 6 × CW9178I, SD-WAN edge pair from Cisco's current Secure Router range) · DCI: 4 × NCS 1014 (two per data center), 4 × 400GbE client optics (1 per chassis × 4 chassis = 2 × 400GbE per data center, R10), 4 × NCS1K14-2.4T-K9 line cards with 4 × CIM8-C-K9 (1 of each per chassis) · OOB: 6 × console server, 6 × management switch, 6 × LTE router, one each per site (HQ, 3 branches, 2 data centers) · optics: 24 × 100G for access uplinks. **References:** the datasheets in §1 and the sources in §9.2.

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9.2 2026 technology review, read Sep 24, 2026.

Every product, version and standard in this set checked against the owner's own page. Kept where current; replaced where end-of-sale or superseded.

Table 5. 2026 technology review, read Sep 24, 2026

Item	Status read Sep 24, 2026	Action	Source
Catalyst 9800-40 / 9800-80 controllers	end of sale Dec 31, 2025, last date of support Dec 31, 2030; migration CW9800M (9800-40), CW9800H1/H2 (9800-80)	**replaced by CW9800M**	[S] https://www.cisco.com/c/en/us/products/collateral/wireless/catalyst-9800-series-wireless-controllers/catalyst-c9800-wireless-lan-controller-eol.html
Catalyst 9800-L in the model family	no end-of-sale notice; CW9800L offers double its capacity (500 APs, 10 Gbps, IOS XE 17.18.2 minimum)	**model family now lists CW9800L**	[S] https://www.cisco.com/c/en/us/products/wireless/catalyst-9800-series-wireless-controllers/eos-eol-notice-listing.html · https://www.cisco.com/c/en/us/products/collateral/networking/wireless/wireless-lan-controllers/cw9800l-wireless-controller-ds.html
CW9800M	3,000 APs, 32,000 clients, 50 Gbps, 1 RU, SSO, IOS XE 17.14.1 minimum	added	[S] https://www.cisco.com/c/en/us/products/collateral/networking/wireless/wireless-lan-controllers/catalyst-cw9800m-wireless-controller-ds.html
Catalyst 9300X (C9300X-48HX)	no 9300X model on the 9300 end-of-sale listing	kept; C9350-48HX recorded as alternative (D2)	[S] https://www.cisco.com/c/en/us/products/switches/catalyst-9300-series-switches/eos-eol-notice-listing.html · https://www.cisco.com/site/us/en/products/collateral/networking/switches/c9350-series-smart-switches/c9350-series-smart-switches-ds.html
Catalyst 9500X (C9500X-60L4D, C9500X-28C8D)	no 9500X model on the 9500 end-of-sale listing	kept; C9610 recorded as modular alternative (D3)	[S] https://www.cisco.com/c/en/us/products/switches/catalyst-9500-series-switches/eos-eol-notice-listing.html · https://www.cisco.com/site/us/en/products/collateral/networking/switches/c9610-series-smart-switches/c9610-series-smart-switches-ds.html
CW9178I Wi-Fi 7 AP	current; supported from IOS XE 17.15.2	kept	[S] https://www.cisco.com/c/en/us/support/wireless/wireless-9178-series-access-points/series.html · https://www.cisco.com/c/en/us/support/docs/wireless/catalyst-9800-series-wireless-controllers/214749-tac-recommended-ios-xe-builds-for-wirele.html
IOS XE, switches	recommended 17.18.4 and 17.15.6 for 9300X and 9500X (page updated Sep 4, 2026); every train from 17.9.x to 17.17.x carries an end-of-sale notice on the 9300 listing	baseline named: 17.18.4	[S] https://www.cisco.com/c/en/us/support/docs/switches/catalyst-9300-series-switches/214814-recommended-releases-for-catalyst-9200-9.html
IOS XE, wireless	17.18.4a with APSP2 where Wi-Fi 7 features are enabled (page updated Sep 3, 2026)	baseline named: 17.18.4a	[S] https://www.cisco.com/c/en/us/support/docs/wireless/catalyst-9800-series-wireless-controllers/214749-tac-recommended-ios-xe-builds-for-wirele.html

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Item	Status read Sep 24, 2026	Action	Source
SD-WAN edge (Catalyst 8000 edge)	C8200-1N-4T, C8200L-1N-4T, C8300-2N2S-* end of sale Jul 31, 2027; C8300-1N1S-*, C8500L-8S4X end of sale Jan 31, 2027; migration C8235-E-G2, C8231-E-G2, C8375-E-G2, C8475-G2	first-generation parts excluded; edge from the G2 Secure Router range	[S] https://www.cisco.com/c/en/us/products/collateral/networking/sdwan-routers/catalyst-8000-edge-platforms/catalyst-c8300-2n2s-4t2x-6t-1n-4t-c8200l-eol.html · https://www.cisco.com/c/en/us/products/collateral/networking/sdwan-routers/catalyst-8000-edge-platforms/catalyst-c8500l-8s4x-4t2x-c8300-1n1s-6t-eol.html
Cisco NCS 1014 and 2.4T line card, read Nov 4, 2026	NCS 1014: 2 RU, four line-card slots, 250 W typical and 600 W maximum empty, two 2.5 kW power supplies. 2.4T line card: six QSFP-DD clients, two CIM 8 trunks at 400G to 1.2T, 271 W typical, 9.6 Tb/s of encrypted trunk capacity per 2 RU. CIM 8: output +3 to −10 dBm, input −2 to −12 dBm	**added for the DCI**, one line card per chassis, named in §4.5 and §9.1. The data sheet marks encryption as a future release; Cisco's configuration guide (updated Oct 14, 2026) records OTNSec AES-256-GCM on the 2.4T card from IOS XR 25.2.1 and the 800GbE client from 26.2.1; release notes list 26.3.1 (Sep 11, 2026). No NCS 1014 hardware on Cisco's end-of-sale listing; IOS XR 7.x and 24.1.1 are on it, so the baseline is a 26.x release	[S] read Nov 4, 2026: https://www.cisco.com/c/en/us/products/collateral/optical-networking/network-convergence-system-1000-series/network-convergence-system-1014-ds.html · https://www.cisco.com/c/en/us/products/collateral/optical-networking/network-convergence-system-1000-series/ncs-1014c-band-transponder-line-card-ds.html · https://www.cisco.com/c/en/us/td/docs/optical/ncs1014/26xx/configuration/guide/ncs1014-config-guide-26xx/otnsec-encryption.html · https://www.cisco.com/c/en/us/td/docs/optical/ncs1014/26xx/configuration/guide/ncs1014-config-guide-26xx/c-slice-wrapper-1014/c-24t-24tx-card-more-test.html · https://www.cisco.com/c/en/us/td/docs/optical/ncs1000/26xx/release/notes/cisco-ncs1000-series-release-notes-2631.html · https://www.cisco.com/c/en/us/support/optical-networking/network-convergence-system-1000-series/series.html
NIST SP 1800-35	final, June 2025	kept	[S] https://csrc.nist.gov/pubs/sp/1800/35/final
NIST SP 800-88 Rev. 2 (cited by SDD §9)	final, Sep 26, 2025; supersedes Rev. 1 (2014)	kept	[S] https://csrc.nist.gov/pubs/sp/800/88/r2/final
iperf3 (cited by STP §3)	3.21, released Apr 9, 2026	version named	[S] https://software.es.net/iperf/news.html

9.3 · Industry rules this architecture helps a buyer meet.

Only rules linked to this document's requirements are listed; rules this document does not address are left out.

Table 6. Industry rules this architecture helps a buyer meet

Rule	Jurisdiction	What it asks of infrastructure	Requirements here	Coverage
FBI CJIS Security Policy v6.1 (Jun 25, 2026; supersedes v6.0)	US · criminal-justice agencies and their contractors	encryption of criminal-justice information in transit	R11	partial
HIPAA Security Rule, 45 CFR Part 164 Subpart C (the January 2025 proposed update is not final)	US · covered entities and business associates	transmission security: encryption of ePHI in transit	R11	partial

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Rule	Jurisdiction	What it asks of infrastructure	Requirements here	Coverage
PCI DSS v4.0.1 (Jun 2024)	Card schemes · any merchant or service provider	Req. 1: network security controls that segment the cardholder data environment (scoping is the assessor's)	R15	full
MPA Content Security Best Practices v5.3.2, assessed through the Trusted Partner Network (TPN)	Studio contract requirement (US-led, applied worldwide)	content protected in transit between sites	R11	partial

Naming a rule here is not a claim of compliance or certification: the buyer's assessor decides compliance, and Symbeeo holds no certification or authorization.

Sources for §9.3, read Sep 25, 2026: CJIS Security Policy v6.1 [S] `https://le.fbi.gov/file-repository/cjis_security_policy_v6-1_20260625.pdf` · HIPAA Security Rule; status of the proposed update, final action targeted July 2027 [S] `https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202510&RIN=0945-AA22` · PCI DSS v4.0.1 [S] `https://www.pcisecuritystandards.org/document_library/` (version); requirement numbers [S*] from secondary summaries, the standard sits behind a license click-through · MPA best practices and TPN [S] `https://www.trustedpartnernetwork.org/links-resources/` (v5.3.2 release date not stated on the page).

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Figures are as published by their sources on the dates given in this document; figures marked [A] are assumptions.

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