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SOLUTION DESIGN DOCUMENT

Sourcing, allocation and engineering-resource design for a typical buyer, applying SRA-RES-001

Design document (HLD + LLD)

CAPABILITY	DOCUMENT	VERSION	DATE
Strategic Resourcing	SDD-RES-001	1.2	Oct 10, 2026

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What this document is. The reference architecture says what good sourcing looks like. This document is that architecture applied to one client: its bill of materials classed, each class-A family allocated, the register's fields fixed, the engineers named by role, and the order of work. The client is the typical buyer from SRA-RES-001 §1 [A] — the organization whose network and data-center refresh is designed in SDD-NET-001 and SDD-DC-001. Every value marked [A] is replaced by the real client's during the design workshop. Product families are named here; manufacturers are not, because the published comparison chooses them.

Document control

Document	SDD-RES-001	Version	1.2
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Classification	Public	Supersedes	1.1, Oct 7, 2026
Capability	Strategic Resourcing	Author	Avinash Dhinakaran
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Credentials	iSAQB Certified Professional for Software Architecture – Advanced Level (CPSA-A), Oracle Certified Consultant – Value Chain Planning, Master Data Management, SCM Cloud		
Approval	Approved by Edwin Ozer, Founder, Oct 10, 2026. Issued by Symbeeo, Oct 10, 2026.		
Sign-off	"The customer's named representative signs this document before build; the practice lead signs it after."		

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Table 1. Revision history

Date	Version	Change
Sep 27, 2026	1.0	First issue.
Oct 7, 2026	1.1	Reissued with the practice set; no change.
Oct 10, 2026	1.2	Approval line now reads: approved by the Founder, issued by Symbeeo. Avinash Dhinakaran remains the author.

1 · Introduction

1.1 Purpose.

Sourcing design for the client's campus, branch, DCI and private-cloud refresh. After review, the client's representatives sign this document and ordering begins.

1.2 Goals.

Every class-A line with two qualified sources, or a buyer-signed R3 waiver and an early order; float of at least four weeks on every class-A line at order; every unit genuine and traceable by serial; every deployment task staffed by a certified engineer with a certified backup (SRA-RES-001 R3, R6, R12, R13, R15).

1.3 Approach and waves.

Wave 0 build the register. Wave 1 order class-A, longest lead first. Wave 2 order classes B and C; receive and inspect. Wave 3 staff deployment. Wave 4 operate: risk reviews and continuity exercise until acceptance of the last build.

1.4 Change control.

Once this document is signed, any change to it — a BOM line, a class, an allocation, a wave — is a **written change order** stating what changes, why, and its cost and schedule effect, signed by both parties before it is ordered. The signed change order is then recorded as a ticket in the client's change system referencing this document's section. A price re-approval under R8 is the buyer's decision on an existing line, not a design change, and stays under §4.2. Emergency orders are recorded within 24 hours [A] and covered by a change order at the next weekly report (§8.2).

1.5 Intended audience.

Client procurement and infrastructure leads; Symbeeo sourcing coordinator and build engineers; client legal for §4.4.

1.6 Related documents.

SRA-RES-001 · STP-RES-001 · SDD-NET-001 §3.2 and §7 (inventory and cut-over dates) · SDD-DC-001 (node order) · the published comparisons for each family.

2 · Prerequisites (all must be true before the first order)

Table 2. Prerequisites (all must be true before the first order)

#	Prerequisite	Owner	Status
P1	Comparisons signed; BOM baseline approved from SDD-NET-001 and SDD-DC-001	client	open

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#	Prerequisite	Owner	Status
P2	Need-by date per line, derived from the build phases in SDD-NET-001 §7	both	open
P3	Procurement policy, approval thresholds and approver named (R8)	client	open
P4	System of record chosen and the §6 fields configured	client	open
P5	Distributor accounts open; authorization evidence per manufacturer on file	Symbeeo	open
P6	Applicable-law list and screening source for high-risk suppliers agreed (R11)	client legal	open
P7	Resource register populated; every certification checked at the issuer (R14)	Symbeeo	open
P8	Receiving and staging location and inspection procedure agreed	Symbeeo	open

3 · Solution overview

3.1 Blocks.

As SRA-RES-001 §3: BOM baseline → criticality → source register → allocation → order and lead-time control → receipt and provenance → certified engineers, with supplier risk and continuity feeding back. One register, held in the client's system of record (§6).

3.2 Product families and classes [A].

Table 3. Product families and classes [A]

Family	From	Class	Why
Private-cloud and server nodes	SDD-DC-001	A	memory-bearing; CPU and PCB lead times near one year in 2026 [S] TrendForce
Campus core and access switching	SDD-NET-001 §3.2	A	on the critical path of cut-over steps 3–4
Optical DCI platform	SDD-NET-001 §3.2	A	phase 1 of the build; one manufacturer, narrow channel
Wireless access points and controllers	SDD-NET-001 §3.2	B	alternate models exist in the comparison
SD-WAN edges	SDD-NET-001 §3.2	B	branches follow HQ by weeks
Transceivers and optics	both	B	alternates only where the switch manufacturer's compatibility list names them
Software subscriptions and support contracts	both	B	entitlement must be live at install
Racks, PDUs, cabling, consumables	both	C	interchangeable

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4 · Logical design

4.1 Allocation per class-A family [A].

Table 4. Allocation per class-A family [A]

Family	Allocation	Float rule	Fallback
Server nodes	manufacturer fixed by the server comparison → two authorized distributors, split by site	order at P1 + 5 days; float ≥ 4 weeks	reservation against confirmed allocation
Core and access switching	manufacturer fixed by comparison → two authorized distributors	core first, access by closet	second distributor takes the whole line
Optical DCI	one manufacturer, direct or single distributor; R3 waiver signed by the buyer	earliest order in the plan	keep existing DCI (SDD-NET-001 §7 step 1 rollback)

4.2 Lead-time and price control.

Quoted lead time, quote expiry and promised date recorded at order. Acknowledgments and ship notices received as X12 855/856 or EDIFACT ORDRSP/DESADV, or through the distributor's API, where offered; keyed within one business day otherwise. Float recomputed on each acknowledgment: under 2 weeks → escalation to the client's procurement lead; under zero → allocation switch or re-plan with the build lead. Price moved more than 5 % from the comparison → order held for buyer approval [A] thresholds.

4.3 Lifecycle and quote clauses.

For each part number the manufacturer's published end-of-sale and end-of-support dates are recorded before order; a line with under five years of support from planned delivery goes back to the comparison for an alternate (R9). Every quote Symbeeo passes to the client carries three clauses: **no item is quoted past its manufacturer's end-of-sale date**; **every item's end-of-support date is shown on the quote**; and **the vendor support level by severity** — response time for severity 1 to 4 — is stated for every support contract and subscription quoted with the equipment. A distributor quote missing any of the three is returned before it reaches the buyer.

4.4 Supplier risk.

Class-A suppliers rated on five dimensions (SRA-RES-001 §4.6) at onboarding and every quarter; triggers reviewed within five business days [A]. The high-risk screen runs on the order date against the list agreed at P6; a hit blocks the order and opens a legal review. Continuity plan per class-A supplier: named alternate, buffer, time to switch; exercised once in the build period (R16). Exit provisions checked in every class-A agreement before signature (R17).

4.5 Receipt and provenance.

At the staging location: serial scanned against the ship notice; seal inspected; entitlement confirmed on the manufacturer's support portal; firmware read and recorded; the manufacturer's CycloneDX or SPDX bill of materials attached where published. A unit that fails any check is quarantined and never staged.

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5 · Engineering resource design [A]

Table 5. Engineering resource design [A]

Role	SFIA 9 skill [S]	Certification required	Primary · backup
Sourcing coordinator	SORC sourcing · SUPP supplier management	none required by manufacturers	named at workshop
Campus and WAN deployment engineer	NTAS network support · HSIN installation	the switching and SD-WAN manufacturers' level for the task, read from their partner program at P7	1 · 1
Wireless engineer	NTAS network support	the wireless manufacturer's level for the task	1 · 1
Data-center and HCI engineer	HSIN installation · ITOP infrastructure operations	the platform manufacturer's level for the task	1 · 1
Optical engineer	HSIN installation	the optical manufacturer's, or its own services under contract	1 · 1
Receiving technician	ASMG asset management	none	1 · 1

Certifications are recorded with issuer, expiry and date checked at the issuer's own record or by verifying an Open Badges 3.0 credential's signature. Any certification expiring within 120 days of a scheduled task is renewed or the task is reassigned before the task date.

6 · Records and interfaces

6.1 Register fields.

Line: part number, family, class, quantity, site, need-by date, alternates. Source: manufacturer, channel, authorization evidence and date, partner status under its current program name, risk rating and date. Order: quote date, quoted lead time, quote expiry, price vs comparison, promised date, float. Unit: serial, provenance fields of §4.5. Resource: engineer, role, certifications with issuer, expiry, date verified.

6.2 System of record.

The client's procurement suite or ERP purchasing module (options in SRA-RES-001 §5). Symbeeo holds no copy after handover.

6.3 Interfaces.

Distributor acknowledgments and ship notices in (EDI or API); build task log in from the build team; register export out, weekly, to the client's procurement lead.

7 · Sourcing plan

Table 6. Sourcing plan

Wave	Scope	Exit criterion
0	Register built, lines classed, sources qualified, lifecycle and screen run	STP-RES-001 T1–T5, T23, T24 pass

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Wave	Scope	Exit criterion
1	Class-A orders: optical DCI, server nodes, core, access	T6–T9 pass
2	Class B and C orders; receipt and inspection by site	T10–T13 pass
3	Deployment staffing for SDD-NET-001 and SDD-DC-001 builds	T14–T16 pass
4	Operations until the last build is accepted	T17–T22 pass

8 · Roles and deliverables

8.1 Roles.

Table 7. Roles

Role	Symbeeo	Client
Design authority	practice lead (signs)	procurement lead (signs)
Ordering	sourcing coordinator	approver named at P3
Acceptance	test lead	named acceptor

8.2 Weekly status report.

Every week from signature to acceptance: % complete per deliverable (register, each wave of §7, the handover pack), slippage against the signed plan — promised-date changes and class-A float from §4.2 — open change orders (§1.4). It travels with the weekly register export (§6.3).

8.3 Escalation contacts [A].

Named at the design workshop; roles fixed here.

Table 8. Escalation contacts [A]

Level	Symbeeo	Client	When
1	sourcing coordinator	procurement lead	a promised date moved, a quote returned (§4.3)
2	practice lead	head of infrastructure	class-A float under zero, or a disputed change order
3	Founder	CIO	unresolved at level 2 within 5 business days

8.4 Security and lifecycle clauses.

Applied to what this practice sources and holds; there is no build of Symbeeo's own under this document.

- A security incident affecting the client's data or systems — including the register, the distributor interfaces and the engineer records — is **reported to the client's security contact within 24 hours** of discovery.
- Storage media leaving the client's control are **sanitized to NIST SP 800-88 Rev. 2** (Guidelines for Media Sanitization, final, September 2025; `https://csrc.nist.gov/pubs/sp/800/88/r2/final`, read Sep 24, 2026), with a certificate per device, or kept by the client under a non-return service where the manufacturer's support contract offers one; media holding PHI or other regulated personal data are never taken back unsanitized. Here that means a sourced unit returned to a supplier after it has held client data (a warranty return after install). A unit refused at receipt (§4.5)

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has held none and goes back sealed; disposal of the client's retired estate is outside this document (not in SRA-RES-001 §1's scope).

- The quote clauses — no item past end-of-sale, end-of-support shown, support level by severity — are in §4.3.

8.5 Handover pack.

Register export (lines, sources, orders, serials, resources) with its field definitions · the interface settings for each distributor (EDI set or API) · credentials for distributor portals and interfaces transferred to the client, Symbeeo access removed · licenses and software entitlements, by serial where issued · support contracts with their severity levels and end dates · continuity exercise record · sanitization certificates, if any · STP-RES-001 signed with results · open items. As-built drawings and configurations of the installed equipment belong to the build's own handover (SDD-NET-001, SDD-DC-001), not to this pack. With this document and the acceptance certificate, these are the deliverables.

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SYMBEEO

Each vendor's tool shows you their option. We show you all of them against one requirement.

Compared. Then Delivered.

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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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