CONTINUITY HUB

Supply Network Risk Quick Card • Field Operations Series (2026)

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THE FUNDAMENTAL AXIOM OF SUPPLY CHAIN CONTINUITY

You cannot build resilience into a supply chain you don't understand. Effective supply chain risk management is not a static annual document; it is dynamic, data-fed, and updated continuously. Disruption is a variance event—plans based on average lead times fail exactly when the network is under stress.

4-Step Risk Mapping Foundation

CORE METHOD

STEP 1. Supplier Tiering & Dependency: Map top 80% spend to Tier 1 and Tier 2 (Tier 3 for critical parts). Log location, single-source status, lead time, financial health, and revenue impact.

STEP 2. Logistics Corridor Mapping: Trace physical paths from origin to destination. Identify ports, border crossings, transshipment hubs, and single-carrier dependencies. Overlay climate/geopolitical risk.

STEP 3. Concentration Analysis: Aggregate by geography, sub-tier dependency, and corridor. Unmask illusory diversification (e.g. 4 Tier-1s using 1 Tier-2 supplier).

STEP 4. Continuous Monitoring Integration: Feed live telemetry (financial ratios, port delays, weather alerts, cyber threat feeds). Shift from descriptive to predictive intelligence.

The Illusory Diversification Trap (4-to-1)

CRITICAL EXPOSURE

Hidden Concentration Warning: You may contract with four distinct Tier-1 suppliers for a component, but if all four source from the same single Tier-2 fabricator or rely on one transshipment port, your diversification is completely illusory.

Sub-Tier Audit Action Items:

- Demand sub-tier Bill of Materials (BOM) transparency in Tier-1 contracts.
- Aggregate sub-tier nodes across all active supplier contracts.
- Flag any single point of origin serving >30% of total company component volume.
- Audit shared industrial parks and common regional sub-assembly hubs.

Tier 1 & Tier 2 Exposure Identification Matrix (Top 80% Spend)

FIELD AUDIT LOG

Component / SKU	Tier 1 Supplier	Location	Single Source?	Lead Time	Known Tier 2 Sub-Source	Transit Corridor Hub	Disruption Action
Critical Assembly A	Primary Apex Corp	Penang, MY	**YES** (Sole)	45 d (±18d)	Silicon Foundry X (Hsinchu)	Port of Tanjung Pelepas	Activate 70/30 regional split; buffer 60d
Sub-Circuit Board B	Vanguard Electr.	Suzhou, CN	**YES** (Single)	60 d (±22d)	Substrate Tech Ltd (Kaohsiung)	Shanghai / Ningbo Port	Pre-qualify Vietnam backup; hold VMI
High-Spec Resin C	Nordic Polymers	Antwerp, BE	NO (Dual)	21 d (±4d)	Petrochem Refinery (Rotterdam)	Rotterdam / Antwerp Corrid.	Decoupling buffer at regional DC
Precision Fastener D	Allied Tooling	Monterrey, MX	NO (Multi)	7 d (±2d)	Steel Mill Z (Coahuila)	Laredo Border Crossing	Cross-border logistics contingency plan
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Anticipate-Absorb-Adapt Triage Framework

ACTION PROTOCOL

- **ANTICIPATE:** Predictive intelligence (30/60/90 days out), supplier debt/payment tracking, port dwell anomalies, weather alerts.
- **ABSORB:** Strategic decoupling stock, regional DC positioning, vendor-managed inventory (VMI) to absorb shock without line stoppages.
- **ADAPT:** Pre-authorized switchover workflows, alternate corridor routing, pre-negotiated capacity reservations without committee delay.

Standards & Governance Verification

COMPLIANCE

- **ASCM Enterprise Standards:** Alignment on supply network visibility, ethical resilience, and multi-tier governance.
- **ISO 28000:** Security management across supply chain transport, chokepoints, and freight custody chains.
- **Contract Clauses:** Mandatory continuity plans, sub-tier disclosure, and annual joint exercise participation.

Logistics Corridor & Maritime/Land Chokepoint Checklist

BOTTLENECK AUDIT

Transit Node Type	Primary Vulnerability Trigger	Early Warning Monitoring Signal	Pre-Authorized Contingency Action
Container Ports	Berth congestion, labor disputes, crane failure, extreme storms.	Container dwell time >5 days; vessel anchorage backlog >10 ships.	Reroute to secondary feeder port; divert high-margin volume to air freight.
Maritime Canals / Straits	Geopolitical conflict, low draft/water levels, vessel grounding.	Transit slot restrictions, naval security advisories, draft draft limits.	Cape routing pre-calculation; buffer stock injection at regional DC.
Border Crossings	Customs regulatory shifts, strike action, inspection slowdowns.	Truck queue time >8 hours; customs tariff classification disputes.	Activate pre-cleared C-TPAT/AEO green lanes; bonded warehouse staging.
Transshipment Hubs	Container rollover, yard congestion, feeder vessel scheduling gaps.	Rollover percentage >15%; intermodal rail terminal dwell times.	Bypass transshipment with direct vessel booking; inland intermodal reroute.
Single-Carrier Exposure	Carrier solvency crisis, cyberattack on carrier booking/manifest API.	Carrier on-time reliability drop <70%; market credit rating downgrade.	Contractual volume capping (max 40% with any single carrier); secondary NVOCC.

Segmented Sourcing Allocations

ALLOCATION RULES

High-Margin Critical: 70/30 Dual Sourcing
Primary (70%) preserves volume economies of scale; Secondary nearshore (30%) keeps tooling validated, staff active, and quality verified so surge is an order change, not a cold start.

High-Consequence: 60/30/10 Tri-Sourcing
60% offshore primary, 30% regional nearshore, 10% local domestic hyper-responsive bridge that absorbs immediate disruption while network reconfigures.

Low-Margin Volume: Warm Standby
Cost-optimized primary with pre-qualified contingency suppliers under pre-negotiated activation contracts.

The Safety-Stock Formula (Variance Model)

ARITHMETIC SIZING

$$SS = Z \times \sqrt{(\bar{L} \times \sigma_d^2) + (\bar{d}^2 \times \sigma_{LT}^2)}$$

$$ROP = (\bar{d} \times \bar{L}) + SS$$

- **Z:** Service-level factor (Z = 2.33 for 99% cycle service level).
- **$\bar{L}$:** Average supplier lead time (in days).
- **σ_d:** Standard deviation of daily demand.
- **$\bar{d}$:** Average daily demand.
- **σ_{LT}:** Standard deviation of lead time in days (disruption variance).

Recalculate quarterly & immediately upon corridor degradation.

Supply Chain RTO / Buffer Positioning Decision Log

POSITIONING STRATEGY

SKU / Material Group	Supply Chain RTO	Calculated SS Buffer	Strategic Decoupling Node	Vendor-Managed Inventory (VMI)
Critical Sub-Assembly 101	**72 Hours**	45 Days Demand	Regional DC (within 4 hrs of plant)	VMI consignment on-site; paid on withdrawal
Proprietary Active Component	**5 Days**	60 Days Demand	In-country bonded warehouse	Guaranteed allocation reservation SLA
High-Volume Standard Part	**14 Days**	20 Days Demand	Central Distribution Hub	Standard supplier replenishment pipeline
[Fillable Field Line]				

IMMEDIATE FIELD AUDIT DIRECTIVE

If your organization relies on a single carrier for >50% of inbound freight, or if critical Tier-1 components share unmapped Tier-2 fabrication nodes, your recovery time objective (RTO) is unguaranteed. Complete the full *Disruption-Proof Supply Network Pack* worksheets to establish defensible multi-sourcing and validated safety stock buffers.