EMERGYS

MATERIAL INTELLIGENCE CONNECTOR

Unifying SAP ERP Truth with Salesforce CPQ and Freshworks ESM



STRATEGIC DIRECTIVE FOR CIOS & CTOS

Bridge the gap between SAP operational master data and front-office execution with a single, lightweight API architecture eliminating technical debt, data duplication, and integration bloat across your sales and service ecosystems.

1. STRATEGIC IMPERATIVE: THE OPERATIONAL GAP

When Enterprise Resource Planning (SAP ERP), Customer Relationship Management (Salesforce), and Enterprise Service Management (Freshworks ESM) operate in disconnected silos, core product structures become fragmented, leading to revenue leakage and service bottlenecks.

Data Drift & Logic Duplication

Maintaining separate custom integrations for Engineering BOMs in SAP and Sales BOMs in IT platforms doubles integration overhead and introduces synchronization failures.

Lack of Material Context

"SAP has no single sellability flag — it's derived from Sales Org data, Distribution-Chain Sales Status, and Item Category Group, requiring manual cross-referencing today."

Quoting & Service Delays

Without real-time hierarchy awareness, sales quotes in Salesforce and service ticket spare-part requests in Freshworks frequently reference invalid or unbuildable configurations.

2. ARCHITECTURAL CORE: ONE TABLE. ONE API. ZERO DUPLICATION.

Behind every product quote in Salesforce, every field service request in Freshworks, and every component scheduled on the factory floor lies a single source of truth in SAP. Because Sales BOMs and Engineering BOMs reside within the exact same underlying SAP table, Emergys provides a single, unified API layer.

Single Integration Touchpoint

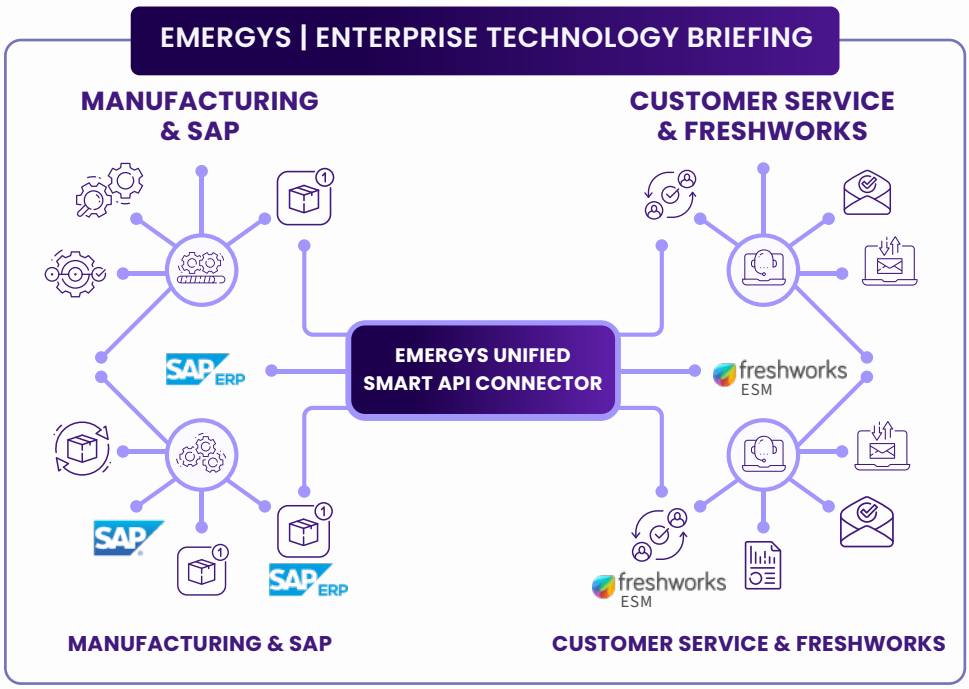
Replaces multiple point-to-point connections with one lightweight API, slashing maintenance costs and API call volume.

Zero Logic Duplication

Preserves SAP as master data authority while exposing real-time product structures directly to Salesforce and Freshworks.

Instant Front-to-Back Alignment

Ensures quotes in Salesforce and service tickets in Freshworks ESM reflect exact underlying SAP material reality.



3. CORE TECHNICAL CAPABILITIES

A. Smart, Hierarchy-Aware BOM Navigation

With only a Material Code, the Emergys connector instantly extracts the complete product structure across infinite nested levels:

Explosive Downward Retrieval (Child Components): Unrolls multi-level assemblies down to raw sub-components (Highlight Start) with zero depth limitations (Highlight Stop), providing complete visibility into product composition.

Implosive Upward Retrieval (Parent Relationships/"Where-Used"): Traces sub-components back to parent assemblies, allowing service agents in Freshworks ESM or sales reps in Salesforce to instantly identify which higher-level configurations rely on a given component.

B. Derived "Sellable" Material Intelligence

SAP ERP does not contain a native "sellable" binary flag. The Emergys connector solves this by executing configurable business rules against **SAP Material Types:**

- Dynamically filters out internal-only manufacturing items, raw materials, & interim assemblies from customer-facing catalogs
- Ensures Salesforce CPQ and Freshworks Service Desk present only orderable and supportable items to end users

C. Dual BOM Operational Alignment

DIMENSION	TARGET PLATFORM	CONTENT SCOPE	OPERATIONAL IMPACT
Sales BOM	SALESFORCE CPQ FRESHWORKS ESM	Filtered to sellable products, accessories, and spare/ replacement parts.	Powers accurate customer-facing catalogs, CPQ quotes, and service ticket spare-part resolution.
Engineering BOM	SAP ERP CORE	Complete structural view (sellable items, non-sellable assemblies, raw materials).	Drives Material Requirements Planning (MRP), Production Planning (PP), and shop-floor execution.

4. ENTERPRISE IMPACT: MANUFACTURING & ESM (FRESHWORKS)

Impact on SAP, Manufacturing & Salesforce

- **Error-Free CPQ:** Sales reps assemble quotes using validated SAP product hierarchies, eliminating post-sale order rejections due to unbuildable BOMs.
- **Accelerated Quote-to-Order:** Automated material validation shortens quoting cycles from days to seconds, directly boosting win rates.

Impact on Enterprise Service Management (Freshworks)

- **Precision Service Ticketing:** Support agents in Freshworks ESM query exact parent-child trees to identify replacement parts without engineering escalations.
- **Higher First-Time Fix Rates (FTFR):** Field technicians gain immediate visibility into component availability in SAP, ensuring correct part dispatch.

5. ROADMAP INNOVATION: AI-POWERED SALES & SERVICE INTELLIGENCE

Turning static SAP transaction history into active front-office revenue intelligence:

Transaction Pattern Analysis

Syncs historical SAP sales orders to analyze buying trends, complementary component requirements, and cyclical replacement needs.

Contextual Cross-Selling

Automatically prompts sales reps in Salesforce with high-probability add-ons and accessories based on analytics-driven product rankings.

Proactive Service Upsells

Recommends preventive maintenance kits and sub-assembly upgrades inside Freshworks ESM based on historical component wear rates.

6. STRATEGIC TCO & ROI SUMMARY FOR IT LEADERSHIP

CAPABILITY	TRADITIONAL POINT-TO-POINT INTEGRATION	EMERGYS UNIFIED CONNECTOR
Architecture	Fragmented, multi-API codebase requiring constant custom maintenance.	Single unified API serving Salesforce and Freshworks concurrently.
BOM Navigation	Shallow data queries limited to 1–2 levels; fails on complex nested BOMs.	Infinite hierarchy traversal (both parent-to-child and child-to parent).
Data Filtering	Manual tagging or duplicate master data tables in CRM/ESM.	Automated rule-based classification derived directly from SAP Material Types.
Total Cost of Ownership	High maintenance overhead; frequent breakage during SAP upgrades.	Lower TCO by consolidating business logic at the connector API layer.

PARTNER WITH EMERGYS

For over two decades, Emergys has enabled enterprise organizations to modernize their digital ecosystems. By unifying SAP backend operational truth with front-office customer engagement and service platforms, we turn complex technical structures into a clean operational advantage.