
Case Study: Bridging the Retail Divide

Headline: How a Leading Automotive Distributor Scaled to 45 Dealer Nodes with VectorStream Inventory Bridge and Microsoft Dynamics 365.

1. The Snapshot

- **Customer:** "Apex Performance Parts" (Global Automotive Distributor)
- **Industry:** Automotive / Aftermarket Parts
- **Size:** 450 Employees | 45 Independent Dealer Locations
- **Solution:** VectorStream Shadow Ledger for D365 Commerce
- **Results:** 100% stock visibility, 30% reduction in safety stock, 0% balance sheet inflation.

2. The Challenge: "The Ghost Inventory Problem"

Apex Performance Parts operated a hybrid model. They owned 10 corporate stores and supported 35 independent dealers.

- **The Conflict:** Dealers used the Apex POS (D365 Commerce), but they **legally owned** the stock on their shelves.
- **The Technical Wall:** D365 standard inventory logic required every item in the POS to be "owned" by the Legal Entity. To track dealer stock, Apex had to "receive" it into their books, which artificially inflated their corporate assets by **\$12M**, leading to massive tax and audit complications.
- **The Outcome:** Fearing the auditors, Apex stopped tracking dealer stock entirely, leading to "Out of Stock" messages on their website even when parts were sitting on dealer shelves.

3. The Solution: VectorStream's Shadow Ledger

Apex implemented **VectorStream Inventory Bridge** as a native extension to their D365 environment.

- **The Virtual Pivot:** VectorStream Inventory Bridge created a "Shadow Warehouse" for every dealer location. These warehouses were flagged as "Non-Financial," allowing stock to be tracked for POS sales without hitting the General Ledger.
- **Real-Time Sync:** Using the VectorStream **CSU Extension**, every time a dealer sold a spark plug at the POS, the "Shadow Ledger" was updated in milliseconds.
- **Automated Wholesale Hook:** When Apex HQ shipped a replenishment order to a dealer, the system automatically "transformed" the wholesale shipment into a "Shadow Receipt" for the dealer's location.

4. The Results: Transparent Growth

Within six months of deploying VectorStream Inventory Bridge, Apex Performance Parts achieved:

- **Unified Omni-Channel:** For the first time, the "Check Local Availability" button on their website was 99.8% accurate across all 45 dealers.
 - **Audit-Ready Books:** The finance team completely decoupled dealer-owned assets from HQ's balance sheet, saving an estimated **400 manual accounting hours** per year.
 - **Inventory Efficiency:** With total visibility, Apex reduced "safety stock" at the central hub by **30%**, as they could now move stock between dealer nodes based on real-time demand data.
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