

How a Regional CE Retailer Achieved 22% Carrying Cost Improvement and 28% Write-Off Reduction with Demand-Aligned Network Balancing

Order Management → Replenishment Planning & Network Balancing

At a Glance

The Problem

- New model launches stranding prior-model inventory for 12–18 weeks
- No visibility to excess vs. sellable stock by store location
- Excess inventory tying up \$5–8M in working capital per cycle
- Write-offs averaging \$2–3M annually on obsolete CE stock

The Solution

- Weekly sell-through risk scoring by model and location
- Automated inter-store and store-to-DC rebalancing triggers
- Demand-aligned replenishment factoring model lifecycle stage
- E-commerce fulfilment integrated into rebalancing logic

The Result

- 22% carrying cost improvement
- 20% days of supply improvement
- \$4.2M working capital freed
- 28% write-off improvement

Business Context

A regional consumer electronics retailer operating 22 stores plus an e-commerce channel faced a challenge structural to CE retail: product lifecycles measured in months. Each new product release made predecessor models harder to sell at full price — yet inventory was spread unevenly across locations, with no systematic mechanism to move stock from slow stores to higher-velocity ones before the markdown window closed.

The business was writing off \$2–3M annually on obsolete inventory that could have been sold near full price had it been in the right location at the right time. Carrying costs on slow-moving CE products — which depreciate faster than almost any other retail category — were compounding the problem, tying up \$5–8M in working capital every product cycle.

Client Profile

Industry:

Electronics

Geography:

North America — Single Region

Scale:

22 stores + e-commerce channel

Revenue:

\$160–280M annual revenue range

SKUs:

9,000+ active SKUs across CE categories

The Challenge In Depth

The root cause was a combination of static replenishment rules and no cross-location visibility. Replenishment orders were generated at store level with no awareness of what neighbouring stores or the e-commerce DC were holding on the same model.

- **Lifecycle Blindness:** No system flagged when a product entered end-of-lifecycle risk. The first visible signal was typically week 8–10 of a 12-week model lifecycle — too late for meaningful reallocation.
- **Uneven Distribution:** Popular models stocked out in high-velocity stores while identical SKUs sat in excess at slower locations, creating simultaneous stockouts and overstock on the same products.
- **Write-Off Accumulation:** Inventory that failed to clear before a new model launch was written off at cost — representing \$2–3M annually in avoidable loss.
- **No E-Commerce Leverage:** E-commerce fulfilment operated as a separate inventory pool — excess in stores could not be redirected to online orders without a manual transfer process taking 3–5 days.

Our Approach

1. Network Inventory Visibility That Knows Where Every Unit Is

Techverx deployed a unified inventory view across all 22 stores and the e-commerce DC, with daily sell-through tracking by model and location. For the first time, the planning team could see in a single dashboard which stores were ahead of sell-through pace and which were falling behind — while there was still time to act.

2. Automated Rebalancing Before Models Reach End of Lifecycle

The system automatically triggered inter-store transfer recommendations when a product's sell-through trajectory indicated excess risk — flagging it by week 4 of the model lifecycle and giving the team 8 weeks to act. Store-to-DC transfers enabled excess stock to be redirected to e-commerce fulfilment, capturing demand from a broader geography rather than forcing markdown at local level.

3. Demand-Aligned Replenishment That Accounts for Model Stage

A weekly bias monitoring dashboard tracked over/under-forecast patterns by category, channel, and planner — automatically flagging systematic biases for root-cause review. Forecast bias, which had been running at 18–22%, improved 68% within 16 weeks as the systematic drivers were identified and corrected in the model.



Replenishment on demand, delivered timely using our platform

Results and Impact

In the first full product cycle post-deployment, carrying costs improved 22% — recovering margin previously consumed by slow-moving CE inventory. Days of supply improved 20%, reflecting tighter alignment between stock levels and actual sell-through velocity. \$4.2M in working capital was freed for redeployment. Write-offs improved 28%, as the majority of excess inventory was rebalanced to higher-velocity channels before the markdown window closed.

What Happened Next

- **Weeks 1–8:** Unified network inventory visibility live across all 22 stores and e-commerce DC; daily sell-through tracking by model and location activated.
- **Month 3:** Automated rebalancing recommendations deployed; first inter-store transfers executed within 48 hours of flagging.
- **Month 5:** Demand-aligned replenishment with lifecycle-stage inputs live for all active models.
- **Currently:** Evaluating supplier sell-in integration to incorporate model lifecycle data at point of initial order placement.

22%

Carrying Cost
Improvement

20%

Days of Supply
Improvement

\$4.2M

Working Capital
Freed

28%

Write-Off
Improvement

axlian

Axlian helps retail teams make faster decisions, reduce inventory costs, eliminate stockouts, and protect margins; so retailers never fall behind.

axlian.com