

# Case Study

## Portable Retail POS Terminals

Customer: May Department Stores



### Problem/Opportunity

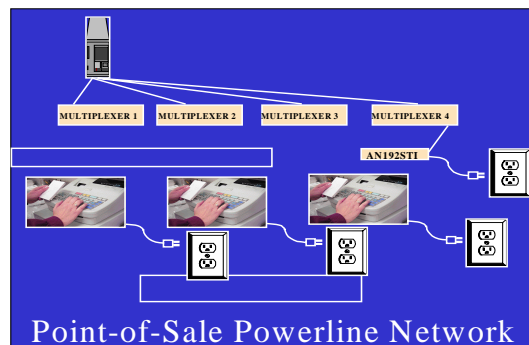
The retail store environment is highly dynamic. Retail floor space is adjusted seasonally and day-to-day to properly handle variations in store traffic. Key to laying out retail floor space is the effective placement of Point-Of-Sale (POS) terminals for customer convenience and properly handling traffic—especially during peak seasons and sales events where traffic management is critical to maximizing sales opportunities. As such, placement strategy of POS terminals requires a mixture of semi-permanent and flexible POS terminals that can quickly and easily be deployed to accommodate day-to-day and seasonal retail sales floor traffic. POS terminals are typically hardwire networked for “price check”, credit card processing and transaction processing and reporting. Typical deployment of a hardwired POS terminal requires placement near a wall with a network outlet or running wires underneath carpeting and displays for extending into middle of sales floor. Since stores have significant merchandise and displays on a sales floor at any given time, store remodels, and hence moving POS terminals, is costly, time consuming and unrealistic under ordinary operating circumstances.

### Application Genesis

The Director of IS Engineering at May Stores called Adaptive Networks after hearing about the technology from a colleague. His need was for enabling a portable cash register that could be quickly and easily deployed around their stores. He considered powerline networking to be a good fit for this application and provided the following network requirements:

- ◆ Near perfect connectivity
- ◆ Sufficient payload throughput for all types of functions and transactions
- ◆ Error free reliability
- ◆ Overall performance similar to existing hardwired networking in terms of “lost network transactions”

May purchased an evaluation kit which they bench and field-tested including onsite with a POS terminal. After a successful test, May and Adaptive began a 6-9 month development project focusing on software integration with multiple units multiplexed to a single unit attached to the stores high speed network backbone. Upon completion of the project the technology was deployed throughout May's portfolio of retail companies.



### Solution

Working closely with Adaptive Networks, May's IS department embedded the AN192 (19.2 Kbps payload) PLC technology inside May's POS terminals. This allows May stores to establish network connectivity for POS terminals by simply and easily plugging into the stores existing electrical wiring. Typically retail stores have flush mounted electrical outlets spaced evenly throughout their sales floor. The ubiquity of these outlets on the sales floor allows May stores to establish POS terminals to optimize handling of store traffic on a seasonal, day-to-day, and even hour-to-hour basis.



## Results

The “lost network transaction” metric is a common measure in retail networking. Under ideal conditions a small portion of transactions are always lost. Adaptive Network’s powerline networking technology provided the identical rate of “lost network transactions” as their existing hardwired solution. This rate met and exceeded May’s acceptable limit.

*“Adaptive’s technology allowed us to quickly and easily deploy POS terminals throughout our stores without sacrificing the performance and reliability that we’ve come to expect from our hardwired terminals. We are able to quickly react to changing floor traffic patterns on a moments notice and optimize our sales and customer service.”*  
Bob Snodgrass, Director of IS Engineering

## Other Powerline Application Case Studies from Adaptive Networks

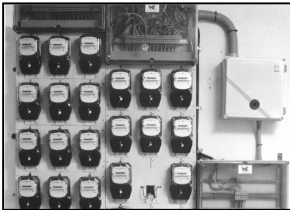
### Shipboard container temperature monitoring for liability insurance



### Material Handling for Automated Storage and Retrieval Systems (ASRS)



### Remote meter reading for electrical utilities (IEC Standard)



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