



# Retail Industry Connects via New Wireless Technology

## Cellular Wireless Alternative to Wireline Data Networks

**Industry:**  
Retail

**Challenges:**

- Network expansion and reliability
- Increased competition
- Shrinking margins
- Many widely dispersed sites

**Requirements:**

- Broad coverage
- Secure and reliable communications
- High-speed connection for some apps

**Solution:**

Wireless access to remote sites/devices via **Digi Connect® WAN** cellular routers

**Benefits:**

- Broad coverage
- Quick/Easy to deploy
- Secure
- Real-time access to remote sites/devices
- Maximize network uptime
- Reduce monthly recurring fees
- Eliminate wire related hassle

The retail industry is in a very competitive, high-speed race to win the loyalty of consumers. Retailers must innovate by offering new products and services, while continuing to cut costs. Most manage many remote networks filled with a growing number and variety of devices, primarily designed to create a high value shopping experience and collect money. Maintaining secure, reliable connections across a wide geography while managing a demand for increasing bandwidth on these networks has proven a formidable challenge. Fortunately, new wireless technologies can facilitate expansion of retail networks by providing TCP/IP connections to virtually all remote retail locations, and may even be less expensive than traditional landlines.



By using new high-speed GSM and CDMA cellular technologies, retailers can create a Wireless WAN (WWAN) connection to retail locations for real-time two-way communications to Point-of-Sale (POS) equipment such as registers, credit card machines, etc. In addition, remote networks requiring a backup connection to existing landlines can utilize a wireless connection for failover, providing maximum uptime and uninterrupted customer service, resulting in increased performance and efficiencies.

**Requirements for Retail:**

- **Coverage** is a key component of retail branches that have a large number of locations spread over a broad geography. Many GSM and CDMA carriers provide excellent coverage in metro areas and widespread coverage in rural areas as well.
- **Bandwidth** is increasing throughout the networks, however not all applications require high speeds.
  - Transactional data, common with POS devices, use very little data and provide cost-effective solutions via pervasive 2.5G networks.
  - For applications requiring high bandwidth, new 3G networks provide speeds up to 800 Kbps with coverage primarily in metro areas.
- **Security** is critical and carrier networks are up to the challenge with the highest level of advanced encryption and authentication technologies.

Average Wireless Bandwidth (Speeds in Kbps)				
	GSM		CDMA	
	download	upload	download	upload
2.5G	70-130	20-60	50-70	50-70
3G	400-700 <sup>†</sup>	150-250 <sup>††</sup>	400-800	50-70* 300-400**

<sup>†</sup> Based on HSDPA

\*Based on EvDO Rev 0

<sup>††</sup>Based on HSUPA

\*\* Based on EvDO Rev A

**Why Wireless for a Landline Alternative?**

**1. Reduced monthly recurring fees**

- Only pay for data used, but "always-on" capable
- Very quick ROI

Cellular	Frame Relay	DSL/ISDN	Dial-Up
\$15-\$50*	\$125*	\$55/ \$100*	\$45*

\*Estimated average costs based on low MB data plan

**2. Infrastructure is already there**

- Amazing coverage with instant access to worldwide network
- Carriers (not you!) maintain towers and uptime
- Reliable and secure constant connection

**3. Easy to set up/install**

- No waiting for phone company to set up line
- Seamless migration with legacy devices
- Remote management/monitoring via **Digi Connectware® Manager**

**4. It's wireless!**

- True network diversity—wires more vulnerable to nature and man
- Wires are more expensive to install

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# Case Study: Chain of Fitness Centers

## Target Customers:

- Convenience stores
- Restaurant chains
- Grocery stores
- Branch offices, satellite offices

## Network Options:

- Primary or backup networking

## Applications:

- Point-of-Sale (POS)
- Temporary networks
- Store-in-a-store
- Kiosk/Self-service

## Why Digi?

- #1 in wireless device connectivity
- 5-year warranty
- Strong support and customer service
- **Digi Connectware® Manager** enterprise class remote device management software platform
- Strong relationships with carriers

## Customer:

Operator of 14 gyms in the Chicagoland area.

## Business Issues:

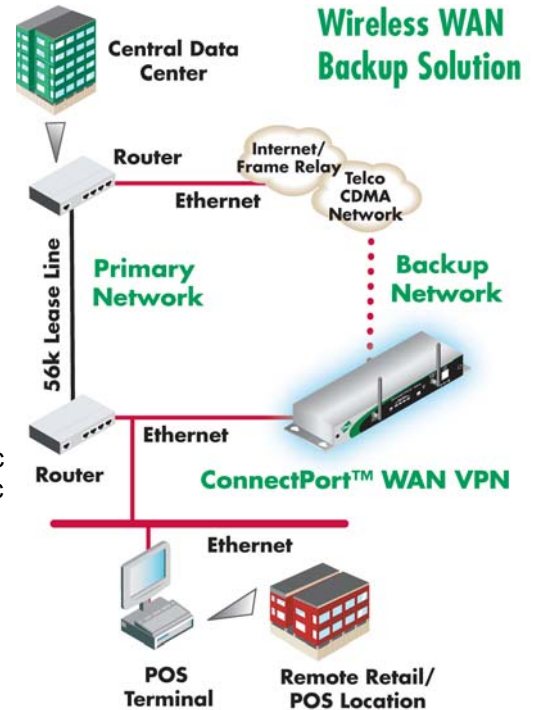
- Currently use T-1 connections for all facilities to manage POS system
- Wiring problems in local loop caused them to frequently lose connection during rain
- Needed a reliable backup network connection to ensure ability to process gym membership fees

## Solution:

- Customer wanted a non-wired alternative to T-1 connection for backup network
- Digi Connect WAN VPN router utilizes high-speed network to provide reliable failover for maximum network uptime
- Supports features required by customer, including IPsec VPN, IP Filtering, Port Forwarding and support for Static IP routes

## Benefit:

- True diversity vs. wireline services for failover applications
- Increased network coverage and reliability
- Wireless backup solution prevents worst case scenario of losing over \$200K per day in lost revenues



## Digi Wireless Products



### ConnectPort™ WAN VPN

- Upgradeable 3G Rev A-ready platform with VPN
- Support for EVDO Rev A and UMTS/HSDPA
- 2 serial, 4 Ethernet
- Modules/Cards INSIDE box to prevent theft/damage
- Rugged external antenna connector options



### Digi Connect® WAN

- 2.5G GSM GPRS/EDGE & CDMA 1xRTT embedded WWAN routers
- 1 serial, 1 Ethernet
- Industrial protocol support
- RealPort® for integration with legacy devices/applications
- VPN, sync and industrial options
- Rugged external antenna connector options



### Digi Connectware® Manager

- Enterprise class remote device management software
- Best in class
- Supports remote configuration, email/SNMP monitoring, diagnostics, asset tracking, DDNS integration

## GSM Carrier Partners



## CDMA Carrier Partners



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