

Welcome to Cardinal

- **Pioneers & Innovators**

- ✓ Founded in 1999 – Cleveland / Mentor Ohio
- ✓ First payment technology “in the cloud”
- ✓ SafeCloud™ infrastructure for authentication payments

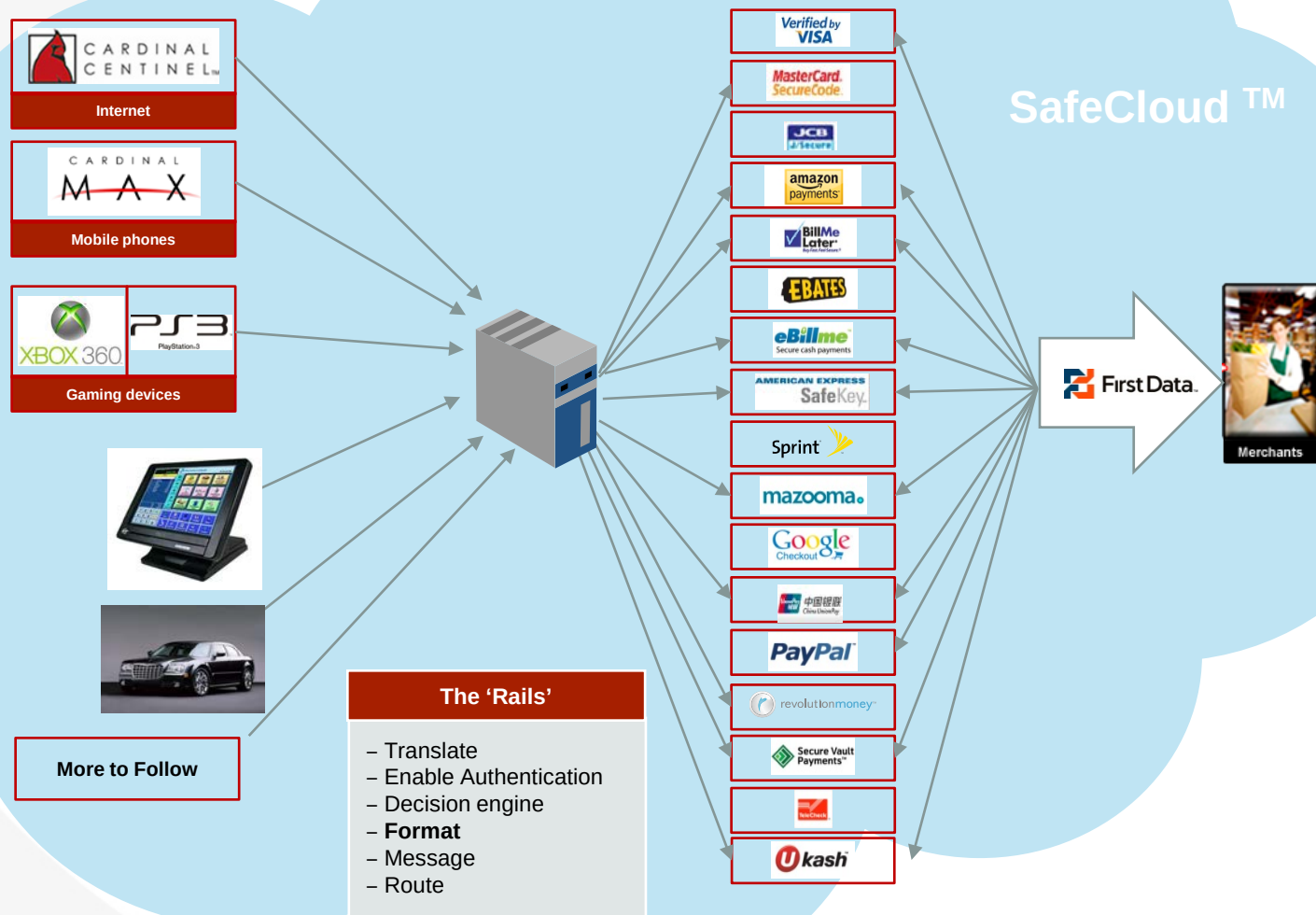
- **2013 MRC award winner**



- **Global Leader – Consumer Authentication**

- ✓ Over 40,000 merchants
- ✓ Over 50 million transactions per month
- ✓ Over 1.6 billion transactions protected ≈ \$140 billion

From any place... to the right place... the right way



One Connection to “FutureProof”

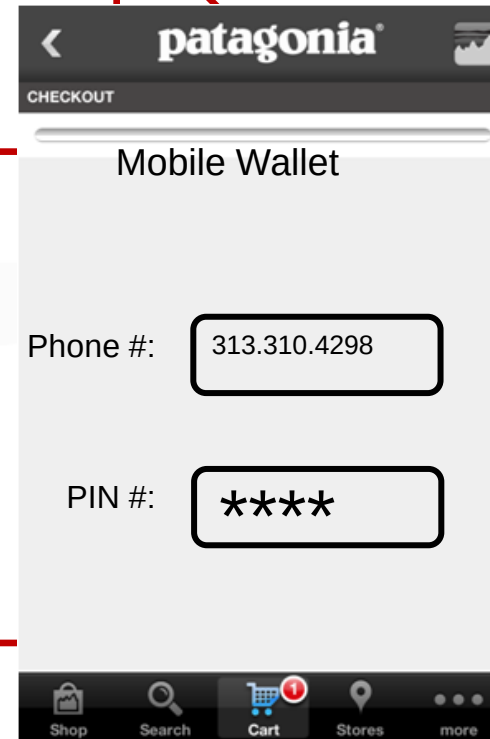
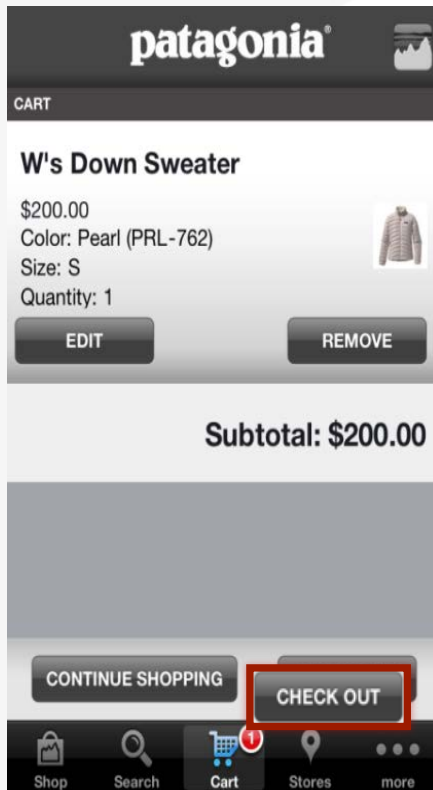
One Connection to FutureProof™ Payment Processing



CARDINAL
CENTINEL



Universal Wallet API™



Enabling Wallets with One Connection

Consumer Authentication Delivers



- ✓ Increased Sales
- ✓ Liability Shift
- ✓ Interchange Savings – Improved Margins



Consumer Authentication – Dashboard Control

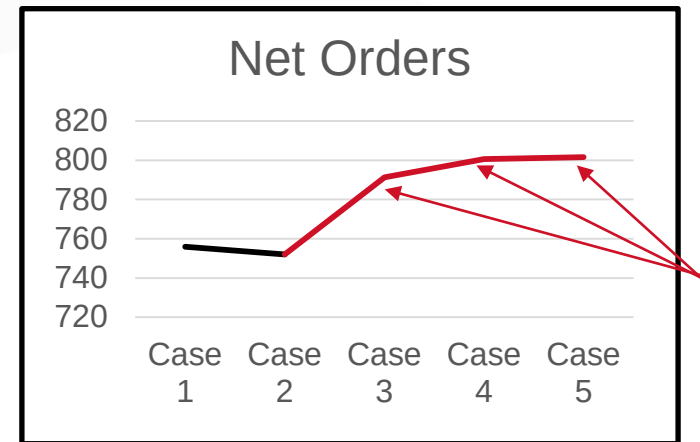
- Utilizes multiple authentication technologies
- Combines strength of the 3-D Secure™ protocol with rules-based analytics
- Compliments fraud mitigation service
- Monitors and adjust parameters seasonally or periodically
- Impacts GSI Commerce, Microsoft, FedEx, Delta, Hotwire, etc.

Risk Level	Enrollment Status	ADS	Decision on Challenge
HIGH	YES	YES	✓
HIGH	YES	NO	✓
HIGH	NO	NA	✓
MED HIGH	YES	YES	✗
MED HIGH	YES	NO	✓
MED HIGH	NO	NA	✓
MED	YES	YES	✗
MED	YES	NO	✗
MED	NO	NA	✓
MED LOW	YES	YES	✗
MED LOW	YES	NO	✗
MED LOW	NO	NA	✓
LOW	YES	YES	✗
LOW	YES	NO	✗
LOW	NO	NA	✓

The Result

Increase sales, enhanced customer experience and added value for Merchants.

- ✓ Merchants can experience
 - **2% - 6% lift in sales**
- ✓ Sales insults with manual review eliminated through consumer authentication
 - **consumer experience**
- ✓ Fraud liability shift and lower acceptance costs will add to the Merchant's bottom line 250 bps
 - **improved margin**
- ✓ Consumers have limited friction
 - **consumer experience**



Case 1 - No Centinel

Case 2 - No Centinel

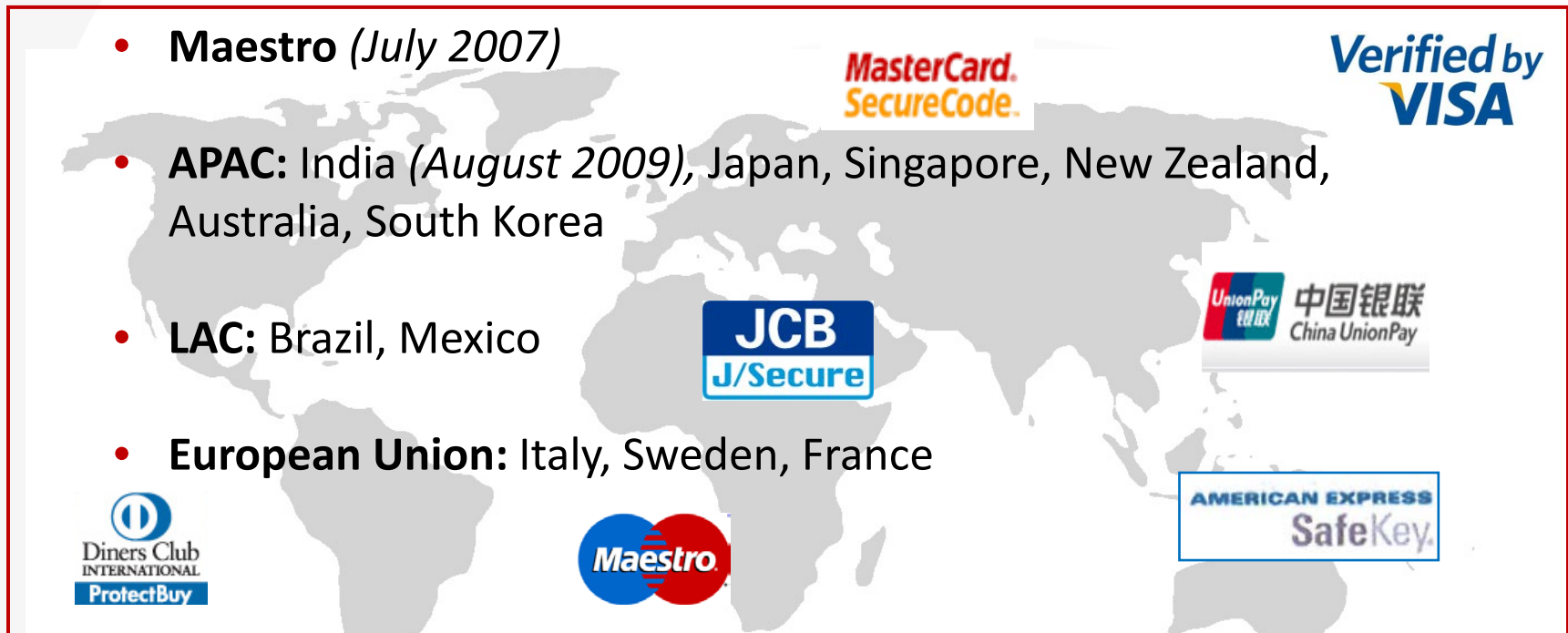
Case 3 - Centinel

Case 4 - Centinel w/ FS

Case 5 - Centinel Select w/ FS

Industry Drivers:

- ✓ Regional mandates
- ✓ EMV – “Chip & PIN”
- ✓ Industry Growth $\approx$ 18 to 20%

- **Maestro** (*July 2007*)
- **APAC:** India (*August 2009*), Japan, Singapore, New Zealand, Australia, South Korea
- **LAC:** Brazil, Mexico
- **European Union:** Italy, Sweden, France

Logos displayed on the map:

- MasterCard SecureCode (North America)
- Verified by VISA (North America)
- JCB J/Secure (Japan)
- UnionPay 中国银联 China UnionPay (Asia)
- AMERICAN EXPRESS SafeKey (South America)
- Diners Club INTERNATIONAL ProtectBuy (South America)
- Maestro (Europe)

Thousands of Merchants...More on the Way!

