



Application – ATM Conversion from POTS to Cellular

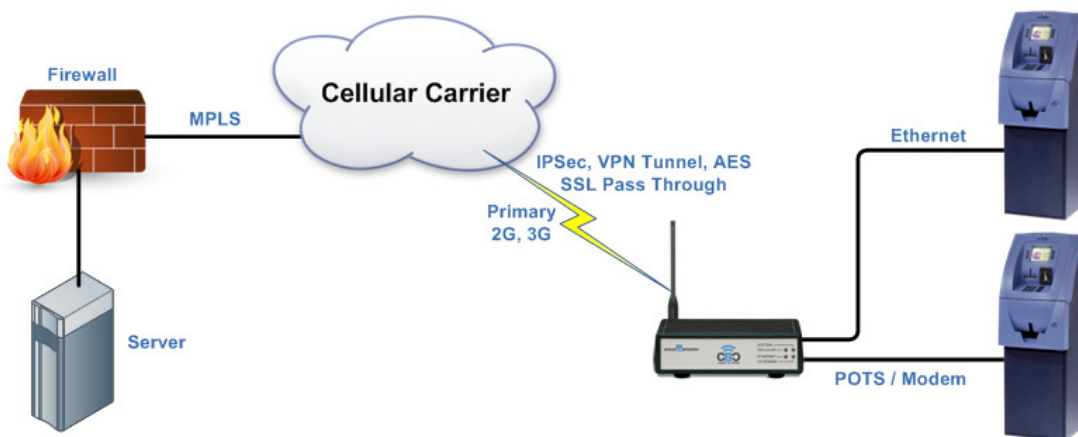
The Problem

Today, approximately 60% of all Automated Teller Machines (ATMs) use Plain Old Telephone Service (POTS) to deliver banking services. Most ATM manufacturers are aggressively promoting a wholesale change out of equipment to newer IP-enabled devices because POTS services are weak on uptime, transport security, redundancy and remote maintenance capabilities. Also, Carriers in North America are phasing out POTS, which will result in most of these circuits to be eliminated by 2015. This leaves the customer with a major decision. Either go for the expensive, disruptive change out of equipment today or upgrade network connectivity for existing ATMs and change on their own time frame. The problem then becomes how do they move these copper based ATMs to the more reliable, lower cost transport and take advantage of new IP-based services without the wholesale change out of equipment.

The Solution

The solution is the Encore Networks Copper To Cell (C2C™) portfolio. The C2C™ is ideally suited for legacy ATM applications that currently depend on analog modems and POTS line services. The C2C™ uses an embedded Verizon Wireless 2G or 3G cellular modem and integrated Central Office modem to easily move ATMs to a secure, reliable IP-based solution. The customer need not change any equipment in the field, thus preserving their invested CAPEX. The C2C™ also provides IP-based Ethernet services through its Ethernet port at any time, allowing additional services to be delivered while maintaining the analog based equipment. By moving to the C2C™ IP-based platform, additional services can be delivered, backup data and alarms can be transported simultaneously to multiple host data centers. The C2C™ provides increased transport security using IPSec VPN with 3DES or AES encryption. For large installations multiple units can be configured from a central location via Encore's Config Server which programs, updates and maintains thousands of units, requiring no senior technical service people in the field.

Application Diagram



The C2C™ ATM solution is a one-to-one replacement for existing POTS.

- Embedded Cellular Modem
- M2M
- POTS and Ethernet

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Technical Specifications

Physical Interfaces

- **WAN/LAN Connectivity:**
 - One 10/100 Ethernet w/ Auto Failover
 - One CO Modem RJ11

Connectivity

- **Data Modem Port**
 - Bell103, Bell212, V.21, V.22, V.22 bis, V.23, V.32, V.32 bis, V.34
 - LS/GS
 - Polarity Reversal
 - V.42 with Error Correction - MNP 2-4
 - V.42 bis w/ Data Compression & MNPS
 - Rotary/DTMF
- **IP - Ethernet**
 - TCP, UDP/RTP Data Transport
 - RTP Packet Optimization
 - DLCI IP configuration
 - Telnet (Client or Server)
 - TCP Port configuration
 - TCP Broadcast
- **Wireless - Embedded**
 - Integrated Wireless modem supports 2G/3G Wireless Cellular data networks
 - 1 External Antenna / 1 Internal Diversity Antenna (3G)

Management

- Manageable via SNMP
- Remote or Local Access
- Telnet

System Features

- SNMP Alarms / Traps
- Password Security
- User Friendly interface
- Alarm Reports
- Syslog

Security and Routing

- IP Authentication
- Call setup authentication
- Unit Authentication
- User Passwords
- Standard Encryption 3DES/AES 256
- IPsec
- Firewall (Layer 4)
- SSL Pass Through
- Standard Routing Protocols

Network Support

- IP Wireless
- Cellular Data
- IP Satellite
- IP Terrestrial
- Private or Public Networks

Electrical Specifications

- **Power Supply Options:**
 - 3.5 watts nominal
 - 7.5 watts maximum with embedded cellular modem
- **AC:** 100-240VAC, 50-60Hz

Environmental

- **Environment:**
 - Temperature:
 - Commercial grade: 0° C to +50° C
 - Non-Operating: -40° C to +85° C
 - Humidity: 5% to 95% non-condensing
 - Altitude: Up to 10,000 ft. (3048 m)
- **Mechanical:**
 - Height: 1.2 in. (3.05 cm)
 - Width: 4.3 in. (10.92 cm)
 - Depth: 2.8 in. (7.11 cm)
 - Weight: Less than 1 lb. (< 0.45 kg)
 - Installation Type: Desktop/Shelf
- **Standards Compliance:**
 - RoHS Compliant
 - PCI Compliant
 - Product Safety
 - UL/CSA 60950-1
 - CAN/CSA-C22.2 No. 60950-1-03
 - EN 60950-1
 - EMC
 - FCC Part 15
 - EN 55022: 1998
 - EN 55024: 1998
 - NERC CIP (003, 005, 007, 009)
 - Part Number: C2CME-0000-0000-0

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