ShawnTech Communications

C5 System
Correctional Cellular Communications Call Control

Presented to
Corrections Technology Association
May 2011
Agenda

• Update
  – Update since last year’s CTA conference.

• C5 System Pilots
  – Alpha pilot – rural facility
  – Beta pilot – suburban facility

• System Technology & Features

• The road ahead...
Update

CTA 2010 - Present
C5 Background

• Relationships Established:
  – **NTIA** - National Telecommunications and Information Administration
  – **NLECTC** – National Law Enforcement & Corrections Technologies Center
  – **FCC** - Federal Communication Commission
    • Office of Engineering & Technology
    • Office of Public Safety and Homeland Security
  – **Carriers**
    • AT&T, Sprint, T-Mobile, Verizon, MetroPCS & Cricket
• CDCR National Public Safety Technology Conference
• Alpha and Beta pilots
C5 System

Pilot Projects
C5 System

Alpha Pilot – rural facility
Alpha Pilot - Secure Umbrella Coverage area
C5 System – Rural – Alpha Pilot

• Confirmed / Completed
  – The secure umbrella *was contained within facility property line* and fence areas as required by facility. Creating a buffer zone to public.
  – The C5 System *did not interfere with public safety* or other two-way radio communications.
  – An extensive *legal review* was completed to ensure all parties were in *compliance* with federal and state laws
  – DOC *policies needed to be updated* for mobile devices
  – The C5 System *did not interfere or hinder* the cellular carriers’ network
C5 System

Beta Pilot – suburban facility
C5 System – Suburban – Beta Pilot
**C5 System – Suburban – Beta Pilot**

- **Confirmed / Completed**
  - *Control of devices from five (5) Carriers*: Sprint, AT&T, T-Mobile, Verizon & MetroPCS
    - 1st managed access system to control 5 carriers (including iDEN)
    - Carrier Towers are close the facility
  - The C5 System *did not interfere with the residential area* near Beta site
    - 1st managed access system in suburban area
  - 176 authorized devices included in database
    - 1st managed access system allow more than a few authorized devices
  - Does not hinder other wireless equipment including medical equip.
C5 System
Technology & Features
C5 System Technology

• Cell Phone Prevention & Control System
  – Unique – Catch & hold –or- catch & release capability
  – Developed for the signals intelligence community

• Managed Access Hybrid System – in one box
  – Detection / intelligence gathering (passive)
  – Managed access (authorized or unauthorized devices)
  – Redirect (active mode / reduced to a more mature protocols)
  – Denial of service (active mode / zero tolerance)
  – Site survey
C5 System Technology

• Includes all carriers
  – AT&T, T-Mobile, Verizon, Sprint, Cricket, Sprint/Nextel, MetroPCS, Boost Mobile and various other pay-as-you-go carriers
  – Includes CDMA, GSM, WCDMA, iDEN
    • 3G & 4G software is in development

• Current users – U.S. federal, state and local governments - 1500 + units installed
C5 System – Secure Private Network
C5 System Features & Benefits

• Expandable to include cellular, high powered cordless phones, two-way radios, pagers, satellite, Wi-Fi, etc.
  – 20+ protocols are available (many are restricted)

• Self-adjusting software ensuring system is operating in best configuration when network changes – dynamic

• Stand-alone system – Prisons are in control of security.

• Software defined radio architecture
  – Cards can be reallocated when protocols are replaced
  – Cards can be expanded for additional technology
C5 System Features & Benefits

• Takes control of the unauthorized / contraband device in correctional facilities
• Authorized devices will remain connected to the commercial network in the secure coverage area
• Solution minimizes impact to the public
  – Allows unknown devices to connect to the carrier network
  – Allows unknown calls in progress to remain connected to the carriers network as they move in and out of the secure umbrella
  – Operational integrity & security is private – no voice prompts to public
C5 System **Key Features**

- Small footprint (19” x 7” x 16”)
- Energy efficient
- Operates without the need for a climate controlled environment
  - Range between -4° to +140°F and will not hinder the performance of the system
- Price is less than other managed access systems
  - Provides more value
  - Longer life cycle = better ROI
- System forces device to proper holding channel
- Site survey, installation, operational management & service all provided by ShawnTech w/ 18 years of correctional experience
C5 System

The road ahead...
The road ahead...

- System pilot – urban area facility
  - This will ensure that the system meets the needs of all stakeholders.
- Carrier sublicense agreements
  - In progress
- Technology development
  - RF over fiber and other in building designs
C5 System

Legal & Policy
C5 System Legal & Policy

• Federal
  – Electronic Communications Privacy Act
    • Title 18 – pen register, trap & trace

• State
  – Statutes
    • Pen register, trap & trace
    • Is it illegal to possess a cell phone in prison?

• Agency Policy
  – Consent from inmates, employees & visitors
  – Policies may need to be updated & notice provided
C5 System Recap
C5 System Value Proposition

- Detection, managed access, redirect, denial & site survey
- Controls cellular, two-way radio, other (2 MHz – 3 GHz)
- Stand-alone & independent of carriers
- Self-adjusting software during operation – dynamic
- Energy efficient, small size & lower cost
- Design, installation & support provided by ShawnTech
- Legal & policy due diligence experience
- Excellent relationships with the carriers
- System integrator
Questions

Thank You!

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visit our CTA Booth #306