P25 New Products and Services for 2017

Presented by:
PTIG - The Project 25 Technology Interest Group
www.project25.org
Project 25 Technology Interest Group (PTIG)

What do we do:

• Provide a forum for users and manufacturers
• Manage education and training on Project 25
• Create and distribute Project 25 information
• Support the TIA standards process
• Offer Users access to the standards process without the rigor of TIA membership
• Maintain a “neutral ground” among the competing manufacturers and providers

And...

• Present Classroom Training and Panels such as THIS SESSION.
Welcome to the Project 25 Technology Interest Group

The Project 25 Technology Interest Group (PTIG) brings you this web site to provide information on all topics concerning Project 25.

Please register on the site for access to additional information. If you previously registered prior to June 2010, a new registration is required. This is to assure we have current and accurate information.

Registration is required to maintain a spam free site for you. No fees are required for website registration.

PTIG MEMBERS NOTE: When your individual registration is validated for affiliation to a paid membership or a commercial member company, your registration will provide member access privileges.

Use the dialog box titled "Contact Us" on the home page for any inquiries about registration and membership.

This site is the official home of PTIG and our P25 community. Your suggestions and comments are always welcome. Use the dialog box titled "Contact Us" on the home page to make your suggestions, offer comments, or seek more information.

What is Project 25?

Project 25 (P25) is the standard for the design and manufacture of interoperable digital two-way wireless communications systems. Deployed in North America:

Why P25?

Project 25 enables successful fulfillment of these factors so critical to public safety operations and use of two-way radio communications in the field:

List of P25 Trunking Systems

List of P25 Conventional Systems

P25 Frequently Asked Questions

P25 Feature Translator

P25 Standards latest Update

P25 Steering Committee Approved List of Standards

P25 Capabilities Guide
New P25 Mobile Radios, Portable Radios and Pagers

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www.project25.org
New P25 Portable: KNG2 Series

What is New

- Enhanced Audio (3 Watt)
- Integrated GPS/Bluetooth
- Enhanced PTT and Display

P25 Interoperability solution

- TDMA, FDMA and Mixed Mode Operation
- AES-256, DES and ADP Encryption

Benefits to Public Safety

- Loud and Clear Audio in Public Safety Environments
- Tier 1 and Tier 2 Location Service

http://www.bktechnologies.com
New P25 Control Head: KNG Virtual Control Head

What is New

- JAVA Application
- Radio Over IP
- Full Control of Remote Radio

P25 Interoperability solution

- TDMA, FDMA and Mixed Mode
- P25 Fixed Station Interface

Benefits to Public Safety

- Local and/or Remote Control During Critical Incidents
- Audio Logging

http://www.bktechnologies.com
What is New

- XL-185P Single Band upgradeable to LTE
- VHF
- UHF
- 7/800MHz
- 900MHz upgradeable to include 7/800MHz

P25 Interoperability solution

- CAP Certified
- Single Key AES compliant to DHS standards

Benefits to Public Safety

- Hazardous Locations - C1D1 intrinsically safe
- Standard GPS, WiFi, and Bluetooth functionality
- Integrated LMR and nationwide LTE coverage
New P25 Portables: VP6000

What is New

• Advanced public safety ergonomics
• Backlight indicators for event notifications
• 7 operational themes available to choose

P25 Interoperability solution

• P25 Auto Switch
  o Extends communication range when operating in analog mode
• Compatible with Multiple P25 Systems
  o Motorola Astro® 25, Harris VIDA®, Airbus VESTA™

Benefits to Public Safety

• Out of range indication
• Evacuation alert

What is New

• Phase 1 and 2 Trunking with Analog/P25 conventional
• Smallest form-factor, full-featured on the P25 market
• Built-in: Bluetooth, GPS, SD Card logging (BER/RSSI)

P25 Interoperability solution

• 2-tone en/decode with Vibrate and Voice Recording
• Offers AES/DES Encryption, OTAR, OTAP and Data

Benefits to Public Safety

• Light & ruggedized w/IP68 and MIL-STD-810G ratings
• Software options to allow for best value and growth


What is New

• Phase 1 and 2 Trunking with analog/P25 conventional
• Remote head & dual head options w/ hand-held controller
• Built-in: Bluetooth, GPS receiver, Voice Recording

P25 Interoperability solution

• 50W operation for VHF or UHF
• Large color display with day/night mode.

Benefits to Public Safety

• Offers multiple installation options for most vehicles
• Active Noise Cancelling with separate equalizer for both TX & RX


Benefits

• Unique Xmode software and configuration upgradeability, allowing operation on analog, MPT1327 trunking, P25 conventional and P25 trunking systems.
• Supports conventional, trunking, voting, status and short messaging.
• Ruggedized, robust construction for demanding field use.
• Supports 1500 P25 conventional channels and up to 5 programmable P25 trunked networks.
• IP67 rating on the SRP9180 and SRP9170 offers protection against dust and water.
• DES-OFB and AES Digital encryption supported.
• Highly programmable function buttons.
• Safety and emergency functions such as Stun, GPS/Man Down and Emergency Alarm.
• Multi-vendor compatible accessory connector supports current generation or legacy accessories.
• P25 Compliance Assessment Program (CAP) Compliant.
New P25 Mobile Radio: Cost Effective

What is New

- VHF and UHF Dual Band variant (2018).
- FCC Approved.
- CAP in progress.

LMR Band Coverage

- 136MHz to 174MHz VHF
- 400MHz to 470MHz UHF
- 450MHz to 512MHz UHF

Benefits to Public Safety

- Selectable RF output power/channel to 25 Watts.
- Configurable for voice and data operation.
- AT terminal interface for configuration and control.

http://www.gmeprofessional.com
New P25 Mobile Radio: Cost Effective

What is New
- VHF and UHF variants 1072 Channels with 50 zones
- Local & remote mounting options.

P25 Interoperability solution
- Phase One TIA-102 compatible
- Conventional, trunking, data & AES-256 operation.
- Publicly available APIs for 3rd party integrators.

Benefits to Public Safety
- Fast, secure installation and programming.
- Optional FIPS 140-2 encryption module.
- Digital & analog configuration
- Built to MIL Spec 810

http://www.gmeprofessional.com
New P25 Chargers for TP9400 IS and TP8300 IS Intrinsically Safe Radios

Tait 6-way IS Charger
• Charge up to six batteries
• Full charge in under four hours

Tait IS Vehicle Charger
• Vehicle mounted
• Full charge in under four hours
• Single-handed insertion/removal
• Retains radio in the event of crash

New P25 Handheld Control Head

What is New
- Handheld device designed to offer one-handed operation of PTT, volume, and channel selection

P25 Interoperability solution
- Design to work with the NX-5000 series mobile
- Speaker microphone with full featured control head

Benefits to Public Safety
- Built in speaker with 1 W output
- Active noise reduction for a single microphone
- 7-color programmable LED located at the top for easy recognition
- Intuitive GUI - 14 character full color display
- Built in Bluetooth
New P25 Voice Pager

What is New

• Industry’s First P25 Voice Pager
• Dual Band 700-800MHz/VHF & 700-800MHz/UHF
• Supports P25 Trunking, P25 Conventional & Conventional

P25 Interoperability solution

• Receives Both Analog 2-Tone & P25 Transmissions
• Migrate from a Legacy 2-tone Network to a P25 Network

Benefits to Public Safety

• A Cost Effective Solution for Fire Departments
• Improved Coverage, Voice Clarity and Superior Reliability

www.UnicationUSA.com
New P25 Repeaters

Presented by:
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www.project25.org
New P25 Suitcase Repeater: SRB250

What is New

- Flexible and customizable platform
- Ruggedized P25 Repeater with simple deploy and repeat mode
- Environmentally protected

P25 Interoperability solution

- In progress

Benefits to Public Safety

- Meets rigorous needs of Public Safety and Business Critical P25 field deployment
- Resilient radio systems which provide a self-contained, compact, robust and easily deployable, radio communications solution

http://www.simocowirelesssolutions.com
New P25 Conventional Portable Repeater with Wireline Support

What is New

- PDR8000 – Portable Digital Repeater
- Available in VHF, UHF, 700 MHz and 800 MHz
- Connection via V.24 to Motorola Solutions Dispatch Console

P25 Interoperability solution

- End to End Encryption Supported
- Cross-Patch Capability

Benefits to Public Safety

- Rapid Deployment Repeater
- Closed Case Operation
- Lightweight construction
What is New

- Tactical Mixed Mode repeater
- Rugged Extremely Compact Housing
- All P25 Network Interfaces available

P25 Interoperability solution

- Supports IP/H.F. & Satellite Backhauls
- Interfaces with FSI (BAHA)+CSSI+ISSI (Phase One & Two)

Benefits to Public Safety

- Deployable P25 Repeater for Emergency Communications
New P25 Incident Command Solution: ICE™ Incident Commanded Element

What is New

• Integrated Solution combines 2, 3 or 4 Radios, Radio Control over IP software, Interoperability and Dispatch
• Transportable Case or Vehicle Mounted Rack (dc power)

P25 Interoperability solution

• On-site Dispatch to P25 and other radio systems
• Patch P25 Channels/Groups to Legacy Channels

Benefits to Public Safety

• Fire / First Responder P25 Commander Applications
• Advanced Digital Vehicular Repeater Applications

http://www.catcomtec.com
New P25 System Elements and Capabilities

Presented by:
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www.project25.org
New P25 Service Solution: DiagnostX Addresses the CAPEX Challenge

What is New

• Evaluating alignment of subscribers is now available with DiagnostX as a Service
• No need to wait for capital funds approval
• Use available maintenance funds
• Depending on system requirements, service could be provided annually, semi-annually, or as a Managed Service

How It Works

• LocusUSA will install equipment & perform scans, managing the data from our Network Operations Center
• Customer report shows alignment characteristics of all active subscribers by radio ID

www.LocusUSA.com
New P25 Service Solution: DiagnostX Addresses the CAPEX Challenge

Reports
• Locus provides a report listing “failed” & “passed” radios based on customer defined thresholds

P25 Interoperability Solution
• Works with both P25 Trunked & Conventional

Benefits to Public Safety
• Cost-effective way to identify radios in need of service - good radios remain in the field
• Ensure optimal system performance
• Proven proactive radio management tool
• Best practice to test radios prior to P25 upgrade

www.LocusUSA.com
What is New

• P25 Standards-based Tier 2 AVL/Radio Location Service
• Map-based graphical UI
• CAD and control room app support over open interface
• Multiple update modes (on-demand, interval, geofence, radio initiated etc.)

P25 Interoperability solution

• Tier 2 AVL Standards Compliant
• Supports Tier 2 P25 compliant radios

Benefits to Public Safety

• Tracking of individual users or fleets
• Efficiently manage field operations
New Fleet Management Solution: ARMADA®

What is New

- Kiosk mode
- Unified Fleet management (mobiles & portables)
- Battery management

P25 Interoperability solution

- Programming Updates do not interrupt field operation
- Grow and manage subscriber fleet easily for many years

Benefits to Public Safety

- Allows remote users to update radios
- Ability to manage/sort large fleets by agency/role
What is New

- Ability to transfer perpetual SW license options from old to new Viking radios
- Reuse designated SW licenses as hardware refresh occurs on Viking subscribers

P25 Interoperability solution

- P25 licenses will seamlessly transfer to new HW maintaining interoperability through subscriber hardware refresh cycles

Benefits to Public Safety

- Significant economic benefit by avoiding paying for certain P25 SW licenses over and over again through HW refresh cycles

New Software License Management: VAULT™

Viking Radios

Future Viking Radios

Transfer licences from radio to Vault

Transfer licences from Vault to radio

BOOTH 1315

KENWOOD

VIKING
Multi mode Analog/P25 Solutions

Tait 9400 Series

- Supports Analog and both P25 Phase 1 FDMA and Phase 2 TDMA
- Voting and Simulcast software integrated into the TB9400 Base station
- Full re-use of existing TB9400 and TP9400/TM9400 hardware and SFEs
- Multi-redundancy and security features
- Unify solution to integration to other LMR, Cellular or Wi-Fi networks
- Provides a path to a cost effective and easy migration

New P25 Public Safety Trunking Solutions

Tait “P25 Access” – Single logical site system
- An affordable P25 Trunking solution (RFSS and Site Controller)
- Designed for a single site system (Multi-site in Simulcast)
- Multi mode – P25 Phase 1 and 2, non-simulcast or simulcast
- Linear simulcast dramatically increases site separation
- Compact single robust server with high availability option
- Provides access to all the standard P25 features, like IP Data

Tait “P25 Express” – The next level for a multi-site system
- Cost-effective P25 system for up to six logical sites
- Easy upgrade from a Tait P25 Access with the same great features!

New P25 Consoles

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www.project25.org
New P25 Console

What is New

- Transcript™ Archival Logging Recorder integrated into console system, captures and records all P25 communications
- Powerful integrated site voting for conventional P25 operations
- Automatic TX steering for conventional P25 operations
- Full standards-compliant Digital Fixed Station Interface (DFSI) now available

P25 Interoperability solution

- Integrated NG9-1-1 PSAP Phone System <=> Dispatch Console <=> Archival Logging Recorder

www.intertalksystems.com
New P25 Console

Benefits to Public Safety

• 3-system guaranteed interoperability allows simple multi-function control in your dispatch center or PSAP
New P25 Software: C-Soft Dispatch

What is New

- FIPS Compliant Encryption
- API for 3rd party interfacing (e.g. CAD)

P25 Interoperability solution

- P25 Radio Gateway
- P25 DFSI
- P25 CSSI Preview

Benefits to Public Safety

- Crosspatch RF Nets
- Interface with CAD, AVL, and others
- Supported by 10+ IP recorder companies
New P25 Console Feature - AcomNOVUS

What is New

• End to End Encryption capability at the console
• Console support for Key Management Facilities

P25 Interoperability solution

• Secure transmissions right to the desk

Benefits to Public Safety

• Allows secure audio to/from field users to only be heard between the dispatch position and the field user increasing officer safety
• Console key management ties in with the existing key management of field terminals making key management simple and consistent
New P25 Console Features

Zetron’s MAX Dispatch console has the following new P25 features available, now through CSSI:

- Unit ID
- Talkgroup Selection
- Group Calls (inbound/Outbound)
- Emergency Group Call
- Emergency Alert
- Individual/Private Call
- Voice Logging support
- Patching of Talkgroups by the dispatcher
- Console pre-emption of inbound calls
- Voice Logging Support across CSSI TGs
- Emergency Clear and Acknowledge
- Encryption
- Encryption Keyloading
What is New

- Mini-SIP™ 4-button dispatch device
- Avtec-manufactured USB peripherals
- Integrated mapping, text, or video
- Tested and validated P25 integrations

P25 Interoperability Solution

- Motorola ASTRO P25 core
- Harris VIDA P25 core
- Successful testing with Alberta First Responders Radio Communications System (AFRFRCS)
- Interoperability with LTE, DMR, NXDN, IP telephony, and conventional radios

Benefits to Public Safety

- Secure and simple access to dispatch communications anywhere on your IT network
- Use off-the-shelf computers with public safety-grade, high performance USB speakers, desk microphones, and foot switches
- Incorporate non-voice communications for a comprehensive dispatch environment and situational awareness
- Connect P25 systems to other critical communications technologies for maximum interoperability
New P25 Interoperability Solution: IntelliLink™

What is New

• Connect P25 Users to DMR and/or Legacy Radio Users – even LTE!
• Patch Channels or Talk Groups

P25 Interoperability solution

• Control Radios via, Tone, Serial Protocol, CSSI or DFSI

Benefits to Public Safety

• Simplifies migration from Legacy to P25
• Interoperate P25 and LTE / FirstNet
• Easily deployed and re-deployed throughout migration

http://www.catcomtec.com
New P25 Vocoder/Devices & Services

Presented by:
PTIG - The Project 25 Technology Interest Group
www.project25.org
New P25 Enhanced Vocoder Software

What is New

• Licensing available for a variety of DSP / CPU processors
• Runs under Windows, Linux, Android & iOS

P25 Interoperability solution

• Enhanced Dual-Rate Vocoder
• Rate conversion for Full-Rate to Half-Rate interoperability

Benefits to Public Safety

• Meets latest P25 requirements for voice quality
• Robust to background noise and harsh environments
• Universal standard for interoperability and assured quality
New Multi-channel P25 Devices

What is New

• Multiple P25 channels (up to 12 channels)
• USB interface in a compact design
• Windows based PC software included

P25 Interoperability solution

• Features Enhanced Dual-Rate Vocoder
• Cost effective hardware implementation

Benefits to Public Safety

• Simple design for easy integration
• Encode / Decode P25 files via USB interface
New P25 Testing Services

What is New

- P25 Phase II
- DAQ/BER/RSSI

P25 Interoperability solution

- Test multiple vendor components on a single system
- Test multiple vendor radios on a system

Benefits to Public Safety

- Test your system the way it is used
- Completely Independent

http://www.aecom.com/
P25 New Products and Services
2017