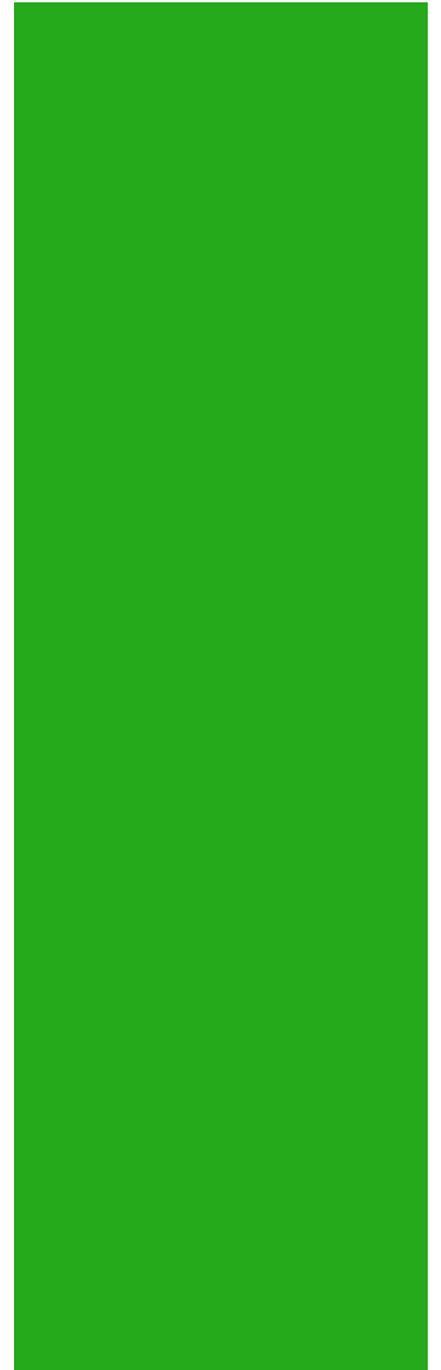




**Unication**

**Vic Jensen**



# WHO WE ARE



Unication

- A major supplier of voice and critical messaging solutions to Operators in Asia, the Americas and Europe
- A Taiwan based company founded in 1992 with extensive experience designing and manufacturing wireless communications products
- An ODM to major telecommunications companies
- A Corporation of more than 300 associates worldwide with Engineering Design Centers in Taipei and Vancouver, BC
- About Quality. Our Accelerated Life Testing facility ensures the highest quality products for our customers and our factories are ISO 9001 Certified
- America's Corporate Headquarters is located in Arlington, Texas

# PUBLIC SAFETY PORTFOLIO



Unication



## E3 Rugged Pager

- IP64
- 64 Addresses
- Large Display
- Extra Loud Audible Alerts
- AES 128 Encryption
- Dual Channel
- Rechargeable or Alkaline
- Multiple Color Backlights



## U3 Radio

- IP67
- 1024 Channels
- Conventional, P25, DMR
- Best in Class RF
- Low Band, VHF, UHF, 700/800MHz
- Integrated GPS
- Software Defined



## G1 Voice Pager

- IP67
- 64 Channels
- 16 Minutes Voice Storage
- 11 Minutes of Voice memo
- 2 Tone + MDC
- Best in Class RF
- NiMH or Alkaline
- Wav File Alerts
- Color Backlights
- PL/DPL
- Software Defined

# CURRENT ENVIRONMENT



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- Fire Departments are Dispatched on Aging VHF/UHF Infrastructure
- The FCC Narrowbanding Mandate Adversely Impacted Coverage
- Many Face a Decision to Update or Replace their Paging System
- They Lack a Cost Effective Solution to Monitor the P25 System
- P25 Systems are Well Maintained and Professionally Managed
- P25 Coverage Typically Exceeds the VHF/UHF Coverage
- Continuing Investment in P25 Expansion and New Services

# DESIRED ENVIRONMENT



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- Migrate Fire Departments to the P25 System
- Shut Down and/or Reduce the Legacy VHF/UHF Systems Resulting in Significant Cost Savings
- Need a Cost Effective Device that Operates in a P25 Environment
- It Must Function like the Current Analog Voice Pagers
- Ideally this Device Supports Legacy Analog Systems to Facilitate Transition to P25

# G4 SERIES SOLUTIONS



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- IP67
- Release 1- 700/800MHz, Conventional, P25 Trunking and P25 Conventional
- Release 2- VHF/700/800 or UHF/700/800MHz , Conventional, 2Tone, P25 Trunking, and P25 Conventional
- 32 Minutes of Voice Message Storage
- 32 Minutes of Voice Memo Storage
- 128 Channels
- 64 IDs
- Out of Range/ In Range Alert
- Wav Files
- Integrated Bluetooth
- Lithium Polymer Battery Pack
- USB For Programming and Charging
- Text and Image Capable
- Software Defined

# HOW DOES IT WORK?



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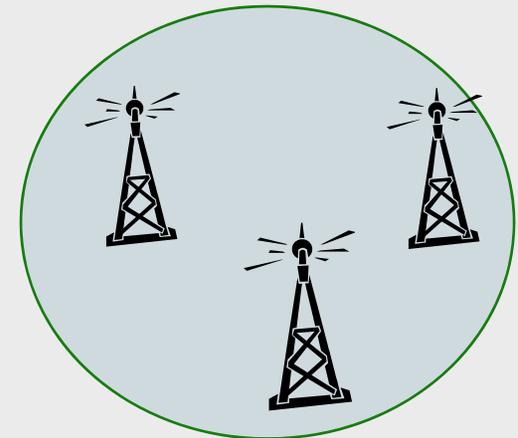
**P25 Trunked System**



Site 1



Site 2



Simulcast Area

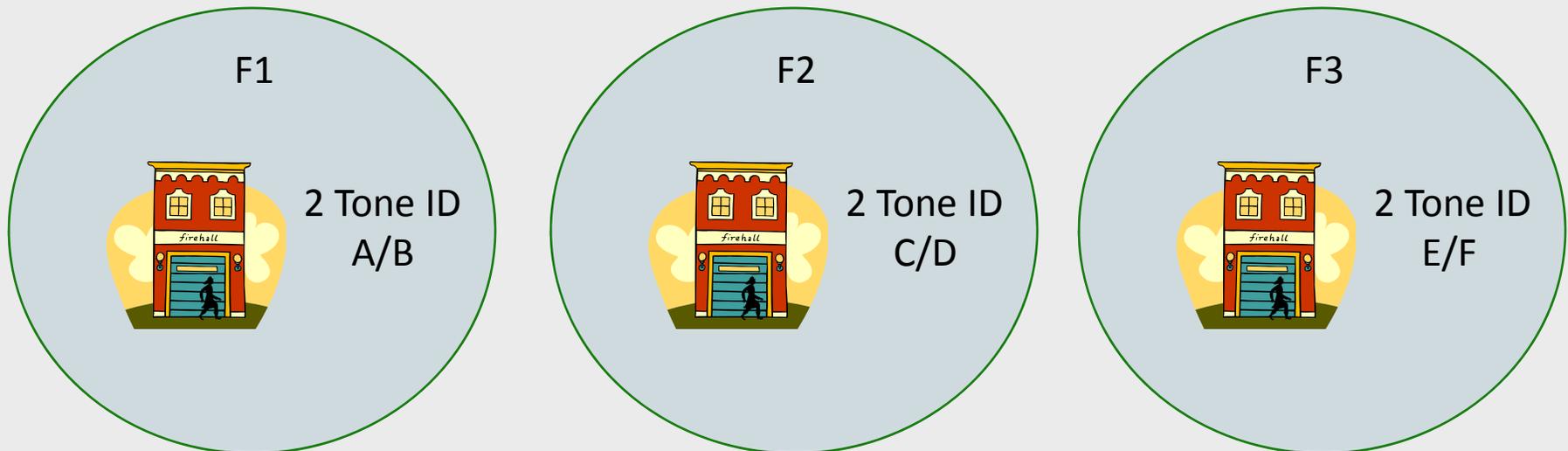
- G4 is programmed with Site/Zone Control Channel(s) and TGIDs
- TGIDs are “Forced” to “Critical Sites”
- A Radio need not be Registered/Affiliated to this Critical Site/Zone

# CASE 1- MIGRATE TO P25



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## Current Analog Environment



- Three Fire Stations with individual “Tone Out” 2 Tone IDs
- On different RF frequencies, but they could be on a common RF frequency where PL/DPL is used for privacy.
- If on a common frequency, it is possible each Fire Station’s pager may be programmed with each other’s IDs for Mutual Aid reasons.

# CASE 1- MIGRATE TO P25



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## New P25 Environment



- Three Fire Stations with individual Talk Group IDs
- The TGIDs are “Forced” to specific sites/simulcast areas , a 2-Way radio is **not** needed at each site for TGID affiliation.
- It is possible each Fire Station’s pager may be programmed with each other’s IDs for Mutual Aid reasons.

# CASE 2- P25 AND ANALOG - DIFFERENT COVERAGE AREAS



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P25 Coverage

TAC Communications  
uses TGID XX

F1



- 2 Tone ID A/B
- TGID XX

- G4 is programmed for 2 Tone ID A/B and TGID XX
- When the G4 is in P25 coverage it listens to the TAC communications on TGID XX

# CASE 3- P25 AND ANALOG CO-EXIST- SAME OR OVERLAPPING COVERAGE AREAS



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## P25 Coverage

- TAC Communications uses TGID XX
  - Dispatch Uses TGID YY

## F1



- 2 Tone ID A/B
- TGID XX
- TGID YY

- G4 is programmed for 2 Tone ID A/B ,TGID XX and TGID YY
- G4 can be dispatched on 2 Tone or P25 (TGID YY). Provides for redundant communications solution.
- When at the incident, the G4 listens to the TAC communications on TGID XX

# SYSTEM IMPLICATIONS



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- Perform Propagation Studies
- Map Sites/Zones for Specific TGIDs
- Review Traffic Loading
  - Need more Traffic Channels ?
- Policy Impacts
  - Programming
- Dispatching Process