UTAH COMMUNICATIONS AUTHORITY

KEEPING PUBLIC SAFETY CONNECTED

BeOn for Radio Project - 4/24/2025 – Tina Mathieu / Philip Krebs / Garrett Millward

PTT Over Broadband LTE and Wi-Fi
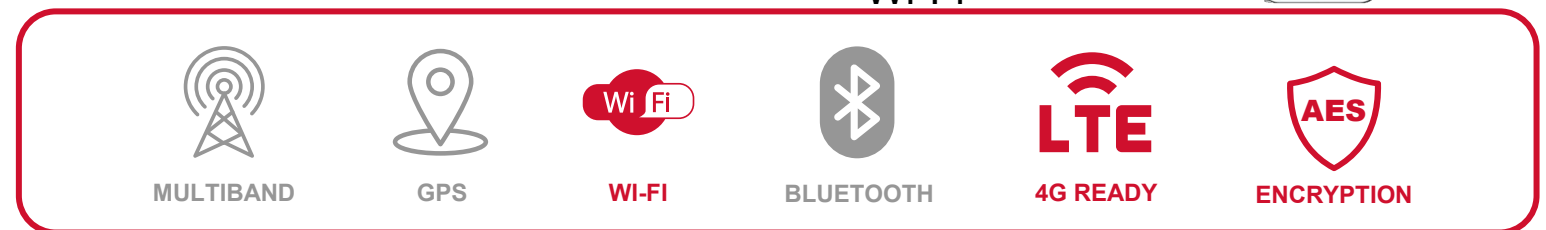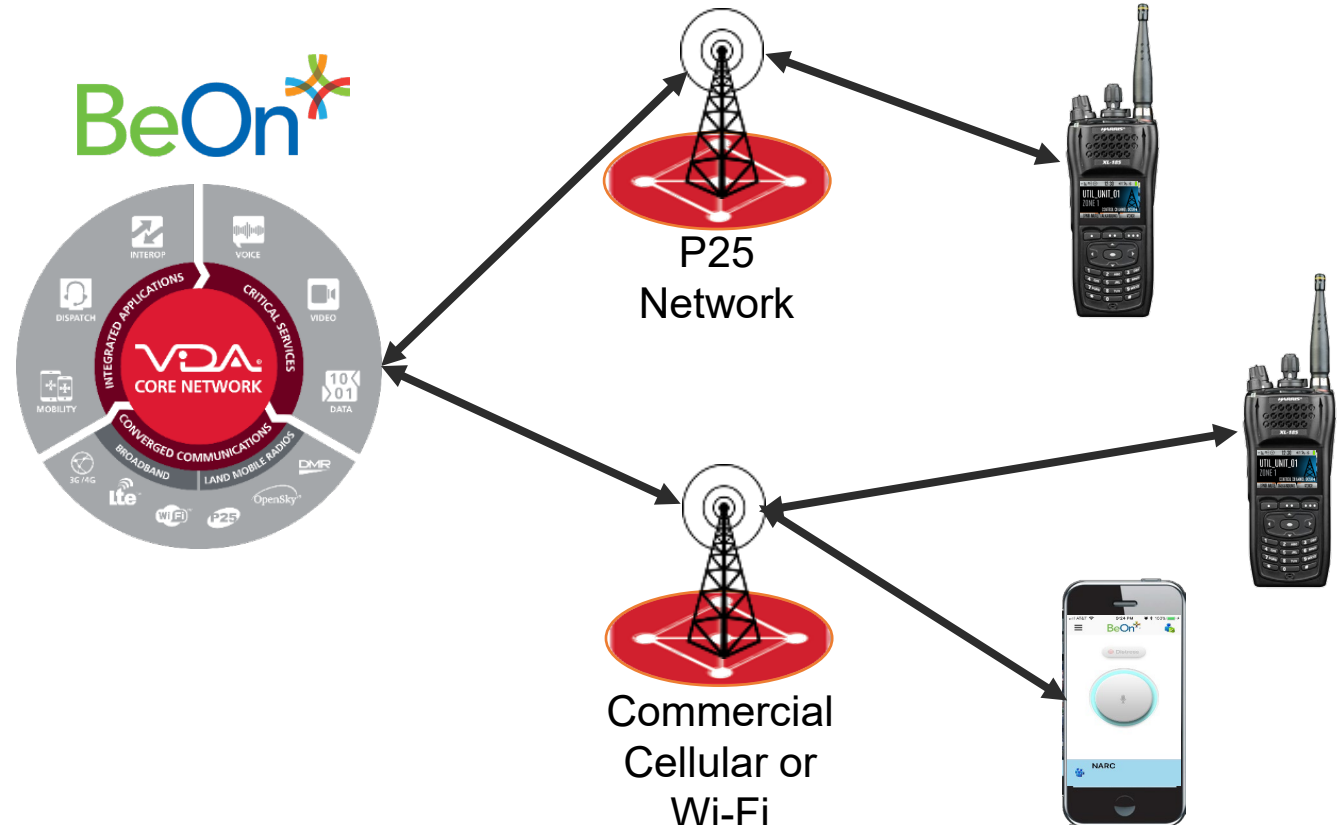
Virtual P25 Radio Application

- VoIP based; PTT over LTE & Wi-Fi
- L3H XL platform (Optional Add On)
- Available on Android™, Windows® PC, and iOS™ platforms
- Reduces traffic loading on system
- Supports geographic mapping and utilizes Google® Mapping data

Coverage Enhancement

- Extends coverage outside the traditional LMR footprint
- Economical supplemental coverage WiFi in place of BDA's
- PTT encrypted comms between smartphones and XL radios

P25 Based Comms

- End to end AES encryption
- Woven into L3Harris system architecture
- IP encapsulated packets
- No reoccurring monthly fees

P25 Network

Commercial Cellular or Wi-Fi

MULTIBAND   GPS   WI-FI   BLUETOOTH   LTE 4G READY   AES ENCRYPTION

Remember - BeOn is only as good as the network it is connected to!

BeOn Radio over Wi-Fi/LTE

- Available for L3H Mobile and Portable XL radios, with Wi-Fi Client, and Be-On features enabled.
  - All radios purchased through UCA/L3H contract were licensed with these features and take priority over radios not purchased through the contract

- Uses the **same** P25 ID that your radio currently uses

- Uses a **different** set of talk groups than when the radio connects to a site

- Once the radio roams to Wi-Fi/LTE it does not roam back to P25 site until there is no Wi-Fi or LTE available.

- Talk group names on the display will be truncated to 8 characters when in Wi-Fi mode

- Roaming times from P25 to Wi-Fi/LTE and back are TBD during test phase

- In BeOn the emergency button will be disabled

- Each Radio Core is limited to 5000 Users (Radio and Phone Combined)
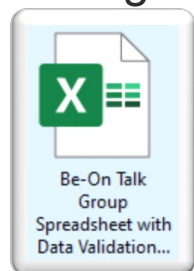
UCA Action Items

- UCA must enable the radio ID(s) to be used with BeOn

- UCA must configure which talk groups will be used with BeOn on the radio

- UCA must use a server-side license for each radio being used with BeOn

- UCA will need to provide a new programming personality for each agency. (Home WA Network Setting not available with distribution dongle)
  - (New Access) Allows the agency to configure BeOn as a "system"
  - (Existing access) Allows the agency to add or remove WiFi Networks at will.
  - (Existing access) Allows the agency to configure LTE.
  - (Existing access) Allows the agency to configure other settings related to radio ergonomics

- Provide training on how to program the radio for Wi-Fi/LTE

Agency Action Items

- Due to agency IT requirements for changing Wi-Fi passwords often, each agency will need to be able to program their own radios
  - 1st time programming - Requires a L3H cable to configure Wi-Fi, after which Wi-Fi can be used to connect to the radio
  - Programming L3H radios requires a L3H RPM distribution dongle $270 (contract), $450 (outside contract)
- Agency's IT department will potentially need to open ports on their Wi-Fi/firewall to enable Be-On usage.
  - 20000, 20001
- Agency will need to supply UCA with Radio IDs that need to be enabled

ID <-Send These	Alias <-Don't Send These
AAAAUUUU (13540002)	1G-DONALDSON-P

- Talk Groups that the Agency will need access to (can be multiple sets, police, fire, etc). Using UCA's talk group spreadsheet.

Be-On Talk Group Spreadsheet with Data Validation...

	A	B	C	D
1	Channel	Profile 1	Profile 2	Profile 3
2	1	SLC_DISPATCH		
3	2	SLC_W-R_2		
4	3	SLC_W-R_3		
5	4	SLC_W-R_4		

Agency Action Items (continued)

Terms of Use

- UCA will require agencies to sign an agreement that includes:
  - **Acknowledgment of BeOn Limitations:** BeOn is not a 24/7 public safety solution as it relies on potentially non-mission-critical carriers (Wi-Fi/LTE). While this is not a requirement for phone usage, it is a requirement for BeOn radio usage.
  - **User Responsibility for Issues:** UCA will not be responsible for correcting radio programming or Wi-Fi issues caused by the user (non-P25 system-related troubleshooting).
  - **System Capacity Limitations:** Due to system capacity constraints, licenses may be limited or revoked in the future.
  - **Firmware Update Requirement:** Radios must be updated to the UCA-specified firmware version before enabling BeOn.

Considerations

- **LTE Usage Costs and Configuration**: If the agency chooses to use the radio on an LTE network, the agency will be responsible for covering the cost of the monthly plan and configuring the radios for LTE usage.

- **Supported SIMs**: AT&T and Verizon SIMs are supported.

XL-LTE-NA/ XS-LTE-NA	B2, B4, B5, B12, B13, B14, B29, B30, B66

How to Get Started

❑ UCA Agreement – Needs to signed

❑ Let UCA know which Radio IDs Be-On will need to be enabled on

❑ Fill out the talk group spreadsheet with required talk groups

❑ Ability to program - Required

- June 17th Wi-Fi/BeOn programming training
- Distribution Dongle shipped to UCA – Available through Deb Burton (L3H)
- Programming Cable - Available through Deb Burton (L3H)

Next Milestones & POCs

- UCA Testing with employees and test agencies (Ongoing)
- Wi-Fi/BeOn Programming Training - June 17th
- Next Meeting(Post Training): Week of June 18th

POCs:

- BeOn Phone/BeOn Radio requests - beonrequests@uca911.org
- BeOn Agreements – Chris Hughes – chughes@uca911.org
- Programming Cables/L3H – Deb Burton - deb.burton@L3Harris.com
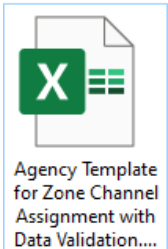- Project/General Questions – Phil Krebs – pkrebs@uca911.org

Backup

BeOn Phone Configuration

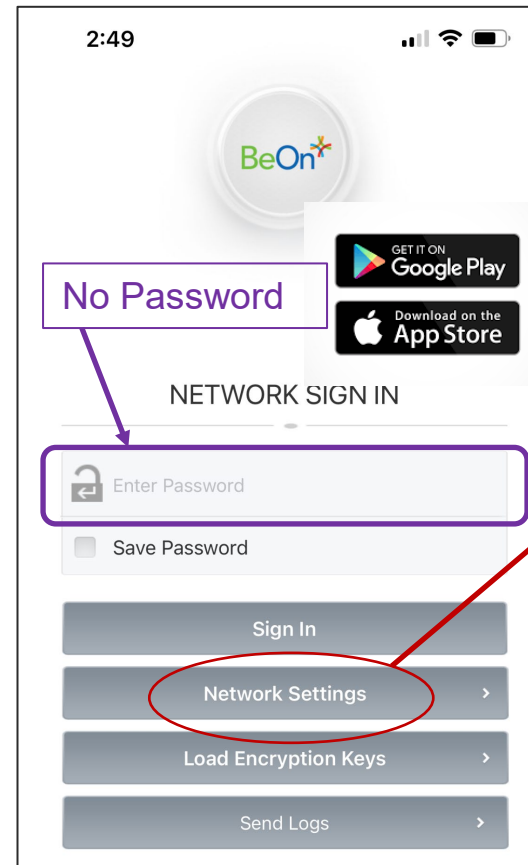**1** Request Login and talk groups from UCA

1. Fill out talk group spreadsheet and email to UCA
   - There are no zones in Be-On
   - Talk group names truncated to 8 characters
   - Choosing talk groups for your agency
   - Recommend a max of 16 talk groups
2. Request User ID(s) from UCA

Agency Template for Zone Channel Assignment with Data Validation....

1	
2	SL_PIONEER
3	SL_LIBERTY
4	SL_CENTRAL
5	SL_SLC_SERV
6	SL_ARPT_PD
	SL_ARPT_SPV

Talk Group Name (Data Validation)

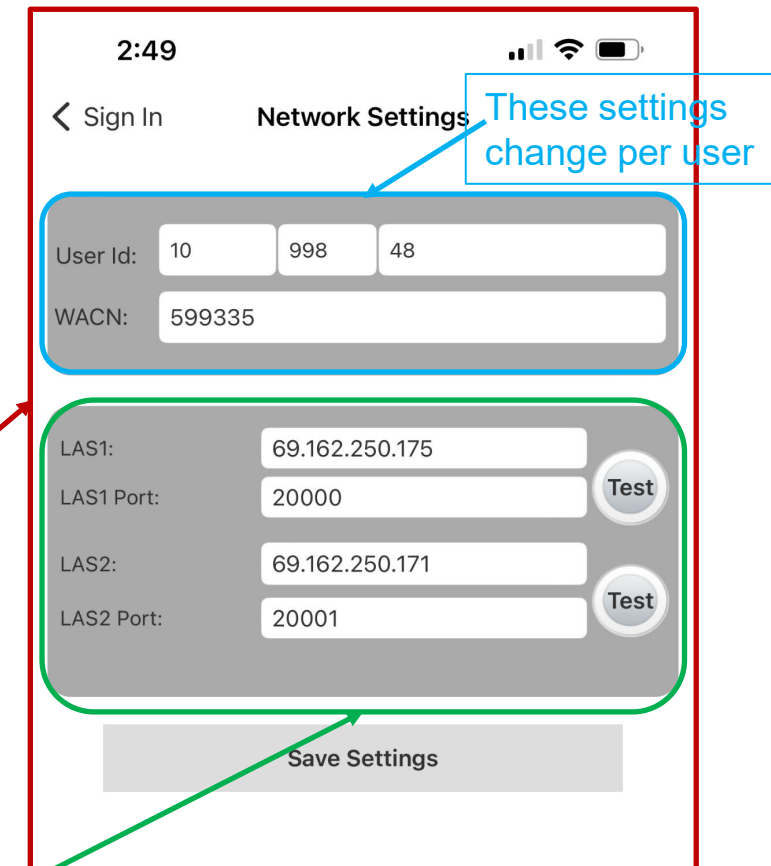**2** Download BeOn "PTT APP"
- Install AppAndroid, iPhone - App Store
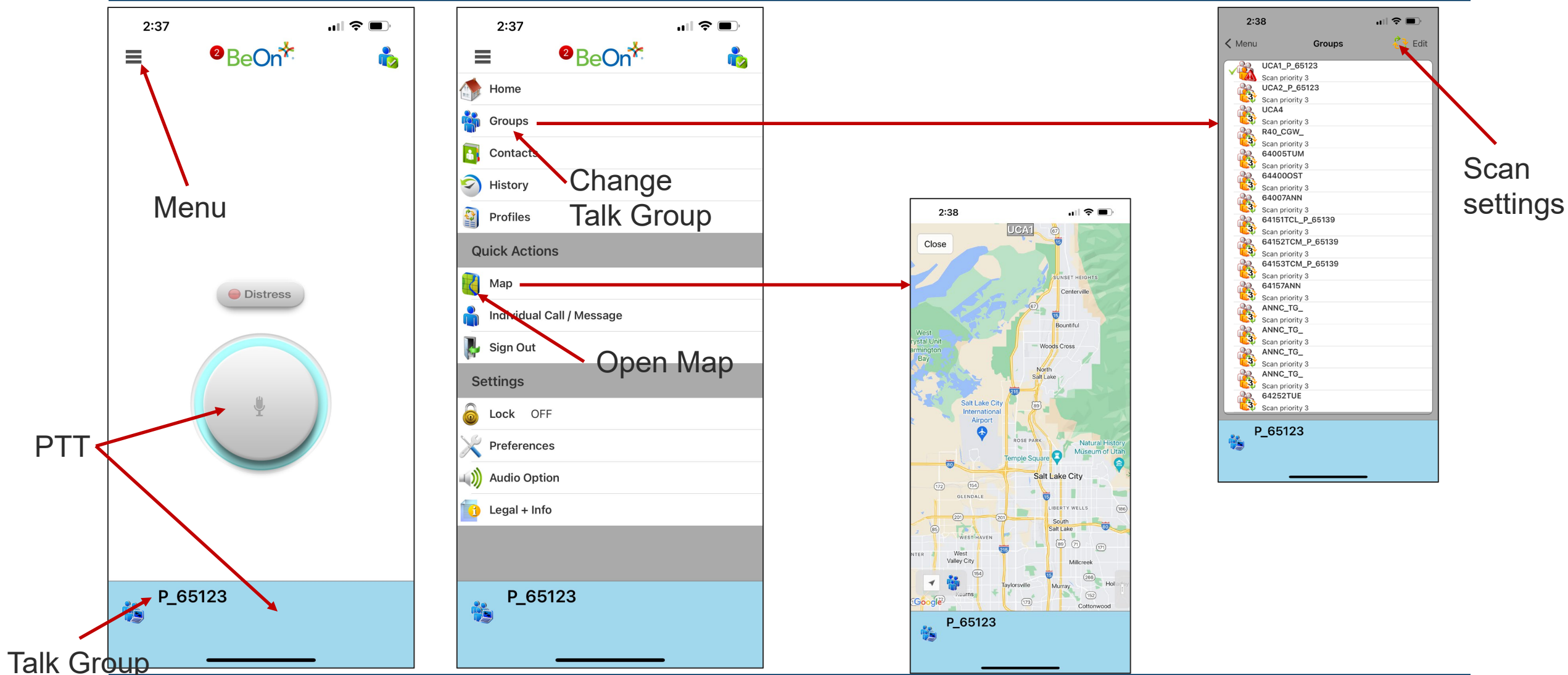- Windows – See UCA
- Click Network Settings

2:49

BeOn

GET IT ON Google Play

Download on the App Store

No Password

NETWORK SIGN IN

🔓 Enter Password

☐ Save Password

Sign In

Network Settings ›

Load Encryption Keys ›

Send Logs ›

3 Configure Application
- Enter UserID from UCA
- Encrypt if necessary

2:49

‹ Sign In   Network Settings

These settings change per user

User Id: 10 | 998 | 48

WACN: 599335

LAS1: 69.162.250.175

LAS1 Port: 20000   Test

LAS2: 69.162.250.171

LAS2 Port: 20001   Test

Save Settings

These settings are the same for everyone

BeOn Phone Use Overview (iPhone)

Menu

Change Talk Group

Open Map

Scan settings

PTT

Talk Group

How to Report Issues to UCA

UCA has a new ticketing system that tracks user submissions by assigning a ticket # and notifying the Resource Coordination Manager during regular business hours or the on-call technician after hours for assignment. Users can report radio/coverage issues or request general support at www.uca911.org/Contact-Us.

1. For issues interrupting service, for example, if a site is down, please call the on-call number

2. Issues that need to be reported but are not interrupting service, use the online form
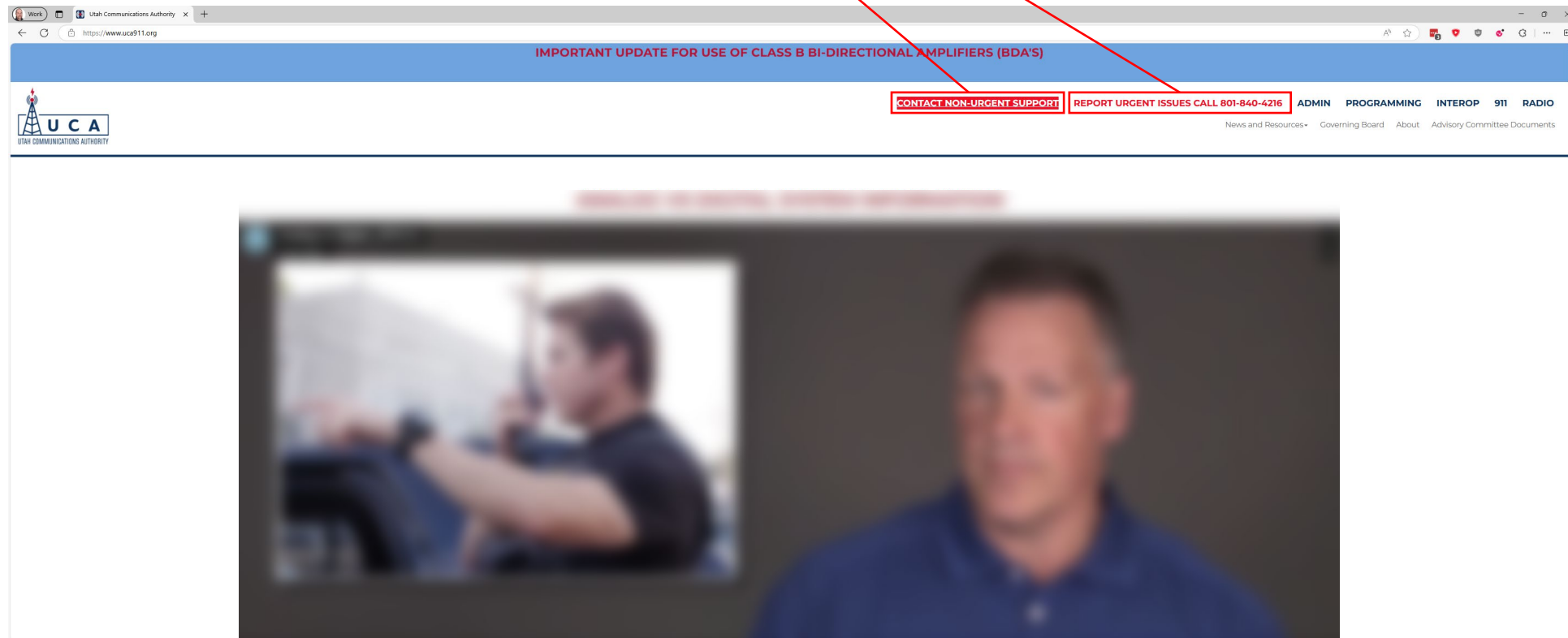
Contact Non-Urgent Support

After determining that the issue is not disrupting service and clicking the CONTACT NON-URGENT SUPPORT button from the front page of the UCA website, users will be presented with TWO OPTIONS: Report Radio/Coverage Issue and Request General Support
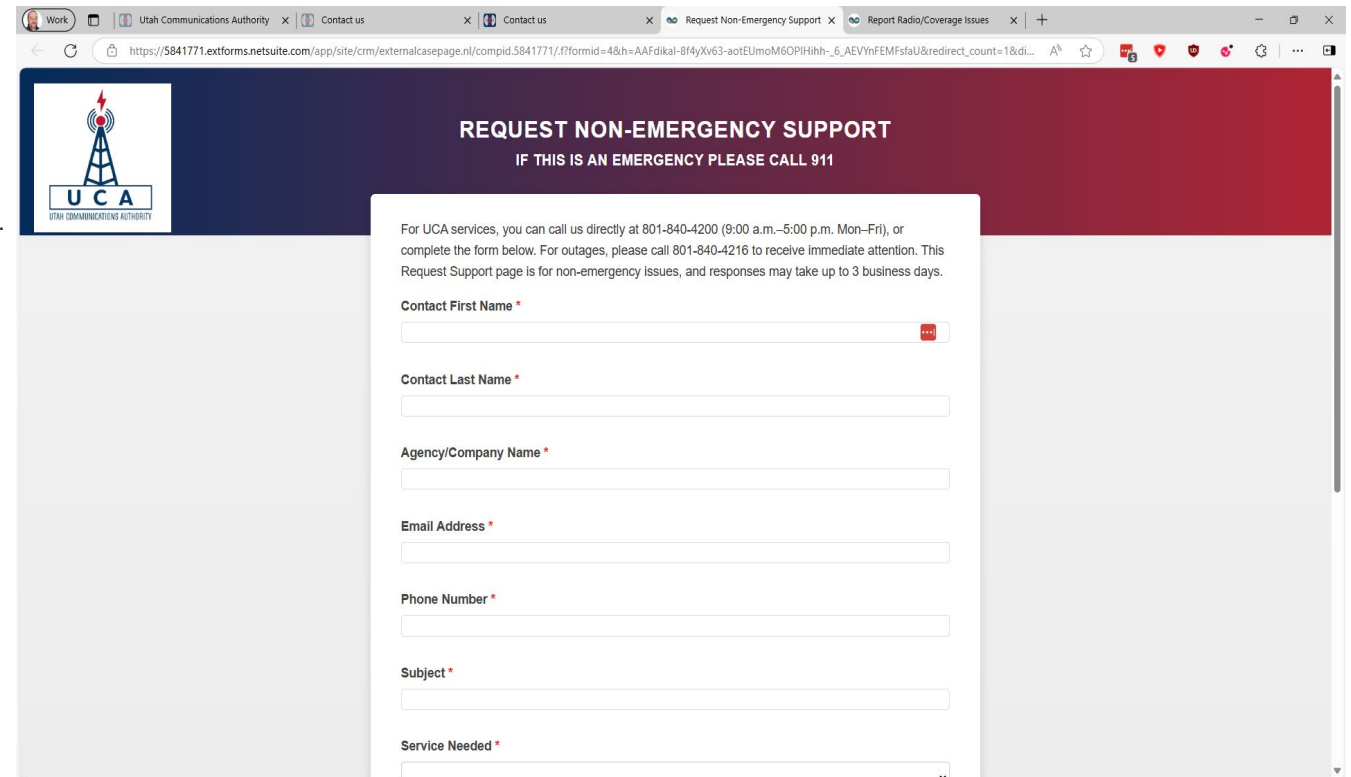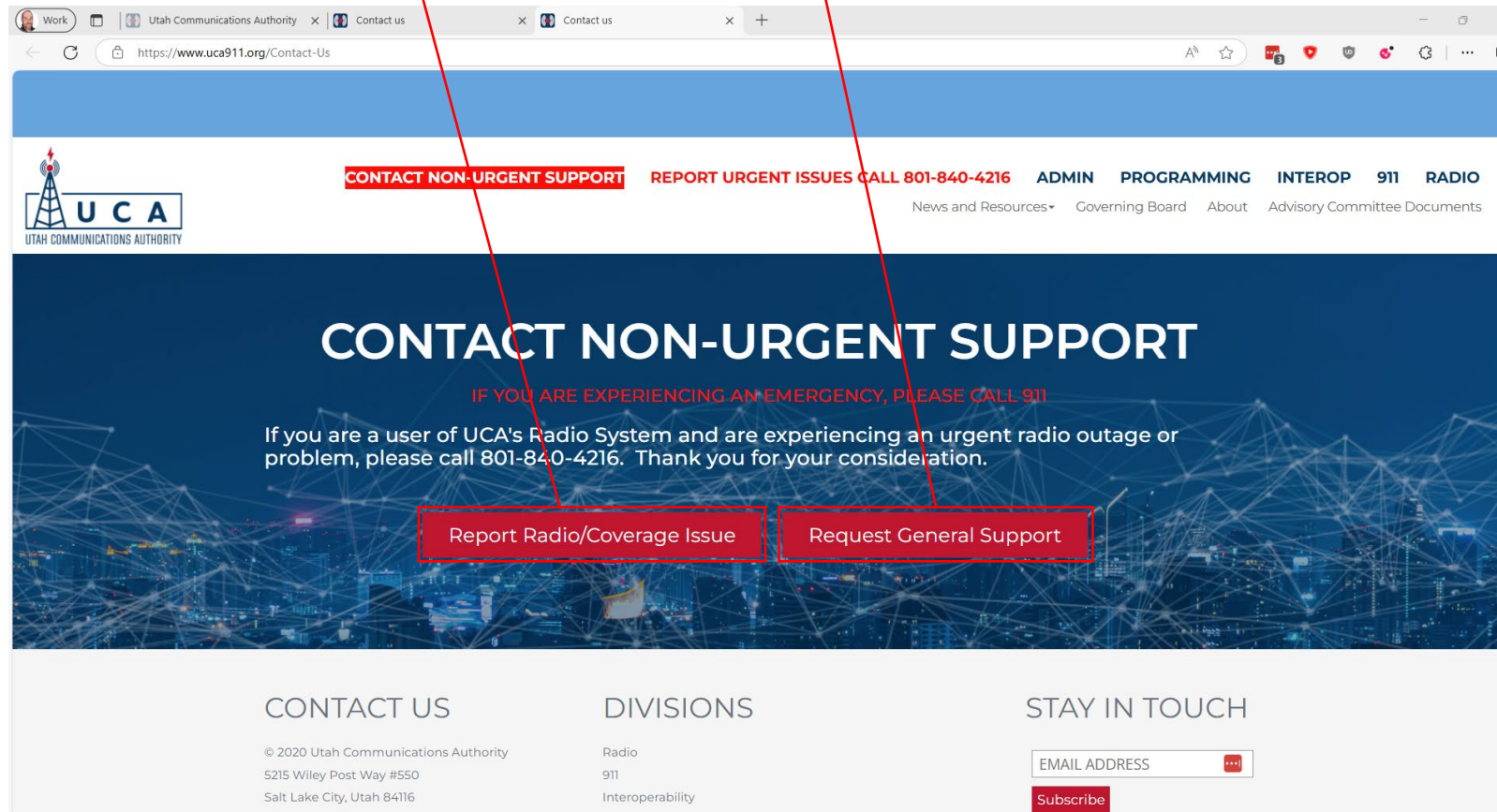
Report Radio/Coverage Issue

When a radio or coverage issue needs to be reported, select the Report Radio/Coverage Issue option
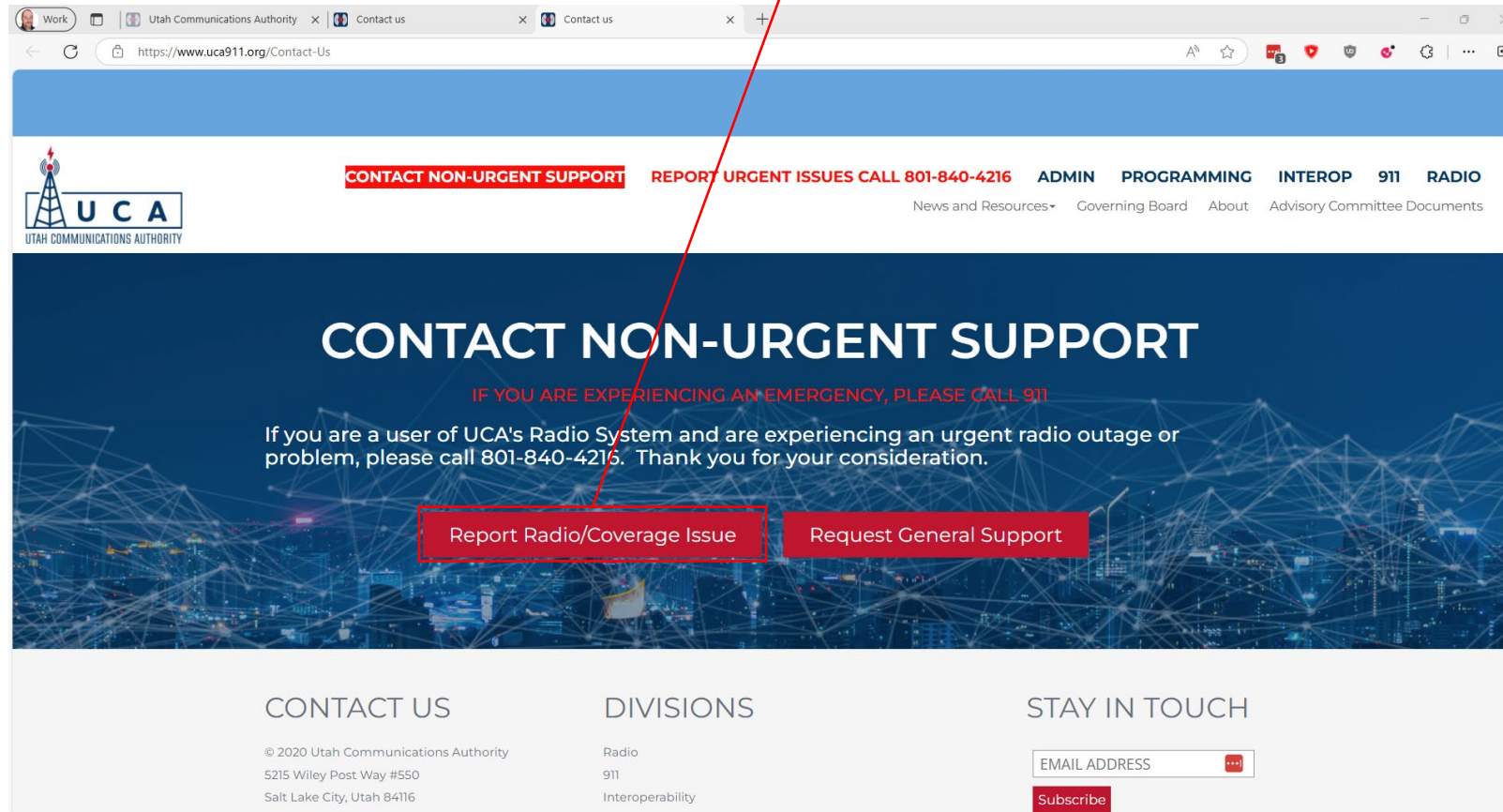
Report Radio/Coverage Issue(cont.)

Below is the list of information that UCA requests to troubleshoot an issue. Provide as much information as possible. This helps UCA to best determine possible root cause of the issue and corrective action needed. Responses to your issue can take up to 3-business days.

- First and Last name

- Email address

- Phone number

- Subject for the issue: coverage, bonks, missed audio, etc.

- An accurate description of the issue with as much detail as possible.

- Reporting agency

- Date of the incident

- The talkgroup the user was on

- Coordinates for the location of the incident in Decimal Degrees

- Street address / Mile Marker

- Were you inside a structure YES/NO

- Received Signal Strength Indicator (RSSI)

- Received Signal in dBm

- Radio Brand: i.e., L3Harris, Motorola or Kenwood

- Radio Model: i.e., XP200P, APX8500 etc.

- Firmware version – There is a link on the form to help L3Harris and Motorola users find the firmware version of their radio

- Did the radio work at this location on the Legacy system: YES/NO or N/A

Request General Support

Use the Request General Support option for general questions about the system, or to request services

- First and Last name

- Agency/Company Name

- Email address

- Phone number

- Subject

- Services needed (Select from the drop-down menu)
  - Additional Console Request (Phone)
  - Additional Console Request (Radio)
  - Break/Fix/Repair
  - Console Move Request
  - Maintenance/Service
  - Radio Programming
  - Other
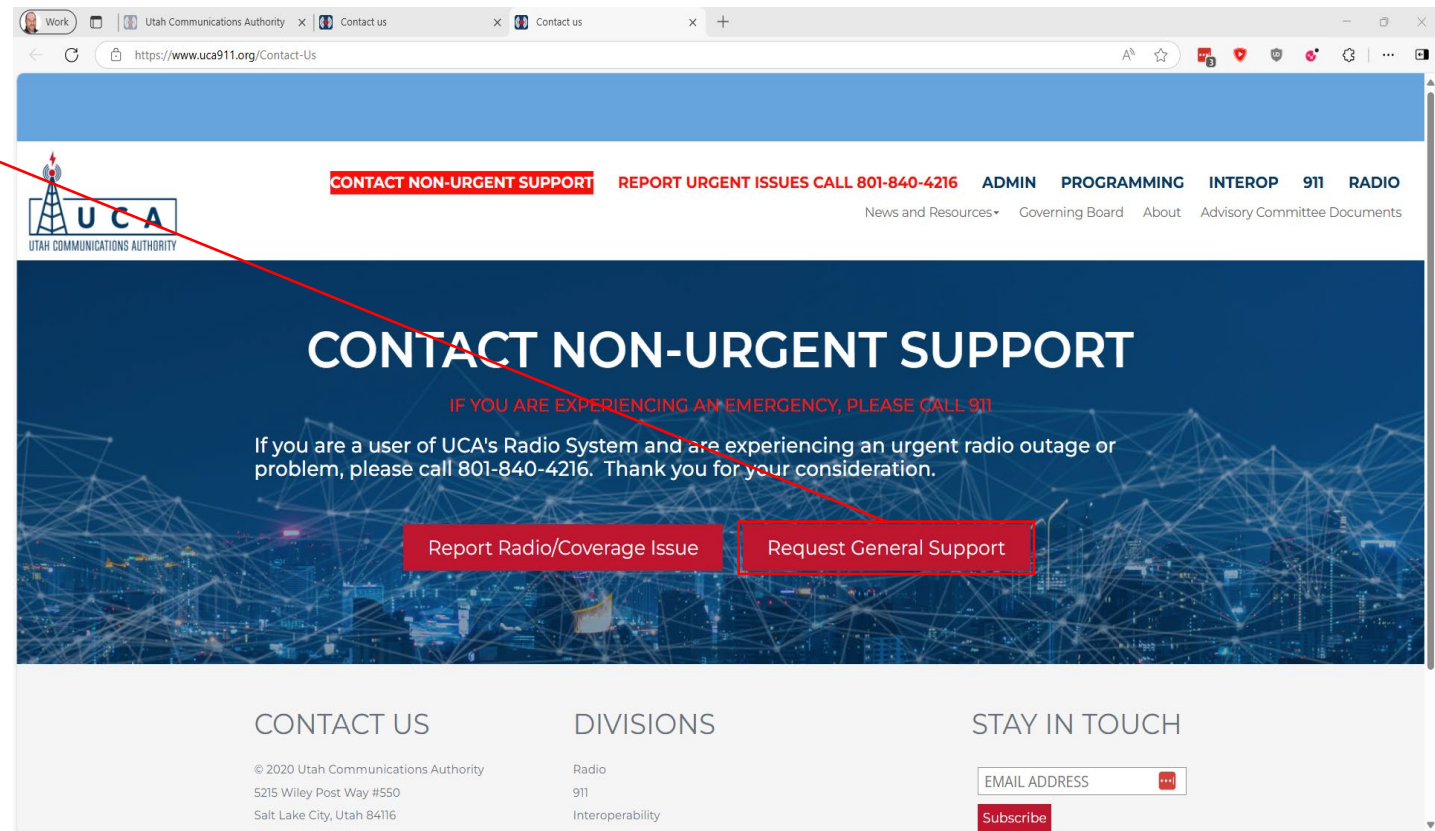
Contact Non-Urgent Support - Summary

In Summary -

- If there is an urgent issue such as a system outage, call our on-call number, do not submit a ticket.

- Non-Urgent support for issues or services that are not disrupting service.

- All submissions will be assigned a ticket number with email confirmation

- Responses can take up to 3-business days

- There are two options for Non-Urgent Support

  - Report Radio/Coverage Issue
  - Request General Support

- Provide as much information as possible to assist UCA technical staff troubleshoot and take corrective action

As we continue to use and expand this ticketing system daily, we do understand that some of the responses are being delayed or are not being returned. We're working hard to make certain the customers that submit trouble tickets are receiving a response.