



## **Experimental 5G Broadcasting Proof of Concept Phase Two (POC2) Overview**

On September 13, 2023, the LPTV Broadcasters Association shared its successful results of 5G Broadcasting from the experimental licensed station WWOO-LD in Boston. This Proof of Concept was warmly received by thousands both in-market and on-line. The station was received via smart phones and set top boxes in Boston. The station has been operating in 5G Broadcasting protocol almost continuously since, with no technical issues or complaints. The LPTVBA further demonstrated 5G Broadcasting to various Bureaus and Commissioners at the FCC on November 2<sup>nd</sup>, 2023. We are now prepared to roll out Phase Two of Experimental 5G Broadcasting.

Our primary focus in Phase Two is regarding Emergency Alerts, First Responder solutions, and technical field testing to deploy the solutions. On December 18<sup>th</sup>, Xen Network submitted to be a partner with PSHSB “to test expansion of coverage for wireless emergency alerts when cell sites are down.” We have already proven this can be done in 5G Broadcasting in Proof of Concept One. We are working on additional, critical solutions for emergency alerting including encrypted emergency alerts to First Responder mobile phones, so they know where to respond.

Many First Responders’ control centers rely on mobile phones for dispatch. If cell service is down, 5G Broadcasting can be a reliable alternative solution. These solutions will be tested at all the proposed experimental sites as different First Responder agencies use different methods and protocols for dispatch, from DOS and POTS to sophisticated solutions. We aim to develop a solution for all, especially in the case of a major incident.

For Phase Two, the following applicants for experimental 5G Broadcast licenses plan to conduct the following tests:

### **WWOO, Boston (extension of permit) Milachi Media Licensee, Channel 28**

In conjunction with the Southeastern Massachusetts 911 Center, WWOO is proposing to deploy a DTS in Foxborough, MA, to conduct tests of video and data files being delivered from a 911 Dispatch Center to First Responders on the ground using multiple test mobile phones. This content is critical, particularly in the case of a major incident when cell service potentially could go down. The tests at WWOO would be:

1. iPaws Emergency Alerts\*\*
2. First Responder Emergency Alerts
3. Stable and reliable delivery of video and data files to First Responders in the field
4. Deployment of multiple test mobile phones
5. Mobile phone reception/handoff between the main transmitter and the DTS
6. Test of deployment of a DTS

**WTXX-LD, Hartford, CT HC2 Licensee, Channel 29**

**WYJH-LD, Danbury, CT. EGOT Media Licensee, Channel 27**

WTXX and WYJH have overlapping contours but are on different channels. From a technical level, the mission is to field test the handoff on a mobile phone from one channel to a different one from a separate transmitter. This will be tested from a vehicle between the transmitters' contours as well as from a stationary receiver picking up the stronger signal and locking onto it. Additionally, we intend to provide redundancy should one of the signals not broadcast. Again, this is primarily for Emergency Alert and First Responder platform solutions.

1. iPaws Emergency Alerts\*\*
2. First Responder Emergency Alerts
3. Deployment of multiple test mobile phones
4. Mobile phone reception/handoff between two facilities broadcasting on different channels
5. Fixed receiver reception ability to tune into strongest signal with ability to switch if the main signal is not received
6. Test of 5G Core and coordination between facilities

The overall goal is to deploy these experimental stations in early March 2024. POC2 is an ambitious undertaking. We feel we can stay focused on four stations and can perform adjustments and corrections as needed with field deployments.

With the release of consumer enabled 5G Broadcast mobile phones projected to be available in early 2025, this gives us the opportunity in 2024 to iron out the kinks in the various deployments and software so that 5G Broadcasting is stable when it is available to the public. We are on track to acquire fully enabled mobile phones in late 2024 for First Responder use.

\*\* On December 18<sup>th</sup>, 2023, XGen Network filed a request to be a partner with the FCC Public Safety and Homeland Security emergency alert testing when cell service goes down. PS Docket No. 22-160, DA 23-995