

STATE OF HAWAII

STATEWIDE SHARED BLENDED RADIO SYSTEM (HAWAII SSB)

"The State of Hawaii considered several qualified vendors to build out our system, but EFJohnson was the only vendor with the experience to combine a conventional and P25 trunked system. The company is large enough to provide us with all the products we need, yet small enough that we can talk at any time with anyone, including their top executives. Throughout our experience, the EFJohnson team has been highly accessible and responsive to our needs. We are immensely pleased with the outcome of their work and intend to partner with EFJohnson on future projects."

Tom Koontz | *State of Hawaii, Statewide Interoperability Coordinator*

EFJOHNSON SYSTEM DESCRIPTION

PROJECT STARTED: AUGUST 2009 | PROJECT COMPLETED: NOVEMBER 2010

- | Project 25 Statewide Trunked and Conventional
- | 700 MHz and 800 MHz Hybrid Solution
- | 17 Sites (12 conventional 800 MHz, 5 multi-channel trunked 700 MHz)
- | 2 Network Management System
- | 1 IP-Based Dispatch Console
- | 7 Legacy System Interoperability Interfaces
- | Serving a Population of Approximately 1.3 Million



SITUATION

In Hawaii, the volcanic terrain and population disbursement throughout its islands were not the only challenges to reliable communication among public safety agencies. Over time, the state and each of its counties obtained radio systems that operated on disparate frequency bands and were from different vendors, making it difficult for the agencies to communicate with each other during a disaster.

The acquisition of statewide licenses for narrowband channels in the 700 MHz band opened a new opportunity for the state to develop a standardized agency radio system around a dual-band infrastructure, utilizing both the new 700 MHz channels and the existing 800 MHz National Public Safety Planning Advisory Council (NPSPAC) channels. This Statewide Shared Blended Radio System (SSB), a shared vision for interoperable communications between the State of Hawaii and its counties, would also complement and expand the capabilities of a 700 MHz conventional repeater system that the Statewide Law Enforcement Coalition had already started to build out.

SOLUTION

In order to realize the state's vision for its SSB, EFJohnson provided a solution from the company's IP25 radio system product offering that combined native IP with a P25 standards-based radio communications network. The hybrid IP25 system consisted of trunked and conventional channels at 700 MHz and 800 MHz frequency bands.

The basic configuration of the system included the following elements:

- | 12 single channel, 800 MHz P25 conventional repeater sites
- | Four, Five, or Six-channel, 700 MHz P25 trunked repeater sites
- | Two Network Management Systems
- | One IP-Based Dispatch Console
- | Seven Legacy System Interoperability Interfaces

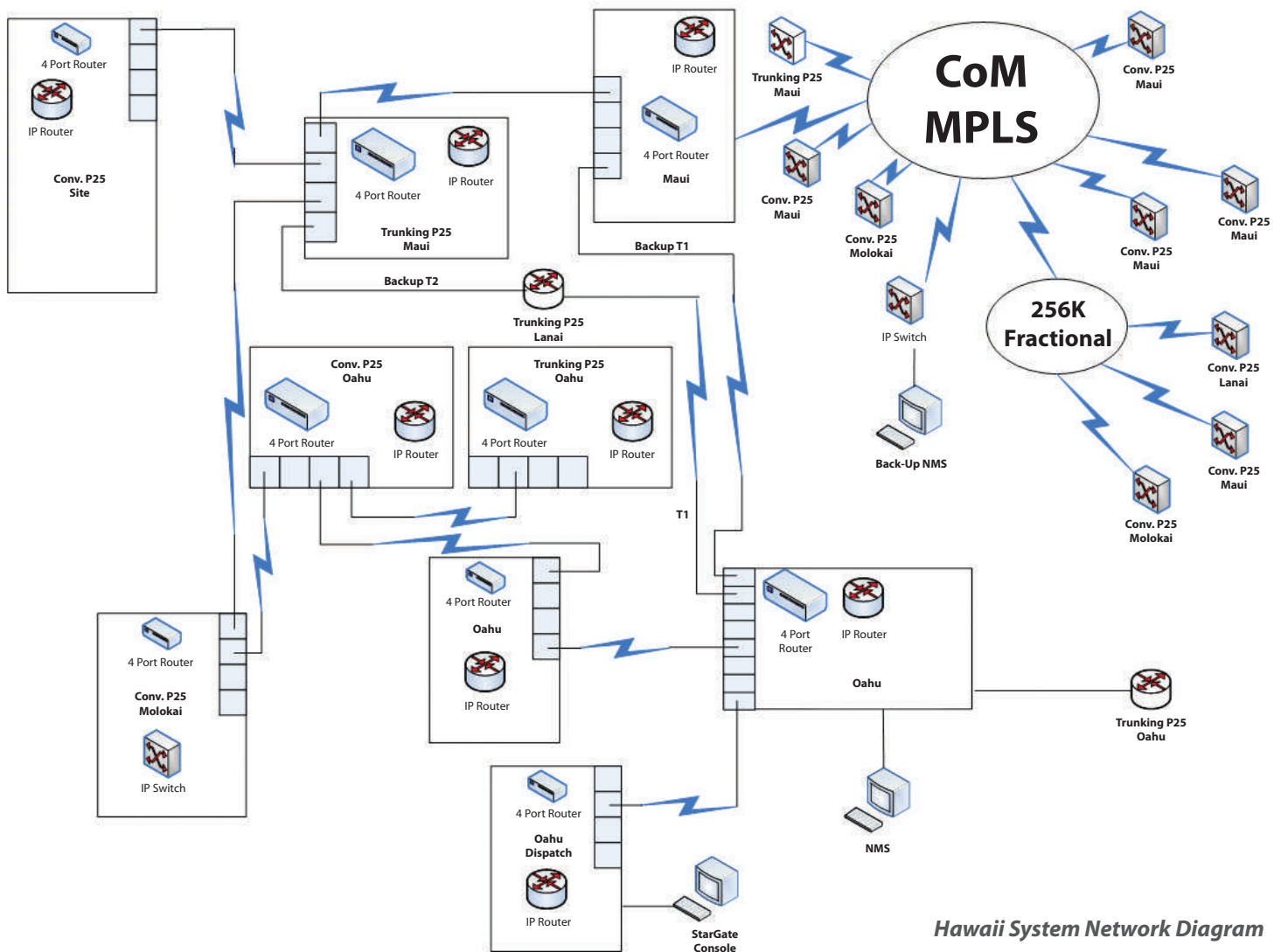
Development of the full SSB was separated into phases. Phase I was funded by a Public Safety Interoperable Communications Grant (PSIC), a federal grant awarded to help public safety agencies advance interoperable communications projects. Phase I was designed to serve the State of Hawaii, as well as the Maui Police and Fire Departments, Civil Defense, Public Works and other public service agencies in Maui County. Future phases of the Statewide Shared Blended Radio System will incorporate the remaining counties into the system.



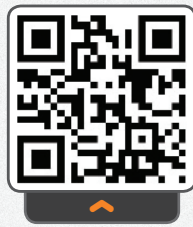
BENEFITS

The primary benefits of the EFJohnson hybrid IP25 system solution for Hawaii's Statewide Shared Blended Radio System (SSB) include:

- | Interoperability among public safety agencies throughout the State of Hawaii and its counties
- | Significant cost savings through use of hybrid architecture that combines trunked and conventional sites
- | Additional cost savings through reuse of existing sites, IT facilities, and interface capabilities to legacy system
- | Standardization of both the 700 MHz and 800 MHz channels within a unified radio network platform
- | Meeting the required technical characteristics (FCC Narrowband capable, P25 compliant, interoperable) for grant funding eligibility



Hawaii System Network Diagram



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1440 Corporate Drive | Irving, TX 75038 | 972.819.0700 | www.efjohnson.com

All specifications are subject to change without notice.
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