

STATE OF HAWAII  
DEPLOYABLE P25 TACTICAL REPEATER SYSTEM  
MINIMUM SPECIFICATIONS

1. PURPOSE

The State of Hawaii is seeking two (2) deployable APCO P25 tactical repeater systems for emergency response, disaster operations, interoperability communications, remote incident support, and temporary public safety radio coverage.

The systems shall support deployment utilizing the national 8TAC94 interoperability repeater channel and provide rapidly deployable communications capability during infrastructure failures, natural disasters, planned events, and emergency operations.

2. ACCEPTABLE MANUFACTURERS

Acceptable systems include:

- Motorola / Futurecom PDR8000 Portable Digital Repeater
- Zetron / Codan Stratus Deployable P25/LTE Repeater
- Approved equivalent

3. GENERAL REQUIREMENTS

Each deployable repeater system shall:

- Support APCO Project 25 conventional operation
- Support analog FM conventional operation
- Support mixed mode analog/P25 operation
- Operate within the 700/800 MHz public safety band
- Be configurable for 8TAC94 repeater operation
- Be housed in a ruggedized deployable transport enclosure
- Support operation utilizing LTE/cellular backhaul
- Support AT&T FirstNet Band 14 capability
- Support DFSI or IP-based console connectivity
- Support AES-256 encryption capability or transparent encrypted P25 traffic pass-through
- Be deployable by field personnel without specialized infrastructure

4. RADIO REQUIREMENTS

Each repeater shall meet or exceed the following:

- RF Output Power:
  - Minimum 20 watts continuous duty

- 25 watts preferred
- Minimum 32 programmable channels
- Ethernet and/or IP network connectivity
- Support repeater-to-repeater IP linking or console connectivity
- Support operation without hardwired Ethernet connection preferred
- Over-temperature protection
- Low-voltage shutdown protection

#### 5. LTE / CELLULAR REQUIREMENTS

The system shall:

- Support LTE cellular backhaul operation
- Support AT&T FirstNet Band 14
- Support commercial LTE carrier connectivity
- Automatically establish IP connectivity upon deployment
- Support secure remote monitoring and control

#### 6. BATTERY AND SOLAR REQUIREMENTS

Each deployment package shall include:

- Deployable rechargeable battery system
- Portable solar charging system
- Solar charge controller
- Weather-resistant power cabling
- External AC power supply
- DC input capability
- Battery runtime suitable for extended field deployment operations

#### 7. ENCLOSURE REQUIREMENTS

The system enclosure shall:

- Be weather resistant

- Be suitable for outdoor deployment operations
- Protect repeater, LTE, battery, and networking components during transport and operation
- Be transportable by vehicle and deployable by field personnel

#### 8. INCLUDED ACCESSORIES

Each deployable repeater package shall include at minimum:

- RF antenna system
- LTE antenna system
- AC power supply
- Battery system
- Solar panel system
- Required mounting hardware
- All necessary cables and connectors
- Programming and configuration software/licenses required for operation

#### 9. PROGRAMMING REQUIREMENTS

Vendor shall configure each repeater for:

- 8TAC94 repeater operation
- State-provided interoperability parameters
- State-provided NAC and analog interoperability settings as required
- LTE connectivity testing and verification

#### 10. WARRANTY REQUIREMENTS

Vendor shall provide a minimum three (3) year manufacturer warranty covering defects in materials and workmanship.

Vendor shall be an authorized manufacturer reseller, distributor, or partner for the proposed equipment and shall provide proof of authorized reseller status upon request by the State.

#### 11. EQUIPMENT CONDITION REQUIREMENTS

All equipment provided under this solicitation shall be new, unused, and current production equipment.

Used, refurbished, remanufactured, demonstration, or previously deployed equipment shall not be accepted.

## 12. DELIVERY REQUIREMENTS

Vendor shall deliver two (2) complete turnkey operational deployable repeater systems fully assembled, configured, tested, and ready for field deployment.

Delivery Address:

State of Hawaii - Office of Enterprise Technology Services  
1151 Punchbowl Street, Room B10  
Honolulu, Hawaii 96813