

Telecommunications Upgrades for the UHF Passport Radio Network



URI Capstone Project 2014

Introduction

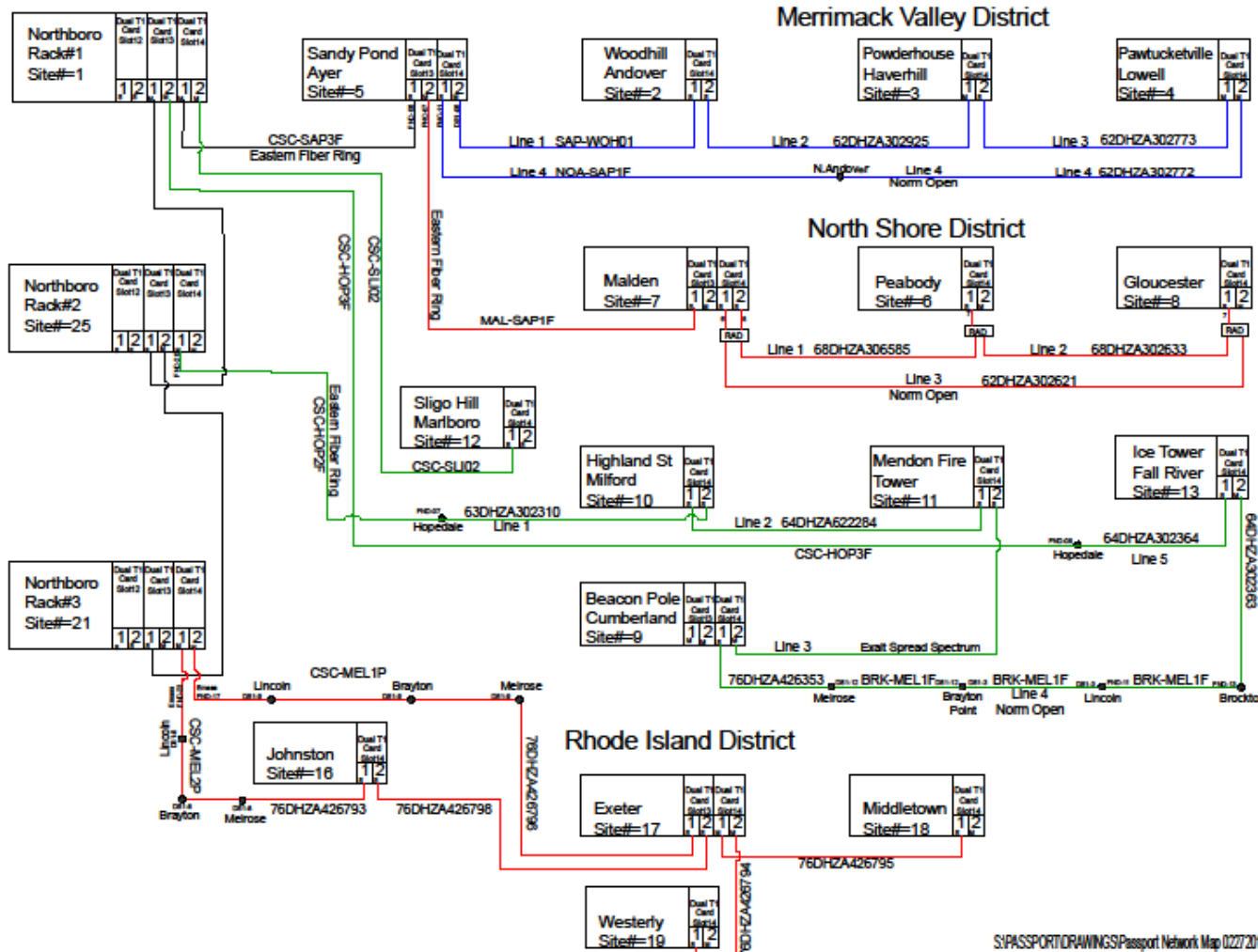
- **nationalgrid**
 - An international electricity and gas company and one of the largest investor-owned energy companies in the world. We play a vital role in providing energy to millions of customers across the northeastern U.S. and Great Britain in an efficient, reliable and safe manner.
- Kevin Malloy
 - Manager Telecom Operations NE / NYC & LI
 - Over 25 years with **nationalgrid** and predecessor companies
 - Prior High Tech start-up experience
 - URI alumnus!

Project Description

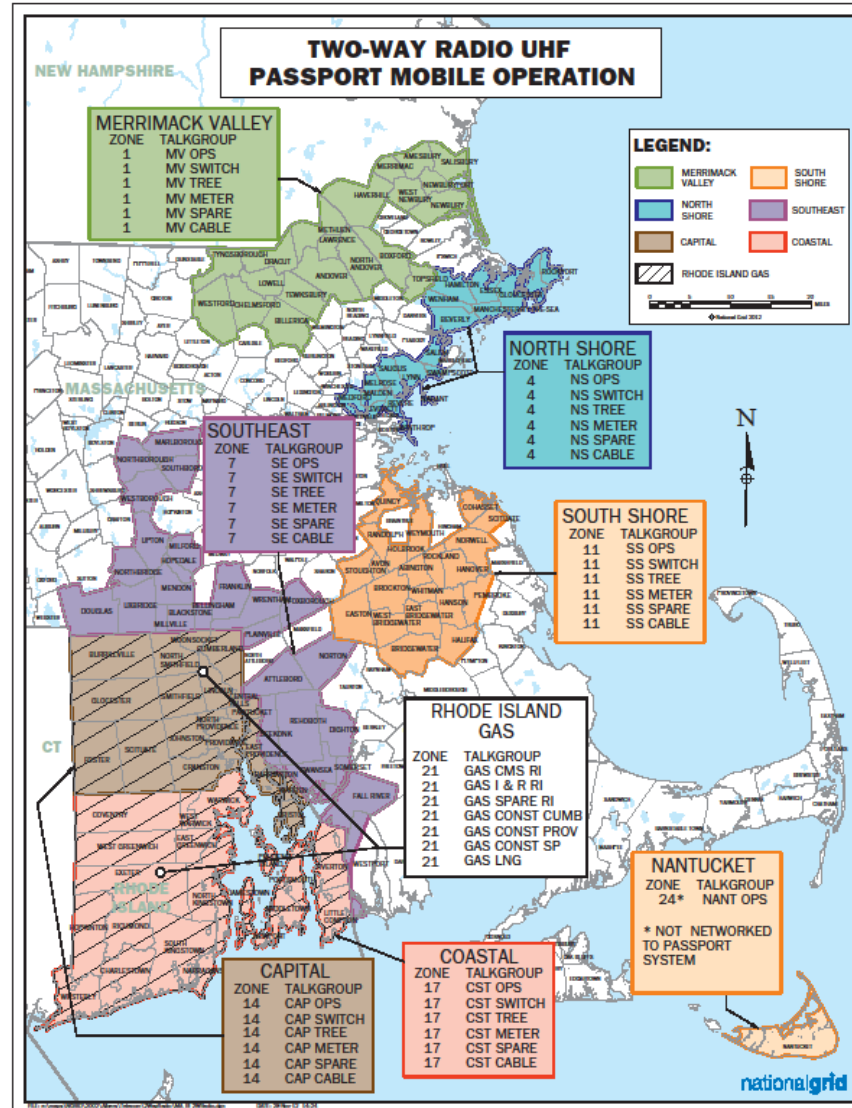
- This project is to replace existing public infrastructure with hardened private infrastructure
- Students will be required to review and evaluate alternate means of communications between specific communication sites, to identify the best cost solution and design the ultimate solution.
- You will design and implement multiple communications path for critical radio communications throughout the New England area.
- The team will be able to produce the project scope, conceptual design, financial accountability, implementation and close out.
- nationalgrid's private fiber and microwave infrastructure can be incorporated into the design to provide added reliability.

Passport Network Architecture

PASSPORT NETWORK - Dated 2/12/13



Operational Areas



Task to be completed

- ✓ **Conceptual Design – Replacement Strategy**
- ✓ **Project Cost Estimate**
- ✓ **Create Technical Specifications**
- ✓ **Conduct Product Technical Reviews**
- ✓ **Design and Re-configuration of the Communications System**
- ✓ **Design of System Architect and Programming**
- ✓ **System Installation and Commissioning**
- ✓ **Training for support staff and final documentation**
- ✓ **Review of Conceptual Design and Cost Estimates vs Actual**

System Specification

- This is a project design upgrade to the existing operational system.
- The functional specifications may change over the course of the project in order to maintain system integrity and financial controls.
- Each telecom site is different in design and location and will present specific challenges and design criteria.

Required Skills

- Project Team – 3 EE's – one strong in programming
- General electronics/RF knowledge
- Fiber or microwave knowledge (helpful but not required)
- Ability to read and understand technical manuals
- Software programming
- Technical drawing skills
- Ability to work with vendors and other SME's

Security Clearances

- Must have a clean driving record
- May be subject to a personal background check



**Brousseau Mountain on
the Canadian Border**



Contact information

- Kevin Malloy – Manager Telecom NE
- c/o nationalgrid
- 280 Melrose Street
- Providence R.I. 02907

- 401.784.7260 (o)
- 401.255.4884 (c)

- kevin.malloy@nationalgrid.com