

Greater Cleveland Regional Transit Authority

Summary of Proposed Award Radio Replacement Study

Presented to : Operations Committee
March 7, 2017

Greater Cleveland Regional Transit Authority



History of Current Radio System

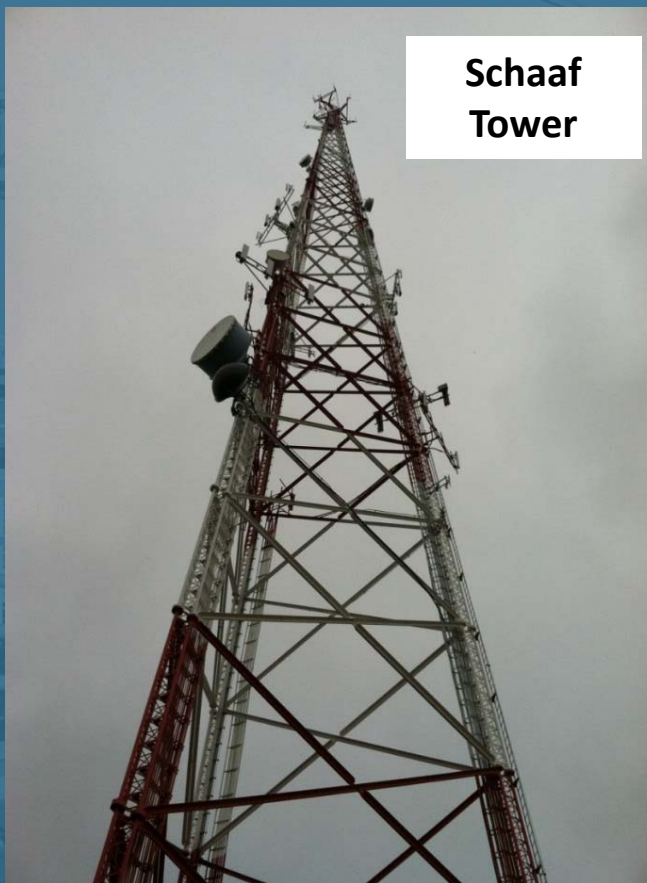
- Procurement started in 1999
 - Combined project with CAD/AVL purchase
 - Four (4) vendors during life of the project
- 900 MHz System – Data and Voice
 - Four (4) Radio Towers
 - Portable Radios
 - Onboard-Vehicle radios

Current Radio System Equipment



Vehicle Radio

IVLU (Computer)



Schaaf Tower

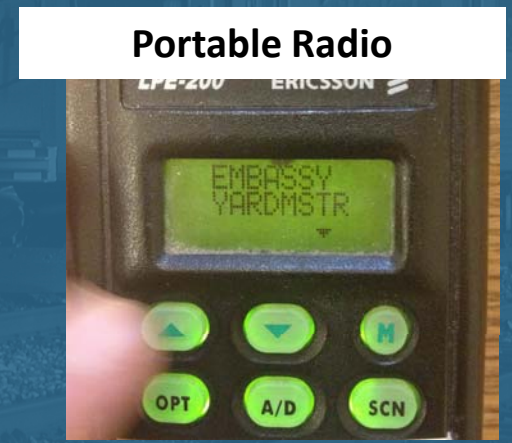


OnStreet Signs



Handset

MDT



Portable Radio

Radio System Communication



Vehicle



Radio Towers



Servers



TransitMaster
Software



Customer Real-
Time
Information



Radio System Communication

Route Ladder Vehicle Schedule Route O rel Map

Vehicle Map

Zoom

The screenshot displays a software interface for vehicle tracking. The main area is a map of Greater Cleveland, populated with numerous bus icons, each labeled with a vehicle ID. The interface includes a menu bar at the top with options like 'Route Ladder', 'Vehicle', 'Schedule', and 'Route'. A 'Map' button is visible in the top right. On the right side, there is a panel titled 'Operator Communication' which contains a list of vehicle IDs and their corresponding communication status, color-coded by status.

Vehicle ID	Color	Communication Status
2831	Cyan	CM No
2478	Yellow	RTT
3372	Yellow	RTT
338	Yellow	RTT Rai
816A	Yellow	RTT Rai
3427	Yellow	RTT
3372	Pink	CM Fare
2268	Green	CM Cod
2629	Green	CM Cod
2471	Green	CM Cod
2471	Green	CM Cod
2440	Green	CM Cod
2440	Green	CM Cod
3210	Green	CM Cod
314	Cyan	Operato
2448	Cyan	Operato
2903	Blue	CM Pick
2437	Blue	CM Pick
2231	Blue	CM Pick

Radio System Risks

- Aging system with obsolete technology
- Many parts are no longer sold and difficult to purchase/repair
- As parts fail, the radio coverage declines
 - Loss of communication with operators and supervisors (rail and bus)
 - Loss of visual location of each vehicle
- Estimated Replacement: \$9-15 million

Purpose of the Study

- Identify the best communication option for RTA
 - Traditional Radio - Privately owned
 - Traditional Radio - Leased
 - Commercial Cellular Provider (Verizon/Sprint)
 - Hybrid Solution – Traditional Radio and Cellular
- Use the recommended solution for grant applications

Scope of Services

Task 1	Identify radio replacement opportunities/methods
Task 2	Develop SWOT and Gap Analysis for each method
Task 3	Perform a voice and data coverage test for each method
Task 4	Develop cost/benefit analysis for each method
Task 5	Provide a final recommendation

Radio Replacement Study Procurement Overview

- RFP issued October 10, 2016
- Proposals due December 20, 2016
- 24 interested parties downloaded the solicitation from the website
- 4 firms submitted proposals

Radio Replacement Study Procurement Overview

- Evaluation Panel Members
 - Electronic Repair
 - Information Technology
 - Intelligent Transportation Systems (ITS)
 - Office of Management and Budget (OMB)
 - Procurement

Radio Replacement Study Procurement Overview

- Evaluation Criteria
 - Qualification of assigned resources
 - Completeness of proposal
 - Cost
 - Vendor experience

Radio Replacement Study Procurement Overview

- Recommended Vendor
 - IBI Group
 - Multi-disciplinary engineering and planning firm
 - Founded in 1974
 - 63 offices internationally, 2,600 employees
 - Extensive work with public transit agencies
 - Direct experience with transit communication systems and technologies
 - Project Manager with 15 years experience
 - Multiple modes of transit (2 RTA projects)

Radio Replacement Study Procurement Overview

- Firm's Transit Experience
 - RTD (Denver), TriMet (Portland), Spokane Transit Authority, Community Transit (Washington), AC Transit (Oakland), and GCRTA (project manager), among others
- A 0% DBE goal was assigned to this project

Radio Replacement Study Procurement Overview

- Recommendation
 - Staff requests that the Operations Committee recommend award to IBI Group to provide a radio replacement study in a total contract amount not to exceed \$155,238