



## CASE STUDY National Capital Region (NCR)

### CUSTOMER PROFILE

The National Capital Region (NCR) of the United States consists of Washington, D.C. and the surrounding fourteen counties and independent cities in Maryland and Virginia. These jurisdictions use 800 MHz radio systems with 133 trunked frequencies, on 1100 repeaters, at 93 sites and more than 43,000 subscriber units. These systems were being impacted by FCC's implementation of a complex, multi-year transition plan to mitigate interference in the 800 MHz band by separating cellular systems and public safety systems into different portions of the band.

NCR licensees maintain communications with each other, adjacent counties and a multitude of cities and districts within the NCR which would be impacted by rebanding. Successful transition of complex systems of this magnitude required skillful coordination. This was also an opportunity for these jurisdictions to better define their interoperability protocols through the development of a common fleetmap. Commdex collaborated with the Communications System Managers and Communications Directors of jurisdictions within the NCR as well as the Motorola Project Team and Supervisory Staff in implementing a state-of-the-art solution, satisfying their frequency rebanding, interoperability and systems migration needs.

### COMMDEX SOLUTION

CommDEX provided consultation in development NCR Program Plan during Phase I of the project. During Phase II, CommDEX provided program management guidance and structure for each of the NCR Licensees' rebanding projects to be certain that the NCR Program Plan developed in Phase I was followed. To this end, CommDEX managed and updated the NCR Master Project Plan to ensure that the implementation followed the regional schedule and that consistency of work was maintained across each of the NCR Licensees' rebanding projects. CommDEX created a master implementation plan that included program governance, stakeholder management, benefits management and risk management.

CommDEX analyzed the existing processes and systems in place and proposed an optimized solution and design to improve efficiency, productivity and scalability. In order to harvest the data from existing radio templates in a quick and effective manner, CommDEX designed and implemented a software solution to:

- Retrieve interoperable templates for each licensee as per the

rebanding guidelines, and also maintain/track the licensee data for billing and reporting purposes.

- Automated the data collection and transformation process from all systems thereby reducing the manual data collection effort by 75%.
- Designed and developed database to hold template, radio and system information.
- Provided user interface for querying licensee information and generating various reports to eliminate manual records and improve the billing accuracy by 45%.
- Enabled licensees to extract radio inventory data from code plug exports which reduced turnaround time by 65% and streamlined the data collection process.

### COMMDEX ROLES

CommDEX provided the engineering support required to modify the interoperable subscriber templates to accommodate the changes needed for rebanding for each Licensee. CommDEX performed internal validation of the data modified in the interoperable templates before the codeplugs were turned over to the customer(s) for acceptance. The changes made to each interoperable template were carefully reviewed against the certified and accepted Rebanding Template Impact Report.

CommDEX used Ultra-Compare tool to quickly find differences between similar codeplugs which reduced Quality Assurance time and increased overall accuracy and efficiency. As a final step, CommDEX tested the interoperable templates needed for both the First Touch and the Second Touch radio reprogramming efforts.