



DEVICE MANAGEMENT SERVICES SAVES TIME FOR PRINCE WILLIAM COUNTY

A DAY IN THE LIFE OF A RADIO ADMINISTRATOR

"My day starts at zero seven in the morning," said Ivan Joseph Perez, Jr. "I am Prince William County's Radio Administrator. My duties entail the common maintenance of our Motorola Solutions radio system. I support the police department, fire and rescue, department of Public Safety Communications, sheriff department and schools."

In addition to making sure the infrastructure is operational and the 32 consoles in the 9-1-1 center are functioning properly, Perez is responsible for keeping track of critical subscriber information. "I control all the code plugs for every agency in the county including interoperability code plugs with [neighboring counties and cities] around us. I am the version control and I manage everything for routine programming updates."

Perez went on to explain the process he uses, "At this time I use spreadsheets to keep track of critical information for the radios; the model numbers, the flash codes, the programming, the ID's. And, once a year, we do programming updates [using Customer Programming Software (CPS) from Motorola Solutions]."

PRINCE WILLIAM COUNTY, VA

- Population 465,348
- 1383 people per square mile
- 348.5 square miles
- Part of the National Capital Region (NCR)

RADIO COMMUNICATION SYSTEM

- ASTRO 25 800MHz system
- 4500 radios
- Serving police, fire and rescue, sheriff, schools
- Interoperate with National Capital Region
- On average 9500 radio communications daily



UPDATING RADIOS IS LABOR INTENSIVE

CUSTOMER PROGRAMMING SOFTWARE (CPS) TAKES 85% OF HIS TIME

"I spend about 80-85% of my time in programming mode", shared Perez when talking about reprogramming approximately 4500 radios yearly using CPS. Every agency is on a schedule; fire and rescue are updated in the fall, police in the spring and sheriff during the summer. He continues, "Each agency's code plugs vary. In fact, fire alone has 16 different code plugs and police from 5 to 8 code plugs. And there are different radio models as well, so each code plug is a slightly different model for each radio. That's a lot of code plugs to go through and make sure everything is good to go."

"Before I actually release [the new programming] to the fleet, I test them. I drive around, make sure the test is good and there are not a lot of bonking or abnormalities. If I catch something that is wrong, I go back, fix it and test it again. And once I do that, then I'll go to my testers in different agencies, I'll take their radio and update them and give

them about a week to make sure the radio looks good and everything is functioning correctly."

"It's a very arduous task. If you're not careful when dragging and dropping [code plugs into radios] you can mess it up. I've learned my lesson many times."

MANAGING DATABASES IS TEDIOUS WORK

To get started updating radios Perez explains, "I look at the spreadsheets, I start updating all the code plugs ahead of time. Then, I'll make sure to update databases. I update approximately five databases. Provisioning Manager, the main tool that I use to see what radios are in my database. Access database, the KMF [Key Management Facility for Encrypted Radios] and my own spreadsheet I have for fire and PD. I mean, I go through a lot of things."



A NEW WAY TO SAVE TIME – RADIO MANAGEMENT

RADIO MANAGEMENT TAKES 20% OF HIS TIME

Prince William County is in the process of rolling out Motorola Solutions' Radio Management and Advanced Services which will bring efficiencies and flexibility to radio updates. By simplifying radio inventory management with integration into the current customer programming software (CPS), it will allow up to 16 radios to be programmed at one time either via USB or in the future over-the-air and provide a unified view from a single dashboard. Perez sees it as a real time saver, "When it comes to programming it takes me about an hour, hour and a half to do an update. And for me to whittle that down to like 30 minutes, that'll be fantastic. I can focus on other things."

Perez goes on to talk about the benefits. "It will give me the flexibility to program stuff very quickly if there's a major change that needs to happen. I can look in radio management and see when a radio hasn't been updated in a while and the configuration of the radios. It's very simple, easy to understand and quick. Knowing that it's automated would save a lot of time. I could just go into the log to see who didn't go in today or who's left? And then target those folks for an update."

BUILT-IN EFFICIENCIES WITH RADIO MANAGEMENT

"Ease of management of devices, being able to track all of those assets [that were purchased by], all of those taxpayer dollars, is an extremely useful tool to be able to do while managing all of the updates, code plugs, and templates," explained Kevin Aswinanun, Management Information Systems Coordinator. "And being able to export data so our shareholders and stakeholders can make more informed decisions would be beneficial. It would help us with efficiency, being able to express and quantify why we do, or how we do and what we need to do with our radio system."

"Making changes on the fly for the officer instead of them coming back to me to do a change if there's maybe a wrong radio ID for example. It would be phenomenal for me to say, 'Okay', push a change out there and then just send a quick email to the officer, 'Hey as soon as you can get to a computer with a kiosk, hook the radio up, push the update to

**"RADIO MANAGEMENT'S
GOING TO GIVE ME BACK A
MONTH OF MY TIME."**

— Ivan Perez

OVER THE AIR PROGRAMMING COST SAVINGS

Over the Air Programming (OTAP) is also available with Advanced Services. Prince William County will begin testing it with their police department mobile radios this year. Perez shared his thoughts, "POP25 [Programming over P25] could be running in the background for the updates and stuff. It'll be really fantastic to see how OTAP works."

Tom Pulaski, Administrative Division Chief echoed the benefits of OTAP over the current method of pulling officers and their radios out of the field. "Now we have to coordinate schedules with the officers to come in. When [radio programming] happens over-the-air, there will be a tremendous efficiency right there. It keeps the officers out in the field where they belong and doing what they're trained to do."

"With programming and updating, I see the biggest cost savings in the man hours required to do the programming," said Aswinanun when talking about the future of OTAP. Especially for other agencies that are smaller, less complex and don't have the resources or the manpower to do it. The flexibility will allow them to login to manage the radios and send the updates out."

MYVIEW – A ONE-STOP VIEW

As part of rolling out advanced services, Prince William will also be using MyView, a consolidated dashboard on Prince William County system performance including real-time device and infrastructure information. Perez sees the value of MyView to help him to do his job better and save time. "I like the fact that it's a one stop shop where I can see everything: my repair orders, contracts, and software updates. When I can see the radio and I see the configuration features for each type of radio, it'll help me keep track of the features that are unique to that radio, to that agency. I like that. I really do and there's a lot of value in that."



WORKING AS A REGIONAL TEAM PLAYER

Interoperability within the county and outside the county is important to serving the public. Prince William County personnel are often called upon to work with other agencies in the region. Javid Elahi, Police Department IT manager, explains how Radio Management is going to help coordination and interoperability on critical events. "We commonly work together on reprogramming of radios; sharing code plugs, and fleet maps to make sure that anytime, any one system in the region changes, we all change. It's very common that our detectives are in other jurisdictions throughout the day. So having the ability to touch one button on their radio and instantly switch to another county, is a very important feature."

"It's important that the radio manager and myself as an IT manager in the police department are working well together," Elahi continues. "To make sure that we're both staying on the cutting edge of technology and that we're in lock step on radio programming, code plugs, and fleet maps."

MAKING A DIFFERENCE

"What I do for a living makes a huge difference in the world. I want the citizens to know that I maintain a county wide radio system that allows their first responders to communicate and to quickly provide services to them," said Perez. "I ensure the lines of communication are always functional on the radio side to ensure their first responders get to them in a timely manner. That's what I do."

"What keeps me coming back to my job is the people and the technology. The technology has changed, which makes it so exciting for me," Perez expressed. "It keeps me on my toes, because I serve customers that want cutting edge technology. I have to ensure first responders, telecommunicators, police officers, fire and rescue folks, and anyone in the county that has a radio are able to communicate to get those services needed to those citizens. I do it so they're always safe, 100%."

"It's not about me, it's about the subscribers. I want to ensure they have updated programming, the best service available to them to ensure they're successful in what they have to do on a daily basis."

— Ivan Perez

"It's changing the way we're doing business in a much more effective and efficient manner. By getting information out to the officers in the field quickly, that's what this technology provides us and will provide us in the future."

— Tom Pulaski

For more information, please visit us at motorolasolutions.com/services



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