SECURE, TIMELY AND CONVENIENT RADIO UPDATES

REDUCE YOUR TOTAL COST OF OWNERSHIP WITH WI-FI OVER-THE-AIR PROGRAMMING

MOTOROLA SOLUTIONS

CHALLENGE:

Two-way radios are your frontline's communications lifeline. So ensuring their radio remains functional is vital. Failure to do so could result in features no longer working properly in the field or users not being able to access the talkgroups they need.

As the world becomes increasingly connected through digital technologies, leaving a cyber security vulnerability unpatched could leave users vulnerable to information security breaches.

Managing your radio fleet is a great challenge, given how vital a radio is to a user. Updating codeplugs and firmware is something a radio manager would be familiar with. That's because traditionally, the radios need to return to a radio maintenance base to be updated.
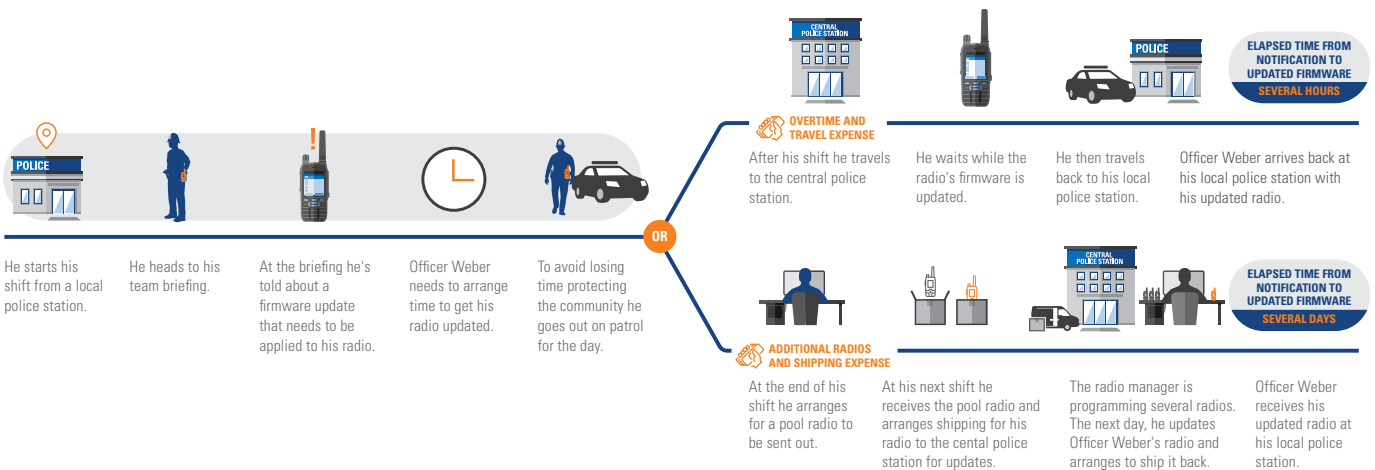
With many fleets of radios being for more than 1,000 subscribers, this process is time consuming and costly as it requires the radios to be physically returned and relies on the users to return them to be updated.

And let's not forget that each organisation takes a different approach to radio management. Traditionally, the update process may be similar to what is seen for this user:

OFFICER WEBER

OFFICER WEBER DOESN'T HAVE OVER-THE-AIR PROGRAMMING (OTAP) CAPABILITY

ELAPSED TIME FROM NOTIFICATION TO UPDATED FIRMWARE: SEVERAL HOURS

OVERTIME AND TRAVEL EXPENSE

After his shift he travels to the central police station.

He waits while the radio's firmware is updated.

He then travels back to his local police station.

Officer Weber arrives back at his local police station with his updated radio.

ELAPSED TIME FROM NOTIFICATION TO UPDATED FIRMWARE: SEVERAL DAYS

ADDITIONAL RADIOS AND SHIPPING EXPENSE

At the end of his shift he arranges for a pool radio to be sent out.

At his next shift he receives the pool radio and arranges shipping for his radio to the cental police station for updates.

The radio manager is programming several radios. The next day, he updates Officer Weber's radio and arranges to ship it back.

Officer Weber receives his updated radio at his local police station.

He starts his shift from a local police station.

He heads to his team briefing.

At the briefing he's told about a firmware update that needs to be applied to his radio.

Officer Weber needs to arrange time to get his radio updated.

To avoid losing time protecting the community he goes out on patrol for the day.

OR

The two common processes highlight the additional time and cost involved in updating the radios in this manner.

Whilst the start of the officer's day may start the same, the first process highlights how the software update in a best case scenario, took several hours. The additional time and travel expense following their shift to a central radio management base, the time waiting for the update to be completed and then travelling back to his local police station to sign off from their shift.

Also common is the second scenario, where the process can take at best, several days! At the end of their shift, the officer is having to arrange a pool radio, which they don't receive until their next shift and have to spend time to ship their radio back to the central point for an update.

The shipping costs to get the radio to the radio manager to update, and for the radio manager to ship back to the officer are further costs, added to the additional time it is taking - not to mention also having to account for pool radios in the fleet.

When you scale this process across 1,000 radios or more, the additional time and cost to ensure the vital updates are done, mount up and it isn't practical to update all of the fleet at once, meaning updates need to be phased over many days, weeks or even months.

USE CASE | MXP600 Wi-Fi OVER-THE-AIR-PROGRAMMING

SOLUTION:

Wi-Fi Over-The-Air-Programming (OTAP) enables radios to be updated faster, avoiding the additional expense of needing pool radios, shipping, overtime and travel expenses normally required to update the radio.

OFFICER EVANS

OFFICER EVANS HAS DESIGNATED WI-FI AT HER LOCAL POLICE STATION AND HER MXP600 TETRA RADIO HAS THE ABILITY TO PERFORM FIRMWARE AND CODEPLUG UPDATES USING WI-FI OVER-THE-AIR PROGRAMMING (OTAP).

She starts her shift from a local police station. The designated Wi-Fi provides access to Integrated Terminal Management (iTM) for radio programming and management.

On the way to her team briefing a notification that new firmware is available pops up on her radio.

She takes advantage of OTAP over Wi-Fi and installs the firmware during the briefing.

After the briefing she reboots the radio. Extra functionality is now available.

She goes on patrol with new functionality enabled.

ELAPSED TIME FROM NOTIFICATION TO UPDATED FIRMWARE
A FEW MINUTES

Utilising the designated Wi-Fi at the local police station, that has access to Integrated Terminal Management (iTM) for radio programming and management, the officer can update firmware and codeplugs over Wi-Fi.

They're notified of the update and by the end of the briefing, the updates are downloaded and installed so they're able to reboot and start their shift with the new functionality enabled.

For firware updates or codeplug changes, Wi-Fi OTAP is not only faster; it also saves money.

By avoiding overtime costs, travel expenses, shipping hassles and the need to stock additional replacement radios, you can maximise your resources and keep officers where they are needed; in the field.

Wi-Fi OTAP also helps radio managers in the back office too. They're able to schedule updates, have visibility of who has and hasn't updated their radio, as well as determine whether they want to force a reboot or leave it to the user to do so manually.

Wi-Fi OTAP enables them to efficiently update the radio fleet and ensure that some updates, some of which can impact officer safety, are completed in a timely manner.

The MXP600 supports both 2.4GHz and 5GHz bands of Wi-Fi to enable firmware updates to quickly download whilst the radio is in operation.

The connections are secured via the Transport Layer Security (TLS1.2) protocol to ensure security and data integrity between the radio and the server.

This means that OTAP can be performed securely where the radio can access dedicated Wi-Fi - removing the additional time and costs associated with the traditional method across large fleets of radios.

Wi-Fi OTAP provides a secure, timely and convenient method of keeping your radio fleet up to date, ensuring users have a radio that is up to date with features, talkgroups, and protected against the latest cyber security threats.

WI-FI OTAP - SECURE, TIMELY AND CONVENIENT

THE MXP600 HELPS REDUCE YOUR TOTAL COST OF OWNERSHIP BY STREAMLINING EXPENSIVE AND TIME CONSUMING RADIO MANAGEMENT.

USE CASE | MXP600 Wi-Fi OVER-THE-AIR-PROGRAMMING

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Learn more about the MXP600:
www.motorolasolutions.com/MXP600radio

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