

**MORE DEVICES,
MORE DATA,
MORE CONTROL.
THROUGH YOUR APX™ RADIO.**

WHITE PAPER

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Whether you're calling for back-up in a foot chase or monitoring firefighter biometrics on the fireground, the connection to your wireless devices must be exceptionally fast, ultra-secure and robust. Easy to use, yet tough enough to withstand the heat of action and long hours of wear.

You need Mission Critical Wireless solutions designed specifically for high-security situations and high-stress environments that deliver loud, clear audio and the latest data applications securely to the radio. So your teams can connect right when they need to and share real-time information, right on their devices.



Our Mission Critical Wireless portfolio answers this – and more. We designed it to meet the real-world criteria first responders depend on and developed enhanced Bluetooth® solutions specifically for their devices.

Only our Mission Critical Wireless portfolio lets you connect a combination of Bluetooth audio accessories and data devices to your APX™ radio at the same time. With best-in-class Bluetooth, exceptionally fast pairing and hackerproof performance, you can feel confident every word is heard, every transmission is secure and every responder is safe.

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APX LEADS THE WAY WITH ENHANCED BLUETOOTH VOICE AND DATA

Whether you're a K-9 unit on patrol or plainclothes detective on covert operations, now you can rely on secure, encrypted voice and data to coordinate activities, facilitate collaboration and deploy resources instantly and effectively. The industry-leading capabilities of our Mission Critical Wireless portfolio for APX radios put it all within reach.

Let's say you're an incident commander concerned about the health of your firefighters as they rush into a burning building or a security team navigating a crowded stadium. How do you get the critical data you need – such as vital signs – without using multiple systems and interfaces?

With enhanced Bluetooth® voice and data, our Mission Critical Wireless portfolio delivers it instantly, seamlessly and securely through your APX radio. You control everything you need through one interface, one radio. Since our solutions are so quick to pair, even in the presence of other Bluetooth devices, you simply “grab and go”.

BLUETOOTH IS MORE SECURE THAN EVER BEFORE

Originally designed with a long unique PIN, Bluetooth was secure, but too complex for consumers to use. As a result, manufacturers downsized to a four-digit default pin, “automating out” the safeguards that made it effective. As hacker attacks grew, so did concerns about using Bluetooth in mission critical applications.

Although Bluetooth is a secure solution when the 128-bit encryption is properly keyed and turned on, its real security issue was “pairing”. In earlier versions of Bluetooth, when pairing was broadcast over the air, hackers could listen in from hundreds of yards away and access the credentials being exchanged.

With advanced technology, we've made Mission Critical Wireless much more secure than conventional Bluetooth solutions. Hackers are thwarted because we pair over an ultra-short range “touch” connection they cannot intercept. Both the ultra-short range privacy and strong keys make it safe for mission critical applications.

PAIR INSTANTLY WITH A “TOUCH”

We strengthened the security of Bluetooth by creating an ultra-short range “out of band” data link for exchanging device credentials. Our Mission Critical Wireless devices pair within an inch of the radio, and each exchange is virtually undetectable beyond a few inches. Since you must be that close to pair, you can be confident your device is connecting with your radio, without a hacker even knowing it's there.

Our “out of band pairing” takes just two seconds to pair and less than five seconds to connect. There's no fiddling with controls or keying in codes – you get a secure wireless connection with a “touch”. During the “touch”, Bluetooth IDs and a strong 128-bit key are exchanged, ensuring transmission security is virtually unbreakable and brute force attacks on its encryption are practically impossible.*

*In the many years EO encryption has been used, successful brute force attacks in the field have never been reported.

RIGHT NOW, MISSION CRITICAL WIRELESS IS:



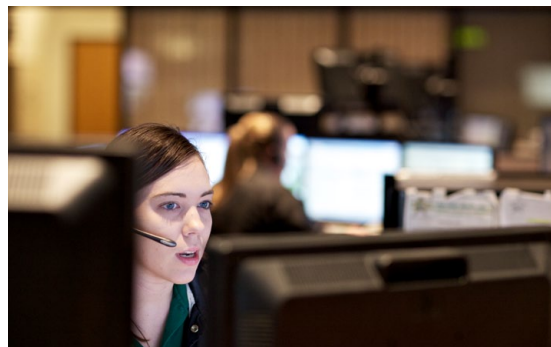
Speeding secure voice communications to a SWAT team



Monitoring firefighters' vital signs in a burning building



Assessing the stress levels of recruits during training



Pinpointing the location of an injured responder

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ELIMINATE THE AMBIGUITY OF “WHICH DEVICE IS MINE?”

It's 6:30 a.m. and SWAT team officers are grabbing radios from multi-unit chargers, along with their accessories and devices. How can they instantly pair them to the right radio with other Bluetooth devices nearby?

Our proprietary “out of band pairing” eliminates this ambiguity – especially when multiple devices are pairing simultaneously, in close proximity to each other. It ensures a device is quickly paired and connected the first time to the right radio.

This simpler, stronger, secure pairing process starts the wireless connection and configures the device to communicate with the same settings as the radio. Just hold the device within an inch to be confident it is connecting exclusively with your portable.

LATENCY SO LOW, EVERY WORD IS HEARD

If you're responding to an incident, the difference between what's said and what's heard can be life-changing. Missing the word “Don't” before “shoot” can alter the consequence of your actions forever.

When you wear our Mission Critical Wireless accessories, you can be assured every word of every message will get through without being truncated. That is because the latency – the time between when you press the PTT button and your message is transmitted – is exceptionally low, imperceptible to anyone using a radio.

FIELD-TESTED BY FIRST RESPONDERS

We created our industry-leading Mission Critical Wireless accessories to complement APX radios. Unlike off-the-shelf devices, they are specifically designed for first responders. Skillfully engineered, they're very comfortable during long shifts and easily fit under helmets and gear.

When your radio is hidden for covert operations or out of easy reach, use the Mission Critical Wireless PTT pod – in a pocket or on a jacket – to access it instantly and seamlessly.

Mission Critical Wireless Earpieces and Earbuds are so robust, they handle the most strenuous activities. Yet they are so comfortable, first responders tell us they forget they're wearing them. Our accessories stay snugly in place throughout a 10-hour shift and don't need recharging the entire time.

Since our accessories provide cutting-edge audio and exceptional clarity, you can be sure messages will come through clearly in the noisiest environments. World-trusted and field-tested, they stand up to the most mission critical situations.

For more information on industry-leading Mission Critical Wireless with Bluetooth voice and data, visit www.motorolasolutions.com/apx.

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