



Bell Subscriber Equipment Guide

January 2019 Version 1.0

Introduction

Public safety communications are fundamental to the ongoing viability, sustainability and security of modern societies. The Province of Manitoba's commitment to migrate to a P25 network demonstrates a focus on citizen wellbeing by ensuring that mission-critical tools remain available to Manitoba first responders and public service organizations.

Leveraging technological innovation and driving evolution to next generation technologies, such as LTE, Bell has been at the forefront of communication services in Canada for over 136 years. Recognized as a global leader in a broad range of communication technologies, we are also a proven, professional network operator with extensive experience providing best-in-class solutions, services and devices.

Bell is pleased to present this Subscriber Equipment Guide to assist Public Safety Entities with radio equipment decisions.

We understand that communication technologies for public safety entities ("PSE") must perform flawlessly and without interruption. As the incumbent public safety radio communications service provider in Manitoba since 1997, we are able to leverage our full control of the existing FleetNet system and network to offer a seamless migration to the new Public Safety Communications Service (PSCS). Furthermore, our collaboration with Manitoba over the past several years, and our extensive history working with Manitoba public safety agencies, put us in a unique position to understand PSE requirements to ensure you are equipped with the right information to make strategic radio equipment decisions.

Bell combines the knowledge, trust and province-wide resources of the local Bell MTS team, with the strength and experience of the Bell Mobility national radio team. Bell Mobility has over 30 years of experience providing mission-critical public safety land mobile radio service, and currently provides province-wide service to governments in four provinces. No other service provider provides this scale, expertise and stability. With over 80,000 public safety radio subscribers in Canada, no other service provider is trusted more than Bell to support first responders and public service organizations when it matters most.

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PSCS Approved Radio List

Currently, only Motorola P25 radios are approved for use on the PSCS. Following transition, at the request of a PSE or third party, Bell is prepared to certify P25 compliant radios from other manufacturers for use on the PSCS. The requesting party will be responsible for all costs related to Bell's certification testing process. The current list of approved radios is identified in Table 1.0:

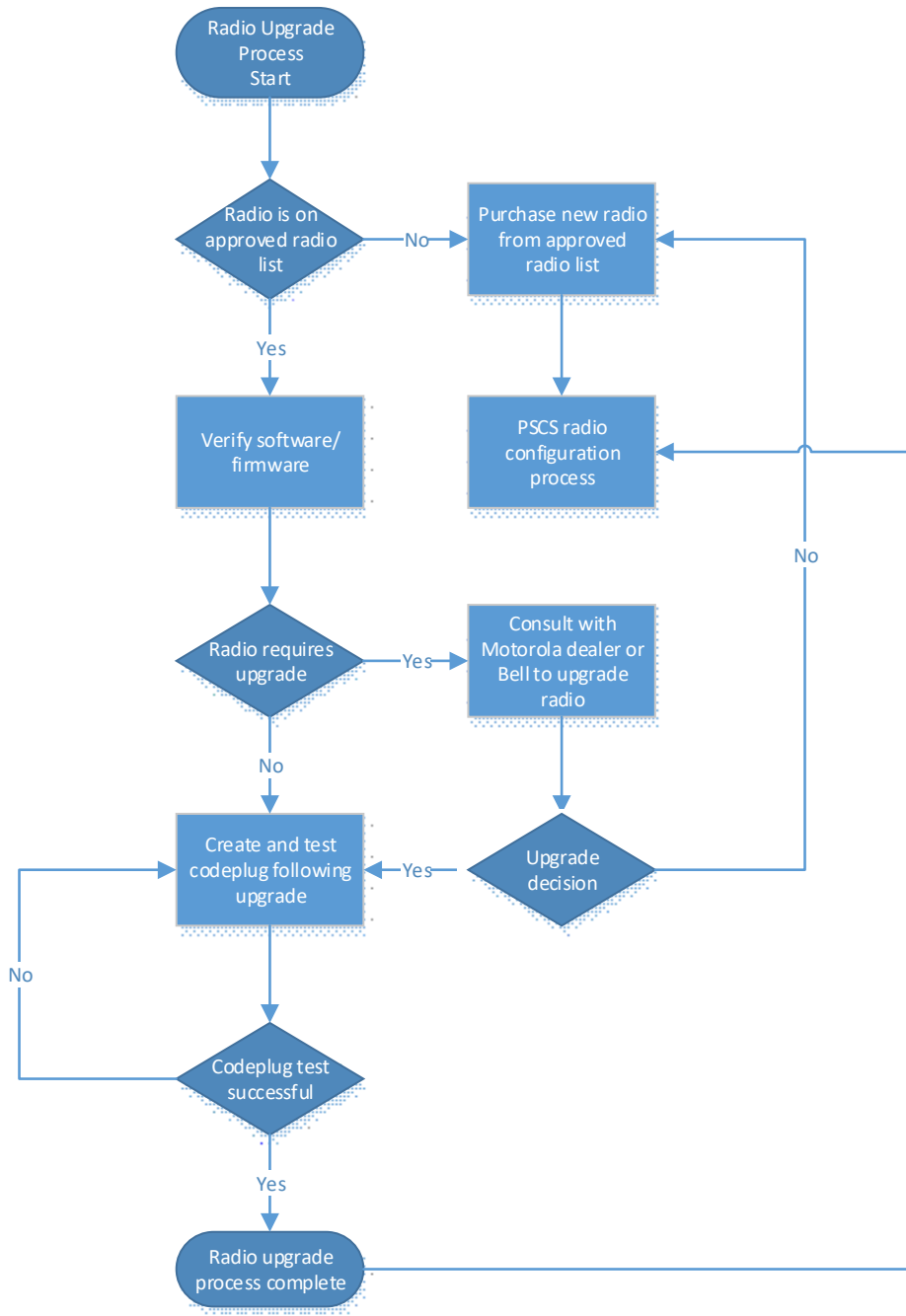
Table 1.0 – Approved Radio List

Manufacturer	Model
Motorola Solutions	APX™ 8000H All-Band P25 Hazloc Portable Radio
Motorola Solutions	APX™ 8000HXE All-Band P25 Hazloc Portable Radio
Motorola Solutions	APX™ 8000XE All-Band Portable Radio
Motorola Solutions	APX™ 8000 All-Band P25 Portable Radio
Motorola Solutions	APX™ 8500 All-band P25 Mobile Radio
Motorola Solutions	APX™ 7000XE Multi-Band P25 Portable Radio
Motorola Solutions	APX™ 7000 Multi-Band Portable Radio
Motorola Solutions	APX™ 7500 Multi-Band Mobile Radio
Motorola Solutions	APX™ 6000XE P25 Enhanced Portable Radio
Motorola Solutions	APX™ 6000 P25 Enhanced Portable Radio
Motorola Solutions	APX™ 6500 Single-Band P25 Mobile Radio
Motorola Solutions	APX™ 4000XH Single-Band P25 Portable Radio
Motorola Solutions	APX™ 4000 Single-Band P25 Portable Radio
Motorola Solutions	APX™ 4500 Single-Band P25 Mobile Radio
Motorola Solutions	APX™ 3000 Single-Band P25 Covert Portable Radio
Motorola Solutions	APX™ 1500 Single-Band P25 Mobile Radio
Motorola Solutions	APX™ 2000 Single-Band P25 Portable Radio
Motorola Solutions	APX™ 2500 Single-Band P25 Mobile Radio
Motorola Solutions	APX™ 1000 Single-Band P25 Portable Radio
Motorola Solutions	APX 900 Single-Band P25 Portable Radio
Motorola Solutions	APX™ Consolettes
Motorola Solutions	XTS™ 1500 Portable Radio
Motorola Solutions	XTL™ 1500 Mobile Radio
Motorola Solutions	XTS™ 2500 Portable Radio (B version only)
Motorola Solutions	XTL™ 2500 Mobile Radio

An approved radio means a model approved by Bell to operate on the PSCS. Approved models in Table 1.0 may require software upgrades, and in some cases, for older models, board replacements. PSEs are responsible for all costs related to upgrading their radios. Bell makes no representation or warranty with respect to the operation of PSE owned radio equipment on the PSCS.

PSE Radio Upgrade & Replacement Process

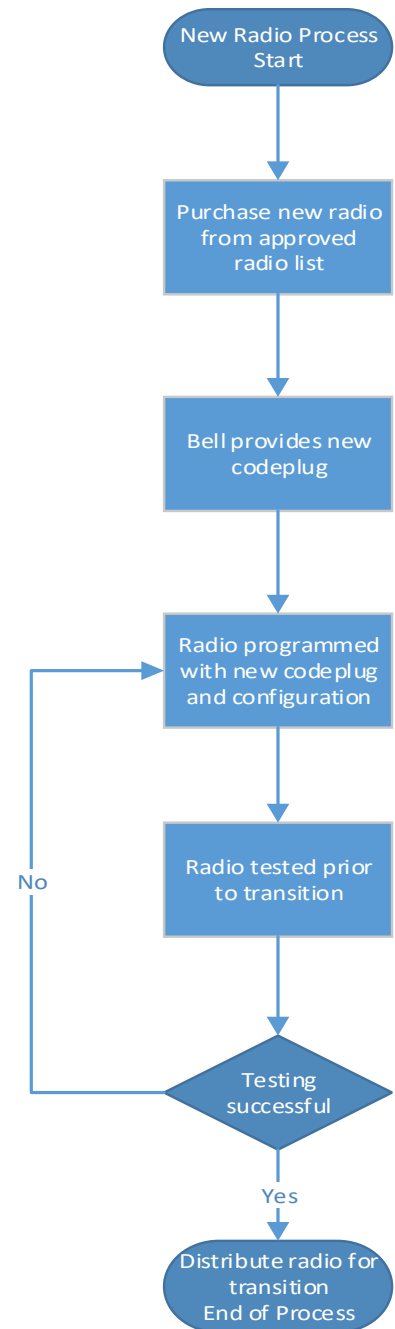
The upgrade of a radio to an approved radio involves a number of steps to ensure the device is P25 compliant and capable of functioning on the PSCS. The diagram below provides an overview of the process to upgrade a radio:



In most cases, the Motorola APX series of radios can be upgraded with a Flashport kit, which must be purchased from and applied by a Motorola authorized agent. These types of upgrades have gone smoothly and led to a successful transition to a Motorola P25 system. Motorola XTL and XTS upgrades have proven to be more difficult and often require many hours of engineering and testing to create a compatible codeplug. Bell recommends replacing these radios with Motorola APX series radios. The PSE is responsible for all costs related to upgrading an existing radio, including the development and testing of compatible codeplugs with XTL and XTS radios. PSEs should carefully consider the potential costs and impact to operations associated with upgrading XTL and XTS radios, including:

- Variable costs – Bell codeplug development and testing is provided on a time and material basis – full upgrade to P25 is not guaranteed.
- Impact to operations – radio programming and testing is required and could result in the radio not being available for operation for an extended period (i.e. unavailable to work on FleetNet).

For new Motorola APX radios that include the appropriate P25 software and features, no upgrade will be required. Bell will be developing codeplugs for these new radios at no cost to the PSE. Bell strongly recommends that PSEs purchase new Motorola radios, or upgrade Motorola APX radios instead of upgrading Motorola XTL and XTS radios in order to ensure a smooth transition with predictable costs. The process in the adjacent diagram provides an overview of the process to replace an existing radio with a new P25 compliant radio:



Subscriber Radio Recommendations

Bell is pleased to provide PSEs with the opportunity to purchase Motorola APX Series P25 two-way radios. Purchasing your radio from Bell comes with the following advantages:



Configuration

Extensive experience configuring and programming Motorola two-way radios

Bell will ensure that your operational requirements are matched with the appropriate software, features and radio model. Codeplug development and testing is included at no extra charge.



Transition

Fully managed transition ensures you are ready for the new Public Safety Communications Service

Purchasing your radio through Bell will result in a smooth transition to the PSCS. Bell will fully manage the process from radio purchase through configuration and transition to the PSCS.



Support

National service desks staffed by trained, experienced public safety radio service technicians

At Bell's national radio service centres, our only job is to support public safety radio. Only experienced public safety radio service technicians will manage your urgent service requests.

Please see Appendix A for a list of Motorola APX P25 radios Bell recommends for use on the Public Safety Communications Service. For more information on purchasing an approved radio from Bell, please contact Bell at:

PSCSSupport@BellMTS.ca

Appendix A – Bell Recommended Radios



APX 8000HXE

All-band P25 portable radio with Adaptive Audio, designed for fire and rescue teams, Class I Div 1 HazLoc



APX 8000H

All-band P25 portable radio with Adaptive Audio, designed for law enforcement agencies, Class I Div 1 HazLoc



APX 8000XE

All-band P25 portable radio with Adaptive Audio, designed for fire and rescue teams



APX 8000

All-band P25 portable radio with Adaptive Audio, designed for law enforcement agencies



APX 8500

All-band P25 mobile radio, available in mid-power (up to 50 W) and high-power (up to 100 W) versions



APX 6000XE

Single-band P25 portable radio with optional Adaptive Audio, designed for fire and rescue teams



APX 6000

Single-band P25 portable radio with optional Adaptive Audio, designed for law enforcement agencies



APX 6500

Single-band P25 mobile radio, available in mid-power (up to 50 W) and high-power (up to 100 W) versions



APX 4000XH

Single-band P25 portable radio for Canada customers, certified HazLoc to CSA-157.



APX 4000

Single-band P25 portable radio, designed to balance performance with affordability



APX 4500

Single-band P25 mobile radio, designed to balance performance with affordability



APX 1000

Single-band entry-level P25 portable radio, designed for simple public safety applications



APX 1500

Single-band entry-level P25 mobile radio, designed for simple public safety applications



APX 900

Single-band P25 entry-level portable radio, designed for non-Public-Safety applications