



# MOTOTRBO™ DEVELOPMENT

PROGRAM BROCHURE | MOTOTRBO™ DEVELOPMENT



**MOTOROLA SOLUTIONS**



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Motorola Solutions may modify the Application Developer Program, its rules, benefits, terms and criteria, or any part thereof, at its sole discretion, at any time.





SECTION 1

# INTRODUCTION

## WHY WORK WITH MOTOROLA SOLUTIONS

Motorola Solutions Inc. is a global leader in safety, security, and situational awareness solutions for enterprises and government customers worldwide. Our technology platforms, in land mobile radio, communications, command center software, video security & analytics; coupled with unsurpassed managed & support services; help ensure our customers make the most of the moments that matter.

100+ COUNTRIES	100,000+ CUSTOMERS	13,000+ NETWORKS	\$8.2BN IN ANNUAL SALES	1,500 DIRECT SALES FORCE
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## THE APPLICATION DEVELOPER PROGRAM

As the largest supplier of land mobile radios in the market, participants in the Motorola Solutions Application Developer Program receive unsurpassed opportunities to develop and market solutions for their expansive customer base.

15+ YEARS OF OPERATION	GLOBAL PROGRAM FOR B2B PROFESSIONALS	400+ ACTIVE DEVELOPERS	SHOWCASE SOLUTIONS IN OUR CATALOG
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Membership in Motorola Solutions’ Application Developer Program provides access to the Software Development Kits (SDK), tools and resources necessary to create and test solutions; ensuring seamless implementation and increased market-reach. Our Application Developer Program empowers participants by fast-tracking application development and enabling them to leverage Motorola Solutions’ brand strength and market leadership.







## MOTOTRBO™ TECHNOLOGY

MOTOTRBO™ is a comprehensive, digital two-way radio solution for professional and commercial communications built on the ETSI DMR standard. Sold and deployed in 140+ countries, MOTOTRBO™ allows instantaneous, private and secure communications for entire organizations. In addition to voice, MOTOTRBO™ supports data, text messaging, global positioning, telemetry and other features third party developers often choose to take advantage of.

More information about the DMR standard can be found in the [Digital Mobile Radio Association website](#).

For information about Motorola Solutions MOTOTRBO™ radios and systems can be found in our [website](#).

## THIRD PARTY MOTOTRBO™ SOLUTIONS

With a wide range of applications and an expert Application Developer Program, MOTOTRBO™ offers custom solutions that truly meet special business needs. Business-specific applications increase the level of efficiency, safety and productivity.

Motorola Solutions values third party developers participating in our ecosystem. With a wide range of existing applications and room to grow more under a professional Application Developer Program, MOTOTRBO™ offers unparalleled customization opportunities for third-parties to differentiate themselves and meet diverse customer needs focused on connectivity, safety, security, and situational awareness.

You can find examples of 3rd party MOTOTRBO™ solutions in our [Applications Catalog](#)

## USE CASES

Motorola Solutions MOTOTRBO™ systems and subscribers provide vast amounts of development possibilities. Common use cases for third party application development include customized and bespoke solutions for:

- Voice dispatch
- Command and control
- Location and indoor positioning
- Personnel safety
- Interoperability
- System monitoring
- Text messaging and email
- Work ticket management





## SECTION 2

# PROGRAM BENEFITS

## FIND OUT WHAT WE HAVE TO OFFER

Members receive exclusive benefits, services and incentives. Below are some of the advantages participants will earn as an Authorized Application Provider of Motorola Solutions:



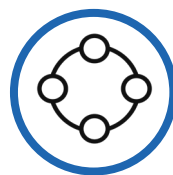
### Application Developer Kit (ADK)

ADKs and documentation enable solution development for MOTOTRBO™.



### Development Tools

Utilize our library of docs, sample code, demo apps and custom tools to help build solutions.



### Modern Systems for Asset Distribution

Modern systems to access the assets and resources necessary for product development in the MOTOTRBO™ ecosystem.



### Community & Motorola Solutions Support

Obtain quick support via peers in the developer community, or directly from trained Motorola Solutions ADP Engineers.



### Showcase Solutions in our Apps Catalog

Become an Authorized Application Provider of Motorola Solutions and promote products through our free online Applications Catalog.



### Developer Conferences & Webinars

Authorized Application Providers are invited to attend annual conferences and regular webinars providing updates on new APIs, recent product releases, updated tools and future product plans.

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## SECTION 3

# PROGRAM REQUIREMENTS

## WHO QUALIFIES TO APPLY

The Application Developer Program is a request and approval based process requiring participants to sign a license agreement with Motorola Solutions. It is geared towards knowledgeable B2B professionals, who desire to build and integrate their products with those of Motorola Solutions for mutually beneficial outcomes.

The program is also available to Motorola Solutions customers, who wish to develop solutions for their own internal use with their deployed Motorola Solutions products. To apply, candidates must meet the requirements below:

- ☒ Represent a registered legal business with appropriate proof of insurance
- ☒ Be the entity who will actually perform the solution/application development
- ☒ Possess expertise and knowledge in the technology platform desired
- ☒ Have experience in building the intended solution
- ☒ Be responsible for their own solution. Motorola Solutions support for third party applications will be limited to Application Development Kit clarifications.
- ☒ Accept and follow the terms of the Motorola Solutions API license
- ☒ Pay any necessary license and/or program fees
- ☒ Protect all Motorola Solutions Intellectual Property provided under license

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## SECTION 4

# API OVERVIEW

### WANT TO LEARN MORE?

The APIs below provide a brief overview of the functionality and services available in MOTOTRBO™ infrastructure and subscriber APIs.

API Name	Description
MOTOTRBO™ Location Service	Location data for a GPS-enabled MOTOTRBO™ subscriber radio may be reported upon an immediate request, a pre-defined trigger, or an emergency call. Positioning information includes latitude, longitude, altitude, or speed. The location service is provided through Location Request & Response Protocol (LRRP). This API also includes information about Bluetooth Low Energy iBeacon based indoor location system for MOTOTRBO™.
MOTOTRBO™ Text Messaging Service	Full display subscribers are text message capable for one-to-one or one-to-many short messaging. Select MOTOTRBO™ subscriber models further support Job Ticketing Service (JTS) which is an enhanced messaging feature optimized for work order management solutions. Text Messaging Service provides short messaging and job ticketing capability to an application.
MOTOTRBO™ Device Discovery & Mobility Service (DDMS)	This API provides DDMS Software and the specs plus development guidelines for a third party data application interfacing to DDMS. For conventional / IPSC / Capacity Plus system, this API provides the system context of the Motorola Device Discovery and Mobility Service application. For Capacity Max system, this document describes the Presence Notifier service provided by the Trunking Controller. It is primarily intended for use by the software development team to implement the Presence Notifier interface to get the radio's presence information.
MOTOTRBO™ Enhanced Job Ticket	Enhanced Job Ticket (EJT) is a feature for work order management solutions. EJT service allows creation of job tickets that are associated with radio users. EJT is supported for MOTOTRBO™ display subscribers operating on Capacity Max, single-site / multi-site Capacity Plus, and Conventional / IP Site Connect systems.
MOTOTRBO™ Sensor Service	Sensors extend MOTOTRBO™ data services to the Radio Area Network (RAN) edge. Sensor devices pair over Bluetooth Low Energy (BLE) using a generic attribute (GATT) profile with transducer electronic datasheet (TEDS). Diagnostic information reported over the LMR network is accessible via a REST API for further processing. Sensor data provides a real-time view of physical or environmental conditions and is usable for triggering workflows for operational efficiency or personnel safety. Compatible only for MOTOTRBO™ R7.

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API Name	Description
MOTOTRBO™ Remote Call Event Monitoring (RCEM)	The RCEM interface allows 3rd party applications to log events of all call types for voice and data. Call events include the start and end of voice calls for group, private, or emergency as well as the occurrence of data calls such as text messaging. Voice audio is not available through this interface.
MOTOTRBO™ Extended Control & Management (XCMP) Service for Subscriber	XCMP service extends the capabilities of the MOTOTRBO™ subscriber radios' standard feature set. It enables a 3rd party application to directly interact and control the radio's features and ergonomics, in order to supplement the user experience of the radio. Audio Operation applications are enabled by the use of separate connections for audio in conjunction with XCMP.
MOTOTRBO™ Repeater Diagnostics, Alarms & Control (RDAC) Interface	XCMP for repeater focuses on Repeater Diagnostics, Alarms, and Control (RDAC), a subset of XCMP. This interface provides diagnosis, alarm reporting of repeater status and the control of repeater operation within the MOTOTRBO™ system. Voice audio is not available through this interface.
MOTOTRBO™ External Host Topology API	An external host is an embedded host platform that integrates externally, using only USB as a data transport, to the MOTOTRBO™ subscriber radio's accessory connector. In this topology, the external host is expected to operate as a USB host while the radio operates as a USB device. The external host interface is available on MOTOTRBO™ portable and mobile radios.
MOTOTRBO™ IP Peripheral Topology API	In this topology, a PC connects to the radio via IP over USB. For the USB link, the PC is expected to operate as a USB host while the radio operates as a USB device. However, for the IP link, the radio acts as a DHCP server and is responsible for leasing an IP address to the PC.
MOTOTRBO™ Option Board / Generic Option Board (GOB) Topology	An option board is an embedded host platform that integrates with the MOTOTRBO™ subscriber radio internally. Option boards permit the flexibility to extend the software features and hardware capabilities beyond what is standard in a radio. An option board application may support audio operation, the XCMP service, and/or data services. The option board interface is available on MOTOTRBO™ portable and mobile radios.
MOTOTRBO™ Bluetooth Device Topology and API	The API provides how select MOTOTRBO™ subscriber models support the Bluetooth interface natively. The supported Bluetooth profiles for 3rd party application use are SPP and PAN. A Bluetooth application may support the Extended Control & Management Service and/or Data Services.
MOTOTRBO™ Bluetooth Headset PTT	The MOTOTRBO™ Bluetooth Headset PTT interface allows a Bluetooth headset to PTT over a MOTOTRBO™ radio.
MOTOTRBO™ Control Signalling Service	Control Signalling service processes special signalling in the MOTOTRBO™ system such as radio check, radio inhibit, and emergency. The Control Signalling service is a type of network service.

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## SECTION 5

# APPLY FOR A LICENSE

Interested parties must follow the process below to apply to become an Authorized Application Provider of Motorola Solutions:

# 1

### REQUEST A LICENSE

Applicants must submit a license request form before developing solutions for the MOTOTRBO™ platform. End users and customers wanting to build solutions for their own internal use can also participate by filling out the same [license request form](#).

# 2

### INTERNAL LICENSE REQUEST REVIEW & APPROVAL

The Application Developer Program team reviews incoming license requests with the regional sales, project and go-to-market teams to confirm the business case and the interfaces required by the candidate for the intended development.

# 3

### LICENSE AGREEMENT EXECUTION

Upon approval, a legal API contract needs to be executed between the parties involved. The agreement will outline the terms and conditions under which Motorola Solutions intellectual property will be used.

# 4

### ACCOUNT CREATION & ACCESS TO DEVELOPER PORTAL

Interface documentation, development guides, and tools will be provided via Motorola Solutions Developer Portal. All Authorized Application Providers will be required to create a user account to access these resources.

# 5

### OBTAIN API-RELATED SUPPORT

API-related questions may be asked to peer developers or Motorola Solutions via our community and private issue trackers, respectively, via our Developer Portal. Questions asked to Motorola Solutions will typically be reviewed within 48 business hours with resolution time dependent upon issue complexity.

# 6

### SHOWCASE SOLUTION IN OUR APPLICATIONS CATALOG

Motorola Solutions offers the chance for Authorized Application Providers to utilize our online marketing tool, the Motorola Solutions' Applications Catalog, to showcase their solutions to the marketplace. This Applications Catalog, available through the Motorola Solutions web page, is viewable by customers, internal sales teams and channel partners.

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For more information, please visit [developer.motorolasolutions.com](https://developer.motorolasolutions.com)



Motorola Solutions, Inc. 500 West Monroe Street, Chicago, IL 60661 U.S.A. 800-367-2346 [motorolasolutions.com](https://motorolasolutions.com)

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