



# TETRA / DIMETRA™

## DEVELOPMENT



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Motorola Solutions may modify the Application Developer Program, its rules, benefits, terms and requirements, or any parts thereof, at any time, 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.

<b>100+</b> COUNTRIES	<b>100,000+</b> CUSTOMERS	<b>13,000+</b> NETWORKS	<b>\$8.2BN</b> IN ANNUAL SALES	<b>1,500</b> 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 this expansive customer base.

<b>15+</b> YEARS OF OPERATION	GLOBAL PROGRAM FOR B2B PROFESSIONALS	<b>400+</b> 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.





## TETRA TECHNOLOGY

TETRA is a European-developed radio technology (ETSI standard), which has achieved world wide acceptance and usage. Motorola Solutions was, from the beginning, and remains today, a key participant in the development of the TETRA standard. A core element of TETRA is to provide mission critical communication to public safety organizations, and it also has adoption in other industries including oil and gas, transportation and many others.

More information about TETRA can be found in the [TCCA: The Critical Communications Association](#) website.

## THIRD PARTY TETRA SOLUTIONS

Both DIMETRA™ systems and Motorola Solutions TETRA terminals provide connectivity for external applications enabling these applications to utilize functionality of the TETRA network, such as interaction with group or individual calls; access to system data for transmitting data from one location to another; and many others.

More information about Motorola Solutions TETRA products can be found in our [website](#).

## POSSIBILITIES FOR APPLICATION DEVELOPERS

Licensed TETRA Application Providers receive access to one or more of the APIs listed in this brochure depending on the specific product needs. The APIs facilitate interaction between your application product, the DIMETRA™ system, and/or Motorola Solutions TETRA terminals. The APIs required depend on the customer needs identified.

As a starting point, we suggest:

- Clearly identifying your customers TETRA related needs
- Identifying your proposals for solutions
- Focusing on mutual success and customer satisfaction

## USE CASES

Many types of solutions can be built for TETRA terminals and DIMETRA™ systems. For example, solutions such as full control rooms, voice dispatchers, voice loggers, transit solutions (train and bus communication and traffic control), wireless headsets, and sensor data transfer over a DIMETRA™ system are fairly common.

You can find examples of TETRA usage here: [TETRA customer stories](#)





## 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 TETRA.



#### 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 TETRA ecosystem.



#### Community & Motorola Solutions Support

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





## SECTION 3

# PROGRAM REQUIREMENTS

### WHO QUALIFIES TO APPLY

The Application Developer Program is a request and approval based process requiring participants to sign license agreement with Motorola Solutions. It is geared for 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 solutions. 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





## SECTION 4

# API OVERVIEW

### WANT TO LEARN MORE?

The APIs below provide an brief overview of the functionality and services available in TETRA infrastructure and subscriber APIs.

API Name	Description
Alarm Reporting API	Enables customer specific fault managers interacting with the DIMETRA™ alarm system, supporting event and alarm forwarding over SNMP V3 protocol.
Computer Aided Dispatch Interface (CADI)	Enables the development of software application programs, called CADI clients. A CADI client can monitor the DIMETRA™ system for dispatch purposes. The API provides radio system acknowledgments, command responses, and real-time radio system activity events to the client application.
MultiCADI (mCADI) API	Provides additional capabilities compared with the CADI API. The additional capabilities are mainly an interface to the Alias Integrated Solution (AIS) for aliasing information plus an ISSI filtering function. Also a forwarding feature is implemented for events/commands to MultiCADI clients in the home zone of the ISSI associated with the actual event/command.
Enhanced CADI (eCADI)API	Is the CADI implementation for DIMETRA™ XCORE architecture from release D9.0.2 onwards. It includes new features and values like: "Emergency Man Down event", "Inhibit over ISSI", "Sensor Alert Event" and more.
User Configuration Subsystem (UCS)	Enables access to several elements of the subscriber data captured in the DIMETRA™ subscriber database (such as Radio, Radio User and Talkgroup), and a few types of infrastructure data (such as home zone maps and telephone interconnect call routes). It also enables subscribers to have their properties changed or to be inserted or removed from the database.





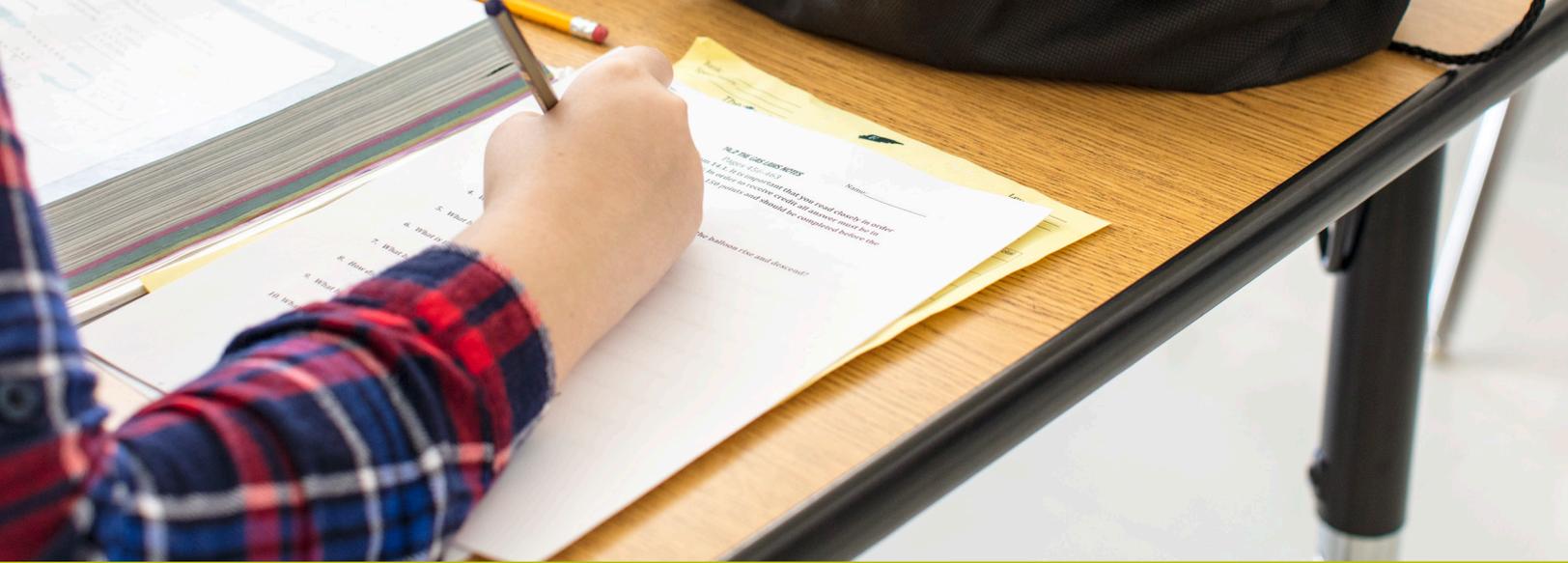
API Name	Description
Short Data Logging API	Enables implementation of a Short data message logging application. When used it allows authenticated users to request transparent inspection of selected Short Data (SD) messages.
MCC7500 Console & DCS API	Enables creation of software applications which can access all of the functionality of the Motorola MCC7500 Dispatch system. The MCC7500 Application Programming Interface provides access to Console Features, to Console Dispatch Interface Services and to Resource Configuration.
MCC7500 Voice Logging API	Enables implementation of voice logging of individual and group call as an add-on when using the MCC7500 Console & DCS API. Does not include logging of end-to-end-encrypted (E2EE) calls.
Bluetooth Programmers Guide	Provides a description of the Bluetooth profiles/functionalities supported by the Bluetooth enabled Motorola Solutions TETRA terminals. Using the Bluetooth API enables several possibilities for example the Transmitting and receiving raw data such as sensor data between a Bluetooth device and a Short Data Services (SDS) host or a Bluetooth device controlling the functionalities such as call initiation of a TETRA terminal, or a Bluetooth device using the TETRA terminal as an intermediate for gaining access to TETRA packet data services.
Subscriber Peripheral Equipment Interface (PEI)	Enables the control of a subscriber, having a Terminal Equipment (TE) sending commands to and receive information from the subscriber. This may be done using the TNP1 Protocol or the AT-Commands as supported by the Motorola Solutions TETRA terminals.
Remote Display & Control API	Enables the attachment of a 3rd party control head to a Motorola TETRA mobile radio. It describes the Remote Display & Control (RDC) interface, supported by the Motorola Solutions mobile radios, enabling that an OEM control head can interface to a Motorola mobile radios, for example in case a different key configuration of the control head is needed.





API Name	Description
Short Data Transport Service (SDTS) API	Enables exchange of short messages with the DIMETRA™ system for distribution within the TETRA network. The API covers all aspects of sending short data messages in a DIMETRA™ system. The SDTS is the DIMETRA™ implementation of the TETRA SDS Type-4, Layer-3 service. It also facilitates Remote Control of a TETRA terminal via use of status messages or short data messages.
Packet Data Service API	Enables IP connectivity within and via the DIMETRA™ system. It enables use of IP bearer services, for example, between a terminal connected to a subscriber and a fixed host. The implementation is IP version 4 on top of the TETRA Packet Data service.
Indoor Location API	Enables to assess the location of a terminal within a closed location such as a building by use of Bluetooth beacons. It describes the commands and protocol for indoor location utilizing the TETRA short data (SD) interface and LIP messages for indoor location. It requires that a TETRA short data interface is available in the DIMETRA™ system and will operate with Motorola Solutions TETRA radios that support BTLE Indoor Location feature.
MS-GPS API	Enables use of location services determining the location of a subscriber, for example, automated vehicle location(AVL) in case of a radio situated in a car, or the location of a radio carrier. Two protocols are supported. The LIP Protocol: An ETSI defined location protocol and the LRRP Protocol: A Motorola proprietary location protocol. Both protocols enables that a subscriber supporting the location services can inform an application about the current location of the subscriber based on triggers for when the subscriber should provide the requested information. The difference between the protocols is that the LIP protocol provides a more data efficient protocol than the LRRP protocol but has less flexibility.





## 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 TETRA 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 TEST & 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 or solution testing requirements.
- 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 Motorola Solutions web page, is viewable by customers, internal sales teams and channel partners.





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



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