

Allied Radio Matrix for Emergency Response (ARMER) Standards, Protocols, Procedures

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Standard Title	Computer Aided Dispatch and Air Traffic Information Access Connectivity	
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1. Purpose or Objective

The purpose of this standard is to establish policy and procedures for systems requiring connectivity to the ARMER system, such as:

- Computer Aided Dispatch (CAD) systems
- Logging systems requiring Air Traffic Information Access (ATIA)
- Reporting and monitoring systems requiring Air Traffic Information Access

2. Technical Background

▪ Capabilities

There are two CAD connection methods available by this standard. Each method has unique capabilities and levels of impact to the system:

- ATIA (Air Traffic Information Access)
- API (Application Programming Interface)

ATIA (Air Traffic Information Access)

Installation: The individual ATIA interfaces are at the zones, and multiple zones can be combined to a system level interface, depending on the vendor capabilities. A single installation is used to support all entities.

Impact: The impact and level of control is read-only of data contained in the ATIA stream. There is no control, access, or edit capability of system resources through the ATIA interface.

Typical uses: CAD, system usage reports, live system monitoring, data for audio logging.

Architecture: The ATIA interfaces can be licensed and enabled on each zone of the ARMER system; the individual zone ATIA interfaces will be individually firewalled by MnDOT to protect the ARMER system.

The ATIA feeds then pass on to a system level data collection repository and access point.

Individual agency connections to the repository will be individually firewalled to protect the repository and agencies from each other.

The individual network extensions for the AITA information are considered extensions of the ARMER network and are subject to the standards defined for the ARMER System.

API (Application Programming Interface)

Installation: At the dispatch location and is used to support the needs of the local dispatch operation

Impact: Control of local console functions - calls, paging, etc., and ADM (Alias Database Management)

Typical uses: Computer Aided Dispatch (CAD)

Architecture: Installation is at the local dispatch center

Equipment and vendor can vary, and much of the design will be vendor/agency specific.

▪ Constraints

Direct connections to the ARMER system add an inherent risk to the system. The risk is minimized as much as possible by the steps within this standard, while still making the connection capabilities available.

The ADM/CDM servers in the ARMER system support entire zones rather than individual dispatch agencies, and the servers have the subscriber alias replication to them from the Zone "ZDS" database. The agency connection plan must reference the impact to the ADM/CDM server.

3. Operational Context

The interfaced subsystem will be owned and managed by the individual agency.

4. Standardized Policy

The requesting agency will be responsible for determining which of the two connection methods meet their needs:

- ATIA (Air Traffic Information Access)
- API (Application Programming Interface)

The requesting agency will be responsible for providing a plan that shows their design and/or connection requirements.

The individual agency will be responsible for the financial costs of their connection to the system.

5. Standardized Procedure

Requests/plans for CAD connections to the ARMER system are reviewed by the Statewide System Administrator for recommendation to the Operations and Technical Committee (OTC).

The agency plan will include written, technical advisements from Motorola and the CAD product vendor, indicating system impact and potential issues to the system.

Interfaces to the system must be either:

- Non-Internet Protocol (IP), such as command and control RS232 links or equivalent.
- Isolated networks with equivalent standards on security and network isolation.

If the agency interface generates a failure impact for the ARMER system, the agency will be notified by the Statewide System Administrator that their interface will be taken offline until the problem is resolved.

Due to the tight integration of the API interface with the system, it should be expected that the individual agency will have Motorola technical staff involved in the API connection design.

6. Management

This standard is governed by the Statewide Radio Board (SRB).

Individual connection requests will be reviewed by the Statewide System Administrator for recommendation to the Operations and Technical Committee.

The interfaced subsystem will be owned and managed by the individual agency.

Minnesota Department of Transportation (MnDOT) will be responsible for managing system-level equipment and firewalls protecting the system-level equipment.