

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

Document Section 1	Management of System	Status: Complete
State Standard Number	1.12.0	
Standard Title	Excess Capacity Allocation	SRB Approval: 03/27/2008
Date Established		
Replaces Document Dated	08/08/2007	
Date Revised	02/04/2008	

1. Purpose or Objective

The purpose of this standard is to articulate the policy of the Statewide Emergency Communications Board (SECB) concerning the allocation of “excess capacity” in the ARMER backbone and to establish the underlying policies and procedures necessary for implementation of those policies.

2. Technical Background

Statutory References

Minn. Stat. §403.21, subd. 9, defined the ARMER backbone as follows:

“System backbone” or “backbone” means a public safety radio communication system that consists of a shared, trunked, communication, and interoperability infrastructure network, including, but not limited to, radio towers and associated structures and equipment, the elements of which are identified in the region wide public safety radio communication system plan and the statewide radio communication plan under section 403.36.”

Minn. Stat. § 403.36, subd. 1e, states:

“The Department of Transportation shall own, operate, and maintain those elements identified in the project plan as the system backbone, including, but not limited to, radio towers and associated structures and equipment related to the system backbone.”

Minnesota Statute § 403.37, subd. 7, states:

“The board shall determine how excess capacity provided in the system backbone design will be allocated.”

Minnesota Statute § 403.36, subd. 2(4), further requires that the project plan include:

“A policy for the lease of excess space or capacity on systems constructed under the project plan...with priority given first to local units of government for public safety communication transmission needs and second to any other communications transmission needs of either the public or private sector.”

Minnesota Statute § 174.70, prescribes the process used for collocation using state owned towers. Subdivision 2 states:

“The commissioner (of Transportation) may by agreement lease, allow, or permit commercial wireless service providers or other tower owners to install privately owned equipment on state-owned lands, buildings, and other structures under the jurisdiction of the commissioner when it is practical and feasible to do so.”

MnDOT Policy References

The Minnesota Department of Transportation (MnDOT), Office of Electronic Communications (OEC), has a policy statement on the use of excess tower capacity. As a matter of practice, OEC has allowed local governments to utilize excess tower and shelter capacity by collocating local government communication antennas and communication equipment at state tower sites. As the ARMER project has proceeded, that practice has been continued. That practice has not generally been extended to other elements of the state’s communication infrastructure (i.e., microwave) based upon a variety of reasons, including constitutional restrictions upon the use of “trunk highway fund” resources.

With the implementation of the ARMER system as a shared public safety resource, the law has specifically articulated a policy to share the extensive resources of the ARMER backbone among all levels of government. Because the trunk highway fund is no longer the predominant funding source for the ARMER system and its backbone, previous concerns over constitutional restrictions are less significant.

3. Operational Context

As the owners and operators of the ARMER backbone, MnDOT shall continue to administer the allocation of excess capacity upon the ARMER backbone. This standard governs the allocation of excess ARMER capacity for the following resources:

- tower space (also subject to Minn. Stat. § 174.70)
- tower site space (also subject to Minn. Stat. § 174.70)
- shelter space (also subject to Minn. Stat. § 174.70)
- point-to-point microwave capacity
- fiber capacity
- trunked radio channels

MnDOT may enter into agreements with other government agencies to jointly construct ARMER resources. In those cases, the agreement shall clearly delineate what resources are a part of the “state owned backbone system” and what resources remain owned by the other government agency. Only the resources agreed to be ARMER owned are subject to this standard. Similarly, MnDOT or another state agency may elect to add capacity to the backbone for its own use using its own funding sources, and such resources are not subject to this standard. MnDOT will maintain an inventory of what capacity is ARMER owned.

The following principles will be applied to the allocation of excess capacity, and the terms shall be incorporated into any lease, memorandum of understanding (MOU), cooperative agreement, or interagency agreement related to the use of excess capacity:

Excess Capacity – Any resources constructed as part of the ARMER system that are not reserved to support the needs of state agencies and have not been allocated to first priority public safety uses. If resources are programmed for use as part of the ARMER implementation within the next year, they shall not be considered excess capacity.

First Priority for Excess ARMER Capacity – As stated in Minn. Stat. § 403.36, subd. 2(4), first priority for use of excess space or capacity is given to local units of government for public safety communication transmission needs. Where there are multiple requests for allocation of excess capacity, first consideration will be given to requests that enable interoperable communications. Second consideration will be given to requests for migrating day-to-day communications to the ARMER system. Typically such uses are for purposes permitted in 47 CFR 90.20 – Public Safety Pool.

Terms of use for Excess Capacity by a First Priority user of ARMER system resources will be documented in a Cooperative Agreement, which will include as a minimum the following conditions:

1. Cooperative Agreements will remain in effect for the life of ARMER or until the subject local use is removed from service.
2. Cooperative Agreements may be terminated for the following reasons:
 - 2.1 Requested by the local entity
 - 2.2 Default upon terms and conditions of the Cooperative Agreement
3. The Cooperative Agreement will state that any non-ARMER use of the ARMER facility will not interfere with the ARMER system or other licensed users. In the event of interference, the local entity will promptly shut down the offending equipment until the interference issue has been resolved.

Second Priority for Excess ARMER Capacity – As stated in Minn. Stat. § 403.36, subd. 2(4), any other communications transmission needs of either the public or private sector is second priority for use of excess ARMER capacity. However, non-public safety users are only permitted to request use of the excess capacity of towers and the lands surrounding the towers. Non-public safety radio users are not eligible by Federal Communications Commission (FCC) rules to operate on the microwave and 700/800 MHz frequencies of the ARMER system. For security, MnDOT will not lease space in an ARMER shelter to a Second Priority user.

Terms of use for excess capacity by a Second Priority user of ARMER system resources will be documented in a License Agreement, which will include as a minimum the following conditions:

1. License agreements may not exceed five years in duration unless authorization for terms of 10, 15, or 20 years is authorized by the State Executive Council.
2. License Agreements may be terminated for the following reasons:
 - 2.1 Space is required by a First Priority user
 - 2.2 Land space is required for MnDOT right-of- way purposes

- 2.3 Default upon terms and conditions of License Agreement
- 2.4 Requested by the Licensee

Upon termination or expiration of the License Agreement, the Licensee will have 180 days to cease operations and remove all equipment from a tower or shelter site. The License Agreement should clearly state that relocation of the user's equipment is the user's responsibility, and the state shall incur no cost.

The Licensee Agreement will state that the Licensee's use of the ARMER facility will not interfere with the ARMER system or other licensed users. In the event of interference, the Licensee will promptly shut down the offending equipment until the interference issue has been resolved.

4. Recommended Protocol/Standard

The SECB recognizes there is a public interest in utilizing resources acquired with public funds to benefit the public. Therefore, MnDOT may enter into agreements with public or private entities to use excess ARMER system capacity in accordance with this State Standard and state law.

5. Recommended Procedure

MnDOT will publish procedures to process requests in accordance with these guidelines:

- Excess capacity will not be advertised, except as required in Minn. Stat. § 174.70 for excess tower space. Requests to utilize excess ARMER system capacity will be taken by MnDOT on a first-come, first-served basis.
- The requesting entity must submit a written request to the MnDOT, Office of Electronic Communication, in order to be considered.
- All submitted documents are public information, unless otherwise protected as private or trade secret information, under the Minnesota Data Practices Act.
- If space is available and the request conforms to this standard, MnDOT may require the requesting entity perform various engineering studies to verify that the request will not interfere with or exceed the capacity of any ARMER system component. The requesting agency is responsible for the cost of any requested studies.
- If the requesting entity does not respond to written requests from MnDOT for information within 90 days, MnDOT shall consider the request withdrawn.
- MnDOT may approve the requested use of excess capacity if they determine the request conforms to this standard, that excess capacity exists to address the requested use, and that approving the request will not interfere with or any ARMER system components. MnDOT may deny requests that do not meet with conditions for approval.

6. Management

MnDOT will notify the Director of the Division of Emergency Communication Networks (DECN) at the Department of Public Safety (DPS) on all approvals or denials for use of excess ARMER capacity. MnDOT will also provide an annual report to the DPS and the Statewide Radio Board summarizing all requests and the nature of the requested uses.

Where the policy is not clear on a specific request, MnDOT may refer the request for use of excess capacity, its evaluation, and its recommendation to DPS for a determination to accept the request or present the request to the Operations and Technical Committee (OTC) for a recommendation. The requesting entity shall be notified of any presentation of their request to the OTC and shall be allowed to present any relevant information to the committee as part of the consideration.

MnDOT shall ensure that this procedure is complied with and that the requirements of this State Standard are incorporated into any license agreement, cooperative agreement, or memorandums of understanding related to use of excess capacity.