

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

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Standard Title	System Change Management	
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1. Purpose or Objective

The purpose of this standard is to establish the procedure for managing and approving moves, additions, upgrades, and other changes to the ARMER system backbone.

2. Technical Background

- **Capabilities**
- **Constraints**

3. Operational Context

Among other responsibilities, the Statewide Emergency Communications Board (SECB) is responsible for:

- Defining the backbone of the system and the standards for system backbone performance necessary to ensure system wide development that maximizes interoperability throughout the system.
- Establishing and enforcing performance and technical standards for the operation of the system backbone.
- Establishing and enforcing priorities or protocols for the system that facilitate statewide uniformity.

The Standards, Protocols, and Procedures have been developed by ARMER participants through statewide and regional committees and boards and have been adopted by the SECB. Periodically, changes to the ARMER State Standards or the ARMER backbone will be required to maintain optimum system backbone operations. Those changes must receive due consideration for state and local economic impacts, operational impacts, and other issues that may compromise the integrity and use of the system backbone before those changes can be implemented.

Additions and changes to the Standards, Protocols, and Procedures that affect standard operating procedures (SOPs) are governed by State Standard 1.5.2. Additions and changes

to a requesting entity's participation plan are governed by State Standard 1.10.0. Some additions and changes could need to be evaluated under more than one process.

4. Recommended Protocol/ Standard

All requests for changes to the Standards, Protocols, and Procedures or any other change that affect the system backbone shall be submitted, evaluated, and approved through this change management procedure, depicted in Figure 1.

5. Recommended Procedure

Change proposals may be submitted at any time. Proposals should be submitted through the proposer's contracting entity (State Standard 1.9.0), a Regional Radio Board (RRB), or the Minnesota Department of Transportation (MnDOT). Change proposals should be submitted on a standard form provided on the SECB website and shall include a proposed implementation plan.

MnDOT will collect suggestions for changes from the RRBs and present the collected suggestions to the next scheduled meeting of the Operations and Technical Committee (OTC), who shall determine if the proposed changes are major or minor.

Minor changes have the following characteristics:

- They do not result in measurable impacts to the performance of the system backbone.
- They do not impact users of the system backbone with additional training effort or changed operational procedures.
- They do not create costs to the backbone or users beyond routine maintenance costs.

Major changes are all changes that are not minor. Major changes require a more rigorous review, because they are likely to require the expenditure of fiscal and human resources on the system backbone and by the system users. Examples of major changes are:

- vendor software upgrades that require backbone connected hardware to be replaced
- implementation of a new radio technology that forces subscriber unit reprogramming
- backbone technology improvements that cost more than the maintenance budget can accomplish

Minor changes may be referred to the Statewide System Administrator for evaluation and recommendation. The Statewide System Administrator shall perform the necessary evaluation and recommend an action to the OTC. The OTC may elect to vet the request through additional committees, the RRBs, or other user groups. Upon receipt of a recommendation from the OTC, the SECB may approve or deny the requested change.

Major changes shall be held by the OTC until such time as the OTC determines that the number and importance of proposed major changes warrants the initiation of a major change process. Depending upon the nature of the change request, the OTC may elect to direct MnDOT to notify stakeholders that a major change cycle is beginning through a notice published on the SECB website and be distributed to the regional leadership. The solicitation period should last at least three months to allow sufficient time for regional committees to meet and forward ideas through their RRBs.

At the close of the solicitation period, MnDOT will coordinate with the major change proposers to present their requested changes to the OTC. Change proposals will be made available for public review on the SECB website at least one week prior to the OTC meeting

The OTC shall consider the proposed changes and determine which proposals have sufficient need and benefit to warrant further evaluation. If the OTC determines that a change proposal does not warrant evaluation and rejects the proposal, the proponent of the change request may appeal the decision, per State Standard 7.3.0.

MnDOT staff, supplemented with other resources as required, will assess the requests forwarded by the OTC. The assessment should include:

- conformance with the Plan and the technical and operational standards previously adopted by the SECB
- previous experience with the change on the ARMER system
- how the change will affect operations
- the extent of programming and infrastructure changes
- the merit or benefits of the proposed change
- the cost of the proposed change including operational and maintenance costs
- how long will the change take to accomplish
- what other alternatives could accomplish the requested change
- impact on future system capacity and development plans
- legislation needed

The results of the assessment will be distributed by MnDOT to the System Administrators for additional review and comments. If contradictory issues are identified by the System Administrators, the request shall be returned to the OTC for reconsideration of necessity and benefit.

MnDOT will summarize the changes recommended and create a change proposal, including transition steps and schedules. The change proposal should be vetted at all RRBs. MnDOT, along with regional representatives to the SECB Committees and working groups, will be responsible for facilitating discussions and gathering comments. MnDOT will summarize all comments received.

If there is a cost to the change proposals, MnDOT and the Division of Emergency Communication Networks (DECN) will first pass the recommendations through the Finance

Committee, who will be responsible for determining how the costs should be allocated and securing RRB agreement in any regional or local costs.

Once the cost allocation is approved, or if there are not costs to allocate, MnDOT and the DECN will present the change proposals to the OTC for review and recommendation.

The SECB shall review the recommendations of the OTC and may approve the change recommendations, reject the change recommendations, or return the recommendation to committee for further review.

MnDOT or other responsible entities will implement the change plan. Activities in this phase may include construction of new infrastructure, replacement of existing infrastructure, hardware and software upgrades, programming, or other activities required by the plan. The change plan may also involve multiple changes on different implementation schedules.

MnDOT will report on the status of the implementation to the SECB.

6. Management

The OTC and MnDOT will manage the process for major technical change requests. The Statewide System Administrator will manage minor change request process.

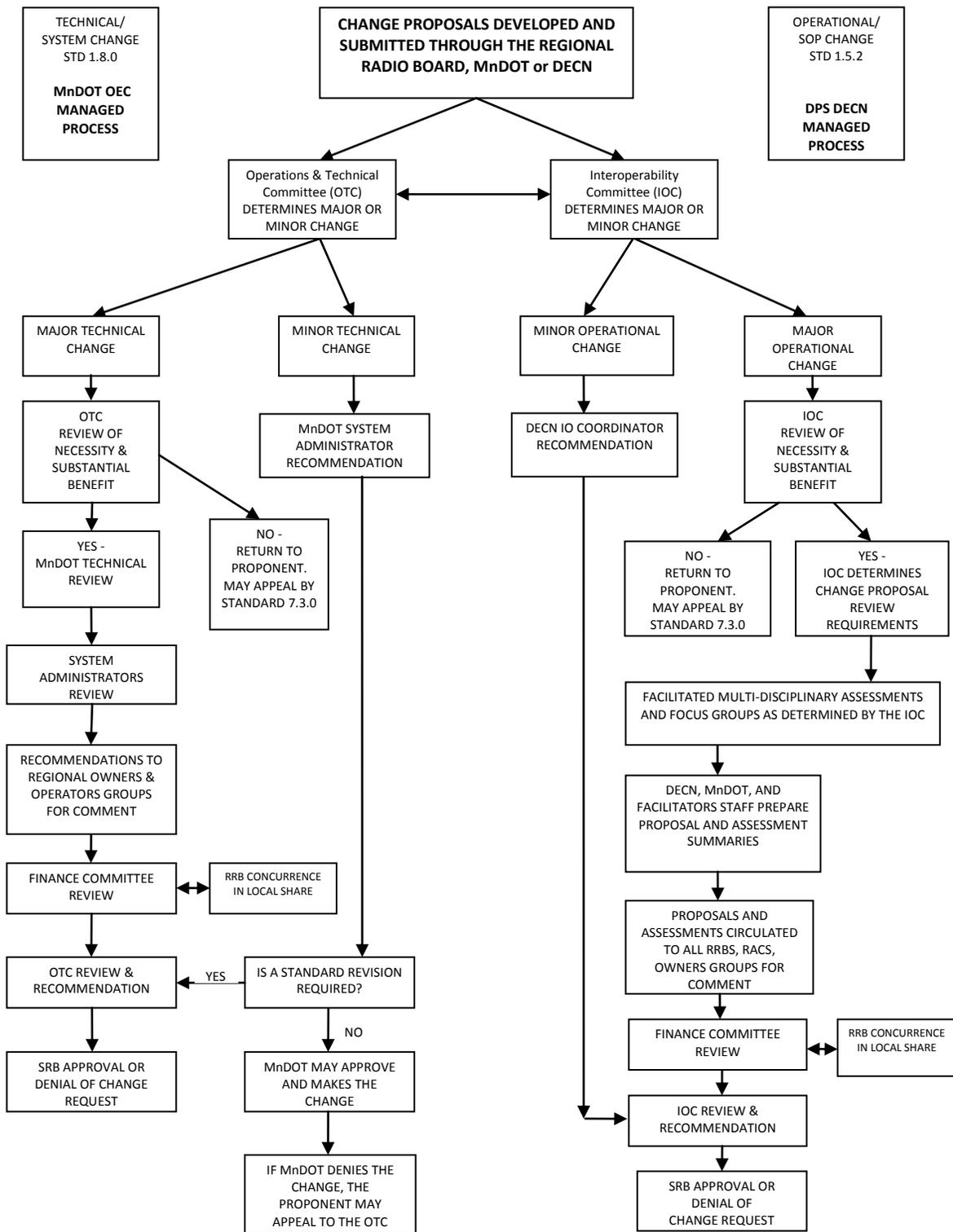


Figure 1 Change Management Process