



**Minicomputer Maintenance and  
Operations Center  
Center Evaluation Guide**

MINICOMPUTER MAINTENANCE AND  
OPERATIONS CENTER  
Center Evaluation Guide

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## **1. INTRODUCTION**

### **1.1 Purpose**

This practice provides the Minicomputer Maintenance and Operation Center (MMOC) evaluation guide for the Minicomputer Maintenance Group (MMG) and Minicomputer Operations Group (MOG). It describes performance and measurement criteria and procedures for collecting and analyzing measurement data to evaluate the effectiveness of the MMG and MOG.

### **1.2 Reason for Reissue**

This practice is being reissued to reflect the changes that occurred as a result of divestiture.

### **1.3 Scope**

This evaluation guide lists the operational review procedures for each MMOC function. These review procedures are designed to yield an overall view of the performance and effectiveness of the MMG, the MOG, and the vendor maintenance function of any minicomputer system. The objective of the review is to identify problems and to provide a vehicle for administering corrective action rather than to rate performance.

The review serves as an excellent tool for establishing a new center, during transition for ongoing self-review to indicate weak spots and problem areas, and to offer suggestions for constructive and corrective action. Information in this guide is not intended to be used for personnel evaluation. This guide is to be used by the MMG and MOG to assist in evaluating their performance as part of the total MMOC concept. It also relates to the performance of operational reviews for vendor maintenance of minicomputer systems.



## **2. DESCRIPTION**

### **2.1 Operational Review Checklist**

The operational review checklist is the vehicle used for evaluating each of the following areas of responsibility: MMG, MOG, Minicomputer Vendor Maintenance. This checklist emphasizes operations affecting the ability of the MMG or MOG to fulfill its objectives. Although the size and scope of operations will vary, the major objectives of an MMG or MOG still apply; thus, an evaluation can be made because of these objectives.

The checklists may be used as a tool during implementation of new centers and during transition periods.



### 3. EVALUATION SUBJECTS

The three evaluation outlines used are:

1. MMG
2. MOG
3. Minicomputer Vendor Maintenance.

A description of each type follows.

#### 3.1 Evaluation Outline--MMG

The basic outline for the MMG operational review is divided into the following 12 parts (see Bellcore Practice BR 007-560-307):

1. **Part A--Organization and Administration:** This part contains background information that addresses the MMG organizational structure and environment in terms of available personnel, coverage periods, number of computer subsystems maintained, number of computer subsystems considered maintainable, and criticality of the systems. Before the review, this part may be sent to the field to be filled out and returned so that the reviewer may analyze the background material before starting his review.
2. **Part B--Personnel:** This part addresses the adequacy of personnel, including training information (formal and on the job), work evaluation procedures, work schedules, job duties, and personnel qualifications.
3. **Part C--Documentation:** This part addresses the availability, storage, and accessibility of required documentation. Refer to the telephone company administrative practices.
4. **Part D--System Inventory:** This part addresses the inventory status of all minicomputer systems currently within the jurisdiction of the MMG.
5. **Part E--Preventive Maintenance (PM):** This part addresses developing a Preventive Maintenance (PM) schedule, procedures for system release to perform PM, status of scheduled PM routines, and analysis of PM found troubles.
6. **Part F--Corrective Maintenance (CM):** This part addresses Corrective Maintenance (CM) procedures, flow of trouble reports, use of proper forms, trouble analysis, and CM objectives.
7. **Part G--Activity Reports:** This part addresses the submission, control, and analysis of the Maintenance Activity Report (MAR) in accord with Bellcore guidelines.
8. **Part H--New System Installation and Coordination:** This part addresses the MMG involvement in new installation planning, performance of acceptance tests on new installation, and follow-up on correcting acceptance test failures. Refer to the telephone company administrative practices.
9. **Part I--Field Change Order (FCO) Application:** This part addresses the MMG awareness of all current FCOs and efforts to administer FCO application. It also addresses the status of FCOs on systems being transferred from vendor to telephone company maintenance and the method used to notify the Minicomputer Support Group (MSG) of completed FCOs. Refer to the telephone company administrative practices.
10. **Part J--Spare Parts:** This part addresses the level of parts stock, method for obtaining non-stocked parts, analysis of parts usage, circuit pack repair, and quality and effectiveness of circuit pack repair. Refer to Bellcore Practice BR 007-560-306.

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11. **Part K--Technical Support:** This part addresses the provision of technical support, availability of an escalation procedure, frequency of escalation, provision of a vendor service support agreement, and effectiveness of the MSG relevant to the escalated items. Refer to the telephone company administrative practices and any operational support system practice that provides escalation procedures, for example, Automatic Message Accounting Recording Center (AMARC).
12. **Part L--Summary Statement (Problems and Recommendations):** This part allows for all areas and aspects of MMG operation to be addressed by the reviewer(s) in a summary statement, thus providing a complete picture of the MMG operation. This part should be used to develop a list of problem items, recommendations for improvement, and commitments from responsible individuals for action on the recommendations. This will allow subsequent review and analysis of corrective actions associated with review weak spots.

### 3.2 Evaluation Outline--MOG

The basic outline of the MOG operational review is divided into the following 14 parts (see Bellcore Practice BR 007-550-309):

1. **Part A--Organization and Administration:** This part contains background information that addresses the organizational structure and environment of an MOG and/or individual site operations groups in terms of available personnel, coverage periods, systems operated, and criticality of the systems. Before the review, this part may be sent to the field to be filled out and returned so the reviewer may analyze the background material before starting the review.
2. **Part B--Personnel:** This part addresses adequacy of personnel, including training information (formal and on the job) work evaluation procedures, work schedules, safety, and proper rapport with the user.
3. **Part C--MAR:** This part addresses preparation and submission of MAR flow of trouble reports and trouble analysis.
4. **Part D--Operator Procedures:** This part specifies the guidelines for operator responsibility and training in operating and restoring systems and peripherals under the operational jurisdiction of the group being reviewed.
5. **Part E--Operational Recovery From Catastrophe:** This part addresses system priorities for recovery procedures, classification of various types of disasters and disruption, provision of backup facilities and disaster recovery audits. (Refer to Bellcore Practices BR 007-590-300, BR 007-590-301, BR 007-590-303, and BR 007-590-304.)
6. **Part F--Security:** This part addresses security for the computer room site locations, dial-up access ports, data base passwords, and data and general media.
7. **Part G--New System Installation and Coordination:** This part addresses the operations district manager involvement in new system planning, site selection, floor space layout, and operations force requirements based on new system growth.
8. **Part H--Housekeeping\*:** This part addresses the general appearance of the individual

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\* This item is applicable to site locations and should be used to review each site (clustered and nonclustered) under the jurisdiction of the operations group being reviewed.

computer site location, documentation storage, and floor space layout.

9. **Part I--Environmental Controls\*:** This part covers environmental conditions at the individual site locations that involve providing (1) environmental control alarms, (2) procedures for system shutdown in case of environmental failure, (3) fire detection and protection, and (4) uninterrupted power source.
10. **Part J--System Operational Alarms\*:** This part addresses the operations group functions in handling system operational alarms and performing emergency system shutdown procedures at the individual site locations.
11. **Part K--PM\*:** This part addresses providing a PM schedule for individual site location operations group PM items, completing the scheduled items, and investigating system operations problems for PM performed by the MMG or the vendor.
12. **Part L--Visual Inspection of Processor and Computer Room Peripherals\*:** This part provides a visual inspection checklist of items for the individual site location processors and computer room peripherals.
13. **Part M--User Interview\*:** This part gives the user management an opportunity to express its views of the service performed by the operations group.
14. **Part N--Summary Statement (Problems and Recommendations):** This part allows for all areas and aspects of an MOG and/or an individual site operations group to be addressed by the reviewer(s) in a summary statement to provide a complete picture of the operations group reviewed. This part should be used to develop a list of review items for improvement, recommendations to improve, and commitments to perform the recommendations.

### 3.3 Evaluation Outline--Minicomputer Vendor Maintenance

The basic outline of the minicomputer vendor maintenance operational review is divided into the following seven parts (see Bellcore Practice BR-007-560-308):

1. **Part A--Documentation:** This part addresses the availability and accessibility of necessary maintenance documentation.
2. **Part B--Trouble Reporting Procedure and Vendor Involvement with MSG and MMG:** This part documents trouble reporting and escalation procedures and vendor interaction with the MSG and MMG. Refer to the telephone company administrative practices.
3. **Part C--CM, Trouble Processing, Billing Verification, and System Grounding Procedures:** This part addresses accuracy of the vendor trouble log relative to CM, resolution of trouble reports, ability of vendor maintenance personnel, billable service calls, and proper system grounding procedures.
4. **Part D--PM Schedule:** This part addresses the development of a PM schedule, the negotiation for system turndown, the completion of scheduled items and customer care items.
5. **Part E--FCOs:** This part addresses the vendor's awareness of all FCOs, efforts to administer FCO applications, and the completion status of FCOs on the equipment being observed.
6. **Part F--Housekeeping and Safety:** This part addresses adequacy of vendor storage space at the individual minicomputer site, proper storage of parts and equipment, and safety.
7. **Part G--Summary Statement (Problems and Recommendations):** This part allows for all areas and aspects of vendor maintenance operation to be addressed by the reviewer(s) in a summary statement to provide a complete picture of the vendor maintenance operation. This part

should be used to develop a list of problem review items for improvement, recommendations, and commitments to accomplish the recommendations.

#### 4. GLOSSARY

- AMARC** Automatic Message Accounting Recording Center
- AT&T** American Telephone and Telegraph Company
- CM** Minicomputer Corrective Maintenance.  
This is a MMG work function.
- FCO** Field Change Order  
This is a minicomputer vendor engineering change incorporated into hardware that is deployed in working systems and/or spare parts. The MMG applies FCOs in Operating Telephone Companies that are self-maintenance.
- MAR** Maintenance Activity Report  
This is a trouble report tracking form.
- MMG** Minicomputer Maintenance Group
- MMOC** Minicomputer Maintenance and Operations Center
- MOG** Minicomputer Operations Group
- MSG** Minicomputer Support Group  
This is the OTC staff organization responsible for providing the MMOC with technical and administrative support and planning.
- PM** Minicomputer Preventive Maintenance  
This is a MMG work function.