



# Management Policy MO Requirements

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**Open Mobile Alliance**  
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# 1. Scope

**(Informative)**

This document lists the requirement for the OMA DM Management Policy MO Enabler.

## 2. References

### 2.1 Normative References

- [OMA-DMv1.3] “OMA Device Management Protocol”, Version 1.3. Open Mobile Alliance™.  
OMA-TS-DM\_Protocol-V1\_3,  
[URL:http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [RFC2119] “Key words for use in RFCs to Indicate Requirement Levels”, S. Bradner, March 1997,  
[URL:http://www.ietf.org/rfc/rfc2119.txt](http://www.ietf.org/rfc/rfc2119.txt)

### 2.2 Informative References

- [DMDICT] “OMA Device Management Dictionary”, Draft Version 1.0 , Open Mobile Alliance™,  
[URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [OMADICT] “Dictionary for OMA Specifications”, Version 2.9, Open Mobile Alliance™,  
OMA-ORG-Dictionary-V2\_9, [URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)

## 3. Terminology and Conventions

### 3.1 Conventions

The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in [RFC2119].

All sections and appendixes, except “Scope” and “Introduction”, are normative, unless they are explicitly indicated to be informative.

### 3.2 Definitions

**Management Policy**      A rule which describes the Device Management actions to be taken when certain predefined conditions are encountered by the Device.

### 3.3 Abbreviations

**MgmtPolicyMO**      Management Policy Management Object

## 4. Introduction

(Informative)

To perform management operations, the DM Server can send the DM commands to the DM Client, and receive the corresponding results from the DM Client. This Request-Response model is the basic characteristics of the DM protocol.

MgmtPolicyMO v1.0 enables a more proactive management approach where the devices are able to perform actions autonomously based on management policies. These policies are pre-defined by the Management Authority and downloaded into the devices via the interface provided by the MgmtPolicyMO. Afterwards the devices will continuously monitor the policies and perform necessary actions. If the policy conditions are met, one or more management actions will be triggered. Possible management actions include, but are not limited to: software management, firmware update, parameter configuration update and initiating a diagnostic and troubleshooting procedure.

After execution, DMS will be notified by the DM Client about the policy management results.

### 4.1 Version 1.0

MgmtPolicyMO V1.0 covers:

- Download, update, activation, deactivation and removal of management policy(ies) in the device
- Capability to configure specific management policies, composed of conditions and actions, based on MO objects
- Reporting the results of management policy actions to DMS



## 5. Management Policy MO release description (Informative)

The MgmtPolicyMO Enabler involves the download of management policies to the MgmtPolicyMO Client on the device. The MgmtPolicyMO Client will monitor the specified policy conditions to perform one or more management actions to lead to the desired result (e.g., configuration of the device, resolution of a known problem with an application, etc).

The MgmtPolicyMO V1.0 Enabler is compatible with DM protocol V1.3 [OMA-DMv1.3].

## 6. Requirements (Normative)

### 6.1 High-Level Functional Requirements

| Label              | Description  | Release          |
|--------------------|--|------------------|
| MgmtPolicyMO-HLF-1 | The MgmtPolicyMO Enabler SHALL support the download of Management Policy(ies) to the Device.   | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-HLF-2 | The MgmtPolicyMO Enabler SHALL support the update of Management Policy(ies) on the Device.   | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-HLF-3 | The MgmtPolicyMO Enabler SHALL support the activation/deactivation of Management Policy(ies) on the Device.                                    | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-HLF-4 | The MgmtPolicyMO Enabler SHALL support the removal of Management Policy(ies) from the Device.  | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-HLF-5 | The MgmtPolicyMO Enabler SHALL provide a mechanism that allows the Device to indicate the result of MgmtPolicyMO actions to the DM Server.     | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-HLF-6 | The MgmtPolicyMO Enabler SHALL support a mechanism to bind related Management Objects so that they can be processed using a single action.     | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-HLF-8 | The MgmtPolicyMO Enabler SHALL support the execution of Management Policies, composed of conditions and actions, based on Management Objects.  | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-HLF-9 | The MgmtPolicyMO Enabler SHALL support the definition of Management Policies, composed of conditions and actions, based on Management Objects. | MgmtPolicyMO 1.0 |

**Table 1: High-Level Functional Requirements**

#### 6.1.1 Security

| Label | Description | Release |
|-------|-------------|---------|
| N/A   | N/A         | N/A     |

**Table 2: High-Level Functional Requirements – Security Items**

##### 6.1.1.1 Authentication

| Label                | Description   | Release          |
|----------------------|---|------------------|
| MgmtPolicyMO-ATHEN-1 | Only authenticated DM Server SHALL be able to perform MgmtPolicyMO actions on the Device. | MgmtPolicyMO 1.0 |

**Table 3: High-Level Functional Requirements – Authentication Items**

##### 6.1.1.2 Authorization

| Label                | Description  | Release          |
|----------------------|--|------------------|
| MgmtPolicyMO-ATHOR-1 | Only authorized DM Server SHALL be able to perform MgmtPolicyMO actions on the Device. | MgmtPolicyMO 1.0 |

**Table 4: High-Level Functional Requirements – Authorization Items**

### 6.1.1.3 Data Integrity

| Label | Description | Release |
|-------|-------------|---------|
| N/A   | N/A         | N/A     |

Table 5: High-Level Functional Requirements – Data Integrity Items

### 6.1.1.4 Confidentiality

| Label | Description | Release |
|-------|-------------|---------|
| N/A   | N/A         | N/A     |

Table 6: High-Level Functional Requirements – Confidentiality Items

### 6.1.2 Charging Events

| Label | Description | Release |
|-------|-------------|---------|
| N/A   | N/A         | N/A     |

Table 7: High-Level Functional Requirements – Charging Events Items

### 6.1.3 Administration and Configuration

| Label | Description | Release |
|-------|-------------|---------|
| N/A   | N/A         | N/A     |

Table 8: High-Level Functional Requirements – Administration and Configuration Items

### 6.1.4 Interoperability

| Label               | Description   | Release          |
|---------------------|---|------------------|
| MgmtPolicyMO-IOP-01 | The MgmtPolicyMO Enabler SHOULD support access to Device system properties provided by MO objects, including date/time, location, Device type and network type. | MgmtPolicyMO 1.0 |

Table 9: High-Level Functional Requirements – Interoperability Items

### 6.1.5 Privacy

| Label | Description | Release |
|-------|-------------|---------|
| N/A   | N/A         | N/A     |

Table 10: High-Level Functional Requirements – Privacy Items

## 6.2 Overall System Requirements

| Label               | Description  | Release          |
|---------------------|--|------------------|
| MgmtPolicyMO-OSR-01 | The MgmtPolicyMO Enabler SHALL use and be compatible with OMA DM v1.3 [OMA-DM v1.3]. | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-OSR-02 | The MgmtPolicyMO Enabler SHALL support implementation specific extensions.           | MgmtPolicyMO 1.0 |

Table 11: High-Level System Requirements

### 6.2.1 Device Management Server

| Label               | Description  | Release          |
|---------------------|--|------------------|
| MgmtPolicyMO-DMS-01 | The DM Server SHALL be able to query the result of MgmtPolicyMO actions from the Device.                       | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-DMS-02 | The DM Server SHALL be able to receive notifications about the result of MgmtPolicyMO actions from the Device. | MgmtPolicyMO 1.0 |

**Table 12: DMS Requirements**

### 6.2.2 Device

| Label                   | Description   | Release          |
|-------------------------|---|------------------|
| MgmtPolicyMO-Device -01 | The Device SHALL be able to send notifications about the result of MgmtPolicyMO actions to the DM Server.   | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-Device -02 | The MgmtPolicyMO Enabler SHALL be able to locally invoke DM commands on the various nodes of the Device DM Tree while executing MgmtPolicyMO actions. | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-Device-03  | The Device SHALL be able to continuously monitor the Management Policies and trigger actions if conditions are met.                                   | MgmtPolicyMO 1.0 |

**Table 13: Device Requirements**

### 6.2.3 Management Policy

| Label              | Description   | Release          |
|--------------------|---|------------------|
| MgmtPolicyMO-MP-01 | The MgmtPolicyMO Enabler SHALL be able to specify a simple condition.   | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-MP-02 | The MgmtPolicyMO Enabler SHALL be able to specify a simple action.  | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-MP-03 | The MgmtPolicyMO Enabler SHALL be able to combine simple conditions to define a compound condition.                         | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-MP-04 | The MgmtPolicyMO Enabler SHALL be able to combine simple actions to define a compound action.                               | MgmtPolicyMO 1.0 |
| MgmtPolicyMO-MP-05 | The MgmtPolicyMO Enabler SHALL be able to specify Management Policies in terms of compound conditions and compound actions. | MgmtPolicyMO 1.0 |

**Table 14: Management Policy Requirements**

## Appendix A. Change History (Informative)

### A.1 Approved Version History

| Reference                           | Date        | Description  |
|-------------------------------------|-------------|--|
| OMA-RD-MgmtPolicyMO-V1_0-20170328-A | 28 Mar 2017 | Status changed to Approved by TP<br>TP Ref # OMA-TP-2017-0022-INP_MgmtPolicyMO-V1_0_ERP_for_Final_Approval |