Reference Release Definition for ConnMO

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Open Mobile Alliance

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1. Scope

The scope of this document is limited to the Reference Release Definition of ConnMO according to OMA Release process and the Reference Release document baseline listed in section 5.

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2. References

2.1 Normative References

[ConnMO] "Standardized Connectivity Management Objects", Version 1.0, Open Mobile Alliance™, OMA-DDS-DM_ConnMO-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_3GPP2] "Standardized Connectivity Management Objects, CDMA Packet Data Bearer Parameters", Version 1.0, Open Mobile Alliance™, OMA-DDS-DM_ConnMO_3GPP2-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_3GPP2_DDF] "Standardized Connectivity Management Objects, 3GPP2 DDF", Version 1.0, Open Mobile Alliance™, OMA-SUP-MO_ConnMO_3GPP2-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_3GPCS] "Standardized Connectivity Management Objects, 3GPP Circuit-Switched Bearer Parameters", Version 1.0, Open Mobile Alliance™, OMA-DDS-DM_ConnMO_3GPPCS-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_3GPPCS_DDF] "Standardized Connectivity Management Objects, 3GPPCS DDF", Version 1.0, Open Mobile Alliance™, OMA-SUP-MO_ConnMO_3GPPCS-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_3GPPS] "Standardized Connectivity Management Objects, 3GPP Packet Switched Bearer Parameters", Version 1.0, Open Mobile Alliance™, OMA-DDS-DM_ConnMO_3GPPPS-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_3GPPPS_DDF] "Standardized Connectivity Management Objects, 3GPPPS DDF", Version 1.0, Open Mobile Alliance™, OMA-SUP-MO_ConnMO_3GPPPS-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_EAP] "Standardized Connectivity Management Objects, EAP Parameters", Version 1.0, Open Mobile Alliance™, OMA-DDS-DM_ConnMO_EAP-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_EAP_DDF] "Standardized Connectivity Management Objects, EAP DDF", Version 1.0, Open Mobile Alliance™, OMA-SUP-MO_ConnMO_EAP-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_HTTP] "Standardized Connectivity Management Objects, HTTP Proxy Parameters", Version 1.0, Open Mobile Alliance™, OMA-DDS-DM_ConnMO_HTTPProxy-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_HTTP_DDF] "Standardized Connectivity Management Objects, HTTP DDF", Version 1.0, Open Mobile Alliance™, OMA-SUP-MO_ConnMO_HTTP-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_NAP_DDF] "Standardized Connectivity Management Objects, NAP DDF", Version 1.0, Open Mobile Alliance™, OMA-SUP-DM_ConnMO_NAP-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_Proxy_DDF] "Standardized Connectivity Management Objects, Proxy DDF", Version 1.0, Open Mobile Alliance™, OMA-SUP-MO_ConnMO_Proxy-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_WAP] "Standardized Connectivity Management Objects, WAP Proxy Parameters", Version 1.0, Open Mobile Alliance™, OMA-DDS-DM_ConnMO_WAPProxy-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_WAP_DDF] "Standardized Connectivity Management Objects, WAP DDF", Version 1.0, Open Mobile Alliance™, OMA-SUP-MO_ConnMO_Proxy-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_WLAN] "Standardized Connectivity Management Objects, WLAN Parameters", Version 1.0, Open Mobile Alliance™, OMA-DDS-DM_ConnMO_WLAN-V1_0, URL:http//www.openmobilealliance.org/

[ConnMO_WLAN_DDF] "Standardized Connectivity Management Objects, WLAN DDF", Version 1.0, Open Mobile Alliance™, OMA-SUP-MO_ConnMO_WLAN-V1_0, URL: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

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2.2 Informative References

[OMADICT] "Dictionary for OMA Specifications", Version 2.6, Open Mobile Alliance™, OMA-ORG-Dictionary-V2_6, URL:http://www.openmobilealliance.org/

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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 "Release Version Overview" are normative, unless they are explicitly indicated to be informative.

3.2 Definitions

Reference Release	A set of specifications and/or white papers which form a formal deliverable of OMA. The release can be referenced or otherwise used to support implementable enabler releases, but it cannot by itself be implemented in products.
Reference Release Definition	A definition of the documents that are included in a Reference Release.

3.3 Abbreviations

OMA	Open Mobile Alliance
OMNA	Open Mobile Naming Authority
RRELD	Reference Release Definition

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4. Release Version Overview

This document outlines the Enabler Release Definition for Connectivity Management Objects (ConnMO) Enabler.

Other OMA DM and common specifications define the syntax and semantics of the OMA DM protocol. However, the usefulness of such a protocol would be limited if the managed entities in devices required different data formats and displayed different behaviors. Central to the management of any suite of devices is the ability to configure and update the basic connectivity settings in each device. To avoid the situation where each device vendor defines a specialized and non-standard arrangement for managing connectivity parameters, this enabler defines a set of management objects to permit the standardized representation and management of connectivity parameters in devices. The connectivity data model defined by the specifications enables the exchange of bearer configuration over the air, using the DM protocols, through files on smart cards and storage cards, or by using as yet unanticipated means.

Since device manufacturers will always develop new functions in their devices and since these functions often are proprietary, no standardized management objects will exist for them. To make these functions manageable in the devices that have them, a device description framework is needed that can provide servers with the necessary information they must have in order to manage the new functions. The intention with this framework is that device manufacturers will publish descriptions of their devices as they enter the market. Organizations operating device management servers should then only have to feed the new description to their servers for them to automatically recognize and manage the new functions in the devices.

The introduction of vendor-specific extensions to these standardized objects is anticipated. Each management object contains several points of extension for arbitrary use by client implementations to allow collocation of proprietary innovations along with the standardized parameters. It is anticipated that vendors will include their implementation-specific extensions in published DDF that describes the management objects supported by each terminal model.

Finally, it is usual to find over time that network protocols grow and are replaced as the market cycle plays out. These management objects are structured in such a way as to be resilient to the addition of new bearer and proxy types without requiring wholesale replacement of the object definitions. In this way, the common structure survives into future versions of the management objects thus easing the burden of transition from old bearer types to new.

4.1 Version 1.0 Functionality

This version supports configuration of 3GPP CS, 3GPP PS, 3GPP2 and WLAN bearers. This version also support the following proxies: WAP and HTTP. This version also supports a generic NAP and Proxy that allows external bearers and proxies to be added in external specifications.

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5. Document Listing for ConnMO

Doc Ref	Permanent Document Reference	Description
Requirement Document		
[ConnMO_RD]	OMA-RD-ConnMO-V1_0-20081024-A	Requirement Document for ConnMO Enabler
Architecture Document		
[ConnMO_AD]	OMA-AD-ConnMO-V1_0-20081024-A	Architecture Document for ConnMO Enabler
Technical Specifications		
[ConnMO]	OMA-DDS-DM_ConnMO-V1_0-20081107-A	Specification that defines the MO for the generic Network Access Point and the generic Proxy.
[ConnMO_3GPPCS]	OMA-DDS-DM_ConnMO_3GPPCS-V1_0-20081024-A	Specification that defines the MO for the 3GPP CS specific parameters to be used in the NAP MO.
[ConnMO_3GPPPS]	OMA-DDS-DM_ConnMO_3GPPPS-V1_0-20081024-A	Specification that defines the MO for the 3GPP PS specific parameters to be used in the NAP MO.
[ConnMO_3GPP2]	OMA-DDS-DM_ConnMO_3GPP2-V1_0-20081024-A	Specification that defines the MO for the CDMA specific parameters to be used in the NAP MO.
[ConnMO_WLAN]	OMA-DDS-DM_ConnMO_WLAN-V1_0-20081024-A	Specification that defines the MO for the WLAN specific parameters to be used in the NAP MO.
[ConnMO_EAP]	OMA-DDS-DM_ConnMO_EAP-V1_0-20081024-A	Specification that defines the MO for the EAP specific parameters to be used in the WLAN MO.
[ConnMO_WAP]	OMA-DDS-DM_ConnMO_WAPProxy-V1_0-20081024-A	Specification that defines the MO for the WAP Proxy specific parameters to be used in the Proxy MO.
[ConnMO_HTTP]	OMA-DDS-DM_ConnMO_HTTPProxy-V1_0-20081024-A	Specification that defines the MO for the HTTP Proxy specific parameters to be used in the Proxy MO.
Supporting Files		
[ConnMO_NAP_DDF]	OMA-SUP-MO_ConnMO_NAP-V1_0-20081107-A	DDF for the NAP MO. Working file in DM Managed Object (MO) Registry: file: OMA-SUP-MO_ConnMO_NAP-v1_0.ddf path: http://www.openmobilealliance.org/tech/omna/
[ConnMO_3GPPCS_DDF]	OMA-SUP-MO_ConnMO_3GPPCS-V1_0-20081107-A	DDF for the 3GPPCS MO. Working file in DM Managed Object (MO) Registry: file: OMA-SUP-MO_ConnMO_3GPPCS-v1_0.ddf path: http://www.openmobilealliance.org/tech/omna/
[ConnMO_3GPPPS_DDF]	OMA-SUP-MO_ConnMO_3GPPPS-V1_0-20081107-A	DDF for the 3GPPPS MO. Working file in DM Managed Object (MO) Registry: file: OMA-SUP-MO_ConnMO_3GPPPS-v1_0.ddf path: http://www.openmobilealliance.org/tech/omna/
[ConnMO_3GPP2_DDF]	OMA-SUP-MO_ConnMO_CDMA-V1_0-20081107-A	DDF for the CDMA MO. Working file in DM Managed Object (MO) Registry: file: OMA-SUP-MO_ConnMO_CDMA-v1_0.ddf path: http://www.openmobilealliance.org/tech/omna/
[ConnMO_EAP_DDF]	OMA-SUP-MO_ConnMO_EAP-V1_0-20081107-A	DDF for the EAP MO. Working file in DM Managed Object (MO) Registry: file: OMA-SUP-MO_ConnMO_EAP-v1_0.ddf path: http://www.openmobilealliance.org/tech/omna/
[ConnMO_Proxy_DDF]	OMA-SUP-MO_ConnMO_Proxy-V1_0-20081107-A	DDF for the Proxy MO.

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		Working file in DM Managed Object (MO) Registry: file: OMA-SUP-MO_ConnMO_Proxy-v1_0.ddf path: http://www.openmobilealliance.org/tech/omna/
[ConnMO_WAP_DDF]	OMA-SUP-MO_ConnMO_WAPProxy-V1_0-20081107-A	DDF for the WAP Proxy MO. Working file in DM Managed Object (MO) Registry: file: OMA-SUP-MO_ConnMO_WAPProxy-v1_0.ddf path: http://www.openmobilealliance.org/tech/omna/
[ConnMO_HTTP_DDF]	OMA-SUP-MO_ConnMO_HTTPProxy-V1_0-20081107-A	DDF for the HTTP proxy MO. Working file in DM Managed Object (MO) Registry: file: OMA-SUP-MO_ConnMO_HTTPProxy-v1_0.ddf path: http://www.openmobilealliance.org/tech/omna/
[ConnMO_WLAN_DDF]	OMA-SUP-MO_ConnMO_WLAN-V1_0-20081107-A	DDF for the WLAN MO. Working file in DM Managed Object (MO) Registry: file: OMA-SUP-MO_ConnMO_WLAN-v1_0.ddf path: http://www.openmobilealliance.org/tech/omna/

Table 1: Listing of Documents in ConnMO Reference Release

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6. OMNA Considerations

The OMNA portal needs to add and maintain the following MO into its registry:

ConnMO Defined MO						
MO Value	**Description**	**Owner**	**Version**	**MO Identifier**	**MO DDF**	**MO Spec**
oma-connmo-nap	Network Access Point	DM WG	1.0	urn:oma:mo:oma-connmo-nap:1.0	OMA-SUP-MO_ConnMO_NAP-V1_0-20080415-D.ddf	OMA-DDS-DM_ConnMO-V1_0-20080415-D.doc
oma-connmo-proxy	Proxy MO	DM WG	1.0	urn:oma:mo:oma-connmo-proxy:1.0	OMA-SUP-MO_ConnMO_Proxy-V1_0-20080415-D.ddf	OMA-DDS-DM_ConnMO-V1_0-20080415-D.doc
oma-connmo-3gppcs	3GPP Circuit-Switched Bearer Parameters	DM WG	1.0	urn:oma:mo:oma-connmo-3gppcs:1.0	OMA-SUP-MO_ConnMO_3GPPCS-V1_0-20080414-D.ddf	OMA-DDS-DM_ConnMO_3GPPCS-V1_0-20080414-D.doc
oma-connmo-3gppps	3GPP Packet Switched Bearer Parameters	DM WG	1.0	urn:oma:mo:oma-connmo-3gppps:1.0	OMA-SUP-MO_ConnMO_3GPPPS-V1_0-20080415-D.ddf	OMA-DDS-DM_ConnMO_3GPPPS-V1_0-20080415-D.doc
oma-connmo-cdma	CDMA Bearer Parameters	DM WG	1.0	urn:oma:mo:oma-connmo-cdma:1.0	OMA-SUP-MO_ConnMO_CDMA-V1_0-20080414-D.ddf	OMA-DDS-DM_ConnMO_3GPP2-V1_0-20080414-D.doc
Oma-connmo-eap	Extensible Authentication Protocol Parameters	DM WG	1.0	urn:oma:mo:oma-connmo-eap:1.0	OMA-SUP-MO_ConnMO_EAP-V1_0-20080414-D.ddf	OMA-DDS-DM_ConnMO_EAP-V1_0-20080414-D.doc
oma-connmo-httpproxy	HTTP Proxy Parameters	DM WG	1.0	urn:oma:mo:oma-connmo-http:1.0	OMA-SUP-MO_ConnMO_HTTPProxy-V1_0-20080414-D.ddf	OMA-DDS-DM_ConnMO_HTTPProxy-V1_0-20080414-D.doc
oma-connmo-wapproxy	WAP Proxy Parameters	DM WG	1.0	urn:oma:mo:oma-connmo-wap:1.0	OMA-SUP-MO_ConnMO_WAPProxy-V1_0-20080414-D.ddf	OMA-DDS-DM_ConnMO_WAPProxy-V1_0-20080414-D.doc
oma-connmo-wlan	WLAN Bearer Parameters	DM WG	1.0	urn:oma:mo:oma-connmo-wlan:1.0	OMA-SUP-MO_ConnMO_WLAN-V1_0-20080414-D.ddf	OMA-DDS-DM_ConnMO_WLAN-V1_0-20080414-D.doc

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Appendix A. Change History (Informative)

A.1 Approved Version History

Reference	Date	Description
OMA-RRELD-ConnMO-V1_0-20081024-A	24 Oct 2008	Approved by OMA Technical Plenary: Ref TP#: OMA-TP-2008-0405-INP_ConnMO_V1_0_RRP_for_Notification_and_Final_Approval
OMA-RRELD-ConnMO-V1_0-20081107-A	07 Nov 2008	Approved by OMA Technical Plenary: Ref TP#: OMA-TP-2008-0438-INP_ConnMO_V1_0_RRP_for_Notification

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