



# **OMA DPE Management Object**

## **Candidate Version 1.0 – 18 Aug 2009**

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**Open Mobile Alliance**  
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# 1. Scope

This document defines the OMA DPE Management Object that enables management of DPE connection profiles.

## 2. References

### 2.1 Normative References

- [DPE] "Device Profile Evolution Technical Specification Version 1.0". Open Mobile Alliance™ OMA-TS-DPE-V1\_0. [URL:http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [DMBOOT] "OMA Device Management Bootstrap, Version 1.2". Open Mobile Alliance™. OMA-TS-DM\_Bootstrap-V1\_2. [URL:http://www.openmobilealliance.org](http://www.openmobilealliance.org)
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- [DMTND] "OMA Device Management Tree and Description Serialization Specification, Version 1.2". Open Mobile Alliance. OMA-TS-DM\_TNDS-V1\_2. [URL:http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [DM-TND-V1-2] "OMA Device Management Tree and Description, Version 1.2". Open Mobile Alliance™ OMA-TS-DM\_TND-V1\_2 [URL:http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [GENFORM] "WAP General Formats Document", WAP Forum\_, WAP-188-WAPGenFormats, [URL:http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [RFC791] "Internet Protocol", RFC 791, The Internet Society, URL:<http://www.ietf.org/rfc/rfc791.txt>
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- [RFC2373] "IP Version 6 Addressing Architecture", RFC 2373, The Internet Society, URL:<http://www.ietf.org/rfc/rfc2373.txt>
- [RFC3513] "Internet Protocol Version 6 (IPv6) Addressing Architecture", RFC 3513, The Internet Society, URL:<http://www.ietf.org/rfc/rfc3513.txt>
- [RFC3986] "URI Generic Syntax", RFC 3986, The Internet Society, URL:<http://rfc.net/rfc3986.html>
- [AUTH-RFC791] *RFC 791, Internet Protocol, DARPA, 1981, URL:http://www.ietf.org/rfc/rfc791.txt*

### 2.2 Informative References

- [DPEMO-DDF] "DPE Management Object Device Description Framework", URL: <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

See the DM Tree and Description [DM-TND-V1-2] document for definitions of terms related to the management tree.

### 3.3 Abbreviations

<b>DM</b>	Device Management
<b>DPE</b>	Device Profile Evolution
<b>MO</b>	Management Object
<b>OMA</b>	Open Mobile Alliance
<b>SMSC</b>	Short Message Service Centre

## 4. Introduction

DM group has defined Management Objects where parameters can be easily managed and used by applications. This document describes the OMA Device Profile Evolution (DPE) Management Object syntax that that enables management of default DPE connection profiles.

## 5. DPE Management Object

DPE Management Object (MO) is an object for OMA DPE that allows a device to present its DPE configuration in a standardized way, allowing also the subsequent retrieval and management of the DPE connection profile. The DPE connection profile is used by DPE Clients to activate DPE interfaces, e.g. setup data connections and deliver interface messages to the correct address of the DPE Server.

The OMA DPE MO is defined using the OMA DM Device Description Framework and is compatible with OMA DM protocol version 1.2 [DMPRO] or any later compatible version. If DPE MO is to be configured during initial configuration (i.e. bootstrap) then the DM Profile, as described in [DMBOOT], SHALL be used.

The Management Object Identifier is: urn:oma:mo:oma-dpe:1.0.

The following figure shows the OMA DPE Management Object.

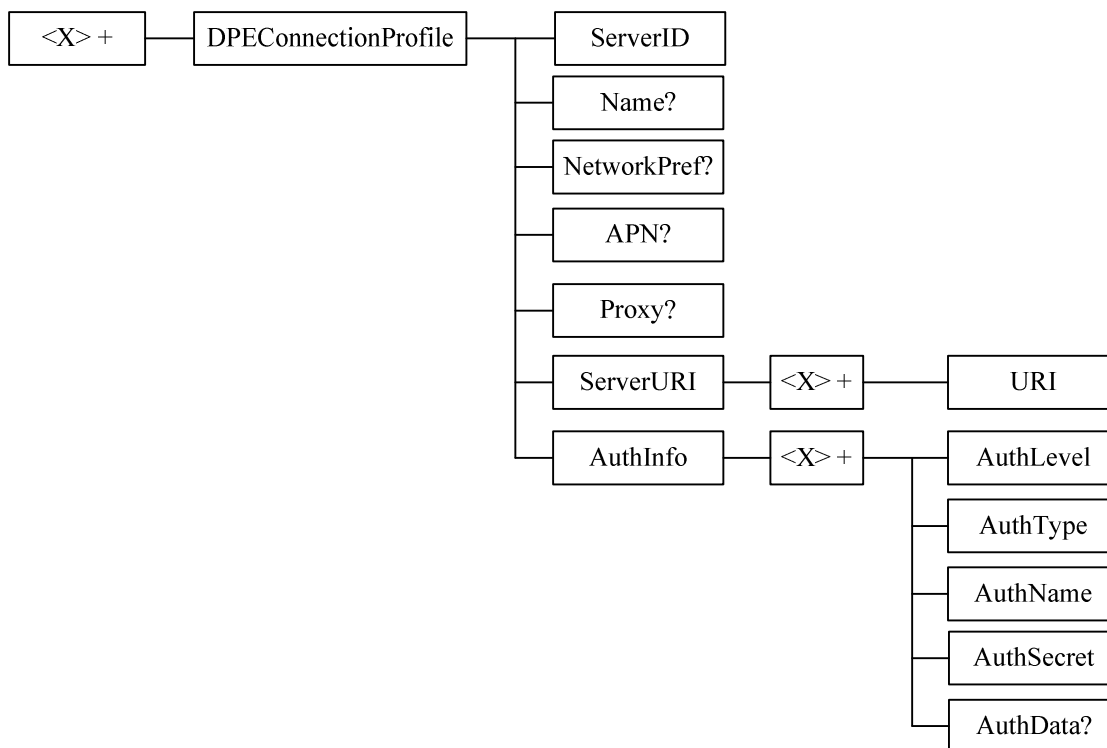


Figure 1 DPE MO

### 5.1 Management Object parameters

This section describes the parameters for the OMA DPE Management Object. The use of the connection profiles is defined in [DPE]. The complete Device Description Framework of this DPE management object can be found in [DPE-DDF].

#### 5.1.1 Node: <X>

Status	Occurrence	Format	Access
REQUIRED	OneOrMore / One	Node	Get

This interior node acts as a placeholder for one or more accounts or for a fixed node.



**5.1.2 Node: <X>/DPEConnectionProfile**

Status	Occurrence	Format	Access
REQUIRED	One	Node	Get

This interior node specifies connection profile information applicable between the DPE Client and DPE Server.

**5.1.3 Node: <X>/DPEConnectionProfile/ServerID**

Status	Occurrence	Format	Access
REQUIRED	One	Chr	Get

This node specifies the unique identifier of the DPE Server, and associates the connection profile settings to a specific DPE Service Provider. The node is not used by the DPE Client for connection purposes.

**5.1.4 Node: <X>/DPEConnectionProfile/Name**

Status	Occurrence	Format	Access
OPTIONAL	ZeroOrOne	Chr	Get

This node specifies the user displayable name of the DPE Server.

**5.1.5 Node: <X>/DPEConnectionProfile/NetworkPref**

Status	Occurrence	Format	Access
OPTIONAL	ZeroOrOne	Chr	Get

This node specifies a priority-ordered list of network/bearer types for use in content delivery, selected per arbitrary deployment-specific criteria. The value is a comma-separated list, including one or more of the strings “UMTS”, “WiMAX”, “LTE”, “802.11”.

**5.1.6 Node: <X>/DpeConnectionProfile/Proxy**

This node specifies the address (IP address or hostname) of the WAP proxy that should be used for transactions with the DPE Server.

Status	Occurrence	Format	Access
OPTIONAL	ZeroOrOne	Chr	Get

**5.1.7 Node: <X>/DPEConnectionProfile/APN**

Status	Occurrence	Format	Access
OPTIONAL	ZeroOrOne	Chr	Get

This node specifies the Access Point Name used to establish a data connection for the interface.

**5.1.8 Node: <X>/DPEConnectionProfile/ServerURI**

Status	Occurrence	Format	Access
REQUIRED	One	Node	Get

This node specifies the (multiple) DPE Server URI(s).

**5.1.9 Node: <X>/DPEConnectionProfile/ServerURI/<X>**

Status	Occurrence	Format	Access
REQUIRED	OneOrMore	Node	Get

This interior node acts as a placeholder for separating one or more DPE Server URI(s).

**5.1.10 Node: <X>/DPEConnectionProfile/ServerURI/<X>/URI**

Status	Occurrence	Format	Access
REQUIRED	One	Chr	Get

This node is used to specify the DPE Server address, which may differ based on the used transport binding.

**5.1.11 Node: <X>/DPEConnectionProfile/AuthInfo**

Status	Occurrence	Format	Access
REQUIRED	One	Node	Get

This node specifies the authentication information between the DPE Client and the DPE Server.

**5.1.12 Node: <X>/DPEConnectionProfile/AuthInfo/<X>**

Status	Occurrence	Format	Access
REQUIRED	OneOrMore	Node	Get

This interior node acts as a placeholder for separating one or more authentication settings.

**5.1.13 Node: <X>/DPEConnectionProfile/AuthInfo/<X>/AuthLevel**

Status	Occurrence	Format	Access
REQUIRED	One	Chr	Get

This leaf node specifies the authentication level. The used values are described below:

Transport	Status	Description
CLCRED	Optional	Credentials which are used by the DPE Client to authenticate itself to the DPE Server, including the possible authentication schemes HTTP-BASIC, HTTP-DIGEST.
HTTP	Optional	Credentials for HTTP (/WSP) authentication. NOTE: If this AuthLevel is selected, the possible authentication schemes are HTTP-BASIC, HTTP-DIGEST and TRANSPORT. Other values are not excluded.

**5.1.14 Node: <X>/DPEConnectionProfile/AuthInfo/<X>/AuthType**

Status	Occurrence	Format	Access
REQUIRED	One	Chr	Get

This leaf node specifies the authentication scheme. The values could be "HTTP-BASIC", "HTTP-DIGEST", "BASIC", "MD5", "X509". Other values are not excluded.

**5.1.15 Node: <X>/DPEConnectionProfile/AuthInfo/<X>/AuthName**

Status	Occurrence	Format	Access
REQUIRED	One	Chr	Get

This node specifies the user name for use with digest authentication method. If the digest authentication method is specified and the value of this node is not present, the user name is to be determined through other unspecified means, e.g. user prompts.

**5.1.16 Node: <X>/DPEConnectionProfile/AuthInfo/<X>/AuthSecret**

Status	Occurrence	Format	Access
REQUIRED	One	Chr	Get

This node specifies the password for use with digest authentication method. If the digest authentication method is specified and the value of this node is not present, the password is to be determined through other unspecified means, e.g. user prompts.

**5.1.17 Node: <X>/DPEConnectionProfile/AuthInfo/<X>/AuthData**

Status	Occurrence	Format	Access
OPTIONAL	One	Chr	No Get

This node specifies the authentication data related to the authentication type, for example, digest information.

## Appendix A. Change History (Informative)

### A.1 Approved Version History

Reference	Date	Description
n/a		

### A.2 Draft/Candidate Version 1.0 History

Document Identifier	Date	Sections	Description
Draft Versions OMA-TS-DPE_MO-V1_0	07 Jan 2009	All	Document creation
	20 May 2009	All	Incorporate the agreed CR: OMA-DCAP-2009-0008R01-CR_DPE_MO_Revise
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