# Enabler Release Definition for DCD

Candidate Version 1.0 – 23 Dec 2008

**Open Mobile Alliance**

OMA-ERELD-DCD-V1_0-20081223-C

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# 1. Scope

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

# 2. References

## 2.1 Normative References

| | |
|---|---|
| **[DCD-AD]** | "Dynamic Content Delivery Architecture", Version 1.0, Open Mobile Alliance™, OMA-AD-DCD -V1_0, URL:http://www.openmobilealliance.org/ |
| **[DCD-BCAST]** | "Dynamic Content Delivery Technical Specification – BCAST Adaptation", Version 1.0, Open Mobile Alliance™, OMA-TS-DCD_BCAST-V1_0, URL:http://www.openmobilealliance.org/ |
| **[DCD-CBS]** | "Dynamic Content Delivery Technical Specification – CBS Adaptation", Version 1.0, Open Mobile Alliance™, OMA-TS-DCD_CBS-V1_0, URL:http://www.openmobilealliance.org/ |
| **[DCD-Charging]** | "OMA DCD Charging", Version 1.0, Open Mobile Alliance™, OMA-TS-DCD_Charging-V1_0, URL:http://www.openmobilealliance.org/ |
| **[DCD-MO]** | "OMA DCD Management Object", Version 1.0, Open Mobile Alliance™, OMA-TS-DCD_MO-V1_0, URL:http://www.openmobilealliance.org/ |
| **[DCD-RD]** | "Dynamic Content Delivery Requirements", Version 1.0, Open Mobile Alliance™, OMA-RD-DCD -V1_0, URL:http://www.openmobilealliance.org/ |
| **[DCD-Semantics]** | "Dynamic Content Delivery Technical Specification – Session and Transactions", Version 1.0, Open Mobile Alliance™, OMA-TS-DCD_Semantics-V1_0, URL:http://www.openmobilealliance.org/ |
| **[DCD_ETR]** | "Enabler Test Requirements for DCD", Version 1.0, Open Mobile Alliance™, OMA-ETR-DCD-V1_0, URL:http://www.openmobilealliance.org/ |
| **[OMNA]** | "OMA Naming Authority". Open Mobile Alliance™. http://www.openmobilealliance.org/tech/omna |
| **[RFC2119]** | "Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997, URL:http://www.ietf.org/rfc/rfc2119.txt |
| **[SCRRULES]** | "SCR Rules and Procedures", Open Mobile Alliance™, OMA-ORG-SCR_Rules_and_Procedures, URL:http://www.openmobilealliance.org/ |

## 2.2 Informative References

| | |
|---|---|
| **[OMADICT]** | "Dictionary for OMA Specifications", Version x.y, Open Mobile Alliance™, OMA-ORG-Dictionary-Vx_y, 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", "Release Version Overview" and "Conformance Requirements Notation Details", are normative, unless they are explicitly indicated to be informative.

The formal notation convention used in sections 8 and 9 to formally express the structure and internal dependencies between specifications in the Enabler Release specification baseline is detailed in [SCRRULES].

## 3.2 Definitions

| | |
|---|---|
| **DCD Client** | See [DCD-RD]. |
| **DCD-Enabled Client Application** | See [DCD-RD]. |
| **DCD Server** | See [DCD-RD]. |
| **Enabler Release** | Collection of specifications that combined together form an enabler for a service area, e.g. a download enabler, a browsing enabler, a messaging enabler, a location enabler, etc.  The specifications that are forming an enabler should combined fulfil a number of related market requirements. |
| **Minimum Functionality Description** | Description of the guaranteed features and functionality that will be enabled by implementing the minimum mandatory part of the Enabler Release. |

## 3.3 Abbreviations

| | |
|---|---|
| **DCD** | Dynamic Content Delivery |
| **ERDEF** | Enabler Requirement Definition |
| **ERELD** | Enabler Release Definition |
| **OMA** | Open Mobile Alliance |
| **OMNA** | Open Mobile Naming Authority |

# 4. Release Version Overview

This document outlines the Enabler Release Definition for DCD and the respective conformance requirements for clients and servers claiming compliance to it as defined by Open Mobile Alliance across the specification baseline.

The DCD enabler's primary goal is to facilitate simplified user access to content services, by providing automated delivery of personalized content direct to the user's device. [DCD-AD] defines the architectural context of the DCD enabler, which includes the enabler entities **DCD Server** and **DCD Client.** In illustration:
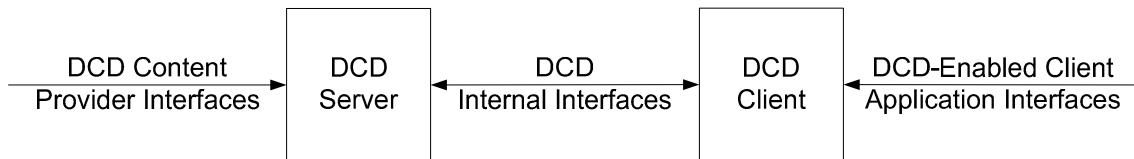


**Figure 1: DCD Server and DCD Client**

DCD's specifications address the interfaces and behaviors of the DCD Server and DCD Client, which collectively support DCD-enabled service definition, access, discovery, selection, and delivery. The specifications encompass the following overall functions:

1.  Client activation and DCD session management

2.  DCD-Enabled Client Application registration

3.  Subscription to DCD-enabled services

4.  Subscription personalization

5.  Content delivery to DCD-Enabled Client Application via pull and push methods

6.  Content submission by DCD-Enabled Client Application

7.  DCD-enabled service suspension

8.  Channel discovery for DCD-enabled services

9.  Usage tracking

10. Dynamic device context awareness

11. Charging

12. Deployment in a default network context supporting point-to-point IP bearers for pull methods and OMA Push for push methods

13. Adaptation for broadcast operation in OMA BCAST and Cell Broadcast network contexts


## 4.1   Version 1.0 Functionality

This release includes support for all DCD requirements defined in [DCD-RD]. The minimum functionality required for DCD Servers and DCD Clients includes:

1.  Client activation and DCD session management

2.  DCD-Enabled Client Application registration

3.  Subscription to DCD-enabled services

4.  Content delivery to DCD-Enabled Client Application via pull and push methods

5.  Content submission by DCD-Enabled Client Application

6.  DCD-enabled service suspension

7.  DCD-enabled service discovery

8.  Charging

9.  Deployment in a default network context supporting point-to-point IP bearers for pull methods and OMA Push for push methods

# 5. Document Listing for DCD

This section is normative.

| Doc Ref | Permanent Document Reference | Description |
|---|---|---|
| **Requirement Document** | | |
| [DCD_RD] | OMA-RD-DCD-V1_0-20081223-C | Requirement Document for DCD Enabler |
| **Architecture Document** | | |
| [DCD_AD] | OMA-AD-DCD-V1_0-20081223-C | Architecture Document for DCD Enabler |
| **Technical Specifications** | | |
| [DCD_Semantics] | OMA-TS-DCD_Semantics-V1_0-20081223-C | Specification that defines the interfaces and behaviors for the DCD Client and DCD Server. |
| [DCD_Charging] | OMA-TS-DCD_Charging-V1_0-20081223-C | Specification that defines the charging interfaces of the DCD Server. |
| [DCD_BCAST] | OMA-TS-DCD_BCAST_Adaptation-V1_0-20081223-C | Specification that defines the adaptation of DCD for operation over broadcast networks based upon OMA BCAST. |
| [DCD_CBS] | OMA-TS-DCD_CBS_Adaptation-V1_0-20081223-C | Specification that defines the adaptation of DCD for operation over broadcast networks based upon Cell Broadcast. |
| **Supporting Files** | | |
| [DCD_XSD] | OMA-SUP-XSD_DCD-V1_0-20081223-C | XML schema for the messages and included elements of the DCD interfaces. Working file in DTD directory: file:   dcd-v1_0.xsd path:   http://www.openmobilealliance.org/Tech/profiles |
| [DCD_MO] | OMA-TS-DCD_MO-V1_0-20081223-C | Specification that defines the management object enabling configuration of DCD connection profiles via OMA Device Management. Working file in Application Characteristics directory: file:   MO_DCD_DDF-V1_0.ddf path:   http://www.openmobilealliance.org/tech/omna/dm-mo |

**Table 1: Listing of Documents in DCD Enabler**

# 6. OMNA Considerations

DCD includes the following OMNA items:

1. OMA-based Uniform Resource Name (URN), used as the namespace identifier in the DCD schema

    a. xmlns:dcd="http://www.openmobilealliance.com/oma-dcd/1.0"

2. Management Object

    a. MO_DCD_DDF-V1_0.ddf

3. PUSH Application Id

    a. x-wap-application:dcd.ua

4. Content (MIME) Types and tokens

    a. MIME type and token of DCD XML messages

        i. application/vnd.oma.dcd

        ii. 0x53

    b. MIME type and token of binary XML tokenized DCD XML messages

        i. application/vnd.oma.dcdc

        ii. 0x54

5. DCD XML schema

    a. http://www.openmobilealliance.org/tech/profiles/profiles/dcd-v1_0.xsd

6. WBXML Document Public Identifier and token

    a. -//OMA//DCD 1.0//EN

    b. 0x15

7. User Agent Profile extension schema

    a. http://www.openmobilealliance.org/tech/profiles/profiles/ccppschema_dcd-v1_0

8. CBS reserved ports for DCD over CBS

    a. 7278

# 7. Conformance Requirements Notation Details

This section is informative

The tables in following chapters use the following notation:

**Item:**                     Entry in this column MUST be a valid ScrItem according to [SCRRULES].

**Feature/Application:**      Entry in this column SHOULD be a short descriptive label to the **Item** in question.

**Requirement:**              Expression in the column MUST be a valid TerminalExpression according to [SCRRULES] and it MUST accurately reflect the architectural requirement of the **Item** in question.

# 8. ERDEF for DCD - Client Requirements

This section is normative.

| Item | Feature / Application | Requirement |
|---|---|---|
| OMA-ERDEF-DCD-C-001-M | DCD Client | [DCD-Semantics]:MCF |

**Table 2: ERDEF for DCD Client-side Requirements**

# 9. ERDEF for DCD - Server Requirements

This section is normative.

| Item | Feature / Application | Requirement |
|------|----------------------|-------------|
| OMA-ERDEF-DCD-S-001-M | DCD Server | [DCD-Semantics]:MSF |

**Table 3: ERDEF for DCD Server-side Requirements**

# Appendix A.    Change History                    (Informative)

## A.1    Approved Version History

| Reference | Date | Description |
|---|---|---|
| n/a | n/a | No prior version –or- No previous version within OMA |

## A.2    Draft/Candidate Version 1.0 History

| Document Identifier | Date | Sections | Description |
|---|---|---|---|
| Draft Versions<br>OMA-ERELD-DCD-V1_0 | 17 Jun 2008 | All | Initial draft |
|  | 20 Oct 2008 | 5,6 | Updated per OMA-CONRR-DCD-V1_0-20081021 |
|  | 26 Nov 2008 | 5 | Document Listing for DCD updated with latest documents |
|  |  | 2.2 | Empty rows removed in Informative References |
| Candidate Version<br>OMA-ERELD-DCD-V1_0 | 23 Dec 2008 | All | Status changed to Candidate by TP<br>  OMA-TP-2008-0493-<br>INP_DCD_V1_0_ERP_for_Candidate_Approval |