



# Vimatix OMA Download Server (ODS)

*Mobile Multimedia Download Made Easy!*

## Product Description

### ODS – the easiest way to establish mobile content download services

Most of the new mobile terminals support downloading of content from the mobile network. Subscribers are used to follow links to movie clips, audio clips, ringtones and images. Vimatix ODS™ is the easiest way to deploy premium content download services. It comes with the right provisioning, billing and monitoring interfaces needed.

### Business Rules – you got the power!

With ODS you can prepare for various download scenarios for pre-paid or post-paid subscribers. You can set business rules to control how ODS reports on successful results, when will it abort a transaction, how will it send a message to the terminal and more.

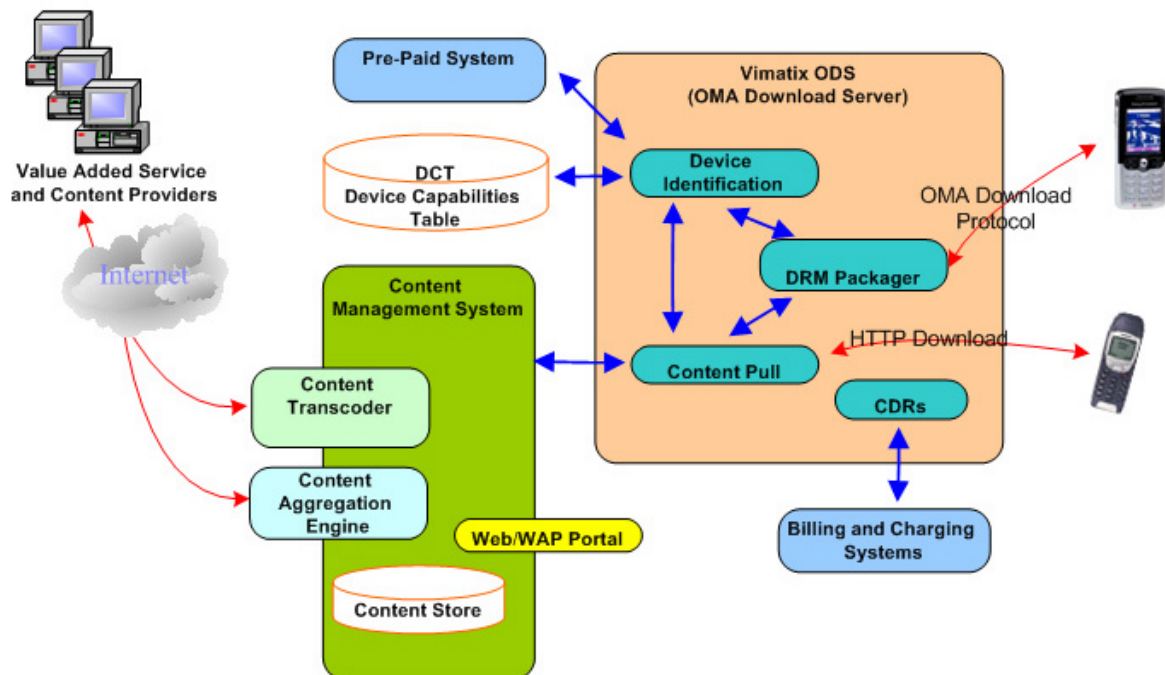


Figure 1 Vimatix ODS™ bridges between mobile phones and content management platforms



## Vimatix ODS™

**Vimatix OMA Download Server** (ODS) is a Telco-Grade software-based mobile content download server compliant with OMA Download 1.0 and OMA DRM 1.0 standards. Vimatix ODS applies business rules when submitting the content to mobile terminals. It supports all content formats for image, audio, video and J2ME applications. Vimatix ODS has been deployed on CDMA and GSM networks.

### ODS Standard Features

- Compliant with OMA Content Download 1.0
- Successful transactions are verified with acknowledge from the terminal
- Generates CDRs on successful (fully acknowledged) transactions
- Compliant with OMA Digital Rights Management 1.0 including:
  - Forward Lock
  - Combined Delivery
  - Separate Delivery
- Compliant with Vimatix Device Capabilities Table (DCT)
- Supports pre-paid and post-paid billing flows
- Runs on standard hardware
- Can be deployed on top of Windows Server 2003, Linux or Solaris

### ODS Optional Features

- Standard HTTP content download (non-OMA compliant)
- Byte count is used to predict successful download

Note: successful transactions cannot be verified

### Content Download Flow in ODS

Vimatix ODS performs the following main steps when serving a mobile terminal that downloads content from the network:

- Receive a GET request for webpage from the terminal.
- Check device capabilities in DCT
- Check permissions and balance at pre-paid system
- Respond with a webpage with appropriate links
- Alternatively respond with webpage with error messages
- Receive a GET request after the client has selected the link
- Respond with the DRM object

- (optional) Deliver Rights Object to the terminal (if OMA DRM separate delivery is used)
- Receive a terminal confirmation
- Generate CDR

This flow varies according to the type of subscriber (pre-paid or post-paid), DRM capabilities of the recipient terminal, Compliance with OMA Download of the terminal and operator preferences.

### Transaction Logs

ODS records all transactions in a Service Log file. There are 5 levels of log details. In the lowest log level, only warnings and errors are logged and also a summary of successful transactions. In the highest level, each operation of the ODS service is logged. This can be used for debugging purpose.

It is possible to configure the log file name and path as well as the log level..

### Device Capabilities Checks in ODS

ODS detects the device type from the HTTP request headers, queries the Vimatix Device Capabilities Table (DCT) and gathers the following information:

- Whether the terminal supports OMA Download
- Whether the terminal supports OMA DRM
- The type of supported OMA DRM method: Forward Lock, Separate delivery or Combined Delivery
- The media formats supported by the terminal (MIME types)

If no record is found in DCT for a particular device, ODS will abort the transaction and report the details in the general log file. In addition, the identifiers of the unrecognized device will be saved in the DCT itself. Using the DCT Editor it is possible to list the details of the devices that were not recognized.

### Business Rules in ODS

Vimatix ODS can be set to refuse servicing devices that are not compliant with OMA Download or OMA DRM . When detected, these non-compliant devices will get an error message in response to an attempt of the subscriber to download protected content.

If set to support non-OMA Download capable terminals, ODS can be configured to count the actual downloaded bytes and notify this event (CDR) upon completion of content pull even if the terminal does not send acknowledge. However, this mechanism may be unreliable as terminals may pull the content through proxies or WAP-Gateways.



## **ODS Deployment**

### **Software Prerequisites**

Vimatix ODS is developed in Java. It can be deployed on Windows Server 2003, Linux and Solaris operating environments.

Software pre-requisites: Tomcat and JVM 1.4.1

### **Hardware Prerequisites**

Minimal H/W requirements:

- CPU: Intel Pentium 3, 650 Mhz
- RAM: 512 MB

Recommended H/W configuration

- CPU: Dual Intel XEON 3.6 Ghz.
- RAM: 4 GB

### **Performance**

Vimatix ODS supports up to 400 concurrent downloading sessions when deployed on the recommended H/W.

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