



# Opsware<sup>®</sup> OMDB 1.0.1 Installation Guide

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Opware SAS Version 6.5

Opware OMDB Version 1.0.1

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# Preface

Welcome to the Opsware Operational Management Database (OMDB), the first configuration management database (CMDB) that offers seamless change automation. Leveraging the Opsware System consisting of the Opsware Server Automation System (SAS), Opsware Network Automation System (NAS), and the Opsware Application Storage Automation System (ASAS), the OMDB automatically populates and maintains all the infrastructure configuration items (CIs), their detailed attributes, and interdependencies. After the OMDB is populated with the data, customers can easily execute changes to configure and remediate the IT infrastructure.

## Overview of this Guide

This guide describes installing OMDB and Data Miners, and how to perform OMDB administrative tasks.

## Contents of this Guide

This guide contains the following chapters and appendices:

**Chapter 1: Supported Operating Systems:** Describes the supported operating systems for an Opsware OMDB core, OMDB Database, and the OMDB Client.

**Chapter 2: Installing OMDB:** Describes how to install OMDB Core and Database instances, and how to configure SAS groups to permit access to OMDB.

**Chapter 3: Installing OMDB Data Miners:** Describes how to install OMDB Data Miners.

**Chapter 4: Administrative Tasks:** Describes the OMDB filesystem layout, viewing and setting OMDB permissions, creating and assigning security boundaries, and the OMDB start script.




## Conventions in this Guide

This guide uses the following typographical and formatting conventions.


NOTATION	DESCRIPTION
<b>Bold</b>	Identifies field menu names, menu items, button names, and inline terms that begin with a bullet.
<code>Courier</code>	Identifies text that is entered or displayed at the command-line prompt, such as Unix commands, Opware SAS commands, file names, paths, directories, environment variable names, contents of text files that are viewed or edited with a text editor, source code in a programming language, and SQL (database) commands.
<i>Italics</i>	Identifies document titles, DVD titles, web site addresses. Used to introduce new terms when they are first defined in a document and for emphasis.

## Icons in this Guide

This guide uses the following icons.

ICON	DESCRIPTION
	This icon represents a note. It identifies especially important concepts that warrant added emphasis.
	This icon represents a requirement. It identifies a task that must be performed before an action under discussion can be performed.
	This icon represents a tip. It identifies information that can help simplify or clarify tasks.



ICON	DESCRIPTION
	<p>This icon represents a warning. It is used to identify significant information that must be read before proceeding.</p>

## Guides in the Documentation Set and Associated Users

- The *Opware<sup>®</sup> SAS User's Guide: Server Automation* is intended for system administrators responsible for all aspects of managing servers in an operational environment. It describes how to use Opware SAS, introducing the system and the user interface. It provides information about managing servers, remediating servers, script execution, configuration tracking, deploying and rolling back code, and agent deployment. It also explains how to use the Opware Global Shell and open a Remote Terminal on managed servers.
- *Opware<sup>®</sup> SAS User's Guide: Application Automation* is intended for system administrators responsible for performing the day-to-day functions of managing servers. It reviews auditing and compliance, software packaging, visual application management, application configuration, and software and operating system installation on managed servers.
- The *Opware<sup>®</sup> SAS Administration Guide* is intended for administrators responsible for monitoring and diagnosing the health of the Opware SAS core components. It also documents how to set up Opware user groups and permissions.
- The *Opware<sup>®</sup> SAS Planning and Installation Guide* is intended for advanced system administrators responsible for planning all facets of an Opware SAS installation. It documents all the main features of Opware SAS, scopes out the planning tasks necessary to successfully install Opware SAS, explains how to run the Opware Installer, and details how to configure each of the components. It also includes information on system sizing and checklists for installation.
- The *Opware<sup>®</sup> SAS Policy Setter's Guide* is intended for system administrators responsible for setting up OS provisioning, configuration tracking, code deployment, and software management.
- The *Opware<sup>®</sup> SAS Content Utilities Guide* is intended for advanced system administrators responsible for importing content such as software packages into

Opware SAS. It documents the following command-line utilities: OCLI 1.0, IDK, and DET (CBT).

- The *Opware® Automation Platform Developer's Guide* is intended for software developers responsible for customizing, extending, and integrating Opware SAS. It documents how to create Web Services, Java RMI, Python, and CLI clients that invoke methods on the Opware API.

## **Opware, Inc. Contact Information**

For more information, see the Opware, Inc. main web site and phone number:

- <http://www.opware.com/index.htm>
- +1 (408) 744-7300

For links to the latest product documentation and software downloads, see the Opware Customer Support site:

- <https://download.opware.com/opsw/main.htm>

For troubleshooting information, see the Opware Knowledge Base:

- <https://download.opware.com/kb/kbindex.jspa>

To contact Opware Customer Support, see the following email address and phone number:

- [support@opware.com](mailto:support@opware.com)
- +1 (877) 677-9273

# Chapter 1: Supported Platforms

## IN THIS CHAPTER

This chapter contains the following sections:

- Supported Operating Systems for OMDB Core Servers
- Supported Operating Systems for the OMDB Client
- Hardware Requirements for OMDB Core Servers

## Supported Operating Systems for OMDB Core Servers

The following table lists the supported operating systems for the Opware OMDB core components.

*Table 1-1: Opware OMDB Core Supported Operating Systems*

SUPPORTED OS FOR OMDB CORE	VERSIONS	ARCHITECTURE	OMDB COMPONENTS
Sun Solaris	Solaris 9	Sun SPARC	All components
Sun Solaris	Solaris 10	Sun SPARC, Niagara	All components
Red Hat Linux	Red Hat Enterprise Linux 3 AS	32 bit x86	All components

## Supported Operating Systems for the OMDB Client

The following table lists the operating systems supported for the OMDB Client.

Table 1-2: OMDB Client Supported Operating Systems

SUPPORTED OPERATING SYSTEMS FOR OMDB CLIENT	VERSIONS	ARCHITECTURE
Windows	Windows XP	32 bit x86
	Windows 2003	32 bit x86
	Windows 2000	32 bit x86



Java J2SE v 1.4.2\_13 JRE must be installed on the system that runs on the OMDB Client. To download this version of Java, go to <http://java.sun.com/j2se/1.4.2/download.html>

## Hardware Requirements for OMDB Core Servers

See the Opware® SAS Planning and Installation Guide for information on the hardware requirements.

# Chapter 2: Installing OMDB

## IN THIS CHAPTER

This chapter contains the following sections:

- Compatibility
- Overview
- Installing OMDB on a Single Server
- Installing OMDB and SAS on Separate Servers
- Installing the OMDB Core, the OMDB Database, and SAS on Separate Servers

## Compatibility

OMDB 1.0.1 is compatible with the 6.5 version of Opware SAS. In the SAS Client, check the version by selecting the Help ► About menu item.

## Overview

This chapter describes the following install scenarios:

- Installing SAS, OMDB Core, and the OMDB Database on a single server. SAS and OMDB share a single Oracle RDBMS. See “Installing OMDB on a Single Server” for more information.
- Installing SAS and OMDB on two separate servers. SAS and OMDB have separate Oracle database instances.
- Installing SAS on one server, the OMDB Core on a second server, and the OMDB database instance on a third server.

## Installing OMDB on a Single Server

This section describes the concurrent installation of the Opware OMDB Database and the Opware OMDB Core Services on the same server that Opware SAS is installed on. The OMDB install process uses the same Opware Installer application that you used to install Opware SAS, and you start it in the same manner. When running the Opware Installer, press Ctrl+I at any time to display online help for the current step.

The OMDB hardware requirements for installation are the same as the Opware SAS hardware requirements. For more information, see the *Opware® SAS Planning and Installation Guide*.

Before you begin installing OMDB, you should have the following two pieces of information:

- The fully qualified domain name or IP address of the server on which the Opware Command Center (OCC) core component is installed.
- The password for the `admin` user of the SAS installation (the `cast.admin_pwd` parameter value).

## Installing SAS

Using the supplied Opware SAS install DVD, install a SAS 6.5 core.

For more information, see the *Opware® SAS Planning and Installation Guide*.

## Installing OMDB Using Simple Interview Mode

To install OMDB using the Simple Interview Mode, complete the following steps:

- 1** Log in to the server that you installed SAS on, and then launch a command prompt.
- 2** Mount the Opware OMDB install DVD labeled “Disc Two” using a command similar to `mount /dev/cdrom` as appropriate.
- 3** From the Opware OMDB install “Disc Two” DVD, start the Opware Installer using the following command:

```
<mnt_point>/opware_installer/install_opware.sh
```



Start the Opware Installer using the fully qualified path name. Do not start the Opware Installer from the local directory.

---

The following prompt appears:

```
Install Type: "OMDB Installation"
```

```
Please select the interview mode. Simple mode uses default
values for many of the configuration parameters. Advanced
mode allows you to fully configure the installation.
```

```
1 - Simple Interview Mode
2 - Advanced Interview Mode
```

```
Please select the interview mode from the menu, type 'h' for
help, 'q' to quit:
```

- 4** To select the Simple Interview mode, type 1, then press Enter. The following prompt appears:

```
The Opware Installer will now interview you to obtain the
installation parameters it needs. You can use the following
keys to navigate forward and backward through the list of
parameters:
```

```
Control-P - go to the previous parameter
Control-N - go to the next parameter
Return - accept the default (if any) and go to the next
parameter
Control-F - finish parameter entry
Control-I - show this menu, plus information about the
current parameter
```

```
Press Control-F when you are finished. The Opware Installer
will perform a final validation check and write out a
response file that will be used to install the Opware
components.
```

```
Parameter 1 of 9 (decrypt_passwd)Please enter the password
for the cryptographic material:
```

- 5** Type the cryptographic password to use. The following prompt appears:

```
Parameter 2 of 9 (omdb.oracleHost)Please enter the hostname
of the server where the Oracle RDBMS will be installed.
[localhost]:
```

- 6** To accept the default value localhost, press Enter. The following prompt appears:

```
Parameter 3 of 9 (omdb.oracleSid)Please enter the SID for the
OMDB Oracle database instance. [cmdb]:
```

- 7** To accept the default value `cmdb` for the Oracle SID, press Enter. The following prompt appears:

```
Parameter 4 of 9 (omcs.occhost)Please enter the hostname or IP of the server where the SAS OCC service is running.:
```

- 8** Type the fully qualified domain name or IP address of the server that the Opware Command Center (OCC) core component is installed, then press Enter. The following prompt appears:

```
Parameter 5 of 9 (omcs.twistuser)Please enter the username of a SAS admininstator for OMDB to use to connect to the twist. [admin]:
```

- 9** To accept the default value `admin`, press Enter. The following prompt appears:

```
Parameter 6 of 9 (omcs.twistpwd)Please enter the password for the SAS admin user for OMDB to use to connect to the twist.:
```

- 10** Type the password for the `admin` account on the SAS installation (the `cast.admin_passwd` parameter value), then press Enter. The following prompt appears:

```
Parameter 7 of 9 (omcs.host)Please enter the hostname or IP of the server where the OMDB Core Services will be installed (not localhost).:
```

- 11** Type the fully qualified domain name or IP address of the server that you are installing OMDB on, then press Enter.



Do not type `localhost` for this parameter.

---

The following prompt appears:

```
Parameter 8 of 9 (omdb.adminpwd)Please enter the password to use for the OMDB database administrator.:
```

- 12** To accept the default value `cmdb_admin`, press Enter.

The following prompt appears:

```
Parameter 9 of 9 (omcs.smtpHost)Please enter the hostname or IP address of your SMTP mail server. [localhost]:
```



As a general rule, consider using a non-default password.

**13** Perform one of the following two actions:

- Type the name of the mail server that OMDB should use, then press Enter.
- To accept the default value localhost, press Enter.

The following prompt appears:

```
All parameters have values. Do you wish to finish the
interview? (y/n):
```

**14** To finish the interview, type `y`, then press Enter. The following prompt appears:

```
Concluding interview.
Interview complete.
Name of response file to write [/usr/tmp/oiresponse.omdb]:
```

**15** To accept the default value `/usr/tmp/oiresponse.omdb`, press Enter. The following prompt appears:

```
Response file written to /usr/tmp/oiresponse.omdb.
Would you like to continue the installation using this
response file? (y/n):
```

**16** To continue, type `y`, then press Enter. The following prompt appears:

```
Welcome to the Opware Installer.
Please select the components to install.
1 ( ) Oracle RDBMS for OMDB
2 ( ) Opware OMDB Database Instance
3 ( ) Opware OMDB Core Services
Enter a component number to toggle ('a' for all, 'n' for
none).
When ready, press 'c' to continue, or 'q' to quit.
Selection:
```

**17** To select all, type `a`, then press Enter. The following prompt appears:

```
Welcome to the Opware Installer.
Please select the components to install.
1 (*) Oracle RDBMS for OMDB
2 (*) Opware OMDB Database Instance
3 (*) Opware OMDB Core Services
Enter a component number to toggle ('a' for all, 'n' for
none).
When ready, press 'c' to continue, or 'q' to quit.
Selection:
```

**18** To continue, type `c`, then press Enter. The following prompt appears:

```
Installing preliminary components
.....
Database with cryptographic material not found. Would you
like Opware Installer to generate new database of
cryptographic material? [y/n]
```

**19** Perform one of the following two actions:

- Type `y`, then Enter.
- To use existing cryptographic information, contact Opware Technical Support for more information.

The following prompt appears:

```
Invoking OCT, this may take a while...

>>>>Installing component Oracle RDBMS for OMDB
.....
>>>>Installing component Opware OMDB Database Instance
.....
>>>>Installing component Opware OMDB Core Services
.....
Opware Installer ran successfully.
```

For more details, please see the following file:  
`/var/log/opware/install_opware/  
install_opware.2007-02-26.21:30:54_verbose.log`

```
#####
WARNING: to make sure that no sensitive information is left
on this server, please remove, encrypt or copy to a secure
location
```

```
the following files and directories:
-- /var/opt/opware/install_opware/resp/*
-- /var/log/opware/install_opware/*
-- /var/tmp/*.sh
```

Also, please encrypt or store in a secure location the response file that you used to install this core.

```
#####
```

Script done on Mon Feb 26 21:39:23 2007

You have completed installing OMDB.

## Installing OMDB Using Advanced Interview Mode

To install OMDB using the Advanced Interview Mode, complete the following steps:

- 1** Log in to the server that you installed SAS on, and then launch a command prompt.
- 2** Mount the Opware OMDB install DVD labeled “Disc Two” using a command similar to `mount /dev/cdrom` as appropriate.
- 3** From the Opware OMDB install “Disc Two” DVD, start the Opware Installer using the following command:

```
<mnt_point>/opware_installer/install_opware.sh
```



Start the Opware Installer using the fully qualified path name. Do not start the Opware Installer from the local directory.

The following prompt appears:

```
Install Type: "OMDB Installation"
```

```
Please select the interview mode. Simple mode uses default
values for many of the configuration parameters. Advanced
mode allows you to fully configure the installation.
```

- ```
1 - Simple Interview Mode
2 - Advanced Interview Mode
```

```
Please select the interview mode from the menu, type 'h' for
help, 'q' to quit:
```

- 4** To select the Advanced Interview mode, type 2, then press Enter. The following prompt appears:

```
The Opware Installer will now interview you to obtain the
installation parameters it needs. You can use the following
keys to navigate forward and backward through the list of
parameters:
```

- ```
Control-P - go to the previous parameter
Control-N - go to the next parameter
Return - accept the default (if any) and go to the next
parameter
Control-F - finish parameter entry
Control-I - show this menu, plus information about the
current parameter
```

Press Control-F when you are finished. The Opware Installer will perform a final validation check and write out a response file that will be used to install the Opware components.

Parameter 1 of 20 (decrypt\_passwd) Please enter the password for the cryptographic material:

- 5** Type the cryptographic password to use. The following prompt appears:

Parameter 2 of 20 (omdb.oracleHost) Please enter the hostname of the server where the Oracle RDBMS will be installed.  
[localhost]:

- 6** To accept the default value localhost, press Enter. The following prompt appears:

Parameter 3 of 20 (omdb.oracleSid) Please enter the SID for the OMDB Oracle database instance. [cldb]:

- 7** To accept the default value clcdb for the Oracle SID, press Enter. The following prompt appears:

Parameter 4 of 20 (omdb.sysPwd) Please enter the password to use for the OMDB Oracle SYS user.:

- 8** To accept the default value clcdb\_admin for the Oracle system password, press Enter. The following prompt appears:

Parameter 5 of 20 (omdb.systemPwd) Please enter the password to use for the OMDB Oracle SYSTEM user.:

- 9** To accept the default value clcdb\_admin for the SYS user for the OMDB Oracle database instance, press Enter. The following prompt appears:

Parameter 6 of 20 (omdb.pgaAggrTarget) Please enter the value to use for the PGA\_AGGREGATE\_TARGET for the OMDB Oracle instance (in Megabytes). [80]:

- 10** To accept the default value 80 for the Oracle sizing parameter, press Enter. The following prompt appears:

Parameter 7 of 20 (omdb.sgaTarget) Please enter the value to use for the SGA\_TARGET for the OMDB Oracle instance (in Megabytes). [150]:

- 11** To accept the default value 150 for the Oracle sizing parameter, press Enter. The following prompt appears

Parameter 8 of 20 (omcs.occhost) Please enter the hostname or IP of the server where the SAS OCC service is running.:

- 12** Type the fully qualified domain name or IP address of the server that the Opware Command Center (OCC) core component is installed, then press Enter. The following prompt appears:

```
Parameter 9 of 20 (omcs.twistUser)Please enter the username
of a SAS admininstator for OMDB to use to connect to the
twist. [admin]:
```

- 13** To accept the default value admin, press Enter. The following prompt appears:

```
Parameter 10 of 20 (omcs.twistPwd)Please enter the password
for the SAS admin user for OMDB to use to connect to the
twist.:
```

- 14** Type the password for the admin account on the SAS installation (the cast.admin\_passwd parameter value), then press Enter. The following prompt appears:

```
Parameter 11 of 20 (omcs.host)Please enter the hostname or IP
of the server where the OMDB Core Services will be installed
(not localhost).:
```

- 15** Type the fully qualified domain name or IP address of the server that you are installing OMDB on, then press Enter.




---

Do not type localhost for this parameter.

---

The following prompt appears:

```
Parameter 12 of 20 (omcs.port)Please enter the port on which
the OMDB Core Services will run. [8443]:
```

- 16** To accept the default value 8443, press Enter. The following prompt appears:

```
Parameter 13 of 20 (omcs.rsyncPort)Please enter the port on
which the rsync service will run. [8873]:
```

- 17** To accept the default value 8873, press Enter. The following prompt appears:

```
Parameter 14 of 20 (omcs.rmiObjectPort)Please enter the port
on which RMIObject should run. [14445]:
```

- 18** To accept the default value 14445, press Enter. The following prompt appears:

```
Parameter 15 of 20 (omcs.webServicesPort)Please enter the
port on which WebServices should run. [8083]:
```

- 19** To accept the default value 8083, press Enter. The following prompt appears:

Parameter 16 of 20 (omdb.adminPwd) Please enter the password to use for the OMDB database administrator. [cmdb\_admin]:

**20** To accept the default value cmdb\_admin, press Enter. The following prompt appears:

Parameter 17 of 20 (omdb.applPwd) Please enter the password to use for the OMDB database applications user. [cmdb\_admin]:  
As a general rule, consider using a non-default password.

**21** To accept the default value cmdb\_admin, press Enter. The following prompt appears:

Parameter 18 of 20 (omdb.reporterPwd) Please enter the password to use for the OMDB database reporter user. [cmdb\_admin]:

**22** To accept the default value cmdb\_admin, press Enter. The following prompt appears:

Parameter 19 of 20 (omcs.smtpHost) Please enter the hostname or IP address of your SMTP mail server. [localhost]:

**23** Perform one of the following two actions:

- Type the name of the mail server that OMDB should use, then press Enter.
- To accept the default value localhost, press Enter.

The following prompt appears:

Parameter 20 of 20 (omcs.smtpPort) Please enter the port on which your SMTP mail server is listening. [25]:

**24** To accept the default value 25, press Enter. The following prompt appears

All parameters have values. Do you wish to finish the interview? (y/n):

To finish the interview, type y, then press Enter.

To complete the installation, see step 14 on page 17, and then complete the following steps.

## Enabling the OMDB Client

You must enable OMDB on the SAS server, and you must also create an OMDB group and add a user to that group before that user can see the Opware OMDB Client menu item in the SAS Client.

To enable OMDB in SAS, perform the following steps:

- 1** On the twist server, log in as root.
- 2** Enter the following command:  
`/opt/opware/omdb/bin/enable_omdb_client.sh`
- 3** Restart the twist:

```
/etc/init.d/opsware-sas restart twist
```

To enable the OMDB Client menu item in the SAS Client, perform the following steps:

- 1** Log in to the SAS Web Client as admin.
- 2** In the Navigation panel, click Administration ► Users and Groups. The View Users pane appears.
- 3** Click the Groups tab.
- 4** Click **New Group**.
  1. Type the Group name OMDB.
  2. (Optional) Type the Group description.
- 5** Click **Save**. The OMDB group is displayed in the Groups pane.
- 6** Click the name (OMDB) of the group you just created.
- 7** In the Edit Group pane, assign the users to the OMDB group.
- 8** Click the OMDB Features tab.
- 9** In the General Permissions section, select all five of the checkboxes.
- 10** Click **Save**.

## Installing OMDB and SAS on Separate Servers

This section describes the installation of the Opware OMDB Database and the Opware OMDB Core Services on a separate server that the SAS server was installed on. The OMDB install process uses the same Opware Installer application that you used to install Opware SAS, and you start it in the same manner. The OMDB hardware requirements for installation are the same as the Opware SAS hardware requirements.

For more information, see the *Opware® SAS Planning and Installation Guide*.

Before you begin installing OMDB, you should have the following two pieces of information:

- The fully qualified domain name or IP address of the server on which the Opware Command Center core component is installed.
- The password for the `admin` user of the SAS installation (the `cast.admin_pwd` parameter value).

### Installing SAS

Using the supplied Opware SAS install DVD, install a SAS 6.5 core.

For more information, see the *Opware® SAS Planning and Installation Guide*.

### Installing OMDB Using Simple Interview Mode

To install OMDB using the Simple Interview Mode, complete the following steps:

- 1** Log in to the server you want to install the Opware OMDB Database and the Opware OMDB Core Services on.
- 2** Mount the Opware OMDB install DVD labeled “Disc Two” using a command similar to `mount /dev/cdrom` as appropriate.
- 3** From the Opware OMDB install “Disc Two” DVD, start the Opware Installer using the following command:

```
/<mnt_point>/opware_installer/install_opware.sh
```



Start the Opware Installer using the fully qualified path name. Do not start the Opware Installer from the local directory.

---

The following prompt appears:



Install Type: "OMDB Installation"

Please select the interview mode. Simple mode uses default values for many of the configuration parameters. Advanced mode allows you to fully configure the installation.

- 1 - Simple Interview Mode
- 2 - Advanced Interview Mode

Please select the interview mode from the menu, type 'h' for help, 'q' to quit:

- 4** To select the Simple Interview mode, type 1, then press Enter. The following prompt appears:

The Opware Installer will now interview you to obtain the installation parameters it needs. You can use the following keys to navigate forward and backward through the list of parameters:

- Control-P - go to the previous parameter
- Control-N - go to the next parameter
- Return - accept the default (if any) and go to the next parameter
- Control-F - finish parameter entry
- Control-I - show this menu, plus information about the current parameter

Press Control-F when you are finished. The Opware Installer will perform a final validation check and write out a response file that will be used to install the Opware components.

Parameter 1 of 9 (decrypt\_passwd) Please enter the password for the cryptographic material:

- 5** Type the cryptographic password to use. The following prompt appears:

Parameter 2 of 9 (omdb.oracleHost) Please enter the hostname of the server where the Oracle RDBMS will be installed. [localhost]:

- 6** To accept the default value localhost, press Enter. The following prompt appears:

Parameter 3 of 9 (omdb.oracleSid) Please enter the SID for the OMDB Oracle database instance. [cldb]:

- 7** To accept the default value cldb for the Oracle SID, press Enter. The following prompt appears:

Parameter 4 of 9 (omcs.occHost) Please enter the hostname or IP of the server where the SAS OCC service is running.:

- 8 Type the fully qualified domain name or IP address of the server that the Opware Command Center (OCC) core component is installed, then press Enter. The following prompt appears:

Parameter 5 of 9 (omcs.twistUser) Please enter the username of a SAS admininstator for OMDB to use to connect to the twist. [admin]:

- 9 To accept the default value admin, press Enter. The following prompt appears:

Parameter 6 of 9 (omcs.twistPwd) Please enter the password for the SAS admin user for OMDB to use to connect to the twist.:

- 10 Type the password for the admin account on the SAS installation (the cast.admin\_passwd parameter value), then press Enter. The following prompt appears:

Parameter 7 of 9 (omcs.host) Please enter the hostname or IP of the server where the OMDB Core Services will be installed (not localhost).:

- 11 Type the fully qualified domain name or IP address of the server that you are installing OMDB on, then press Enter.



Do not type localhost for this parameter.

---

The following prompt appears:

Parameter 8 of 9 (omdb.adminPwd) Please enter the password to use for the OMDB database administrator.:

- 12 To accept the default value cmdb\_admin, press Enter.

The following prompt appears:

Parameter 9 of 9 (omcs.smtpHost) Please enter the hostname or IP address of your SMTP mail server. [localhost]:

As a general rule, consider using a non-default password.

- 13 Perform one of the following two actions:

- Type the name of the mail server that OMDB should use, then press Enter.
- To accept the default value localhost, press Enter.

The following prompt appears:

```
All parameters have values. Do you wish to finish the
interview? (y/n):
```

- 14** To finish the interview, type `y`, then press Enter. The following prompt appears:
- ```
Concluding interview.
Interview complete.
Name of response file to write [/usr/tmp/oiresponse.omdb]:
```

- 15** To accept the default value `/usr/tmp/oiresponse.omdb`, press Enter. The following prompt appears:
- ```
Response file written to /usr/tmp/oiresponse.omdb.
Would you like to continue the installation using this
response file? (y/n):
```

- 16** To continue, type `y`, then press Enter. The following prompt appears:
- ```
Welcome to the Opware Installer.
Please select the components to install.
1 ( ) Oracle RDBMS for OMDB
2 ( ) Opware OMDB Database Instance
3 ( ) Opware OMDB Core Services
Enter a component number to toggle ('a' for all, 'n' for
none).
When ready, press 'c' to continue, or 'q' to quit.
Selection:
```

- 17** To select all, type `a`, then press Enter. The following prompt appears:
- ```
Welcome to the Opware Installer.
Please select the components to install.
1 (*) Oracle RDBMS for OMDB
2 (*) Opware OMDB Database Instance
3 (*) Opware OMDB Core Services
Enter a component number to toggle ('a' for all, 'n' for
none).
When ready, press 'c' to continue, or 'q' to quit.
Selection:
```

- 18** To continue, type `c`, then press Enter. The following prompt appears:
- ```
Installing preliminary components
.....
```

Database with cryptographic material not found. Would you like Opware Installer to generate new database of cryptographic material? [y/n]

**19** Perform one of the following two actions:

- Type y, then Enter.
- To use existing cryptographic information, contact Opware Technical Support for more information.

The following prompt appears:

```
Invoking OCT, this may take a while...

>>>>Installing component Oracle RDBMS for OMDB
.....
>>>>Installing component Opware OMDB Database Instance
.....
>>>>Installing component Opware OMDB Core Services
.....
Opware Installer ran successfully.
```

For more details, please see the following file:  
/var/log/opware/install\_opware/  
install\_opware.2007-02-26.21:30:54\_verbose.log

```
#####
WARNING: to make sure that no sensitive information is left
on this server, please remove,encrypt or copy to a secure
location
```

```
the following files and directories:
  -- /var/opt/opware/install_opware/resp/*
  -- /var/log/opware/install_opware/*
  -- /var/tmp/*.sh
```

Also, please encrypt or store in a secure location the response file that you used to install this core.

```
#####
```

```
Script done on Mon Feb 26 21:39:23 2007
```

You have completed installing OMDB.

## Installing OMDB Using Advanced Interview Mode

To install OMDB using the Advanced Interview Mode, complete the following steps:

- 1** Log in to the server you want to install the Opsware OMDB Database and the Opsware OMDB Core Services on.
- 2** Mount the Opsware OMDB install DVD labeled “Disc Two” using a command similar to `mount /dev/cdrom` as appropriate.
- 3** From the Opsware OMDB install “Disc Two” DVD, start the Opsware Installer using the following command:  
`</mnt_point>/opsware_installer/install_opsware.sh`



Start the Opsware Installer using the fully qualified path name. Do not start the Opsware Installer from the local directory.

The following prompt appears:

```
Install Type: "OMDB Installation"
```

```
Please select the interview mode. Simple mode uses default
values for many of the configuration parameters. Advanced
mode allows you to fully configure the installation.
```

- ```
1 - Simple Interview Mode
2 - Advanced Interview Mode
```

```
Please select the interview mode from the menu, type 'h' for
help, 'q' to quit:
```

- 4** To select the Advanced Interview mode, type 2, then press Enter. The following prompt appears:

```
The Opsware Installer will now interview you to obtain the
installation parameters it needs. You can use the following
keys to navigate forward and backward through the list of
parameters:
```

- ```
Control-P - go to the previous parameter
Control-N - go to the next parameter
Return - accept the default (if any) and go to the next
parameter
Control-F - finish parameter entry
```

Control-I - show this menu, plus information about the current parameter

Press Control-F when you are finished. The Opware Installer will perform a final validation check and write out a response file that will be used to install the Opware components.

Parameter 1 of 20 (decrypt\_passwd) Please enter the password for the cryptographic material:

- 5** Type the cryptographic password to use. The following prompt appears:

Parameter 2 of 20 (omdb.oracleHost) Please enter the hostname of the server where the Oracle RDBMS will be installed. [localhost]:

- 6** To accept the default value localhost, press Enter. The following prompt appears:

Parameter 3 of 20 (omdb.oracleSid) Please enter the SID for the OMDB Oracle database instance. [cldb]:

- 7** To accept the default value cldb for the Oracle SID, press Enter. The following prompt appears:

Parameter 4 of 20 (omdb.sysPwd) Please enter the password to use for the OMDB Oracle SYS user.:

- 8** To accept the default value cldb\_admin for the Oracle system password, press Enter. The following prompt appears:

Parameter 5 of 20 (omdb.systemPwd) Please enter the password to use for the OMDB Oracle SYSTEM user. [cldb\_admin]:

- 9** To accept the default value cldb\_admin for the SYS user for the OMDB Oracle database instance, press Enter. The following prompt appears:

Parameter 6 of 20 (omdb.pgaAggrTarget) Please enter the value to use for the PGA\_AGGREGATE\_TARGET for the OMDB Oracle instance (in Megabytes). [80]:

- 10** To accept the default value 80 for the Oracle sizing parameter, press Enter. The following prompt appears:

Parameter 7 of 20 (omdb.sgaTarget) Please enter the value to use for the SGA\_TARGET for the OMDB Oracle instance (in Megabytes). [150]:

- 11** To accept the default value 150 for the Oracle sizing parameter, press Enter. The following prompt appears

Parameter 8 of 20 (omcs.occHost) Please enter the hostname or IP of the server where the SAS OCC service is running.:

- 12** Type the fully qualified domain name or IP address of the server that the Opware Command Center (OCC) core component is installed, then press Enter. The following prompt appears:

```
Parameter 9 of 20 (omcs.twistUser) Please enter the username
of a SAS admininstator for OMDB to use to connect to the
twist. [admin]:
```

- 13** To accept the default value admin, press Enter. The following prompt appears:

```
Parameter 10 of 20 (omcs.twistPwd) Please enter the password
for the SAS admin user for OMDB to use to connect to the
twist.:
```

- 14** Type the password for the admin account on the SAS installation (the cast.admin\_passwd parameter value), then press Enter. The following prompt appears:

```
Parameter 11 of 20 (omcs.host) Please enter the hostname or IP
of the server where the OMDB Core Services will be installed
(not localhost).:
```

- 15** Type the fully qualified domain name or IP address of the server that you are installing OMDB on, then press Enter.




---

Do not type localhost for this parameter.

---

The following prompt appears:

```
Parameter 12 of 20 (omcs.port) Please enter the port on which
the OMDB Core Services will run. [8443]:
```

- 16** To accept the default value 8443, press Enter. The following prompt appears:

```
Parameter 13 of 20 (omcs.rsyncPort) Please enter the port on
which the rsync service will run. [8873]:
```

- 17** To accept the default value 8873, press Enter. The following prompt appears:

```
Parameter 14 of 20 (omcs.rmiObjectPort) Please enter the port
on which RMIObject should run. [14445]:
```

- 18** To accept the default value 14445, press Enter. The following prompt appears:

```
Parameter 15 of 20 (omcs.webServicesPort) Please enter the
port on which WebServices should run. [8083]:
```

- 19** To accept the default value 8083, press Enter. The following prompt appears:

Parameter 16 of 20 (omdb.adminPwd) Please enter the password to use for the OMDB database administrator. [cmdb\_admin]:

**20** To accept the default value cmdb\_admin, press Enter. The following prompt appears:

Parameter 17 of 20 (omdb.applPwd) Please enter the password to use for the OMDB database applications user. [cmdb\_admin]:  
As a general rule, consider using a non-default password.

**21** To accept the default value cmdb\_admin, press Enter. The following prompt appears:

Parameter 18 of 20 (omdb.reporterPwd) Please enter the password to use for the OMDB database reporter user. [cmdb\_admin]:

**22** To accept the default value cmdb\_admin, press Enter. The following prompt appears:

Parameter 19 of 20 (omcs.smtpHost) Please enter the hostname or IP address of your SMTP mail server. [localhost]:

**23** Perform one of the following two actions:

- Type the name of the mail server that OMDB should use, then press Enter.
- To accept the default value localhost, press Enter.

The following prompt appears:

Parameter 20 of 20 (omcs.smtpPort) Please enter the port on which your SMTP mail server is listening. [25]:

**24** To accept the default value 25, press Enter. The following prompt appears

All parameters have values. Do you wish to finish the interview? (y/n):

To finish the interview, type y, then press Enter.

To complete the installation, see step 14 on page 27, and then complete the following steps.

## Enabling the OMDB Client

You must enable OMDB on the SAS server, and you must also create an OMDB group and add a user to that group before that user can see the Opware OMDB Client menu item in the SAS Client.

To enable OMDB in SAS, perform the following steps:

- 1** On the twist server, log in as root.
- 2** To copy the enable OMDB script from the OMDB server to a temporary directory on the SAS server, enter the following command:



```
scp omdbserver:/opt/opsware/omdb/bin/enable_omdb_client.sh /  
var/tmp
```

- 3 Enter the following command:

```
/opt/opsware/omdb/bin/enable_omdb_client.sh
```

- 4 Restart the twist:

```
/etc/init.d/opsware-sas restart twist
```

To enable the OMDB Client menu item in the SAS Client, perform the following steps:

- 1 Log in to the SAS Web Client as admin.
- 2 In the Navigation Panel, click Administration ► Users and Groups. The View Users pane appears.
- 3 Click the Groups tab.
- 4 Click **New Group**.
  3. Type the Group name OMDB.
  4. (Optional) Type the Group description.
- 5 Click **Save**. The OMDB group is displayed in the Groups pane.
- 6 Click the name (OMDB) of the group you just created.
- 7 In the Edit Group pane, assign the users to the OMDB group.
- 8 Click the OMDB Features tab.
- 9 In the General Permissions section, select all five of the checkboxes.
- 10 Click **Save**.

## Installing the OMDB Core, the OMDB Database, and SAS on Separate Servers

This section describes the installation of SAS on one server, the OMDB Core on a second server, and the OMDB database instance on a third server. The OMDB install process uses the same Opware Installer application that you used to install Opware SAS, and you start it in the same manner. The OMDB hardware requirements for installation are the same as the Opware SAS hardware requirements.

For more information, see the *Opware® SAS Planning and Installation Guide*.

Before you begin installing OMDB, you should have the following two pieces of information:

- The fully qualified domain name or IP address of the server on which the Opware Command Center core component is installed.
- The password for the `admin` user of the SAS installation (the `cast.admin_pwd` parameter value).

### Installing SAS

Using the supplied Opware SAS install DVD, install a SAS 6.5 core on one of the three servers. This server will be referred to as the SAS server in this section.

For more information, see the *Opware® SAS Planning and Installation Guide*.

### Installing OMDB Using Simple Interview Mode

To install OMDB using the Simple Interview Mode, complete the following steps:

- 1** Log in to the server you want to install the Opware OMDB Database Services on. This server will be referred to as the OMDB Database server.
- 2** Mount the Opware OMDB install DVD labeled “Disc Two” using a command similar to `mount /dev/cdrom` as appropriate.
- 3** From the Opware OMDB install “Disc Two” DVD, start the Opware Installer using the following command:

```
<mnt_point>/opware_installer/install_opware.sh
```



Start the Opware Installer using the fully qualified path name. Do not start the Opware Installer from the local directory.

---

The following prompt appears:

```
Install Type: "OMDB Installation"
```

```
Please select the interview mode. Simple mode uses default
values for many of the configuration parameters. Advanced
mode allows you to fully configure the installation.
```

```
1 - Simple Interview Mode
2 - Advanced Interview Mode
```

```
Please select the interview mode from the menu, type 'h' for
help, 'q' to quit:
```

- 4** To select the Simple Interview mode, type 1, then press Enter. The following prompt appears:

```
The Opsware Installer will now interview you to obtain the
installation parameters it needs. You can use the following
keys to navigate forward and backward through the list of
parameters:
```

```
Control-P - go to the previous parameter
Control-N - go to the next parameter
Return - accept the default (if any) and go to the next
parameter
Control-F - finish parameter entry
Control-I - show this menu, plus information about the
current parameter
```

```
Press Control-F when you are finished. The Opsware Installer
will perform a final validation check and write out a
response file that will be used to install the Opsware
components.
```

```
Parameter 1 of 9 (decrypt_passwd)Please enter the password
for the cryptographic material:
```

- 5** Type the cryptographic password to use. The following prompt appears:

```
Parameter 2 of 9 (omdb.oracleHost)Please enter the hostname
of the server where the Oracle RDBMS will be installed.
[localhost]:
```

- 6** To accept the default value localhost, press Enter. The following prompt appears:

```
Parameter 3 of 9 (omdb.oracleSid)Please enter the SID for the
OMDB Oracle database instance. [cmdb]:
```

- 7** To accept the default value `cmdb` for the Oracle SID, press Enter. The following prompt appears:

```
Parameter 4 of 9 (omcs.occhost)Please enter the hostname or IP of the server where the SAS OCC service is running.:
```

- 8** Type the fully qualified domain name or IP address of the server that the Opware Command Center (OCC) core component is installed on, then press Enter. The following prompt appears:

```
Parameter 5 of 9 (omcs.twistuser)Please enter the username of a SAS administrator for OMDB to use to connect to the twist. [admin]:
```

- 9** To accept the default value `admin`, press Enter. The following prompt appears:

```
Parameter 6 of 9 (omcs.twistpwd)Please enter the password for the SAS admin user for OMDB to use to connect to the twist.:
```

- 10** Type the password for the admin account on the SAS server (the `cast.admin_passwd` parameter value), then press Enter. The following prompt appears:

```
Parameter 7 of 9 (omcs.host)Please enter the hostname or IP of the server where the OMDB Core Services will be installed (not localhost).:
```

- 11** Type the fully qualified domain name or IP address of the server that you will install OMDB Core Services on, then press Enter.



Do not type `localhost` for this parameter.

---

The following prompt appears:

```
Parameter 8 of 9 (omdb.adminpwd)Please enter the password to use for the OMDB database administrator.:
```

- 12** To accept the default value `cmdb_admin`, press Enter.

The following prompt appears:

```
Parameter 9 of 9 (omcs.smtpHost)Please enter the hostname or IP address of your SMTP mail server. [localhost]:
```

As a general rule, consider using a non-default password.

**13** Perform one of the following two actions:

- Type the name of the mail server that OMDB should use, then press Enter.
- To accept the default value localhost, press Enter.

The following prompt appears:

```
All parameters have values. Do you wish to finish the
interview? (y/n):
```

**14** To finish the interview, type `y`, then press Enter. The following prompt appears:

```
Concluding interview.
Interview complete.
Name of response file to write [/usr/tmp/oiresponse.omdb]:
```

**15** To accept the default value `/usr/tmp/oiresponse.omdb`, press Enter. The following prompt appears:

```
Response file written to /usr/tmp/oiresponse.omdb.
Would you like to continue the installation using this
response file? (y/n):
```

**16** To continue, type `y`, then press Enter. The following prompt appears:

```
Welcome to the Opware Installer.
Please select the components to install.
1 ( ) Oracle RDBMS for OMDB
2 ( ) Opware OMDB Database Instance
3 ( ) Opware OMDB Core Services
Enter a component number to toggle ('a' for all, 'n' for
none).
When ready, press 'c' to continue, or 'q' to quit.
Selection:
```

**17** To select Opware Oracle RDBMS for OMDB and Opware OMDB Database Instance, type `1`, then press Enter, and then type `2`, then press Enter. The following prompt appears:

```
Welcome to the Opware Installer.
Please select the components to install.
1 (*) Oracle RDBMS for OMDB
2 (*) Opware OMDB Database Instance
3 ( ) Opware OMDB Core Services
Enter a component number to toggle ('a' for all, 'n' for
none).
When ready, press 'c' to continue, or 'q' to quit.
Selection:
```

**18** To continue, type `c`, then press Enter. The following prompt appears:

```
Installing preliminary components
.....
Database with cryptographic material not found. Would you
like Opware Installer to generate new database of
cryptographic material? [y/n]
```

**19** Perform one of the following two actions:

- Type `y`, then Enter.
- To use existing cryptographic information, contact Opware Technical Support for more information.

The following prompt appears:

```
Invoking OCT, this may take a while...

>>>>Installing component Oracle RDBMS for OMDB
.....
>>>>Installing component Opware OMDB Database Instance
.....
Opware Installer ran successfully.
```

For more details, please see the following file:  
`/var/log/opware/install_opware/  
install_opware.2007-02-26.21:30:54_verbose.log`

```
#####
WARNING: to make sure that no sensitive information is left
on this server, please remove, encrypt or copy to a secure
location
the following files and directories:
  -- /var/opt/opware/install_opware/resp/*
  -- /var/log/opware/install_opware/*
  -- /var/tmp/*.sh
Also, please encrypt or store in a secure location the
response file
that you used to install this core.
#####
```

Script done on Mon Feb 26 21:39:23 2007

**20** On the server that you intend to install OMDB Core Services on, open a command prompt.

- 21** To copy the `oiresponse.omdb` file from the OMDB Database server to the OMDB Core server, enter the following command:

```
scp omdbdatabaseserver:/usr/tmp/oiresponse.omdb .
```

- 22** Mount the Opsware OMDB install DVD labeled “Disc Two” using a command similar to mount `/dev/cdrom` as appropriate.

- 23** From the Opsware OMDB install “Disc Two” DVD, start the Opsware Installer using the following command:

```
/<mnt_point>/opsware_installer/install_opsware.sh -r /usr/  
tmp/oiresponse.omdb
```

- 24** To continue, type `y`, then press Enter. The following prompt appears:

```
Welcome to the Opsware Installer.  
Please select the components to install.  
1 ( ) Oracle RDBMS for OMDB  
2 ( ) Opsware OMDB Database Instance  
3 ( ) Opsware OMDB Core Services  
Enter a component number to toggle ('a' for all, 'n' for  
none).  
When ready, press 'c' to continue, or 'q' to quit.  
Selection:
```

- 25** To select Opsware OMDB Core Services, type `3`, then press Enter. The following prompt appears:

```
Welcome to the Opsware Installer.  
Please select the components to install.  
1 ( ) Oracle RDBMS for OMDB  
2 ( ) Opsware OMDB Database Instance  
3 (*) Opsware OMDB Core Services  
Enter a component number to toggle ('a' for all, 'n' for  
none).  
When ready, press 'c' to continue, or 'q' to quit.  
Selection:
```

- 26** To continue, type `c`, then press Enter. The following prompt appears:

```
Installing preliminary components  
.....  
Database with cryptographic material not found. Would you  
like Opsware Installer to generate new database of  
cryptographic material? [y/n]
```

- 27** Perform one of the following two actions:

- Type `y`, then Enter.

- To use existing cryptographic information, contact Opware Technical Support for more information.

The following prompt appears:

```
Invoking OCT, this may take a while...

>>>>Installing component Opware OMDB Core Services
.....
Opware Installer ran successfully.

For more details, please see the following file:
/var/log/opware/install_opware/
install_opware.2007-02-26.22:30:54_verbose.log

#####
WARNING: to make sure that no sensitive information is left
on this server, please remove,encrypt or copy to a secure
location
the following files and directories:
  -- /var/opt/opware/install_opware/resp/*
  -- /var/log/opware/install_opware/*
  -- /var/tmp/*.sh
Also, please encrypt or store in a secure location the
response file
that you used to install this core.
#####

Script done on Mon Feb 26 22:39:23 2007
```

You have completed installing OMDB.

### Installing OMDB Using Advanced Interview Mode

To install OMDB using the Advanced Interview Mode, complete the following steps:

- 1** Log in to the server you want to install the Opware OMDB Database Services on.
- 2** Mount the Opware OMDB install DVD labeled "Disc Two" using a command similar to `mount /dev/cdrom` as appropriate.
- 3** From the Opware OMDB install "Disc Two" DVD, start the Opware Installer using the following command:

```
/<mnt_point>/opware_installer/install_opware.sh
```





Start the Opware Installer using the fully qualified path name. Do not start the Opware Installer from the local directory.

The following prompt appears:

```
Install Type: "OMDB Installation"
```

```
Please select the interview mode. Simple mode uses default
values for many of the configuration parameters. Advanced
mode allows you to fully configure the installation.
```

```
1 - Simple Interview Mode
2 - Advanced Interview Mode
```

```
Please select the interview mode from the menu, type 'h' for
help, 'q' to quit:
```

- 4** To select the Advanced Interview mode, type 2, then press Enter. The following prompt appears:

The Opware Installer will now interview you to obtain the installation parameters it needs. You can use the following keys to navigate forward and backward through the list of parameters:

```
Control-P - go to the previous parameter
Control-N - go to the next parameter
Return - accept the default (if any) and go to the next
parameter
Control-F - finish parameter entry
Control-I - show this menu, plus information about the
current parameter
```

Press Control-F when you are finished. The Opware Installer will perform a final validation check and write out a response file that will be used to install the Opware components.

```
Parameter 1 of 20 (decrypt_passwd)Please enter the password
for the cryptographic material:
```

- 5** Type the cryptographic password to use. The following prompt appears:

```
Parameter 2 of 20 (omdb.oracleHost)Please enter the hostname
of the server where the Oracle RDBMS will be installed.
[localhost]:
```

- 6** To accept the default value localhost, press Enter. The following prompt appears:

```
Parameter 3 of 20 (omdb.oracleSid) Please enter the SID for
the OMDB Oracle database instance. [cldb]:
```

- 7** To accept the default value cldb for the Oracle SID, press Enter. The following prompt appears:

```
Parameter 4 of 20 (omdb.sysPwd) Please enter the password to
use for the OMDB Oracle SYS user.:
```

- 8** To accept the default value cldb\_admin for the Oracle system password, press Enter. The following prompt appears:

```
Parameter 5 of 20 (omdb.systemPwd) Please enter the password
to use for the OMDB Oracle SYSTEM user.:
```

- 9** To accept the default value cldb\_admin for the SYS user for the OMDB Oracle database instance, press Enter. The following prompt appears:

```
Parameter 6 of 20 (omdb.pgaAggrTarget) Please enter the value
to use for the PGA_AGGREGATE_TARGET for the OMDB Oracle
instance (in Megabytes). [80]:
```

- 10** To accept the default value 80 for the Oracle sizing parameter, press Enter. The following prompt appears:

```
Parameter 7 of 20 (omdb.sgaTarget) Please enter the value to
use for the SGA_TARGET for the OMDB Oracle instance (in
Megabytes). [150]:
```

- 11** To accept the default value 150 for the Oracle sizing parameter, press Enter. The following prompt appears:

```
Parameter 8 of 20 (omcs.occHost) Please enter the hostname or
IP of the server where the SAS OCC service is running.:
```

- 12** Type the fully qualified domain name or IP address of the server that the Opware Command Center (OCC) core component is installed, then press Enter. The following prompt appears:

```
Parameter 9 of 20 (omcs.twistUser) Please enter the username
of a SAS admininstator for OMDB to use to connect to the
twist. [admin]:
```

- 13** To accept the default value admin, press Enter. The following prompt appears:

```
Parameter 10 of 20 (omcs.twistPwd) Please enter the password
for the SAS admin user for OMDB to use to connect to the
twist.:
```

- 14** Type the password for the admin account on the SAS installation (the `cast.admin_passwd` parameter value), then press Enter. The following prompt appears:

```
Parameter 11 of 20 (omcs.host)Please enter the hostname or IP
of the server where the OMDB Core Services will be installed
(not localhost) . :
```

- 15** Type the fully qualified domain name or IP address of the server that you are installing OMDB on, then press Enter.




---

Do not type localhost for this parameter.

---

The following prompt appears:

```
Parameter 12 of 20 (omcs.port)Please enter the port on which
the OMDB Core Services will run. [8443] :
```

- 16** To accept the default value 8443, press Enter. The following prompt appears:

```
Parameter 13 of 20 (omcs.rsyntaxPort)Please enter the port on
which the rsyntax service will run. [8873] :
```

- 17** To accept the default value 8873, press Enter. The following prompt appears:

```
Parameter 14 of 20 (omcs.rmiObjectPort)Please enter the port
on which RMIObject should run. [14445] :
```

- 18** To accept the default value 14445, press Enter. The following prompt appears:

```
Parameter 15 of 20 (omcs.webServicesPort)Please enter the
port on which WebServices should run. [8083] :
```

- 19** To accept the default value 8083, press Enter. The following prompt appears:

```
Parameter 16 of 20 (omdb.adminPwd)Please enter the password
to use for the OMDB database administrator. [cmdb_admin] :
```

- 20** To accept the default value `cmdb_admin`, press Enter. The following prompt appears:

```
Parameter 17 of 20 (omdb.applPwd)Please enter the password to
use for the OMDB database applications user. [cmdb_admin] :
As a general rule, consider using a non-default password.
```

- 21** To accept the default value `cmdb_admin`, press Enter. The following prompt appears:

```
Parameter 18 of 20 (omdb.reporterPwd)Please enter the
password to use for the OMDB database reporter user. [cmdb_
admin] :
```

- 22** To accept the default value `cmdb_admin`, press Enter. The following prompt appears:

Parameter 19 of 20 (omcs.smtpHost) Please enter the hostname or IP address of your SMTP mail server. [localhost]:

**23** Perform one of the following two actions:

- Type the name of the mail server that OMDB should use, then press Enter.
- To accept the default value localhost, press Enter.

The following prompt appears:

Parameter 20 of 20 (omcs.smtpPort) Please enter the port on which your SMTP mail server is listening. [25]:

**24** To accept the default value 25, press Enter. The following prompt appears

All parameters have values. Do you wish to finish the interview? (y/n):

To finish the interview, type *y*, then press Enter.

To complete the installation, see step 14 on page 37, and then complete the following steps.

### Enabling the OMDB Client

You must enable OMDB on the SAS server, and you must also create an OMDB group and add a user to that group before that user can see the Opware OMDB Client menu item in the SAS Client.

To enable OMDB in SAS, perform the following steps:

- 1** On the twist server, log in as root.
- 2** To copy the enable OMDB script from the OMDB server to a temporary directory on the SAS server, enter the following command:  

```
scp omdbserver:/opt/opware/omdb/bin/enable_omdb_client.sh /var/tmp
```
- 3** Enter the following command:  

```
/opt/opware/omdb/bin/enable_omdb_client.sh
```
- 4** Restart the twist:  

```
/etc/init.d/opware-sas restart twist
```

To enable the OMDB Client menu item in the SAS Client, perform the following steps:

- 1** Log in to the SAS Web Client as admin.
- 2** In the Navigation Panel, click Administration ► Users and Groups. The View Users pane appears.
- 3** Click the Groups tab.

- 4** Click **New Group**.
  5. Type the Group name OMDB.
  6. (Optional) Type the Group description.
- 5** Click **Save**. The OMDB group is displayed in the Groups pane.
- 6** Click the name (OMDB) of the group you just created.
- 7** In the Edit Group pane, assign the users to the OMDB group.
- 8** Click the OMDB Features tab.
- 9** In the General Permissions section, select all five of the checkboxes.
- 10** Click **Save**.



# Chapter 3: Installing OMDB Data Miners

## IN THIS CHAPTER

This chapter contains the following sections:

- Supported Data Sources
- Pre-registering the Data Miner on OMDB
- Installing a Data Miner on a SAS or NAS Server
- Installing a Data Miner on a NAS Windows Server
- Installing Transaction Mining Triggers for NAS

## Supported Data Sources

The following list of data sources are supported for OMDB Data Miners:

- Oracle 9i (9.2.0.7)
- Oracle 10g (10.2.0.2)
- SAS 6.5
- NAS 6.0.2, 6.1, 6.2.1

## Pre-registering the Data Miner on OMDB

You will need to pre-register your Data Miner(s) on the OMDB server. This will set up all of the information needed by a Data Miner to connect to its data source. As part of the process, you will create a registration token that you will use when configuring the Data Miner on the SAS and NAS servers.

## Pre-registering the Data Miner on OMDB at the Command Line

You can use the command line option to preregister the Data Miner. All values can be entered on a single command line, and you can skip the entire interactive configuration that is shown in “Pre-registering the Data Miner on OMDB Interactively Using `dmconfig.sh`”. The database and user/password information on this example command line are for the SAS or NAS database, not OMDB.

When prompted for a user name and password, use `cmdb_admin / cmdb_admin`.

Use the local portion of the fully-qualified domain name of the SAS server in place of `SASserver` in the example. If the fully-qualified name of the SAS server is `development1.example.com`, use `development1` following the `--name` option.

For details on the parameters, see “Pre-registering the Data Miner on OMDB Interactively Using `dmconfig.sh`”.

```
cd /opt/opsware/omdb/bin
./dmconfig.sh --add --name SASserver --desc SAS on SASserver
--type SAS --driver Oracle Driver --properties
database=SASserver.example.com:1521:truth,user=opsware_
admin,password=opsware_admin
```



---

Write down the registration token that appears after you run this command. You will need to enter it later when configuring the Data Miner on the SAS or NAS server. Registration tokens are upper-case text.

---

## Pre-registering the Data Miner on OMDB Interactively Using `dmconfig.sh`

- 1 Run the Data Miner configuration tool `dmconfig.sh` with the following two commands:

```
cd /opt/opsware/omdb/bin
./dmconfig.sh
```

The following prompt should now be displayed:

```
[ DMConfigure <]
```

- 2 At the `[ DMConfigure <]` prompt, the following commands are supported:
  - **ADD**: Displays the prompts that enable you to generate a registration token.
  - **UPDATE**: Displays a list of properties, noting the required properties. Enter keyvalue pairs until done, and then press Enter to end.



- **LIST:** Displays current Data Miner configurations.
  - **QUIT:** Exits the prompt.
- 3** (Optional) You may be prompted for the database information for the OMDB server. Unless you made changes during the installation, use the following values. (If not prompted for some or all of these, it's because the values were found in dmconfig.properties.)
- Database [host:port:sid]: localhost:1521:cmdb
  - Userid : cmdb\_admin
  - Password : cmdb\_admin
- 4** Type add, then press Enter.
- 5** Follow the prompts to generate a new registration token.
- **Name:** Enter a short name for the data source you are planning to mine.  
Example: SASserver
  - **Description:** Enter a meaningful name.  
Example: SAS on SASserver
  - **Connection Template ID:** Enter the number listed for Oracle Driver (probably 1).  
Pick source ID: Enter 1 for NAS or 2 for SAS.

The following example shows how this step should display:

```
[ DMConfigure <] add
Name : m500
Description : SAS on SASserver
ID          NAME
-----
1           Oracle Driver
Connection template ID : 1
ID          NAME
-----
1           SAS
2           NAS
Source type id : 1
REG TOKEN is WD2K5R
```



Write down the registration token (in the example, registration token is the string WD2K5R). You will need to enter it later when configuring the Data Miner on the SAS or NAS box.

Now that the initial add is complete, you need to update the specific database configuration for the Data Miner source.

- 6** At the [ DMConfigure # <] prompt type update, then press Enter.
- 7** Select the configuration you want to update. Because there is only a single configuration at this point, select 1. The following prompt appears:

```
[ DMConfigure # <] update
ID                NAME                DESCRIPTION                TOKEN
-----
1                 SASserver                SAS on SASserver        EM1U6O
ID to update : 1
```

- 8** Set the connection information that the Data Miner (to be installed shortly on the SAS or NAS server) will use to connect to its local source database (use lowercase). Each time you enter a value, the current values for the Data Miner source will display.

These values are for the SAS or NAS database, not the OMDB database. Your values will look similar to the following example:

```
database=10.124.6.02:1521:truth (Note that database is of
the format host:port:sid)
user=opsware_admin
password=opsware_admin
```

(Optional) If NAS is not installed with a user name of system, set the value `EtlTableOwnerOverride=user = log`

For Oracle, set the user to the name of the database user who owns the table. For SQL Server, set the user to the name of the SQL Schema that contains the table.

- 9** When you are finished, press Enter to exit edit mode and return to the prompt.
- 10** Type quit, and then press Enter. The OMDB server-side configuration for the Data Miner is now complete.

## Installing a Data Miner on a SAS or NAS Server

After the Data Miner is configured on the OMDB server, you will copy Data Miner files and configure them on the data source machine - the actual SAS or NAS server.

- 1** Log in to the SAS or NAS server.
- 2** Do a remote copy of `dataminer.tar` from `/opt/opsware/omdb/dist` on the OMDB server to a local directory such as `/opt/opsware/dataminer`. The commands used for this step are shown in the following example:
 

```
mkdir -p /opt/opsware/dataminer
cd /opt/opsware/dataminer
scp youromdbserver:/opt/opsware/omdb/dist/dataminer.tar /
opt/opsware/dataminer
```

- 3** Untar the file:
 

```
cd /opt/opsware/dataminer
tar -xvf dataminer.tar
```

- 4** Run the `dataminer` setup using the following command:
 

```
./dmsetup.sh
```

The following prompt appears:

```
Please enter the registration token provided after this
dataminer was configured on the OMDB server: []
```

- 5** Enter the token that was generated by registration on the OMDB server. (You were told to write it down earlier in these instructions. It will be a secure one-use mixture of about 6 upper-case letters and digits.) The following prompt appears:
 

```
Updating token in dataminer.conf
```

```
Would you like to have dataminer automatically start up when
the system reboots? [y/n]
```

- 6** Type `y`, then press Enter. The following prompt appears:
 

```
Dataminer is now configured for startup:
opsware-dataminer 0:off 1:off 2:on 3:on 4:on 5:on 6:off
```
- 7** To exit `dmsetup.sh`, type `y`, then press Enter.
- 8** (SAS only) To enable mesh vault mining, add the following lines to `vault.conf`:

```
# Data Miner configuration
cmdbsharedirectory=/var/opt/opsware/vault/spool
cmdbbufferflushsize=15360
cmdbbufferflushtimeout=2000
cmdbmaxfileage=3
```

- 9** Start the Data Miner `dataminer.sh`:

```
cd /opt/opsware/dataminer
./dataminer.sh start
```

- 10** Tail the `dataminer.log` to observe progress.

```
tail -f dataminer.log
```

You should see the tail of the Data Miner log display content similar to the following example:

```
INFO - - - - - "Configuration Path = /opt/opsware/dataminer"
INFO - - - - - "Using configuration file /opt/opsware/
dataminer/dataminer.conf"
INFO - - - - - "Initializing..."
INFO - - - - - "Running on Linux"
INFO - - - - - "Cached Configuration file has been updated,
reloading"
INFO - - - - - "Boot certificate not found Attempt to import"
INFO - - - - - "Boot certificate successfully imported"
INFO - - - - - "DataMiner successfully registered"
```

- 11** When you are satisfied that the Data Miner is correctly configured and collecting data, you can stop the tail command.

## Installing a Data Miner on a NAS Windows Server

After the Data Miner is configured on the OMDB server, you will copy Data Miner files and configure them on the data source machine - the actual NAS server.

- 1** On the Windows NAS server, create a directory such as `C:\dataminer`.
- 2** Copy the `dataminer.zip` and `dmboot.pem` file from `/opt/opsware/omdb/dist` on the OMDB server to a local directory such as `C:\dataminer`.
- 3** Unzip the `dataminer.zip` file. Keep the directory structure intact.
- 4** Edit the file `jvm.properties`. Update the JVM-Path value to the correct location of `JVM.DLL` for the Java Runtime Environment 1.4.2.
- 5** Edit the `dataminer.conf` file using the following example:

```
#OpswareGateway=host:port
```

```

CMDBLocation=10.10.10.10:8443
RestartableCopyLocation=10.10.10.10:8873
RegistrationToken=ToKeN
LogLevel=INFO

```

- Leave `OpwareGateway` as a comment (preceded by #)
- Set `CMDBLocation` to the OMDB Server <host>:8443
- Set `RegistrationToken` to the token generated at registration on the OMDB Server
- `RestartableCopyLocation` should be set to the same IP address as `CMDBLocation`:8873

**6** Open a Windows command prompt.

**7** Change directory to `C:\dataminer`.

**8** To install the service, run the following command:

```
DataMinerService -install
```

**9** To start the service, run the following command:

```
DataMinerService -start
```

## Installing Transaction Mining Triggers for NAS

This section describes how to install transaction mining triggers for a NAS installation on a Linux or Solaris server using Oracle, or for a NAS installation on a Windows server using Oracle.

### Installing Transaction Mining Triggers for NAS with Oracle on Linux or Solaris

This section describes how to install transaction mining triggers for a NAS installation on a Linux or Solaris server using Oracle.

You will need the following information before you begin:

- the Oracle SID of the NAS database instance
- the Oracle database user owning the NAS table
- an existing tablespace with 100MB available for OMDB transaction data

To install transaction mining triggers on a NAS Linux or Solaris server, perform the following steps:

- 1** Stop the OMDB Data Miner if it is running.
- 2** Log in to the NAS database server as user `oracle`.
- 3** Confirm the files in the `/opt/opsware/dataminer/triggers/oracle` on the OMDB server are accessible by the `oracle` user on the NAS database server. If the Data Miner installation is on another server, copy the `/opt/opsware/dataminer/triggers/oracle` directory to the NAS database server.
- 4** Open a command prompt, and then run the following command:  

```
/opt/opsware/dataminer/triggers/oracle/deploy_nas_triggers.sh
```
- 5** Respond to all prompts.
- 6** (Optional) If you stopped the Data Miner in the first step, restart it.

### Installing Transaction Mining Triggers for NAS with Oracle on Windows

This section describes how to install transaction mining triggers for a NAS installation on a Windows server using Oracle.

You will need the following information before you begin:

- the Oracle SID of the NAS database instance
- the Oracle database user owning the NAS table
- an existing tablespace with 100MB available for OMDB transaction data

To install transaction mining triggers on a NAS and Oracle Windows server, perform the following steps:

- 1** Stop the OMDB Data Miner if it is running.
- 2** Log in to the NAS database server as a user that is a member of the `ORA_DBA` group.
- 3** Confirm the files in the `/opt/opsware/dataminer/triggers/oracle` on the OMDB server are accessible by the `ORA_DBA` group member user on the NAS database server. If the Data Miner installation is on another server, copy the `/opt/opsware/dataminer/triggers/oracle` directory to the NAS database server. A suggested location is `C:\opsware\dataminer\triggers\oracle`

- 4** Confirm the `sqlplus.exe` application is in the user's path.
- 5** In the `C:\opsware\dataminer\triggers\oracle` directory, run the following command:  
`deploy_nas_triggers.cmd`
- 6** Respond to all prompts .
- 7** (Optional) If you stopped the Data Miner in the first step, restart it.





# Chapter 4: Administration

## IN THIS CHAPTER

This chapter contains the following sections:

- Start Script
- Viewing OMDB Permissions
- Creating and Assigning Security Boundaries
- OMDB Filesystem Layout

### Start Script

This section describes the `opsware-omdb` script used to start OMDB. After installation, the script is located in the `/etc/init.d/` directory:

```
/etc/init.d/opsware-omdb
```

The `opsware-omdb` script has the following options:

- `start`
- `stop`
- `startsync`
- `restart`
- `list`
- `status`

For more information on these options, see the *Opware® SAS Administration Guide*.

## Viewing OMDB Permissions

This section describes how to view OMDB permissions for an existing group, and the definitions of the permission settings.

### Viewing the OMDB Permissions

To view the OMDB permissions, perform the following steps:

- 1** Log in to the SAS Web Client as admin.
- 2** In the Navigation Panel, click Administration ► Users and Groups. The View Users pane appears.
- 3** Click the Groups tab.
- 4** Select a group. The group is displayed in the View Groups pane.
- 5** Click the OMDB Features tab.

If a user has no OMDB permissions, the SAS Client will not display the Opware OMDB Client item on the Tools menu.

### OMDB Permissions

The General Permissions section has the following five checkboxes

- Schedule Reports - This permission causes the OMDB Client to display the Schedule Reports item in the View ► Reports menu. It also enables the **Schedule** button when the user views a specific report.
- Manage Scheduled Reports - This permission causes the OMDB Client to display the Manage Scheduled Reports item in the View ► Opware Administration menu. The user can see scheduled reports of other users, set the maximum number of scheduled reports per user, and set the maximum number of reports to be concurrently processed by a server. This permission grants access to only the report definitions of scheduled reports. If the user runs a report created by another user, the data displayed depends on the Data Access permissions. If the user runs a report that attempts to display data the user does not have access to, the report displays the following message: "There is no data that matches your criteria".
- Manage Security Boundaries -Selecting Manage Security Boundaries adds the Security Boundaries command on the menu View ► Opware Administration command of the OMDB Client to members of the group. The user can create security boundaries.

- Administer OMDB System - Selecting Administer OMDB System permits the user access to CDK-related APIs.
- All Data Access Permissions - Selecting the All Data Access Permissions check box grants members of the group access to all data in OMDB. Clear the check box, then use the Data Access section to grant data access to only selected categories.

### Data Access

The Data Access section of the OMDB Features tab has two sections:

- NAS Category and Permission
- SAS Category and Permission

Each section describes one row for each Configuration Item (CI) Type in that section. If custom CI Types are defined in the SAS installation, those data types are displayed in a third section labeled Other.

For each CI Type, set the permission for the group by selecting either None, All, or Security Boundary. If you select Security Boundary, click **Select** to display the Select Security Boundaries window.

## Creating and Assigning Security Boundaries

The Security Boundaries feature allows you to choose custom search parameters that you can then save and assign to a user or a group of users in OMDB. You can define a Security Boundary as one or more attributes of one or more configuration items. You create a security boundary in the OMDB Client. You assign security boundaries in the SAS Web Client.

If you select Security Boundary, click **Select** to display the Select Security Boundaries window.

### Creating Security Boundaries

To create a security boundary, perform the following steps:

- 1** Launch the SAS Client. The SAS Client appears.
- 2** From the **Tools** menu, select **Opsware OMDB Client**. The Opsware OMDB Client window appears.
- 3** From the **View** menu, select **Opsware Administration ► Security Boundaries**.

- 4** Select a Configuration Item from the drop-down list.
- 5** In the drop-down list for (the Asset Tag, Hostname, and so on), select Contains, Equals, or the appropriate association.
- 6** In the text field, type the appropriate value.
- 7** (Optional) Click **+** and then repeat the preceding three steps to define a second criteria.
- 8** Click **Preview Security Boundary** to view the current items defined within the security boundary.
- 9** Click **Save** to save the security boundary.

### Assigning Security Boundaries

To assign a security boundary to a group, perform the following steps:

- 1** Log in to the SAS Web Client as an administrator. The SAS Web Client Home Page appears.
- 2** In the Navigation Panel, click Administration ► Users & Groups. The View Users pane is displayed.
- 3** Click the Groups tab. The Groups tab is displayed.
- 4** Select the group you want to set a security boundary for. The group is displayed in the View Groups pane.
- 5** Click the OMDB Features tab. The OMDB Features tab is displayed.
- 6** Clear All Data Access Permissions.
- 7** For the CI Type you want the group to use a security boundary for access to that data, select the Security Boundary option.
- 8** Click **Select**. The Select Security Boundaries window is displayed.
- 9** Click a security boundary in the Unassigned Boundaries list, and then click **->** to move the selected security boundary to the Assigned Boundaries list.
- 10** Click **Save**. The Select Security Boundaries window closes.
- 11** In the OMDB Features of the View Groups pane, click **Save**.

You can select multiple security boundaries in the Select Security Boundaries window to control data access for a single CI Type. Users that are members of groups with different security boundaries for data access have access to all the data viewable by the individual groups. For example, suppose a user is a member of two groups:

- SAS Users - Security boundary defined for all SAS data
- NAS Users - Security boundary defined for all NAS data

The user can see all the CI Types for both SAS data and NAS data.

## OMDB Filesystem Layout

This section describes the filesystem layout of the Opsware OMDB Database and the Opsware OMDB Core Services. The default OMDB database filesystem layout is presented in Table 4-1.

Table 4-1: OMDB Database Filesystem Layout

|                                                                         |                                                                          |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------|
| /u01/                                                                   | Location of Oracle application, instance admin files, and a control file |
| /u01/app/oracle/product/<br>10.2.0/db_1/network/admin/<br>tnsnames.ora  | config for OMDB instance                                                 |
| /u01/app/oracle/product/<br>10.2.0/db_1/network/admin/<br>tnslister.ora | config for OMDB instance                                                 |
| /u01/app/oracle/product/<br>10.2.0/db_1/dbs/orapwomdb                   | OMDB password file                                                       |
| /u01/app/oracle/product/<br>10.2.0/db_1/dbs/spfileomdb.ora              | OMDB config file                                                         |
| /u01/opp/oracle/admin/cmdb/<br>bdump, cdump, pfile, udump               |                                                                          |
| /u01/opp/oracle/admin/cmdb/<br>create                                   | Scripts to create database                                               |

Table 4-1: OMDB Database Filesystem Layout

|                                              |                                                                  |
|----------------------------------------------|------------------------------------------------------------------|
| /u01/opp/oracle/admin/cmdb/create/metaschema | Schema creation scripts                                          |
| /u01/opp/oracle/admin/cmdb/dataschema        | Data creation scripts                                            |
| /u01/oradata/cmdb                            | OMDB control file #1                                             |
| /u02/                                        | Location of data files                                           |
| /u02/oradata/cmdb                            | OMDB data files                                                  |
| /u03/oradata/cmdb                            | CMDB control file #2, and redo logs group #1                     |
| /u04                                         | Location of second member of redo log groups, and a control file |
| /u04/oradata/cmdb                            | CMDB control file #1, and redo logs group #2                     |
| /etc/oratab                                  | Entry for OMDB instance                                          |

The default OMDB Core Services filesystem layout is presented in Table 4-2.

Table 4-2: OMDB Core Services Filesystem Layout

|                                                     |                                                                                       |
|-----------------------------------------------------|---------------------------------------------------------------------------------------|
| /opt/opsware/omdb                                   | Root of the primary install location (OMCS_ROOT_DIR)                                  |
| /opt/opsware/omdb/bin                               | Location of OMCS binary executable                                                    |
| /opt/opsware/omdb/cert                              | JBoss cert file directory                                                             |
| /opt/opsware/omdb/dist                              | Location where the Dataminer installer and cert are deployed                          |
| /opt/opsware/omdb/conf                              | JBoss configuration dir (OMCS_JBOSS_CONFIG_DIR)                                       |
| /opt/opsware/omdb/deploy                            | OMDB JBoss deploy files that are not in OCC, such as loadersar, cooper.jar, and so on |
| /opt/opsware/omdb/deploy/birt.war                   | BIRT Engine                                                                           |
| /opt/opsware/omdb/omdb                              | Hierarchy the same as SAS OCC                                                         |
| /opt/opsware/omdb/omdb/deploy/                      | JBoss deployment, hierarchy the same as SAS OCC                                       |
| /opt/opsware/omdb/omdb/deploy/jbossweb-tomcat55.sar | Apache webserver deployment directory                                                 |
| /opt/opsware/omdb/reports                           | OMDB report definitions                                                               |
| /var/opt/opsware/omdb/collect                       | Location of OMCS Loader Collect directory                                             |
| /etc/opt/opsware/omdb                               | Location of OMCS configuration files                                                  |
| /etc/inet.d/opsware-omdb                            | Location of OMCS daemon launch script                                                 |
| /var/log/opsware/omdb/                              | Log files for OMDB                                                                    |

