

# HP OpenView Messaging Server Using Radia

for the AIX, HP-UX, Linux, Solaris, Sunx86 and Windows operating systems

Software Version: 3.1

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## Migration Guide

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# 1 Introduction

## About this Guide

### Who this Guide is for

This migration guide is for Radia system administrators who want to upgrade their HP OpenView Messaging Server Using Radia (Messaging Server) environment to Version 3.1.

This guide contains information for the Windows and UNIX platforms.

You should be familiar with Radia products, such as the Radia Database, Configuration Server, Radia methods such as ZTASKEND, the Inventory Manager Server. If using Patch Manager, you should be familiar with that product.

You should also become familiar with newer Radia components, such as the Reporting Server. For details, see the appropriate guides.





## 2 Upgrading to Messaging Server 3.1

Use the following procedures to upgrade an existing Messaging Server 3.x or 2.x environment to a Messaging Server 3.1 environment.

### Upgrading from Messaging Server 3.x

To apply Messaging Server 3.1 to an existing Messaging Server 3.x installation

Messaging Server 3.1 requires the Data Delivery Agents delivered with Version 3.1, and vice versa. Be sure to re-install each Data Delivery Agent that was previously installed so that the Data Delivery Agent modules are updated as well as the Messaging Service module.

- 1 Stop the Radia Messaging Server (RMS) service (RMS.TKD).



Stopping the RMS service automatically stops message processing for each Data Delivery Agent queue.

- 2 Create a backup of the directory where your Messaging Server is installed.
- 3 Delete the following subdirectories from the `etc` directory of where the Messaging Server is installed:

```
/etc/core/sql  
/etc/core/lib  
/etc/inventory/sql  
/etc/inventory/lib  
/etc/wbem/sql
```

- 4 The installation program will upgrade the Messaging Server and Data Delivery Agent modules, but does not replace the associated configuration files with the new ones. Optionally, delete an existing configuration file prior to running the install to obtain the newest default configuration for it:

```
rms.cfg  
core.dda.cfg  
inventory.dda.cfg  
wbem.dda.cfg  
patch.dda.cfg
```

- 5 Run the install for the Messaging Server, making sure to select the installation of all existing data delivery agents.
- 6 Following installation, reapply any customizations to the `*.SQL` and `*.TCL` files located in the `\etc\core`, `\etc\inventory` and `\etc\wbem` directories.



The Data Delivery Agents for Messaging Server 3.1 unpack the default versions of the `.sql` files into subdirectories named `\etc\. This allows your custom scripts to be placed in the \etc\ directories and take precedence over the default scripts in the lower-level \hp subdirectory.`

- 7 If the Core Data Delivery Agent has been configured to post objects to the Management Portal, an additional configuration is recommended to re-queue the CORE.RMP

messages into a specialized queue named `rmpq`, and then route them to the Management Portal. This change will allow throttling of the flow of messages to the Management Portal so that it doesn't get overloaded.

If you did not delete your existing `core.dda.cfg` file prior to running the installation, use the steps below to modify it to match the `core.dda` configuration delivered with this release. This configuration re-queues only the Management Portal data into an `rmpq` queue.

- a Use a text-editor to open the `core.dda.cfg` file. Check the `msg::register corerouter` section for the routing of `CORE.RMP` messages.
- b Change the routing of the `CORE.RMP` messages to use the `rmpq` identifier as specified in the following configuration:

```
ROUTE      {
    TO      CORE.RMP
    USE     rmpq
}
```

- c Add the following configuration sections to register a new `QUEUE` section (`rmpq`), `ROUTER` section (`rmpqrouter`) and `HTTP` section (`rmpqhttp`) to the bottom of the `core.dda.cfg` file.

```
msg::register rmpq {

    TYPE      QUEUE

    DIR       ../ConfigurationServer/data/rmp
    USE       rmpqrouter

    POLL      10
    COUNT     30
    DELAY     3600
    ATTEMPTS  200
}

msg::register rmpqrouter {

    TYPE      ROUTER

    ROUTE     {
        TO     CORE.RMP
        USE    rmpqhttp
    }
}
```

```

msg::register rmpqhttp {
    TYPE          HTTP

    ADDRESS      {
        PRI       10
        URL       http://localhost:3466/proc/xml/obj
    }
}

```

- d In the URL configuration parameter in the HTTP section, replace the given value of `localhost` with the IP address of the server hosting the Management Portal.

8 Restart the RMS service.

This completes the steps to apply Messaging Server Version 3.1 to an existing 3.x installation.

## Upgrading from Messaging Server 2.x

This release contains a complete install of the Messaging Server service (RMS.TKD). The `setup.exe` file used to install the product can also be used to upgrade it from a Messaging Server 2.x environment—without additional configuration steps.

Use the topics that follow to:

- Upgrade the RCS ZTASKEND REXX method to version 1.12. Optionally, port any custom code to the new ZTASKEND REXX.
- Upgrade a Messaging Server from 2.x to 3.1. Messaging Server version 3.1 supports:
  - Data Delivery Agents (DDA) and multiple data queues. DDAs provide the ability to post objects via ODBC directly to an SQL database or an Oracle database, for Inventory and Patch. This can eliminate the need for the Inventory Manager Server in most environments.
  - Secure HTTPS routing using SSL.
  - DDA posting of objects using ODBC to multiple DSNs. For details, refer to the appendices of the *Messaging Server Guide*.
- Port any customized SQL code from RIM to RMS (when using DDAs to post objects to the SQL compliant database for Inventory using ODBC).
- Review the Patch Manager migration requirements.
- Optionally, enable secure HTTPS routing using SSL.
- Use a store and forward server to place messages as close to the database as possible before posting using ODBC. (This is a best practice for both Windows and UNIX).

## Upgrading your RCS ZTASKEND REXX Method

Prior to upgrading the Radia Messaging Server, it is a best practice to adopt the latest version of the ZTASKEND REXX delivered on the Radia 4.2 media. It is also a best practice to upgrade the ZTASKEND REXX method before upgrading the Messaging Server.

### About ZTASKEND Version 1.12

Version 1.12 of ZTASKEND REXX offers out-of-the-box support for both the RMS 2.x routing option (which uses a single, data default queue) as well as the new RMS 3.x routing options available with the RMS Data Delivery Agents (which use multiple data queues).

Since ZTASKEND REXX is frequently customized, there are comments in the ZTASKEND v1.12 code that point out where and how to customize it. For additional information, also refer to the ZTASKEND discussion in the *Installation and Configuration Guide for the HP-OpenView Messaging Server Using Radia, v 3.1 (Messaging Server Guide)*.



The ZTASKEND REXX version 1.12 is delivered on the Radia Infrastructure 4.2 CD with a temporary file extension of `.rex` (`ZTASKEND.rex`). You must remove the file extension in order to execute it; this step is included in the upgrade procedures below.

### To upgrade your version of ZTASKEND REXX to version 1.12

- 1 Hewlett-Packard recommends stopping the RCS service prior to make these changes. However, if your RCS machine is operating close to 100% CPU usage, it will be necessary to stop the RCS service in order to replace ZTASKEND.
- 2 Access the Radia 4.2 Infrastructure CD and locate the new ZTASKEND, version 1.12. Its location and filename are given below.  
`\extended_infrastructure\messaging_server\migrate\ZTASKEND.rex`
- 3 Place a copy of the delivered version of the new ZTASKEND, `ZTASKEND.rex`, on your RCS platform in the `\rexx\Novadigm` directory, and then remove the file extension of `.rex`. Additional details on performing this step are given below.
  - a Rename the current ZTASKEND script in the `\rexx\Novadigm` directory to **ZTASKEND.old**.
  - b Copy `ZTASKEND.rex` from the `\migrate` folder listed in Step 2 to the `\rexx\Novadigm` directory of your RCS.
  - c Rename `ZTASKEND.rex` in the `\rexx\Novadigm` directory to **ZTASKEND** with no extension.
  - d If you do *not* use a customized version of ZTASKEND, go to Step 5.
- 4 If you are using a customized ZTASKEND, it will be located in the `\rexx` directory on your RCS. This step guides you in porting your customizations from a current ZTASKEND to the new ZTASKEND, and then enabling the new, customized ZTASKEND for execution by removing the file extension.
  - a Rename your current ZTASKEND script in the `\rexx` directory to **ZTASKEND.old**.
  - b Copy `ZTASKEND.rex` from the `\migrate` folder listed in Step 2 to the `\rexx` directory on your RCS.

- c Review the comments throughout the new `ZTASKEND.rex` file and compare it with the customizations in your `ZTASKEND.old` file. Also refer to the discussion on `ZTASKEND` found in the *Messaging Server Guide*, which highlights the code sections most frequently used for customizations.
  - d Port any customizations to the new `ZTASKEND`, `ZTASKEND.rex`, in the `\rexx` directory. Document your changes.
  - e Rename `ZTASKEND.rex` to **ZTASKEND** with no extension.
- 5 Restart the RCS service, and continue with the Messaging Service upgrade. See *Upgrading a Messaging Server from 2.x to 3.1* below.

## Upgrading a Messaging Server from 2.x to 3.1

Use these steps to install version 3.1 of the Messaging Server to the same location as an existing Messaging Server Version 2.x. The install media is provided on the Radia 4.2 Infrastructure CD.



Rename your existing `rms.cfg` file before you begin. This allows the install program to create a configuration file that includes support for new features, including:

- Secure HTTPS routing using SSL
- Load statement for Data Delivery Agents

Log configuration options

The RMS install program will

- Create a new `rms.cfg` file (as long as you rename your existing one).
- Create `*.dda.cfg` configuration files for each Data Delivery Agent that is selected during the install. There are four available Data Delivery Agents: CORE, INVENTORY, WBEM and PATCH. The Data Delivery Agents can be used to post data to a SQL Database or Oracle Database.
- Add the same scripts and `*.sql` code to the Messaging Server that is provided with the Inventory Manager for creating the SQL tables and to modify the data in the Inventory database.
- The procedures include a post-install task of relocating custom SQL code from your Radia Inventory Manager Server to your Radia Messaging Server.

The RMS install program will not:

- Install a Messaging Server fully configured for store and forward capabilities. Following the installation, you need to edit the appropriate configuration files and switch the routing options to forward messages to another Messaging Server. For details, refer to the Store and Forward Configuration topics in the *Messaging Server Guide*.
- When a Messaging Server is co-located with an RCS on a UNIX platform, HP recommends a Store and Forward solution using a Windows based Messaging Server for the ODBC posting of data. The Messaging Server on the Windows platform should be located close to the SQL-compliant database. When configured this way, the ODBC drivers supplied with Windows are used for posting of messages to the backend SQL compliant database. For details, refer to the Store and Forward Configuration topics in the *Messaging Server Guide*.

To use the Messaging Server to post via ODBC from a UNIX platform, third-party ODBC drivers must be installed. Currently, these are not supplied by the Messaging Server installation. Install the necessary drivers using installation instructions from the supplier. Include the DSN information in the appropriate Messaging Server or DDA configuration file.

### To install Messaging Server 3.0 (Windows and UNIX)

HP recommends performing this upgrade after you have upgraded the ZTASKEND method on the RCS to version 1.12. See the earlier procedures on page 12.

- 1 Launch the installation program for the Radia Messaging Server, available from the following platform-specific location on the Radia Infrastructure CD:

```
\extended_infrastructure\messaging_server\
```

- For Windows, click on **setup.exe** to launch the installation program.
- For a UNIX platform, enter the following command:

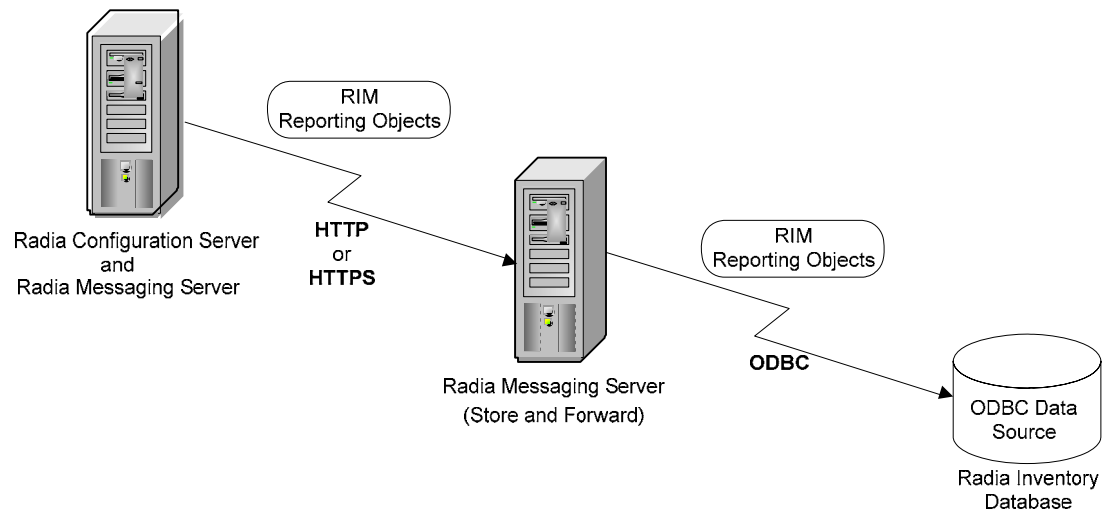
```
./install
```

and press **Enter**.

- 2 Follow the prompts to complete the installation. Choose the same install location as your existing Messaging Server.
- 3 If you installed the CORE, INVENTORY or WBEM Data Delivery Agents for direct posting of objects to the Inventory Database using ODBC, you will want to port any existing customizations you have on the Inventory Manager Server to the appropriate Messaging Server locations. See Migrating Custom SQL Code from an Inventory Manager Server on page 15.

### HP-Recommended Best Practices for RMS 3.x

- 1 The default WORKER setting for each configuration file is 1 worker, and HP recommends using this setting with Messaging Server 3.x (for both the RMS.CFG file and the individual DDA.CFG files. If multiple workers were configured in the past, they should be changed back to WORKERS 1.
- 2 The introduction of the new Data Delivery Agent modules for CORE, INVENTORY and WBEM objects allows for posting of these objects directly into a back-end SQL compliant database using ODBC. HP recommends that the Messaging Server used to post these objects via ODBC be placed as close to the SQL compliant database as possible to minimize the network response time. Often this means using the Messaging Server co-located with the RCS as a forwarding messaging server, and installing a downstream Messaging Server close to the SQL compliant database that is configured to do the actual ODBC posting. This is illustrated in the following figure.



- 3 Whenever possible, HP recommends using the default configuration for STARTUPLOAD (set to 0) in the COREODBC and WBEMODBC sections of the CORE, INVENTORY and WBEM Data Delivery Agents. STARTUPLOAD controls when SQL tables are created and the defined SQL commands are loaded into memory. The STARTUPLOAD default value of 0 performs these SQL activities *upon the first message delivery*. This configuration allows only the commands needed by each message type to be loaded into memory and represents a more efficient use of resources. Only set STARTUPLOAD to 1 when it is necessary to create the SQL tables *upon Messaging Server and Data Delivery Agent startup* due to table-creation limitations set by a Database Administrator.
- 4 This allows SQL table creation and SQL commands to be
 

Refer to the *Messaging Server Guide* for details on how to configure store and forward servers in your environment.

## Migrating Custom SQL Code from an Inventory Manager Server

If you elected to install any of the Data Delivery Agents for posting CORE, INVENTORY, and WBEM objects to the Inventory Manager using ODBC, the customized versions of any files listed in Table 1 on page 16 can be copied from their locations on your Inventory Manager Server to the equivalent locations on the Messaging Server.

The Data Delivery Agents can be used to post data to a SQL Database or Oracle Database.

- ▶ Port the custom code to a Messaging Server being used to post data using ODBC to an Inventory database. It is not necessary to port any customizations to a Messaging Server that is forwarding data to another Messaging Server.

## About the Scripts and SQL Queries used with the Data Delivery Agents

The Data Delivery Agents for CORE, WBEM and INVENTORY data post their message data into the same SQL tables created by the Inventory Server. These Data Delivery Agents use the exact same table definitions used by the Inventory Server to create tables, update and delete data. If the SQL tables have not been already created by an instance of the Inventory

Server, when the Data Delivery Agent that uses the SQL table is started, the table will be created.

The definitions for these tables and associated SQL queries (as delivered from HP) are contained in the `/etc/<module name>/sql/hp` directories. However, custom versions of these `.sql` files are to be placed in the `/etc/<module name>/sql` directories; this means the customized versions will be executed instead of the HP-delivered versions placed in the lower level `hp` subdirectories.

The script necessary to map the CORE object data to the related SQL table column is `taskend.tcl`. This script is identical to the version of `taskend.tcl` on the Inventory Server. The script necessary to map the INVENTORY object data (FILEPOST object) is called `filepost.tcl`. Both these scripts are found in the `/etc/<module name>/lib` directory of the Messaging Server. Using the identical scripts found on the Inventory Server allows previous users of this Infrastructure service to migrate any customized scripts directly into the directory for the associated Data Delivery Agent module.

#### To migrate custom code from Inventory Manager to Messaging Server

- 1 If necessary, stop the service for the Radia Messaging Server.
- 2 Create a backup of the Messaging Server `\etc` directory before porting any customized code.
- 3 Stop the [httpd] service for the Inventory Manager server.
- 4 Use Table 1 below to locate the appropriate Messaging Server directory and file for each object type. Copy any customized versions of the code on your Inventory Server to the appropriate location on the Messaging Server.

**Table 1 Directory Locations for Migrating Custom Code from RIM to RMS**

<b>Data Directory Agent: and Files</b>	<b>Inventory Server Directory Location</b>	<b>Messaging Server Directory Location</b>
<b>core.dda support:</b>		
<code>taskend.tcl</code>	<code>&lt;RIS&gt;\etc\rim\lib</code>	<code>&lt;RMS&gt;\etc\core\lib</code>
<code>*.sql</code> files	<code>&lt;RIS&gt;\etc\sql</code>	<code>&lt;RMS&gt;\etc\core\sql</code>
<b>inventory.dda support</b>		
<code>filepost.tcl</code>	<code>&lt;RIS&gt;\etc\rim\lib</code>	<code>&lt;RMS&gt;\etc\inventory\lib</code>
<code>*.sql</code> files	<code>&lt;RIS&gt;\etc\sql</code>	<code>&lt;RMS&gt;\etc\inventory\sql</code>
<b>wbem.dda support</b>		
<code>*.sql</code> files	<code>&lt;RIS&gt;\etc\sql\wbem</code>	<code>&lt;RMS&gt;\etc\wbem\sql</code>

For example, if you have a customized version of `taskend.tcl` on your Inventory Server, copy it to the `<RMS>\etc\core\lib` location on the Messaging Server.

- 5 Restart the Radia Messaging Server service or process.



- 6 If you have used Data Delivery Agents with the ODBC routing options to post the CORE, INVENTORY, and WBEM inventory objects directly to an Inventory database, you do not need to restart the Inventory Manager Server.

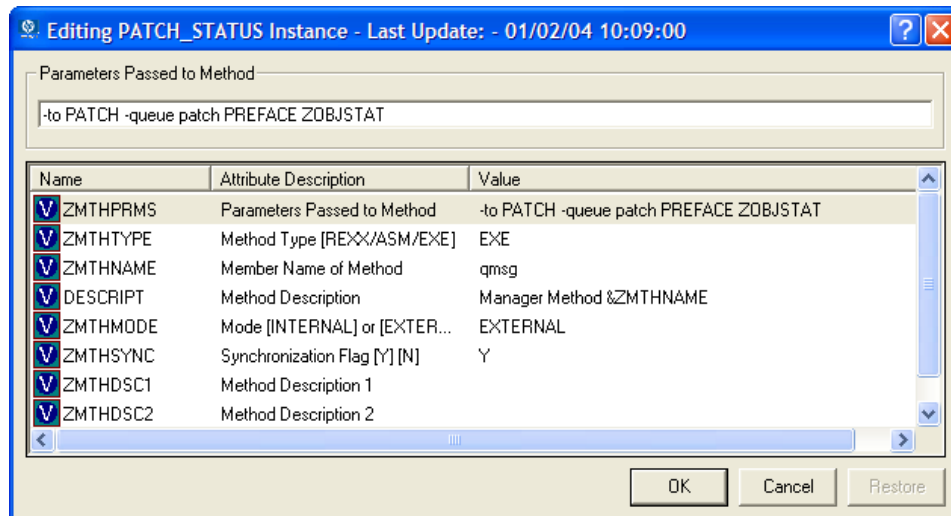
## Verifying the Patch Method Connection and Queue Name

- Patch Manager requires a method connection in the Radia Database. For details, refer to the *Patch Manager Guide*.
- If you installed the patch.dda and changed the name of the *Patch Message Directory to Scan* value during the Messaging Server installation (the expected value is **patch**), you must change the `-queue patch` value in the ZMTHPRMS attribute of the PATCH\_STATUS instance to match the Patch Directory to Scan value.

To modify the queue name in the PATCH\_STATUS method

- 1 Use the System Explorer to edit the ZMTHPRMS attribute of the PRIMARY.SYSTEM.ZMETHOD.PATCH\_STATUS instance, as shown in Figure 1 below.
- 2 Adjust the `-queue patch` value to reflect the directory named as the "Patch Message Directory to Scan" during the Messaging Server installation.

**Figure 1 Specify the Patch queue name in ZMTHPRMS**



For example: if you entered "`.. \ConfigurationServer\data\mypatch`" as the Patch Directory to Scan for the patch.dda, change the value of ZMTHPRMS in the PATCH\_STATUS instance from:

```
-to PATCH -queue patch PREFACE ZOBJSTAT
```

to

```
-to PATCH -queue mypatch PREFACE ZOBJSTAT
```

- 3 Save your changes.

## Enabling HTTPS Routing using SSL

The HP-OpenView Adapter for SSL updates the RMS SSL Configuration Parameters in a Messaging Server `RMS.CFG` file. Once these configuration parameters are available, you can modify the sections in the `RMS.CFG` and the various `DDA.CFG` files that route data using HTTP to route data using HTTPS.

### To enable secure HTTPS routing using SSL

- 1 First update your Messaging Server to version 3.1 and then run the HP-OpenView Adapter for SSL using Radia (Adapter for SSL) to install SSL support for it. Refer to *Adapter for SSL Installation and Configuration Guide* for more information.

The Adapter for SSL will update the following section of the `RMS.CFG` file with the appropriate certificate and HTTPS port information:

```
#-----  
#           RMS SSL Configuration Parameters  
#-----  
Overrides Config {  
    SSL_CERTFILE    "    "  
    SSL_KEYFILE     "    "  
    HTTPS_PORT     "    "  
}
```

The `HTTPS_PORT` is the secure port that the Messaging Server uses to receive messages.

- 2 Edit the sections of the RMS or DDA configuration files currently defined to route data with a `TYPE` of `HTTP`. Change the `TYPE` from `HTTP` to `HTTPS`, and modify the URL address to include `https:` as well as the `SSL_port_number` for the server receiving the message.

For example, the following entry in the `CORE.DDA.CFG` file routes data to the RMP using `HTTP`:

```
msg::register rmp {  
    TYPE          HTTP  
  
    ADDRESS      {  
        PRI      10  
        URL      http://RMP_host:3466/proc/xml/obj  
    }  
}
```

After enabling SSL, the following modifications to the same section allow for HTTPS routing of RMP objects to an RMP server using a secure port of 443:

```
msg::register rmp {  
    TYPE          HTTPS
```

```
ADDRESS    {  
    PRI     10  
    URL     https://RMP_host:443/proc/xml/obj  
}
```

- 3 Apply the same modifications to any section of the RMS or DDA configuration files being used to route data using HTTP.
- 4 Save the changes, and restart the Messaging Server service.

## Using Store and Forward Configurations (to Place Objects Close to a SQL Compliant Database)

As previously mentioned, the RMS install program will not install a Messaging Server fully configured for store and forward capabilities. Following the installation, you need to edit the appropriate configuration files and switch the routing options to forward messages to another Messaging Server.

For details, refer to the Store and Forward Configuration topics in the *Messaging Server Guide*.