This document provides information for installing and using the Revision and Configuration Management Data Collector software for Compaq OpenVMS.

Revision/Update Information: This manual replaces the manual for the Revision and Configuration Data Collector for OpenVMS Version 3.3

Operating System and Version: Compaq OpenVMS Version 6.2 to 7.2 and higher

Software Versions: RCM Server Version 3.4
RCM Data Collector Version 3.4 for OpenVMS
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Preface

Purpose of this Document
This document describes the procedures for installing and running the Revision and Configuration Management Data Collector software on a Compaq™ OpenVMS™ system.

Intended Audience
This guide is intended for Compaq Services personnel who will install and use RCM to collect revision and configuration data from customer systems.

Structure of this Guide
This guide is divided into the following sections:
- Overview
- Installing the RCM Data Collector for OpenVMS
- Performing an RCM Data Collection
- Viewing Configuration Tree Data
- RCM Technical Support

Document Conventions
This guide uses the following document conventions:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courier</td>
<td>File names, commands, and user input are shown in courier typeface.</td>
</tr>
<tr>
<td>Italic</td>
<td><em>Italics</em> emphasize important information, and indicate menu buttons, menu items, field names, section titles, and document titles.</td>
</tr>
</tbody>
</table>
More Information

For more information on the RCM tool, see the following URL:
http://www.support.compaq.com/svctools/rcm/
Overview

This chapter provides an overview of the Revision and Configuration Management Data Collector software for Compaq OpenVMS. It contains the following sections:

- How Does RCM Work?
- OpenVMS Systems Supported by RCM

How Does RCM Work?

Revision and Configuration Management (RCM) provides revision and configuration reporting for Compaq AlphaServer™ and VAX™ systems running OpenVMS Versions 6.2 to 7.2 and higher. RCM uses the following components to perform the data collection on an OpenVMS system:

- **RCM$DIR:RCM_START.COM** - A DCL command used to configure and schedule the data collection on each selected node.
- **DECevent™** - DECevent is used to collect data on AlphaServer systems. DECevent is a hardware fault-management diagnostic tool. It gathers hardware configuration information from the error log. No Product Authorization Kit (PAK) is required for the error log translation feature of DECevent.
- **AlphaServer** models DS20, ES40, DS20E, DS10, DS10L, GS80, GS160, and GS320, require RCM to be installed from the WEBES kit. For details of WEBES, see the following URL:
  
  http://www.support.compaq.com/svctools/webes

The system configuration snapshot (collected data) is automatically transported to Compaq Services using e-mail, ftp, or DSNlink. The data is then loaded onto the RCM Server, which is maintained in Compaq by the RCM team.

The RCM Data Collector gathers detailed hardware configuration information on AlphaServers models DS20, ES40, DS20E, DS10, DS10L, GS80, GS160, and GS320, where RCM from the WEBES kit is installed. This detailed hardware configuration information is called the Configuration Tree. This detailed configuration tree can be viewed on the OpenVMS system using the frudump utility. For more information, refer to Chapter 4, Viewing the Configuration Tree Data.

The RCM Server incorporates a web-based user interface which enables authorized personnel in Compaq Customers Services to view detailed configuration and change reports. Customers with premium service contracts are able to view these
configuration and change reports through the *Electronic Site Management Guide* (eSMG). Further information on using the RCM Server is available to Compaq Services personnel in the *RCM Server User Guide*.

**OpenVMS Systems Supported by RCM**

RCM supports the following systems, running *OpenVMS* Version 6.2 to 7.2 and higher:

- All VAX systems
- All *AlphaServer* systems

*AlphaServer* models DS20, ES40, DS20E, DS10, DS10L, GS80, GS160, and GS320, require RCM to be installed from the WEBES kit. For details of WEBES, see the following URL:

http://www.support.compaq.com/svctools/webes/
Installing the RCM Data Collector for OpenVMS

This chapter describes how you install and deinstall the Revision and Configuration Management Data Collector for a Compaq OpenVMS system. It contains the following sections:

- RCM Data Collection Prerequisites
- Skills Required to Use RCM
- Installing the RCM Data Collector
- Installing DECEvent
- Installing RCM with WEBES
- Deinstalling the RCM Data Collector for OpenVMS

## RCM Data Collection Prerequisites

The following table lists the requirements for installing and running the RCM Data Collector on an OpenVMS system. Requirements may vary according to system.

<table>
<thead>
<tr>
<th>Area</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disk Space</td>
<td>5000 blocks of free disk space for each node on which you run the data collection.</td>
</tr>
<tr>
<td>Privileges</td>
<td>• OPER&lt;br&gt;• DIAGNOSE&lt;br&gt;• SYSPRV&lt;br&gt;• CMKRNL&lt;br&gt;• SYSLCK&lt;br&gt;• PHY_IO</td>
</tr>
<tr>
<td>Minimum Software Version</td>
<td>• RCM Data Collector for OpenVMS kit Version 3.4 OR&lt;br&gt;• RCM from WEBES kit V3.1 with Service Pak 1.&lt;br&gt;• DECEvent Version 3.3&lt;br&gt;• DSNlink Version 2.2 or higher if DSNlink is to be used as a transport mechanism</td>
</tr>
</tbody>
</table>
Installing the RCM Data Collector for OpenVMS

The latest version of the RCM Data Collector software is available from the following URL:

http://www.support.compaq.com/svctools/rcm/

Skills Required to Use RCM

To collect RCM data and generate RCM reports, you should have practical experience in the following areas:

- Performing system administration tasks.
- Using a web browser application.

Installing the RCM Data Collector

This section describes how to install the RCM Data Collector for OpenVMS from the RCM-only kit. If you are installing on an AlphaServer model DS20, ES40, DS20E, DS10, DS10L, GS80, GS160, or GS320, please use the WEBES Install Guide available from the following URL:

http://www.support.compaq.com/svctools/webes

The RCM Data Collector for OpenVMS kit Version 3.4 is in a self-extracting executable format, and once extracted, it uses PCSI as the installation method. To install the Data Collector, follow these steps:

1. Extract the self-extracting executable file using the following command:
   
   $ RUN kitname
   
   For example: RUN RCM_VAXVMS_V0304_435.EXE
   
   This creates the .PCSI kit file called DEC-VAXVMS-RCM-V0303-435.PCSI. The build number at the end of the kit name may change.

2. Decide where you want to install RCM. Note that it must be installed on a disk that is accessible by all the nodes from which data will be collected. For example, you can install to the following directory:

   SYS$COMMON:

3. To install RCM, enter the following command:

   $ PRODUCT INSTALL RCM /DESTINATION = <disk><dir> /SOURCE=<disk><dir> /HELP
   
   Replace the destination <disk><dir> with the area you want to install the kit in, and replace the source <disk><dir> with the location of the extracted .PCSI file.

   Note: The installation process will create a subdirectory [.RCM] in the destination area.

Installing DECevent

You should install DECevent before or after you install RCM for AlphaServer systems. For help during this installation, refer to the DECevent documentation, available from the following URL:
Deinstalling the RCM Data Collector for OpenVMS

To deinstall the RCM Data Collector for OpenVMS, do the following:

1. Enter the following command:
   
   \$ product remove rcm

2. Follow the instructions displayed on the screen.

3. For information on deinstalling DECEvent, refer to the DECEvent documentation, available from the following URL:

   http://www.support.compaq.com/svctools/decevent
Performing an RCM Data Collection

This chapter describes how you can schedule and execute an RCM data collection for a Compaq OpenVMS system. It contains the following sections:

- Scheduling and Executing the RCM Data Collection
- Transferring RCM Data Indirectly
- Using DSNlink with RCM

Scheduling and Executing the RCM Data Collection

This section describes how to configure the RCM data collection, including configuring the data collection schedule, and how to execute and monitor the data collection. It describes the following topics:

- Configuring and Scheduling the Data Collection
- Executing the Data Collection Manually
- Monitoring the Data Collection

Note: Each time an RCM data collection runs on a system, the results of any previous collections are archived in the RCM$ARCHIVE directory. By default, the 10 previous collections are stored in this directory. You can change the directory and the number of collections that are stored by modifying the configuration file.

Configuring and Scheduling the Data Collection

To configure and schedule the data collection, enter the following command in the directory where you want the collected RCM data to be stored:

```
$ @RCM$DIR:RCM_START <ConfigurationFileName>.CFG
```

You are prompted for the following configuration information:

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPANY NAME</td>
<td>The name of the company owning the system.</td>
</tr>
<tr>
<td>CONTACT NAME</td>
<td>The name of your contact in the company owning the system.</td>
</tr>
<tr>
<td>CONTACT TELEPHONE</td>
<td>The telephone number of your contact in the company owning the system.</td>
</tr>
<tr>
<td>CONTACT E-MAIL</td>
<td>The e-mail address of your contact in the company owning the system.</td>
</tr>
<tr>
<td><strong>ACCOUNT MANAGER</strong></td>
<td>The name of the technical account manager.</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td><strong>ACCOUNT MANAGER E-MAIL</strong></td>
<td>The mail address of the technical account manager (must be @compaq.com format).</td>
</tr>
<tr>
<td><strong>CUSTOMER ACCESS ID</strong></td>
<td>The RCM access identifier for this system. For information on using access identifiers, refer to the <em>RCM Server User Guide</em>.</td>
</tr>
</tbody>
</table>
| **TRANSPORT OPTION** | The method for returning the collected data to Compaq Services. It can be one of the following:  
F – automatically ftp the data. This is the default.  
E – automatically e-mail the data.  
D – automatically send the data using DSNlink. For further information on DSNlink, see *Using DSNlink with RCM* section.  
M – do not automatically transport the data. If you wish to transfer collected data to Compaq Services manually, please see the *Transferring RCM Data Indirectly* section. |
| **COLLECTION FREQUENCY** | The frequency at which you want to schedule data collections. Enter one of the following:  
N – run a single collection.  
D – run the collection daily.  
W – run the collection weekly.  
M – run the collection monthly. This is the default.  
Q – run the collection quarterly. |
| **NEXT COLLECTION TIME** | Time to run the next data collection in the format dd-mm-yyyy hh:mm. To run a collection immediately, enter N. |
| **MAX ARCHIVES** | The number of collections to keep in the RCM Archive area. Default value is 10. |
| **ARCHIVE DIRECTORY** | Default is : RCM$ROOT: [RCM_ARCHIVE] |
| **COLLECTION DIRECTORY** | Specify directory to use for RCM Collections. Default is RCM$ROOT: [DATA] |
| **LOCAL SITE** | Answer Y to have collected data copied to a local system. Default is N.  
If answer is Y, you will be prompted for Local Transport option:  
Local Transport Option (EMAIL/F/FTP):  
If FTP (default) is selected, the following additional prompts are displayed:  
Local FTP Site : soggey  
Local FTP Login Username : pmoran  
Local FTP Password : xxxxxx  
Local FTP Directory : ~pmoran  
If Email is selected as the Local Transport Option, the following prompt is displayed:  
Local EMAIL Address : |
| **RUN ON REBOOT** | Answer Y to configure RCM to run automatically when the system reboots. Default is N. |
If you are running the collection in a cluster environment, the software detects each node on the system. You select if you want the data collection to run on each node. The node you run the `RCM$DIR:RCM_START` command on is automatically selected.

<table>
<thead>
<tr>
<th>NODES</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;node&gt;</code> SYSTEM SERIAL NUMBER</td>
<td>The serial number of each node on which you are running the data collection. If the Data Collector software does not detect this number, then you will be prompted to enter it.</td>
</tr>
</tbody>
</table>

If you selected to run a single, once-off data collection, the data collection will start immediately as a background process. If you set up a schedule for collection, the data collection will begin at the next scheduled interval that you selected. When the data collection is complete, the data is sent to Compaq Services, using the transport method you specified.

The configuration details are saved in a configuration file using the file name you provided. If you want to change any details, you can run `RCM_START.COM` again, providing the same filename, or you can edit the configuration file. If you edit the configuration file, you will see the following additional configuration options:

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTP AREA</td>
<td>The default is <code>rcm.support.compaq.com/to_rcm/</code></td>
</tr>
<tr>
<td>E-MAIL ADDRESS</td>
<td>The default is <code>rcm.data@compaq.com</code></td>
</tr>
<tr>
<td>MANUAL E-MAIL ADDRESS</td>
<td>The default is <code>rcm.data@compaq.com</code></td>
</tr>
</tbody>
</table>

### Executing the Data Collection Manually

If you set up a schedule for data collection when you entered configuration information, the data collection automatically executes at the scheduled times. You can also execute a once-off data collection that will start immediately.

To execute a once-off data collection, enter the following command in the directory where you want the collected RCM data to be stored:

```
$ @RCM$DIR:RCM_START -now
```

This executes the data collection using the most recent configuration file. If you have not already configured the RCM Data Collector, you will be prompted for the required information, as described above. The data collection will begin immediately.

When the data collection is complete, the transfer method you selected during the configuration process is executed. A local version of the collected data is created in the installation directory. You can view this data in two formats:

- `RCMO-<nodename>-<timestamp>.html`
- `RCMO-<nodename>-<timestamp>.txt`

### Monitoring the Data Collection

To monitor the data collection while it is executing, enter the following command:

```
$ @RCM$DIR:RCM_STATUS
```
Installing the RCM Data Collector for OpenVMS

For each node on which the data collection is running, the progress of the data collection is displayed. RCM_STATUS will loop every 30 seconds until the data collection is completed on all nodes. These data files can be transported to Compaq Services automatically, or you may transfer them manually, depending on the configuration options you selected.

- If you selected to automatically transport the data to Compaq Services, the status of the transport action is displayed.
- If you selected to manually transport the data to Compaq Services, instructions on how to do this are displayed.

If you want to check the status of a collection that has finished, and the result of the data transport, you can check the RCM$DATA:RCM-<node name>-<time stamp>-MASTER.LOG file.

If the data collection is paused for an unusually long period of time, or some of the collection log files are growing extremely large, or the disk is filling with log information, you may stop the data collection by entering the following command:

```
$ @RCM$DIR:RCM_STOP
```

This command displays each RCM process running on each node in the cluster, and prompts you if you want to kill each process in turn.

Transferring RCM Data Indirectly

This section describes how to indirectly transfer data collected by RCM back to Compaq Services for analysis. It describes the following topics:

- Why Transfer Data Indirectly
- Manually Transferring Data
- Sending Data to Compaq Services

Why Transfer Data Indirectly

Some systems running RCM do not have a direct connection to the Internet. For example, the target system (or systems) may be one of the following:

- A standalone system with no Internet connection
- A system on a network, where no other system on the network has a direct Internet connection
- A system on a network, where another system on the network has a direct Internet connection

In these situations, you can manually transfer the collected data to a system that has a direct Internet connection. After the data is transferred, you need to send the data to Compaq Services for analysis.

The method for manually transferring the data and the methods for sending the data to Compaq Services are described in the following sections.
Manually Transferring Data

When the data collection is completed, the collected data is saved into the following files:
RCMO-<nodename>-<timestamp>.ZIP (zipped file)
RCMO-<nodename>-<timestamp>.UUE (uuencoded file, if e-mail is used)

You can copy these files to a machine with a direct Internet connection.

Note: Do not change the name of the files, or their extensions.

Sending Data to Compaq Services

When you have moved the files containing the collected RCM data to a machine with an Internet connection, you can send the data to Compaq Services using one of the following options:

- Microsoft Exchange
- DSNlink
- Ftp
- VMSMAIL

Each of these methods is described as follows:

**Microsoft Exchange**

To mail the data using Microsoft Exchange, ftp the zipped (.ZIP) file in binary mode to the PC, and send the (.ZIP) file as an attachment to the following address:

rcm.data@compaq.com

**DSNlink**

To send the data using DSNlink, enter the following command:

```
$ DSN COPY/TOOL=RCM RCMO <nodename>-<timestamp>.ZIP
```

Note: To check the requirements for using DSNlink, see the Using DSNlink with RCM section.

**FTP**

To ftp the data, ftp the zipped (.ZIP) file in binary mode, using anonymous ftp, to the following location:

rcm.support.compaq.com/to_rcm/

**VMSMail**

To mail the data using VMSMAIL, mail the uuencoded (.UUE) file in the body of a mail message to the following address:

rcm.data@compaq.com

Using DSNlink with RCM

You can use DSNlink to send RCM data to Compaq Services, if you are transferring data automatically, or if you are transferring data manually. However, in order to use DSNlink to transfer RCM data, you must meet the following requirements:
Installing the RCM Data Collector for OpenVMS

- You must have DSNlink Version 2.x or higher installed on the system from which you want to transfer the data. If you are transferring data automatically, DSNlink must be installed on the machine where you installed the Data Collector.
Viewing Configuration Tree Data

This chapter describes the Configuration Tree, how to collect it, and how to view it using a browser. It contains the following sections:

- What are the Configuration Tree and the Reader?
- Collecting Configuration Tree Data
- Viewing Configuration Tree Data

What are the Configuration Tree and the Reader?

The Configuration Tree describes the hardware in an AlphaServer system for models DS20, ES40, DS20E, DS10, DS10L, GS80, GS160, and GS320. It is created and maintained by the SRM console code and always represents the current configuration of the system.

The Configuration Tree is read from memory and converted to human-readable format by the Configuration Tree Reader. The RCM Data Collector installs the Configuration Tree Reader the first time the RCM Data Collector is executed.

The syntax of the command is as follows:

@rcm$root:[ct5.bin]frudump [-i imagefile] [-v]

The following options are available:

- `-i` `imagefile` this enables the CT Reader to read from an image file, rather than from memory. The full path and filename must be specified as `imagefile`. This option is typically only used in complex troubleshooting situations.
- `-v` returns the current version of the tool.

Collecting Configuration Tree Data

To collect the Configuration Tree data, do the following:

1. Execute the command:

   @RCM$ROOT:[CT5.BIN]FRUDUMP

2. The data is captured from memory and written to two files in the directory `RCM$ROOT:[CT5.OUTPUT]` These are called `TREE_MAIN.HTML` and `HARDWARE.HTML`
Viewing Configuration Tree Data

**Viewing Configuration Tree Data**

This section describes how you use a browser to view Configuration Tree data.

**Software Prerequisite**

You must have one of the following browsers installed on the machine where you intend to view the data:

- Internet Explorer Version 4.0 or higher
- Netscape Navigator Version 4.0 or higher

**Viewing Data on the System**

To view Configuration Tree data on the system where `FRUDUMP` was executed, do the following:

1. Open a browser.
2. Open the file `TREE.HTML` in the directory `RCM$ROOT:[CT5.OUTPUT]`
3. The data is displayed in the browser.

**Viewing Data on a Different System**

You can view the Configuration Tree data on a different system from the machine where `FRUDUMP` was executed. For example, you may want to view it on a Windows-based system. The first time you view the data, do the following:

1. Create a `temp` directory for which the browser has read access on the different machine.
2. Copy all the files from the directory `RCM$ROOT:[CT5.OUTPUT]` to this `temp` directory.
3. Open a browser.
4. Open the file `TREE.HTML` from the `temp` directory.

The next time you run `FRUDUMP` only the files `TREE_MAIN.HTML` and `HARDWARE.HTML` need to be copied to the `temp` directory.
This chapter provides information on accessing RCM technical support resources. It contains the following sections:

- RCM Technical Support
- Contact the RCM Team

**RCM Technical Support**

If you have a problem using any aspect of RCM including the Data Collectors, data transport or the user interface, please contact us, at the following address:

rcm.support@compaq.com

To help us resolve any problems quickly, please send us the following information:

1. Your name, RCM user name (registration name), and contact details.
2. The access ID (entered during data collector installation), hostname, and serial number of the system on which you collected data.
3. The platform, system serial number, operating system version, and data collection utility versions and build numbers.
4. The platform, operating system name and version, and browser name and version on the system from which you accessed the RCM Server.
5. Details of the problem, including any log files, error files, or messages generated by the system.

**Contact the RCM Team**

The RCM team welcome any queries or comments that you may have about RCM. If you have questions or comments, or you would like to participate in future field tests or early release programs, contact the Product Manager, Vincent Jordan.

rcm.feedback@compaq.com