HP Operations Manager

Reporting and Database Schema

Software Version: 9.02

for the UNIX and Linux operating systems

Manufacturing Part Number: None
February 2010

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Printing History

The manual printing date and part number indicate its current edition. The printing date will change when a new edition is printed. Minor changes may be made at reprint without changing the printing date. The manual part number will change when extensive changes are made.

Manual updates may be issued between editions to correct errors or document product changes. To ensure that you receive the updated or new editions, you should subscribe to the appropriate product support service. See your HP sales representative for details.

First Edition: June 2009

Second Edition: February 2010

Conventions

The following typographical conventions are used in this manual:

Table 1 Typographical Conventions

Font	Meaning	Example
Italic	Book titles and manpage names	For more information, see the *HPOM Administrator's Reference* and the *opc(1M)* manpage.
	Emphasis	You *must* follow these steps.
	Variable that you must supply when entering a command (in angle brackets)	At the prompt, enter **`rlogin <username>`**.
	Parameters to a function	The *`oper_name`* parameter returns an integer response.
`Computer`	Text and other items on the computer screen	The following system message displays: `Are you sure you want to remove current group?`
	Command names	Use the `grep` command ...
	Function names	Use the `opc_connect()` function to connect...
	File and directory names	Edit the `itooprc` file... `/opt/OV/bin/OpC/`
	Process names	Check to see if `opcmona` is running.
`Computer Bold`	Text that you enter	At the prompt, enter **`ls -l`**

Table 1 Typographical Conventions (Continued)

Font	Meaning	Example
Keycap	Keyboard keys	Press **Return**.
	Menu name followed by a colon (:) means that you select the menu, and then the item. When the item is followed by an arrow (->), a cascading menu follows.	From the menu bar, select **Actions: Filtering -> All Active Messages**.
	Buttons in the user interface	Click **OK**.

HPOM Documentation Map

HP Operations Manager (HPOM) provides a set of manuals and online help that help you to use the product and to understand the concepts underlying the product. This section describes what information is available and where you can find it.

Electronic Versions of the Manuals

All the manuals are available as Adobe Portable Document Format (PDF) files in the documentation directory on the HPOM product CD-ROM.

With the exception of the *HPOM Software Release Notes*, all the manuals are also available in the following HPOM web-server directory:

`http://<management_server>:3443/ITO_DOC/<lang>/manuals/*.pdf`

In this URL, <*management_server*> is the fully qualified hostname of your management server, and <*lang*> stands for your system language, for example, `C` for the English environment.

Alternatively, you can download the manuals from the following website:

`http://support.openview.hp.com/selfsolve/manuals`

Watch this website regularly for the latest edition of the *HPOM Software Release Notes*, which is updated every two to three months with the latest news (for example, additionally supported operating system versions, the latest patches and so on).

HPOM Manuals

This section provides an overview of the HPOM manuals and their contents.

Table 2 HPOM Manuals

Manual	Description	Media
HPOM Installation Guide for the Management Server	Designed for administrators who install HPOM software on the management server and perform the initial configuration. This manual describes the following: • Software and hardware requirements • Software installation and de-installation instructions • Configuration defaults	PDF only
HPOM Concepts Guide	Provides you with an understanding of HPOM on two levels. As an operator, you learn about the basic structure of HPOM. As an administrator, you gain an insight into the setup and configuration of HPOM in your own environment.	PDF only
HPOM Administrator's Reference	Designed for administrators who install HPOM on the managed nodes and are responsible for HPOM administration and troubleshooting. Contains conceptual and general information about the HPOM managed nodes.	PDF only
HPOM HTTPS Agent Concepts and Configuration Guide	Provides platform-specific information about each HTTPS-based managed node platform.	PDF only
HPOM Reporting and Database Schema	Provides a detailed description of the HPOM database tables, as well as examples for generating reports from the HPOM database.	PDF only
HPOM Java GUI Operator's Guide	Provides you with a detailed description of the HPOM Java-based operator GUI and the Service Navigator. This manual contains detailed information about general HPOM and Service Navigator concepts and tasks for HPOM operators, as well as reference and troubleshooting information.	PDF only

Table 2 HPOM Manuals (Continued)

Manual	Description	Media
Service Navigator Concepts and Configuration Guide	Provides information for administrators who are responsible for installing, configuring, maintaining, and troubleshooting the HP Operations Service Navigator. This manual also contains a high-level overview of the concepts behind service management.	PDF only
HPOM Software Release Notes	Describes new features and helps you: • Compare features of the current software with features of previous versions. • Determine system and software compatibility. • Solve known problems.	PDF only
HPOM Firewall Concepts and Configuration Guide	Designed for administrators. This manual describes the HPOM firewall concepts and provides instructions for configuring the secure environment.	PDF only
HPOM Web Services Integration Guide	Designed for administrators and operators. This manual describes the HPOM Web Services integration.	PDF only
HPOM Security Advisory	Designed for administrators. This manual describes the the HPOM security concepts and provides instructions for configuring the secure environment.	PDF only
HPOM Server Configuration Variables	Designed for administrators. This manual contains a list of the HPOM server configuration variables.	PDF only

Additional HPOM-Related Products

This section provides an overview of the HPOM-related manuals and their contents.

Table 3 Additional HPOM-Related Manuals

Manual	Description	Media
HP Operations Manager Developer's Toolkit If you purchase the HP Operations Manager Developer's Toolkit for UNIX or for Linux operating systems, you receive the full HPOM documentation set, as well as the following manuals:		
HPOM Application Integration Guide	Suggests several ways in which external applications can be integrated into HPOM.	PDF
HPOM Developer's Reference	Provides an overview of all the available application programming interfaces (APIs).	PDF

HPOM Online Information

The following information is available online.

Table 4 HPOM Online Information

Online Information	Description
HPOM Java GUI Online Information	HTML-based help system for the HPOM Java-based operator GUI and Service Navigator. This help system contains detailed information about general HPOM and Service Navigator concepts and tasks for HPOM operators, as well as reference and troubleshooting information.
HPOM Manpages	Manpages available online for HPOM. These manpages are also available in HTML format. To access these pages, go to the following location (URL) with your web browser: `http://<management_server>:3443/ITO_MAN` In this URL, the variable <*management_server*> is the fully qualified hostname of your management server. Note that the manpages for the HP Operations HTTPS agents are installed on each managed node.

1 The HPOM Database Schema

In This Chapter

This chapter introduces the HPOM database schema. It explains the areas that this book covers and describes how to use the information provided to write and display your own reports in HPOM.

Introduction

This chapter provides information about the definitions and contents of the HPOM database tables. You can generate reports or perform queries via any report tools compatible with the Oracle database.

NOTE

All of the tables defined in this manual are considered read-only. You can query the tables at any time for report generation, but you must not write to the tables. *Writing to the tables directly is not supported by Hewlett-Packard.*

Also, tables and fields may change in future releases of HPOM. *Hewlett-Packard does not guarantee that the reports you develop will work with future releases of HPOM.*

Table 1-1 gives an overview of the organization of the information in this manual.

Table 1-1 The HPOM Database

Chapter	Data
Message Tables	All data regarding HPOM messages.
User Tables	All data regarding HPOM users.
Node Tables	All data regarding HPOM managed nodes.
Template Tables	All data regarding message source templates.
Condition Tables	All data regarding conditions of message source templates.
Other Tables	For example, data regarding HPOM message groups and temporary data.
Secondary Indexes	Secondary indexes.
Foreign Keys	Foreign keys.

General Conventions

Most indexing key fields are implemented as 36-byte character Universal Unique Identifiers (UUIDs) to make key generation easier and be consistent with the object identifiers used by other HP Software databases.

HPOM uses a special null ID that consists of 36 zeros, except for foreign keys which use Oracle null values.

Enumerated types are implemented as integer fields. The possible values are given in the Description column. The values for Yes/No are 1/0.

The Constraint column describes the constraints of each table column. See Table 1-2 on page 24 for the constraints that are used:

Table 1-2 Notation of the Constraint Field

Short Form	Constraint	Description
P	Primary Key	Values in primary key columns may never be null. The primary key identifies a row and therefore must be unique. If several columns in a table belong to the primary key, the combination of the primary keys has to be unique.
F	Foreign Key	A foreign key column references the primary key of another table.
N	Not Null	Not null columns must contain a value. Note that Oracle interprets an empty string as NULL. String columns that cannot contain empty strings are NOT NULL.

Table 1-2 Notation of the Constraint Field (Continued)

Short Form	Constraint	Description
U	Unique Constraint	The unique column or the combination of unique columns must be unique. Note, however, that all or some columns of the unique constraint may be NULL. NULL is considered for uniqueness.

Performing Queries

HPOM supports the following query methods:

- **HPOM user interface**

  HPOM reports that are called from the HPOM user interface. HPOM provides the following report types:

  - *Report programs*

    You can add your own programs as described in the section “Adding a Program Report” on page 27.

  - *SQL reports using SQL*Plus*

    You can add your own SQL reports as described in the section “Adding an SQL*Plus Report” on page 29.

  - *HPOM internal reports*

    These reports use internal C functions and, consequently, may not be added or modified.

- **Reporting tools accessing the database directly**

  Reports generated by any reporting tool that can access the Oracle database.

- **Service Reports**

  HPOM-specific service reports are included in the HP Reporter product and can be viewed over the web. For more information on how to add new service reports and how to go about modify existing ones, see the HP Reporter documentation.

Adding Your Own HPOM Reports

This section gives you an idea of how to add your own reports to the list of reports already available to HPOM users in the HPOM GUI. It covers the following general areas:

- ❏ Adding a Program Report
- ❏ Using Variables as Parameters for Reports
- ❏ Adding an SQL*Plus Report

Adding a Program Report

If you have a program that you want to make accessible to the HPOM users as a report from the GUI, you need to carry out the following steps:

1. Decide whether the report should be accessible by the administrator, by the operators, or both. Administrator reports are registered in the following file:

   ```
   /etc/opt/OV/share/conf/OpC/mgmt_sv/reports/<LANG>/\
   admin.rpts
   ```

   Operator reports are registered in the following file:

   ```
   /etc/opt/OV/share/conf/OpC/mgmt_sv/reports/<LANG>/\
   oper.rpts
   ```

2. Open the appropriate file and add or modify the following lines. The example below creates an OS user report that displays the `/etc/passwd` file:

   ```
   REPORTNAME   OS user report
   REPORTTYPE   PGM
   DESCRIPTION  Show all OS users configured on this system
                (in /etc/passwd)
   REPORTFILE   /bin/cat
   PARM         /etc/passwd
   ```

Using Variables as Parameters for Reports

HPOM provides a number of predefined variables that allow you to run a report about an object that is selected in the GUI, for example nodes or message groups. Table 1-3 on page 28 shows which variables are available in the administrator GUI. “Adding an SQL*Plus Report” on page 29 contains examples of the variables in use.

Table 1-3 Available HPOM Variables in the Administrator GUI

Variable	Description
$node	node name of a selected managed node
$nodegrp	node group ID of the selected node group
$msggrp	name of the selected message group
$application	application ID of the selected application
$operator	user ID of the selected HPOM user
$template	name of the selected template or template group

Table 1-4 on page 28 shows which variables are available in the operator GUI and from the administrator’s Message Browser.

Table 1-4 Available HPOM Variables in the Operator GUI and Administrator Message Browser

Variable	Description
$message_active	message ID of selected active message
$message_pending	message ID of selected pending message
$message_history	message ID of selected history message
$operator	user ID of the HPOM user that calls the report

Adding an SQL*Plus Report

This section illustrates the steps for defining a report that allows HPOM users to query data from the HPOM database. It uses SQL*Plus to run an SQL script. The example described creates an administrator's report that shows which users are responsible for a selected message group and what the corresponding node groups are. You will need to carry out the following steps:

1. Decide which data you need for the report. The HPOM database tables and their relationships are described in the following sections of this manual.

   For this example, the table `opc_op_realm` contains details of the responsibilities of the HPOM users and, in addition, the message group name that is specified as a parameter. The table `opc_user_data` lists the HPOM users. The link between `opc_op_realm` and `opc_user_data` is the `user_id`, namely `opc_op_realm.user_id` -> `opc_user_data.user_id`. The table `opc_node_groups` lists the node group names and is linked to `opc_op_realm` by means of the `node_group_id`, namely `opc_op_realm.node_group_id` -> `opc_node_groups.node_group_id`.

2. Create the SQL statement that extracts the information you need. As a test, set a fixed value for the message-group name, for example:

   ```
   select distinct u.name, g.node_group_name
   from   opc_user_data u, opc_op_realm r, opc_node_groups g
   where  r.user_id        = u.user_id
   and    r.node_group_id  = g.node_group_id
   and    r.msg_group_name = 'OS'
   order  by 1,2;
   ```

   You can use, for example, SQL*Plus to test the SQL statement. You will be asked for the `opc_report` password, then enter the following command:

   `$ORACLE_HOME/bin/sqlplus opc_report@ov_net`

   To exit SQL*Plus enter: **`quit`**

3. Format your report to look like an HPOM report: the formatting is done by selecting the text from the Oracle dummy table, `dual`. Since HPOM reports write to the file `/tmp/rep.lst`, you have to add a corresponding spool statement: **`spool /tmp/rep`** (SQL*Plus automatically appends `.lst` to this).

   SQL*Plus allows you to pass parameters. In the SQL*Plus script, the first parameter is referred to as `&1`. Since the parameter in the example is a string, it has to be enclosed in single quotes: `'&1'`

   The name of the report in this example is `msggrp_users.sql`. It resides in the directories specified in "Adding a Program Report" on page 27. You can copy an existing report and modify the header as appropriate. The report in this example, `msggrp_users.sql`, is as follows:

```
REM various SQL*Plus settings, e.g. to suppress terminal
output
set heading off
set termout off
set echo off
set linesize 79
set pagesize 0
set feedback off
set newpage 0;
set Verify Off
set arraysize 5
ttitle off;
REM HPOM reports write to the file /tmp/rep.lst
REM (.1st may be omitted)
spool /tmp/rep

REM Print a report header like the other HPOM reports
select ' '  from dual;
select '                              HPOM Report' from
dual;
select '                              ----------' from dual;
select ' '  from dual;
select 'Report Date: ',sysdate from dual;
select ' '  from dual;
select 'Report Definition:' from dual;
select '' from dual;
select '  User:          opc_adm' from dual;
select '  Report Name:   Message group users' from dual;
```

```
select '  Report Script: msggrp_users.sql' from dual;
select ' '  from dual;
select ' '  from dual;

REM Add a header for the selected columns
select 'User name            Node group name' from dual;
select
'-----------------------------------------------' from
dual;

REM Our SQL statment; the message group name is passed as
REM parameter &1
select distinct u.name, g.node_group_name
from   opc_user_data u, opc_op_realm r, opc_node_groups g
where  r.user_id        = u.user_id
and    r.node_group_id  = g.node_group_id
and    r.msg_group_name = '&1'
order  by 1,2;

REM Finally, exit SQL*Plus
quit
```

4. Test the report using the HPOM report script, `call_sqlplus.sh`. It connects as user `opc_op` to the HPOM database and runs the report script using SQL*Plus. Note that the file type `.sql` is *not* specified. Enter the following command:

   `/opt/OV/bin/OpC/call_sqlplus.sh msggrp_users OS`

   For more information see the man page *call_sqlplus.sh(1)*.

5. Decide whether the report should be accessible by the administrator, by the operators, or by both. See “Adding a Program Report” on page 27 for information on what to do once you have made the decision. Since the report in this example is only available to the administrator, add the following lines to the file, `admin.rpts`:

```
REPORTNAME   Message group users
REPORTTYPE   PGM
DESCRIPTION  Users responsible for a selected message
             group
REPORTFILE   /opt/OV/bin/OpC/call_sqlplus.sh
msggrp_users
PARM         $msggrp
```

Adding Your Own HPOM Service Reports

HPOM-specific service reports use information taken directly from the HPOM database and may be viewed using HP Reporter. You can add new service reports and modify the existing reports to suit the demands of your own particular environment. For more information about what you need to be able to edit HPOM-specific service reports and how to go about doing it, see the HP Reporter product documentation.

HP Service Navigator Reports

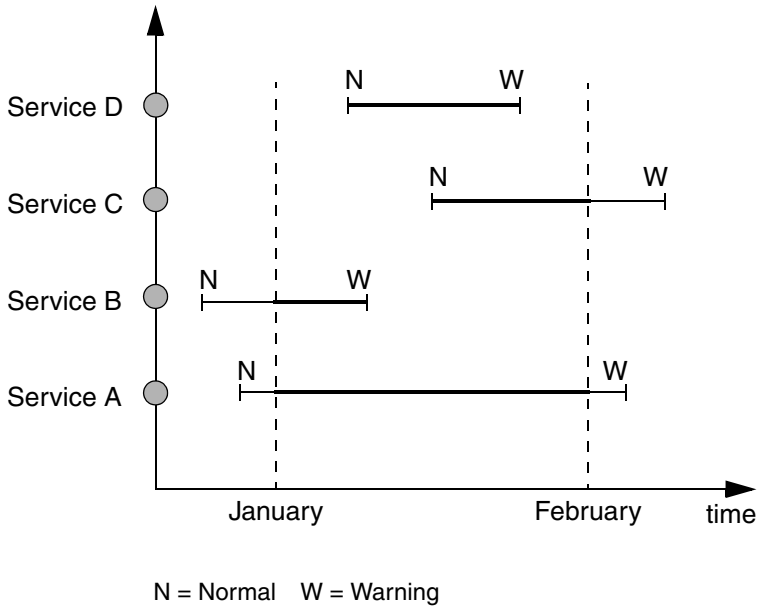
HP Reporter also comes with several reports for Service Navigator. They display information about the monitored services in statistical or graphical format, for example, the general availability of services over time, the number of messages received for each service over time, or the services with the highest number of messages.

To write your own reports, you need to query the tables `opc_service` and `opc_service_log`, see Table 8-9 on page 210 and Table 8-10 on page 211 respectively. `opc_service` contains basic information about each service, for example, the label of a service. `opc_service_log` contains the status logs which consist of the severity and the duration of the severity status. Both tables are empty, if logging is not enabled or disabled.

When you query `opc_service_log` to generate a report about the status of a service within a time interval, for example, how often and how long a service was in a warning status during a particular month, make sure that your query takes into account the fact that the start and end time of

the severity status can be outside of the queried time interval. Figure 1-1 on page 33 shows how the time when a service entered or left a certain severity status can affect service reporting.

Figure 1-1 Reporting on Service Status Duration



The following situations must be considered:

- **Start time is outside the interval**

  See `Service A` and `Service B` in Figure 1-1: both services change from normal to warning before the start of the queried time interval.

- **End time is outside the interval**

  See `Service A` and `Service C` in Figure 1-1: both services cease to be in the warning status outside the queried time interval.

- **Start and end time are outside the interval**

  See `Service A` in Figure 1-1.

Make sure that your report considers the actual start and end time of the severity duration in case they happen to be outside the queried time interval.

2 Entity Relationship Diagrams

In This Chapter

This chapter contains the entity relationship diagrams for the HPOM database.

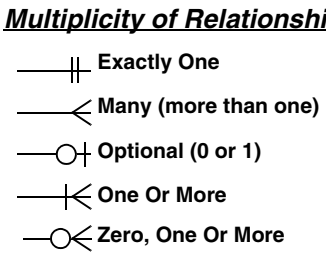
Entity Relationship Diagrams

Entity relationship diagrams show the relationship between the tables in the HPOM database.

The following figures are also available full-size in PDF format in the HPOM documentation software fileset and can be printed on DIN A3 or Tabloid (11 x 17 inches) paper. See the *HPOM Installation Guide for the Management Server* for more information about installing the HPOM product bundles.

See Figure 2-1 on page 37 for an explanation of the notation that is used in the diagrams.

Figure 2-1 Diagram Notation



NOTE The entity relationship diagrams only show the tables relating to users, nodes, templates, conditions and messages. They do not represent the entire HPOM database.

Many tables contain references to the opc_symbols table via the symbol_type_id column. For reasons of space however, the opc_symbols table does not always appear.

Links normally use the same column name in both tables. In such cases, the links are not labelled. If links involve more than one column, all these are named.

Relationships that cannot be described using the notation are described in free text.

Figure 2-2 Multiplicity Example 1

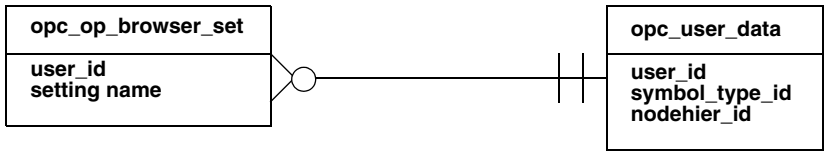


Figure 2-2 shows that a user in the opc_user_data table has zero, one, or more saved browser settings in opc_op_browser_set. In other words, a user may save one or more browser settings, but does not have to.

Each browser setting belongs to exactly one user. Since no name appears on the relationship line, the relationship is based on the common key, user_id.

Figure 2-3 Multiplicity Example 2

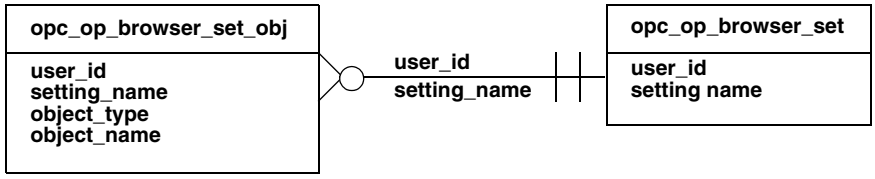


Figure 2-3 shows that a browser setting may have zero, one, or more selected objects, for example selected nodes. Each of the selected objects in opc_op_browser_set_obj belongs to exactly one browser setting. To

show that the tables are related by a combination of user_id and setting_name, both these column names appear next to the relationship line.

Figure 2-4 Multiplicity Example 3

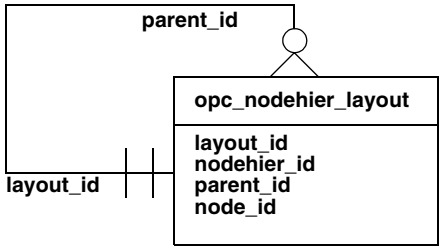


Figure 2-4 shows that the table opc_nodehier_layout represents a hierarchy of nodes through a relationship with itself. If a hierarchy element (represented by layout_id) has no parent hierarchy, the parent_id is null. Otherwise, the parent_id points to the layout_id of the layout element that contains this one.

A layout element may contain zero, one, or more other layout elements.

Entity Relationship Diagrams

Figure 2-5 User Tables

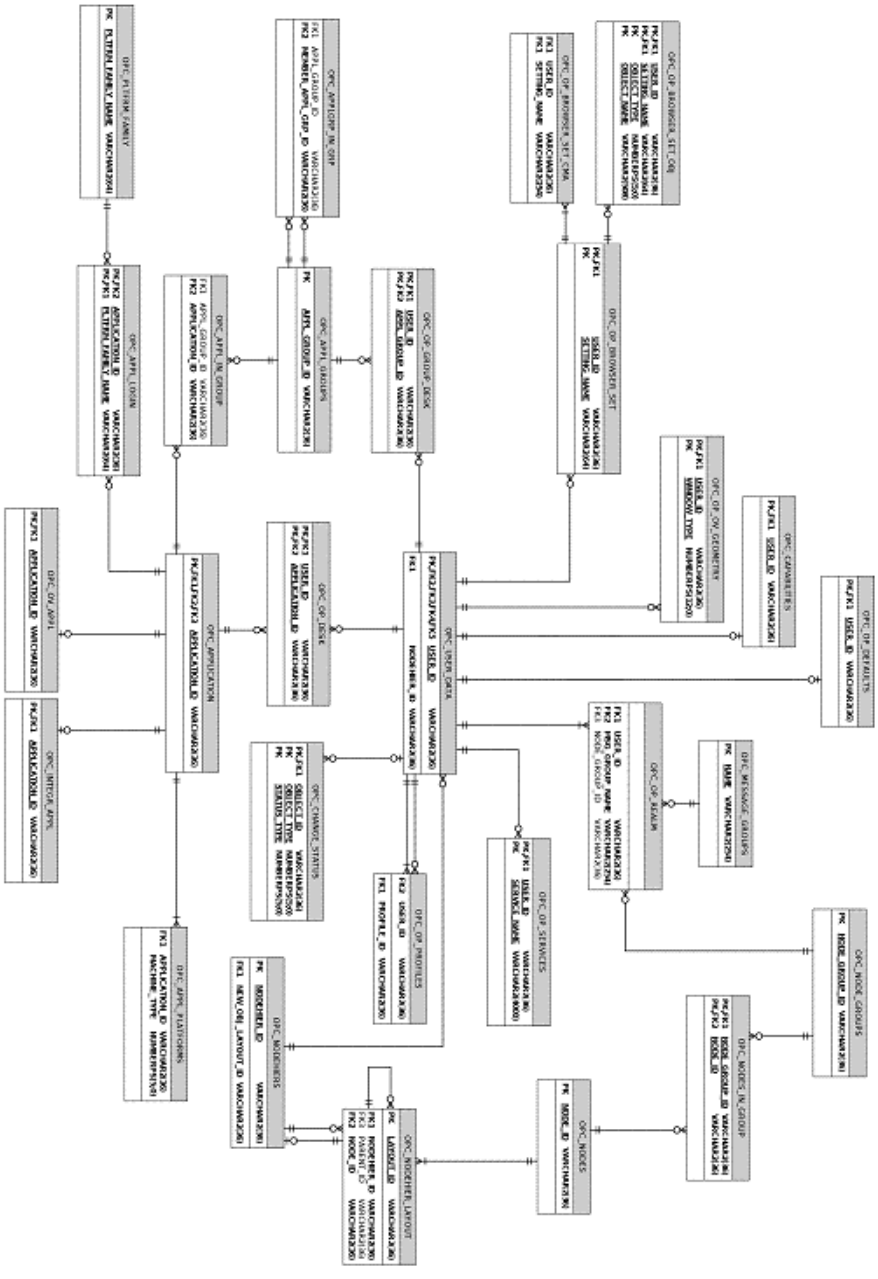
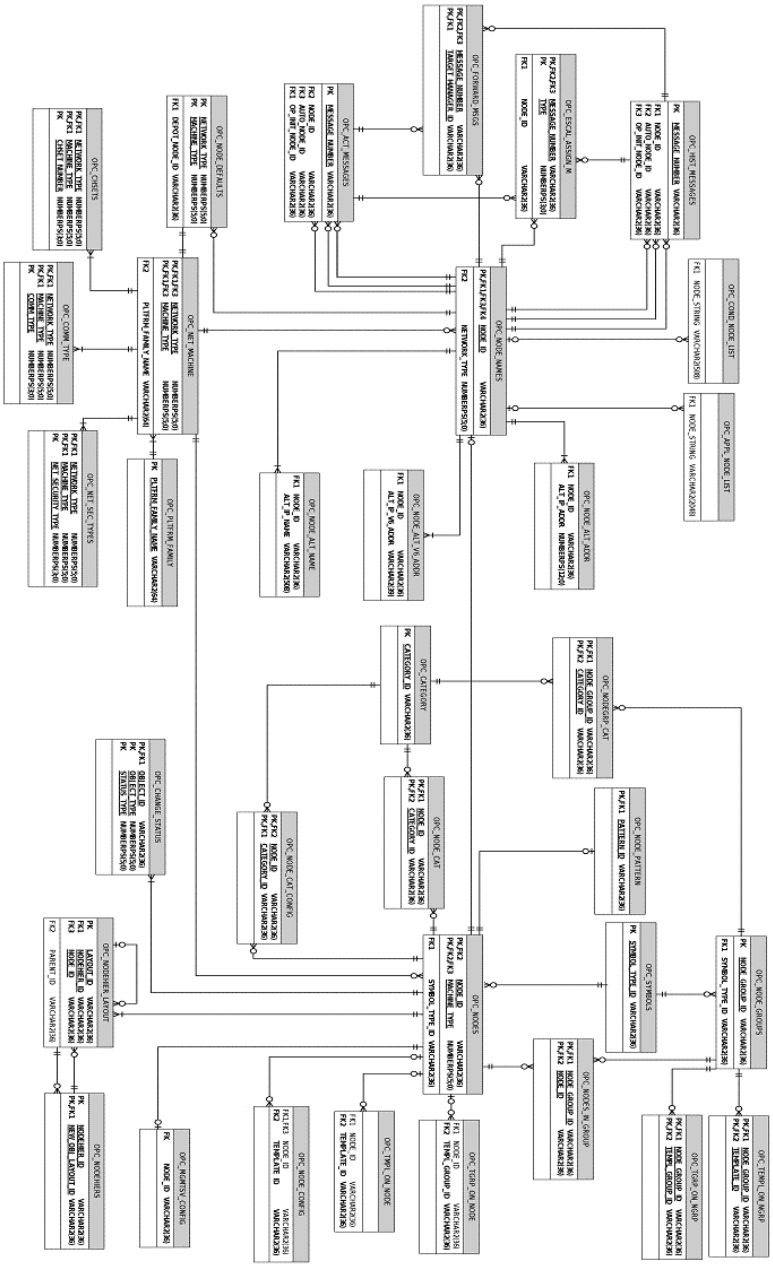


Figure 2-6 Node Tables



Entity Relationship Diagrams

Figure 2-7 Policy Tables

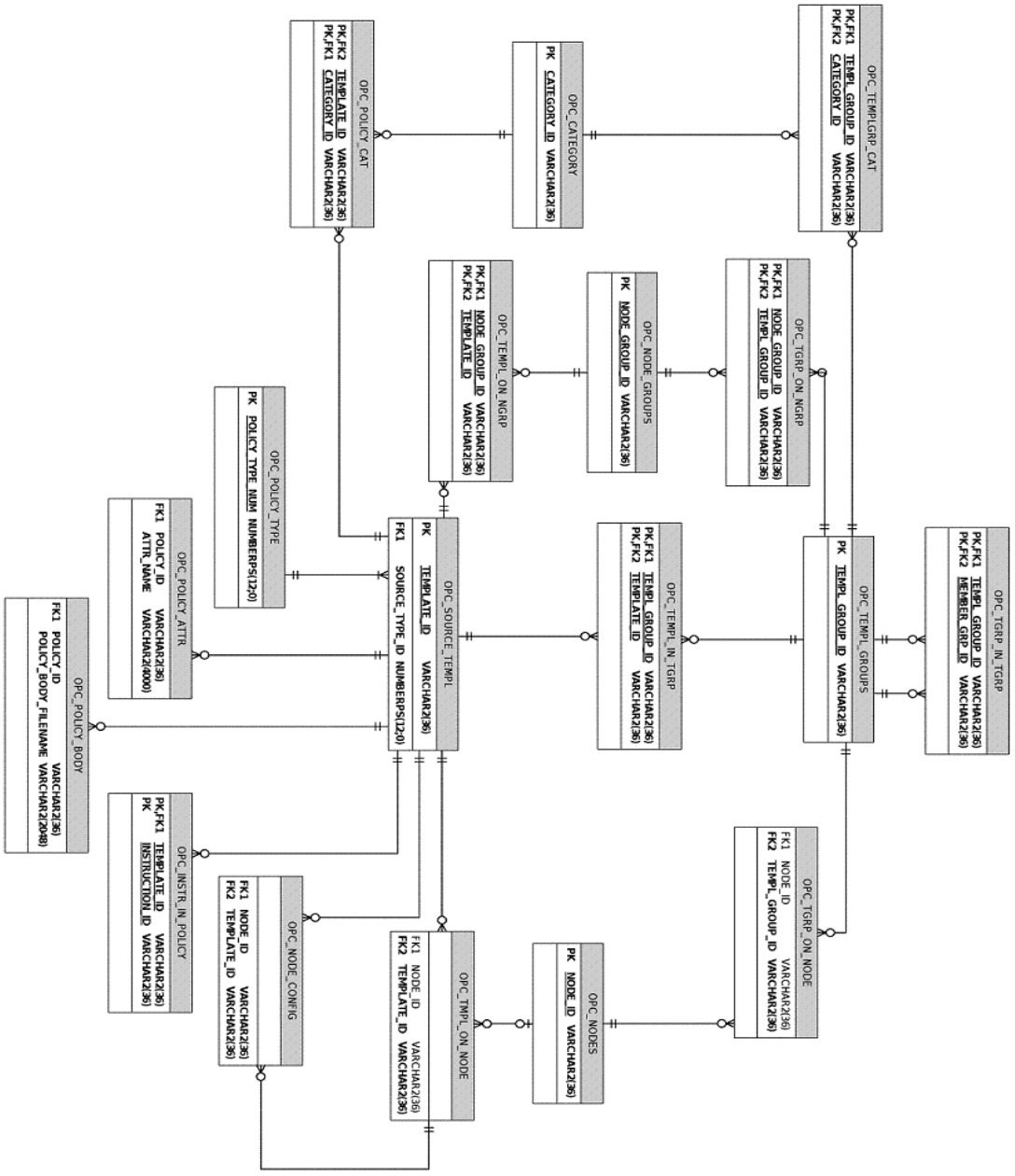
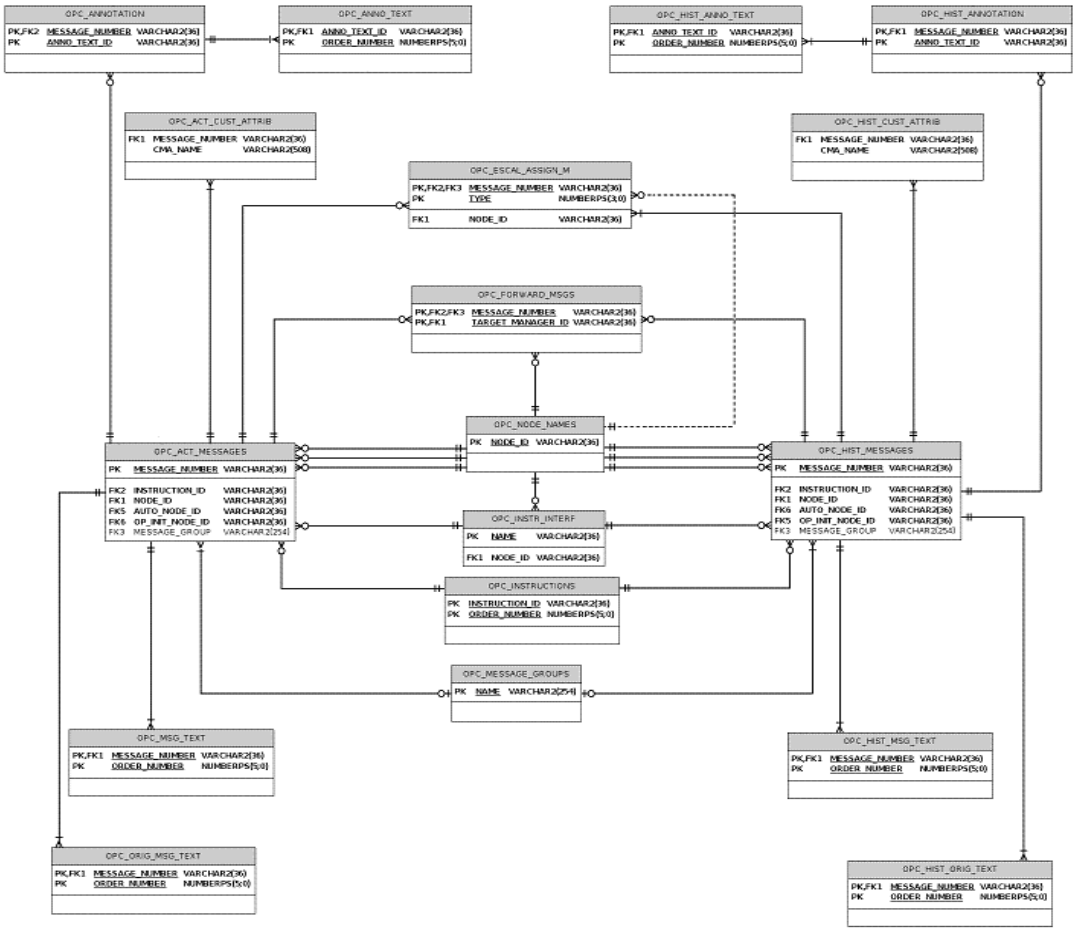


Figure 2-8 Message Tables



Entity Relationship Diagrams

3 User Tables

In This Chapter

This chapter contains the user tables.

opc_appl_groups Table

This table represents application groups.

Table 3-1 opc_appl_groups Table

Column Name	Constraint	Column Type	Description
appl_group_id	N, P	varchar2(36)	Key field to identify the application group.
symbol_type_id	N	varchar2(36)	Key field to identify the symbol type strings.
name	N, U	varchar2(508)	Name of the application group. The name must be unique.
label		varchar2(508)	Displayed label of the application group.
description		varchar2(508)	Description of the application group.
info		varchar2(4000)	Field for the operators for making notes, for example, tracking the changes.

opc_appl_in_group Table

This table represents the relationships of applications to application groups. Each application in each application group has an entry in this table.

Table 3-2 opc_appl_in_group Table

Column Name	Constraint	Column Type	Description
appl_group_id	U	varchar2(36)	Key field to identify the application group.
application_id	N, U	varchar2(36)	Key field for identification of the application.

opc_appl_login Table

This table stores the name and password combinations for HPOM internal applications for different platform families.

Table 3-3 opc_appl_login Table

Column Name	Constraint	Column Type	Description
pltfrm_family_name	N, P	varchar2(64)	Unique name for platform family.
application_id	N, P	varchar2(36)	ID of internal application.
user_name		varchar2(508)	Actual user name.
password		varchar2(144)	Actual password.

opc_appl_node_list Table

This table contains details of the target nodes on which to execute applications. The administrator configures this in HPOM.

Table 3-4 opc_appl_node_list Table

Column Name	Constraint	Column Type	Description
application_id	N, U	varchar2(36)	Key field to identify the application.
entry_type	N, U	number(3)	Type of entry: node_id or string.
node_string	U	varchar2(2048)	This field contains a string representing an object or a node_id (depending on the entry_type field). Possible values: 0…Variable (the node string contains text with pattern matching) 1…IP node (the node string contains the node's ID in opc_node_names) 2…non-IP node (the node string contains the node's ID in opc_node_names)

opc_appl_platforms Table

NOTE *Table 3-5 is reserved for future use.*

This table contains, for each application, a list of machine types where the application is available. The combination of application_id and machine_type must be unique.

Valid keys for machine types depend on Table 4-5, “opc_net_machine Table,” on page 80, and are linked to the entries found there.

Table 3-5 opc_appl_platforms Table

Column Name	Constraint	Column Type	Description
application_id	U, N, F	varchar2(36)	Key field to identify the application; linked to `application_id` in table opc_application (see page 53).
machine_type	U, N	number(5)	Key field to identify the machine type; linked to `machine_type` in table opc_net_machine (see page 80).

opc_applgrp_in_grp Table

This table contains the assignments of application groups to application groups.

Table 3-6 opc_applgrp_in_grp Table

Column Name	Constraint	Column Type	Description
appl_group_id	F, U	varchar2(36)	Key field to identify the application group.
member_appl_grp_id	N, F, U	varchar2(36)	Key field to identify the assigned application group.

opc_application Table

This table contains attributes that are common to all applications. Other details exist in different tables, depending on the application type:

- HPOM internal applications have one entry per platform family in opc_appl_login (see page 49).
- HPOM integrated applications have one entry in opc_integr_appl (see page 56).

Table 3-2, “opc_appl_in_group Table,” on page 48 describes which application belongs to which application group.

Table 3-7 opc_application Table

Column Name	Constraint	Column Type	Description
application_id	N, P	varchar2(36)	Key field to identify the application.
symbol_type_id	N	varchar2(36)	Key field to identify the symbol type strings.
application_type	N	number(3)	Type of application: HPOM-integrated or internal. Possible values: 0…HPOM internal application 1…Integrated application
target	N	number(3)	The target on which to start this application. Possible values: 0…Start on management server 1…Start on target nodes selected by operator 2…Start on target node list 3…Start on local GUI client 4…Start URL on local web browser

Table 3-7 opc_application Table (Continued)

Column Name	Constraint	Column Type	Description
intern_appl_action	N	number(3)	Action for internal application: broadcast, open physical console, open virtual console. Possible values: 0…Virtual Terminal 1…Physical Terminal 2…Broadcast 3…Virtual Terminal on a PC
name	N, U	varchar2(508)	Name of the application. The name must be unique.
label		varchar2(508)	Displayed label of the application symbol.
description		varchar2(508)	Description of the purpose of this application.
appl_call		varchar2(4000)	The command that calls the application.
allow_customize	N	number(3)	*Reserved for future use.* Whether command customization is allowed for the application: Yes/No. Both this field and the `customize_appl` field in the `opc_capabilities` table must be set before command customization is allowed.
appl_license_flag		number(3)	If set to 1, apply execution confirmation dialog. If set to 0 (default), do not ask before execution.
appl_license_text		varchar2(4000)	Application confirmation text to be shown.
info		varchar2(4000)	Field for the operators for making notes, for example, tracking the changes.

opc_capabilities Table

This table contains details of what a user is or is not allowed to do in HPOM.

Table 3-8 opc_capabilities Table

Column Name	Constraint	Column Type	Description
user_id	N, P	varchar2(36)	Key field to identify the user.
op_init_act_flag	N	number(3)	Whether the user can start operator-initiated actions: Yes/No.
acknowledge_flag	N	number(3)	Whether the user can acknowledge or unacknowledge messages: Yes/No.
change_msg_attr	N	number(3)	Whether the user can change message attributes: Yes/No.
own_flag	N	number(3)	Whether the user can own messages: Yes/No.
customize_appl	N	number(3)	*Reserved for future use.* Whether command customization capability is allowed: Yes/No. Both this field and the `allow_customize` field in the `opc_application` table must be set before command customization is allowed.

opc_integr_appl Table

This table contains details of HPOM-integrated applications.

Table 3-9 opc_integr_appl Table

Column Name	Constraint	Column Type	Description
application_id	N, P	varchar2(36)	Key field to identify the application.
start_in_term_flag	N	number(3)	Start application in terminal window. Possible values are: 0…No window 1…Window (input and output) 2…Window (output only)
parameters		varchar2(508)	Parameters for the program call.
user_name		varchar2(508)	The user name under which the program is started.
password		varchar2(104)	The appropriate password for the user_name.

opc_op_browser_set Table

This table contains the main entry of an operator's saved browser settings. These are the filters that specify which messages appear in the View and History Message browsers, and the Pending Messages Browser.

Table 3-10 opc_op_browser_set Table

Column Name	Constraint	Column Type	Description
user_id	N, P	varchar2(36)	Key field to identify the user.
setting_name	N, P	varchar2(64)	Key field to identify the browser setting.
selected_flag	N	number(3)	Display selected messages: Yes/No.
severity	N	number(3)	Display messages filtered by severity levels: Possible values: 1…Unknown 2…Normal 4…Warning 16…Minor 32…Major 8…Critical To filter for more than one severity, use a logical OR.
time_mode	N	number(12)	Time mode: Absolute/Relative time.
time_from	N	number(12)	Start date/time of message reception on the management server.
time_to	N	number(12)	Finish date/time of message reception on the management server.
creat_time_from	N	number(12)	*Reserved for future use.* Start date/time of message creation on the managed node.

Table 3-10 opc_op_browser_set Table (Continued)

Column Name	Constraint	Column Type	Description
creat_time_to	N	number(12)	*Reserved for future use.* Finish date/time of message creation on the managed node.
ackn_time_from	N	number(12)	*Reserved for future use.* Start date/time of message acknowledgement.
ackn_time_to	N	number(12)	*Reserved for future use.* Finish date/time of message acknowledgement.
pattern		varchar2(508)	Text pattern to be used as message filter.
unmatched_flag	N	number(3)	Display only unmatched messages: Yes/No.
logonly_flag	N	number(3)	Filter out all but log only messages: Yes/No.
notification_flag	N	number(3)	*Reserved for future use.* Filter out all but notification messages: Yes/No.
trouble_tick_flag	N	number(3)	*Reserved for future use.* Filter out all but trouble ticket messages: Yes/No.
escalate_flag	N	number(3)	*Reserved for future use.* Filter out all but escalation messages: Yes/No.
forward_flag	N	number(3)	*Reserved for future use.* Filter out all but forwarded messages: Yes/No.
readonly_flag	N	number(3)	*Reserved for future use.* Filter out all but messages marked as read only: Yes/No.

Table 3-10 opc_op_browser_set Table (Continued)

Column Name	Constraint	Column Type	Description
sort	N	number(3)	Sorting order of messages. Possible values: 0…Date/Time 1…Node 2…Message Group 3…Application 4…Severity
ownership	N	number(3)	Display messages filtered by own state. Possible values: 1…Unowned 2…Owned by me 4…Owned by someone else To filter for more than one type of ownership, use a logical OR.
sort_cma_name	N	varchar2(508)	*Reserved for future use.* Custom message attribute name to sort by, if set.
unbuffer_time_from	N	number12	Start of desired unbuffer time frame.
unbuffer_time_to	N	number12	End if desired unbuffer time frame.
time_last_rec_from		number12	*Reserved for future use.*
time_last_rec_to		number12	*Reserved for future use.*
time_owned_from		number12	*Reserved for future use.*
time_owned_to		number12	*Reserved for future use.*
dup_count		number12	*Reserved for future use.*
readonly_status		number3	*Reserved for future use.*
instruction_type		number3	*Reserved for future use.*

Table 3-10 opc_op_browser_set Table (Continued)

Column Name	Constraint	Column Type	Description
auto_status		number3	*Reserved for future use.*
oper_init_status		number3	*Reserved for future use.*
annotation_count		number12	*Reserved for future use.*
on_counters_mode		number12	*Reserved for future use.*

opc_op_browser_set_cma Table

This table contains the object list of the custom message attribute name and value pairings for an operator's saved browser settings. There is one entry for each custom message attribute pairing within each browser setting.

Table 3-11 opc_op_browser_set_cma Table

Column Name	Con-straint	Column Type	Description
user_id	N	varchar2(36)	Key field to identify the user.
setting_name	N	varchar2(254)	Key field to identify the browser setting.
cma_name	N	varchar2(508)	Name of the custom message attribute.
cma_value	N	varchar2(2048)	Value of the custom message attribute.

opc_op_browser_set_obj Table

This table contains the object list of an operator's saved browser settings. There is one entry for each browser setting. This is the content of the `On Selected Symbols` list box.

Table 3-12 opc_op_browser_set_obj Table

Column Name	Con-straint	Column Type	Description
user_id	N, P	varchar2(36)	Key field to identify the user.
setting_name	N, P	varchar2(64)	Key field to identify the browser setting.
object_type	N, P	number(5)	Type of object. Possible values: 1…Node 8…Message Group 13…Service Name *(Reserved for future use.)* 14…Message Type *(Reserved for future use.)* 16…Application 64…Object 128…External Node
object_name	N, P	varchar2(508)	Name of the object.

opc_op_defaults Table

This table contains the default settings of browsers for individual HPOM users. This includes details of the size and which columns are visible.

Table 3-13 opc_op_defaults Table

Column Name	Con-straint	Column Type	Description
user_id	N, P	varchar2(36)	Key field to identify the user.
act_browser_x	N	number(12)	Last on-screen x position of active message browser.
act_browser_y	N	number(12)	Last onscreen y position of active message browser window.
act_browser_heig	N	number(12)	Last onscreen height of active message browser.
act_browser_width	N	number(12)	Last onscreen width of active message browser window.
act_header_flag	N	number(3)	Header line visible: Yes/No.
act_sever_flag	N	number(3)	Severity column visible: Yes/No.
act_unmatch_flag	N	number(3)	Unmatched column visible: Yes/No.
act_instr_flag	N	number(3)	Instruction column visible: Yes/No.
act_auto_flag	N	number(3)	Automatic action status column visible: Yes/No.
act_oper_flag	N	number(3)	Operator-initiated action status column visible: Yes/No.
act_note_flag	N	number(3)	Annotation column visible: Yes/No.
act_date_flag	N	number(3)	Date column visible: Yes/No.
act_time_flag	N	number(3)	Time column visible: Yes/No.
act_node_flag	N	number(3)	Node column visible: Yes/No.
act_applic_flag	N	number(3)	Application column visible: Yes/No.

Table 3-13 opc_op_defaults Table (Continued)

Column Name	Con-straint	Column Type	Description
act_msggrp_flag	N	number(3)	Message group column visible: Yes/No.
act_object_flag	N	number(3)	Object column visible: Yes/No.
act_escal_flag	N	number(3)	Escalated: Yes/No.
act_assign_flag	N	number(3)	Assigned: Yes/No.
act_dupl_flag	N	number(3)	Duplicate count column visible: Yes/No.
hist_browser_x	N	number(12)	Last onscreen x position of history browser.
hist_browser_y	N	number(12)	Last onscreen y position of history browser.
hist_browser_heig	N	number(12)	Last onscreen height of history browser.
hist_browser_width	N	number(12)	Last onscreen width of history browser.
hist_header_flag	N	number(3)	Header line visible: Yes/No.
hist_sever_flag	N	number(3)	Severity column visible: Yes/No.
hist_unmatch_flag	N	number(3)	Unmatched column visible: Yes/No.
hist_instr_flag	N	number(3)	Instruction column visible: Yes/No.
hist_auto_flag	N	number(3)	Automatic action status column visible: Yes/No.
hist_oper_flag	N	number(3)	Operator initiated-action status column visible: Yes/No.
hist_note_flag	N	number(3)	Annotation column visible: Yes/No.
hist_date_flag	N	number(3)	Date column visible: Yes/No.
hist_time_flag	N	number(3)	Time column visible: Yes/No.
hist_node_flag	N	number(3)	Node column visible: Yes/No.
hist_applic_flag	N	number(3)	Application column visible: Yes/No.
hist_msggrp_flag	N	number(3)	Message group column visible: Yes/No.
hist_object_flag	N	number(3)	Object column visible: Yes/No.
hist_escal_flag	N	number(3)	Escalated: Yes/No.

Table 3-13 opc_op_defaults Table (Continued)

Column Name	Con-straint	Column Type	Description
hist_assign_flag	N	number(3)	Assigned: Yes/No.
hist_dupl_flag	N	number(3)	Duplicate count column visible: Yes/No.
view_browser_x	N	number(12)	Last onscreen x position of view browser.
view_browser_y	N	number(12)	Last onscreen y position of view browser.
view_browser_heig	N	number(12)	Last onscreen height of view browser.
view_browser_width	N	number(12)	Last onscreen width of browser window.
view_header_flag	N	number(3)	Header line visible: Yes/No.
view_sever_flag	N	number(3)	Severity column visible: Yes/No.
view_unmatch_flag	N	number(3)	Unmatched column visible: Yes/No.
view_instr_flag	N	number(3)	Instruction column visible: Yes/No.
view_auto_flag	N	number(3)	Automatic action status column visible: Yes/No.
view_oper_flag	N	number(3)	Operator-initiated action status column visible: Yes/No.
view_note_flag	N	number(3)	Annotation column visible: Yes/No.
view_date_flag	N	number(3)	Date column visible: Yes/No.
view_time_flag	N	number(3)	Time column visible: Yes/No.
view_node_flag	N	number(3)	Node column visible: Yes/No.
view_applic_flag	N	number(3)	Application column visible: Yes/No.
view_msggrp_flag	N	number(3)	Message group column visible: Yes/No.
view_object_flag	N	number(3)	Object column visible: Yes/No.
view_escal_flag	N	number(3)	Escalated: Yes/No.
view_assign_flag	N	number(3)	Assigned: Yes/No.
view_dupl_flag	N	number(3)	Duplicate count column visible: Yes/No.

Table 3-13 opc_op_defaults Table (Continued)

Column Name	Con-straint	Column Type	Description
pend_browser_x	N	number(12)	Last onscreen x position of pending message browser.
pend_browser_y	N	number(12)	Last onscreen y position of pending message browser.
pend_browser_heig	N	number(12)	Last onscreen height of pending message browser.
pend_browser_width	N	number(12)	Last onscreen width of pending message browser.
pend_header_flag	N	number(3)	Header line visible: Yes/No.
pend_sever_flag	N	number(3)	Severity column visible: Yes/No.
pend_unmatch_flag	N	number(3)	Unmatched column visible: Yes/No.
pend_instr_flag	N	number(3)	Instruction column visible: Yes/No.
pend_auto_flag	N	number(3)	Automatic action status column visible: Yes/No.
pend_oper_flag	N	number(3)	Operator-initiated action status column visible: Yes/No.
pend_note_flag	N	number(3)	Annotation column visible: Yes/No.
pend_date_flag	N	number(3)	Date column visible: Yes/No.
pend_time_flag	N	number(3)	Time column visible: Yes/No.
pend_node_flag	N	number(3)	Node column visible: Yes/No.
pend_applic_flag	N	number(3)	Application column visible: Yes/No.
pend_msggrp_flag	N	number(3)	Message group column visible: Yes/No.
pend_object_flag	N	number(3)	Object column visible: Yes/No.
pend_escal_flag	N	number(3)	Escalate: Yes/No.
pend_assign_flag	N	number(3)	Assign: Yes/No.
pend_dupl_flag	N	number(3)	Duplicate count column visible: Yes/No.

opc_op_desk Table

This table represents the application desktop of an HPOM user. It contains the top-level applications that are directly assigned to that user.

Table 3-14 opc_op_desk Table

Column Name	Con-straint	Column Type	Description
user_id	N, P, F	varchar2(36)	Key field to identify the user.
application_id	N, P, F	varchar2(36)	Key field to identify the application.

opc_op_group_desk Table

This table represents the application-group desktops of an HPOM user. Only the top level application groups are shown. When an application group which contains other application groups is assigned to an operator, the operator inherits all these application groups.

The complete desktop of an operator is created with the tables opc_op_desk on page 67, opc_op_group_desk on page 68, opc_appl_in group on page 48, and opc_applgrp_in_grp on page 52.

Table 3-15 opc_op_group_desk Table

Column Name	Con-straint	Column Type	Description
user_id	N, P, F	varchar2(36)	Key field to identify the user.
appl_group_id	N, P, F	varchar2(36)	Key field to identify the application group.

opc_op_profiles Table

This table contains details of assignments between profiles and other profiles or users.

Table 3-16 opc_op_profiles Table

Column Name	Con-straint	Column Type	Description
user_id	N, F, U	varchar2(36)	Key field to identify the user or user profile.
profile_id	N, F, U	varchar2(36)	Key field to identify the user profile assigned to the above user or user profile.

opc_op_realm Table

This table represents the responsibility matrix of the operators. The responsibility matrix is built by pairs of message groups and node groups.

Table 3-17 opc_op_realm Table

Column Name	Con-straint	Column Type	Description
user_id	N, U, F	varchar2(36)	Key field to identify the user.
node_group_id	N, U, F	varchar2(36)	Key field to identify the node group.
msg_group_name	N, U, F	varchar2(254)	Key field to identify the message group.
read only		number(3)	Flag for read-only responsibility matrix.

opc_op_services Table

This table contains operator and service assignment combinations. The content of the table is dynamic, it exists only at runtime.

NOTE This table is for internal use only.

Table 3-18 opc_op_services Table

Column Name	Con-straint	Column Type	Description
user_id	N, P, F	varchar2(36)	Key field to identify the user.
service_name	N, P	varchar2(4000)	Field to identify the service.

opc_user_data Table

This table contains the main details for configured users and user profiles.

Table 3-19 opc_user_data Table

Column Name	Con-straint	Column Type	Description
user_id	N, P	varchar2(36)	Key field to identify the user in other tables.
symbol_type_id	N	varchar2(36)	Key field to identify the symbol type.
nodehier_id	F	varchar2(36)	Node hierarchy assigned to this operator.
user_role	N	number(3)	Role of the user: operator, administrator. Possible values: 0…Operator 1…Administrator 3…Template administrator 4…User profile
name	U, N	varchar2(128)	HPOM user or user profile name.
password		varchar2(80)	Hexadecimal representation of the encrypted password.
realname		varchar2(128)	The HPOM user's real name.
description		varchar2(508)	Description of tasks and role assigned to this HPOM user.
label		varchar2(508)	Label of the user (displayed in GUI).
see_all		number(3)	*Reserved for future use.*
info		varchar(4000)	Field for the operators for making notes, for example, tracking the changes.

4 Node Tables

In This Chapter

This chapter contains the node tables.

opc_category Table

This table stores the general information about categories.

Table 4-1 opc_category Table

Column Name	Con-straint	Column Type	Description
category_id	N, P	varchar2(36)	Key field to identify the category.
category_name	N, U	varchar2(1024)	Name of the category.
category_description		varchar2(1024)	Description of the category.

opc_chsets Table

This table stores the possible character sets of a platform. It belongs to the table opc_net_machine (see page 80) which contains the main entry for an agent platform.

Table 4-2 opc_chsets Table

Column Name	Con-straint	Column Type	Description
network_type	N, P	number(5)	Type of network the node resides in. Possible values: 0…No node 1…IP 5…Other
machine_type	N, P	number(5)	network_type and machine_type identify the platform. Several character sets are allowed for one platform.
chset_number	N, P	number(3)	Encoding of character set. Possible values are: 0…ASCII 1…ISO88591 2…ROMAN8 4…ACP1252 (NT ANSI code page for Western Europe (Latin)) 28…ISO885915 64…SJIS (Japanese SJIS) 65…EUCJP (Japanese EUC) 66…ACP932 (NT ANSI code page for Japan)

opc_comm_type Table

This table stores the possible communication types of a platform. It belongs to the table opc_net_machine (see page 80) which contains the main entry for an agent platform.

Table 4-3 opc_comm_type Table

Column Name	Con-straint	Column Type	Description
network_type	N, P	number(5)	Type of network the node resides in. Possible values: 0…No node 1…IP 5…Other
machine_type	N, P	number(5)	Network_type and machine_type identify the platform. Several communication types are allowed for one platform.
comm_type	N, P	number(3)	Communication type. Possible values are: 0…Unspecified communication type 1…NCS 2…DCE TCP 3…DCE UDP 4…Sun RPC, TCP 5…SUN RPC, UDP 6…TCP Socket 7…UDP Socket 8…OPC Interface 9…RPC Local 10…HTTPS

opc_mgmtsv_config Table

This table contains the global configuration of the management server.

Table 4-4 opc_mgmtsv_config Table

Column Name	Con-straint	Column Type	Description
node_id	N	varchar2(36)	Key field for node identification of management server.
charset	N	number(3)	Management server character set which is set at installation time to an appropriate value for the language variant.
parallel_distrib	N	number(3)	Number of parallel distributions that may run at one time.
trace_flag	N	number(3)	Management server tracing.
message_if_enable	N	number(3)	Message Stream Interface enabled: Yes/No.
msg_if_allow_aa	N	number(3)	Allow definition of automatic actions through Message Stream Interface: Yes/No.
msg_if_allow_oa	N	number(3)	Allow definition of operator-initiated actions through Message Stream Interface: Yes/No.
glob_sec_level	N	number(12)	Global DCE Security level.
port_range		varchar2(160)	Port range for DCE communication.
output_all_to_msi	N	number(3)	Output all messages to the MSI (not only those which are configured in the templates). Possible values: 0…No output 1…Output messages in divert mode 2…Output messages in copy mode
msg_dupl_counting	N	number(3)	Duplicate message suppression and counting is enabled: Yes/No.

Table 4-4 opc_mgmtsv_config Table (Continued)

Column Name	Con-straint	Column Type	Description
add_count_annotations	N	number(3)	Annotations of duplicate messages are added to the original message if duplicate suppression and counting is enabled: Yes/No.
user_login_auth	N	number(3)	*Reserved for future use.* The login authentication that is to be applied to all users. Possible values: 0…Internal (default) 1…UNIX only
ovou_license_flag		number(3)	If set to 1, apply GUI startup confirmation dialog. If set to 0, do not ask before execution.
ovou_license_text		varchar2(4000)	License agreement text to be shown.
opccfgupld_active		number(12)	Indicates if `opccfgupld` is running.
opccfgupld_mode		number(12)	*Reserved for future use.*
opccfgupld_area		number(12)	*Reserved for future use.* Indicates which area is currently being updated by `opccfgupld`.
s2s_sync_buf_state		number(3)	*Reserved for future use.*

opc_net_machine Table

This table contains the main details for agent platforms available on this management server. It is used by the HPOM GUI, for example to display the platform name and to define possible values. The values are defined in the Agent Platform files which can be loaded using `opcagtdbcfg (1M)`.

The table also contains information about any proxy capabilities for a platform. (This information is reserved for future use.)

Table 4-5 opc_net_machine Table

Column Name	Con-straint	Column Type	Description
network_type	N, P	number(5)	Type of network the node resides in. Possible values: 0…No node 1…IP 5…Other
machine_type	N, P	number(5)	A unique identifier for a combination of hardware and operating system.
sw_install	N	number(3)	Software installation is possible: Yes/No.
agent_type	N	number(5)	Description of licensing used.
satellite_depot	N	number(3)	Indicates if platform supports satellite depots: Yes/No.
sd_installable	N	number(3)	Indicates if SD based installation is also available: Yes/No.
controlled_allowed	N	number(3)	CONTROLLED node type allowed: Yes/No.
monitored_allowed	N	number(3)	MONITORED node type allowed: Yes/No.
message_allowed	N	number(3)	MESSAGE_ALLOWED node type allowed: Yes/No.
sys_descr		varchar2(254)	Search string used to identify machine type under SNMP.

Table 4-5 opc_net_machine Table (Continued)

Column Name	Con-straint	Column Type	Description
platform_selector		varchar2(90)	Platform selector in the format “vendor/hardware/OS”. For example, “hp/s700/hp-ux10”. This information is loaded through the Agent Platform Files. The platform selector identifies the platform when using `opcagtutil` or `opcagtdbcfg`.
network_type_str		varchar2(48)	Network name (for example “IP Network”).
machine_type_str		varchar2(40)	Machine name (for example “Sun SPARC station”).
os_name		varchar2(40)	Operating system name (for example “Solaris”).
os_family		varchar2(1024)	Operating system family (for example “Unix”).
os_type		varchar2(1024)	Operating system type (for example “HP-UX”).
cpu_type		varchar2(1024)	Central processing unit type (for example “Intel”).
pltf_abs_name		varchar2(1024)	Holds the platform strings for assigning categories.
satellite_depot	N	number(3)	Indicates if platform supports satellite depots: Yes/No.

Table 4-5 opc_net_machine Table (Continued)

Column Name	Con-straint	Column Type	Description
pltfrm_family_name	N	varchar2(64)	Name for group of platforms with the same login attributes. Currently used values are: MPE MS NetWare OS/2 (*For HP internal use only.*) UNIX New values can be loaded using the Agent Platform Files.
controlled_allowed	N	number(3)	CONTROLLED node type allowed: Yes/No.
monitored_allowed	N	number(3)	MONITORED node type allowed: Yes/No.
node_name_in_path	N	number(3)	Combine path names with node name: Yes/No.
rlogin_method	N	number(3)	One of RLOGIN, TELNET, VT3K, LOGIN_SCRIPT. Possible values: 1…RLOGIN 2…TELNET 3…VT3K 4…LOGIN_SCRIPT
rlogin_script		varchar2(28)	Name of script.
restr_add_param	N	number(3)	Used when specifying additional path names for applications: Yes/No.
custom_stream_cmd	N	number(3)	MPE/iX specific: when this value is set, MPE_JOB_STREAM is used: Yes/No.
heartbeat_polling	N	number(3)	Indicates if heartbeat polling is possible: Yes/No.
agent_control	N	number(3)	Agents can be started remotely: Yes/No.

Table 4-5 opc_net_machine Table (Continued)

Column Name	Con-straint	Column Type	Description
templ_distr_method	N	number(3)	Method for distributing templates. Possible values are: 1…No template distribution 2…HPOM method (default) 3…OPC_INTERFACE
templ_assignment	N	number(3)	Templates can be assigned: Yes/No.
logfile_templates	N	number(3)	LOGFILE templates can be assigned: Yes/No.
node_name_function		varchar2(28)	Used by MPE/iX for node name resolution.
login_prompt		varchar2(64)	Login prompt string used at remote login.
password_prompt		varchar2(64)	Password prompt used at remote login.
login_incorrect		varchar2(64)	Incorrect login prompt used at remote login.
conn_failed		varchar2(64)	Remote connection failed prompt used at remote login.
term_appl_path		varchar2(508)	Additional search paths for virtual terminal or input/output applications. These are added to the $PATH variable.
monitor_templates	N	number(3)	MONITOR templates can be assigned: Yes/No.
opcmsg_templates	N	number(3)	OPCMSG templates can be assigned: Yes/No.
trap_templates	N	number(3)	TRAP templates can be assigned: Yes/No.
console_templates	N	number(3)	CONSOLE templates can be assigned: Yes/No.
ecs_templates	N	number(3)	Event correlation circuits can be assigned: Yes/No.
ecs_gui	N	number(3)	Event correlation GUI available for this platform: Yes/No.

Table 4-5 opc_net_machine Table (Continued)

Column Name	Con-straint	Column Type	Description
sched_templates	N	number(3)	Scheduled action templates can be assigned to nodes of this platform: Yes/No.
trapi_on_srv_only	N	number(3)	Event interceptor agent on management server only: Yes/No.
virtual_console	N	number(3)	Set when virtual terminal is possible: Yes/No.
physical_console	N	number(3)	Physical terminal is possible: Yes/No.
cmd_broadcast	N	number(3)	Command broadcasting is possible: Yes/No.
operator_actions	N	number(3)	Operator-initiated actions are possible: Yes/No.
appl_input_output	N	number(3)	Applications of type input_output are possible: Yes/No.
appl_output_only	N	number(3)	Applications of type output_only are possible: Yes/No.
appl_no_output	N	number(3)	Applications of type no_output are possible: Yes/No.
interface_instance		varchar2(28)	Name of the interface if the communication type OPC_INTERFACE is used.
ov_application	N	number(3)	OV applications supported on platform: Yes/No.
depot_ftp_method	N	number(3)	Satellite Depot access by FTP: Yes/No.
depot_rcp_method	N	number(3)	Satellite Depot access by RCP: Yes/No.
depot_sd_method	N	number(3)	Satellite Depot access by SD: Yes/No.
ssh_method		number(3)	Access to managed node by SSH: Yes/No.
package_type		varchar2(160)	Directory extension to agent package for installation (for communication type dependent package).
agent_type_name		varchar2(64)	Name of the HPOM agent type.

Table 4-5 opc_net_machine Table (Continued)

Column Name	Con-straint	Column Type	Description
proxy_family		varchar2(32)	String to identify proxy family.
proxied_agent_type_name		varchar2(64)	Name of the proxied agent type.
proxied_family		varchar2(32)	String to identify proxy family.
agent_type_number	N	number(3)	Agent type.
proxy_control	N	number(3)	*This field is not used in current release.*
proxy_hbp	N	number(3)	*This field is not used in current release.*
proxy_sw_install	N	number(3)	Indicates whether installation and deployment is performed through proxy (`TRUE` and `FALSE` values).
proxy_control	N	number(3)	Contains bitmask that defines the possible control operations of the proxy node. Possible values: 0…No 1…Start 2…Stop 4…Status 8…Update Any binary combination of the values is possible.
proxy_hbp	N	number(3)	Heartbeat polling to proxy node: Yes/No.
proxy_sw_install	N	number(3)	Software installation of proxy node from HPOM manager possible: Yes/No.
proxy_communication	N	number(3)	Communication to proxy node configurable: Yes/No.
proxy_mom	N	number(3)	MoM functionality available on proxy node: Yes/No.
proxy_msi	N	number(3)	MSI available on proxy node: Yes/No.

Table 4-5 opc_net_machine Table (Continued)

Column Name	Con-straint	Column Type	Description
proxy_logging	N	number(3)	Logging directory and size configurable for proxy: Yes/No.
proxy_charset	N	number(3)	Character set of the proxy node. Possible values are: 0…ASCII 1…ISO88591 2…ROMAN8 4…ACP1252 (NT ANSI code page for Western Europe (Latin)) 28…ISO885915 64…SJIS (Japanese SJIS) 65…EUCJP (Japanese EUC) 66…ACP932 (NT ANSI code page for Japan)
proxy_need_nodeinfo	N	number(3)	Proxy node needs nodeinfo: Yes/No.
proxied_supported	N	number(3)	Does the platform support proxied nodes: Yes/No.
proxied_agent_type_nr	N	number(3)	Number to be used as agent type for the proxied node. Possible values: 0…HPOM
proxy_supported	N	number(3)	Does the platform support proxy nodes: Yes/No.

Table 4-5 opc_net_machine Table (Continued)

Column Name	Con-straint	Column Type	Description
proxied_control	N	number(3)	Contains bitmask that defines the possible control operations of the proxied node. Possible values: 0…No 1…Start 2…Stop 4…Status 8…Update
proxied_hbp	N	number(3)	Heartbeat polling to proxied node possible: Yes/No.
proxied_sw_install	N	number(3)	Software installation of proxied node from HPOM manager possible: Yes/No.
proxied_communication	N	number(3)	Communication to proxied node configurable.
proxied_mom	N	number(3)	MoM functionality available on proxied node: Yes/No.
proxied_need_nodeinfo	N	number(3)	Defines whether the proxied node needs a nodeinfo file: Yes/No.
proxied_msi	N	number(3)	MSI available on proxied node: Yes/No.
proxied_logging	N	number(3)	Logging directory and size configurable for proxies: Yes/No.
proxied_templ_distr_meth	N	number(3)	Method for distributing templates. Possible values are: 1…No template distribution 2…HPOM method (default) 3…OPC_INTERFACE
proxied_templ_assignment	N	number(3)	Can templates be assigned: Yes/No.

Table 4-5 opc_net_machine Table (Continued)

Column Name	Con-straint	Column Type	Description
proxied_logfile_templ	N	number(3)	LOGFILE templates can be assigned: Yes/No.
proxied_monitor_templ	N	number(3)	MONITOR templates can be assigned: Yes/No.
proxied_opcmsg_templ	N	number(3)	OPCMSG templates can be assigned: Yes/No.
proxied_trap_templ	N	number(3)	TRAP templates can be assigned: Yes/No.
proxied_console_templ	N	number(3)	CONSOLE templates can be assigned: Yes/No.
proxied_ecs_templ	N	number(3)	Event correlation circuits can be assigned: Yes/No.
proxied_sched_templ	N	number(3)	Schedule Templates can be assigned to nodes of this platform: Yes/No.
proxied_virtual_console	N	number(3)	Virtual terminal possible: Yes/No.
proxied_physical_console	N	number(3)	Physical terminal possible: Yes/No.
proxied_cmd_broadcast	N	number(3)	Broadcast applications possible: Yes/No.
proxied_operator_actions	N	number(3)	HPOM operator-initiated actions possible: Yes/No.
proxied_appl_in_out	N	number(3)	Applications of type input output possible: Yes/No.
proxied_appl_output_only	N	number(3)	Applications of type output only possible: Yes/No.
proxied_appl_no_output	N	number(3)	Applications of type no output possible: Yes/No.
proxied_binary_distr	N	number(3)	Distribution of action/cmd/monitor scripts possible: Yes/No.
proxied_oa_sw_install	N	number(3)	Open agent installation methods supported: Yes/No.

Table 4-5 opc_net_machine Table (Continued)

Column Name	Con-straint	Column Type	Description
proxied_oa_control	N	number(3)	Open agent control methods supported: Yes/No.
proxied_oa_send	N	number(3)	Open agent send data methods supported: Yes/No.
proxied_ctrl_allowed	N	number(3)	Node type CONTROLLED allowed for proxied nodes: Yes/No.
proxied_mon_allowed	N	number(3)	Node type MONITORED allowed for proxied nodes: Yes/No.
proxied_message_allowed	N	number(3)	Node type MESSAGE_ALLOWED possible for proxied nodes: Yes/No.
proxied_charset	N	number(3)	Character set of the proxied node. Possible values are: 0…ASCII 1…ISO88591 2…ROMAN8 4…ACP1252 (NT ANSI code page for Western Europe (Latin)) 28…ISO885915 64…SJIS (Japanese SJIS) 65…EUCJP (Japanese EUC) 66…ACP932 (NT ANSI code page for Japan)
proxied_action_exec	N	number(3)	Execution of actions allowed: Yes/No.
agent_type_number	N	number(3)	Number to be used as agent type for the HPOM agent.
dhcp_allowed	N	number(3)	0 = No (default. 1 = Yes.
package_type		varchar2(160)	Package type associated with this platform.
ip_flags	N	number(5)	Copy from `opcnodes`, add `0x0040 Uses IPV6` (also on `opc_nodes`)

Table 4-5 opc_net_machine Table (Continued)

Column Name	Con-straint	Column Type	Description
lcore_os_type_num		number(5)	Internal L-core numbers to identify an os type.
lcore_cpu_type_num		number(5)	Internal L-core numbers to identify a CPU type.

opc_net_sec_types Table

This table contains a list of possible NSP (Network Security Protocol) security types for the platform identified by network_type and machine_type (link to opc_net_machine).

Table 4-6 opc_net_sec_types Table

Column Name	Con-straint	Column Type	Description
network_type	N, P	number(5)	Key field (part 1).
machine_type	N, P	number(5)	Key field (part 2).
net_security_type	N, P	number(3)	NSP security type. Possible values: 0…None 2…Secret key 3…*For HP internal use only.* 4…GSS_API_V2

opc_node_alt_addr Table

NOTE *Table 4-7 is reserved for future use.*

This table contains the alias or alternate IP addresses for a node. A node can use several alias or alternate IP addresses or several nodes can use the same alias or alternate IP address. However, each combination of node_id and alt_ip_addr must be unique.

Table 4-7 opc_node_alt_addr Table

Column Name	Con-straint	Column Type	Description
node_id	U, N	varchar2(36)	Key field to identify the node.
alt_ip_addr	U, N	number(12)	Alias or alternate IP address of the node.

opc_node_alt_name Table

NOTE *Table 4-8 is reserved for future use.*

This table contains the alias or alternate IP name for a node, if defined. A node can use several alias or alternate IP names or several nodes can use the same alias or alternate IP name. However, each combination of node_id and alt_ip_name must be unique.

Table 4-8 opc_node_alt_name Table

Column Name	Con-straint	Column Type	Description
node_id	U, N	varchar2(36)	Key field to identify the node.
alt_ip_name	U, N	varchar2(508)	The alias or alternate name for the node.

opc_node_alt_v6_addr Table

NOTE *Table 4-9 is reserved for future use.*

This table contains the alias or alternate IPv6 addresses for a node. A node can use several alias or alternate IPv6 adresses or several nodes can use the same alias or alternate IPv6 address. However, each combination of `node_id` and `alt_ip_addr` must be unique.

Table 4-9 opc_node_alt_v6_addr Table

Column Name	Con-straint	Column Type	Description
node_id	U, N, F	varchar2(36)	Key field to identify the node.
alt_ipv6_addr	U, N	varchar2(39)	Alias or alternate IPv6 address (full form) of the node.

opc_node_cat Table

This table stores the link information between nodes and categories.

Table 4-10 opc_node_cat Table

Column Name	Con-straint	Column Type	Description
node_id	N, F, P	varchar2(36)	Key field to identify the node.
category_id	N, F, P	varchar2(36)	Key field to identify the category.

opc_node_cat_config Table

This table stores the configuration information for categories on particular nodes.

Table 4-11 opc_node_cat_config Table

Column Name	Con-straint	Column Type	Description
node_id	N, P, F	varchar2(36)	Key field to identify the node.
category_id	N, P, F	varchar2(36)	Key field to identify the category.
node_ref_count		number(12)	Used for assigning and deassigning categories to nodes without having a policy reference.
policy_ref_count		number(12)	Used for assigning and deassigning policies to nodes, and adding or deleting categories from policies.
last_cat_distrib		date	Date of the last category distribution.

opc_node_defaults Table

This table contains the default values of an agent platform, as given in the Agent Platform Files. These defaults can be changed using the GUI. They apply when a node of that platform type is added. The values are loaded together with the unalterable platform data using `opcagtdbcfg(1M)`.

Table 4-12 opc_node_defaults Table

Column Name	Con-straint	Column Type	Description
network_type	N, P	number(5)	Type of network the node resides in.
machine_type	N, P	number(5)	Type of machine hardware and operating system.
terminal	N	number(3)	Type of terminal connection used to access the node. Possible values are: 0…hpterm 1…xterm 2…dtterm 3…none
node_type	N	number(3)	Role of node within HPOM. Possible values are: 1…Disabled 2…Controlled 3...Monitored 4…Message Allowed
auto_sw_inst_flag	N	number(3)	Distribute HPOM software automatically: Yes/No.
auto_res_mod_flag	N	number(3)	Automatically update system resource files: Yes/No.
maximum_size	N	number(12)	Limit in KByte the logging information may occupy.

Table 4-12 opc_node_defaults Table (Continued)

Column Name	Con-straint	Column Type	Description
logging_directory		varchar2(508)	Path to directory where HPOM stores local logging information.
console_path		varchar2(508)	Program call to establish connection to physical console port.
heartbeat_interval		varchar2(32)	Time interval between heartbeat polls. Format: 1h20m10s.
node_char_set	N	number(3)	Character set used for the node.
default_font		varchar2(264)	Font used for X Applications started from this node.
trace_flag	N	number(3)	Agent tracing.
ncs_pckg_size	N	number(12)	The NCS RPC package size used for communication with this node.
ncs_delay	N	number(3)	Delay between NCS RPC calls.
heartbeat_retry	N	number(3)	Polling frequency of the node.
mpe_job_stream		varchar2(160)	The name of the MPE Job Stream Facility used.
console_par1		varchar2(80)	1st physical console parameter.
console_par2		varchar2(80)	2nd physical console parameter.
console_par3		varchar2(80)	3rd physical console parameter.
resolve_mode	N	number(3)	IP address resolution mode. Possible values are: 0…auto 1…static
message_if_enable	N	number(3)	Message Stream Interface enabled: Yes/No.
msg_if_allow_aa	N	number(3)	Allow definition of automatic actions through Message Stream Interface: Yes/No.

Table 4-12 opc_node_defaults Table (Continued)

Column Name	Con-straint	Column Type	Description
msg_if_allow_oa	N	number(3)	Allow definition of operator-initiated actions through Message Stream Interface: Yes/No.
symbol_type_id	N	varchar2(36)	Symbol_type_id of default symbol type.
depot_node_id	N	varchar2(36)	Node where agent package is stored: management server name by default.
inst_method	N	number(3)	The method of installation. Possible values are: 0…HPOM installation 1…SD installation 2…Asynchronous HPOM installation 3…Asynchronous SD installation
depot_access_meth	N	number(3)	Default access method for satellite depots. Possible values are: 1…FTP 2…SD 3…RCP 4…SSH
package_name		varchar2(508)	Name of package for satellite depots. (This is not currently in use).
depot_name		varchar2(508)	Name of depot for SD installation.
compr_pkg_trans	N	number(3)	Use compressed package transfer with SD: Yes/No.
compr_pkg	N	number(3)	Use compressed packages for SD installation. (This is currently not in use.)
inst_user		varchar2(128)	The installation user is usually the root user. Can be modified by HPOM administrator using the GUI.

Table 4-12 opc_node_defaults Table (Continued)

Column Name	Con-straint	Column Type	Description
comm_type	N	number(3)	Default communication method (NCS, DCE-TCP, DCE-UDP …).
port_range		varchar2(160)	Port range for DCE on managed node.
comm_attr	N	number(12)	Communication attributes. Possible values are: 0…None 1…Auth. connect 2…Auth. call 3…Auth. pkt 4…Pkt integer 5…Pkt encrypt
heartbeat_type	N	number(3)	Used heartbeat polling method. Possible values are: 0…None 1…RPC only 2…Ping only 3…Ping and RPC 4…From agent 5…From agent and RPC 6…From agent and ping 7…From agent and RPC and ping
security_type	N	number(3)	Used security type for Network Security Protocol. *For HP Advanced Security only.* Possible values are: 0…None 2…Secret key 3…*For HP internal use only.* 4…GSS_API_V2

Table 4-12 opc_node_defaults Table (Continued)

Column Name	Con-straint	Column Type	Description
agent_type_number	N	number(3)	Number to be used as default agent type.
proxy_name		varchar2(2048)	Name of the proxy node that is used to manage the proxied node.
buflim_enable	N	number(3)	Agent buffer size limitation enabled: Yes/No.
buflim_size	N	number(12)	Maximum size of the agent message buffer (in bytes).
buflim_severity	N	number(3)	Minimum severity of the messages to be buffered in case of buffer size conflicts. Possible values are: 0…None 2…Normal 4…Warning 16…Minor 32…Major 8…Critical
agt_inst_dir		varchar2(508)	Directory where the agent will be installed
ipce_allowed	N	number(3)	Whether IPCE is allowed by default. 0 - No 1 - Yes
dhcp_allowed	N	number(3)	Whether DHCP is allowed by default. 0 - No 1 - Yes
ip_flags	N	number(5)	Copy from `opcnodes`, add 0x0040 Uses IPV6 (also on `opc_nodes`)

opc_nodegrp_cat Table

NOTE *Table 4-13 is reserved for future use.*

This table stores the link information between node groups and categories.

Table 4-13 opc_nodegrp_cat Table

Column Name	Con-straint	Column Type	Description
node_group_id	N, P, F	varchar2(36)	Key field to identify the node group.
category_id	N, P, F	varchar2(36)	Key field to identify the category.

opc_node_groups Table

This table contains all node groups.

Table 4-14 opc_node_groups Table

Column Name	Con-straint	Column Type	Description
node_group_id	N, P	varchar2(36)	Key field to identify node groups in other tables.
parent_id	U	varchar2(36)	Key field to identify the parent node group. If the parent_id is null, this node group is in the top level.
symbol_type_id	N	varchar2(36)	Key field to identify the symbol type string in opc_symbols.
node_group_name	U	varchar2(2048)	Name of the node group.
description		varchar2(508)	Description of the node group.
label		varchar2(508)	Label of the node group that appears in the GUI.
invisible	N	number(3)	*Reserved for future use.* This flag indicates the visibility of a node group in the responsibility matrix of an operator. Possible values are: 0…Visible (default) 1…Invisible
info		varchar2(4000)	Field for the operators for making notes, for example, tracking the changes.

opc_node_names Table

This table contains the IP addresses (if the node is in an internet network) and the identifying name of the nodes. It contains the addresses for normal nodes in opc_nodes (see page 109). It also contains the node addresses of messages that matched an external node. These are referenced from Table , “opc_act_messages Table,” on page 166 and Table , “opc_hist_messages Table,” on page 180.

Table 4-15 opc_node_names Table

Column Name	Con-straint	Column Type	Description
node_id	P, N	varchar2(36)	Key field to identify the node.
network_type	N	number(5)	Type of network the node resides in. Possible values: 0…No node 1…IP 5…Other 6…Unknown
ip_address	N	number(12)	IP address of the node if it is an IP node.
ipv6_address		varchar2(39)	*Reserved for future use.* IPv6 address (full form) of the node if it is an IPv6 node.
node_name	U	varchar2(2048)	Identifying name of the node. This is the name returned by the name service, ideally the fully qualified node name.
ip_flags	N	number(5)	Copy from `opcnodes`, add `0x0040 Uses IPV6` (also on `opc_nodes`)

Table 4-15 opc_node_names Table (Continued)

Column Name	Con-straint	Column Type	Description
ip_flags	N	int2	This field contains the IP settings flag which determines whether a node is static or DHCP-derived. The possible values are: 0 1 2 16 32 256 512 64

The actual value in the table is the sum of the values of the desired flags. For example:

- A value of 32 represents a DHCP node (32 for IP set on server).
- A value of 34 represents a static, non-DHCP node (32 for IP set on server plus 2 for static IP).

opc_node_pattern Table

This table contains pattern of nodes for external events.

Table 4-16 opc_node_pattern Table

Column Name	Con-straint	Column Type	Description
pattern_id	N, P	varchar2(36)	Key field for node pattern identification; linked to node_id in opc_nodes (see page 109).
node_type	N, U	number(5)	Node pattern type. Possible values are: 253…IP address pattern 254…Node name pattern for IP nodes 255…Node name pattern for non-IP nodes
pattern	U	varchar2(2048)	Node pattern.
ip_flags		number(5)	IP settings flag to hold static / DHCP defaults.

opc_nodehier_layout Table

This table contains the layout of the node hierarchies. It contains layout elements for both nodes and layout groups.

Table 4-17 opc_nodehier_layout Table

Column Name	Con-straint	Column Type	Description
layout_id	N, P	varchar2(36)	Key field to identify the layout element.
nodehier_id	N, F, U	varchar2(36)	Key field to identify the node hierarchy.
parent_id	F, U	varchar2(36)	Key field to identify the parent layout group. If the parent_id is null, this layout element is in the top level layout group.
symbol_type_id		varchar2(36)	Key field to identify the symbol type string in opc_symbols if the layout element is a layout group.
node_id	F, U	varchar2(36)	Key field used to identify the node. If null, this is a layout group.
name	U	varchar2(254)	Name of the layout element, if it is a layout group.
label		varchar2(508)	Label displayed in the GUI, if this is a layout group.
submap_title		varchar2(160)	Title of layout group's submap.
description		varchar2(508)	Description of the layout element.

opc_nodehiers Table

This table contains the node hierarchies and their specifications.

Table 4-18 opc_nodehiers Table

Column Name	Con-straint	Column Type	Description
nodehier_id	N, P	varchar2(36)	Key field to identify the node hierarchy.
symbol_type_id	N, F	varchar2(36)	Key field to identify the symbol type string in opc_symbols.
new_obj_layout_id	F	varchar2(36)	Key field to identify the new object holding area layout group (NULL, if toplevel).
name	N, U	varchar2(254)	Node hierarchy name.
label		varchar2(508)	Node hierarchy label.
description		varchar2(508)	Description of the node hierarchy.
info		varchar2(4000)	

opc_nodes Table

This table contains details of the nodes in the Node Bank for both external nodes and normal nodes.

Table 4-19 opc_nodes Table

Column Name	Con-straint	Column Type	Description
node_id	N, P	varchar2(36)	Key field to identify the node.
symbol_type_id	N	varchar2(36)	Key field to identify the symbol type strings (in opc_symbols).
agent_id	N	varchar2(36)	*Reserved for future use.*
machine_type	N	number(5)	Type of machine hardware and operating system.
terminal	N	number(3)	Type of terminal connection used to access the node. 0…hpterm 1…xterm 2…dtterm 3…None
maximum_size	N	number(12)	Limit in KByte the logging information may occupy.
node_type	N	number(3)	Role of node within HPOM. Possible values are: 1…Disabled 2…Controlled 3…Monitored 4…Message-allowed
unmanaged_flag	N	number(3)	Node is currently disabled: Yes/No.
auto_sw_inst_flag	N	number(3)	Distribute HPOM software automatically: Yes/No.

Table 4-19 opc_nodes Table (Continued)

Column Name	Con-straint	Column Type	Description
auto_res_mod_flag	N	number(3)	Automatically update system resource files: Yes/No.
sw_dist_req_flag	N	number(3)	HPOM software status on this node. Possible values are: 0…No distribution required 1…Distribution required (no software installed yet) 2…Distributing 4…Required (with Force Update) 5…Distributing (with Force Update) 6…Distribution required (old software is installed) 7…Distribution required (old software is installed; with Force Update) 8…Distributing (old software installed) 9…Distributing (old software is installed; with Force Update) 10…De-installing software
label		varchar2(508)	Name displayed as label in the GUI.
console_path		varchar2(508)	Program call to establish connection to physical console port.
logging_directory		varchar2(508)	Path to directory where HPOM stores local logging information.

Table 4-19 opc_nodes Table (Continued)

Column Name	Con-straint	Column Type	Description
node_char_set	N	number(3)	Character set used for this node. Possible values are: 0…ASCII 1…ISO88591 2…ROMAN8 4…ACP1252 (NT ANSI code page for Western Europe (Latin)) 28…ISO885915 64…SJIS (Japanese SJIS) 65…EUCJP (Japanese EUC) 66…ACP932 (NT ANSI code page for Japan)
default_font		varchar2(264)	Font used for virtual terminals and input/output applications started on this node.
ncs_pckg_size	N	number(12)	The NCS RPC package size used for communication with this node.
ncs_delay	N	number(3)	Delay between NCS RPC calls.
heartbeat_retry	N	number(3)	Retry of failed heartbeat polls.
mpe_job_stream		varchar2(160)	Name of the MPE Job Stream Facility used.
console_par1		varchar2(80)	1st physical console parameter.
console_par2		varchar2(80)	2nd physical console parameter.
console_par3		varchar2(80)	3rd physical console parameter.
license_type	N	number(5)	Is the managed node license counted on this manager (backup server) A license is used when software is installed. If the node license is counted on another manager, it can be reset.

Table 4-19 opc_nodes Table (Continued)

Column Name	Con-straint	Column Type	Description
resolve_mode	N	number(3)	IP address resolution mode. Possible values: 0…Auto 1…Static
message_if_enable	N	number(3)	Output to Message Stream Interface enabled/disabled: Yes/No.
msg_if_allow_aa	N	number(3)	Allow definition of automatic actions through Message Stream Interface: Yes/No.
msg_if_allow_oa	N	number(3)	Allow definition of operator-initiated actions through Message Stream Interface: Yes/No.
depot_node_id	N	varchar2(36)	Node where agent package is stored: management server by default.
inst_method	N	number(3)	The method for installation. Possible values: 0…HPOM installation (use HPOM install methods) 1…SD installation (use SD for installation) 2…HPOM installation (asynchronous) (use HPOM install methods with asynchronous install) 3…SD installation (asynchronous) (use SD for installation with asynchronous install)
depot_access_meth	N	number(3)	Access method for satellite depots. Possible values: 1…FTP 2…SD 3…RCP 4…SSH

Table 4-19 opc_nodes Table (Continued)

Column Name	Con-straint	Column Type	Description
package_name		varchar2(508)	Name of package for satellite depots. (Not currently used.)
depot_name		varchar2(508)	Depending on `opc_net_machine.satellite_depot` and `opc_nodes.inst_method` it contains the source/target directory for the agent depot.
compr_pkg_trans	N	number(3)	Use SD's compressed package transfer: Yes/No.
compr_pkg	N	number(3)	Use compressed package for SD installation. (Not currently used.)
inst_user		varchar2(128)	Installation user; can be modified by the HPOM administrator using the GUI.
comm_type	N	number(3)	Communication method. Possible values are: 0…Unspecified communication type 1…NCS 2…DCE TCP 3…DCE UDP 4…Sun RPC, TCP 5…SUN RPC, UDP 6…TCP Socket 7…UDP Socket 8…OPC Interface 9…RPC Local 10…HTTPS
port_range		varchar2(160)	Port range for DCE on managed node.

Table 4-19 opc_nodes Table (Continued)

Column Name	Con-straint	Column Type	Description
proxy_name		varchar2(2048)	If the attribute is_proxy is set, this is the logical name of the proxy node. If it is not set and this node is proxied, this is the logical name of the proxy node that is used to manage the node.
comm_attr	N	number(12)	Communication attributes (DCE security level). Possible values: 0…None 1…Auth. connect 2…Auth. call 3…Auth. pkt. 4…Pkt. Integer 5…Pkt. crypt
agent_version	N	number(12)	Control agent RPC interface version.
heartbeat_flag	N	number(3)	Switches heartbeat polling on or off. Possible values are: 1…Heartbeat polling on 0…Heartbeat polling off
heartbeat_type	N	number(3)	Used heartbeat polling method. Possible values are: 0…None 1…RPC only 2…Ping only 3…Ping + RPC 4…From agent 5…From agent + RPC 6…From agent + Ping 7…From agent + RPC + Ping

Table 4-19 opc_nodes Table (Continued)

Column Name	Con-straint	Column Type	Description
heartbeat_interval		varchar2(32)	Time interval between heartbeat polls. Format: 1h20m10s.
security_type	N	number(3)	Used security type for Network Security Protocol. *For HP Advanced Security only.* Possible values: 0…None 2…Secret key 3…*For HP internal use only.* 4…GSS_API_V2 128…Interim
security_version	N	number(3)	NSP crypt algorithm version.
agent_type_number	N	number(3)	Number to be used as default agent type. Possible values: 0…HPOM
is_proxy	N	number(3)	Node is a proxy node: Yes/No.
buflim_enable	N	number(3)	Agent buffer size limitation enabled: Yes/No.
buflim_size	N	number(12)	Maximum size of the agent message buffer (in bytes).
buflim_severity	N	number(3)	Minimum severity of the messages to be buffered in case of buffer size conflicts. Possible values are: 0…None 2…Normal 4…Warning 16…Minor 32…Major 8…Critical

Table 4-19 opc_nodes Table (Continued)

Column Name	Con-straint	Column Type	Description
ip_flags	N	number(5)	*Reserved for future use.* This field indicates if an alternate or alias IP address or name are available for the node. The values can be combined through a logical OR. Possible values are: 0x0000…None 0x0001…IP obsolete 0x0002…Static IP 0x0010…IP received by agent 0x0020…IP set on input server 0x0100…Alternate IP addresses available 0x0200…Alternate IP names available
new_sec_type	N	number(3)	When changing the security type of a node. this field is set to the new value as the request is being sent. When confirmed, the old sec_type field is set to the same value.
certificate_state	N	number(3)	Describes the certificate status: UNDEFINED, PENDING, GRANTED, INSTALLED.
agt_inst_time	N	number(12)	Time when the agent was installed and started.
agt_inst_dir		varchar2(508)	Location of the agent on the managed node.
cluster_package		varchar2(508)	Name of the package assigned to a virtual node (HARG name).
is_virtual	N	number(3)	If the entry represents a virtual node, this is set to 1.
last_instr_distrib	N	number(12)	The last time an instrumentation distribution took place.

Table 4-19 opc_nodes Table (Continued)

Column Name	Con-straint	Column Type	Description
trace_flag	N	number(3)	Agent tracing.
local_last_instr_distrib		date	*Reserved for future use.*
local_agt_inst_time		date	*Reserved for future use.*
mac_addrs		varchar2(2048)	List of the mac addresses of the node.
num_cpus		number(5)	Number of CPUs of the node.
cpu_type		varchar2(508)	Architecture of the CPU(s) in the node.
os_family		varchar2(508)	Family of the OS the node has installed (Windows, Unix..).
os_type		varchar2(508)	Type of the OS running on the node.
os_name		varchar2(508)	Name of the OS running on the node.
os_vendor		varchar2(508)	Vendor of the OS running on the node.
os_version		varchar2(508)	Version of the OS running on the node.
os_bits		number(3)	Indicates if the OS is a 32 or 64-bit version.
agent_bits		number(3)	Indicates if the agent is a 32 or 64-bit version.
status1		number(12)	*Reserved for future use.*
local_status1		date	*Reserved for future use.*
status2		number(12)	*Reserved for future use.*
local_status2		date	*Reserved for future use.*
status3		number(12)	*Reserved for future use.*
local_status3		date	*Reserved for future use.*
status4		number(12)	*Reserved for future use.*
local_status4		date	*Reserved for future use.*
status5		number(12)	*Reserved for future use.*
local_status5		date	*Reserved for future use.*

Table 4-19 opc_nodes Table (Continued)

Column Name	Con-straint	Column Type	Description
info		varchar2(4000)	Field for the operators for making notes, for example, tracking the changes.

opc_nodes_in_group Table

This table represents the relationships of nodes in node groups. For each node in each node group an entry can be found in this table.

Table 4-20 opc_nodes_in_group Table

Column Name	Con-straint	Column Type	Description
node_group_id	N, P, F	varchar2(36)	Key field to identify the node group.
node_id	N, P, F	varchar2(36)	Key field to identify the node.

opc_platform_dictionary Table

This table stores the mappings between platform and the instrumentation directory layout identifiers.

Table 4-21 opc_platform_dictionary Table

Column Name	Con-straint	Column Type	Description
type		varchar2(36)	Used to distinguish mappings for the different identifiers.
instrum_value	N, P	varchar2(1024)	Instrumentation directory layout value.
assd_value	N, P	varchar2(1024)	Platform-related value delivered from agent by ASSD (Agent Side System Discovery).
os_type		varchar2(1024)	Operating system type (for example “HP-UX”).
cpu_type	N, P	varchar2(1024)	Central processing unit type (for example, “Intel”).

opc_pltfrm_family Table

This table stores the information for a platform family.

Table 4-22 opc_pltfrm_family Table

Column Name	Con-straint	Column Type	Description
pltfrm_family_name	N, P	varchar2(64)	Unique name for platform family. Currently used values are: MPE MS NetWare OS/2 (*For HP internal use only.*) UNIX
user_name_length	N	number(3)	Length of the user name.
password_length	N	number(3)	Length of the password.

opc_policy_cat Table

This table stores the link information between policies and categories.

Table 4-23 opc_policy_cat Table

Column Name	Con-straint	Column Type	Description
template_id	N, P, F	varchar2(36)	Key field to identify the template.
category_id	N, P, F	varchar2(36)	Key field to identify the category.

opc_templgrp_cat Table

NOTE *Table 4-24 is reserved for future use.*

This table stores the link information between policy groups and categories.

Table 4-24 opc_templgrp_cat Table

Column Name	Con-straint	Column Type	Description
templ_group_id	N, P, F	varchar2(36)	Key field to identify the template group.
category_id	N, P, F	varchar2(36)	Key field to identify the category.

5 Template Tables

In This Chapter

This chapter contains the template tables.

The templates are defined by several tables. Table 5-2, “opc_source_templ Table,” on page 128 is the main table. This table contains the template_id that is used to identify the according entries in other tables. Depending on the message source type specified in this table, additional tables are used to complete the template.

opc_node_config Table

Templates can be assigned directly to a node, or indirectly through template groups. Also, templates and template groups can be assigned to node groups. To avoid multiple distribution of the same template, this table contains all resolved template to node assignments.

Table 5-1 opc_node_config Table

Column Name	Con-straint	Column Type	Description
node_id	U, F	varchar2(36)	Key field used to identify the node. If an ECS template is assigned to the management server, this field is null.
template_id	N, F, U	varchar2(36)	Key field to specify the template that is assigned to this node.
container_id	U	varchar2(36)	Identifies a container.
status_flag	N	number(3)	Distribution of this configuration. Possible values: 0…No distribution required 1…Distribution required 2…Distributing
access_count	N	number(12)	The number of times that this node-template assignment occurs. If a new assignment results in the same node-template assignment, the access_count is increased, and the distribution status is unchanged. If an assignment is removed, the access_count is decreased. If the access_count reaches zero, the entry in opc_node_config is deleted.
cluster_package	U	varchar2(508)	Name of the package assigned to a virtual node (HARG name).

opc_source_templ Table

This table contains the fields common to all template types. The combination of source_type_id and template_name is unique.

Table 5-2 opc_source_templ Table

Column Name	Con-straint	Column Type	Description
template_id	N, P	varchar2(36)	Key field to identify the template.
container_id		varchar2(36)	Identifies the container this policy belongs to.
pol_type_id		varchar2(36)	Identifies the type of the policy.
source_type_id	N, F, U	number(12)	Type of the template. Possible values: 1…Console 2…Interface 4…Logfile 8…Monitor 16…SNMP 32…ECS 256…Schedule
modified	N	number(3)	Whether the template was modified and must be redistributed: Yes/No.
template_name	U	varchar2(508)	Name of template.
template_descr		varchar2(508)	Description of template.
templ_file_name		varchar2(28)	Name of distribution file (used to distribute changes only).
lock_user_id		varchar2(36)	Identifies the user who is locking this policy.
templ_version	U	varchar2(64)	Version of the template.

Table 5-2 opc_source_templ Table (Continued)

Column Name	Con-straint	Column Type	Description
plugin_id		varchar2(508)	Identify the package to which the policy belongs.
plugin_name		varchar2(2048)	
plugin_descript		varchar2(4000)	
autopass_id		number(12)	Describes the policy license string.
policy_hdr_chksum		varchar2(2048)	Contains the checksum of the policy header.
info		varchar2(4000)	Field for the operators for making notes, for example, tracking the changes.
syntax_version		number(3)	Syntax version of the policy.

opc_templ_groups Table

This table contains all configured HPOM template groups.

Table 5-3 opc_templ_groups Table

Column Name	Con-straint	Column Type	Description
templ_group_id	N, P	varchar2(36)	Key field to identify the template group.
parent_id	N, U	varchar2(36)s	Key field to identify the parent policy group. If the `parent_id` is null, this policy group is on the top level.
lock_user_id	N	varchar2(36)	Identifies the user who is locking this policy.
templ_group_name	N, U	varchar2(508)	Name of template group.
description		varchar2(508)	Description of template group.
info		varchar2(4000)	Field for the operators for making notes, for example, tracking the changes.

opc_templ_in_tgrp Table

This table contains the templates that are assigned to a template group.

Table 5-4 opc_templ_in_tgrp Table

Column Name	Con-straint	Column Type	Description
templ_group_id	N, P, F, U	varchar2(36)	Key field to identify the template group.
template_id	N, P, F	varchar2(36)	Key field to identify the assigned templates.
container_id	U	varchar2(36)	Identifies a container.
latest		number(3)	Assignment mode of the policy: 0 - Fixed 1 - Update minor version (1.1->1.2) 2 - Update any (higher) version (1.1->2.0)

opc_templ_on_ngrp Table

This table contains the template-to-node-group assignments.

Table 5-5 opc_templ_on_ngrp Table

Column Name	Con-straint	Column Type	Description
node_group_id	N, P, F, U	varchar2(36)	Key field to identify the node group.
template_id	N, P, F	varchar2(36)	Key field to identify the assigned templates.
container_id	U	varchar2(36)	Identifies a container.
assign_state		number(3)	*Reserved for future use.* Indicates whether a template is assigned to a node group, or not. Possible values are: 0…De-assigned 1…Assigned (default)
assign_exception		number(3)	*Reserved for future use.* Indicates any exceptions to the assignments listed above. Possible values are: 0…No exception (default) 1…Exception
latest		number(3)	Assignment mode of the policy: 0...Fixed 1...Update minor version (1.1->1.2) 2...Update any (higher) version (1.1->2.0)

opc_templ_options Table

This table contains the local logging options and defaults for the message source templates. The event correlation and scheduled action templates do not have entries in this table.

Table 5-6 opc_templ_options Table

Column Name	Con-straint	Column Type	Description
template_id	N, P	varchar2(36)	Key field to identify the template.
log_matched_flag	N	number(3)	Locally log messages matched by a message condition: Yes/No.
log_suppress_flag	N	number(3)	Locally log messages matched by a suppress condition: Yes/No.
log_unmatched_flag	N	number(3)	Locally log messages not matched: Yes/No.
forw_unmatch_flag	N	number(3)	Forward unmatched messages to the management server: Yes/No.
log_only_flag	N	number(3)	Forward unmatched messages to the management server as log only messages: Yes/No.
def_mpi_output	N	number(3)	Template default for output to the Message Stream Interface on the management server: 0…No 1…Divert 2…Copy
def_imm_auto_action	N	number(3)	Template default for starting local automatic actions although Message Stream Interface is enabled: Yes/No.

Table 5-6 opc_templ_options Table (Continued)

Column Name	Con-straint	Column Type	Description
def_mpi_output_agt	N	number(3)	Template default for output to the Message Stream Interface on the agent: 0…No 1…Divert 2…Copy
instruction_type	N	number(3)	Template default for type of instruction. Possible values: 0…No instruction (no instructions at all) 1…Instruction text (use instruction text from the opc_instructions table) 2…Instruction interface (use instruction text interface)
instruction_id	N	varchar2(36)	Template default for instruction/instruction text interface ID.
instr_parameters		varchar2(508)	Template default for the parameters for instruction text interface.
def_service_name		varchar2(4000)	Template default for service name attribute.
def_msg_key		varchar2(4000)	Template default for message key attribute.

opc_templ_status Table

This table contains the distribution and activation status of the templates on the managed nodes.

Table 5-7 opc_templ_status Table

Column Name	Con-straint	Column Type	Description
node_id	N, U	varchar2(36)	Node hosting the template. Foreign key to opc_nodes.
template_id	N, U	varchar2(36)	Template assigned to the node. Foreign key to opc_source_templ.
template_name	N	varchar2(128)	Template name. Foreign key to opc_source_templ.
templ_version		varchar2(32)	Template version.
source_type_id	N	number(12)	Template type. Foreign key to opc_source_templ.
templ_status	N	number(5)	Flag word describing the execution status of the template: 0 Undefined. 1 Assigned but not distributed. 2 Distributed. Unknown status. 3 Distributed. Disabled. 4 Distributed. Enabled.
templ_status_reason	N	varchar2(508)	Text describing the reason for the current status.
status_upd_tstamp	N	number(12)	Time stamp of the latest update of the templ_status field.
local_upd_tstamp	N	date	Time stamp of the latest update of the templ_status field, but as an ORACLE date field.

opc_tmpl_on_node Table

This table contains the direct template-to-node assignments. (The resolved assignments are in the opc_node_config table (see page 127).)

Table 5-8 opc_tmpl_on_node Table

Column Name	Con-straint	Column Type	Description
node_id	U, F	varchar2(36)	Key field to identify the node. If an ECS template is assigned to the management server itself, the node_id is null.
template_id	N, F	varchar2(36)	Key field to identify the assigned template.
container_id	U	varchar2(36)	Identifies a container.
assign_state		number(3)	*Reserved for future use.* Indicates whether a template is assigned to a node, or not. Possible values are: 0…De-assigned 1…Assigned (default)
assign_exception		number(3)	*Reserved for future use.* Indicates any exceptions to the assignments listed above. Possible values are: 0…No exception (default) 1…Exception
latest		number(3)	Assignment mode of the policy: 0...Fixed 1...Update minor version (1.1->1.2) 2...Update any (higher) version (1.1->2.0)

opc_tgrp_in_tgrp Table

This table contains the template groups that are assigned to a template group.

Table 5-9 opc_tgrp_in_tgrp Table

Column Name	Con-straint	Column Type	Description
templ_group_id	N, P, F	varchar2(36)	Key field to identify the template group.
member_grp_id	N, P, F	varchar2(36)	Key field to identify the assigned template group.

opc_tgrp_on_ngrp Table

This table contains the template-group-to-node-group assignments.

Table 5-10 opc_tgrp_on_ngrp Table

Column Name	Con-straint	Column Type	Description
node_group_id	N, P, F	varchar2(36)	Key field to identify the node group.
templ_group_id	N, P, F	varchar2(36)	Key field to identify the assigned template group.
assign_state		number(3)	*Reserved for future use.* Indicates whether a template group is assigned to a node group, or not. Possible values are: 0…De-assigned 1…Assigned (default)
assign_exception		number(3)	*Reserved for future use.* Indicates any exceptions to the assignments listed above. Possible values are: 0…No exception (default) 1…Exception
assign_nonhier		number(3)	Flag, set to 1 to indicate non-hierarchical assignment.

opc_tgrp_on_node Table

This table contains the template-group-to-node assignments.

Table 5-11 opc_tgrp_on_node Table

Column Name	Con-straint	Column Type	Description
node_id	U, F	varchar2(36)	Key field to identify the node. If a template group is assigned to the management server itself, the node_id is null.
templ_group_id	N, U, F	varchar2(36)	Key field to identify the assigned template group.
assign_state		number(3)	*Reserved for future use.* Indicates whether a template group is assigned to a node, or not. Possible values are: 0…De-assigned 1…Assigned (default)
assign_exception		number(3)	*Reserved for future use.* Indicates any exceptions to the assignments listed above. Possible values are: 0…No exception (default) 1…Exception
assign_nonhier		number(3)	Flag, set to 1 to indicate non-hierarchical assignment.

6 Condition Tables

In This Chapter

This chapter contains the condition tables for message source templates.

A condition consists of several parts, some of which are the same for logfile, opcmsg, MPE/iX console, and SNMP trap templates. Others parts are specific to each template type and therefore are stored in separate tables.

opc_appresp_id_lst Table

This table contains a list of the Application Response IDs of Message Stream Interface registration conditions.

Table 6-1 opc_appresp_id_lst Table

Column Name	Con-straint	Column Type	Description
condition_id	N, U	varchar2(36)	Key field to associate list entries with a Message Stream Interface registration condition (opc_mpi_reg_conds).
appl_resp_id	U	varchar2(36)	Application response ID of a Message Stream Interface registration condition.

opc_cond Table

This table contains the main entries for conditions of the message source type logfile, opcmsg, and MPE/iX console, as well as for registration conditions and regroup conditions.

Table 6-2 opc_cond Table

Column Name	Con-straint	Column Type	Description
condition_id	N, P	varchar2(36)	Key field to identify the condition.
template_id	N, U	varchar2(36)	Key field to identify the template. This field is null for regroup and registration conditions.
nodelist_id	N	varchar2(36)	Key field to identify the list of nodes that is used to check the node attribute of the incoming message. This refers to the table opc_cond_node_list (see page 149).
text_id	N	varchar2(36)	Key field to identify the corresponding text pattern in the table opc_cond_text (see page 154).
case_sens_flag	N	number(3)	Check the message text case sensitively: Yes/No.
order_number	N	number(5)	Number specifying the process and display order of the conditions.
condition_type	N	number(3)	Type of condition. Possible values: 0...MPI reg condition 1…Match condition 2…Suppress condition 3…Suppress unmatched condition

Table 6-2 opc_cond Table (Continued)

Column Name	Con-straint	Column Type	Description
description	U	varchar2(508)	Text describing the condition. `opccfgupld` uses this to identify a condition, therefore it must be unique.
fieldseparator		varchar2(32)	Field separators used for pattern matching.

opc_cond_appl_list Table

This table contains lists of applications used in the conditions.

Table 6-3 opc_cond_appl_list Table

Column Name	Con-straint	Column Type	Description
condition_id	N, U	varchar2(36)	Key field to identify the condition.
application	U	varchar2(508)	Application name the incoming message must have.

opc_cond_cust_attrib Table

This table contains the custom message attribute computation rules assigned to the respective message conditions. The combination of `condition_id` and `cma_name` must be unique.

Table 6-4 opc_cond_cust_attrib Table

Column Name	Con-straint	Column Type	Description
condition_id	U, N	varchar2(36)	Key field to identify the condition.
cma_name	U, N	varchar2(508)	The name given to the custom message attribute.
cma_value_rule	N	varchar2(2048)	The method used to compute the actual value of a custom message attribute.

opc_cond_mgrp_list Table

This table contains a list of message groups for the conditions.

Table 6-5 opc_cond_mgrp_list Table

Column Name	Con-straint	Column Type	Description
condition_id	N, U	varchar2(36)	Key field to identify the condition.
message_group	U	varchar2(254)	Message group the incoming message must have.

opc_cond_node_list Table

This table contains lists of nodes used in the conditions.

Table 6-6 opc_cond_node_list Table

Column Name	Con-straint	Column Type	Description
nodelist_id	N, U	varchar2(36)	Key field to identify the list of nodes.
entry_type	N, U	number(3)	Type of node entry: node_id or node_parameter. Possible values: 0…Variable (the node string contains text with pattern-matching) 1…IP node (the node string contains the node ID of the node in opc_node_names) 5…non-IP Node (the node string contains the node ID of the node in opc_node_names)
node_string	U	varchar2(508)	This field contains a variable string or a node_id (depending on the entry_type field).

opc_cond_obj_list Table

This table contains lists of objects used in the conditions.

Table 6-7 opc_cond_obj_list Table

Column Name	Con-straint	Column Type	Description
condition_id	N, U	varchar2(36)	Key field to identify the condition.
object	U	varchar2(508)	Object name the incoming message must have.

opc_cond_oper_list Table

This table contains a list of operator names of Message Stream Interface registration conditions.

Table 6-8 opc_cond_oper_list Table

Column Name	Con-straint	Column Type	Description
condition_id	U, N	varchar2(36)	Key field to associate list entries with a Message Stream Interface registration condition (opc_mpi_reg_conds).
operator	U	varchar2(128)	Operator name for the Message Stream Interface registration condition.

opc_cond_sev_list Table

This table contains lists of severities used in the conditions.

Table 6-9 opc_cond_sev_list Table

Column Name	Con-straint	Column Type	Description
condition_id	N, P	varchar2(36)	Key field to identify the condition.
severity	N, P	number(3)	Severity the incoming message must have.

opc_cond_stat_var Table

This table holds the values of condition status variables for scheduled outages.

Table 6-10 opc_cond_stat_var Table

Column Name	Con-straint	Column Type	Description
name	N, P	varchar2(2048)	Name and key of a condition status variable.
current_value	N	number(3)	Value of condition status variable: Yes/No.
default_value	N	number(3)	Default value of condition status variable: Yes/No.

opc_cond_text Table

This table contains the text patterns of conditions in templates, as well as the message text to set if the condition matches. The text is split into parts of 254 characters and assembled in the order determined by order_number.

Table 6-11 opc_cond_text Table

Column Name	Con-straint	Column Type	Description
text_id	N, U	varchar2(36)	Key field to identify the text.
order_number	N, U	number(5)	Order number of this text part.
text_part	U	varchar2(4000)	Part of the text.

opc_cond_type_list Table

This table contains a list of message types for a Message Stream Interface registration condition.

Table 6-12 opc_cond_type_list Table

Column Name	Con-straint	Column Type	Description
condition_id	N, U	varchar2(36)	Condition ID from opc_cond_appl_list (see page 146).
message_type	U, P	varchar2(254)	Message type of registration condition.

opc_mpi_reg_conds Table

This table contains the registration conditions of an active instance of the Message Stream Interface.

Table 6-13 opc_mpi_reg_conds Table

Column Name	Con-straint	Column Type	Description
inst_id	N, P	varchar2(36)	Message Stream Interface instance ID.
condition_nr	N, P	number(12)	Message Stream Interface registration condition number.
condition_id	N, F	varchar2(36)	Condition ID (for condition handling).

Table 6-13 opc_mpi_reg_conds Table (Continued)

Column Name	Con-straint	Column Type	Description
event_mask	N	number(12)	Event mask message change events. Possible values (which may be combined with a logical OR) are: 1…Acknowledge 2…Unacknowledge 4…Own 8…Disown 16…Message now has annotations 32…Last annotation deleted 64…Escalated to another server 128…Escalated from another server 256…Automatic action started 512…Automatic action finished 1024…Operator action started 2048…Operator action finished 4096…Highlight 8192…Buffer 16384…Unbuffer 32768…Modify message 65535…All events
msg_characterist	N	number(12)	Message characteristic of registration condition.

opc_msg_key_rel Table

This table contains the details of relationships between message keys and match conditions.

Table 6-14 opc_msg_key_rel Table

Column Name	Con-straint	Column Type	Description
condition_id	N	varchar2(36)	Key to link the message key relations to a message condition.
action	N	number(3)	Action for this relation. Possible values: 0…Increase counter 1…Acknowledge
case_sens_flag	N	number(3)	Check message key case sensitive: Yes/No.
fieldseparator		varchar2(32)	Field separator used for pattern matching.
msg_key_pattern		varchar2(4000)	Message key pattern of this relation

opc_open_mpis Table

This table contains runtime data about the Message Stream Interface instances.

Table 6-15 opc_open_mpis Table

Column Name	Con-straint	Column Type	Description
inst_id	N, P	varchar2(36)	Message Stream Interface instance ID.
type	N	number(12)	Type of Message Stream Interface instance as defined for HPOM interfaces in `/opt/OV/include/opcsvapi.h`.
mpi_mode	N	number(12)	Mode of Message Stream Interface instance as defined in `/opt/OV/include/opcsvapi.h`.
max_entries	N	number(12)	Maximum number of entries in queue.
name	U	varchar2(32)	Name of Message Stream Interface instance.

opc_rgr_cond Table

This table specifies the regroup conditions (used for redirection of messages to another message group or another service name).

Table 6-16 opc_rgr_cond Table

Column Name	Con-straint	Column Type	Description
condition_id	N, P	varchar2(36)	Key field to identify the condition.
order_number	N	number(5)	Number specifying the process order of the conditions.
new_message_group		varchar2(254)	New message group attribute of the processed message.
service_name		varchar2(4000)	New service name attribute of the processed message.

opc_snmp_variables Table

This table contains lists of the contents of user-defined SNMP variables. SNMP variables are used for pattern matching instead of the message text used by other message sources.

Table 6-17 opc_snmp_variables Table

Column Name	Con-straint	Column Type	Description
snmp_variables_id	N, P	varchar2(36)	Key field to identify the SNMP variables.
variable_text_id	N, P	varchar2(36)	Key field to identify the text pattern in the opc_cond_text table (see page 154), used for checking the variable.
variable_number	N, P	number(5)	Order number of the variable (according to the $xx value).

7 Message Tables

In This Chapter

Although they have nearly the same attributes, the active and history messages are kept in two different sets of tables because of the following reasons:

- Improved performance when loading active messages.
- Reduced time to insert new active messages.

However, when acknowledging or unacknowledging messages, the messages must be moved between the active and history tables. To reduce the impact this has on the GUI, the messages are first marked, then moved in groups of 50 by an asynchronous process.

For performance reasons, the message text and original message text, which is rarely accessed, are stored in separate text tables.

The actions specified in the conditions may contain parameters that are replaced by the matching algorithm. The matching condition is not reported to the management server. Therefore, the actions along with the processed action call become part of the message itself and are not referenced through the condition ID.

opc_act_cust_attrib Table

This table contains the actual custom message attribute pairs attached to the associated message. The combination of `message_number` and `cma_name` must be unique.

Table 7-1 opc_act_cust_attrib Table

Column Name	Con-straint	Column Type	Description
message_number	U, N, F	varchar2(36)	Key field to identify the associated message.
cma_name	U, N	varchar2(508)	The name of the custom message attribute.
cma_value		varchar2(2048)	The actual value of the custom message attribute.

opc_act_messages Table

This table contains the main entry for messages that are currently in the `Message Browser` window.

This table can also contain messages that are marked as acknowledged. When acknowledging large numbers of messages, the messages are marked by setting the `ackn_flag` field to one (1…Acknowledged message, not yet moved). The `opcdbmsgmv` process runs on a regular basis to move all marked messages to the history tables.

Table 7-2 opc_act_messages Table

Column Name	Con-straint	Column Type	Description
message_number	N, P	varchar2(36)	Key field to identify the message.
condition_id	N	varchar2(36)	Key field to identify the condition matching the message. (Not used.)
instruction_id		varchar2(36)	Key field to identify the instruction text/instruction text interface.
node_id	N, F	varchar2(36)	Key field to identify the node where the event occurred.
msg_gen_node_id	N	varchar2(36)	Key field to identify the node where the message was generated.
network_type	N	number(5)	Type of network the node resides in. Possible values: 1…IP 5…Other
log_only_flag	N	number(3)	Message was sent as log-only to the server: Yes/No.
unmatched_flag	N	number(3)	Message did not match any condition: Yes/No.

Table 7-2 opc_act_messages Table (Continued)

Column Name	Con-straint	Column Type	Description
msg_source_type	N	number(12)	Message source type. Possible values: 1…Console 2…Interface 4…Logfile 8…Monitor 16…SNMP 256…Schedule 32…Server Message Stream Interface 64…Agent Message Stream Interface 128…Legacy Link Interface 4096…Internal message 8192…Subproduct message
notification_flag	N	number(3)	Message triggered notification: Yes/No.
trouble _tick_flag	N	number(3)	Message generated trouble ticket: Yes/No.
ackn_after_tt_flag	N	number(3)	Acknowledge message after generation of the trouble ticket: Yes/No.
msggrp_misc_flag	N	number(3)	Message belongs to message group Misc: Yes/No. (Assigned message group is not configured in HPOM.) This flag is set when the message is added. It may therefore be wrong if the message group was added or deleted afterwards.

Table 7-2 opc_act_messages Table (Continued)

Column Name	Con-straint	Column Type	Description
cma_flag		number(3)	Indicate if a custom message attribute is available for the message. Possible values: 0…No custom message attribute 2…Custom message attribute available (default)
creation_time	N	number(12)	Date and time the message was created on the managed node (in seconds since 00:00 GMT on 1 Jan 1970).
local_creation_time		date	Creation time on agent in server time zone in date format. This is for reporting purposes.
receiving_time	N	number(12)	Date and time the message was received on the management server, or when it was unbuffered (in seconds since 00:00 GMT on 1 Jan 1970).
local_receiving_time		date	Receiving time on server in date format using the server's time zone. This is for reporting purposes.
severity	N	number(3)	Severity attribute of the message. 1…Unknown 2…Normal 4…Warning 8…Critical 16…Minor 32…Major

Table 7-2 opc_act_messages Table (Continued)

Column Name	Con-straint	Column Type	Description
auto_status	N	number(3)	Status of the automatic action. Possible values: 2…Failed 8…Started 9…Finished 11…Defined 12…No action
auto_node_id	N	varchar2(36)	Key field to identify the node where the automatic action will run.
auto_anno_flag	N	number(3)	Automatic action generates annotation: Yes/No.
auto_ackn_flag	N	number(3)	Automatic action acknowledges message: Yes/No.
op_init_status	N	number(3)	Status of the operator-initiated action. Possible values: 2…Failed 8…Started 9…Finished 11…Defined 12…No action
op_init_node_id	N	varchar2(36)	Key field to identify the node where the operator initiated action will run.
op_init_anno_flag	N	number(3)	Operator-initiated action generates annotation: Yes/No.
op_init_ackn_flag	N	number(3)	Operator-initiated action acknowledges message: Yes/No.
msg_source_name		varchar2(508)	Name of the message source (template name).

Table 7-2 opc_act_messages Table (Continued)

Column Name	Con-straint	Column Type	Description
application		varchar2(508)	Application attribute of the message.
message_group		varchar2(254)	Message group attribute of the message.
object		varchar2(508)	Object attribute of the message.
notify_services		varchar2(508)	Notification services used by this message.
auto_call		varchar2(4000)	Program call for automatic action.
op_init_call		varchar2(4000)	Program call for operator-initiated action.
message_type		varchar2(254)	Message type attribute for the Message Stream Interface. Used to filter messages in ECS.
escalate_flag	N	number(3)	Message is escalated. Possible values: 0…Not escalated 1…Escalated to 2…Escalated from
assign_flag	N	number(3)	An operator is working on a message and has owned this message. Possible values: 0…Not owned 4…Owned
instruction_type	N	number(3)	Type of instruction. Possible values: 0…No instruction 1…Instruction text 2…Use instruction text interface 3…Instruction for HPOM internal errors
resolved_instr_par		varchar2(508)	Resolved parameters for instruction text interface.

Table 7-2 opc_act_messages Table (Continued)

Column Name	Con-straint	Column Type	Description
service_name		varchar2(4000)	Service name attribute.
msg_key		varchar2(4000)	Message key to identify a certain type of message.
forward	N	number(3)	Message is forwarded to or from this management server. Possible values are: 0…Not forwarded 1…Forwarded from another server 2…Forwarded to another server 4…Pending forward to another server 5…Forwarded from another server, pending forward to another server 6…Forwarded to another server, pending reforward to another server 7…Forwarded from another server. pending reforward to another server
readonly	N	number(3)	Message is read-only: Yes/No.
original_msgid	N	varchar2(36)	message_number on source manager. Also set if an event generates more than one message.
buffer_flag	N	number(3)	Message is buffered because it is received outside of service hours: Yes/No.
unbuffer_time		number(12)	Time when message will be unbuffered (at start of service hours). Format: in seconds since 00:00 GMT on 1 Jan 1970. If a message is not buffered, this field is null.
local_unbuffer_time		date	Time at which the message has to be unbuffered (service hour start) in date format using the server's time zone. If a message is not buffered, this field is null.
time_diff	N	number(12)	Difference between GMT and the agent time zone where the message was created.

Table 7-2 opc_act_messages Table (Continued)

Column Name	Con-straint	Column Type	Description
local_agt_creation_time		date	Creation time on the agent in date format using the agent's time zone. This is for reporting purposes only.
ackn_flag	N	number(3)	Message is acknowledged but not yet moved to the history tables. Possible values are: 0…Active message 1…Acknowledged message, not yet moved
ackn_time		number(12)	Acknowledge time of acknowledged (but not yet moved) message in seconds since 00:00 GMT on 1 Jan 1970. This is for reporting purposes only. If the message is not acknowledged, this field is null.
local_ackn_time		date	Acknowledge time in server time zone in date format (for reporting purposes). If the message is not acknowledged, this field is null.
ackn_user		varchar2(128)	User who acknowledged message. If the message is not acknowledged, this field is null. The user OpC in this field indicates that HPOM acknowledged the message.
dupl_count	N	number(12)	Number of duplicates of this message.
last_time_received		number(12)	Date and time the last duplicate message of this message was received on the management server (in seconds since 00:00 GMT on 1 Jan 1970). If there aren't any duplicates, this field is null.
local_last_time_received		date	Date and time the last duplicate message of this message was received, in date format using the server's time zone (for reporting purposes). If there aren't any duplicates, this field is null.
anno_count		number(3)	Number of annotations.

opc_anno_text Table

This table contains the annotation text for messages in opc_act_messages (see page 166). To allow for sizes greater than 254, the annotation text is split into chunks of 254 characters.

Table 7-3 opc_anno_text Table

Column Name	Con-straint	Column Type	Description
anno_text_id	N, P	varchar2(36)	Key field to identify this text.
order_number	N, P	number(5)	Order number of this text part.
text_part	N	varchar2(4000)	Text part.

opc_annotation Table

This table contains the main entry of message annotations for messages in opc_act_messages (see page 166).

Table 7-4 opc_annotation Table

Column Name	Con-straint	Column Type	Description
message_number	N, P	varchar2(36)	First part of key used to identify the message.
anno_text_id	N, P	varchar2(36)	Second part of key used to identify the annotation text in opc_anno_text Table.
time	N	number(12)	Creation time of the annotation in seconds since 00:00 GMT on 1 Jan 1970.
local_time		date	Creation time of the annotation in the server time zone in date format (for reporting purposes).
anno_number	N	number(5)	Order number of the annotation.
author		varchar2(128)	Name of the HPOM user who entered the annotation. The author is OpC if HPOM generated the action.

opc_escal_assign_m Table

This table contains the message numbers of the owned messages, and messages that were escalated to or from another management server. This refers to messages in opc_act_messages (see page 166).

Table 7-5 opc_escal_assign_m Table

Column Name	Con-straint	Column Type	Description
message_number	N, P	varchar2(36)	Key to identify the message.
type	N, P	number(3)	Message type: 1…Escalated to 2…Escalated from 4…Owned
node_id	N	varchar2(36)	Node ID of the node from/to which the message was escalated. (Null ID for owned messages.)
op_name		varchar2(128)	Name of the operator who escalated/owned the message.
time	N	number(12)	Time the message was escalated/owned.
local_time		date	Time of escalation or own in server time zone in date format This is for reporting purposes.

opc_forward_msgs Table

This table contains a list of messages that have been forwarded to other management servers. One message can be forwarded to more than one manager.

Table 7-6 opc_forward_msgs Table

Column Name	Con-straint	Column Type	Description
message_number	N, P	varchar2(36)	Key field (part 1), associates entries with a message.
target_manager_id	N, P	varchar2(36)	Key field (part 2), node ID of the target manager.
new_message_number	N	varchar2(36)	New message number on the target manager.
type	N	number(12)	Type of the forwarded message (notification or full control).

opc_hist_anno_text Table

This table contains the annotation text for history messages in opc_hist_messages (see page 180). To allow for sizes greater than 254, the annotation text is split into chunks of 254 characters.

Table 7-7 opc_hist_anno_text Table

Column Name	Con-straint	Column Type	Description
anno_text_id	N, P	varchar2(36)	Key field to identify this text.
order_number	N, P	number(5)	Order number of this part of the text.
text_part		varchar2(4000)	Text part.

opc_hist_annotation Table

This table contains the annotations of a history message in opc_hist_messages (see page 180). The annotation texts are in opc_hist_anno_text.

Table 7-8 opc_hist_annotation Table

Column Name	Con-straint	Column Type	Description
message_number	N, P	varchar2(36)	Key to identify the message.
anno_text_id	N, P	varchar2(36)	ID to identify the annotation text in opc_hist_anno_text.
time	N	number(12)	Creation time of the annotation in seconds since 00:00 GMT on 1 Jan 1970.
local_time		date	Creation time of the annotation in the server time zone in date format. This is for reporting purposes.
anno_number	N	number(5)	Order number of the annotation.
author		varchar2(128)	Name of the HPOM operator who entered the annotation.

opc_hist_cust_attrib Table

This table contains the actual custom message attribute pairs attached to the associated history message. The combination of `message_number` and `cma_name` must be unique.

Table 7-9 opc_hist_cust_attrib Table

Column Name	Con-straint	Column Type	Description
message_number	U, N, F	varchar2(36)	Key field to identify the associated message.
cma_name	U, N	varchar2(508)	The name of the custom message attribute.
cma_value		varchar2(2048)	The actual value of the custom message attribute.

opc_hist_messages Table

This table contains the main entry for history messages (messages that were acknowledged or are log-only). Some acknowledged messages may still be in opc_act_messages (see page 166).

Table 7-10 opc_hist_messages Table

Column Name	Con-straint	Column Type	Description
message_number	N, P	varchar2(36)	Key field to identify the message.
condition_id	N	varchar2(36)	Key field to identify the condition matching the message. (Not used or set.)
instruction_id		varchar2(36)	Key field to identify the instruction text or instruction text interface.
node_id	N, F	varchar2(36)	Key field to identify the node where the event occurred.
msg_gen_node_id	N	varchar2(36)	Key field to identify the node where the message was generated.
network_type	N	number(5)	Type of network the node resides in. Possible values: 1…IP 5…Other
log_only_flag	N	number(3)	Message was sent as log-only to the management server: Yes/No.
unmatched_flag	N	number(3)	Message did not match any condition: Yes/No.

Table 7-10 opc_hist_messages Table (Continued)

Column Name	Con-straint	Column Type	Description
msg_source_type	N	number(12)	Message source type. Possible values: 1…Console 2…Interface 4…Logfile 8…Monitor 16…SNMP 256…Schedule 32…Server Message Stream Interface 64…Agent Message Stream Interface 128…Legacy Link Interface 4096…Internal message 8192…Subproduct message
notification_flag	N	number(3)	Message triggered notification: Yes/No.
trouble_tick_flag	N	number(3)	Message generated trouble ticket: Yes/No.
ackn_after_tt_flag	N	number(3)	Acknowledge message after generation of the trouble ticket: Yes/No.
msggrp_misc_flag	N	number(3)	Message is assigned to Misc: Yes/No.
cma_flag		number(3)	Indicate if a custom message attribute is available for the message. Possible values: 0…No custom message attribute 2…Custom message attribute available (default)
creation_time	N	number(12)	Date and time the message was created on the managed node in seconds since 00:00 GMT on 1 Jan 1970.

Table 7-10 opc_hist_messages Table (Continued)

Column Name	Con-straint	Column Type	Description
local_creation_time		date	Creation time on agent in server time zone in date format (for reporting purposes).
local_agt_creation_time		date	Creation time on agent in agent time zone in date format for reporting.
receiving_time	N	number(12)	Date and time the message was received on the management server.
local_receiving_time		date	Time the server received the message in date format using the server's time zone. This is for reporting purposes.
severity	N	number(3)	Severity attribute of the message. 1…Unknown 2…Normal 4…Warning 8…Critical 16…Minor 32…Major
auto_status	N	number(3)	Status of the automatic action. Possible values: 2…Failed 8…Started 9…Finished 11…Defined 12…No action
auto_node_id	N	varchar2(36)	Key field to identify the node where the automatic action will run.
auto_anno_flag	N	number(3)	Automatic action generates annotation: Yes/No.

Table 7-10 opc_hist_messages Table (Continued)

Column Name	Con-straint	Column Type	Description
auto_ackn_flag	N	number(3)	Automatic action acknowledges message: Yes/No.
op_init_status	N	number(3)	Status of the operator-initiated action. Possible values: 2…Failed 8…Started 9…Finished 11…Defined 12…No action
op_init_node_id	N	varchar2(36)	Key field to identify the node where the operator initiated action will run.
op_init_anno_flag	N	number(3)	Operator-initiated action generates an annotation: Yes/No.
op_init_ackn_flag	N	number(3)	Operator-initiated action acknowledges the message: Yes/No.
ackn_time	N	number(12)	Date and time the message was acknowledged in seconds since 00:00 GMT on 1 Jan 1970.
local_ackn_time		date	Acknowledge time in server time zone in date format. This is for reporting purposes.
application		varchar2(508)	Application attribute of the message.
auto_call		varchar2(4000)	Program call for automatic action.
op_init_call		varchar2(4000)	Program call for operator-initiated action.
ackn_user		varchar2(128)	Operator name who acknowledged the message (OpC if acknowledged by HPOM).
msg_source_name		varchar2(508)	Name of the message source (template name).
message_group		varchar2(254)	Message group attribute of the message.

Table 7-10 opc_hist_messages Table (Continued)

Column Name	Con-straint	Column Type	Description
object		varchar2(508)	Object attribute of the message.
notify_services		varchar2(508)	Notification services used by this message.
message_type		varchar2(254)	Message type attribute for the Message Stream Interface.
escalate_flag	N	number(3)	Message is escalated. Possible values: 0…Not escalated 1…Escalated to 2…Escalated from
assign_flag	N	number(3)	An operator is working on a message and has owned this message. Possible values: 0…Not owned 4…Owned
instruction_type	N	number(3)	Type of instruction. Possible values: 0…No instruction 1…Instruction text 2…Use instruction text interface 3…Instruction for HPOM internal error
resolved_instr_par		varchar2(508)	Resolved parameters for instruction text interface.
service_name		varchar2(4000)	Service name attribute.
msg_key		varchar2(4000)	Message key to identify a certain type of message.

Table 7-10 opc_hist_messages Table (Continued)

Column Name	Con-straint	Column Type	Description
forward	N	number(3)	Message is forwarded to or from this management server. Possible values are: 0…Not forwarded 1…Forwarded from another server 2…Forwarded to another server 4…Pending forward to another server 5…Forwarded from another server, pending forward to another server 6…Forwarded to another server, pending reforward to another server 7…Forwarded from another server. pending reforward to another server
readonly	N	number(3)	Message is read-only: Yes/No.
original_msgid	N	varchar2(36)	message_number on source manager. Also set if an event generates more than one message.
time_diff	N	number(12)	Difference to GMT of the agent time zone when the message was created.
dupl_count	N	number(12)	Number of duplicates of this message.
last_time_received		number(12)	Date and time the last duplicate message of this message was received on the management server (in seconds since 00:00 GMT on 1 Jan 1970). If there aren't any duplicates, this field is null.
local_last_time_received		date	Date and time the last duplicate message of this message was received, in date format using the server's time zone (for reporting purposes). If there aren't any duplicates, this field is null.
unbuffer_time		number(12)	Unbuffer time from the active message table.

Table 7-10 opc_hist_messages Table (Continued)

Column Name	Con-straint	Column Type	Description
local_unbuffer_time		date	Date in local format.
receiving_time	N	number12	Timestamp of reception of the message.
anno_count		number(3)	Number of annotations.

opc_hist_msg_text Table

This table holds the message text (divided in 254 byte parts) of a history message in opc_hist_messages (see page 180).

Table 7-11 opc_hist_msg_text Table

Column Name	Con-straint	Column Type	Description
message_number	N, P	varchar2(36)	Part one of key used to identify the message.
order_number	N, P	number(5)	Part two of key, used for order of the text parts.
text_part		varchar2(4000)	254 byte parts of the message text.

opc_hist_orig_text Table

This table holds the original message text (divided in 254 byte parts) of a history message in opc_hist_messages (see page 180).

Table 7-12 opc_hist_orig_text Table

Column Name	Con-straint	Column Type	Description
message_number	N, P	varchar2(36)	Part one of key used to identify the message.
order_number	N, P	number(5)	Part two of key, used for order of the text parts.
text_part		varchar2(4000)	254 byte parts of the original message text.

opc_instr_interf Table

This table contains the definition of instruction text interfaces.

Table 7-13 opc_instr_interf Table

Column Name	Con-straint	Column Type	Description
name	N, P	varchar2(36)	Key field that contains the name of instruction interface. This name is written in the instruction_id of a condition or message.
description		varchar2(508)	Description of instruction interface.
instr_interf_call		varchar2(4000)	Program call for instruction interface.
node_id	N	varchar2(36)	Node where program call is executed.
start_on_mgmt_sv	N	number(3)	Start instruction interface call on management server.
username		varchar2(128)	OS user of program call.
output_mode	N	number(3)	Output in Terminal/No Window Possible values: 0…No window 1…Input/output 2…Output only
resolve_for_ttns	N	number(3)	Resolve external instruction for trouble ticket or notification service: Yes/No.

opc_instructions Table

This table contains the text of normal instructions. To allow for a various text lengths, the text is split into chunks of 254 characters.

Table 7-14 opc_instructions Table

Column Name	Con-straint	Column Type	Description
instruction_id	N, P	varchar2(36)	Key field to identify the instruction text.
order_number	N, P	number(5)	Order number of this part of the text.
text_part		varchar2(4000)	Text part.

opc_msg_text Table

This table contains the message text for messages in opc_act_messages (see page 166). To allow for a various text lengths, the text is split into chunks of 254 characters.

Table 7-15 opc_msg_text Table

Column Name	Con-straint	Column Type	Description
message_number	N, P	varchar2(36)	Part one of key to identify the message.
order_number	N, P	number(5)	Order number of this text part.
text_part		varchar2(4000)	Text part.

opc_orig_msg_text Table

This table contains the original (unprocessed) text of messages in opc_act_messages (see page 166). To allow for a various text lengths, the text is split into chunks of 254 characters.

Table 7-16 opc_orig_msg_text Table

Column Name	Con-straint	Column Type	Description
message_number	N, P	varchar2(36)	Part one of key to identify the message.
order_number	N, P	number(5)	Order number of this text part.
text_part		varchar2(4000)	Text part.

opc_service_msgs Table

This table supports reports that show all messages related to a given service.

Table 7-17 opc_service_msgs Table

Column Name	Con-straint	Column Type	Description
service_name	N, P	varchar2(4000)	Service name that is affected.
msg_service_name	N, P	varchar2(4000)	Service name as given in the messages affecting it.

8 Other Tables

In This Chapter

This chapter contains the tables that do not fall into any of the previous categories.

opc_audit Table

The opc_audit table is not published for security reasons. If you want to generate a report about auditing, use the `HPOM Reports` window in the administrator GUI.

The audit table will have a heap storage format. The key available would be the username and audit_type. These keys will be often repeated and generate overflow pages. Choosing any storage structure with key will cause time consuming lock escalations because all overflow pages have to be locked, until a new entry may be appended. Table locks and lock escalations are very uncomfortable for concurrence. We assume that there will be heavy concurrence on this table. Furthermore the best performance for inserts into this table is gained with a heap storage structure. The bad performance for retrieving access affects only the creation of reports.

Table 8-1 opc_audit Table

Column Name	Con-straint	Column Type	Description
audit_nr	Primary Key	number(12)	Key, link to audit parameters in opc_audit_param.
ito_user		varchar2(20)	HPOM user name.
unix_user		varchar2(20)	UNIX user name.
source	Not Null	number(3)	Type of program. Possible values: 1…API 2…CLI 3…GUI
time	Not Null	number(12)	Creation time of the audit entry in seconds since 1-Jan-1970 GMT.
local_time	Not Null	date	Creation time of the audit entry in server time zone in date format for reporting.

Table 8-1 opc_audit Table (Continued)

Column Name	Con-straint	Column Type	Description
area	Not Null	number(5)	Audit area, describes affected object. Possible values: 1…Application 2…Audit 3…Automatic Action 4…Condition 5…Configuration 6…History 7…Logoff 8…Logon 9…Node 10…Node Group 11…Notification 12…Operator Action 13…Password 14…Template 15…Trouble Ticket 16…User

Table 8-1 opc_audit Table (Continued)

Column Name	Con-straint	Column Type	Description
action	Not Null	number(5)	Action on affected object. Possible values: 1…Add 2…Deinstall 3…Delete 4…Disable 5…Distribute 6…Download 7…Enable 8…Failed 9…Install 10…Modify 11…Start 12…Stop 13…Succeeded 14…Upload

opc_audit_param Table

The opc_audit_param table is not published for security reasons. If you want to generate a report about auditing, use the `HPOM Reports` window in the administrator GUI.

This table contains the parameters of an audit entry.

Table 8-2 opc_audit_param Table

Column Name	Con-straint	Column Type	Description
audit_nr	Primary Key	number(12)	Key field to link the entry to the main audit table.
order_number	Primary Key	number(12)	Number of this parameter of current audit entry.
type	Not Null	number(5)	Parameter type. Possible values: 1…Action Identifier 2…Application Name 3…Application Type 4…Audit Level 5…Auto Action Call

Table 8-2 opc_audit_param Table (Continued)

Column Name	Con-straint	Column Type	Description
			6…Auto Action Node 7…Call 8…Condition Name 9…DCE Security Level 10…Directory 11…Error Text 12…File execute 13…File read 14…Logfile 15…Machine Type 16…Method 17…Security Protocol 18…Node 19…Node Group Name 20…Node Type 21…Operator Action Call 22…Operator Action Node 23…Parameter 24…Operator Action 25…Physical Terminal 26…Records older than 27…Registered Name 28…Template Name 29…Time 30…User 31…User Type

Table 8-2 opc_audit_param Table (Continued)

Column Name	Con-straint	Column Type	Description
value		varchar2(2000)	Value of the audit parameter.

opc_change_status Table

This table contains the change flags for the HPOM nodes and users.

Table 8-3 opc_change_statusTable

Column Name	Con-straint	Column Type	Description
object_id	N, P	varchar2(36)	Name and key of a condition status variable (linked to node_id or user_id).
object_type	N, P	number(5)	Type of object. Possible values: 1…Node 2…User
status_type	N, P	number(5)	Status flag type. Possible values: 1…(node) Node configuration (template) distribution status. 2…(node) Nodeinfo distribution status. 3…(node) Action script distribution status. 4…(node) Command script distribution status. 5…(node) Monitor script distribution status. 6…(user) Domain (node hierarchy) change flag. 7…(user) Realm (responsibility) change flag. 8…(user) Desktop (assigned applications) change flag. 9…(user) OV change application change flag.

Table 8-3 opc_change_statusTable (Continued)

Column Name	Con-straint	Column Type	Description
value		number(12)	Value of the change flag or change status. For the user change flags, the value is either 0 or 1. For nodes, possible values are: 0…Active (no distribution necessary) 1…Modified (distribution necessary) 2…Distribute (configuration is currently distributed) 3…Ignore 4…Modified force (distribution enforced) 5…Distribute force (enforced distribution in progress)

opc_cma_names Table

This temporary table holds the names of all available custom message attributes for selection in the Java GUI browser configuration.

Table 8-4 opc_cma_names Table

Column Name	Con-straint	Column Type	Description
cma_name	N	varchar2(508)	Custom message attribute name.

opc_db_maintenance Table

This table contains the database maintenance configuration for the HPOM management server.

Table 8-5 opc_db_maintenance Table

Column Name	Con-straint	Column Type	Description
max_num_active	N, P	number(12)	Maximum number of active messages allowed. (Messages are generated if this value is exceeded.)
max_num_hist	N	number(12)	Maximum number of history messages allowed. (Messages are generated if this value is exceeded.)
send_msg_act_flag	N	number(3)	Send message if limit of active messages is exceeded: Yes/No.
send_msg_hist_flag	N	number(3)	Send message if limit of history messages is exceeded: Yes/No.
download_hist_flag	N	number(3)	Automatically download history messages: Yes/No.
hist_older	N	number(12)	Number of seconds to wait after acknowledgment of a message before downloading it into history tables.
hist_at_time		varchar2(64)	Download the messages at the specified time. Format: 00:00:00
hist_notific_flag	N	number(3)	Generate messages when downloading the history messages: Yes/No.
hist_into_file		varchar2(508)	Download history messages into the specified file.

opc_message_groups Table

This table contains the messages groups of the Message Group Bank.

This table does not contain an ID field for message groups because it may not always be possible to substitute the message group of an object (message, condition, …) with an ID. The object may contain message group names which are unknown to the database at the time.

Table 8-6 opc_message_groups Table

Column Name	Con-straint	Column Type	Description
name	N, P	varchar2(254)	Key field to identify the message group.
symbol_type_id	N	varchar2(36)	Key field to identify the symbol type string in opc_symbols.
description		varchar2(508)	Description of the message group.
label		varchar2(508)	Label of the message group.
info		varchar2(4000)	Field for the operators for making notes, for example, tracking the changes.

opc_notif_schedule Table

This table represents the schedule for the notification services.

Table 8-7 opc_notif_schedule Table

Column Name	Con-straint	Column Type	Description
notif_svc_id	N	varchar2(36)	Key field to identify the notification service.
day	N	number(3)	Day of the week. Possible values: 0…Sunday 1…Monday 2…Tuesday 3…Wednesday 4…Thursday 5…Friday 6…Saturday
start_time	N	varchar2(32)	Time when the notification service starts (internal format).
end_time	N	varchar2(32)	Time when the notification service stops (internal format).

opc_notif_services Table

This table represents the configured notification services.

Table 8-8 opc_notif_services Table

Column Name	Con-straint	Column Type	Description
notif_svc_id	N, P	varchar2(36)	Key field to identify the notification service.
notif_svc_name	U	varchar2(64)	Identifies and describes the name of the notification service.
notif_call		varchar2(508)	Program called for this notification service.

opc_service Table

This table contains basic information about services for which service logs are generated. It is used to map services names to service labels, so that reports are able to display the label rather than the name.

Table 8-9 opc_service Table

Column Name	Con-straint	Column Type	Description
service_name	N, P	varchar2(4000)	Key field to identify the service.
label	N	varchar2(508)	Label of the service, displayed in the GUI.
active_log_datetime	N	number(12)	Field to identify the currently active log in the opc_service_log table.
log_service	N	number(3)	Service is still actively logged: Yes/No.
original_id		varchar2(4000)	Original service ID as passed by the service engine.

opc_service_log Table

This table contains the service status logs (severity and duration).

Table 8-10 opc_service_log Table

Column Name	Con-straint	Column Type	Description
service_name	P, F, N	varchar2(4000)	Key field to identify the service.
datetime	P, N	number(12)	Start time of the status log; in seconds since 00:00 GMT on 1 Jan 1970.
local_datetime	N	date	Start time of the status log in date format using the server's time zone. For reporting purposes only.
severity	N	number(3)	Severity attribute of the status log. Possible values are: 1...Unknown 2…Normal 4…Warning 8…Critical 16…Minor 32…Major
end_datetime		number(12)	End time of the status log; in seconds since 00:00 GMT on 1 Jan 1970. If the status log is active, this field is null.
local_end_datetime		date	End time of the status log in date format using the server's time zone. For reporting purposes only. If the status log is active, this field is null.

Table 8-10 opc_service_log Table (Continued)

Column Name	Con-straint	Column Type	Description
calculation_name	N, P	varchar(508)	Status calculation name. Possible values for status calculation views are: Overall Operational Overall view displays the latest service status calculation of the day. This view considers services in its totality: both owned messages and messages that have not been assigned to any operator. Operational view displays the service status calculation of all active messages. This view considers only messages that have not been assigned to any operator. Only HPOM administrators can enable and configure these multistate status calculation views on the management server. This can be done by editing the XPL configuration file.
default_calculation	N	number(3)	Default status calculation Possible values are: 0…Non default calculation. 1…Default calculation. Note that you can customize the default value.

opc_symbols Table

This table contains the HP Software Windows symbol names used by HPOM. Other configuration tables don't contain the symbol names directly but use the symbol_type_id as reference.

Table 8-11 opc_symbols Table

Column Name	Con-straint	Column Type	Description
symbol_type_id	N, P	varchar2(36)	Key field to identify the symbol type strings.
symbol_name	U	varchar2(160)	String representing the symbol type and shape used in HP Software Windows.

opc_temp_appl_list Table

Table for temporary data for filtering messages based on applications.

Table 8-12 opc_temp_appl_list Table

Column Name	Con-straint	Column Type	Description
name		varchar2(508)	Application name.

opc_temp_msggrp_list Table

Table for temporary data for filtering messages based on message groups.

Table 8-13 opc_temp_msggrp_list Table

Column Name	Con-straint	Column Type	Description
name	N	varchar2(254)	Message group name.

opc_temp_node_list Table

Table for temporary storage of node IDs. Used for filtering of messages based on nodes, for acknowledging messages of a deleted external node and for finding responsible operators.

Table 8-14 opc_temp_node_list Table

Column Name	Con-straint	Column Type	Description
node_id	N	varchar2(36)	Node ID.

opc_temp_object_list Table

Table for temporary data for filtering messages based on objects.

Table 8-15 opc_temp_object_list Table

Column Name	Con-straint	Column Type	Description
name		varchar2(508)	Object name.

opc_temp_service_list Table

Table for temporary data for filtering messages based on services.

Table 8-16 opc_temp_service_list Table

Column Name	Con-straint	Column Type	Description
service_name	N	varchar2(4000)	Service name.

opc_temp_templ Table

Table for temporary storage of template IDs.

Table 8-17 opc_temp_templ Table

Column Name	Con-straint	Column Type	Description
template_id	N	varchar2(36)	Template ID.

opc_tmp_filter_appl Table

Temporary table for improved selection of filtered applications.

Table 8-18 opc_tmp_filter_appl Table

Column Name	Con-straint	Column Type	Description
application	N, P	varchar2(508)	Key field to identify the application.

opc_tmp_filter_cma Table

Temporary table for improved selection of filtered custom message attributes.

Table 8-19 opc_tmp_filter_cma Table

Column Name	Con-straint	Column Type	Description
cma_name	P, N	varchar2(508)	Name of the custom message attribute.
cma_value	P, N	varchar2(2048)	Value of the custom message attribute.

opc_tmp_filter_msggrp Table

Temporary table for improved selection of filtered message groups.

Table 8-20 opc_tmp_filter_msggrp Table

Column Name	Con-straint	Column Type	Description
message_group	N	varchar2(254)	This field contains the message group of a message.

opc_tmp_filter_node Table

Temporary table for improved selection of filtered nodes.

Table 8-21 opc_tmp_filter_node Table

Column Name	Con-straint	Column Type	Description
node_name	N	varchar2(2048)	This field contains the identifying name of a node.

opc_tmp_filter_obj Table

Temporary table for improved selection of filtered objects.

Table 8-22 opc_tmp_filter_obj Table

Column Name	Con-straint	Column Type	Description
object	N, P	varchar2(508)	Key field to identify the object.

opc_tmp_filter_pattern_node Table

Temporary table for improved selection of filtered external nodes.

Table 8-23 opc_tmp_filter_pattern_node Table

Column Name	Con-straint	Column Type	Description
node_id	N	varchar2(36)	This field contains the identifier of an external node.

opc_tmp_filter_service Table

Temporary table for improved selection of filtered services.

Table 8-24 opc_tmp_filter_service Table

Column Name	Con-straint	Column Type	Description
service_name	N	varchar2(4000)	Key field to identify the service name of a message.

opc_tmp_misc_msggrp Table

Temporary table for improved selection of the message group `Misc`.

Table 8-25 opc_tmp_misc_msggrp Table

Column Name	Con-straint	Column Type	Description
message_group	N, P	varchar2(254)	Key field to identify the message group `Misc` of a message.

opc_tmp_msg_id Table

Temporary table for improved selection of message IDs.

Table 8-26 opc_tmp_msg_id Table

Column Name	Con-straint	Column Type	Description
message_number	N, P	varchar2(36)	Key field to identify the message.

opc_tmp_msg_id_service Table

Temporary table for improved selection of message IDs related to services.

Table 8-27 opc_tmp_msg_id_service Table

Column Name	Con-straint	Column Type	Description
message_number	N, P	varchar2(36)	Key field to identify the message.

opc_tmp_valid_msggrp Table

Temporary table for improved selection of valid message groups.

Table 8-28 opc_tmp_valid_msggrp Table

Column Name	Con-straint	Column Type	Description
message_group	N, P	varchar2(254)	Key field to identify the message group of a message.

opc_tmp_visible_msggrp Table

Temporary table for improved selection of visible message groups.

Table 8-29 opc_tmp_visible_msggrp Table

Column Name	Con-straint	Column Type	Description
message_group	N, P	varchar2(254)	Key field to identify the message group of a message.

opc_tmp_visible_node Table

Temporary table for improved selection of visible nodes.

Table 8-30 opc_tmp_visible_node Table

Column Name	Con-straint	Column Type	Description
node_id	N	varchar2(36)	Key field to identify the node.
node_group_id	N	varchar2(36)	Key field to identify the node group.

opc_tmp_visible_node2 Table

Second temporary table for improved selection of visible nodes.

Table 8-31 opc_tmp_visible_node2 Table

Column Name	Con-straint	Column Type	Description
node_id	N	varchar2(36)	Key field to identify the node.
node_group_id	N	varchar2(36)	Key field to identify the node group.

opc_tmp_visible_pattern Table

Temporary table for improved selection of visible patterns.

Table 8-32 opc_tmp_visible_pattern Table

Column Name	Con-straint	Column Type	Description
node_id	P, N	varchar2(36)	Key field to identify the node.
pattern_id	P, N	varchar2(36)	Key field for node pattern identification; linked to `node_id` in `opc_nodes` (page 109).

opc_tmp_visible_profile Table

Temporary table for improved selection of visible user profiles.

Table 8-33 opc_tmp_visible_profile Table

Column Name	Con-straint	Column Type	Description
user_id	N, P	varchar2(36)	Key field to identify the usr profile.

opc_tmp_visible_service Table

Temporary table for improved selection of visible services.

Table 8-34 opc_tmp_visible_service Table

Column Name	Con-straint	Column Type	Description
service_name	N	varchar2(4000)	Key field to identify the service name of a message.

opc_trouble_ticket Table

This table contains the actual status and program call to forward a message to a trouble ticket system.

Table 8-35 opc_trouble_ticket Table

Column Name	Con-straint	Column Type	Description
status_flag	N	number(3)	Trouble ticket interface enabled: Yes/No.
tt_call		varchar2(508)	Program which is called to forward a message to a trouble-ticket system.

opc_s2s_sync Table

This table is used to establish the last time a particular configuration object was modified.

Table 8-36 opc_s2s_sync Table

Column Name	Con-straint	Column Type	Description
object_id	N	varchar2(36)	Key field to identify the object.
last_chg_time	N	numer(12)	Last time the object was modified.

opc_policy_type Table

This table contains information about policy types.

Table 8-37 opc_policy_type Table

Column Name	Con-straint	Column Type	Description
policy_type_num	N, P	number(12)	References the old way of distinguishing policy types.
policy_type_uuid	N, U	varchar2(36)	ID of the policy type.
policy_type_name	N, U	varchar2(2048)	Server-side name of the policy type.
name_on_agent	N	varchar2(2048)	Agent-side name of the policy type.
policy_editor		varchar2(4000)	Editor called to edit the policies of this type.
policy_edit		varchar2(4000)	Call-back commands are defined to be run before deployment of a policy of this type.
policy_check		varchar2(4000)	Call-back commands are defined to be run before upload of a policy of this type to the database.
policy_deploy		varchar2(4000)	Call-back commands are defined to be run during deployment of a policy of this type.
policy_cleanup		varchar2(4000)	Call-back commands are defined to be run after deployment of a policy of this type.
policy_template	N	blob()	Template for creation of a policy of this type.
default_content_encoding		varchar2(254)	Default MIME type.
server_and_or_agent		number(3)	*Reserved for future use.* Specifies if a policy can be deployed only to the management server, to an agent, or to both.

opc_policy_body Table

This table contains information about policy types.

Table 8-38 opc_policy_body Table

Column Name	Con-straint	Column Type	Description
policy_id	N, F, U	varchar2(36)	Key field that identifies the policy.
policy_body_filename	N, U	varchar2(2048)	Suffix to the name of the file containing the policy body.
policy_body	N	blob()	Body of the policy.
policy_body_chksum		varchar2(2048)	Checksum of the policy body.
policy_body_number		number(3)	Position of this body inside the policy.
policy_body_encoding		varchar2(1024)	MIME type of the policy body.
content_encoding		varchar2(254)	Encoding of the content.

opc_policy_attr Table

This table contains a list of attributes of a policy, like the header checksum, creation date, user, and other.

Table 8-39 opc_policy_attr Table

Column Name	Con-straint	Column Type	Description
policy_id	N, F, U	varchar2(36)	Id of the policy.
attr_name	N, U	varchar2(4000)	Name of the attribute (for example, `checksum_header`, `creation_user`, or `creation_date`).
attr_value		varchar2(4000)	Value of the attribute.

opc_op_filter Table

This table assigns a filter to a user.

Table 8-40 opc_op_filter Table

Column Name	Con-straint	Column Type	Description
filter_id	N, F, U	varchar2(36)	Field to identify the filter.
user_id	N, F	varchar2(36)	Field to identify the user.

opc_license_info Table

This table stores information about licenses used by a node.

Table 8-41 opc_license_info Table

Column Name	Con-straint	Column Type	Description
node_id	N, U	varchar2(36)	Identifies the node.
plugin_id	N, U	varchar2(508)	Identification name of the plugin.
num_instances	N	number(12)	Number of instances used.
time_stamp	N	number(12)	Indicates the last time the license was checked.
license_mgr	N	varchar2(4000)	Name of the license manager node.

opc_license_count Table

This table contains the list of the agentless and other types of licenses needed for a day.

Table 8-42 opc_license_count Table

Column Name	Con-straint	Column Type	Description
plug_in	N	varchar(508)	Identification name of the plugin.
num_instances	N	number(12)	Number of instances used.
time_stamp	N	number(12)	Indicates the last time the license was checked.

opc_instr_in_policy Table

This table assigns an instruction to a policy.

Table 8-43 opc_instr_in_policy Table

Column Name	Con-straint	Column Type	Description
template_id	N, F, P	varchar2(36)	Key field to identify the policy.
instruction_id	N, P	varchar2(36)	Key field to identify the instruction.

opc_filter Table

NOTE *Table 8-44 is reserved for future use.*

Table 8-44 opc_filter Table

Column Name	Con-straint	Column Type	Description
filter_id	N, P	varchar2(36)	*Reserved for future use.*
filter_name	N	varchar2(1024)	*Reserved for future use.*
filter_data	N	clob()	*Reserved for future use.*
is_global		number(3)	*Reserved for future use.*

Database Views Tables

opc_v_ack_messages Table

This table contains a list of users with their count of owned and/or acknowledged messages.

Table 8-45 opc_v_ack_messages Table

Column Name	Column Type	Description
real_name	varchar2(128)	The real name.
name	varchar2(128)	The name.
owned	number	The number of owned messages.
acknowledged	number	The number of acknowledged messages.

opc_v_ack_messages_by_date Table

This table contains a list of users with their count of owned and/or acknowledged messages sorted by date.

Table 8-46 opc_v_ack_messages_by_date Table

Column Name	Column Type	Description
flag	char(1)	The flagged messages.
realname	varchar2(128)	The real name.
msg_count	number	The number of messages.
name	varchar2(128)	The name.
recvd_time	date	The date and time.

opc_v_actions Table

This table contains the status of automatic and operator initiated actions. It counts the number as failed, successful, remaining, and total number of actions.

Table 8-47 opc_v_actions Table

Column Name	Column Type	Description
name	char(25)	The name.
successful	number	The number of successful actions.
failed	number	The number of failed actions.
remaining	number	The number of remaining actions.
total	number	The total number of actions.

opc_v_all_messages Table

This table contains a list of all messages, both historic and active.

Table 8-48 opc_v_all_messages Table

Column Name	Column Type	Description
receiving_time	date	The receiving time of the message.
application	varchar2(508)	The application.
severity	number(3)	The severity of the message.
message_group	varchar2(254)	The message group.
local_creation_time	date	The local creation time of the message.

opc_v_all_user_profiles Table

This table contains all users and the profiles that they are assigned to, directly or indirectly.

Table 8-49 opc_v_all_user_profiles Table

Column Name	Column Type	Description
user_id	varchar2(36)	The user id.
name	varchar2(128)	The name.
realname	varchar2(128)	The real name.
user_role	number(3)	The user role.
result_id	varchar2(36)	The result id.

opc_all_user_realm Table

This table contains a list of the users and their assigned responsibilities.

Table 8-50 opc_all_user_realm Table

Column Name	Column Type	Description
user_id	varchar2(36)	The user id.
name	varchar2(128)	The name.
realname	varchar2(128)	The real name.
user_role	number(3)	The user role.
msg_group_name	varchar2(254)	The message group name.
node_group_id	varchar2(36)	The node group id.

opc_v_assigned_mess Table

This table contains a list of services and the amount of active and historic messages that are assigned to them.

Table 8-51 opc_v_assigned_mess Table

Column Name	Column Type	Description
service_name	varchar2(4000)	The service name.
act_count	number	The number of active messages.
hist_count	number	The count of historic messages.

opc_v_mess_serv Table

This table contains data about services and the active messages related to them.

Table 8-52 opc_v_mess_serv Table

Column Name	Column Type	Description
service_name	varchar2(4000)	The service name.
message_number	varchar2(36)	The number of the message.
receiving_time	number(12)	The receiving time of the message.
local_receiving_time	date	The local receiving time of the system.
local_creation_time	date	The local creation time.
ackn_flag	number(3)	The number of acknowledge messages.
buffer_flag	number(3)	The number of messages buffered.
unbuffer_time	number(12)	The unbuffer time of the message.
application	varchar2(508)	The application.
severity	number(3)	The severity of message.

opc_v_nodegrp_msg Table

This table contains local receiving time of active/historic messages and the node group related to them.

Table 8-53 opc_v_nodegrp_msg Table

Column Name	Column Type	Description
receiving_time	date	The receiving time.
node_group_name	varchar2(2048)	The node group name.

opc_v_node_count Table

This table contains a list of node groups, the number of nodes they contain and the total number of nodes.

Table 8-54 opc_v_node_count Table

Column Name	Column Type	Description
name	varchar2(2048)	The name of the node
count	number	The number of nodes.
totalcnt	number	The total count of the nodes.

opc_v_node_severities Table

This table contains the number of nodes with certain severity of their status (the gravest severity in any of their non-acknowledged messages).

Table 8-55 opc_v_node_severities Table

Column Name	Column Type	Description
severity	varchar2(8)	The severity of the message. Possible values are: Unknown, Normal, Warning, Minor, Major, Critical.
amount	number	The number of nodes with max severity of unacknowledged messages.

opc_v_operator_msg_load Table

This table contains a list of users, and a count of messages for each unacknowledged category with dates ranging from first and last date.

Table 8-56 opc_v_operator_msg_load Table

Column Name	Column Type	Description
realname	varchar2(128)	The real name.
name	varchar2(128)	The name.
severity	number(3)	The severity of the messages.
num_messages	number	The number of messages.
min_datetime	date	The min datetime.
max_datetime	date	The max datetime.
total_msgs	number	The total number of unacknowledged messages.

opc_v_service Table

This table contains the names and labels of HPOM services.

Table 8-57 opc_v_service Table

Column Name	Column Type	Description
service_name	varchar2(4000)	The service name.
label	varchar2(508)	The service label.

opc_v_service_log Table

This table contains a subset of fields from the service log table.

Table 8-58 opc_v_service_log Table

Column Name	Column Type	Description
service_name	varchar2(4000)	The service name.
datetime	number(12)	The date and time.
local_datetime	date	The local date time on the system.
severity	number(3)	The severity of the message.
end_datetime	number(12)	The end date time.
local_end_datetime	date	The end date time on the local system.

opc_v_service_msg Table

This table contains another set of data about services and the active and historic messages related to them.

Table 8-59 opc_v_service_msg Table

Column Name	Column Type	Description
service_name	varchar2(4000)	The service name.
label	varchar2(508)	The label of the service.
receiving_time	date	The date of the messages.
severity	number(3)	The severity of the messages.

opc_v_service_msgs_act Table

This table contains a list of services and the active and service messages assigned to them.

Table 8-60 opc_v_service_msgs_act Table

Column Name	Column Type	Description
service_name	varchar2(4000)	The service name.
label	varchar2(508)	The service label.
receiving_time	date	The receiving time.
local_creation_time	date	The local creation time.
severity	number(3)	The severity of the message.
ackn_flag	number(3)	The acknowledged message.

opc_v_unassigned_messages Table

This table contains a set of data from all messages, active or historical.

Table 8-61 opc_v_unassigned_messages Table

Column Name	Column Type	Description
message_number	varchar(36)	The message number.
message_group	varchar(254)	The message group.
node_id	varchar(36)	The node id.

opc_v_unassigned_resp Table

This table contains a list of couples of message groups of node groups that are not assigned to any operator.

Table 8-62 opc_v_unassigned_resp Table

Column Name	Column Type	Description
mg_name	varchar(254)	The message group.
ng_name	varchar(2048)	The node group.

9 Secondary Indexes

In This Chapter

This chapter contains the secondary indexes.

Secondary Indexes

Additionally to the primary keys, HPOM uses the following secondary indexes to improve the performance of queries which are not using primary keys. Using secondary indexes also ensures the uniqueness of entries if this is not possible through the table definitions.

Table 9-1 Secondary Indexes

Index Name	On Table	Columns
opc_groups_of_node	opc_nodes_in_group	node_id node_group_id
opc_grp_in_realm	opc_op_realm	node_group_id msg_group_name user_id
opc_hist_time	opc_hist_messages	ackn_time
opc_hmessage_msggrp	opc_hist_messages	message_group
opc_hmessage_nodes	opc_hist_messages	node_id
opc_message_msggrp	opc_act_messages	message_group
opc_message_nodes	opc_act_messages	node_id
opc_node_agent_id	opc_nodes	agent_id node_id
opc_node_full_name	opc_node_names	ip_address node_id network_type node_name
opc_node_ip	opc_node_names	ip_address node_id network_type node_name

Table 9-1 Secondary Indexes (Continued)

Index Name	On Table	Columns
opc_node_unique	opc_node_names	ip_address network_type node_name
opc_s2s_sync_index1	opc_s2s_sync	object_id last_chg_time
opc_svclog_1	opc_service_log	service_name calculation_name end_datetime
opc_templ_on_node	opc_node_config	template_id node_id status_flag
opc_templ_unique	opc_source_templ	template_name source_type_id
opcx_anno_num	opc_annotation	message_number anno_number
opcx_msg_key	opc_act_messages	msg_key
opcx_msg_key_rel	opc_msg_key_rel	condition_id
opcx_nodehier_layout_1	opc_nodehier_layout	node_id nodehier_id
opcx_nodehier_layout_2	opc_nodehier_layout	parent_id

10 Foreign Keys

In This Chapter

This chapter contains the foreign keys.

Foreign Keys

Table 10-1 Foreign Keys

Table	Column	Referenced Table	Referenced Column
opc_act_cust_attrib	message_number	opc_act_messages	message_number
opc_act_messages	node_id	opc_node_names	node_id
opc_appl_platforms	application_id	opc_application	application_id
opc_applgrp_in_grp	appl_group_id	opc_appl_groups	appl_group_id
opc_applgrp_in_grp	member_appl_grp_id	opc_appl_groups	appl_group_id
opc_hist_cust_attrib	message_number	opc_hist_messages	message_number
opc_hist_messages	node_id	opc_node_names	node_id
opc_instr_in_policy	template_id	opc_source_templ	template_id
opc_node_alt_v6_addr	node_id	opc_node_names	node_id
opc_node_cat	category_id	opc_category	category_id
opc_node_cat	node_id	opc_nodes	node_id
opc_node_cat_config	category_id	opc_category	category_id
opc_node_cat_config	node_id	opc_nodes	node_id
opc_node_config	node_id	opc_nodes	node_id
opc_node_config	template_id	opc_source_templ	template_id
opc_nodehier_layout	node_id	opc_nodes	node_id
opc_nodegrp_cat	category_id	opc_category	category_id
opc_nodegrp_cat	node_group_id	opc_node_groups	node_group_id
opc_nodehier_layout	nodehier_id	opc_nodehiers	nodehier_id
opc_nodehier_layout	parent_id	opc_nodehier_layout	layout_id
opc_nodehiers	new_obj_layout_id	opc_nodehier_layout	layout_id
opc_nodes_in_group	node_group_id	opc_node_groups	node_group_id

Table 10-1 Foreign Keys (Continued)

Table	Column	Referenced Table	Referenced Column
opc_nodes_in_group	node_id	opc_nodes	node_id
opc_op_desk	application_id	opc_application	application_id
opc_op_desk	user_id	opc_user_data	user_id
opc_op_filter	filter_id	opc_filter	filter_id
opc_op_filter	user_id	opc_user_data	user_id
opc_op_group_desk	appl_group_id	opc_appl_groups	appl_group_id
opc_op_group_desk	user_id	opc_user_data	user_id
opc_op_profiles	profile_id	opc_user_data	user_id
opc_op_profiles	user_id	opc_user_data	user_id
opc_op_realm	msg_group_name	opc_message_groups	name
opc_op_realm	node_group_id	opc_node_groups	node_group_id
opc_op_realm	user_id	opc_user_data	user_id
opc_op_services	user_id	opc_user_data	user_id
opc_op_source_templ	source_type_id	opc_policy_type	policy_type_num
opc_policy_attr	policy_id	opc_source_templ	template_id
opc_policy_body	policy_id	opc_source_templ	template_id
opc_policy_cat	category_id	opc_category	category_id
opc_policy_cat	template_id	opc_source_templ	template_id
opc_service_log	service_name	opc_service	service_name
opc_templ_in_tgrp	templ_group_id	opc_templ_groups	templ_group_id
opc_templ_in_tgrp	template_id	opc_source_templ	template_id
opc_templ_on_ngrp	node_group_id	opc_node_groups	node_group_id
opc_templ_on_ngrp	template_id	opc_source_templ	template_id
opc_templgrp_cat	category_id	opc_category	category_id

Table 10-1 Foreign Keys (Continued)

Table	Column	Referenced Table	Referenced Column
opc_templgrp_cat	templ_group_id	opc_templ_groups	templ_group_id
opc_tgrp_in_tgrp	member_grp_id	opc_templ_groups	templ_group_id
opc_tgrp_in_tgrp	templ_group_id	opc_templ_groups	templ_group_id
opc_tgrp_on_ngrp	templ_group_id	opc_templ_groups	templ_group_id
opc_tgrp_on_node	node_id	opc_nodes	node_id
opc_tgrp_on_node	templ_group_id	opc_templ_groups	templ_group_id
opc_tgrp_on_node	node_id	opc_nodes	node_id
opc_tgrp_on_node	templ_group_id	opc_templ_groups	templ_group_id
opc_tmpl_on_node	node_id	opc_nodes	node_id
opc_tmpl_on_node	template_id	opc_source_templ	template_id
opc_user_data	nodehier_id	opc_nodehiers	nodehier_id

Foreign Keys

A Database Changes

Changes from HPOM 8.xx to 9.xx

This chapter lists the changes in the HPOM database schema that occurred between version 8.xx and 9.xx.

Table A-1 Changes between 8.xx and 9.xx

Table	Description
opc_category Table	Table 4-1, “opc_category Table,” on page 75 is new with HPOM 9.xx.
opc_net_machine Table	Table 4-5, “opc_net_machine Table,” on page 80 is updated with the following new fields with HPOM 9.xx: • `os_family` • `os_type` • `cpu_type` • `pltf_abs_name` All fields are of the type `varchar2(1024)`.
opc_node_cat Table	Table 4-10, “opc_node_cat Table,” on page 95 is new with HPOM 9.xx.
opc_node_cat_config Table	Table 4-11, “opc_node_cat_config Table,” on page 96 is new with HPOM 9.xx.
opc_nodegrp_cat Table	Table 4-13, “opc_nodegrp_cat Table,” on page 102 is new with HPOM 9.xx.
opc_platform_dictionary Table	Table 4-21, “opc_platform_dictionary Table,” on page 120 is new with HPOM 9.xx.
opc_policy_cat Table	Table 4-23, “opc_policy_cat Table,” on page 122 is new with HPOM 9.xx.
opc_templgrp_cat Table	Table 4-24, “opc_templgrp_cat Table,” on page 123 is new with HPOM 9.xx.

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