

# HP-UX Role-Based Access Control

## B.11.31.04 Release Notes

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# HP-UX Role-Based Access Control B.11.31.04

The information in this document is for HP-UX Role-Based Access Control (RBAC) version B.11.31.04 only.

## HP-UX RBAC Overview

HP-UX RBAC is an alternative to the traditional “all-or-nothing” root user model, which grants permissions to the root user for all operations, and denies permissions to non-root users for certain operations. HP-UX RBAC allows you to distribute administrative responsibilities by creating roles with appropriate authorizations and assigning them to non-root users and groups.

HP-UX RBAC includes the following main components:

- Privilege shells (`privsh`, `privksh`, and `privcsh`) that automatically invoke the access control subsystem to run commands with privileges when appropriate.
- RBAC System Management Homepage (SMH) integration to allow the graphical management of the RBAC databases through a Web interface.
- The `privrun` wrapper command that allows authorized users and groups to run existing legacy applications with varying levels of privileges without modifying the application.
- The `privedit` command that allows authorized users and groups to edit files they normally would not be able to edit because of file permissions or Access Control Lists.
- Customizable Access Control Policy Switch (ACPS) that determines whether a subject is authorized to perform an operation on an object.
- Access Control Policy Module (ACPM) to evaluate HP-UX RBAC databases and service access control requests.
- Management commands to edit and validate HP-UX RBAC database files.

## HP-UX RBAC Features

HP-UX RBAC offers the following features:

- Integrates with the Fine-Grained Privileges and Compartments components of the HP-UX 11i Security Containment features.
- Integrates with HP-UX audit system to produce a single, unified audit trail.
- Pluggable architecture for customizing access control decisions and integrating existing access control policy information.
- Pre-defined configuration files to facilitate quick and easy deployment.
- Flexible re-authentication ability via PAM to allow restrictions on a per command basis.
- Fully supported HP product.



**NOTE:** The recently released HP-UX Identity Management Integration A.01.00 feature allows you to manage HP-UX RBAC operations using the HP OpenView Select Access Policy Builder GUI.

To learn more about the HP-UX Identity Management Integration feature, select **HP-UX Identity Management Integration** on Software Depot:

<http://www.software.hp.com>

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## HP-UX RBAC Documentation

Use the following documents in conjunction with each other when using HP-UX RBAC B.11.31.04:

- *HP-UX RBAC B.11.31.04 Release Notes*
- *HP-UX System Administrator's Guide (volume 4): Security Management*

These documents are located at:

<http://docs.hp.com>

## HP-UX RBAC Manpages

Table 1 lists and briefly describes the HP-UX RBAC manpages, which are installed with the product at `/usr/share/man/<man_section>.Z`:

**Table 1 HP-UX RBAC manpages**

<b>Manpage</b>	<b>Description</b>
<i>rbac</i> (5)	Describes the HP-UX RBAC feature.
<i>acps</i> (3)	Describes the ACPS and its interfaces.
<i>acps.conf</i> (4)	Describes the ACPS configuration file and its syntax.
<i>acps_api</i> (3)	Describes the ACPS Application Programming Interface.
<i>privrun</i> (1m)	Describes the ACPS Service Provider Interface.
<i>privedit</i> (1m)	Describes <code>privedit</code> functionality and syntax.
<i>roleadm</i> (1m)	Describes <code>roleadm</code> functionality and syntax.
<i>authadm</i> (1m)	Describes <code>authadm</code> functionality and syntax.
<i>cmdprivadm</i> (1m)	Describes <code>cmdprivadm</code> functionality and syntax.
<i>rbacdbchk</i> (1m)	Describes <code>rbacdbchk</code> functionality and syntax.
<i>privsh</i> (5m)	Overview of various privileged system shells.



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# 1 New in HP-UX RBAC B.11.31.04

HP-UX RBAC B.11.31.04 delivers the following new content:

- The introduction of a set of privilege shells, allowing a non-root user to automatically invoke `privrun` when needed by simply configuring a privilege shell as their default shell.
- Integration with HP System Management Homepage (SMH), allowing for the management of local RBAC roles, authorizations, and commands through the Web interface of SMH Version 2.2 and higher.
- Integration of access control logic directly into select commands, including `passwd(1)` and `userdbset(1m)`. This allows an administrator to assign capabilities in a much more granular fashion.

## Compatibility Information and Installation Requirements

The minimum requirements to install and run HP-UX RBAC B.11.31.04 are as follows:

- Hardware Requirements:
  - HP 9000 Computers
  - HP Integrity Servers
- Disk Space Requirements:
  - 560 KB on HP 9000 Computers
  - 900 KB on HP Integrity Servers
- Operating System Requirements:
  - HP-UX 11i v3
- Patch Requirements:
  - PHCO\_36479 - 11.31 `rbac` cumulative patch
  - PHCO\_36480 - 11.31 `userdb` cumulative patch
  - PHCO\_36481 - 11.31 `passwd(1)` cumulative patch
  - PHCO\_36482 - 11.31 `libpam_unix` cumulative patch
- Availability in Native Languages:
  - HP-UX RBAC B.11.31.04 is currently available in English only



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## 2 Acquiring and Installing HP-UX RBAC

HP-UX RBAC is available free of charge from Software Depot:

<http://www.software.hp.com>

### Acquiring HP-UX RBAC

To acquire HP-UX RBAC, you must complete the following steps:

1. Go to Software Depot: <http://www.software.hp.com>.
2. Search for HP-UX RBAC (keyword RBAC) and read the information on the HP-UX RBAC release page.
3. Select **Receive for Free** >> at the bottom of the page.
4. Enter your registration information.
5. Review and accept the “Warranty” and “Terms and Conditions” statements.
6. Select **Download** at the bottom of the page and save the HP-UX RBAC depot as a local file on your system, for example, in `/tmp/RBAC-depotname.depot`.
7. Use the following command to verify that the depot file is on your system:

```
# swlist -d @ /tmp/<RBAC-depotname>.depot
```

If the HP-UX RBAC depot is on your system, you will see the following message after running the command:

```
AccessControl B.11.31.04 HP-UX Role-Based Access Control Infrastructure
```



**NOTE:** The depot filename in the previous steps is for example only. The exact HP-UX RBAC depot filename and location may vary.

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### Installing HP-UX RBAC

To install HP-UX RBAC on your HP-UX 11i v3 systems, you must complete the following steps. You do not need to reboot the system to install HP-UX RBAC.



**IMPORTANT:** Installing HP-UX RBAC B.11.31.04 with the PHCO\_36479 RBAC cumulative patch will overwrite the existing HP-UX RBAC database files only if the database files have not been modified.

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1. Review “Compatibility Information and Installation Requirements”.
2. Download HP-UX RBAC as described in “Acquiring HP-UX RBAC”.
3. Logon to your system as the `root` user.
4. Install HP-UX RBAC using the following command:

```
# swinstall -s /tmp/<RBAC-depotname>.depot AccessControl
```

The name and location of the HP-UX RBAC depot above is for example only—the actual name and location may vary.
5. Verify the installation using the `swverify AccessControl` command. If HP-UX RBAC installed correctly on the system, the `swverify` command output includes the following text:

```
* Verification succeeded
```

HP-UX RBAC installs in `/usr/bin/` and `/usr/sbin/`. The `swinstall` tool displays an error message if the installation fails. Check `/var/opt/adm/sw/swagent.log` for information if the installation failed.

To remove (un-install) HP-UX RBAC B.11.31.04 from your HP-UX 11i v3 systems, you must complete the following steps:

1. Logon to your system as the root user.
2. Use the following command to remove HP-UX RBAC:  

```
# swremove AccessControl
```
3. Use the `swlist RBACExt` command to verify that HP-UX RBAC was removed from the system. If HP-UX RBAC was removed from the system, the `swlist` command will report the following:

```
# swlist RBACExt
# Initializing...
Contacting target "<hostname>"...
ERROR: Software "RBACExt" was not found on <hostname>.
```

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## 3 Known Problems in HP-UX RBAC B.11.31.04

HP-UX RBAC B.11.31.04 contains no known problems.