

# HP-UX AAA Server A.07.01 Release Notes

HP-UX 11i v1, HP-UX 11i v2, and HP-UX 11i  
v3



Copyright © 2002–2008 Hewlett-Packard Development Company, L.P.

Confidential computer software. Valid license required from HP for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

UNIX is a registered trademark of The Open Group.

Java™ is a US trademark of Sun Microsystems.

Microsoft®, Windows®, and Windows NT® are U.S. registered trademarks of Microsoft Corporation.

Oracle® is a registered US trademark of Oracle Corporation, Redwood City, California.

OpenLDAP® is a registered trademark of the OpenLDAP Foundation

Netscape Navigator™ is a registered trademark of Time Warner, Inc.

---

# Table of Contents

1 HP-UX AAA Server A.07.01 Release Notes.....	5
Product Overview.....	5
Product Features.....	5
What is New in This Version.....	7
OATH Standards-Based OTP Authentication.....	7
Web-Based User Database Administration Manager.....	9
HP-UX AAA Server SDK.....	9
Advanced Policy Engine.....	10
Fixes Included in the HP-UX AAA Server A.07.01.....	10
Obsolescence of Features.....	11
EAP-LEAP.....	11
Oracle Authentication.....	12
SecurID authentication.....	12
Known Problems and Limitations in HP-UX AAA Server A.07.01.....	12
Known Problems.....	12
Known Limitations.....	13
Supplicant Support and Interoperability.....	14
Cisco Secure Services Client Version 5.0.....	14
Juniper Networks Odyssey Access Client Version 4.7.....	14
Microsoft for Windows 2000 (with SP4), Windows XP (SP1 or SP2), and Windows Vista.....	14
OATH-Compliant OTP Generators and Interoperability.....	15
Hard Tokens.....	15
Software (Soft Token).....	15
Product Documentation.....	15
The Secure LAN Advisor.....	16
Installation Requirements.....	16
Hardware and Operating Systems Requirements.....	16
System Resource Requirements.....	16
Product Requirements.....	16
Patch Requirements.....	17
Web Browser Requirements.....	18
LDAP Compatibility.....	18
SQL Access Requirements.....	18
User Database Administration Manager Requirements.....	19
Availability in Native Languages.....	19

---

## List of Tables

1-1	Supported IEFT RFCs.....	7
1-2	Certified Hard Tokens and their Vendors.....	15
1-3	Documentation Installed with the HP-UX AAA Server.....	15
1-4	Product Requirements.....	17
1-5	Patch Requirements.....	17
1-6	SQL Access Requirements for HP-UX AAA Server A.07.01.....	18
1-7	.....	19

---

# 1 HP-UX AAA Server A.07.01 Release Notes

This document discusses the most recent product information on HP-UX AAA Server A.07.01. HP-UX AAA Server A.07.01 is supported on HP-UX 11i v1 (B.11.11), HP-UX 11i v2 (B.11.23), and HP-UX 11i v3 (B.11.31).

This document addresses the following topics:

- “Product Overview” (page 5)
- “What is New in This Version” (page 7)
- “Fixes Included in the HP-UX AAA Server A.07.01” (page 10)
- “Known Problems and Limitations in HP-UX AAA Server A.07.01” (page 12)
- “Supplicant Support and Interoperability” (page 14)
- “OATH-Compliant OTP Generators and Interoperability” (page 15)
- “Product Documentation” (page 15)
- “Installation Requirements” (page 16)
- “Availability in Native Languages” (page 19)

## Product Overview

The HP-UX AAA Server utilizes the industry standard Remote Authentication Dial-In User Service (RADIUS) protocol and Extensible Authentication Protocol (EAP) to provide standards-based user authentication, authorization, and accounting services to network devices and software applications.

The HP-UX AAA Server can be utilized for securing wired and wireless LAN access, provide authentication and accounting for Virtual Private Network (VPN) gateways, firewalls and other network devices, and to enhance the security of RADIUS-enabled software applications in Enterprise and Service Provider environments.

## Product Features

The HP-UX AAA Server includes the following features:

- **OATH Standards-Based OTP and Two-Factor Authentication:** Provides Open AuThentication (OATH) standards-based One-Time Password (OTP) authentication for additional security to networks from phishing attacks, unauthorized network access, and identity theft. OATH standards-based OTP authentication in the HP-UX AAA Server can be customized easily to suit various deployment scenarios. Typically, OTP is used to provide two-factor authentication.
- **Web-Based User Database Administration Manager:** Provides a customizable web interface that can be used to manage user and token information stored in a SQL database.
- **HP-UX AAA Server SDK:** Server Plug-in Software Developer's Kit (SDK) for customizing and extending the features of the HP-UX AAA Server. It enables the

creation of plug-ins to customize the implementation of the HP-UX AAA Server. The HP-UX AAA Server SDK is now provided with the HP-UX AAA Server.

- **Advanced Policy Engine:** An updated policy engine that provides extended syntax for complex policy actions to manipulate RADIUS requests and replies based on attribute content. The default policy files enable the administrator to execute policies without customizing the Finite State Machine (FSM). This feature includes substring manipulation.
- **Common Database Interface:** Supports HP-UX AAA Server interaction with supported databases via the SQL Access AATV and database client connector libraries.
- **EAP Support for Authenticated LAN Access:** Secure wired and wireless LANs using Extensible Authentication Protocol (EAP) to support 802.1x enabled network access devices. EAP methods supported include PEAP, TTLS, TLS, LEAP, GTC, MSCHAPv2, and MD5.
- **Multi-Server Session Management:** Supports user, group, or custom limits on concurrent logins to limit simultaneous sessions. Customizable shared session management for multiple HP-UX AAA Servers is supported via the SQL Access feature.
- **IP Address Management:** DHCP interface for centralized administration of IP Address assignment.
- **IPv6 Support:** Supports RADIUS IPv6 attributes with HP-UX 11i v1, HP-UX 11i v2, and HP-UX 11i v3 operating systems. This feature also supports RADIUS communication over IPv6 transports with HP-UX 11i v2 and HP-UX 11i v3 operating systems.
- **SNMP Support:** Effectively integrate and manage HP-UX AAA Servers with SNMP compliant network management tools.
- **LDAP Integration:** Supports user profile storage and authentication using LDAP Version 3-compliant directories with request load balancing and failover.
- **Web-based Administration:** The Server Manager web-based administration utility provides management and configuration of multiple HP-UX AAA Servers sharing a common configuration set.
- **Secure LAN Advisor:** Utility inside the Server Manager administration tool to help plan, configure, and deploy authenticated LAN access via 802.1x and EAP.
- **Robust RADIUS Proxy Capabilities:** Forwards authentication and accounting requests to other RADIUS servers by DNS, realm, or custom criteria with configurable retry and time-out periods.

- **Multi-vendor RADIUS Client Support:** Includes pre-defined attribute mappings for leading network access vendors and a customizable vendor dictionary to support a wide range of RADIUS clients.
- **Flexible and Customized Session Logging:** Customize session logs to capture the desired volume of session and accounting information. Session logging formats for Merit (default) and Livingston CDR Standard are included. Logging directly to the database, including shared accounting for multiple HP-UX AAA Servers is also supported via the SQL Access feature.
- **IETF RADIUS RFC Standards:** Supports the following IETF RFCs:

**Table 1-1 Supported IETF RFCs**

RFC#	RFC Title
2284	PPP Extensible Authentication Protocol (EAP)
2619	RADIUS Authentication Server MIB
2621	RADIUS Accounting Server MIB
2716	PPP EAP-TLS Authentication Protocol
2865	Remote Authentication Dial-In User Service (RADIUS)
2866	RADIUS Accounting
2867	RADIUS Accounting Modifications for Tunnel Protocol Support
2868	RADIUS Attributes for Tunnel Protocol Support
2869	RADIUS Extensions
3162	RADIUS and IPv6
4226	HOTP: An HMAC-Based One-Time Password Algorithm

## What is New in This Version

HP-UX AAA Server version A.07.01 includes the following new and enhanced features:

- “OATH Standards-Based OTP Authentication”
- “Web-Based User Database Administration Manager”
- “HP-UX AAA Server SDK”
- “Advanced Policy Engine”

### OATH Standards-Based OTP Authentication

HP-UX AAA Server A.07.01 now supports OATH standards-based OTP authentication, which can be used for two-factor authentication.

OATH is an industry-wide collaboration to develop open-reference architecture for strong authentication. The OATH consortium has developed a set of open royalty-free algorithms for one-time password authentication. The OATH standards-based OTP authentication solution uses the HMAC sequence-based One-Time Password (HOTP) algorithm to generate an OTP, using a secret key and a sequence counter.

The HP-UX AAA Server supports OATH standards HOTP algorithm to generate and validate OTP, which enables the HP-UX AAA Server to interoperate with other OATH-compliant HOTP algorithm-based OTP generators.

Normally, the authentication process used by the HP-UX AAA Server is confined to validating the user password against the password stored in the database. However, with OTP support, the HP-UX AAA Server can now perform the following additional functions:

- Validate the OTP
- Proxy the OTP to another RADIUS server for OTP validation
- Generate OTP that can be delivered to target users through secondary channels using e-mail, SMS, FTP and so on.

The OATH-based OTP authentication feature provides the HP-UX AAA Server with the following benefits:

- Secures applications by providing an additional factor (OTP)
- Provides a low-cost solution for implementing OATH standards-based OTP authentication
- Offers flexibility to configure OATH standards-based OTP authentication for various deployment scenarios
- Provides compatibility with different types of OATH-compliant OTP generators

The OATH standards-based OTP authentication feature uses default FSM, and SQL Access AATV and its components, such as database schema and `sqlaccess.conf` files, client connector libraries for supported database clients, to retrieve and update the token information from the SQL database to complete the OTP authentication. This feature consists of a set of reference implementation files that provide a quick and easy way to set up a working environment that provides fully functional reference implementations for basic password and OATH standards-based OTP (two-factor) authentication. Reference implementations can be used in their current states, or they can be customized to meet your deployment requirements.

The following README files describes how to implement basic two-factor authentication based on your implementation requirements:

- `/opt/aaa/examples/sqlaccess/oracle-1/`: To implement basic two-factor authentication using the Oracle database server and OCI client, when the token information is stored in the Oracle database.
- `opt/aaa/examples/sqlaccess/mysql-1/`: To implement basic two-factor authentication using the MySQL database server and MySQL Unix ODBC client, when the token information is stored in the MySQL database.



**NOTE:** The HP-UX AAA Server supports only the token information that is stored in the SQL database.

### IMPORTANT NOTES::

After using the sample reference implementation and before deploying your implementation in a production environment, default passwords for database user, test user, and the shared secret of the test user must be changed.

For more information, see the “OATH Standards-Based OTP Authentication” chapter in the [HP-UX AAA Server A.07.01 Administrator’s Guide](#)

## Web-Based User Database Administration Manager

The User Database Administration Manager is a web-based interface to manage the user information stored in the SQL database. This interface is implemented using HTML, PHP5, Javascript and can be customized to meet your deployment requirements. Using this interface, an administrator can add users, modify credentials of users, and delete user information. The interface also enables the administrator to manage profiles of users who use OATH standards-based OTP tokens.

For information on how to configure the User Database Administration Manager based on requirements, see the README file available at:

`/opt/aaa/examples/sqlaccess/userdb/`

For more information on the User Database Administration Manager, see the “SQL Access” chapter in the [HP-UX AAA Server A.07.01 Administrator’s Guide](#)

## HP-UX AAA Server SDK

HP-UX AAA Server A.07.01 supports the SDK to customize the way the HP-UX AAA Server processes RADIUS requests. This kit is useful in creating plug-ins to extend or even replace server processes, such as how an authentication or accounting request is handled. Using this SDK, plug-ins can also be created to handle tasks such as customized logging of accounting requests, and pre- and post-authentication tasks.

For more information on HP-UX AAA Server SDK, see the [HP-UX AAA Server A.07.01 Administrator’s Guide](#)

## Advanced Policy Engine

Advanced Policy Engine is an updated policy engine that provides extended syntax for complex policy actions to manipulate RADIUS requests and replies based on attribute content. Policy modules are invoked using the FSM. These modules can be executed at any time during the processing of the RADIUS packet. The FSM files and the HP-UX AAA Server are updated with the following predefined policy definition files, which can be used to define policies without modifying the FSM:

- Request Ingress Policy
- Reply Egress Policy
- Proxy Egress Policy
- Proxy Ingress Policy

The Advanced Policy Engine is compatible with the legacy Group policy syntax. It enables quick and easy configuration of a variety of dynamic access control policies, including combinations of time, date, password expiry, and other user-defined attributes.

For more information on Advanced Policy Engine, see the [\*HP-UX AAA Server A.07.01 Administrator's Guide\*](#).

## Fixes Included in the HP-UX AAA Server A.07.01

The following defect fixes are included in the A.07.01 release:

<b>QuIX-PCT ID</b>	<b>Description</b>
QXCR1000571844	<p>HP-UX AAA Server A.07.01 supports configuration of the case matching rule for the local users files.</p> <p>Prior to the A.07.01 release, there was an inconsistency between the Server Manager and the server for the case matching rule for the local users files. The Server Manager supported the case ignore search only, whereas the server supported case exact search only. This problem is fixed. The case matching rule for the local users files for both server and Server Manager can now be configured.</p>
QXCR1000529400	<p>HP-UX AAA Server A.07.01 supports Secure Socket Layer (SSL) connection to the Lightweight Directory Access Protocol (LDAP) server. To establish an SSL connection to the LDAP server, the relevant option in the Server Manager must be enabled.</p> <p>Prior to the A.07.01 release, the HP-UX AAA Server did not support the SSL connection to the LDAP server.</p>
QXCR1000742765	<p>HP-UX AAA Server A.07.01 supports the Salted Secure Hash Algorithm (SSHA) encryption mechanism.</p>

QXCR1000583869	<p>Session control for tunneled Extensible Authentication Protocol (EAP) authentications is based on Inner-Identity.</p> <p>Prior to the A.07.01 release, session control was based on Outer-Identity.</p>
QXCR1000583867	<p>The HP-UX AAA Server A.07.01 generates only one session for a tunneled-EAP (PEAP or TTLS) authentication, based on Inner-Identity.</p> <p>Prior to the A.07.01 release, the HP-UX AAA Server generated two sessions for a tunneled EAP (PEAP or TTLS), based on Inner-Identity and Outer-Identity.</p>
QXCR1000742538	<p>HP-UX AAA Server A.07.01 checks for the Check-items in the incoming Access-Request, and replies with the Reply-items in the outgoing Access-Accept response for the EAP Authentication methods.</p> <p>Prior to A.07.01 release, the HP-UX Server ignored the Check-items and Reply-items for the EAP Authenticaiton methods.</p>

## Obsolescence of Features

The HP-UX AAA Server A.07.01 release supports the following authentication methods:

- EAP-LEAP and EAP-PEAP.
- Simple legacy Oracle authentication module and the highly flexible SQL Access.
- RSA SecurID and the emerging Open AuTHentication (OATH) standards-based One-Time Password (OTP).

Starting with the next release of the HP-UX AAA Server, only the new authentication methods will be supported. Other authentication methods are deprecated in this release and will be obsolete in the next release. They are as follows:

### EAP-LEAP

The EAP-LEAP authentication method is deprecated in this release and will be obsolete in the next release of the HP-UX AAA Server. The EAP-LEAP authentication method is replaced by the new EAP-PEAP authentication method. HP recommends that you use EAP-PEAP in place of EAP-LEAP for improved security. Unlike EAP-LEAP, EAP-PEAP supports mutual authentication and uses an encrypted tunnel to transmit the user's credentials. For more information on EAP-PEAP, see the *Securing LAN Access With EAP* chapter in the *HP-UX AAA Server A.07.01 Administrator's Guide* at: <http://www.docs.hp.com/en/internet.html#AAA%20Server%20%28RADIUS%29>.

## Oracle Authentication

The Oracle authentication module is deprecated in this release and will be obsolete in the next release of the HP-UX AAA Server. The Oracle authentication module is supported using SQL Access. HP recommends that you set up your HP-UX AAA Server to interact with the Oracle database using the SQL Access feature. For more information on implementing SQL Access, see the *HP-UX AAA Server A.07.01 Administrator's Guide* at: <http://www.docs.hp.com/en/internet.html#AAA%20Server%20%28RADIUS%29>.

## SecurID authentication

The SecurID authentication is deprecated in this release and will be obsolete in the next release of the HP-UX AAA Server. The SecurID authentication can be replaced by Open AuTHentication (OATH) standards-based One-Time Password (OTP) authentication. OATH is an industry-wide collaboration to develop open-reference architecture for strong authentication. The OATH standards-based OTP authentication solution supports hardware and software tokens from multiple vendors. For more information on OATH standards-based OTP authentication solution, see the *HP-UX AAA Server A.07.01 Administrator's Guide* at: <http://www.docs.hp.com/en/internet.html#AAA%20Server%20%28RADIUS%29>.

## Known Problems and Limitations in HP-UX AAA Server A.07.01

This section lists the known problems and limitation of the HP-UX AAA Server A.07.01.

### Known Problems

- Decreased RADIUS response time under heavy load due to increased CPU consumption.



---

**NOTE:** This problem occurs with the HP-UX AAA Server A.07.01 on HP 9000 systems running HP-UX 11i v2 or HP-UX 11i v3. HP 9000 systems running HP-UX 11i v1, and HP Integrity® systems running HP-UX 11i v2 or HP-UX 11i v3 are not affected.

---

**Workaround 1:** Utilize the `pthread` environment variable that minimizes `pthread` overhead for the HP-UX AAA Server in the environment where the `radiusd` daemon is launched:

```
$export PTHREAD_FORCE_SCOPE_SYSTEM=ON
```

**Workaround 2:** Install the PHCO\_35997 `pthread` library patch on HP 9000 systems running HP-UX 11i v2, or PHCO\_37477 on HP 9000 systems running HP-UX 11i v3. These patches are available at:

<http://itrc.hp.com>

- The HP-UX AAA Server leaks memory when the SQL Access feature uses the MySQL Unix ODBC/MySQL client to interact with a MySQL database.



---

**NOTE:** This problem occurs with the HP-UX AAA Server A.07.01 on HP 9000 systems running HP-UX 11i v2 with the PHSS\_31849 (or later) patch only. HP 9000 systems running HP-UX 11i v1 or HP-UX 11i v3, and HP Integrity systems running HP-UX 11i v2 or HP-UX 11i v3 are not affected.

---

**Workaround:** Install PHSS\_34858 (linker + fdp cumulative patch) on the HP 9000 system running HP-UX 11i v2, where the `radiusd` daemon is launched.

- The User Database Administration Manager is not compatible with HP-UX Apache Web Server B.2.0.59.00.

**Workaround:** HP-UX Apache Web Server B.2.0.59.00 does not include `DB.php`, which is required for the User Database Administration Manager. Upgrade the HP-UX Apache Web Server to B.2.0.59.04 or later. The latest version of HP-UX Apache Web Server is available at:

<http://software.hp.com>

## Known Limitations

- Using stored procedure output parameters with MySQL databases will result in NULL values for SQL Access output mappings. Input mappings can be processed normally with MySQL stored procedures.

**Workaround:** Utilize direct SQL statements for SQL Actions requiring output data from MySQL databases.

- The HP-UX AAA Server does not recognize realm aliases for local realms configured with local user file storage.

**Workaround:** Configure separate realms for each alias.

- The HP-UX AAA Server A.07.01 loads all shared libraries in the `/opt/aaa/aatv/` directory when starting. Libraries with unresolved external references will cause the startup to fail. User-created libraries for previous versions of the product may also fail during execution. Updating the installation replaces only the libraries originally installed with the product—any user-created libraries will remain.

**Workaround:** Remove any user-created shared libraries from the `/opt/aaa/aatv/` directory before starting the HP-UX AAA Server.

- Unsupported browsers, including Netscape Navigator 7.0 and Mozilla 1.2.X periodically display various Server Manager icons, buttons, and default values incorrectly.

**Workaround:** Use a supported browser version with Server Manager.

## Supplicant Support and Interoperability

This section lists the supplicants and EAP methods (for each supplicant) certified with the HP-UX AAA Server A.07.01.

### Cisco Secure Services Client Version 5.0

The following EAP methods are certified for the Cisco Secure Services Client (formerly, Meetinghouse AEGIS SecureConnect) Version 5 supplicant with HP-UX AAA Server A.07.01:

- EAP-TTLS (PAP, CHAP, MSCHAP, MSCHAPv2, EAP-MD5, EAP-MSCHAPv2)
- LEAP
- EAP-TLS
- PEAP (EAP-GTC, EAP-MSCHAPv2)

The following EAP methods are certified for OATH standards-based OTP authentication with the Cisco Secure Services Client Version 5.0:

- EAP-TTLS (PAP)
- PEAP (EAP-GTC)

### Juniper Networks Odyssey Access Client Version 4.7

The following EAP methods are certified for the Juniper Networks Odyssey (formerly, Funk Software Odyssey) Access Client Version 4.7 supplicant with the HP-UX AAA Server A.07.01:

- EAP-TTLS (PAP, CHAP, MSCHAP, MSCHAPv2, EAP-MD5, EAP-MSCHAPv2)
- LEAP
- EAP-TLS
- EAP-MD5
- PEAP (EAP-GTC, EAP-MSCHAPv2)

The following EAP methods are certified for OATH standards-based OTP authentication with the Juniper Networks Odyssey Access Client Version 4.7:

- EAP-TTLS (PAP)
- PEAP (EAP-GTC)

### Microsoft for Windows 2000 (with SP4), Windows XP (SP1 or SP2), and Windows Vista

The following EAP methods are certified for the Microsoft Windows 2000 (with SP4), Windows XP (SP1 or SP2) and Windows Vista supplicants with the HP-UX AAA Server A.07.01:

- PEAP (EAP-MSCHAPv2)
- EAP-TLS

## OATH-Compliant OTP Generators and Interoperability

This section discusses the HOTP algorithm-based OTP generators (hard token and software) that are certified for the OATH standards-based OTP authentication with the HP-UX AAA Server A.07.01.

### Hard Tokens

The following table lists the hard tokens that are certified for OATH standards-based OTP authentication:

**Table 1-2 Certified Hard Tokens and their Vendors**

Hard Token	Vendor Name
A-Key® 3600 Token	Authenex
Protiva™ 350 Device	Gemalto

### Software (Soft Token)

The MobileID v4.50 software, by PortWise, is certified for OATH standards-based OTP authentication.

### Product Documentation

HP-UX AAA Server documentation is available at:

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

The documents listed in Table 1-3 are also installed with the HP-UX AAA Server.

**Table 1-3 Documentation Installed with the HP-UX AAA Server**

Document	Location
Text Release Notes	/opt/aaa/README
Administrator's Guide	/opt/aaa/share/doc/admin.pdf
Man pages	/opt/aaa/share/man/
Secure LAN Advisor Help System	Server Manager administration utility



---

**NOTE:** The Administrator's Guide may also be accessed via the Server Manager administration utility

---



---

**IMPORTANT:** Monitor [the HP-UX AAA Server documentation](#) for the most recent product documentation.

---

## The Secure LAN Advisor

The Secure LAN Advisor is an HTML help system in the Server Manager administration utility that explains the process of securing LANs and WLANs with the HP-UX AAA Server, using the Server Manager screens and tasks.

The Secure LAN Advisor provides information only, it does not edit configuration files. Follow the Secure LAN Advisor and use the Server Manager to create and deploy basic AAA configurations for securing LANs and WLANs. See the HP-UX AAA Server A.07.01 Administrator's Guide on <http://docs.hp.com> for more information.

## Installation Requirements

This section lists the HP-UX AAA Server A.07.01 requirements:

### Hardware and Operating Systems Requirements

Following are the hardware and operating systems requirements for installing HP-UX AAA Server A.07.01:

- Hardware: HP 9000 and HP Integrity Servers
- Operating Systems: HP-UX 11i v1, HP-UX 11i v2, or HP-UX 11i v3
- Minimum of 128 MB memory
- 5 GB disk space

### System Resource Requirements

Following are the minimum system resources required to install and run HP-UX AAA Server A.07.01:

- Disk Space: 5 GB
- Memory: 128 MB

### Product Requirements

Table 1-4 lists the product requirements for the HP-UX AAA Server A.07.01 on HP-UX 11i v1, HP-UX 11i v2, and HP-UX 11i v3:

**Table 1-4 Product Requirements**

Product Requirements	HP-UX 11i v1	HP-UX 11i v2	HP-UX 11i v3
	Version	Version	Version
HP-UX SDK for Java	1.4.2.x or higher	1.4.2.x or higher	1.4.2.x or higher
HP-UX Tomcat-based Servlet Engine	1.0.03.x or higher	1.0.10.01 or higher	B.5.5.9.04 or higher
OpenSSL	A.00.09.07e or higher	A.00.09.07e or higher	A.00.09.08d or higher

All the product requirements can be downloaded at the HP Software Depot (<http://software.hp.com>) using the following links:

- [HP-UX SDK for Java](#)
- [HP-UX Tomcat-based Servlet Engine](#)
- [OpenSSL from HP](#)



**NOTE:** HP-UX Tomcat-based Servlet Engine is a component of HP-UX WSSUITE on HP-UX 11i v1 and HP-UX 11i v2. On HP-UX 11i v3, HP-UX Tomcat-based Servlet Engine version B.5.5.9.04 is available as part of the core operating environment.

## Patch Requirements

Table 1-5 lists the patch requirements for the HP-UX AAA Server A.07.01 on HP-UX 11i v1, HP-UX 11i v2, and HP-UX 11i v3.

**Table 1-5 Patch Requirements**

Patch Requirements	HP-UX 11i v1	HP-UX 11i v2	HP-UX 11i v3
	Version	Version	Version
BUNDLE11i	Required (February 2001 or later)	Required (Sep. 2004 or later)	Not applicable
PHSS_26946 or later	Required	Not applicable	Not applicable
PHCO_31903 or later	Required	Not applicable	Not applicable

Download the patch dependencies from the Patch/Firmware Database in the [maintenance and support for HP products](#) section of HP's IT Resource Center at <http://www.itrc.hp.com>.

## Web Browser Requirements

A Web browser is required to use the Server Manager interface to administer and configure the HP-UX AAA Servers. Following are the Web browser requirements for HP-UX AAA Server A.07.01:

- Use only the following web browsers with the HP-UX AAA Server A.07.01—known interoperability issues exist with other web browser versions:
  - Internet Explorer 6.0 or higher with Java 1.4.2.09 or higher
  - Mozilla 1.7.12 or higher with Java1.4.x or higher
- Set the browser preferences (Internet options) to “always compare loaded pages to cached pages”.



---

**NOTE:** Download Mozilla free of charge from HP at:  
<http://www.hp.com/products1/unix/java/mozilla/index.html>

---

## LDAP Compatibility

The HP-UX AAA Server A.07.01 is designed to interoperate with LDAP version 3 compliant directories. HP has certified the HP-UX AAA Server A.07.01 with the Netscape Directory Server version 6.2, and OpenLDAP version 2.3.39.001.



---

**NOTE:** HP recommends the Netscape/Red Hat Directory Server for environments requiring high performance and availability.

---

## SQL Access Requirements

The HP-UX AAA Server A.07.01 is designed to interoperate with the Oracle OCI and ODBC compliant database clients/drivers. The database client/driver products are not included with the HP-UX AAA server, and must be acquired and installed separately. In addition, the HP-UX AAA Server provides connectors for the client/driver products. Connectors for the following database clients/drivers are included with this release:

**Table 1-6 SQL Access Requirements for HP-UX AAA Server A.07.01**

Vendor	Client
Oracle - OCI	Oracle Instant Client Version 10.2.0.2
MySQL - ODBC	MySQL Unix ODBC Client Version 2.2.11/MySQL Client 5.0.22

For information on obtaining additional connectors for other database clients or drivers, email [aaainfo@cup.hp.com](mailto:aaainfo@cup.hp.com).

## User Database Administration Manager Requirements

The User Database Administration Manager is designed to operate with the Apache Web Server, PHP5, PHP database abstraction layer (PEAR DB) , and Oracle or MySQL database clients.

HP has certified the User Database Administration Manager with HP-UX Apache Web Server version 2.0.58.01 to work with the following database clients:

**Table 1-7**

Product	Version
Oracle Install Client	<ul style="list-style-type: none"><li>• 9.2.0.2</li><li>• 8.1.7.0</li></ul>
MySQL Client	5.0.22

The database client and driver are not included with the HP-UX AAA Server. They must be obtained and installed separately.

## Availability in Native Languages

The HP-UX AAA Server A.07.01 is currently available in English only.