



# Hewlett Packard Enterprise

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## Read Before Installing

### **HPE Workload Aware Security for Linux® Advanced (WASL) Software 1.1.0**

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HPE Workload Aware Security for Linux® Advanced (WASL) Software 1.1.0  
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1. Overview  
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## Introduction

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HPE WASL assures security compliance to industry standards for Linux® operating system instances and for SAP HANA workloads. Automating security compliance to be as simple as a single-click on a centralized dashboard known as the WASL Security Management Station (SMS). In addition to server evaluations WASL can perform remediation for security compliance issue found in the evaluation process. WASL also offers rich actionable reports and log files from which details of evaluation issues and remediation steps are provided. WASL provides the ability to rollback any remediation done and restore the workload configuration to a pre-remediation state.

WASL uses profiles built using XCCDF specification language enabling extensibility of the profile set. It currently provides the following standard profile set addressing the global benchmark standards for OS and SAP HANA application:

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- \* OS Security Level 1 for SLES 12
  - \* OS Security Level 2 for SLES 12
  - \* OS Security Level 1 for SLES for SAP Applications 12
  - \* OS Security Level 2 for SLES for SAP Applications 12
  - \* OS Security extras for SAP HANA
  - \* OS Security Level 1 for RHEL 7
  - \* OS Security Level 2 for RHEL 7
  - \* SAP HANA 1.0 DB Security Level 1
  - \* SAP HANA 1.0 DB Security Level 2
  - \* SAP HANA 2.0 DB Security Level 1
  - \* SAP HANA 2.0 DB Security Level 2

Note: The SAP HANA profiles are available only with Advanced license version of the product.

## Licensing Information

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There are two variants of the WASL license:

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1) Basic - This is the base version of the product used to assure security compliance of the Linux® operating system.

One non-transferable Basic license is required for each active instance of Red Hat® Linux® OS or SUSE Linux® being covered by WASL. This includes both physical and virtual servers.

2) Advanced - This version of the license includes the Basic license functionality and adds security compliance checking for Scale-up SAP HANA workloads, both appliances and TDI deployments.

One non-transferable Advanced license is required for each active instance of SAP HANA being covered by WASL.

Each license purchase includes 1 year of 24x7 Technical Support and Software Updates Service.

Package details based on the license

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The HPE WASL Base license bundle contains the following products:

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1. hpe-wasl-bs - HPE WASL SMS bootstrap package  
Creates the waslsms user and group for HPE WASL
  2. nodejs\_1-v6 - Node.js package  
NodeJS environment for HPE WASL SMS
  3. hpe-wasl-npms - Node.js NPMs package  
Node.js Modules used by HPE WASL SMS
  4. hpe-wasl-sms - HPE WASL SMS package  
WASL Security Management Station package
  5. hpe-wasl-policies-template - HPE WASL SMS Policies Template  
Templates to register the default policies
  6. hpe-wasl-policies-system - HPE WASL SMS System Policies  
System level default policies for HPE WASL SMS
  7. hpe-wasl-help - HPE WASL SMS HELP  
WASL SMS online help

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8. couchbase-server-community (Optional)  
NoSQL database - Couchbase Server to store data by HPE WASL SMS
  9. WASL Node packages (Optional - described in the following section)  
Packages required to harden/secure the RHEL and SLES nodes  
The HPE WASL Advanced license bundle contains the following products in addition to the products listed in base bundle:
  10. hpe-wasl-policies-hana - HPE WASL SMS 'SAP HANA' Policies  
Default SAP HANA policies to secure SAP HANA application using WASL.

NOTE: For information about the latest updates on the product refer to the WASL product page at HPE Software Depot and navigate to Linux -> Mission Critical x86 Software, or visit:

<https://h20392.www2.hpe.com/portal/swdepot/displayProductsList.do?>

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## 2. Supported Operating System, Server, Storage and Software

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### WASL SMS:

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SMS can be setup on a virtual machine or physical servers running:

- \* SUSE Linux® Enterprise Server 11 SP4.

### WASL Nodes:

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Nodes that can be registered and secured using HPE WASL should run one of the following operating system variants.

- \* SUSE Linux® Enterprise Server 12 (SP1, SP2, SP3)
- \* SUSE Linux® Enterprise Server for SAP Applications 12 (SP1 & SP2)
- \* Red Hat® Enterprise Linux® 7 (7.2, 7.3, 7.4)

For detailed information on the supported Operating System, Server, Storage and Software, see "HPE WASL Install and Setup Guide".



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### 3. Software and RPM Bundles

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The following are the lists of the RPM packages for the WASL SMS and the WASL Nodes.

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#### 1. WASL SMS packages

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##### SLES 11 SP4

- hpe-wasl-bs-1.1.0-1.x86\_64.rpm
- nodejs\_1-v6.14.1-1.x86\_64.rpm
- hpe-wasl-npms-1.1.0-1.x86\_64.rpm
- hpe-wasl-help-1.1.0-1.x86\_64.rpm
- hpe-wasl-sms-1.1.0-1.x86\_64.rpm
- hpe-wasl-policies-template-1.1.0-1.x86\_64.rpm
- hpe-wasl-policies-system-1.1.0-1.x86\_64.rpm
- hpe-wasl-policies-hana-1.1.0-1.x86\_64.rpm
- couchbase-server-community-4.5.0-suse11.x86\_64.rpm

(Optional)

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## 2. WASL Node packages

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### RHEL 7:

- hpe\_was\_core-1.1.0-1.rhel7.x86\_64.rpm
- hpe\_was\_os-1.1.0-1.rhel7.x86\_64.rpm
- hpe\_was\_saphana-1.1.0-1.rhel7.x86\_64.rpm
- openscap\_1-1.2.15-1.0.x86\_64.rpm

### SLES 12:

- hpe\_was\_core-1.1.0-1.sles12.x86\_64.rpm
- hpe\_was\_os-1.1.0-1.sles12.x86\_64.rpm
- hpe\_was\_saphana-1.1.0-1.sles12.x86\_64.rpm
- openscap\_1-1.2.15-1.0.x86\_64.rpm

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## 4. Signature verification

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## Overview

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The packages are signed with private digital keys held by HPE and the integrity of the packages can be verified before installing. This ensures that the packages has not been manipulated by a third party.

## Download the keys

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Copy the compressed tar file (HPE-GPG-Public-Keys.tar.gz) from the link below to your local directory and extract the public keys.

<https://downloads.hpe.com/pub/keys/HPE-GPG-Public-Keys.tar.gz>

Transfer this keys tar file to the WASL SMS or Node where the installation needs to be done.

## Import the keys for RPM

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Import the public keys, one at a time while logged in as root by

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running the following command on the installing host:  
# rpm --import /path\_to\_the\_key/file\_name\_of\_the\_key

Example:  
# rpm --import /path\_to\_the\_key/B1275EA3.pub

### Verify using RPM

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Use the rpm --checksig command to validate and verify the digital signature of the signed file.

```
# rpm --checksig filename_of_the_rpm
```

The following example command output indicates validity of the signature:

```
"filename_of_the_rpm.rpm: sha1 md5 OK"
```

Run the following command to verify:

```
# rpm --checksig sample_file.rpm
```

If your file does not pass verification or you do not have the HPE public key installed, the following error is displayed:

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Example output:

```
"sample_file.rpm: (SHA1) DSA sha1 md5 (GPG) NOT OK (MISSING KEYS: key#s)"
```

If the verification fails, then do not install the rpm as the file has been modified since it was released from HPE.

See the following link for more details:

<https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=HPLinuxCodeSigning>

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## 5. Installation Instructions

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If you are installing HPE WASL for the first time, follow the instructions mentioned in "HPE WASL Install and Setup Guide".

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## 6. Related Documentation

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For the latest documentation, go to HPE Software Depot and  
navigate to WASL under Linux® -> Mission Critical x86 Software, or  
visit:

[https://h20392.www2.hpe.com/portal/swdepot/displayProductInfo.do?  
productNumber=WASL](https://h20392.www2.hpe.com/portal/swdepot/displayProductInfo.do?productNumber=WASL)

- \* HPE WASL Release Notes
  - \* HPE WASL User Guide
  - \* HPE WASL Install and Setup Guide
  - \* HPE WASL Troubleshooting Guide
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