



# Red Hat Enterprise Linux for SAP Solutions 8

**RHEL for SAP Subscriptions and Repositories**



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## Abstract

This document provides information about RHEL for SAP Subscriptions and Repositories.

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## MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code and documentation. We are beginning with these four terms: master, slave, blacklist, and whitelist. Due to the enormity of this endeavor, these changes will be gradually implemented over upcoming releases. For more details on making our language more inclusive, see our [CTO Chris Wright's message](#).

## PROVIDING FEEDBACK ON RED HAT DOCUMENTATION

We appreciate your feedback on our documentation. Let us know how we can improve it.

### Submitting feedback through Jira (account required)

1. Make sure you are logged in to the [Jira](#) website.
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6. Click **Create** at the bottom of the dialogue.



# CHAPTER 1. OVERVIEW

The [RHEL for SAP Applications](#) or [RHEL for SAP Solutions](#) subscriptions provide additional RHEL repositories that contain additional RPM packages required for running SAP applications like S/4HANA, SAP HANA or SAP NetWeaver based SAP products (like ERP or CRM) on RHEL and to use additional features provided by Red Hat specifically for SAP, like the [HA solutions for managing S/4HANA, SAP HANA and SAP NetWeaver](#).

Red Hat offers a new RHEL minor release every 6 months. A fix for a problem which has been reported for a given RHEL minor release might be available in a package which is part of one of the following RHEL minor releases.

For customers who have to, or want to, keep their system(s) on a certain RHEL minor release for more than 6 months, Red Hat is offering Red Hat Enterprise Linux Extended Maintenance as an [Extended Update Support \(EUS\)](#) Add-On or as [Update Services for SAP Solutions \(E4S\)](#). These repositories receive important fixes for up to two years (EUS) or four years (E4S) after the release of the corresponding RHEL minor release. The EUS and E4S repositories are only available for certain RHEL minor releases. See the [Red Hat Enterprise Linux Life Cycle](#) page for more information on the RHEL release schedule.

SAP validates SAP NetWeaver/SAP ABAP Application Platform once per RHEL major release (e. g. RHEL 8), so you can run it on any RHEL minor release once it has been validated on the corresponding RHEL major release (e.g. 8.0, 8.1, 8.2, ...).

In contrast, SAP validates SAP HANA only for specific RHEL minor releases - typically for those RHEL minor releases for which E4S repositories are available.

This document provides:

- instructions for registering your RHEL system to use [RHEL for SAP Applications](#) or [RHEL for SAP Solutions](#) subscriptions
- an overview of the repositories that must be enabled based on the combination of SAP products and the RHEL release, and
- the procedure for enabling the repositories.



## NOTE

- Always verify with SAP and with your hardware partner or infrastructure provider if the SAP product you are planning to use is supported for the RHEL release that is going to be used.
- When using the EUS or E4S repos, the targeted RHEL minor release must be set via subscription-manager, to ensure that the system does not get updated to a higher RHEL minor release than desired.
- This document applies only to on-premise systems and to "bring your own subscription" (BYOS) systems on any public cloud platform using Red Hat Subscription Manager (RHSM). It is not applicable to "pay as you go" (PAYG) instances using [RHUI](#) on public cloud platforms.

## CHAPTER 2. ENABLE THE RHEL FOR SAP APPLICATIONS OR RHEL FOR SAP SOLUTIONS SUBSCRIPTIONS

For running SAP NetWeaver application servers the “RHEL for SAP Applications” subscription can be used if the RHEL systems don’t need to be locked to a specific RHEL 8 minor release.

For running SAP HANA or SAP NetWeaver or S/4HANA application servers that should be tied to the same RHEL 8 minor release as SAP HANA, one of the following subscriptions is required to access [Update Services for SAP Solutions \(E4S\)](#):

- for the `x86_64` platform: [Red Hat Enterprise Linux for SAP Solutions](#)
- for the PowerPC Little Endian (`ppc64le`) platform: [Red Hat Enterprise Linux for SAP Solutions for Power, LE](#)

### 2.1. DETACH EXISTING SUBSCRIPTIONS (ALREADY REGISTERED SYSTEMS ONLY)

Perform the following steps if the SAP System was previously registered using another RHEL subscription.

1. Find the serial number of the subscription that the system is currently subscribed to:

```
# subscription-manager list --consumed | \
awk '/Subscription Name:/{|
/Serial:/{|
/Pool ID:/{|
/Service Type:/{print}
/Service Level:/{printf ("%s\n\n", $0)}'
```

2. Remove the subscription from the system, using the following command. Replace the string **<SERIAL>** by the serial number shown in the output of the previous command.

```
# subscription-manager remove --serial=<SERIAL>
```

### 2.2. ATTACH THE RHEL FOR SAP APPLICATIONS OR RHEL FOR SAP SOLUTIONS SUBSCRIPTION

To attach the [RHEL for SAP Applications](#) or [RHEL for SAP Solutions](#) subscriptions, perform the following steps:

1. Find the pool id of the subscription:

```
# subscription-manager list --available --matches='RHEL for SAP*' | \
awk '/Subscription Name:/{|
/Pool ID:/{|
/Service Type:/{print}
/Service Level:/{printf ("%s\n\n", $0)}'
```

2. Attach the subscription to the system, using the following command. Replace the string **<POOL\_ID>** with the actual pool ID (or one of the pool IDs) shown in the output of the previous command.

-

■ # subscription-manager attach --pool=<POOL\_ID>

## CHAPTER 3. ENABLE THE REQUIRED REPOSITORIES

Once the system is registered to either the [RHEL for SAP Applications](#) or the [RHEL for SAP Solutions](#) subscriptions as described in the previous chapter, the appropriate repositories can be enabled so that all required packages can be installed.

### 3.1. SAP NETWEAVER/SAP ABAP APPLICATION PLATFORM

For SAP NetWeaver/SAP ABAP Application Platform on RHEL 8, enable the one of the following sets of repos:

Platform	Repo ID (normal)	Repo ID (eus)	Repo ID (e4s)
x86_64	rhel-8-for-x86_64-baseos-rpms  rhel-8-for-x86_64-appstream-rpms  rhel-8-for-x86_64-sap-netweaver-rpms  rhel-8-for-x86_64-highavailability-rpms (#)	rhel-8-for-x86_64-baseos-eus-rpms  rhel-8-for-x86_64-appstream-eus-rpms  rhel-8-for-x86_64-sap-netweaver-eus-rpms  rhel-8-for-x86_64-highavailability-eus-rpms (#)	rhel-8-for-x86_64-baseos-e4s-rpms  rhel-8-for-x86_64-appstream-e4s-rpms  rhel-8-for-x86_64-sap-netweaver-e4s-rpms  rhel-8-for-x86_64-highavailability-e4s-rpms (#)
ppc64le	rhel-8-for-ppc64le-baseos-rpms  rhel-8-for-ppc64le-appstream-rpms  rhel-8-for-ppc64le-sap-netweaver-rpms  rhel-8-for-ppc64le-highavailability-rpms (#)	rhel-8-for-ppc64le-baseos-eus-rpms  rhel-8-for-ppc64le-appstream-eus-rpms  rhel-8-for-ppc64le-sap-netweaver-eus-rpms  rhel-8-for-ppc64le-highavailability-eus-rpms (#)	rhel-8-for-ppc64le-baseos-e4s-rpms  rhel-8-for-ppc64le-appstream-e4s-rpms  rhel-8-for-ppc64le-sap-netweaver-e4s-rpms  rhel-8-for-ppc64le-highavailability-e4s-rpms (#)
s390x	rhel-8-for-s390x-baseos-rpms  rhel-8-for-s390x-appstream-rpms  rhel-8-for-s390x-sap-netweaver-rpms  rhel-8-for-s390x-highavailability-rpms (#)	rhel-8-for-s390x-baseos-eus-rpms  rhel-8-for-s390x-appstream-eus-rpms  rhel-8-for-s390x-sap-netweaver-eus-rpms  rhel-8-for-s390x-highavailability-eus-rpms (#)	-

(#) This repo is only needed if one of the [Red Hat HA solutions for SAP](#) is going to be used.

**NOTE**

- RHEL 8 is not supported on the ppc64 (IBM POWER, Big Endian) platform.
- To use the EUS or E4S variants of the repos, the RHEL 8 minor release must be set via subscription-manager.
- There are no RHEL 8 E4S repos for the s390x platform.
- The “normal”, “EUS” and “E4S” variants of the repos must never be enabled at the same time, since they provide different versions of the same packages which will lead to package version conflicts when trying to install or update packages.

To enable the normal repos for SAP NetWeaver/SAP ABAP Application Platform on RHEL 8, run the following command:

```
# subscription-manager repos \
--disable="*" \
--enable="rhel-8-for-$(uname -m)-baseos-rpms" \
--enable="rhel-8-for-$(uname -m)-appstream-rpms" \
--enable="rhel-8-for-$(uname -m)-sap-netweaver-rpms"
```

To enable the EUS repos for SAP NetWeaver/SAP ABAP Application Platform on RHEL 8 (on RHEL 8 minor releases where EUS repos are available) if one of the [Red Hat HA solutions for SAP](#) is going to be used, run the following command:

```
# subscription-manager repos \
--disable="*" \
--enable="rhel-8-for-$(uname -m)-baseos-eus-rpms" \
--enable="rhel-8-for-$(uname -m)-appstream-eus-rpms" \
--enable="rhel-8-for-$(uname -m)-sap-netweaver-eus-rpms" \
--enable="rhel-8-for-$(uname -m)-highavailability-eus-rpms"
```

## 3.2. SAP HANA (WITH OR WITHOUT SAP NETWEAVER/SAP ABAP APPLICATION PLATFORM) ON RHEL 8 UP TO AND INCLUDING RHEL 8.8

For SAP HANA on RHEL 8 up to and including RHEL 8.8, enable the following repos (enabling the sap-netweaver repos would not be necessary for SAP HANA only systems but for simplicity and greater flexibility, it is recommend to enable these in all cases):

Platform	Repo ID
x86_64	rhel-8-for-x86_64-baseos-e4s-rpms
	rhel-8-for-x86_64-appstream-e4s-rpms
	rhel-8-for-x86_64-sap-solutions-e4s-rpms
	rhel-8-for-x86_64-sap-netweaver-e4s-rpms
	rhel-8-for-x86_64-highavailability-e4s-rpms (#)

Platform	Repo ID
ppc64le	rhel-8-for-ppc64le-baseos-e4s-rpms
	rhel-8-for-ppc64le-appstream-e4s-rpms
	rhel-8-for-ppc64le-sap-solutions-e4s-rpms
	rhel-8-for-ppc64le-sap-netweaver-e4s-rpms
	rhel-8-for-ppc64le-highavailability-e4s-rpms (#)

(#) This repo is only needed if one of the [Red Hat HA solutions for SAP](#) is going to be used.



#### NOTE

- SAP HANA is not supported on the s390x (IBM System Z) platform.
- To use the E4S variant of the repos, the RHEL 8 minor release must be set via subscription-manager.
- Support for RHEL 8.2 E4S ends [May 31, 2024](#)

To set the release lock on a RHEL 8.8 system, run the following command:

```
# subscription-manager release --set=8.8
```

To enable the correct repos for SAP HANA on a RHEL 8 system (on RHEL 8 minor releases where E4S repos are available), run the following command:

```
# subscription-manager repos \
--disable="*" \
--enable="rhel-8-for-$(uname -m)-baseos-e4s-rpms" \
--enable="rhel-8-for-$(uname -m)-appstream-e4s-rpms" \
--enable="rhel-8-for-$(uname -m)-sap-solutions-e4s-rpms" \
--enable="rhel-8-for-$(uname -m)-sap-netweaver-e4s-rpms"
```

To enable the correct repos for SAP HANA on a RHEL 8 system (on RHEL 8 minor releases where E4S repos are available) if one of the [Red Hat HA solutions for SAP](#) is going to be used, run the following command:

```
# subscription-manager repos \
--disable="*" \
--enable="rhel-8-for-$(uname -m)-baseos-e4s-rpms" \
--enable="rhel-8-for-$(uname -m)-appstream-e4s-rpms" \
--enable="rhel-8-for-$(uname -m)-sap-solutions-e4s-rpms" \
--enable="rhel-8-for-$(uname -m)-sap-netweaver-e4s-rpms" \
--enable="rhel-8-for-$(uname -m)-highavailability-e4s-rpms"
```

### 3.3. SAP HANA (WITH OR WITHOUT SAP NETWEAVER/SAP ABAP APPLICATION PLATFORM) ON RHEL 8.10

For SAP HANA on RHEL 8.10, do not set a release lock. Also, enable the normal repos instead of the E4S or EUS repos. This is because:

- RHEL 8.10 is the last RHEL minor release for RHEL 8, so the command **yum update** never updates the system to any release later than that of RHEL 8.10.
- The normal RHEL 8.10 repos will receive updates for more than 6 months after GA. See [this chapter](#) and [this table](#) in the Red Hat Enterprise Linux Life Cycle page for more details. For SAP HANA on RHEL 8.10, enable the following repos (enabling the sap-netweaver repos would not be necessary for SAP HANA only systems, but for simplicity and greater flexibility, it is recommended to enable these in all cases):

Platform	Repo ID
x86_64	rhel-8-for-x86_64-baseos-rpms rhel-8-for-x86_64-appstream-rpms rhel-8-for-x86_64-sap-solutions-rpms rhel-8-for-x86_64-sap-netweaver-rpms rhel-8-for-x86_64-highavailability-rpms (#)
ppc64le	rhel-8-for-ppc64le-baseos-rpms rhel-8-for-ppc64le-appstream-rpms rhel-8-for-ppc64le-sap-solutions-rpms rhel-8-for-ppc64le-sap-netweaver-rpms rhel-8-for-ppc64le-highavailability-rpms (#)

(#) This repo is only needed if one of the [Red Hat HA solutions for SAP](#) is going to be used.



#### NOTE

- SAP HANA is not supported on the s390x (IBM System Z) platform.

A RHEL 8.10 system must not have a RHEL minor release lock set. You can verify by checking if the output of the following command is **Release not set**:

```
# subscription-manager release
```

If a minor release lock has been set, disable it with:

```
# subscription-manager release --unset
```

To enable the correct repos for SAP HANA on a RHEL 8.10 system, run the following command:

```
# subscription-manager repos \
--disable="*" \
```

```
--enable="rhel-8-for-$(uname -m)-baseos-rpms" \  
--enable="rhel-8-for-$(uname -m)-appstream-rpms" \  
--enable="rhel-8-for-$(uname -m)-sap-solutions-rpms" \  
--enable="rhel-8-for-$(uname -m)-sap-netweaver-rpms"
```

To enable the correct repos for SAP HANA on a RHEL 8.10 system, if one of the [Red Hat HA solutions for SAP](#) is going to be used, run the following command:

```
# subscription-manager repos \  
--disable="*" \  
--enable="rhel-8-for-$(uname -m)-baseos-rpms" \  
--enable="rhel-8-for-$(uname -m)-appstream-rpms" \  
--enable="rhel-8-for-$(uname -m)-sap-solutions-rpms" \  
--enable="rhel-8-for-$(uname -m)-sap-netweaver-rpms" \  
--enable="rhel-8-for-$(uname -m)-highavailability-rpms"
```



## CHAPTER 4. RELATED INFORMATION

- [Where can I find documentation for SAP products on RHEL and other Red Hat products?](#)
- [How to tie a system to a specific update of Red Hat Enterprise Linux?](#)
- [Upgrading SAP environments from RHEL 7 to RHEL 8](#)
- [Red Hat HA Solutions for SAP HANA, S/4HANA and NetWeaver based SAP Applications](#)