BigFix Add-Ons
RHEL ESU Add-On - User's Guide

Special notice

Before using this information and the product it supports, read the information in Notices *(on page lvii)*.

Edition notice

This edition applies to BigFix version 11 and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

Chapter 1. Overview

BigFix® Patch for Red Hat Enterprise Linux™ keeps your Linux™ clients current with the latest updates and service packs.

Patch management is available through the *Patches for RHEL* Fixlet® sites from BigFix. For each new patch or update that becomes available, BigFix releases a Fixlet that can identify and remediate all the computers in your enterprise that need it. With a few keystrokes, the BigFix console Operator can apply the patch to all the relevant computers and visualize its progress as it deploys throughout the network.

The BigFix agent checks the operating system version, file versions, the language of the system, and other relevant factors to determine when and if a patch is necessary.

BigFix Patch for Red Hat Enterprise Linux™ Fixlet® often have notes that typically allow the Console Operator to work around problem, adding extra value to the patching process. BigFix Patch for Red Hat Enterprise Linux™ also incorporates user feedback into notes, ensuring that you receive the latest information.

Fixlets allow you to manage large numbers of updates and patches with comparative ease, enabling automated, highly targeted deployment on any schedule that you want. Large downloads can be phased to optimize network bandwidth and the entire deployment process can be monitored, graphed, and recorded for inventory or audit control.

New Features

Patches for Patch for Red Hat Enterprise Linux™ include support for Patch for Red Hat Enterprise Linux™ 8 Additional Channels: SAP Solutions, SAP Applications, High Availability, and CodeReady Builder.

The download plugin and cachers have been enhanced to securely store the proxy passwords.

Supported platforms

BigFix Patch for Red Hat Enterprise Linux™ supports various versions of Red Hat Enterprise Linux.

BigFix Patch for Red Hat Enterprise Linux™ provides Red Hat Security Advisories, Fix Advisories, and Bug Fix Advisories. These advisories are based on errata advisories from Red Hat Enterprise Linux.

Table 1. Supported platforms and patches for BigFix Patch for Red Hat Enterprise Linux

The following table lists the supported platforms and the corresponding sites that contains the Fixlets for patching.

Supported Platform	Minor Version	Fixlet Name	Type of Update
Red Hat Enterprise Linux 8 - Intel (x64)	8.8, 8.6, 8.4, 8.2, 8.1	Patches for RHEL 8 Extended Support	See Supported Red Hat Linux Add-ons repositories *(on page 6)* to view the list of repositories that contain the supported packages.

Table 1. Supported platforms and patches for BigFix Patch for Red Hat Enterprise Linux

The following table lists the supported platforms and the corresponding sites that contains the Fixlets for patching.
(continued)

Supported Platform	Minor Version	Fixlet Name	Type of Update
Red Hat Enterprise Linux 9 - Intel (x64)	9.0, 9.2, 9.4	Patches for RHEL 9 Extended Support	See Supported Red Hat Linux Add-ons repositories *(on page 6)* to view the list of repositories that contain the supported packages.
Red Hat Enterprise Linux 7 - Intel (x64)	7.9, 7.7, 7.6, 7.5, 7.4, 7.3, 7.2, 7.1	Patches for RHEL 7 Extended Support	See Supported Red Hat Linux Add-ons repositories *(on page 6)* to view the list of repositories that contain the supported packages.
Red Hat Enterprise Linux 7 - Intel (x64)	6.7, 6.6, 6.5, 6.4, 6.3, 6.2, 6.1	Patches for RHEL 6 Extended Support	See Supported Red Hat Linux Add-ons repositories *(on page 6)* to view the list of repositories that contain the supported packages.
Red Hat Enterprise Linux 7 - Intel (x86)	6.7, 6.6, 6.5, 6.4, 6.3, 6.2	Patches for RHEL 6 Extended Support	See Supported Red Hat Linux Add-ons repositories *(on page 6)* to view the list of repositories that contain the supported packages.

Supported Red Hat Linux Add-ons repositories

BigFix® Patch for Red Hat Enterprise Linux™ supports the listed Red Hat repositories Extended Update Support (EUS).

Table 2. Supported repositories for the RHEL 9

Supported Platform	Version	Repository
Red Hat Enterprise Linux 9 - Intel (64-bit x86_64)	9.0	• BaseOS EUS: https://cdn.redhat.com/content/eus/rhel9/9.0/x86_64/baseos/os/ • AppStream EUS: https://cdn.redhat.com/content/eus/rhel9/9.0/x86_64/appstream/os/

Table 2. Supported repositories for the RHEL 9 (continued)

Supported Platform	Version	Repository
		• Supplementary EUS: https://cdn.redhat.com/content/eus/rhel9/9.0/x86_64/supplementary/os/
Red Hat Enterprise Linux 9 - Intel (64-bit x86_64)	9.2	• BaseOS EUS: https://cdn.redhat.com/content/eus/rhel9/9.2/x86_64/baseos/os/ • AppStream EUS: https://cdn.redhat.com/content/eus/rhel9/9.2/x86_64/appstream/os/ • Supplementary EUS: https://cdn.redhat.com/content/eus/rhel9/9.2/x86_64/supplementary/os/
Red Hat Enterprise Linux 9 - Intel (64-bit x86_64)	9.4	• BaseOS EUS: https://cdn.redhat.com/content/eus/rhel9/9.4/x86_64/baseos/os/ • AppStream EUS: https://cdn.redhat.com/content/eus/rhel9/9.4/x86_64/appstream/os/ • Supplementary EUS: https://cdn.redhat.com/content/eus/rhel9/9.4/x86_64/supplementary/os/

Table 3. Supported repositories for the RHEL 8

Supported Platform	Version	Repository
Red Hat Enterprise Linux 8 - Intel (64-bit x86_64)	8.8	• Extended Life Cycle Support: https://cdn.redhat.com/content/els/rhel/server/7/7Server/x86_64/os/

Table 3. Supported repositories for the RHEL 8 (continued)

Supported Platform	Version	Repository
		• Extended Life Cycle Support - Optional: https://cdn.red-hat.com/content/els/rhel/server/7/7Server/x86_64/op-tional/os/
Red Hat Enterprise Linux 8 - Intel (64-bit x86_64)	8.6	• BaseOS EUS: https://cd-n.redhat.com/content/eus/rhel8/8.6/x86_64/baseos/os • AppStream EUS: https://cd-n.redhat.com/content/eus/rhel8/8.6/x86_64/app-stream/os • Supplementary EUS: https://cdn.redhat.com/content/eus/rhel8/8.6/x86_64/supplemen-tary/os
Red Hat Enterprise Linux 8 - Intel (64-bit x86_64)	8.4	• BaseOS EUS: https://cd-n.redhat.com/content/eus/rhel8/8.4/x86_64/baseos/os • AppStream EUS: https://cd-n.redhat.com/content/eus/rhel8/8.4/x86_64/app-stream/os • Supplementary EUS: https://cdn.redhat.com/content/eus/rhel8/8.4/x86_64/supplemen-tary/os
Red Hat Enterprise Linux 8 - Intel (64-bit x86_64)	8.2	• BaseOS EUS: https://cd-n.redhat.com/content/eus/rhel8/8.2/x86_64/baseos/os • AppStream EUS: https://cd-n.redhat.com/content/eus/

Table 3. Supported repositories for the RHEL 8 (continued)

Supported Platform	Version	Repository
		rhel8/8.2/x86_64/app-stream/os • Supplementary EUS: https://cdn.redhat.com/content/eus/rhel8/8.2/x86_64/supplementary/os
Red Hat Enterprise Linux 8 - Intel (64-bit x86_64)	8.1	• BaseOS EUS: https://cdn.redhat.com/content/eus/rhel8/8.1/x86_64/baseos/os • AppStream EUS: https://cdn.redhat.com/content/eus/rhel8/8.1/x86_64/app-stream/os • Supplementary EUS: https://cdn.redhat.com/content/eus/rhel8/8.1/x86_64/supplementary/os

Table 4. Supported repositories for the RHEL 7

Supported Platform	Version	Repository
Red Hat Enterprise Linux 7 Server - Intel (64-bit x86_64)	7.9	• Red Hat Enterprise Linux 7 Server - Extended Life Cycle Support: https://cdn.redhat.com/content/els/rhel/server/7/7Server/x86_64/os/ • Red Hat Enterprise Linux 7 Server - Extended Life Cycle Support - Optional: https://cdn.redhat.com/content/els/rhel/server/7/7Server/x86_64/optional/os/

Table 4. Supported repositories for the RHEL 7 (continued)

Supported Platform	Version	Repository
Red Hat Enterprise Linux 7 Server - Intel (64-bit x86_64)	7.7	• Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.red-hat.com/content/eus/rhel/server/7/7.7/x86_64/os • Red Hat Enterprise Linux 7 Server - Extended Update Support - Optional: https://cdn.redhat.com/content/eus/rhel/server/7/7.7/x86_64/optional/os • RHN Tools for Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.redhat.com/content/eus/rhel/server/7/7.7/x86_64/rhn-tools/os
Red Hat Enterprise Linux 7 Server - Intel (64-bit x86_64)	7.6	• Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.red-hat.com/content/eus/rhel/server/7/7.6/x86_64/os • Red Hat Enterprise Linux 7 Server - Extended Update Support - Supplementary: https://cdn.red-hat.com/content/eus/rhel/server/7/7.6/x86_64/supplementary/os • Red Hat Enterprise Linux 7 Server - Extended Update Support - Optional: https://cdn.redhat.com/content/eus/rhel/server/7/7.6/x86_64/optional/os

Table 4. Supported repositories for the RHEL 7 (continued)

Supported Platform	Version	Repository
		• RHN Tools for Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.redhat.com/content/eus/rhel/server/7/7.6/x86_64/rhn-tools/os
Red Hat Enterprise Linux 7 Server - Intel (64-bit x86_64)	7.5	• Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.redhat.com/content/eus/rhel/server/7/7.5/x86_64/os • Red Hat Enterprise Linux 7 Server - Extended Update Support - Supplementary: https://cdn.redhat.com/content/eus/rhel/server/7/7.5/x86_64/supplementary/os • Red Hat Enterprise Linux 7 Server - Extended Update Support - Optional: https://cdn.redhat.com/content/eus/rhel/server/7/7.5/x86_64/optional/os • RHN Tools for Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.redhat.com/content/eus/rhel/server/7/7.6/x86_64/rhn-tools/os
Red Hat Enterprise Linux 7 Server - Intel (64-bit x86_64)	7.4	• Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.redhat.com/content/eus/rhel/server/7/7.4/x86_64/os

Table 4. Supported repositories for the RHEL 7 (continued)

Supported Platform	Version	Repository
		• Red Hat Enterprise Linux 7 Server - Extended Update Support - Supplementary: https://cdn.redhat.com/content/eus/rhel/server/7/7.4/x86_64/supplementary/os • Red Hat Enterprise Linux 7 Server - Extended Update Support - Optional: https://cdn.redhat.com/content/eus/rhel/server/7/7.4/x86_64/optional/os • RHN Tools for Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.redhat.com/content/eus/rhel/server/7/7.4/x86_64/rhn-tools/os
Red Hat Enterprise Linux 7 Server - Intel (64-bit x86_64)	7.3	• Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.redhat.com/content/eus/rhel/server/7/7.3/x86_64/os • Red Hat Enterprise Linux 7 Server - Extended Update Support - Supplementary: https://cdn.redhat.com/content/eus/rhel/server/7/7.3/x86_64/supplementary/os • Red Hat Enterprise Linux 7 Server - Extended Update Support - Optional: https://cdn.redhat.com/content/eus/rhel/server/7/7.3/x86_64/optional/os

Table 4. Supported repositories for the RHEL 7 (continued)

Supported Platform	Version	Repository
		• RHN Tools for Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.redhat.com/content/eus/rhel/server/7/7.3/x86_64/rhn-tools/os
Red Hat Enterprise Linux 7 Server - Intel (64-bit x86_64)	7.2	• Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.redhat.com/content/eus/rhel/server/7/7.2/x86_64/os • Red Hat Enterprise Linux 7 Server - Extended Update Support - Supplementary: https://cdn.redhat.com/content/eus/rhel/server/7/7.2/x86_64/supplementary/os • Red Hat Enterprise Linux 7 Server - Extended Update Support - Optional: https://cdn.redhat.com/content/eus/rhel/server/7/7.2/x86_64/optional/os • RHN Tools for Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.redhat.com/content/eus/rhel/server/7/7.2/x86_64/rhn-tools/os
Red Hat Enterprise Linux 7 Server - Intel (64-bit x86_64)	7.1	• Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.redhat.com/content/eus/rhel/server/7/7.1/x86_64/os

Table 4. Supported repositories for the RHEL 7 (continued)

Supported Platform	Version	Repository
		• Red Hat Enterprise Linux 7 Server - Extended Update Support - Supplementary: https://cdn.redhat.com/content/eus/rhel/server/7/7.1/x86_64/supplementary/os • Red Hat Enterprise Linux 7 Server - Extended Update Support - Optional: https://cdn.redhat.com/content/eus/rhel/server/7/7.1/x86_64/optional/os • RHN Tools for Red Hat Enterprise Linux 7 Server - Extended Update Support: https://cdn.redhat.com/content/eus/rhel/server/7/7.1/x86_64/rhn-tools/os

Table 5. Supported repositories for the Patches of RHEL 6

Supported Platform	Version	Repository
Red Hat Enterprise Linux 6 Server	Extended 6	Baseurl: https://cdn.redhat.com/content/els/rhel/server/6/6Server/x86_64/os
Red Hat Enterprise Linux 6 Server	Extended Life Cycle Support - Optional	Baseurl: https://cdn.redhat.com/content/els/rhel/server/6/6Server/x86_64/optional/os

Table 6. Supported repositories for the Patches of EUS-6-x86_64

Supported Platform	Version	Repository
EUS-67-x86_64	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.7/x86_64/os

Table 6. Supported repositories for the Patches of EUS-6-x86_64 (continued)

Supported Platform	Version	Repository
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.7/x86_64/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.7/x86_64/supplementary/os
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.7/x86_64/rhn-tools/os
EUS-66-x86_64	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.6/x86_64/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.6/x86_64/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.6/x86_64/supplementary/os
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.6/x86_64/rhn-tools/os
EUS-65-x86_64	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.5/x86_64/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.5/x86_64/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.5/x86_64/supplementary/os
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.5/x86_64/rhn-tools/os

Table 6. Supported repositories for the Patches of EUS-6-x86_64 (continued)

Supported Platform	Version	Repository
EUS-64-x86_64	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.4/x86_64/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.4/x86_64/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.4/x86_64/supplementary/os
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.4/x86_64/rhn-tools/os
EUS-63-x86_64	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.3/x86_64/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.3/x86_64/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.3/x86_64/supplementary/os
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.3/x86_64/rhn-tools/os
EUS-62-x86_64	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.2/x86_64/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.2/x86_64/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.2/x86_64/supplementary/os

Table 6. Supported repositories for the Patches of EUS-6-x86_64 (continued)

Supported Platform	Version	Repository
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.2/x86_64/rhn-tools/os
EUS-61-x86_64	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.1/x86_64/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.1/x86_64/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.1/x86_64/supplementary/os
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.1/x86_64/rhn-tools/os

Table 7. Supported repositories for the Patches of ELS-6-i386

Supported Platform	Version	Repository
ELS-6-i386	Red Hat Enterprise Linux 6 Server - Extended Life (RPMs)	Baseurl: https://cdn.redhat.com/content/els/rhel/server/6/6Server/i386/os
	Red Hat Enterprise Linux 6 Server - Extended Life Cycle Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/els/rhel/server/6/6Server/i386/optional/os
EUS-67-i386	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.7/i386/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.7/i386/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.7/i386/supplementary/os

Table 7. Supported repositories for the Patches of ELS-6-i386 (continued)

Supported Platform	Version	Repository
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.7/i386/rhn-tools/os
EUS-66-i386	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.6/i386/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.6/i386/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.6/i386/supplementary/os
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.6/i386/rhn-tools/os
EUS-65-i386	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.5/i386/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.5/i386/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.5/i386/supplementary/os
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.5/i386/rhn-tools/os
EUS-64-i386	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.4/i386/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.4/i386/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.4/i386/supplementary/os

Table 7. Supported repositories for the Patches of ELS-6-i386 (continued)

Supported Platform	Version	Repository
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.4/i386/rhn-tools/os
EUS-63-i386	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.3/i386/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.3/i386/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.3/i386/supplementary/os
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.3/i386/rhn-tools/os
EUS-62-i386	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.2/i386/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.2/i386/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.2/i386/supplementary/os
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.2/i386/rhn-tools/os
EUS-61-i386	Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.1/i386/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Optional (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.1/i386/optional/os
	Red Hat Enterprise Linux 6 Server - Extended Update Support - Supplementary (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.1/i386/supplementary/os

Table 7. Supported repositories for the Patches of ELS-6-i386 (continued)

Supported Platform	Version	Repository
	RHN Tools for Red Hat Enterprise Linux 6 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/6/6.1/i386/rhn-tools/os

Table 8. Supported repositories for the Patches of ELS-5-x86_64

Supported Platform	Version	Repository
ELS-5-x86_64	Red Hat Enterprise Linux 5 Server (x86_64) - Extended Life Cycle Support (RPMs)	Baseurl: https://cdn.redhat.com/content/els/rhel/server/5/5Server/x86_64/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/els/rhel/server/5/5Server/x86_64/rhn-tools/os

Table 9. Supported repositories for the Patches of EUS-5-x86-64

Supported Platform	Version	Repository
EUS-59-x86_64	Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.9/x86_64/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - Supplementary (RPMs)"	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.9/x86_64/supplementary/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - RH Common (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.9/x86_64/rh-common/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.9/x86_64/rhn-tools/os
EUS-56-x86_64	Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.6/x86_64/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - Supplementary (RPMs)"	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.6/x86_64/supplementary/os

Table 9. Supported repositories for the Patches of EUS-5-x86-64 (continued)

Supported Platform	Version	Repository
	Red Hat Enterprise Linux 5 Server - Extended Update Support - RH Common (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.6/x86_64/rh-common/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.6/x86_64/rhn-tools/os
EUS-54-x86_64	Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.4/x86_64/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - Supplementary (RPMs)"	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.4/x86_64/supplementary/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - RH Common (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.4/x86_64/rh-common/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.4/x86_64/rhn-tools/os
EUS-53-x86_64	Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.3/x86_64/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - Supplementary (RPMs)"	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.3/x86_64/supplementary/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - RH Common (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.3/x86_64/rh-common/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.3/x86_64/rhn-tools/os
EUS-52-x86_64	Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.2/x86_64/os

Table 9. Supported repositories for the Patches of EUS-5-x86-64 (continued)

Supported Platform	Version	Repository
	Red Hat Enterprise Linux 5 Server - Extended Update Support - Supplementary (RPMs)"	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.2/x86_64/supplementary/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - RH Common (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.2/x86_64/rh-common/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.2/x86_64/rhn-tools/os
EUS-51-x86_64	Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.1/x86_64/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - Supplementary (RPMs)"	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.1/x86_64/supplementary/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - RH Common (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.1/x86_64/rh-common/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.1/x86_64/rhn-tools/os

Table 10. Supported repositories for the Patches of ELS-5-i386

Supported Platform	Version	Repository
ELS-5-i386	Red Hat Enterprise Linux 5 Server (x86) - Extended Life Cycle Support (RPMs)	Baseurl: https://cdn.redhat.com/content/els/rhel/server/5/5Server/i386/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/els/rhel/server/5/5Server/i386/rhn-tools/os

Table 11. Supported repositories for the Patches of EUS-59-i386

Supported Platform	Version	Repository
EUS-59-i386	Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.9/i386/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - Supplementary (RPMs)"	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.9/i386/supplementary/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - RH Common (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.9/i386/rh-common/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.9/i386/rhn-tools/os
EUS-56-i386	Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.6/i386/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - Supplementary (RPMs)"	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.6/i386/supplementary/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - RH Common (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.6/i386/rh-common/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.6/i386/rhn-tools/os
EUS-54-i386	Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.4/i386/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - Supplementary (RPMs)"	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.4/i386/supplementary/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - RH Common (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.4/i386/rh-common/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.4/i386/rhn-tools/os

Table 11. Supported repositories for the Patches of EUS-59-i386 (continued)

Supported Platform	Version	Repository
EUS-53-i386	Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.3/i386/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - Supplementary (RPMs)"	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.3/i386/supplementary/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - RH Common (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.3/i386/rh-common/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.3/i386/rhn-tools/os
EUS-52-i386	Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.2/i386/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - Supplementary (RPMs)"	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.2/i386/supplementary/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - RH Common (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.2/i386/rh-common/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.2/i386/rhn-tools/os
EUS-51-i386	Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.1/i386/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - Supplementary (RPMs)"	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.1/i386/supplementary/os
	Red Hat Enterprise Linux 5 Server - Extended Update Support - RH Common (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.1/i386/rh-common/os
	RHN Tools for Red Hat Enterprise Linux 5 Server - Extended Update Support (RPMs)	Baseurl: https://cdn.redhat.com/content/eus/rhel/server/5/5.1/i386/rhn-tools/os

Site applicability matrix

The various features of Patch for Red Hat apply differently for each Red Hat site.

The following matrix shows the Patch for Red Hat features that apply for each Red Hat site.

Table 12. Supported features for each Patches for Red Hat Enterprise Linux site

Site names	RHSM Download Plug-ins	Custom Repository Management dashboard	YUM Transaction History dashboard	RHSM Download Cacher
Patches for RHEL 7 Extended Support	Yes	Yes	Yes	Yes
Patches for RHEL 8 Extended Support	Yes	Yes	Yes	Yes
Patches for RHEL 6 Extended Support	Yes	Yes	Yes	Yes
Patches for RHEL 5 Extended Support	Yes	Yes	Yes	Yes

Fixlet fields

Fixlet fields provide essential information about Fixlets, helping them assess the importance, relevance, and impact of deploying a particular Fixlet to their systems.

Fixlets contain fields of metadata that provide specific details. Some Fixlet fields are common across all domains, that is, categories of BigFix sites. Other fields are common to only one domain or product, such as Patch Management.

The following table lists the Fixlet fields and their descriptions.

Table 13. Fixlet fields and descriptions

Fixlet fields	Description	BigFix domain
ID	A numerical ID assigned to the Fixlet by the author.	All
Name	The name assigned to the Fixlet by the author.	All
Applicable Computer Count	The number of BigFix clients in the network currently affected by the Fixlet.	All
Category	The type of Fixlet, such as a Security Patch or Update.	All

Table 13. Fixlet fields and descriptions

(continued)

Fixlet fields	Description	BigFix domain
Download Size	The size of the remedial file or patch that the action downloads.	All
Source	The name of the source vendor that provides the Fixlet information.	All
Source ID	A numerical ID assigned to the Fixlet to relate it back to its source.	All
Source Release Date	The date when an upstream vendor releases the patch.	All
Source Severity	A measure of how critical a Fixlet is, assigned by the Fixlet author. Typical values are Critical, Important, Moderate, or Low.	All
Site	The name of the site that is generating the relevant Fixlet.	All
Unlocked Computer Count	The number of unlocked computers that are affected by the Fixlet.	All
Open Action Count	The number of distinct actions that are open for the given Fixlet.	All
X-Fixlet-product-family	The product family that the patch belongs to.	Windows Patching (Relates to BigFix Patch Management)
X-Fixlet-product	The product that the patch belongs to under a certain product family.	Windows Patching (Relates to BigFix Patch Management)
X-Fixlet-component	A component that the patch targets under a certain product family.	Windows Patching (Relates to BigFix Patch Management)
Modification Time	The time when a given Fixlet was last modified.	All
X-Fixlet-first-propagation	The Fixlet release date.	All

Chapter 2. Setup

Setting up your environment for patch management.

Site subscription

Sites are collections of Fixlet messages that are created internally by you, by HCL, or by vendors.

Subscribe to a site to access the Fixlet messages to patch systems in your deployment.

You can add a site subscription by acquiring a Masthead file from a vendor or from HCL or by using the Licensing Dashboard. For more information about subscribing to Fixlet sites, see the *BigFix Installation Guide*.

For more information about sites, see the *BigFix Console Operator's Guide*.

Subscribing to the Patches for RHEL sites

Subscribe to the Patches for RHEL sites through the License Overview dashboard.

RHEL 5.x requires the use of YUM utility version 3.2.19-18 or later.

> **Note:** The RHSMDownloadPlugin does not support patch deployment to RHEL 5. RHEL 5 reached its end of life (EOL) in March 2017. Subsequently, BigFix supports of the earlier version of the RHEL plug-in and download cacher has ended. For BigFix notices about the RHEL 5 EOL, see http:forum.bigfix.com/.

1. From the **BigFix Management** domain, click **License Overview** dashboard.
2. Scroll down to view the available content sites.
3. Click **Enable** to select the version of Patches for RHEL site to which you want to subscribe.
4. Open the **Manage Sites** node and select your newly subscribed site.
5. From the site dialog, click the **Computer Subscriptions** tab to assign the site to the appropriate computers.
6. From the **Operator Permissions** tab, select the operators that you want to associate with this site and their level of permission.
7. Click **Save Changes**.

You are now subscribed to a Patches for RHEL site.

Enabling EUS patch functionality

This topic describes how to enable BigFix EUS Patch functionality in BigFix.

After buying a BigFix EUS Patch Add-on product, follow these one time steps to enable the BigFix EUS Patch functionality:

1. Add the EUS Add-on license to a server in the BigFix License Portal.
   Execute the following steps to add the EUS Add-on license to a server in the BigFix License Portal:

a. Login to License and Download Portal using your BigFix credentials.

b. Click the serial number of your server.

On the **Manage Serial Number** page, the BigFix ESU Patch add-on products become available for allocation. Refer to the instructional video.

https://www.youtube.com/embed/gsbouKRnI_8?si=m-Lavd5ePDi7j1St

c. Allocate one unit of the EUS patch product(s) to the server and click **Submit**.

> **Note:** If you have a license to these HCL parts and your License Key Center is missing the entitlement then open a help ticket at *https://support.bigfix.com*

2. Check for license update.

> **Note:** The BES Platform screen of the BigFix License Overview shows that a site certificate update was detected. If the site certificate update is not detected, click **Check for license update** and the update should be detected shortly.

Figure 1. License update
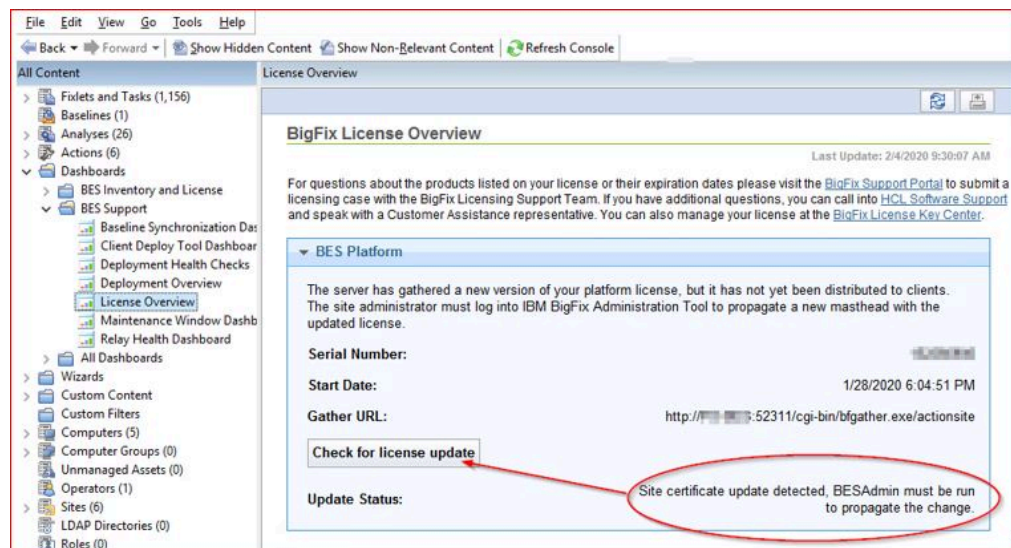
3. Update the masthead with BESAdmin.

Do the following to update the masthead with BESAdmin:

a. Select **BigFix Administration Tool** (BESAdmin) from the Start menu on the root server. When launched, you are prompted for **Site Admin Private Key Password** (your deployment's private key password).
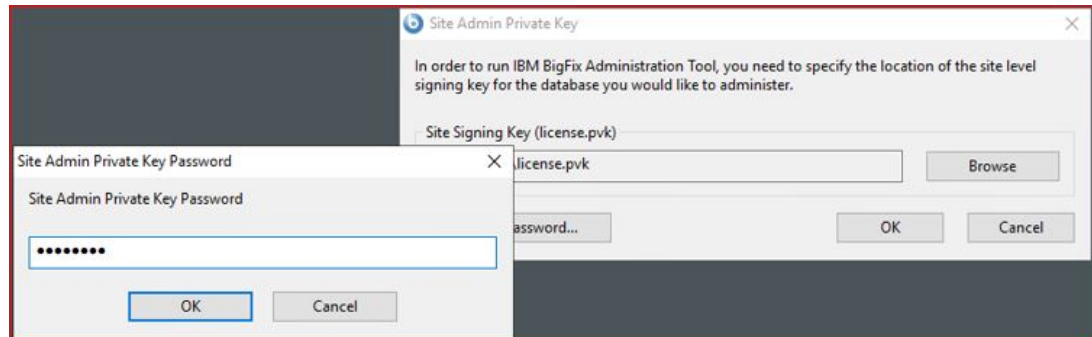
b. Enter the correct password and BESAdmin will update your deployment's masthead. After the update is complete, click **OK**.
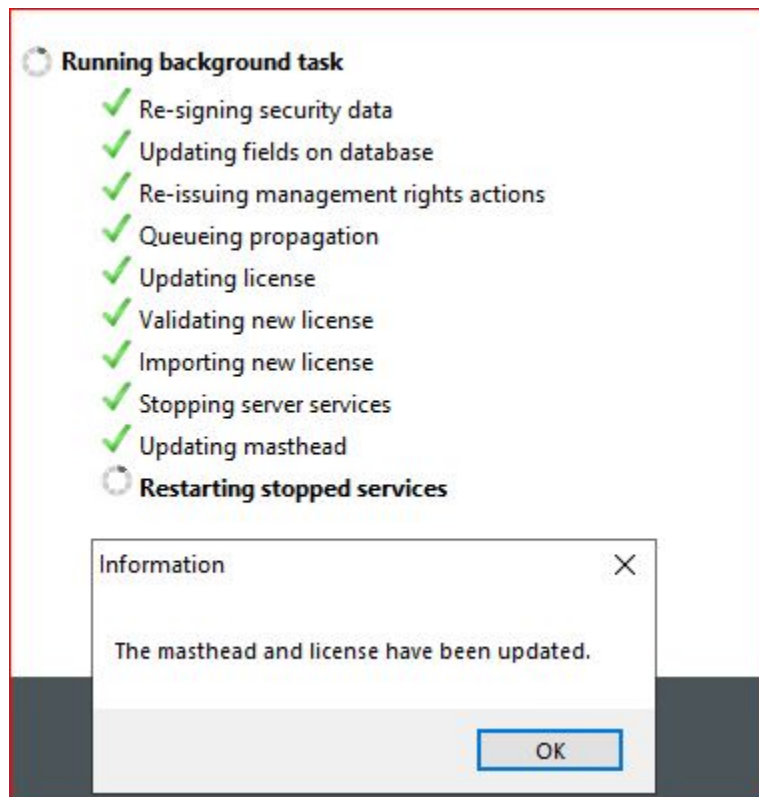
4. Enable the EUS Patch sites.

After the masthead is updated, click **Refresh** at the top right of the License Overview dashboard and the EUS site(s) of your organization that are purchased should be listed. Only enable content that applies to your environment.

You can enable the content like any other BigFix content site using the **Enable** link in the site's collapsible section in the dashboard.

> **Note:** If the new sites do not appear in your license dashboard after running BESAdmin from the prior step, then clear your console cache and restart your console. If the issue persists then open a help ticket at *https://support.bigfix.com* and request a manual license.crt to import into your BESAdmin.

5. Configure the RHSM plugin.

EUS/ELS patching uses the BigFix Red Hat Subscription Management (RHSM) download plugin. Entitlement is required to download the content and is provided via certificates. Follow the instruction in the Help Center to download your certificates and set up the RHSM Plugin: Using RHSM download plug-ins.

6. Check for an updated RHSM plug-in.

   Verify that the RHSM plug-in is updated to the latest version in the **Manage download plugins** dashboard, refer to Upgrading the RHSM download plug-in.

7. Enable the EUS/ELS patching.

   Run the following steps to enable the EUS/ELS patching:

   a. From the **Patching Support Site** take action on the Fixlet 70 - **Enable the EUS/ELS repositories in the RHSM Download Plugin** targeting the BigFix server where the RHSM plugin is installed.

   b. Verify that the repositories are reachable. From the command line on the BigFix server run the following for Windows: C:\Program Files (x86)\BigFix Enterprise\BES Server\DownloadPlugins \RHSMProtocol\RHSMPlugin --check-allrepos For Linux: /var/opt/BESServer/DownloadPlugins/ RHSMProtocol/RHSMPlugin --check-allrepos
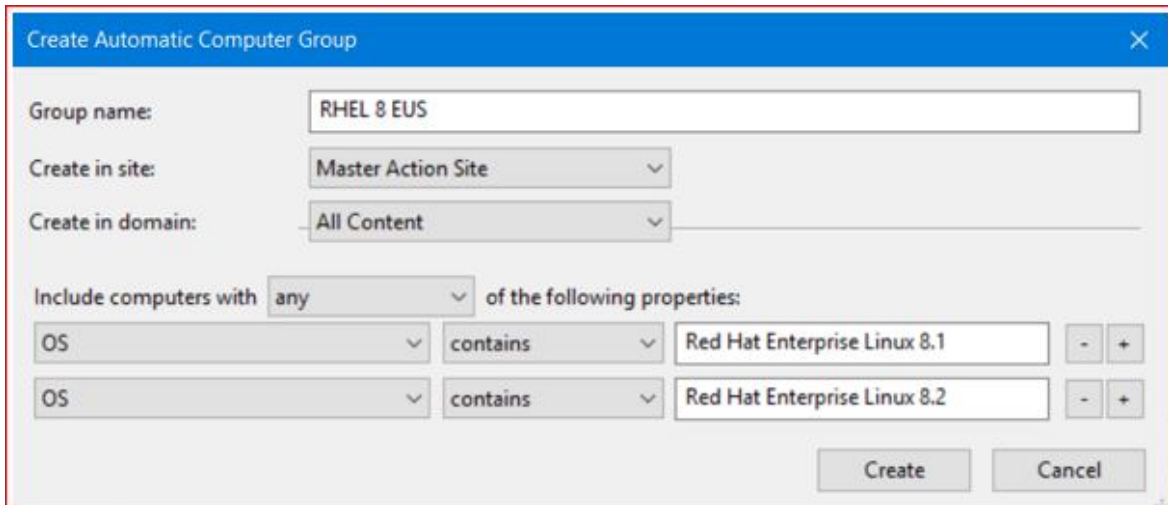

> ✏️ **Note:** If any of the repos show a *zero*, then the subscription certificates on the BigFix server do not include those extended repositories. Ensure that the repos that you are interested in do not have zero values.

8. Create Subscription Groups for Endpoints that Require Extended Support. Only the endpoints which require Extended Support patches should be subscribed to the Extended Support sites. The easiest way to target those endpoints is to create a group of the endpoints which currently have EUS-eligible versions of RHEL installed. For RHEL 8, a group with these conditions will capture your Extended Support endpoints:
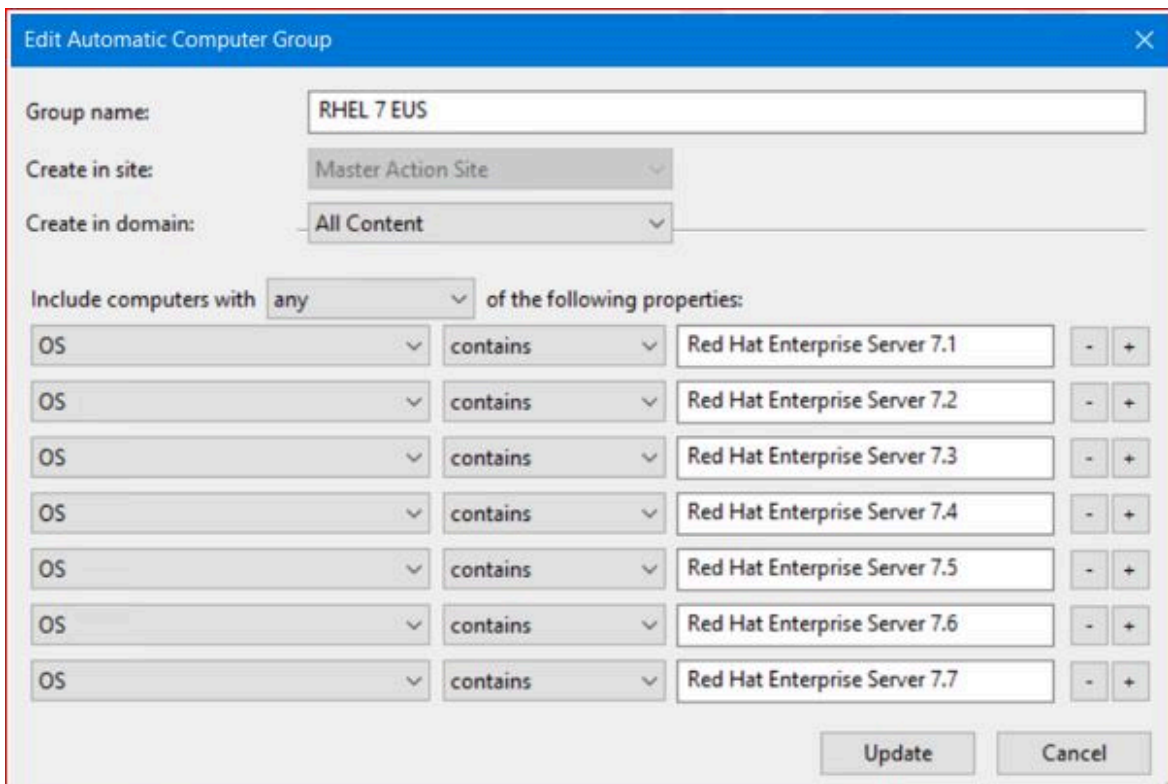
> **Note:** Red Hat eventually provides EUS patches for additional versions of RHEL 8. You can add versions to the group definition once Red Hat starts the EUS phase of support for those versions.

For RHEL 7, a group with these conditions will capture your Extended Support endpoints:

For RHEL 6, the EUS phase is completed but the ELS phase is currently active. It is safe to subscribe all your RHEL 6 endpoints to the Extended Support site:

You can treat the RHEL 5 Extended support in a similar way as RHEL 6:

9. Subscribe the endpoints to the Extended Support Patch Content sites.

    Set each EUS site's subscription Relevance to the correct OS and click **Save Changes**.

    Figure 2. External Site: Patches for RHEL5 Extended Support

Note: Endpoints does not install patches from the mainstream RHEL 7 and 8 patch sites when they are subscribed to the RHEL 7 Extended Support or RHEL 8 Extended Support patch sites. So it is important to get the correct Extended Support site subscriptions, only the subscribed endpoints which require EUS 7 or EUS 8 patches to the RHEL 7 and 8 Extended Support patch sites.

Chapter 3. Using Patch Management for Red Hat Enterprise Linux

You can manage Fixlets using dashboards, reports, and wizards. You can deploy, fix, and uninstall Fixlets. You can also view the breakdown of Fixlets available or needed in your deployment.

You can deploy patches from the BigFix console and view the Red Hat bulletin for a specific Fixlet. Activate an analysis to view the results of an action that is found in a log file on the endpoint.

Patch using Fixlets

From the BigFix Console, you can select and deploy actions for the relevant Fixlets. Once initiated, the action propagates across your deployment, applying patches based on the configurations set in the Fixlet work area and the **Take Action** dialog.

You can deploy patches from the BigFix Console.

1. In the **console navigation tree**, go to **Dashboard→ License Overview**.
2. Enable the **Patches for RHEL 8** site as shown below.

Figure 3. License overview
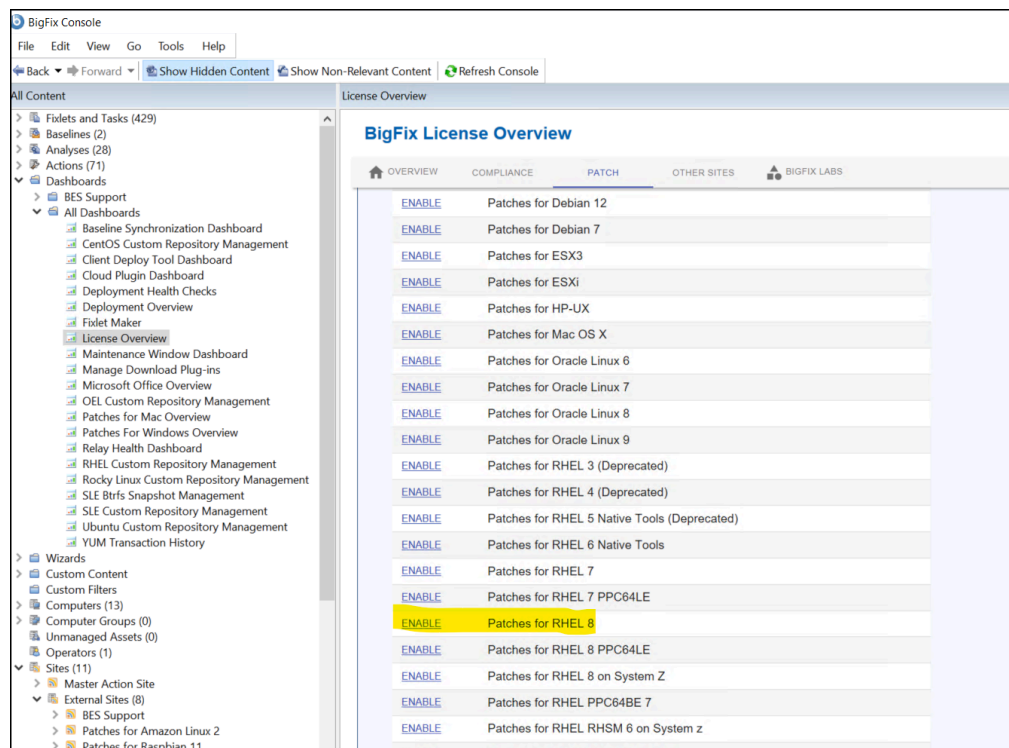
3. Once enabled, the site will appear under **External Sites**, listing the available Fixlets.

Figure 4. External sites - Fixlets

4. To deploy the Fixlets, select the applicable Fixlet.

5. Click **Take Action** and choose **Click here to start the deployment process and update the current packages** to deploy the Fixlet on the target endpoint.

Figure 5. Click here to start the deployment process and update the current packages

6. To view the Red Hat Errata page for a particular Fixlet, Click **Take Action** and select **Click here to view the errata page** as shown below.

Figure 6. Errata page

Supersedence

Please refer to #unique_18 to know more about the supersedence.

Chapter 4. Manage custom repositories

Use the RHEL Custom Repository Management dashboard to register and manage standard repositories and satellite repositories.

For detailed information about managing the custom repositories, refer to https://help.hcl-software.com/bigfix/11.0/patch/Patch/Patch_RH/c_manage_custom_repositories.html.

Chapter 5. Manage YUM transactions

Manage transactions through the YUM Transaction History dashboard, supports the use of Red Hat Enterprise Linux version 6 and later versions.

For detailed information about managing the YUM transactions, refer to https://help.hcl-software.com/bigfix/11.0/patch/Patch/Patch_RH/c_managing_yum_transactions.html.

Chapter 6. Using RHSM download plug-ins

The download plug-in is an executable program that downloads relevant packages directly from the patch vendor. Fixlets use an internal protocol to communicate with the download plug-in to download files. These Fixlets are based on updates made by the vendor.

You must create and download identification certificates through the Red Hat Subscription Management system to use the RHSM Download Plug-in. For the Fixlet to be able to use the protocol, register the download plug-in on the BigFix server or BigFix relay. Use the Manage Download Plug-ins dashboard to register the appropriate plug-in.

The Red Hat Subscription Management (RHSM) download plug-in is an enhanced version of the download plug-in for Red Hat that uses the RHSM to download and cache patches from a vendor's website to the BigFix server. The enhanced download plug-in enable the following possibilities.

- Customize available repositories through a user extensible repository list.
- Installation and dependency resolution can easily be extended to all repositories, not just those that are shipped out of the box.
- Customers and service teams can easily extend functionalities.
- Eliminates dependencies on utilities such as bzip2, gzip, and similar.

You can do the following tasks with the RHSM download plug-in:

- Register

    Note: To view this topic, see Registering the RHSM download plug-in

- Unregister
- Configure basic settings
- Configure advanced settings
- Unregister
- Upgrade
- Extend to use unsupported RHSM repositories

Note:

The RHSM download plug-in does not work for RHEL7 patching when the Require SHA-256 Downloads option in the BigFix Administration tool is enabled. When this option is enabled, all download verification use only the SHA-256 algorithm. However, RHEL7 repository metadata from the vendor, which do not contain SHA-256 values for packages in the repository that are used by the plug-in.

Consider disabling the Require SHA-256 Downloads option to successfully deploy a RHEL7 patch. For more information about the download option, see BigFix Platform Installation Guide at https://help.hcl-software.com/bigfix/11.0/platform/Platform/Installation/c_security_settings.html.

The YUM Transaction History dashboard supports the use of the RHSM download plug-in with the following Red Hat versions: RHEL 6, RHEL 6 for System z, RHEL 7 for System z, RHEL 7, RHEL 7 PPC64LE, and RHEL 7 PPC64LE. Endpoints must be subscribed to the Patching Support site.

Chapter 7. Using the RHSM download cacher

Use the RHSM download cacher to download and cache x86, x86_64, S390x, ppc64le, ppc64 Red Hat patches in air-gapped environments.

The RHSM download cacher supports the following Red Hat versions:

- RHEL 6 x32
- RHEL 6 x64
- RHEL 7 x32
- RHEL 7 x64
- RHEL 6 s390x
- RHEL 7 s390x
- RHEL 7 PPC64LE
- RHEL 7 PPC64BE
- RHEL 8 x64
- RHEL 8 s390x
- RHEL 8 PPC64LE
- RHEL 9 x64

You can run the RHSM download cacher on a Windows system or a Linux system. For information about requirements, see BigFix - System Requirements.

The RHSM download cacher is available from the BigFix Support site.

- For Windows systems, download the tool from https://software.bigfix.com/download/bes/util/RHSMDownloadCacher.exe
- For Linux systems, download the tool from

  https://software.bigfix.com/download/bes/util/RHSMDownloadCacher-linux.tar.gz.

  > **Note:** To use the tool successfully, ensure to install the following packages and their dependencies: GLIBC 2.2.5, GLIBC 2.3, and GNU/Linux 2.6.31 and later

> **Note:** The RHSM download cacher will need to access cdn.redhat.com at port 443 and access sync.bigfix.com at port 80.

> **Note:** For illustration purposes, this section indicates the steps to run the RHSM download cacher in Windows. However, the parameters and subcommands to run the RHSM download cacher are the same for both Windows and Linux systems.

You can run the tool `RHSMDownloadCacher.exe` to perform additional operations. To run this tool from the command prompt, use the following command:

```
RHSMDownloadCacher.exe [-h] --rootCertDir <rootcertdir>
```

```
[parameters...] {subcommand} [-h]  [subparameters...]
```

where:

-h

> Specifies the help message of a command instead of running the command.

--rootCertDir

> Specifies the root directory where the entitlement certificates and system identity certificates are located. Each set of entitlement certificates and system identity certificates must be placed in their own folder. You can configure the rootCertDir in the plugin.ini file.

check-baserepos

> Checks if the entitlement certificates under the certs folder can access the base Red Hat repositories that BigFix supports. The results are displayed in the console and printed in the RHSMDownloadCacher.log.

check-allrepos

> Checks if the entitlement certificates under the certs folder can access the Red Hat base repositories and its sub-repositories that BigFix supports. The results are displayed in the console and printed in the RHSMDownloadCacher.log.

parameters

> Specifies the optional parameters to be used to configure the download cacher.

> > **--proxyServer**

> > > Specifies the URL of the proxy server to use. It must be a well-formed URL that contains a protocol and a host name. The URL is usually the IP address or DNS name of your proxy server and its port, which is separated by a colon. For example: http://192.168.100.10:8080.

> > **--proxyUser**

> > > Specifies the proxy user name if your proxy server requires authentication. It is usually in the form of *domain\username*.

> > **--proxyPass**

> > > Specifies the proxy password if your proxy server requires authentication.

> > **--download_dir**

Specifies the directory where the repository metadata and the packages are cached. This directory must be transferred to the BES Server. The localCache of the RHSM plug-in's plugin.ini must be updated to reference this directory.

If this parameter is not defined, the files are downloaded to the directory that is relative to the download cacher executable directory.

If this parameter is not defined, a default download_dir folder is used.

--sha1_download_dir

With effect from version 1.0.1.0, specifies the directory where the sha1 packages are cached. The repository metadata is still cached in the --download_dir. The sha1_download_dir option stores the sha1 packages in a flat directory structure which can result to significant space saved when caching multiple repositories from the same Red Hat versions. Space-saving benchmarks are established with the use of the `--sha1_download_dir` through the `check-storagereq` subcommand.

To learn about the storage space benchmark, see Using −sha1_download_dir with air-gapped and internet-enabled BES Server.

--redownload

Specifies the flag to re-download and overwrite existing RPM files that are in the download directory.

If this parameter is not defined, RPM files are not re-downloaded. However, metadata are, by default, downloaded and overwritten.

--verifyExistingPkgChecksum

Specifies the flag to enforce a checksum check for existing RPM files when trying to download packages using the "buildRepo", "downloadPkg", or "downloadbypatchid" subcommands.

Note: The checksum is set to 'off' by default.

--loglevel

Specifies the log level. You can choose among DEBUG', 'INFO', 'WARNING', or 'ERROR'. By default, the value is set to 'INFO'.

INFO

Contains general information outlining the progress and successful downloads, with minimal tracing information.

WARNING

Contains information about failed downloads, and reasons for failure.

ERROR

Contains errors related to the execution of the download plug-in, which might indicate an impending fatal error.

DEBUG

Contains fine-grained information used for troubleshooting issues. This is the most verbose level available.

--help

Specifies the full description and help of a command instead of running the command.

subcommand subparameter

Specifies the subcommand and subparameters to be used to run the download cacher.

Note: The subcommand and subparameter names are case-sensitive.

The *subparameter* varies for each *subcommand* as follows:

showKeys

Outputs the list of OS keys for the supported repositories in the `<cacher directory>\logs\RHSMDownloadCacher.log` file. An OS key indicates the Red Hat operating system version, architecture, and service pack of a single Red Hat repository.

The syntax to run this subcommand is:

```
RHSMDownloadCacher.exe -rootCertDir <rootcertdir> --download_dir <download_dir>
[parameters] showsKeys
```

For example, `RHSMDownloadCacher.exe --rootCertDir certs --download_dir C:\downloads showKeys`

buildRepo

Builds a local mirrored repository and downloads all the relevant files based on the specified OS key.

The syntax to run this subcommand is:

```
RHSMDownloadCacher.exe --rootCertDir <rootcertdir> --download_dir <download_dir>
[parameters] buildRepo --key <OS_key1,OS_key2,…>
```

For example, `RHSMDownloadCacher.exe --rootCertDir certs --download_dir C:\downloads buildRepo --key server-7-x86_64`

where:

--key *OS_key1,OS_key2,…*

Specifies the Red Hat operating system version, architecture, and service pack. Entries must be separated by a comma and must not include spaces. It must use the following format:

```
<product>-<version_number>-<architecture>-<sp_level>
```

For example, `--key server-7-x86_64`.

check-storagereq

Checks the storage space requirement when using the `builRepo` command with and without the `--sha1_download_dir` option. The results are displayed in the console and in the RHSMDownloadCacher.log.

downloadMetadataOnly

Downloads the metadata of the specified OS keys.

The syntax to run this subcommand is:

RHSMDownloadCacher.exe --rootCertDir --download_dir C:\downloads downloadMetadataOnly --key server-7-x86_64

```
RHSMDownloadCacher.exe --rootCertDir <rootcertdir> --download_dir <download_dir>

[parameters] downloadMetadataOnly --key <OS_key1,OS_key2,…>
```

For example, `RHSMDownloadCacher.exe --rootCertDir certs --download_dir C:\downloads downloadMetadataOnly --key server-7-x86_64`

where:

--key *OS_key1,OS_key2,…*

Specifies the Red Hat operating system version, architecture, and service pack. Entries must be separated by a comma and must not include spaces. It must use the following format:

```
<product>-<version_number>-<architecture>-<sp_level>
```

For example, `--key server-7-x86_64`.

downloadPkg

Downloads the listed RPM files for the specified OS key.

📝 **Note:** If the package that you are downloading has dependencies, it is suggested that that buildrepo be used instead to avoid dependency issues

The syntax to run this subcommand is:

```
RHSMDownloadCacher.exe --rootCertDir <rootcertdir> --download_dir <download_dir>

[parameters] downloadPkg --key <OS_key1,OS_key2…>

--pkg <pkg1,pkg2,…>
```

For example, `RHSMDownloadCacher.exe --rootCertDir certs --download_dir C:
\temp --redownload downloadPkg --key server-7-x86_64 --pkg python-qrcode-
core-5.0.1-1.el7.noarch.rpm`

where:

--key *OS_key1,OS_key2,…*

Specifies the Red Hat operating system version, architecture, and service
pack. Entries must be separated by a comma and must not include spaces.
It must use the following format:

```
<product>-<version_number>-<architecture>-<sp_level>
```

For example, `--key python-qrcode-core-5.0.1-1.el7.noarch.rpm`.

--pkg *pkg1,pkg2,…*

Indicates the package name.

Each entry must be separated by a comma and
must not include spaces. For example, `--pkg
liblcms1-1.17-77.12.1.x86_64.rpm,liblcms1-32bit-1.17-77.12.1.x86_64.rpm`.

downloadByPatchId

Downloads files based on the patch ID for one or more OS keys. The RHSM cacher
replaces the reference to the bulletins with the patch_id. The first two digits of the patch_id
typically refers to the year. For example, the RHSA-2016-2589 bulletin is replaced with
patch_id 162589, with '16' referring to the year.

> 📝 **Note:** If the package that you are downloading has dependencies, it is suggested
> that that buildrepo be used instead to avoid dependency issues

The syntax to run this subcommand is:

```
RHSMDownloadCacher.exe --rootCertDir <rootcertdir>

--download_dir <download_certdir>[parameters] downloadByPatchId

 --key <OS_key1,OS_key2…>

--patch_id <patch_id1,patch_id2,…>
```

For example, `RHSMDownloadCacher.exe --rootCertDir certs --download_dir C:\downloads
downloadByPatchId --key server-7-x86_64 --patch_id 162589`

where:

--key *OS_key1,OS_key2,…*

> Specifies the Red Hat operating system version, architecture, and service pack. Entries must be separated by a comma and must not include spaces. It must use the following format:
>
> ```
> <product>-<version_number>-<architecture>-<sp_level>
> ```
>
> For example, `--key server-7-x86_64`.

--patch_id *patch_id1,patch_id2,…*

> Indicates the patch ID of a Fixlet, which is the first six digits in the Fixlet title.
>
> Each entry must be separated by a comma and must not include spaces. For example, `--patch_id 162589`.

Chapter 8. Multiple-Package Baseline Installation

BigFix Patch provides a solution to combine the installation of updates for multiple packages in a baseline into a single task, which can reduce the execution time of the baseline.

Baselines can help you gather multiple Fixlets into groups, which you can apply immediately to any set of target computers. It is a powerful way to deploy a group of actions across an entire network. However, each Fixlet in a baseline creates a separate update transaction when the baseline is run. A single baseline can have numerous calls, which can severely impact performance as it increases the time taken to complete all the transactions.

The multiple-package baseline installation solution helps improve the performance that is due to the dependency resolution and package installation that is done separately for each Fixlet. This solution requires you to enable the feature at the start of the baseline and append the installation task to install the relevant packages from a single call.

Use the **Enable the Multiple-Package Baseline Installation feature** task to set the flag that instructs Fixlets to add packages to a list instead of installing them. The flag is cleared after the baseline is completed. You must add the appropriate task at the start of the baseline to allow the installation of multiple packages from a single command.

A multiple-package installation task is made available for each Red Hat distribution, operating system version, service pack level, and architecture. You must add the appropriate installation task at the end of your baseline to complete the dependency resolution, download the packages, and then install them on the endpoints.

Use the appropriate task to install the relevant packages listed on the `MultiPkgInstall.txt` file, located in the following directory locations from a single yum call.

> **On Linux systems**
>
> `/var/opt/BESClient/EDRDeployData`

The task action skips packages with broken dependencies.

These tasks must be run at the end of the baseline to do dependency resolution and package installation for the entire baseline in a single instance.

> **Note:** Ensure that the following option is unchecked for the related tasks: **Baseline will be relevant on applicable computers where this component is relevant**.

You can also do a dry run of the installation to preview the changes on the packages to avoid broken dependencies, which might be due to undesired packages updates. The test action outputs to the following file at `/var/opt/BESClient/EDRDeployData`.

> **`PkgToInstallList.txt` file**
>
> This file contains packages that are to be installed after a dependency check.

> **Note:** Custom sites name can only contain alphabets (a-z, A-Z), numbers (0-9), underscore (_), and hyphen (-). They cannot contain any other special characters.

Chapter 9. Understanding RHEL patch add-ons

This topic gives you a brief introduction about Red Hat Enterprise Linux (RHEL) Patch Add-Ons.

BigFix content supporting Red Hat's Extended Update Support (EUS) and Extended Life Cycle Support (ELS) patching program is available as an add-on to the BigFix Patch, BigFix Lifecycle and BigFix Compliance products.

This guide describes how to enable and use the BigFix EUS/ELS patch content for RHEL.

BigFix ELS Fixlet content is available for RHEL 5, 6 and 7 under **BigFix Extended Patch For RHEL 5, 6 & 7** and supports keeping your RHEL 5.11, 6.10 and 7.9 endpoints up to date with ELS patches released by Red Hat.

BigFix EUS content is available for Red Hat 5, 6, 7, 8 and 9 under **BigFix Extended Patch For RHEL** and supports keeping your RHEL 7, RHEL 8 and RHEL 9 boxes secure for the following specified patch minor release levels -

- RHEL 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7
- RHEL 8.1, 8.2, 8.4, 8.6, 8.8
- RHEL 9.0, 9.2, 9.4

Red Hat's EUS/ELS patches are treated the same as standard Red Hat patches in that they require a paid subscription from Red Hat. Access to Red Hat patches is controlled via subscription certificates via the Red Hat Subscription Management plugin. The goal of the BigFix patch add-on products is to allow a relatively seamless continuation of your organization's current patch process into the extended support period.

Chapter 10. Deploying extended support patches with BigFix

You can apply Extended Support (EUS and ELS) patch Fixlets the same way you have been applying all your RHEL patches with BigFix.

To apply Extended Support (EUS and ELS) patch Fixlets with BigFix – include them in baselines, use maintenance windows, even include them in patch policies (scheduled for Dec 2020).

Taking action on an EUS or ELS patch Fixlet works the same way as taking action on any other patch Fixlet in BigFix individually or as part of multiple action groups. However, using EUS and ELS Fixlets in multiple-package baselines requires a little extra attention to detail as shown in the figure.

Note that there are separate Fixlets to install multi package baselines for each Extended Update Support version, similarly to separate Fixlets to install multi package baselines for servers, clients, and workstations in the standard Patches for RHEL sites. In order to ensure the EUS/ELS patches are installed from the correct repo, you must use the multiple-package baseline **installation**Fixlet that matches the same release of the **patch** Fixlets in your baseline. For example, a multiple-package baseline that contains RHEL 7.5 EUS patch fixlets should use the 7.5 EUS installation fixlet as its final component:. An example is shown in the following figure:

Figure 7. Extended Support Patches

In the preceding example, the version (7.5) and architecture (x64 / x86_64) matches for all the patch Fixlets and for the multi package baseline installation Fixlet – just like you match up server or client Fixlets with the corresponding multi baseline installation fixlet in the standard Patches for RHEL sites.

The Fixlets to import the GPG key and enable multi package baseline mode are generic to the major RHEL version.

For a refresher on multi package baselines in general, refer to Multiple-Package Baseline Installation.

Chapter 11. Frequently Asked Questions

Learn the answers to frequently asked questions about BigFix EUS/ELS Patch Add-Ons for Red Hat Enterprise Linux 5, 6, 7 and 8.

What are the prerequisites for Red Hat?

Access to EUS repos requires the **Extended Update Support** feature as part of your Red Hat OS license subscription. Red Hat's online store says it is an add-on to the Standard subscription and is included in a Premium subscription.

The following examples are from the Red Hat store and are not owned or controlled by HCL.

From https://www.redhat.com/en/store/red-hat-enterprise-linux-server

From https://www.redhat.com/en/store/red-hat-enterprise-linux-virtual-datacenters

Access to ELS repos requires purchasing the Extended Life Cycle Support Add-On from Red Hat, which is available to Standard and Premium subscriptions only. See https://www.redhat.com/en/resources/els-datasheet.

RedHat Enterprise accounts and terms with RedHat may vary. For certainty, you should confirm licensing details with your RedHat license representative.

Are SAP, Resilient Storage and the other add-ons for RHEL 6 included in the ELS content?

Red Hat does not offer support to any RHEL 6 add on repositories under its ELS program. See https://access.redhat.com/articles/4665701 for more information.

On November 30, when ELS was started for RHEL 6, Red Hat published two new repositories:

- Red Hat Enterprise Linux 6 Server - Extended Life (RPMs)
- Red Hat Enterprise Linux 6 Server - Extended Life Cycle Support - Optional (RPMs)

RHEL Extended Support includes applicable patch Fixlets for updates released through these two new repositories.

Why does my EUS and ELS patch actions keep failing?

The two most common reasons for EUS and ELS patch action failures are:

- The GPG key has not yet been imported to the endpoint being patched.
- The RHSM entitlement certificate(s) being used for the RHSM Download Plugin on the BigFix root server are invalid or expired.

Both of these issues manifest themselves by actions failing the **exit** line near the end, as shown in the following figure:

Figure 8. EUS and ELS patch failing
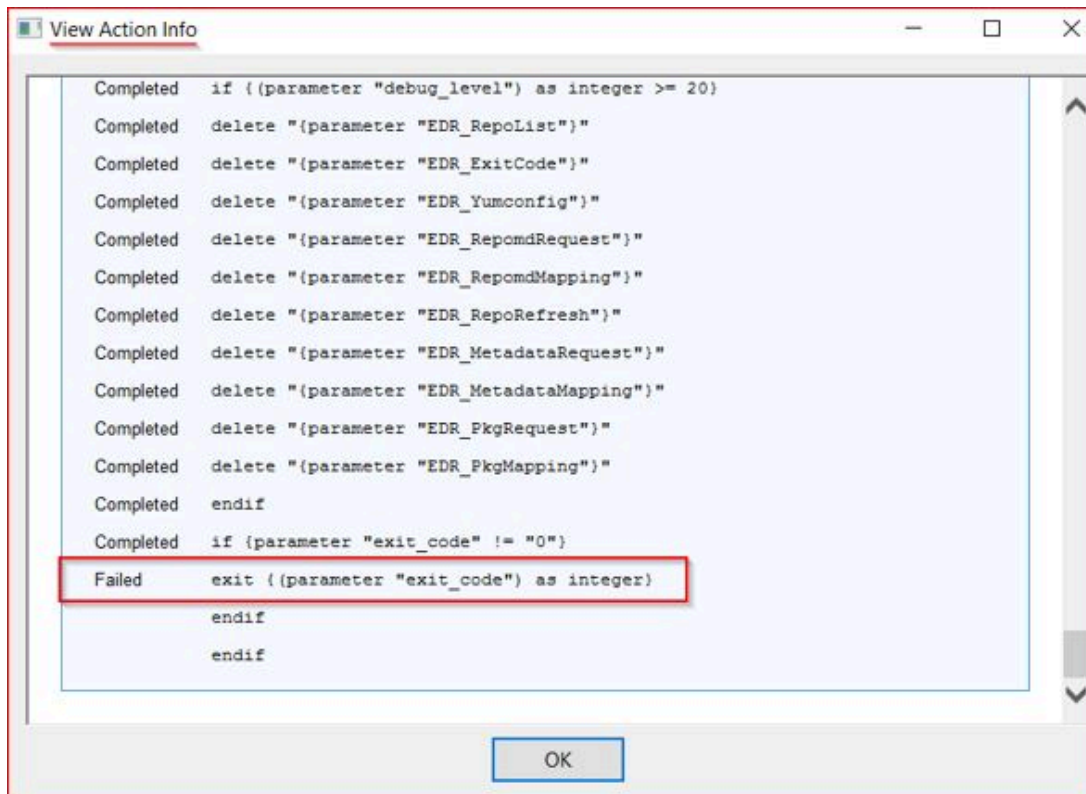
If the GPG key is not imported, run the Import RPM-GPG-KEY-redhat-release task (which is fixlet ID 10 in each of the RHEL Extended Support patch sites) on the endpoints in question.

To check whether the Red Hat subscription entitlement certificates used by the RHSM Download Plugin are valid, open a command prompt window and run this command in the `RHSMProtocol` folder (typically `C:\Program Files (x86)\BigFix Enterprise\BES Server\DownloadPlugins\RHSMProtocol`) on your BigFix root server:

```
rhsmplugin -checkallrepos
```

If repos show as not enabled, try re-downloading your RHSM subscription entitlement certificates from the RHSM portal at access.redhat.com.

To diagnose these or other Red Hat patch action failures, it can be helpful to review the `EDRDeploymentResults.txt` file which contains a log of the RHEL patch Fixlet's activity. The file can be found in the `/var/opt/BESClient/EDRDeployData/` folder on each BigFix RHEL client.

Can I use the Yum Transaction History dashboard to undo EUS and ELS updates?

Undoing a yum transaction involves re-installing the package that was installed prior to the yum transaction. If the prior version was sourced from a Full or Maintenance repository (pre-EUS/pre-ELS), then undoing the transaction using the dashboard will work. If the prior version was sourced from an EUS or ELS repository, the dashboard cannot undo the transaction.

Can I use the EUS or ELS patch fixlets without using the RHSM download plugin?

You can use the EUS and ELS patch fixlets without using the download plugin by enabling custom repository support via the Enable Custom Repository Support fixlet (fixlet ID 13) in the Patching Support site, just as you would do when using the standard Patches for RHEL sites.
Each computer to be patched must have Internet access and must have the EUS/ELS repositories enabled using the RHSM subscription-manager tool to install EUS or ELS patches without using the plugin.

What are the special disk space requirements?

All repository metadata and update packages are cached locally under `/var/opt/BESClient/rhsmyum/cache`, similarly to how standard Patches for RHEL packages are cached. This data is not subject to the BigFix client cache size limitations and can range up to 3GB in some cases.

When are the RHEL Extended Support patch sites added to WebUI and SCA?

The RHEL Extended Support patch sites were added to the BigFix WebUI in January 2021. They are scheduled to be added as patch sites to BigFix SCA in March 2021.

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