Red Hat Update Infrastructure 4

Release Notes

Product notes, new features, and known issues for Red Hat Update Infrastructure

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Legal Notice

Abstract

The Release Notes provide high-level coverage of the improvements and additions that have been implemented in Red Hat Update Infrastructure 4 and document known problems in this release, as well as notable bug fixes, Technology Previews, deprecated functionality, and other details.

Table of Contents

CHAPTER 1. 4.0 RELEASE NOTES

1.1. KEY CHANGES TO THE DOCUMENTATION SET

The following changes were made to the RHUI documentation set for this release:

Modular Documentation

The Red Hat Update Infrastructure documentation is now available as task-focused guides and topics instead of a single guide that covers all the information. Additional features and product documentation will be available in this format in the future. For more information about modular documentation, see Red Hat's product documentation is changing .

Installation Guide

The documentation includes a new guide, Installing Red Hat Update Infrastructure. The guide lists the components required for installation and provides detailed instructions to help cloud providers install Red Hat Update Infrastructure.

Migration Guide

The documentation includes a new guide, Migrating Red Hat Update Infrastructure. The guide lists the requirements and provides detailed instructions to help cloud providers migrate to Red Hat Update Infrastructure 4.

Configuration and Management Guide

The documentation includes a new guide, Configuring and Mananging Red Hat Update Infrastructure. The guide provides detailed instructions to help cloud providers set up and revise Red Hat Update Infrastructure 4.

Conscious Language Initiative

Red Hat is committed to replacing problematic language in our code, documentation and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, please see our CTO Chris Wright's message .

1.2. NEW FEATURES

This part describes new features and major enhancements introduced in Red Hat Update Infrastructure 4.

Red Hat Update Infrastructure now works on RHEL 8

With this release, the RHUI source code has been ported to Python 3. This allows RHUI to run on RHEL 8 systems.

Red Hat Update Infrastructure now supports Ansible

With this release, Ansible support has been added to RHUI. This makes the RHUI installation process easier. It also makes debugging and maintaining the installation process more convenient.

Pulp rebased to version 3

With this release, the Pulp repository management platform has been rebased to version 3. This version provides many bug fixes and enhancements over the previous version, most notably it uses PostgreSQL instead of MongoDB to manage your data.

Red Hat Update Infrastructure now supports faster synchronization of repositories

With this release, the data in repositories is mirrored from the source rather than being generated locally. This allows RHUI to synchronize the repositories significantly faster.

Ability to configure the number of stored repository versions

With this release, you can use Pulp to limit the number of package versions to retain. This allows you to configure the number of repository versions stored by Pulp and reduces the size of repositories and metadata.

Repository migration from RHUI 3 to RHUI 4

With this release, you can migrate repositories from your RHUI 3 environment to your new RHUI 4 environment using the **rhui-manager migrate** command. For more information, see Migrating Red Hat Update Infrastructure.

rhui-manager no longer fails to run in non-interactive mode

Previously, when the **rhui-manager** command was run with the **--noninteractive** option, it authenticated with the Pulp API using stored cookies. However, if these cookies had expired, **rhui-manager** failed to run. Consequently, automatic synchronization of repositories on RHUA nodes failed. With this update, **rhui-manager** reads stored credentials when run in a non-interactive mode, and the repository synchronization no longer fails.

rhui-manager repo add_by_repo command works as expected

Previously, the **rhui-manager repo add_by_repo** command failed if a non-existent repository ID was specified in the command. Consequently, **rhui-manager** exited indicating the status as **1**, and failed to add any of the other valid repositories that may also have been specified in the command. With this update, if **rhui-manager** is run with a non-existent repository ID, it adds the other valid repositories specified in the command and indicates the status as **0**. Otherwise, if it is unable to add any of the specified repositories, it indicates the status as **1**.

CDS authorizer-cert plug-in no longer loads the incorrect certificate path

Previously, the CDS authorizer-cert plug-in loaded the SSL certificate path from the RHUA section of the **rhui-tools.conf** file. Consequently, the plug-in failed to function as expected. With this update, the issue has been fixed, and the plug-in now loads the SSL certificate path from the security section.

rhui-subscription-sync no longer fails to update existing repositories

Previously, when the entitlement certificate was updated, the **rhui-subscription-sync** script failed to update existing repositories with the new certificate. Consequently, the repositories failed to synchronize. With this update, the script ensures that the existing repositories are properly updated with the new CA and entitlement certificates. As a result, the repositories no longer fail to synchronize.

FIPS mode is now supported in **rhui-manager**

With this update, Federal Information Processing Standards (FIPS) mode is now supported in **rhui-manager**, which enables you to validate the quality of cryptographic modules.

> **NOTE**
>
> RHUI will not be fully FIPS compliant until Pulp for RHUI is rebased to a version which is also FIPS compliant.

Ansible playbook logs are now available

With this update, both **rhui-installer** and **rhui-manager** logs are now available when the Ansible playbook is executed. These logs are available in the **/var/log/rhui/** directory.

New command: **rhui-manager repo export**

This update introduces the **rhui-manager repo export** command. You can use this command to export a repository to the file system from the command line. Note that the text-based RHUI user interface already contains this feature.

1.3. DEPRECATED FUNCTIONALITY

This part provides an overview of functionality that has been deprecated in Red Hat Update Infrastructure 4.

Gluster is no longer supported

Using Gluster to configure shared storage on RHUI 4 is no longer supported. Although you can still use Gluster to configure your storage, Gluster's life cycle is coming to an end, therefore RHUI will not support Gluster for the remainder of its life cycle. It is recommended that you use NFS for shared storage instead.

1.4. REMOVED FUNCTIONALITY

This part provides an overview of functionality that has been removed in Red Hat Update Infrastructure 4.

OSTree and container image are no longer supported

OSTree and container image repositories can no longer be added to your RHUI systems. It is recommended that you use Yum repositories for managing your packages.

pulp-admin command has been removed

The **pulp-admin** command has been removed. The related sections of the documentation have been updated to reflect this change.

1.5. TECHNOLOGY PREVIEWS

This part provides a list of all Technology Previews available in Red Hat Update Infrastructure 4.

For information on Red Hat scope of support for Technology Preview features, see Technology Preview Features Support Scope.

Repository version retention is now available as a Technology Preview

The Pulp 3 version retention feature is now available as a Technology Preview. Using this feature you can set a retention value and configure pulp to store the corresponding number of repository versions.

1.6. KNOWN ISSUES

This part describes known issues in Red Hat Update Infrastructure 4.

Repository synchronization can sometimes fail

Using Pulp to synchronize your repositories can sometimes fail. To work around this problem, try synchronizing the repositories again, the second iteration should be successful.

Using --remote-fs-type other with rhui-installer fails

Setting the file system type as other, using **--remote-fs-type other**, when installing RHUI using the **rhui-installer** command does not set a valid file system type. As a result, the installation fails. To work around this problem, set the file system as NFS instead, **--remote-fs-server <nfs_server>:/**.

Uploading package groups to custom repositories is currently not available

The **add_comps** sub-command is currently not available in RHUI 4.0. As a result, it is not possible to install package groups from custom repositories. There is no workaround available at the moment.

Creating an alternate source configuration does not work as expected

Using **rhui-manager** to create an alternate source client configuration repository fails with the following error:

No usable repository found, not building the RPM.

There is no workaround available at the moment

CHAPTER 2. 4.1 RELEASE NOTES

2.1. NEW FEATURES

This part describes new features and major enhancements introduced in Red Hat Update Infrastructure 4.1.

Pulp packages upgraded to version 3.17.3

The Pulp packages have been upgraded to upstream version 3.17.3. Apart from providing a number of bug fixes and enhancements, this upgrade makes RHUI fully FIPS compliant.

RHUI now supports CephFS

You can now use the Ceph File System to store the remote share. For information on installing RHUI with CephFS, see Installing Red Hat Update Infrastructure .

Repositories are now automatically exported

With this update, repositories are now automatically exported. As a result, symlinks from packages and repository metadata files to binary blobs are created even before the content is requested for the first time. Consequently, CDS nodes can provide content even if the RHUA node is inaccessible.

Proxy servers are now supported

With this update, you can synchronize packages from the Red Hat CDN using a proxy server. To use this feature, you must run RHUI Installer with arguments that correspond to your proxy server configuration. For detailed instructions, see Installing Red Hat Update Infrastructure .

Legacy CA certificates are now supported

With this update, you can store CA certificates from older RHUI installations on CDS nodes. The certificates are stored in the **/etc/pki/rhui/legacy** directory. As a result, clients with certificates signed by legacy certificate authorities can now use RHUI.

2.2. BUG FIXES

This part describes bugs fixed in Red Hat Update Infrastructure 4.1 that have a significant impact on users.

Gunicorn log file now successfully logs new enteries

Previously, when the **Gunicorn** logs were rotated by the **logrotate** utility, the main log file did not receive new entries. With this update, the issue has been fixed and the log file works as expected.

CDS node installations no longer fail

Previously, if the **/var/lib/rhui/remote_share/rpm/** directory contained more than one version of the same package, the CDS nodes failed to install. With this update, the installation process cleans the directory before proceeding with the installation. As a result, the CDS node installations no longer fail.

CHAPTER 3. 4.1.1 RELEASE NOTES

3.1. NEW FEATURES

This following new features and major enhancements have been introduced in Red Hat Update Infrastructure 4.1.1.

Containers are now supported

With this update, containers are now supported on RHUI.
You can now perform the following operations:

- Add containers to RHUI

- Synchronize these containers regularly along with containers from **registry.redhat.io** or any other registry of your choice

- Offer the containers to client virtual machines using a special client configuration RPM. You can create the configuration RPM using the **rhui-manager** text user interface.

Status reports for RHUI related services are now available

With this update, the repository synchronization status, the validity status of the RHUI CA certificate, and the statuses of services running on the RHUA, CDS, and HAProxy nodes are now available. In the case of services running on the nodes, you can view the statuses by running the **rhui-manager status** command on the RHUA node.

Custom CA certificates, custom keys, and SSL certificates are now supported

With this update, you can specify the following certificates and keys during RHUI installation:

- Custom CA certificates and keys on the RHUA node

- Custom CA certificate and key that will be used to generate client entitlement certificates

- Custom CA certificate and key that will be used to generate client SSL certificates

- Custom SSL certificate and key for the web server when adding a CDS node. Note that this certificate must be usable for all the load balancers and CDS host names that you are using with your RHUI installation

Repository path prefixes can now be defined

Previously, you could only access repositories by using paths with the **/pulp/content** prefix. With this update, you can now define the path prefixes and access repositories using these custom path prefixes. In addition, you can also configure protected and unprotected custom repositories to use custom prefixes.

3.2. BUG FIXES

The following bugs have been fixed in Red Hat Update Infrastructure 4.1.1 that have a significant impact on users.

Updated RHUI Manager error message

Previously, when a path for a non-RHUI repository was used in the entitlement certificate, RHUI Manager logged the following error message in the **/var/log/messages** file:

> ...
> Invalid entitlement path %s found
> ...

With this update, the error message has been clarified and reworded to the following message:

> ...
> Invalid repository download URL: %s provided
> ...

3.3. KNOWN ISSUES

This part describes known issues in Red Hat Update Infrastructure 4.1.1.

rhui-installer ignores custom RHUI CA when updating to a newer version of RHUI

When updating from RHUI version 4.1.0 or older, **rhui-installer** ignores the existing custom RHUI CA and generates a new RHUI CA regardless of the parameter value set in the **answer.yml** file. Consequently, RHUI fails to recognize clients which use the older RHUI CA. To work around this problem, specify the custom RHUI CA when running the **rhui-installer --rerun** command.

> **# rhui-installer --rerun --user-supplied-rhui-ca-crt <custom_RHUI_CA.crt> --user-supplied-rhui-ca-key <custom_RHUI_CA_key>**

For more information, see Updating Red Hat Update Infrastructure .

CHAPTER 4. 4.1.2 RELEASE NOTES

4.1. NEW FEATURES

This following major enhancement has been introduced in Red Hat Update Infrastructure 4.1.2.

New RHUI Installer argument: --ignore-newer-rhui-packages

Previously, when you reran an instance of RHUI Installer which was not up-to-date, RHUI Installer updated the RHUI packages if newer versions were available. As a result, the RHUI system would enter an inconsistent state since the older version of the RHUI Installer package was not aware of potential changes to the RHUI package set.
In addition, running RHUI Installer to change a setting, without updating RHUI in the process, was not supported.

With this update, when you rerun RHUI Installer, it checks whether a newer version is available. If available, RHUI Installer displays an error message stating that you must either update the RHUI Installer package, or rerun the RHUI Installer command using the **--ignore-newer-rhui-packages** argument. The **--ignore-newer-rhui-packages** argument prevents the installer from applying any RHUI updates.

4.2. KNOWN ISSUES

This part describes known issues in Red Hat Update Infrastructure 4.1.2.

rhui-installer ignores custom RHUI CA when updating to a newer version of RHUI

When updating from RHUI version 4.1.0 or older, **rhui-installer** ignores the existing custom RHUI CA and generates a new RHUI CA regardless of the parameter value set in the **answer.yml** file. Consequently, RHUI fails to recognize clients which use the older RHUI CA. To work around this problem, specify the custom RHUI CA when running the **rhui-installer --rerun** command.

> **# rhui-installer --rerun --user-supplied-rhui-ca-crt <custom_RHUI_CA.crt> --user-supplied-rhui-ca-key <custom_RHUI_CA_key>**

For more information, see Updating Red Hat Update Infrastructure .

CHAPTER 5. 4.2 RELEASE NOTES

5.1. NEW FEATURES

This following major enhancements have been introduced in Red Hat Update Infrastructure 4.2.

Importing package group metadata to a custom repository is now supported

With this update, data from a **comps** file can now be imported and included into the metadata for a custom repository. For more information, see Importing package group metadata to a custom repository.

Faster package uploads

Previously, **rhui-manager** uploaded a single package at a time and republished the custom repository after each upload. With this update, **rhui-manager** creates a temporary repository instead, which contains all the packages that have to be uploaded. Additionally, **rhui-manager** also creates the repodata for this temporary repository. To upload the packages to the custom repository, **rhui-manager** synchronizes the custom repository with the temporary one. As a result, package uploads are now significantly faster.

User supplied HAProxy configuration file is now supported

With this update, you can specify a custom template for an HAProxy configuration when adding an HAProxy load balancer to your RHUI instance. If you do not specify a custom file, the default template is used. The default template is stored in the **/usr/share/rhui-tools/templates/haproxy.cfg** file.

New rhui-manager aliases

With this update, aliases for the **--username** and **--password** options for the **rhui-manager** command are now supported in the command-line interface. You can now use the short forms **-u** and **-p** respectively.

gunicorn services now restart automatically

With this update, **gunicorn** services restart automatically if they exit unexpectedly. As a result, CDS nodes can now recover from situations where these services stop unexpectedly, for example, when the system runs out of memory.

Upgraded rhui-manager utility

With this update, the following new option and flag are now available in **rhui-manager**:

- **repo add_by_file** option to add repositories using a YAML input file. For more information, see Adding a new Red Hat content repository using an input file .

- **--sync_now** flag to sync any repositories that are added. This flag is now available with the **rhui-manager repo add_by_repo** and **rhui-manager repo add_by_file** commands.

5.2. BUG FIXES

The following bugs have been fixed in Red Hat Update Infrastructure 4.2 that have a significant impact on users.

Migrating to a different remote file server now works as expected

Previously, when **rhui-installer** was rerun with a remote file server, which was different from the one that was originally used, **rhui-installer** failed to unmount the original file server. Additionally, **rhui-installer** also failed to remove the record of the file server from the **/etc/fstab** file. Consequently,

migrating to another remote file server failed. With this update, **rhui-installer** successfully unmounts the remote file server and also removes its record. As a result, migrating to a different remote file server now works as expected.

5.3. KNOWN ISSUES

This part describes known issues in Red Hat Update Infrastructure 4.2.

Repository synchronization tasks fail when updating Red Hat Update Infrastructure

When you update RHUI, Pulp worker processes are shut down and restarted once the update is complete. Consequently, any repository synchronization tasks that are scheduled during the update might be aborted with the following error:

> Aborted during worker shutdown

As a workaround, aborted repository synchronization tasks are automatically rerun at the next available time slot. The default is 6 hours. Alternatively, you can manually synchronize repositories after the update is complete.

rhui-installer ignores custom RHUI CA when updating to a newer version of RHUI

When updating from RHUI version 4.1.0 or older, **rhui-installer** ignores the existing custom RHUI CA and generates a new RHUI CA regardless of the parameter value set in the **answer.yml** file. Consequently, RHUI fails to recognize clients which use the older RHUI CA. To work around this problem, specify the custom RHUI CA when running the **rhui-installer --rerun** command.

> # rhui-installer --rerun --user-supplied-rhui-ca-crt <custom_RHUI_CA.crt> --user-supplied-rhui-ca-key <custom_RHUI_CA_key>

For more information, see Updating Red Hat Update Infrastructure .

rhui-manager repo unused command fails to list newly added repositories

Currently, the **rhui-manager repo unused** command displays all the repositories that are listed in the entitlement certificate but are not used by RHUI. However, when new repositories are added to the certificate, they might not be immediately available to the RHUA node due to a previously active denylist. Consequently, they are not displayed when you run the command to list the unused repositories. To work around this problem, you must remove the repository cache. You can do so by running the following command:

> # rm -f /var/cache/rhui/*

CHAPTER 6. 4.3 RELEASE NOTES

6.1. NEW FEATURES

This following major enhancements have been introduced in Red Hat Update Infrastructure 4.3.

New Pulp version:3.21.0

> This update introduces a newer version of Pulp, **3.21.0**. Among other upstream bug fixes and enhancements, this version changes how Pulp manages ambiguous CDN repodata that contains a duplicate package **name-version-release** string. Instead of failing, Pulp logs a warning and allows the affected repository to be synchronized.

New rhui-manager command

> A new **rhui-manager** command is now available:
>
> `rhui-manager [--noninteractive] cds reinstall --all`
>
> With this command, you can reinstall all of your CDS nodes using a single command. Additionally, you do not need to specify any of the CDS host names.

6.2. BUG FIXES

The following bugs have been fixed in Red Hat Update Infrastructure 4.3 that have a significant impact on users.

Alternate Content Source package can now be created

> Previously, **rhui-manager** failed to create an Alternate Content Source package. With this update, the problem is now fixed and you can successfully create an Alternate Content Source package.

Redundant RHUI code has now been removed

> With this update, several parts of redundant code have been removed from RHUI. Most notably, the unused **entitlement** argument in the custom repository creation has been removed. Additionally, the Atomic and OSTree functions have been removed because these features have been deprecated in RHUI 4.

port variable has been renamed toremote_port

> Previously, CDS and HAProxy management used a variable called **port**. However, **port** is a reserved playbook keyword in Ansible. Consequently, Ansible printed warnings about the use of this variable. With this update, the variable has been renamed to **remote_port** which prevents the warnings.

rhui-installer now returns the correct status when RHUA installation playbooks fails

> Previously, when the RHUA installation playbook failed, **rhui-installer** exited with a status of **0**, which normally indicates success. With this update, the problem has been fixed, and **rhui-installer** exits with a status of **1**, indicating that the RHUA installation playbook has failed.

Proxy-enabled RHUI environments can now synchronize container images

> Previously, RHUI did not accept proxy server settings when adding container images. Consequently, RHUI was unable to synchronize container images if the proxy server configuration was required to access the container registries. With this update, RHUI now accepts proxy settings when they are configured with the container images. As a result, proxy-enabled RHUI environments can now synchronize container images.

Misaligned text on the repository workflow screen is now fixed

With this update, the misaligned text on the repository workflow screen in the rhui-manager text interface has been fixed.

6.3. KNOWN ISSUES

This part describes known issues in Red Hat Update Infrastructure 4.3.

Rerunning rhui-installer resets custom container configuration

Currently, the container configuration registry is managed by editing the **rhui-tools.conf** configuration file. However, rerunning **rhui-installer** overwrites the configuration file based on the latest answers file or based on the command line parameters combined with the default template, which doesn't contain any container registry configuration. Consequently, rerunning **rhui-installer** resets any custom changes to the container configuration registry. To work around this problem, save the current container configuration section from the **/etc/rhui/rhui-tools.conf** file and reapply the configuration to the new **rhui-tools.conf** file that is generated after rerunning **rhui-installer**.

CHAPTER 7. 4.4 RELEASE NOTES

7.1. NEW FEATURES

This following major enhancements have been introduced in Red Hat Update Infrastructure 4.4.

New rhui-installer argument: --pulp-workers COUNT

The **rhui-installer** command now supports the **--pulp-workers COUNT** argument. RHUI administrators can use this argument to set up any number of Pulp workers by re-running the **rhui-installer** command with this argument.

CDS nodes can now be configured to never fetch unexported content

With this update, Content Delivery Server (CDS) nodes can now be configured to never fetch unexported content from the RHUA node. To use this feature, re-run the **rhui-installer** command with the **--fetch-missing-symlinks False** argument, and reapply the configuration to all CDS nodes by running the **rhui-manager cds reinstall --all** command.

If you configure your CDS nodes this way, ensure you export the content before RHUI clients start consuming it. By default, cron jobs running regularly on the RHUA node export content automatically. However, you can manually export the content by running the **rhui-manager repo export --repo_id REPOSITORY_ID** command.

Container support is now disabled by default

With this update, support for containers in RHUI is disabled by default. If you want to use containers, you must manually enable container support by re-running the **rhui-installer** command with **--container-support-enabled True** argument, and reapplying the configuration to all CDS nodes by running the **rhui-manager cds reinstall --all** command.

TLS 1.3 and HSTS is now available on RHUI

With this update, Transport Layer Security (TLS) 1.3 and HTTP Strict Transport Security (HSTS) is now enabled in RHUI. This update improves overall RHUI security and also removes unsafe ciphers from the **nginx** configuration on Content Delivery Server (CDS) nodes.

Packages can now be removed from custom repositories

With this update, you can now remove packages from custom repositories using the text user interface (TUI) and the command line.

ACS configuration is now available

With this update, you can set up the Alternate Content Source (ACS) configuration in RHUI. You can use this configuration to quickly synchronize new repositories and content by substituting the remote content with matching content that is available either locally or geographically closer to your instance of RHUI. For more information, see CLI options for RHUI clients

Custom repository prefixes are now available

With this update, you can use a custom prefix, or no prefix at all, when naming your RHUI repositories. You can change the prefix by re-running the **rhui-installer** command with the **--client-repo-prefix PREFIX** argument. To remove the prefix entirely, use two quotation marks, **--client-repo-prefix ""**.

7.2. BUG FIXES

The following bugs have been fixed in Red Hat Update Infrastructure 4.4 that have a significant impact on users.

rhui-services-restart command restarts all pulpcore-worker services

Previously, when the **rhui-services-restart** command was run, it restarted only those **pulpcore-worker** services that were already running and ignored services that were not running. With this

update, the **rhui-services-restart** command restarts all **pulpcore-worker** services irrespective of their previous status.

rhui-manager status command no longer indicates an incorrect status

Previously, the **rhui-manager status** command returned an incorrect exit status when there was a problem. For example, even when a **pulpcore-worker** service was not running, the **rhui-manager status** command exited and incorrectly indicated that there was no problem by returning the **0** exit status. With this update, the issue has been fixed and the command now returns the correct exit status if there is a problem.

rhui-installer now uses the --rhua-mount-options parameter

Previously, **rhui-installer** ignored the **--rhua-mount-options** parameter and only used the read-write (**rw**) mount option when setting up RHUI remote share. With this update, **rhui-installer** can now set up remote share using the **--rhua-mount-options** parameter and other specified options. If you do not use the **--rhua-mount-options**, **rhui-installer** uses the read-write (**rw**) option by default.

rhui-installer no longer rewrites container-related settings

Previously, when you ran the **rhui-installer** command, it rewrote the **/etc/rhui/rhui-tools.conf** file, resetting all container-related settings. With this update, the command saves the container-related settings from the **/etc/rhui/rhui-tools.conf** file. As a result, the settings are restored after the file is rewritten.

CHAPTER 8. 4.5 RELEASE NOTES

8.1. NEW FEATURES

This following major enhancements have been introduced in Red Hat Update Infrastructure 4.5.

yum plugins are no longer automatically enabled

With this update, the client configuration RPMs in **rhui-manager** prevent subscription manager from automatically enabling **yum** plugins. As a result, RHUI repository users will no longer see irrelevant messages from subscription manager.

RHUI repository status files are now machine-readable

With this update, you can generate machine-readable files with the status of each RHUI repository. To use this feature, run the following command:

```
rhui-manager --non-interactive status --repo_json <output file>
```

Exit codes are now available with rhui-manager

With this update, the **rhui-manager** CLI command uses a variety of unique exit codes to indicate different types of errors. For example, if you attempt to add a Red Hat repository that has already been added, the command will exit with a status of **245**. However, if you attempt to add a Red Hat repository that does not exist in the RHUI entitlement, the command will exit with a status of **246**. For a complete list of codes, see the **/usr/lib/python3.6/site-packages/rhui/common/rhui_exit_codes.py** file.

8.2. BUG FIXES

The following bugs have been fixed in Red Hat Update Infrastructure 4.5 that have a significant impact on users.

Using a cron job to run rhui-manager no longer generates a login name error message

Previously, the **rhui-manager** command used the **logname** command to obtain the login name. However, when **rhui-manager** is run using the **rhui-repo-sync** cron job, a login name is not defined. Consequently, emails sent by the cron job contained the error message **logname: no login name**. With this update, **rhui-manager** does not obtain the login name using the **logname** command and the error message is no longer generated.

rhui-manager no longer logs a traceback when an invalid repository ID is used

Previously, when an invalid repository ID was used with the **rhui-manager** command to synchronize or delete a repository, the command failed with following error:

```
An unexpected error has occurred during the last operation.
```

Additionally, a traceback was also logged.

With this update, the error message has been improved and failure to run no longer logs a traceback.

8.3. KNOWN ISSUES

This part describes known issues in Red Hat Update Infrastructure 4.5.

Upgrading to RHUI 4.5 fails due to active logins

Currently, when you try to upgrade RHUI instances that were deployed before RHEL 8.6, which run Ansible Engine rather than Ansible Core, the installer fails with the following error:

> RUNNING HANDLER [Delete the active login session file]
> **
> [DEPRECATION WARNING]: evaluating 'rhui_active_login_file' as a bare variable, this behaviour will go away and you might need to add |bool to the expression in the future. Also see CONDITIONAL_BARE_VARS configuration toggle. This feature will be removed in version 2.12. Deprecation warnings can be disabled by setting deprecation_warnings=False in ansible.cfg.
> fatal: [localhost]: FAILED! => {"msg": "The conditional check 'rhui_active_login_file' failed. The error was: template error while templating string: unexpected '/'. String: {% if /root/.rhui/http-localhost:24817 %} True {% else %} False {% endif %}\n\nThe error appears to be in '/usr/share/rhui-installer/playbooks/rhua-provision.yml': line 76, column 7, but may\nbe elsewhere in the file depending on the exact syntax problem.\n\nThe offending line appears to be:\n\n\n   - name: Delete the active login session file\n   ^ here\n"}

To work around this problem, remove the current active logins using the **rhui-manager --logout** command and then run the **rhui-installer --rerun** command again.

CHAPTER 9. 4.6 RELEASE NOTES

9.1. NEW FEATURES

This following major enhancements have been introduced in Red Hat Update Infrastructure 4.6.

New Pulp version: 3.28

This update introduces a newer version of Pulp, 3.28, the latest LTS version. This update significantly modifies the Pulp database model, addressing many of the deadlock issues RHUI encountered when synchronizing large content volumes simultaneously.

Redis is no longer included

Redis is no longer included as part of the Pulp installation.

Shared mount options for RHUI Installer have been enhanced

With this update, the RHUI Installer's shared storage mounting options have been enhanced. You can now use the force option to alter the remote storage. For more information, see **rhui-installer --help**.

rhui-manager status now includes CDS SSL certificate expiration checks

With this update, CDS NGinx SSL certificate expiration checks are now available in the **rhui-manager** status report.

RHUI Installer automatically initiates rhui-subscription-sync

With this update, RHUI Installer automatically initiates **rhui-subscription-sync** after a successful installation. You no longer need to manually initiate the syncronization.

9.2. BUG FIXES

The following bugs have been fixed in Red Hat Update Infrastructure 4.6 that have a significant impact on users.

RHUI avoids not recognizing new RHEL minor version repositories

Previously, RHUI failed to recognize new minor version RHEL repositories because of cached mappings. With this update, the issue has been fixed.

Special characters can be used in the admin password

Previosuly, you could not use certain special characters in the RHUI administrator password. With this update, the issue has been fixed.

RHUI Installer did not handle rhui_active_login_file

Previously, due to a problem in RHUI Installer, it failed to successfully process the **rhui_active_login_file** variable. With this update, the issue has been fixed.

CHAPTER 10. 4.7 RELEASE NOTES

10.1. NEW FEATURES

The following major enhancements have been introduced in Red Hat Update Infrastructure 4.7.

Shared mount options for RHUI Installer have been expanded

With this update, the RHUI Installer's shared storage mounting options have been expanded to allow config files, certificate files and log files to be mounted on shared storage. For more information, see **rhui-installer --help**.

HAProxy can be run on RHEL 9

With this update RHUI supports HAProxy running on RHEL 9 even when RHUA is running on RHEL 8.

Log file rhui-subscription-sync.log has been relocated

With this update log file rhui-subscription-sync.log has been relocated to directory /var/log/rhui from directory /var/log.

10.2. BUG FIXES

The following bugs have been fixed in Red Hat Update Infrastructure 4.7 that have a significant impact on users.

Unrecognized rhui-manager commands are no longer ignored

With this update unrecognized rhui-manager commands are no longer ignored, instead they are reported as unrecognized.

Extraneous warnings when no CDSs are configured have been removed

In prior versions of RHUI when rhui-manager status was executed, while no CDS nodes where being tracked, warnings were being logged in /var/log/rhui/rhua_ansible.log. With this update such extraneous warnings are not produced.

Unnecessary nginx packages are omitted

With this update unnecessary nginx packages are no longer installed.

Saved versions of repo metadata now limitied to five

With this update the number of versions of saved repository metadata is limited to five. In the past, as new packages were added into a repository, a new version of the metadata was generated, potentially happening hundreds of times.

Erroneous error messages have been removed

With this update empty repos are now exported. In the past, if RHUI was configured with **--fetch-missing-symlinks False**, the unexported empty repos resulted in "Errors during downloading metadata for repository"

CHAPTER 11. 4.8 RELEASE NOTES

11.1. NEW FEATURES

The following major enhancements have been introduced in Red Hat Update Infrastructure 4.8.

RHUA Server Can Be Updated During the Update Process

A native Ansible module is now used to update the packages on the RHUA server, during the update process. This update can be prevented by using the --ignore-newer-rhel-packages flag.

New Pulp version

This update introduces a newer version of Pulp, 3.39.

11.2. BUG FIXES

The following bugs have been fixed in Red Hat Update Infrastructure 4.8 that have a significant impact on users.

Installation no longer fails on RHEL 8.10 Beta

The rhui-installer failed on RHEL 8.10 Beta due to the use of distutils. This has been addressed by updating to a newer version of ansible-collection-community-crypto which does not use the distutils.