Cloudify 5.2 Release Notes

April 5, 2021

Cloudify 5.2 is a minor release containing new features, fixes, and security updates. v5.2 can be deployed as a new installation, as an in-place update over a 5.1.x Cloudify manager, or as an upgrade version for any supported previous Cloudify release. See the upgrade section below for more details.

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Download Cloudify 5.2.0

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New functionality and corrections

LDAP Authentication improvements

5.2 adds support for the following LDAP improvements:

- LDAP properties can now be configured allowing support for non-standard user directories through customization of:
 - Base DN
 - Group DN
 - Bind format,
 - User filter
 - Group member filter
 - Attributes used for first name, last name, email, group membership, and uid
- Providing admin credentials is no longer required. If credentials are configured they will be used, otherwise, the user login credentials are used to retrieve the group info.

Read more

Okta IdP SSO support

Cloudify supports several methods of user authentication to the Cloudify Management Console. One of the methods is allowing Single Sign-On (SSO) experience leveraging Identity Providers (IdP). In v5.1.2 the framework was updated to accommodate the latest changes and Okta's latest release is now fully supported.

Read more

Agents

Cloudify 5.2 extends the agents OS support to include

- RHEL 8.x agent.
- CentOS 8.x agent.

Propagation of workflow parameters to sub-components.

When executing a workflow that is propagated to deployment components, The workflow parameters are propagated as well. This is true for all workflows and all workflow parameters. If such parameters do not exist they are ignored.

Asynchronous blueprint upload

Blueprint upload to the system is now done in an asynchronous manner. The upload state is updated in the UI and can be queried through the CLI. The change is backward compatible.

Scheduling workflows

The workflow scheduling mechanism was updated and it is now running as a dedicated service. Recurrent scheduling is now available (through CLI & API only in this release)

Security & compliance

- 3rd party packages updated to include the latest fixes
 - Pika updated to 3.8
 - Colorama updated to 0.4.4
- RD-916 Set the Secure and HttpOnly flags on the XSRF-TOKEN cookie
- RD-1703 Send HTTP Strict-Transport-Security header when using SSL
- RD-631: Cypress updated to version 6.
- RD-1049, RD-1352: Cryptography updated to 2.3.
- RD-1287: Pika updated to 3.8
- RD-931: Colorama updated to 0.4.4

Other Corrections & Fixes

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- RD-314: The service manager now defaults to supervisord.
- RD-680: Added list and rollback commands to the CLI and API.
- RD-682: Removed the deprecated 'manager_rest.app_logging.raise_unauthorized_user_error' from the Rest service.
- RD-848: Nested components (multiple levels of nesting) could not be uninstalled without 'force' due to dependency check. This is now resolved.
- RD-897: Improved Windows agent error messages, covering several failure scenarios.
- RD-827: In some scenarios, deleting a deployment with sub-components may fail. This is now resolved.
- RD-1091: Plugin deletion did not remove all the plugin properties in specific scenarios.
- RD-1062: IP modification of a manager running as a container resulted in an error. This is now resolved.
- RD-872, RD-876: "cfy plugins update" fails for blueprints used as components This is now allowed leveraging the 'force' flag.
- RD-876: Deleting a plugin that was once used by a blueprint that had plugins update failed. This is now resolved.

- RD-653: Trying to delete a plugin in use prompted an error with the wrong blueprint list in some scenarios. This is now resolved.
- RD-1390: socket file for supervisord get deleted post system restore.
- RD-1391: User authentication intermittently failed after a certain scenario of snapshot restore.
- RD-1150: Snapshot restore of systems with a large number of users failed in some scenarios. This issue is now resolved.
- RD-1375: The plugin update process during upgrade failed to process blueprints with non-standard structure. (bad yaml indentation)
- RD-1073: Enlarge the widget help popup icons
- RD-1782: Blueprint sources widget improved support for cluster environment
- RD-1335, RD-1356: Improved performance for dynamic dropdown controls.
- RD-1067: Modal dialogs close button is now sticky and does not disappear with scroll.
- RD-877: Fixed an issue with the deployment info tab memory handling.
- RD-1094: Logger improved to properly display arrays and complex objects.
- CYBL-1094: Improved handling of different file systems within monitoring (Prometheus)
- RD-1153: corrected permissions for stage & composer certs to avoid exclusion from the snapshot.
- RD-919: Fix role permissions post upgrade and snapshot restore.
- CYBL-1095: Default deployment update properties to empty.
- RD-1677: Correct the index column of the node_instances table to avoid errors during deployment update on a deployment restored from prior to 5.0.5 (e.g. from 4.6) onto 5.1.x.
- RD-983: Reduce the component polling interval from 10 seconds to 1 second.
- RD-827: Deleting a deployment with components failed. This is now resolved.
- RD-928: Corrected upgrade flow for Windows agents from 4.6 to 5.x.
- RD-1007: Avoid SELinux permissions issues when installing Cloudify agent on CentOS8 or RedHat8
- CYBL-1139: Corrected the tenant setup when executing queued workflows sometimes resulting in failed workflows.
- RD-1414: Blueprint upload to a cluster failed in some scenarios. This is now resolved.
- RD-1062: After a restart, the mgmtworker attempted to connect to the rest service on the old IP on container deployments. This is resolved.
- RD-1407: Correct the error code returned when the Blueprint archive is not found from 500 to 404.
- RD-897: improved the description of the errors upon agent upgrade failures.
- CY-3634: Output rabbit logs to /var/log/cloudify/rabbitmq instead of default rabbit location.
- RD-1375, RD-1466, RD-1432: Plugin update script improvements (Upgrade from 4.x to 5.2)

Deploying Cloudify 5.2

v5.2 can be deployed as a <u>new installation</u>, as an <u>in-place update over a 5.1.x Cloudify manager</u>, or as an <u>upgrade version for any supported previous Cloudify release</u>.

Upgrading from 5.1.x

Before the upgrade

As a best practice, we recommend taking a snapshot of the system prior to the update. Read <u>this page</u> for more details.

NOTE!

If your 5.1.x Cloudify cluster was deployed using the Cloudify Cluster Manager (which is the recommended approach), You can simplify the update process to 5.2 by running it through the Cluster Manager.

Below you can find the procedures for either using the Cluster Manager, or a manual flow.

Tip: the upgrade steps require yum installation of the 5.2 RPM. This can be done either by downloading the rpm package to the local Cloudify nodes and directing the command to the rpm path or by referencing the URL of the package. The second option requires live connection to the package path. Here are usage examples for both:

```
# Downloading the RPM to the current directory
curl -0
https://repository.cloudifysource.org/cloudify/5.2.0/ga-release/cloudify-manager-ins
tall-5.2.0-ga.el7.x86_64.rpm
# Installing the downloaded RPM
sudo yum install -y cloudify-manager-install-5.2.0-ga.el7.x86_64.rpm
```

```
# Installing the RPM directly
sudo yum install -y
https://repository.cloudifysource.org/cloudify/5.2.0/ga-release/cloudify-manager-ins
tall-5.2.0-ga.el7.x86_64.rpm
```

Upgrading Cloudify All-In-One

Update steps:

- Install the new 5.2.0 cloudify-manager-install RPM, by using the command: sudo yum install -y <5.2.0 RPM>
- 2. To start the upgrade run the command cfy_manager upgrade
- If Cloudify agents are used in your deployments, run cfy agents install
- 4. When opening the Cloudify Management Console after the upgrade, you might see "This page is empty", this happens because of cached data. To solve this, press CTRL + Shift + R.

Upgrading a Cloudify Compact Cluster (3 nodes)

If the initial cluster installation was done using the Cloudify Cluster Manager, follow this simplified process.

Updating a Cloudify compact cluster leveraging the Cloudify Cluster Manager

You can use the Cloudify Cluster Manager tool to upgrade a compact cluster:

Upgrade your Cloudify Cluster Manager by running sudo yum install -y http://repository.cloudifysource.org/cloudify/cloudify-cluster-manager/1. 0.7/ga-release/cloudify-cluster-manager-1.0.7-ga.el7.x86_64.rpm

On the host that has Cloudify Cluster Manager installed, run cfy_cluster_manager upgrade. Optional Arguments:

--config-path The completed cluster configuration file path. Default: ./cfy_cluster_config.yaml

- --upgrade-rpm Path to a v5.2.0 cloudify-manager-install RPM. This can be either a local or remote path. Default: https://repository.cloudifysource.org/cloudify/5.2.0/ga-release/cloudif y-manager-install-5.2.0-ga.el7.x86_64.rpm
- -v, --verbose Show verbose output

Running this command will automatically run the upgrade procedure on the cluster.

If the Cluster was manually deployed, please follow this procedure instead:

Manually updating a Cloudify compact cluster

- Install the new 5.2.0 cloudify-manager-install RPM on all 3 nodes of the cluster, by using the command: sudo yum install -y <5.2.0 RPM> Repeat this step on all 3 nodes.
- On each of the cluster nodes, run cfy_manager upgrade -c <path to DB config>.
 Do it one after the other, not in parallel.

Tip: If you used the cloudify-cluster-manager tool to generate the Cloudify cluster, the path to the DB config file is /etc/cloudify/postgresql-<node number>_config.yaml. If the cluster was manually installed, please direct the command to the path of the file you generated.

On each of the cluster nodes, run cfy_manager upgrade -c <path to rabbitmq config>.
 Do it one after the other, not in parallel.

Tip: If you used the cloudify-cluster-manager tool to generate the Cloudify cluster, the path to the RabbitMQ config file is /etc/cloudify/rabbitmq-<node number>_config.yaml. If the cluster was manually installed, please direct the command to the path of the file you generated.

 On each one of the cluster nodes, run cfy_manager upgrade -c <path to manager config> Do it one after the other, not in parallel.

Tip: If you used the cloudify-cluster-manager tool to generate the Cloudify cluster, the path to the manager config file is /etc/cloudify/manager-<node number>_config.yaml. If the cluster was manually installed, please direct the command to the path of the file you generated.

- If Cloudify agents are used in your deployments, run the following command from just one of the cluster nodes:
 cfy agents install
- 6. When opening the Cloudify Management Console after the upgrade, you might see "This page is empty", this happens because of cached data. To solve this, press CTRL + Shift + R.

Upgrading a Cloudify Fully Distributed Cluster (9+ nodes)

If the initial cluster installation was done using the Cloudify Cluster Manager, follow this simplified process.

Updating a Cloudify Fully Distributed Cluster leveraging the Cloudify Cluster Manager

You can use the Cloudify Cluster Manager tool to upgrade a fully distributed cluster:

Upgrade your Cloudify Cluster Manager by running sudo yum install -y http://repository.cloudifysource.org/cloudify/cloudify-cluster-manager/1. 0.7/ga-release/cloudify-cluster-manager-1.0.7-ga.el7.x86_64.rpm

On the host that has Cloudify Cluster Manager installed, run cfy_cluster_manager upgrade. Optional Arguments:

--config-path The completed cluster configuration file path. Default: ./cfy_cluster_config.yaml

--upgrade-rpm Path to a v5.2.0 cloudify-manager-install RPM. This can be either a local or remote path. Default: https://repository.cloudifysource.org/cloudify/5.2.0/ga-release/cloudif y-manager-install-5.2.0-ga.el7.x86 64.rpm

-v, --verbose Show verbose output

Running this command will automatically run the upgrade procedure on the cluster.

If the Cluster was manually deployed, please follow this procedure instead:

Manually updating a Fully Distributed Cluster

Update steps:

- Install the new 5.2.0 cloudify-manager-install RPM on all the cluster nodes, by using the command: sudo yum install -y <5.2.0 RPM> Repeat this step on all 9 nodes.
- On all three database nodes run cfy_manager upgrade Do it one after the other, not in parallel.
- On all three RabbitMQ nodes run cfy_manager upgrade Do it one after the other, not in parallel.

- On all manager nodes, run cfy_manager upgrade
 Do it one after the other, not in parallel.
- If Cloudify agents are used in your deployments, run the following command from <u>just one</u> of the manager nodes: cfy agents install
- 7. When opening the Cloudify Management Console after the upgrade, you might see "This page is empty", this happens because of cached data. To solve this, press CTRL + Shift + R.

Upgrading From previous versions (4.x - 5.0.5) to 5.2.0

The upgrade flow to version 5.x is different from upgrades performed for previous versions. This is due to the Python 3 migration introduced in 5.1 which requires updating existing plugins code. **Please review the 5.1 upgrade procedure carefully and consult with the Cloudify support team to assure a smooth and successful upgrade.**

Note! Upgrading to 5.2.0 is supported from the following versions: v4.3.3, v4.4, v4.5, v4.5, v4.6, v5.0.5.

5.2.0 new installation

- To deploy a single All-In-One manager, please follow the AIO manager installation guide.
- To deploy a highly available Compact Cluster a distributed cluster of 3 nodes please refer to the <u>3 nodes cluster installation guide</u>.
- To deploy a highly available Fully Distributed Cluster a distributed cluster of 9 nodes please refer to the <u>9 nodes cluster installation guide</u>.
 NOTE! You can simplify the cluster deployment and automate the provisioning by leveraging the Cloudify Cluster Manager Package.

Download Cloudify 5.2.0

Manager install:

- RPM cloudify-manager-install-5.2.0ga.rpm
- OpenStack image <u>cloudify-manager-5.2.0.qcow2</u>
- Docker containers
 - All-in-one manager Cloudify manager aio
 - Manager Cloudify manager worker

- Database Cloudify postgresql
- Messaging queue <u>Cloudify rabbitmq</u>

Premium CLI packages:

- RPM (CentOS/RHEL) Cloudify cli centos (.rpm)
- Debian <u>Cloudify cli debian (.dep)</u>
- Windows Cloudify cli Windows (.exe)

Support

Support Discontinuance

With the official end of life for CentOS 6.x on November 30th, 2020, starting Cloudify 5.1.1 CentOS 6 agent will no longer be supported (nor provided in the package).

Supported versions

Listed below are the support discontinuance dates for the recent Cloudify versions. As of these dates, the respective versions will no longer be supported under the standard Cloudify support agreement.

Version	Support Discontinuance Date
Cloudify Premium & Community Editions v4.6.x	Apr 17th, 2021
Cloudify Premium & Community Editions v5.0.5	Feb 3rd, 2022
Cloudify Premium & Community Editions v5.1.0	Oct 19, 2022
Cloudify Premium & Community Editions v5.2.0	Apr 5, 2023