



# Cloudify 4.5

## Release Notes

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# What's New

- Agents Improvements - new commands for listing agents are now available, simplifying tracking agents and their status including filtering options during installation.
- Snapshots Improvements - snapshots are used to backup Cloudify's state for upgrade and DR purposes. The process, including restoration from snapshot, has been improved and is now more robust, performant, and includes more options (such as queueing and skipping some failures)
- Microservices Architecture - as part of Cloudify's progression towards a micro services architecture an external DB is enabled. This setup is currently only supported for a single manager, and will be enhanced to support a cluster in the next release.
- Actionable Events - pluggable framework enabling taking actions upon Cloudify events, with an OOTB implementation of SNMP traps for workflow related events
- Deployment Wizard - UI guidance for blueprint deployment, enabling users to get to a running deployment quickly and efficiently
- Multi management network post-bootstrap configuration - Added ability to add new environments on the fly via manager networks configuration.
- K8S integration - enhanced support for bare metal and a variety of network implementations
- Openstack networking enhancements
- Azure support improvements

# Features and Improvements

Cloudify 4.5 features tasks & general improvements:

## **Agents improvements**

[CY-577](#) - Agents list and filtering

## **Actionable hooks**

[CY-542](#) - Add the ability to send SNMP trap whenever a workflow starts or ends

[CY-541](#) - Create a hook mechanism so that an event will trigger an action

## **Multiple management networks configuration**

[CY-509](#) - Add multiple management networks on running Manger

[CY-551](#) - Make `cfy\_manager add-networks` work in HA cluster (Premium only)

## **Snapshot improvements**

[CY-583](#) - Enable taking snapshots in maintenance mode

[CY-538](#) - Snapshots process improvement

## **Technology & architecture**

[CY-471](#) - Upgrade flask framework

[CY-405](#) - Replace Logstash with a pika/psycopg2-based implementation

## **Micro services**

[CY-534](#) - Support external postgres DB

[CY-602](#) - Display external db status in cfy status

## **Deployment wizard**

[CY-523](#) - Create widget with buttons starting Deployment Wizard

[CY-522](#) - Create Install Wizard for any blueprint

[CY-521](#) - Create Install Wizard for Hello World blueprints

## **Kubernetes Enhancements**

- Kubernetes Blueprint: Support Bare Metal and Libvirt.
- Kubernetes Blueprint: Support Weave/Flannel/Calico/etc as network cni plugin module.

## **OpenStack Enhancements**

- Openstack: Static Routes
- Openstack: Add properties for assign IPv4 and IPv6 Addresses to Servers.
- Openstack: Verify that servers are deleted when created with “force” creation.
- Openstack: RBAC policies
- Openstack: New flavor features.
- Openstack: Support Backup/Restore.
- Openstack: Add User type. Adding Users to projects and quotas.
- Openstack: Support flavor type.
- Openstack: Support Host Aggregate type.

## **Azure Enhancements**

- Azure: Support Azure Stack
- Azure: Support Thumbprint-based auth.
- Azure: Web Apps and Container Services.
- Azure: Support updating NICs.
- Azure: Support “existing” ARM template ‘deployment’ type.
- Azure: Support installing Agent using User Data.

## **AWS Enhancements**

- AWSSDK: Support Installing Agents on Windows with Password.
- AWSSDK: Support using upload object to S3 for use with Swift.
- AWSSDK: Improve Error Handling on all resource’s create operation.
- AWSSDK: Improve ELB Association with Instances.
- AWSSDK: Add properties for assign IPv4 and IPv6 Addresses to Instances.
- AWSSDK: Support modify vpc/subnet attribute operation.

## **Deployment Proxy Improvements**

- Deployment Proxy: Support Pagination for Managers with lots of deployments and executions.
- Deployment Proxy: Support long-running executions.
- Deployment Proxy: Ignore proxy-deployment errors on uninstall unless otherwise specified.
- Deployment Proxy: Support inherited types.
- Deployment Proxy: Support specifying Plugins and Secrets requirements as part of the Deployment Proxy definition.

## Improvements

[CY-594](#) - Make the node instance ID accessible via DSL

[CY-595](#) - Enable setting kerberos env in mgmtworker

[CY-590](#) - Enable setting kerberos env in local profile

[CY-168](#) - JSON output in the CLI

[CY-607](#) - add timeout to ldap connections (Premium only)

[CY-599](#) - Use agents from other deployments ("proxy")

[CY-651](#) - Add missing indexes to logs and events tables

[CY-571](#) - max\_results for REST Service should be customizable

[CY-531](#) - Nginx support only strong ciphers

[CY-528](#) - RabbitMQ supports only strong ciphers

Execution Plugin: package your own executions in a deployment.

Scalelist: Scale up and Scale Down workflows for runtime scaling groups.

Terminal Plugin: Close connections.

## Resolved Issues

Issues from previous releases that are resolved in Cloudify 4.5:

[CY-537](#) - Private IP validation fails for hostnames

[CY-506](#) - "cfy profiles set" during installation, should not skip validations

[CY-504](#) - "cfy\_manager remove" will fail if installation was incomplete

[CY-499](#) - Uninstalling cloudify manager leaves socat package behind

[CY-467](#) - Script plugin may fail an operation if proxy closure fails

[CY-460](#) - "get\_attribute" to multi-instance node template returns HTTP 500

[CY-458](#) - Existence of /var/pgdata.tmp directory prevents in place upgrade

[CY-320](#) - The widgets folder on the manager is approachable by users

[CY-570](#) - Multiple location headers cause issues

[CY-569](#) - need to remove broker\_pass from provider\_context

[CY-568](#) - Move RabbitMQ's PID reference from /var/run to /run

[CY-567](#) - Move cloudify-restservice's tmpfile into systemd unit file

[CY-544](#) - ctx download-resource doesn't work for images

[CY-503](#) - Cloudify should not store any file at /tmp

[CY-480](#) - Python Traceback error injected into executions list

[CY-477](#) - Provide sensible nginx definitions for high load

[CY-182](#) - Admin's password is echoed to world-readable

/var/log/cloudify/manager/cfy\_manager.log

[CY-601](#) - ldap authentication may fail if some of the user data is missing (Premium only)

[CY-627](#) - Log messages not correct in stage backend

[CY-624](#) - Restoring snapshot with two secrets with the same key in different tenants overwrite one of them (Premium only)