

# Version 8.8.0 Release Notes

The release notes for Snow Commander® version 8.8.0 include new features, upgrade notes, deprecated and removed features, resolved issues, and known issues. To access release notes for previous versions, go to the [Release Notes Archive](#).

## What's new

This release introduces the following improvements in Commander:

### Terraform Technology Preview

Terraform is currently available as a technology preview for early adopters.

You can now view and manage any type of resource deployed by Terraform. Discovery of existing deployments allows easy adoption at any level of maturity and provides single pane of glass visibility without requiring changes to any existing deployment methodologies. Commander's powerful governance capabilities can be leveraged to manage Terraform deployments from beginning to end.

From the Admin Portal, you can access the state of Terraform configurations stored in backends for Terraform Cloud, AWS S3 buckets, and Azure Blob Storage containers. This allows you to view details such as the outputs, variables, and resources for your Terraform deployments.

Similar to CloudFormation and ARM templates, you can also make Terraform configurations available in the service catalog. Snow Software provides workflow plug-ins to provision and decommission Terraform configurations. Change requests allow Day-2 operations against any type of resource deployed by Terraform.



#### Notes:

- The Terraform technology preview requires SQL Server version 2016 or higher.
- For highly available deployments, the Terraform service must be manually configured on the passive node.

To learn more about the technology preview or to provide feedback, contact support through the [Snow Support Portal](#).

For more information, see [Terraform](#).

### Change Request Enhancements

#### Change requests on XaaS resources

If you deploy resources through Terraform, AWS stacks, GCP deployments, or Azure Resource Groups, you can now create change requests with custom workflows that can be used to make Day-2 configuration changes against any type of resource that may exist within your hybrid cloud.

For example, you could create a change request to add requesters to the access list of an AWS S3 bucket or an Azure Blob Storage container. For more information, see [Request changes to XaaS resources](#).

You can use variables in workflows associated with these change requests to access Commander metadata and allow the workflows to integrate with XaaS Resources. For example, you can insert variables in workflow emails or pass variables to workflow scripts.

Many of the existing approval and completion workflow variables offered by Commander can now be used. Commander also now provides a `#{{target.context}}` variable, which returns the identifying resource name and type for XaaS resources. This allows dynamic form elements and workflows to know the resource that they're operating on. For more information, see [Workflow variables](#).

### Formless change requests

When you create a change request, you can now configure whether you want to present a form to users after they select the change request.

Providing change requests without forms can simplify the change request process. For example, consider a change request clearly named "Decommission VM" — a user could select this change request to decommission a VM that's no longer required. No further input or explanation is necessary, so an extra form isn't required.

This allows change requests to be used in a similar manner to command workflows, with the added benefits that they can be subject to approval and can be run against XaaS resources. For more information, see [Create Change Requests](#).

## REST API

To help further integrations and automation, these new features are introduced in the Commander REST API.

- Terraform support has been added, enabling resources deployed through Terraform to now be accessible through the API. Commander can access the state stored in backends for Terraform Cloud, AWS S3 buckets, and Azure Blob Storage containers. In addition, details like the outputs and resources are available through Commander. The endpoints are:
  - POST|GET /terraform-accounts
  - GET|PATCH|DELETE /terraform-accounts/{id}
  - POST /terraform-accounts/{id}/synchronize
  - GET /terraform-workspaces
  - GET /terraform-workspaces/{id}
  - POST /terraform-workspaces/{id}/synchronize
  - GET /terraform-workspaces/{id}/outputs
  - GET /terraform-workspaces/{id}/environment-variables
  - GET /terraform-workspaces/{id}/terraform-variables
  - GET /terraform-workspaces/{id}/state
- Credentials can now be browsed and filtered. In addition, the API now supports all types of credentials that are stored in Commander: RSA, password, and keypair. This allows superusers to retrieve credentials that are stored in Commander, so they can be used in scripts run by Commander. For example, credentials may be required to perform operations on Terraform resources or to create and update Tagged VMs in NSX. The endpoints are:
  - GET /credentials
  - GET /credentials/{name}

For an overview of the REST API, see [Get Started with the Commander REST API](#). To browse the API reference, see [Commander API \(v3\)](#).

## Other Enhancements

- All reports which show costs can be generated in any currency that the European Central Bank supports, as appropriate for the person that will consume the report.

## Upgrade notes

You can upgrade to Commander version 8.8.0 from versions 8.0.x - 8.7.x. See [Upgrade Commander](#).

Before upgrading, it's recommended that you review all release notes between the version you're currently using and the version you're upgrading to. Release notes for previous Commander versions are available at [Release Notes Archive](#).

Upgrading to version 8.8.0 from a previous version will affect the following:

- After upgrade, currency will be configurable in all reports which show costs, and any previously saved reports will default to USD currency. This doesn't apply to the VM Billing and Cloud Billing reports, which offered configurable currency in the last release.

## Deprecations and removals

These are the deprecations and removals for version 8.8.0. Any deprecations or removals encountered in subsequent releases will be noted in the relevant release notes.

### Deprecated

- Support for SQL Server 2012 SP4 and SQL Server 2014 are deprecated as of version 8.7.0 and will be removed in a future release.
- vCenter datastore scanning is deprecated, and this functionality will be removed in a future release.
- Service Portal access for non-organizational users is deprecated, and this functionality will be removed in a future release.
- VM Billing Report for Public Clouds: You can use the VM Billing Report for private cloud environments; however, for public or hybrid cloud environments it's recommended that you use the Cloud Billing Report. The ability to use the VM Billing Report for public clouds will be removed in a future release.
- End of Life Policy, Suspect Policy, and Approval Policy and the relevant VM states are deprecated as of version 7.0.2 and will be removed in a future release.
- Quarterly and weekly timespans for displaying costs in the Admin Portal and the Service Portal are being deprecated. The options that will remain for showing costs are Daily, Monthly, and Annually.

## Resolved issues

- **21134** Multi-cloud templates that include VMware templates with attached media can now be successfully added as components to the service catalog.
- **20914** The Service Portal billing metadata cache has been optimized to improve performance.
- **20366** A DNS cache vulnerability present in the vRouter deployed with fenced networks has been resolved.
- **19766** Credentials added to a dynamic list script in a service form are no longer removed when the form is modified.
- **19743** Units for computer storage and memory metrics (MB, GB, and TB) that are specified in change request forms now display as expected in both the Admin Portal and the Service Portal.

## Known issues

These are the known issues for version 8.8.0. Any known issues encountered in subsequent releases will be noted in the relevant release notes.

- **20314** Private cloud costs may not accurately reflect storage costs after a billing reset has been run against a private cloud account.

*It's recommended that you don't perform a billing reset on a private cloud without guidance from Snow Support.*

- **18280** The estimated license cost for an Azure SQL VM incorrectly displays the license cost on the SQL Server. It should display the license cost on the VM that the SQL Server is running on. Note that the actual costs for an Azure SQL VM are correctly displayed.
- **16002** When the WebMKS console connection method is configured, Internet Explorer 11 users may be unable to see the mouse pointer in the console session.

*Workaround: To open a console to a Windows VM from Internet Explorer 11 when using WebMKS, try enabling mouse trails with the shortest option. Or, use the VMRC plug-in method instead of the WebMKS method. For Linux VMs, use the VMRC plug-in connection method. See [Console connection methods](#) to learn how to change the console connection method for HTML5 browsers.*

- **9223** In some cases, when you attempt to generate a Cloud Billing report and use the Group By option of Cost Adjustments, the report will fail to generate.