



Turbonomic 7.17.1 Release Notes

Aug 2, 2019

This document describes issues that are addressed in Turbonomic 7.17.1 – Release Date: Aug 2, 2019. Please see the Turbonomic documentation for earlier versions of the Release Notes:

<https://turbonomic.com/turbonomic-7-documentation>

For any questions, please contact Turbonomic Technical Support at support@turbonomic.com, or open a ticket at:

<https://greencircle.vmturbo.com/support>

Configuration Requirements

For this release of Turbonomic, you should satisfy the following configuration requirements.

Transport Layer Security Requirements

By default Turbonomic requires Transport Layer Security (TLS) version 1.2 to establish secure communications with targets. Most targets should have TLSv1.2 enabled. However, some targets might not have TLS enabled, or they might have enabled an earlier version. In that case, you will see handshake errors when Turbonomic tries to connect with the target service. When you go to the Target Configuration view, you will see a Validation Failed status for such targets.

In particular, we have found that NetApp filers often have TLS disabled by default, and that the latest version they support is TLSv1. If your NetApp target fails to validate, this is could be the cause.

If target validation fails because of TLS support, you might see validation errors with the following strings:

- No appropriate protocol
To correct this error, ensure that you have enabled the latest version of TLS that your target technology supports. If this does not resolve the issue, please contact Technical Support.
- Certificates does not conform to algorithm constraints

To correct this error, refer to the documentation for your target technology (for example, refer to NetApp documentation) for instructions to generate a certification key with a length of 1024 or greater on your target server. If this does not resolve the issue, please contact Turbonomic Technical Support.

Fixed Issues

- **Fixed:** When using a filter of tag names to create a group, the `EQUALS` operator has the same effect as the `NOT_EQUALS` operator. As a result, you can't filter for all entities that do NOT have a specific tag.
- **Fixed:** Charts that show historical utilization show incorrect values for peak utilization. As a result, historical peak utilization appears similar to historical average utilization.
- **Fixed:** For environments with storage clusters that include ISO storage images, a Merge Clusters policy can produce unexpected results. Turbonomic can inappropriately indicate compliance issues related to hosts and storage clusters.
- **Fixed:** When calculating cluster headroom, Turbonomic indicates more storage headroom than is available.

NOTE:

For Turbonomic to calculate storage headroom, you must have VMware Tools installed on your VMs.

- **Customer Issue 106614**

Fixed: Under some circumstances, Turbonomic recommends an action to provision a Host, but does not include a reason in the action description.

- **Fixed:** Under some circumstances, the Optimize Improvements chart does not show data for all clusters in its scope.
- **Fixed:** When you log into Turbonomic, the product displays a link to take a tour of the user interface. This includes an option to not to display this link again, however the product always displays the link.

Starting with this version, Turbonomic no longer displays the link.

- **Fixed:** When creating a group that is filtered by tags, the user interface is inconsistent. If you try to edit the tags in the filter, the results show no group members.
- **Fixed:** After you create an Active Directory user or group in Turbonomic, the user interface does not enable you to edit or delete the AD users.
- **Fixed:** In the Pending Actions list, the actions sort by severity by default. You can choose to sort by different criteria. However, when you choose another criterion the list does not change its sorting.

Known Issues

- Under some circumstances, you can configure datastore browsing such that Turbonomic identifies VMDK for existing VMs files as wasted storage. This can happen in an environment where you have shared storage that is managed by multiple targets.

Assume you turn on datastore browsing for a scope that does not include all the affected targets. In that case, Turbonomic can incorrectly identify VMDK files, or VSWP files for running VMs, as wasted storage.

- The *Unattached Volume Tier Breakdown* chart shows how many unattached storage tiers or volumes exist in your storage and storage groups. This chart is designed to display in the Optimize Cloud plan results.

The user interface displays this chart for real-time views, and it enables you to add this chart to dashboards. However, this chart only shows real-time data for storage devices and storage groups. You should only rely on this chart when viewing Optimize Cloud plan results, or when your environment is specifically scoped to one or more storage devices.

- **Customer Issue 106850**

Turbonomic's MS SQL probe has a method to bypass SQL Browsing Service discovery. This is useful in cases when a target VM has multiple SQL Server instances running and they are known exactly by their dedicated listening port. In such cases the SQL Browsing service port should be left blank in the UI and the user will fill out the port for the instance of interest. All multiple instances should be configured as separate targets with their corresponding listening ports if the intention is for all of them to be discovered. Turbonomic will go directly to that SQL instance using the IP and the port specified in the UI dialog. When the SQL Browsing Service port is specified, in a multi-instance SQL Server, only one instance will be discovered via one of the ports returned by the Browsing service (the instance we connect to first, successfully).

- The Turbonomic audit log tracks all communications with the platform via HTTPS. The log entries should include the IP address of the requesting client, as well as the user account. However, the log entries do not include the IP address of the originating client.
- When you specify a schedule, you must be aware of issues for Daylight Savings Time changes. For example, assume you create two schedules, one that starts at 7:00 am and lasts 12 hours, and another schedule that starts at 7:00 pm and lasts 12 hours. If you apply those schedules to policies on the same scope, then the policies can experience a scheduling conflict as Daylight Savings time changes.
- **Customer Issue 105298**

In AWS environments, to scale an instance Turbonomic can recommend changing a current instance to a different instance type. Note that AWS maintains a limit of EC2 instances per region.

Turbonomic does not currently get reliable information about the limits for specific instances, compared to the number of instances currently online. As a result, Turbonomic can recommend actions to move a workload to an instance that exceeds the limit. In this case, the resize action will fail.

- **Customer Issue 104680**

In Hyper-V environments, under some circumstances a host in a cluster can have multiple D: drives. In this case the target (Hyper-V or VMM) does not return valid data for that host, and discovery for the cluster fails. Because this is an issue of incomplete or invalid data returned by the target hypervisor, there is no known workaround that you can perform through Turbonomic.

If you experience incomplete host cluster discovery in Hyper-V, and you suspect this issue, please contact your Hyper-V support for possible ways to reconfigure your environment.

- When you use the **PLACE** page to set up a reservation or a deployment, you choose the templates to represent the workload you will deploy. The templates you choose must include an **Image** specification that gives the path to the VM package, and optional placement constraints.

Typically, you will use templates that are discovered through your hypervisor targets. Along with discovering resource capacities for the given VM, Turbonomic should also discover the Image specification for a given discovered template. However in this version, Turbonomic does not discover the Image descriptions. In addition, discovered templates and their image specifications are read-only. For this reason, you cannot set up placement or reservations using discovered templates.

- **WARNING:** Do Not Delete the `administrator` User Account.

The user interface allows an administrator user to delete all the user accounts for a Turbonomic installation. This includes the `administrator` user account. *You should NEVER delete all user accounts, and you should never delete the administrator account.*

- Under some circumstances in a NetApp environment, execution of a storage move action will fail.
- If you run the Alleviate Pressure plan in Turbonomic 7, and then compare it to the same plan and scope in a 6.1 release, then the display of instances in the supply chain are not identical for both versions.
- Ring charts that show the utilization of different resources show a yellow segment whenever the Reserved Capacity for the resource is zero. For some resources there is no concept of reserved capacity, yet the ring chart still shows a yellow segment.
- For cases where actions indicate provisioning new hosts, the Optimized Improvements chart does not include the hosts to provision in the After Plan section.

- **Customer Issue 99189,99805**

In vCenter environments, you might see unusually high storage latency values or excessive recommendations to provision new storage. There is a known problem with the storage latency values that vCenter Server versions 6.5.u1x and earlier return via the API. These versions can return unusually high storage latency values.

Turbonomic considers storage latency when calculating whether to move a VM to existing storage, or whether to provision new storage. Because of this known problem, Turbonomic can incorrectly recommend provisioning storage when moves are appropriate.

If you encounter this problem, then you should create a policy that disables storage moves for VMs that are managed by vCenter Server versions 6.5.u1x and earlier. To create this policy:

- Create a VM group that contains all the affected VMs. Note that Turbonomic automatically creates a group named `VMs_vCenter` that you might be able to use.
 - Create a new VM automation policy. This policy will disable storage move actions.
 - Set the group that you created to be the policy scope.
 - Under **Action Automation** add the `Storage Move` action and set it to `Disabled`.
- In cases where actions recommend that you suspend hosts, the Optimal Improvements chart should indicate no utilization on the hosts to be suspended. Under some circumstances, the chart can show utilization on these hosts. The result is incorrectly low values for utilization on the other hosts in the current scope.
 - Turbonomic generates special average or max utilization templates that it uses when calculating cluster headroom. You should not edit these templates, because Turbonomic will overwrite your changes the next time it generates the templates. However, the Template Catalog presents these templates as editable.
 - After you run a plan, the user interface enables you to make changes to the plan configuration and then run the plan again. If you do this, the plan results will be inconsistent. If you want to run a plan with a different configuration, you should start a new plan.
 - You should never use duplicate names for groups of the same entity type. However, the user interface does not validate group names to keep you from creating a duplicate name.
 - Under some circumstances when using the Deploy View, the user interface can fail to respond. After you request a placement, if the placement recommendation does not appear within one to two minutes, reload the browser running Turbonomic to reset the user interface.
 - There is a rare case where Turbonomic can lose the cluster relationship for VMs running on a host. Assume you move a host out of a cluster, and directly into the datacenter (not into a cluster). Next you create a new cluster and then move the host into that cluster. In this case, the VMs on that host will not belong to any PM cluster. This can also affect Provider Virtual Datacenters that belong to the new cluster.
To avoid this problem, create the cluster first, and move the host directly into it. If this problem occurs, rediscover your environment to establish the correct cluster relationships.
 - The Target Configuration Guide gives instructions to connect to OpenStack targets. However, if you are running OpenStack Mitaka, you must perform additional configuration on the Mitaka platform to enable IOPS and Network data collection from Physical Machines. For those instructions, please see the Green Circle article, <https://greencircle.vmturbo.com/docs/DOC-4685>.

- For VMs running on Hyper-V, if you set a VCPU limit (limit VCPU to less than 100%), then the VCPU utilization data that VM returns to Turbonomic is not correct. As a result, Turbonomic will not recommend that you increase the VCPU limit.