

VCD Data Solutions extension 1.2 Beta Troubleshooting Guide

VCD Data Solutions extension has components in these places:

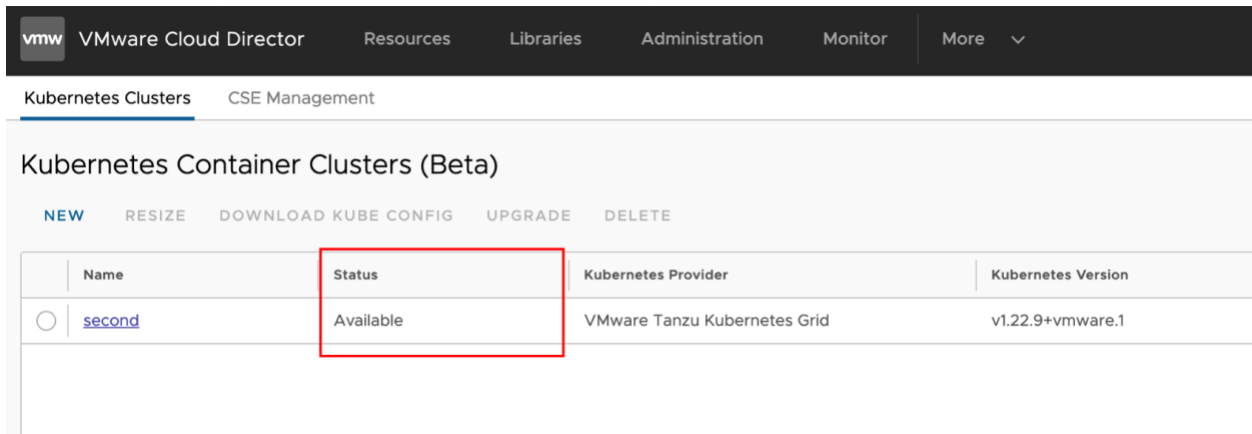
- Data Solutions UI plugin in vCD portal
- RDE (Runtime Defined Entities) schemas and instances in vCD database
- DSO (Data Solutions operator) in guest TKGm

For troubleshooting, we need to collect data from both frontend and backend sides.

Check Points

RabbitMQ instances are deployed to TKGm clusters provisioned by CSE, so it's important to understand TKGm health and resource status. Here are a few check points.

Check cluster status



The screenshot shows the VMware Cloud Director interface. The top navigation bar includes the VMware logo, 'VMware Cloud Director', and menu items: 'Resources', 'Libraries', 'Administration', 'Monitor', and 'More'. Below the navigation bar, there are tabs for 'Kubernetes Clusters' and 'CSE Management'. The main heading is 'Kubernetes Container Clusters (Beta)'. Below the heading, there are action buttons: 'NEW', 'RESIZE', 'DOWNLOAD KUBE CONFIG', 'UPGRADE', and 'DELETE'. A table displays the cluster status. The 'Status' column for the cluster named 'second' is highlighted with a red box and shows 'Available'.

Name	Status	Kubernetes Provider	Kubernetes Version
second	Available	VMware Tanzu Kubernetes Grid	v1.22.9+vmware.1

Check cluster events

vmw VMware Cloud Director Resources Libraries Administration Monitor More

Kubernetes Clusters CSE Management

All Clusters > second

second

RESIZE DOWNLOAD KUBE CONFIG UPGRADE DELETE SETTINGS

Overview Node Pools Kubernetes Storage **Events**

Name	Type
RdeAvailable	Event
VcdMachineBootstrapped	Event
VcdMachineBootstrapped	Event

Check all PODs in TKGm cluster namespaces

Mandatory namespaces:

- tkg-system (kapp-controller)
- tanzu-system (secretgen-controller)
- cert-manager
- rdeprojector-system
- vcd-ds-system

Optional namespaces:

- tanzu-system-dashboards
- tanzu-system-monitoring
- tanzu-system-ingress

Command Reference:

```
kubectl get pods <pod-name> -n <namespace>
```

```
kubectl describe pods <pod-name> -n <namespace>
```

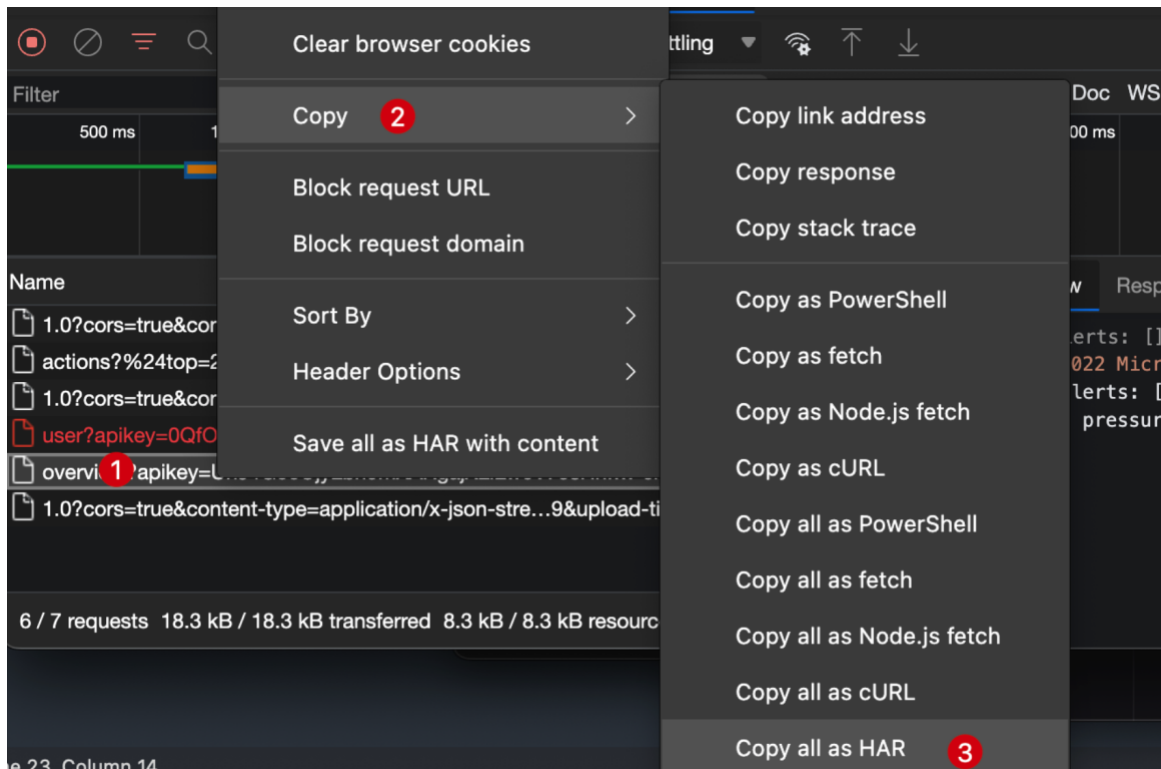
```
kubectl logs -f -tail 100 pods <pod-name> -n <namespace>
```

Frontend Troubleshooting

If you could enable the browser's inspection mode and capture the XHR messages send to the server, it would help much for the engineering team to identify the root cause.

- **Chrome:** Right click on anywhere on the page → Inspect → Network → XHR
- **Firefox:** Right click on page → Inspect Element → Network → XHR
- **Edge:** Developer Tools → Network → Content Types → XHR
- **Internet Explorer:** Developer Tools → Network → Content Type → XHR

Right click on any request, select **Copy**, then select Copy all as **HAR**.



Backend Troubleshooting

Installation

Follow the [guide](#) to install the troubleshoot tools. If you're in an air-gapped environment, you need to copy the binaries to the host where kubectl is installed.

Preflight

To do the preflight check, run:

```
kubectf preflight ./preflight.yaml
```

Link - <https://gitlab.eng.vmware.com/core-build/vcd-tds/-/blob/main/troubleshoot/preflight.yaml>

Support bundle

To generate the support bundle, run:

```
kubectl support-bundle ./support-bundle.yaml
```

Link - <https://gitlab.eng.vmware.com/core-build/vcd-tds/-/blob/main/troubleshoot/support-bundle.yaml>

CSE support bundle

Optionally, you can send us CSE support bundle together. Please refer to <https://github.com/vmware/cloud-provider-for-cloud-director/blob/main/scripts/generate-k8s-log-bundle.sh>.