Red Hat build of MicroShift 4.15

Support

Using support tools for MicroShift

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Abstract

This document provides information about how to use support tools for MicroShift.

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CHAPTER 1. THE ETCD SERVICE

The etcd service is delivered as part of the Red Hat build of MicroShift RPM. The etcd service is run as a separate process and the etcd lifecycle is managed automatically by MicroShift.

1.1. OBSERVE AND DEBUG THE MICROSHIFT ETCD SERVER

You can gather **journalctl** logs to observe and debug the etcd server logs.

Prerequisites

- The MicroShift service is running.

Procedure

- To get the logs for etcd, run the following command:

  ```
  $ sudo journalctl -u microshift-etcd.scope
  ```

  > **NOTE**
  >
  > MicroShift logs can be accessed separately from etcd logs using the **journalctl -u microshift** command.

1.2. CONFIGURING THE MEMORYLIMITMB VALUE TO SET PARAMETERS FOR THE ETCD SERVER

By default, etcd will use as much memory as necessary to handle the load on the system. In some memory constrained systems, it might be necessary to limit the amount of memory etcd is allowed to use at a given time.

Procedure

- Edit the **/etc/microshift/config.yaml** file to set the **memoryLimitMB** value.

  ```
  etcd:
    memoryLimitMB: 128
  ```
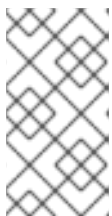
  > **NOTE**
  >
  > The minimum permissible value for **memoryLimitMB** on MicroShift is 128 MB. Values close to the minimum value are more likely to impact etcd performance. The lower the limit, the longer etcd takes to respond to queries. If the limit is too low or the etcd usage is high, queries time out.

Verification

1. After modifying the **memoryLimitMB** value in **/etc/microshift/config.yaml**, restart MicroShift by running the following command:

   ```
   $ sudo systemctl restart microshift
   ```

2. Verify the new **memoryLimitMB** value is in use by running the following command:

```
$ systemctl show --property=MemoryHigh microshift-etcd.scope
```

1.3. CHECKING THE ETCD VERSION

You can get the version information for the etcd database included with your MicroShift.

Procedure

- To display the base database version information, run the following command:

```
$ microshift-etcd version
```

Example output

```
microshift-etcd Version: 4.15.1
Base etcd Version: 3.5.10
```

- To display the full database version information, run the following command:

```
$ microshift-etcd version -o json
```

Example output

```
{
  "major": "4",
  "minor": "15",
  "gitVersion": "4.15.1",
  "gitCommit": "2e182312718cc9d267ec71f37dc2fbe2eed01ee2",
  "gitTreeState": "clean",
  "buildDate": "2024-01-09T06:51:40Z",
  "goVersion": "go1.20.10",
  "compiler": "gc",
  "platform": "linux/amd64",
  "patch": "",
  "etcdVersion": "3.5.10"
}
```

CHAPTER 2. USING SOS REPORTS

You can use the **sos** tool to collect troubleshooting information about a host. The **sos report** command generates a detailed report that shows all of the enabled plugins and data from the different components and applications in a system.

2.1. ABOUT SOS REPORTS

The **sos** tool is composed of different plugins that help you gather information from different applications. A MicroShift-specific plugin has been added from sos version 4.5.1, and it can gather the following data:

- MicroShift configuration and version

- YAML output for cluster-wide and system namespaced resources

- OVN-Kubernetes information

2.2. GATHERING DATA FROM AN SOS REPORT

Prerequisites

- You must have the **sos** package installed.

Procedure

1. Log into the failing host as a root user.

2. Perform the debug report creation procedure by running the following command:

   ```
   $ microshift-sos-report
   ```

   Example output

   ```
   sosreport (version 4.5.1)

   This command will collect diagnostic and configuration information from
   this Red Hat Enterprise Linux system and installed applications.

   An archive containing the collected information will be generated in
   /var/tmp/sos.o0sznf_8 and may be provided to a Red Hat support
   representative.

   Any information provided to Red Hat will be treated in accordance with
   the published support policies at:

       Distribution Website : https://www.redhat.com/
       Commercial Support   : https://www.access.redhat.com/

   The generated archive may contain data considered sensitive and its
   content should be reviewed by the originating organization before being
   passed to any third party.
   ```

No changes will be made to system configuration.

```
Setting up archive ...
Setting up plugins ...
Running plugins. Please wait ...

 Starting 1/2   microshift      [Running: microshift]
 Starting 2/2   microshift_ovn  [Running: microshift microshift_ovn]
 Finishing plugins              [Running: microshift]

 Finished running plugins

Found 1 total reports to obfuscate, processing up to 4 concurrently

sosreport-microshift-rhel9-2023-03-31-axjbyxw :    Beginning obfuscation...
sosreport-microshift-rhel9-2023-03-31-axjbyxw :    Obfuscation completed

Successfully obfuscated 1 report(s)

Creating compressed archive...

A mapping of obfuscated elements is available at
 /var/tmp/sosreport-microshift-rhel9-2023-03-31-axjbyxw-private_map

Your sosreport has been generated and saved in:
 /var/tmp/sosreport-microshift-rhel9-2023-03-31-axjbyxw-obfuscated.tar.xz

 Size 444.14KiB
 Owner root
 sha256 922e5ff2db25014585b7c6c749d2c44c8492756d619df5e9838ce863f83d4269

Please send this file to your support representative.
```

2.3. ADDITIONAL RESOURCES

- How to provide files to Red Hat Support (vmcore, rhev logcollector, sosreports, heap dumps, log files, etc.

- What is an sos report and how to create one in Red Hat Enterprise Linux (RHEL)?

CHAPTER 3. GETTING SUPPORT

Use the following information to get more help with Red Hat Device Edge, including Red Hat build of MicroShift or Red Hat Enterprise Linux for Edge (RHEL for Edge).

3.1. GETTING SUPPORT

If you experience difficulty with a procedure described in this documentation, or with Red Hat build of MicroShift in general, visit the Red Hat Customer Portal .

From the Customer Portal, you can:

- Search or browse through the Red Hat Knowledgebase of articles and solutions relating to Red Hat products.

- Submit a support case to Red Hat Support.

- Access other product documentation.

3.2. PROVIDING DOCUMENTATION FEEDBACK

To report an error or to improve our documentation, log in to your Red Hat Jira account and submit a Jira issue .

3.3. ABOUT THE RED HAT KNOWLEDGEBASE

The Red Hat Knowledgebase provides rich content aimed at helping you make the most of Red Hat's products and technologies. The Red Hat Knowledgebase consists of articles, product documentation, and videos outlining best practices on installing, configuring, and using Red Hat products. In addition, you can search for solutions to known issues, each providing concise root cause descriptions and remedial steps.

3.4. SEARCHING THE RED HAT KNOWLEDGEBASE

In the event of an Red Hat build of MicroShift issue, you can perform an initial search to determine if a solution already exists within the Red Hat Knowledgebase.

Prerequisites

- You have a Red Hat Customer Portal account.

Procedure

1. Log in to the Red Hat Customer Portal .

2. Click **Search**.

3. In the search field, input keywords and strings relating to the problem, including:

   - Red Hat build of MicroShift components (such as **etcd**)

   - Related procedure (such as **installation**)

   - Warnings, error messages, and other outputs related to explicit failures

4. Click the **Enter** key.

5. Optional: Select the **Red Hat build of MicroShift** product filter.

6. Optional: Select the **Documentation** content type filter.

3.5. SUBMITTING A SUPPORT CASE

Prerequisites

- The MicroShift service is running.

- You have installed the OpenShift CLI (**oc**).

- You have a Red Hat Customer Portal account.

- You have a Red Hat Standard or Premium subscription.

Procedure

1. Log in to the **Customer Support** page of the Red Hat Customer Portal.

2. Click **Get support**.

3. On the **Cases** tab of the **Customer Support** page:

   a. Optional: Change the pre-filled account and owner details if needed.

   b. Select the appropriate category for your issue, such as **Bug or Defect**, and click **Continue**.

4. Enter the following information:

   a. In the **Summary** field, enter a concise but descriptive problem summary and further details about the symptoms being experienced, as well as your expectations.

   b. Select **Red Hat Device Edge** from the **Product** drop-down menu.

   c. Select **4** from the **Version** drop-down.

5. Review the list of suggested Red Hat Knowledgebase solutions for a potential match against the problem that is being reported. If the suggested articles do not address the issue, click **Continue**.

6. Review the updated list of suggested Red Hat Knowledgebase solutions for a potential match against the problem that is being reported. The list is refined as you provide more information during the case creation process. If the suggested articles do not address the issue, click **Continue**.

7. Ensure that the account information presented is as expected, and if not, amend accordingly.

8. Complete the following questions where prompted. Include which type of install type you are using, either RPM or embedded-image. Click **Continue**:

   - What are you experiencing? What are you expecting to happen?

   - Define the value or impact to you or the business.

- Where are you experiencing this behavior? What environment?

- When does this behavior occur? Frequency? Repeatedly? At certain times?

9. Upload relevant diagnostic data files and click **Continue**. Include data gathered using the **sos** tool or etcd as a starting point, plus any issue-specific data that is not collected in those logs.

10. Add relevant case management details and click **Continue**.

11. Preview the case details and click **Submit**.