Swift- Troubleshooting

Contents

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This page describes the troubleshooting scenarios for Swift service.

Interpreting _swift-validate-input-model.yml Errors

When you execute the `_swift-validate-input-model.yml` playbook it can be hard to pick out the errors being reported. If so, you view the error messages as follows:

1. Log onto the first node in the system that is running the swift-proxy-server process.

   Note: You must run the `_swift-validate-input-model.yml` playbook as mentioned in step **2** in *Validate Storage (optional)* or run the `hlm-deploy.yml` playbook as described in step **4** in *Validate Storage (optional)* otherwise the files needed to run the `swiftlm-ring-supervisor` will not be in place on the node.

2. Execute the following command:

   ```
   sudo swiftlm-ring-supervisor --make-delta --report
   ```

   The command will report any errors or problems (see List of errors) with the input model. It also prints a summary of the ring create actions that are planned (i.e., that will occur) for the deploy phase of the process.

List of errors

The following example provides an error message, description, and the resolution.

Note: To resolve an error, you must first modify the cloud model and re-run the configuration processor as described in *Run the Configuration Processor* and continue with the deploy.

1. **Example Message - Model Missmatch: Cannot find drive /dev/sdt on padawan-ccp-c1-m2 (192.168.245.3))**

Description	The disk model used for node **padawan-ccp-c1-m2** has drive `/dev/sdt` listed in the devices list of a device-group where Swift is the consumer. However, the `dev/sdt` device does not exist on that node.
Resolution	If a drive or controller is failed on a node, the operating system does not see the drive and hence the corresponding block device may not exist. Sometimes this is transitory and a reboot may resolve the problem. The problem may not be with `/dev/sdt`, but with another drive. For example, if `/dev/sds` is failed, when you boot the node, the drive that you expect to be called `/dev/sdt` is actually called `/dev/sds`. Alternatively, there may not be enough drives installed in the server. You can add drives. Another option is to remove `/dev/sdt` from the appropriate disk model. However, this removes the drive for all servers using the disk model .

2. **Example Message - Model Missmatch: Cannot find drive /dev/sdd2 on padawan-ccp-c1-m2 (192.168.245.3)**

Description	The disk model used for node **padawan-ccp-c1-m2** has drive `/dev/sdt` listed in the devices list of a device-group where Swift is the consumer. However, the partition number (2) has been specified in the model. This is not supported – only specify the block device name (for example `/dev/sdd`), not partition names in disk models.
Resolution	Remove the partition number from the disk model.

3. **Example Message - Cannot find IP address of padawan-ccp-c1-m3-swift for ring: account host: padawan-ccp-c1-m3-mgmt**

Description	The service (in this example, swift-account) is running on the node **padawan-ccp-c1-m3**. However, this node does not have a connection to the network designated for the swift-account service (i.e., the SWIFT network).
Resolution	Check the input model for which networks are configured for each node type.

4. **Example Message - Ring: object-2 has specified replication_policy and erasure_coding_policy. Only one may be specified.**

Description	Only one of replication-policy or erasure-coding-policy may be used in a ring-specification.
Resolution	Remove one of the policy types.

5. **Example Message - Ring: object-3 is missing a policy type (replication-policy or erasure-coding-policy)**

Description	There is no replication-policy or erasure-coding-policy section in the ring-specifications for the object-0 ring.
Resolution	Add a policy type to the input model file.

Deploy fails with - msdos disks labels do not support partition names

Note: This process only applies to Swift drives. It does not apply to the operating system or boot drive.

Description	If a disk drive allocated to Swift uses the MBR partition table type, the deploy process refuses to label and format the drive. This is to prevent potential data loss as explained in *Requirements for a Disk Drive*. If you intend to use the disk drive for Swift, you must convert the MBR partition table to GPT on the drive using `/sbin/sgdisk`.

Resolution	You must install `gdisk`, before using `sgdisk`.
	• Execute the following command to install `gdisk`,
	`sudo apt-get install gdisk`
	• Convert to GPT partition type. This is an example for converting `/dev/sdd` to the GPT partition type.
	`sudo sgdisk -g /dev/sdd`

	• Reboot the node to take effect. You may then resume the deploy (repeat the playbook that reported the error).

Repeated Failure of Ring Creation

Description: Ansible playbook fails in swiftlm-ring-supervisor | build-rings

An ansible playbook fails as follows:

```
TASK: [swiftlm-ring-supervisor | build-rings | Build ring (make-delta,
 rebalance)] ***
failed: [hlm002-ccp-c1-m1-mgmt] => {"changed": true, "cmd": ["swiftlm-ring-
supervisor", "--make-delta", "--rebalance", ....
```

Examine the output and see if the output generated in your environment contains one of the following example messages:

Example Message 1

```
-------------------------------------------------------------------------------
NOTE: Dispersion of 11.718750 indicates some parts are not
      optimally dispersed.

      You may want to adjust some device weights, increase
      the overload or review the dispersion report.
-------------------------------------------------------------------------------
```

Example Message 2

```
No partitions could be reassigned.
```

Example Message 3

```
Cowardly refusing to save rebalance as it did not change at least 1%
```

Example Message 4

```
NOTE: Balance of %.02f indicates you should push this ring, wait at least 16
 hours, and rebalance/repush.
```

Example Message 5

```
Worst tier is 3.0 (2.4)
```

If any one of the above message is displayed in your environment then it is certain that the Swift ring was created.

Resolution

Run the following command at least twice:

```
ansible-playbook -i hosts/verb_hosts _swift-make-delta-rebalance.yml
```

Each may fail with similar messages but each fails with a different ring.

Once the account, container, and object-O rings have failed, you can re-run the folllowing command:

```
ansible-playbook -i hosts/verb_hosts site.yml
```

Now, the ansible playbook will not stop at the "swiftlm-ring-supervisor | build-rings" task and the rings will be created successfully.