Univention Corporate Server

Extended virtualization documentation

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Chapter 1. Operating storage pools using iSCSI

iSCSI is a standard for connecting SCSI storage devices via a TCP-based network connection. iSCSI makes it possible to use a wide range of professional storage solutions for the storage of virtual machines. This documentation describes the connection of an iSCSI storage device (also known as a *target*) as a storage pool for the UCS Virtual Machine Manager.

1.1. Requirements

Feedback 💬

- The *open-iscsi* package must be installed on the virtualization servers.

- The iSCSI storage device must be configured in such a way that the virtualization servers can access it: The servers use the name stored in the `/etc/iscsi/initiatorname.iscsi` file as the initiator name. The name may still need to be generated automatically, which can be done by running `/etc/init.d/open-iscsi restart` once.

- The libvirt interface used by UVMM does not currently support any authentication. If CHAP is used, the `/etc/iscsi/iscsid.conf` file must be adjusted by hand.

1.2. Integration of iSCSI storage pools

Feedback 💬

UVMM does not yet support the creation of storage pools via the UMC. The creation of storage pools is described below.

To make an additional storage pool available on a virtualization server, it is necessary to create an XML file with a description. The creation of storage pools is documented in the virtualization chapter of the UCS manual. Below, a storage pool is defined which accesses an iSCSI storage device.

- The *type* attribute must be set to the *iscsi* value in the *pool* element.

- A *source* element is used to specify the source servers (iSCSI target).

- The *target* element is used to define the path to the device files. The `/dev/disk/by-path` should be used there for stable names.

In the following example, a storage pool is defined, which mounts the *iqn.2010-08.local.ucs:sdb* iSCSI target from the *xen6.ucs.local* server:

```
<pool type='iscsi'>
  <name>iscsi</name>
  <source>
    <host name='xen6.ucs.local' port='3260'/>
    <device path='iqn.2010-08.local.ucs:sdb'/>
  </source>
  <target>
    <path>/dev/disk/by-path</path>
  </target>
</pool>
```

This description must firstly be saved in a file (for example, in the `iscsi-pool.xml` file). For it to be possible to use this storage pool, the following commands must be run:

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```
virsh pool-define iscsi-pool.xml
virsh pool-start iscsi
virsh pool-autostart iscsi
```

The UVMM service will detect the new storage pool automatically after a certain period of time. Alternatively, the service can also be restarted once so that this new storage pool information is detected immediately:

```
/etc/init.d/univention-virtual-machine-manager-daemon restart
```

1.3. Use of iSCSI storage pools

Feedback🗩

Hard disks in UVMM can then be used from the storage pool. When doing so, ensure that no new images are saved in an iSCSI storage pool and only existing ones are selected. The individual LUNs are offered as possible images.

If new iSCSI LUNs are set up, the iSCSI storage pool must still be reimported manually at present. This can be done using the following command:

```
virsh pool-refresh "$pool_name"
```

For the example above:

```
virsh pool-refresh iscsi
```