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# VTL-Value

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**Linux quick start guide  
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ID7 – Sun Microsystems UK

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This quick start guide is provided to allow you to install and configure your VTL-Value as quickly as possible. It requires knowledge of Linux and its iSCSI implementation, if you are unfamiliar with either of these we strongly suggest you speak to your system administrator before installing the VTL-Value.

The steps in this quick start:

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## Linux Installation

Linux is based around an Open Source community and there are a multitude of applications and utilities for most aspects of operation, iSCSI is no different. Linux is highly configurable and often tuned to your specific needs and environment. There are also several iSCSI initiators available and your administrator may have chosen one different from the example given in this guide, you should consult your administrator before going further.

This guide is based upon the popular and respected open iSCSI initiator Open-iSCSI. <http://www.open-iscsi.org>

The following example is based on a VT-loader configuration as follows:

VT-Loader: (100 slots) with 2 drives and 10 tapes

IP address: 192.168.0.19

Commands to be run are indicated in **bold**

### Preliminarily checks:

It is important that you have read the latest README from your initiator and check that your system is at the appropriate level and configured correctly. With the Open-iSCSI initiator the README can be currently found here:

<http://www.open-iscsi.org/docs/README>

Your kernel needs to have support for SCSI devices, this is often the default, however if you encounter any problems please check with your administrator that the kernel was compiled with support for the following:

- SCSI device support
- SCSI tape support
- SCSI media changer support
- SCSI generic support

If any of the above are not configured within your kernel, you will have to update and re-compile appropriately and paying attention to the requirements of your iSCSI initiator. If you are unsure if these are compiled within your kernel, continue with this guide, the VTL will simply not be recognised within the 'check your configuration' section.

Check the Ethernet connection to the VTL-Value

```
# ping 192.168.0.19
```

If the result is "192.168.0.19 is alive" then proceed with configuration. If you cannot ping the iSCSI target, please check Ethernet and Linux configuration and repeat until resolved.

## Starting the iSCSI initiator (open-iscsi, Feb 09)

The open-iscsi service is started as follows:

```
# /etc/init.d/open-iscsi start
```

```
Starting iSCSI initiator service:           done
Setting up iSCSI targets:                  unused
```

## Configuring the iSCSI Target

In the below examples a VTL was connected with the default address of 192.168.0.19:

Discovering the target:

```
# iscsiadm -m discovery -test -p 192.168.0.19:3260
```

```
192.168.0.24:3260,1 iqn-2001.07.vtlvalue:lib-atl-m2500
```

Note the IQN name returned, in this example **'iqn-2001.07.vtlvalue:lib-atl-m2500'**

Connect to the VTL: (replace IQN number)

```
#iscsiadm -m node -p 192.168.0.19 -T iqn-2001.07.vtlvalue:lib-atl-m2500 -l
```

An example response to the above would be:

```
Logging in to [iface: iser, target: iqn-2001.07.vtlvalue:lib-atl-m2500, portal: 192.168.0.19,3260]
Login to [iface: default, target: iqn-2001.07.vtlvalue:lib-atl-m2500, portal: 192.168.0.19,3260]: successful
```

You are now connected to the target, to verify run:

```
# cat /proc/scsi/scsi or
# lsscsi -g
```

With lsscsi -g you will now see similar to :

```
[3:0:0:0] medium M4 DATA MagFile          6.0 /dev/sg1
[3:0:0:1] tape   HP          Ultrium 2-SCSI  F00V /dev/st0
[3:0:0:2] tape   HP          Ultrium 2-SCSI  F00V /dev/st1
```

The Linux configuration is now complete and the VTL-Value is ready to be configured and used by your backup application. This varies depending on your individual configuration and you should consult your administration or application notes. The application will interface and control the VTL-Value directly.