



FCmeter™ Quick Start Guide

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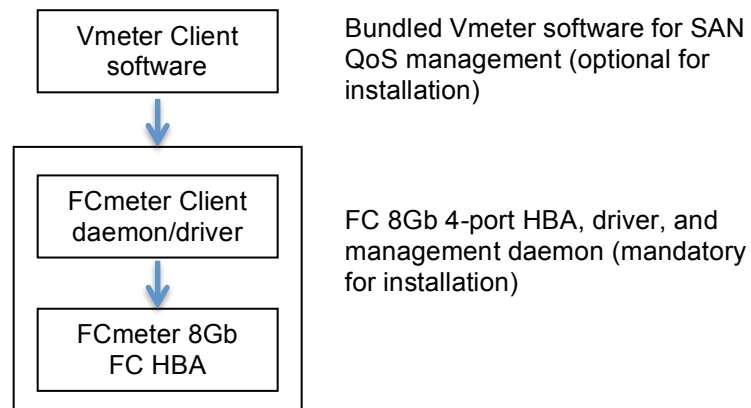
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1 SYSTEM OVERVIEW

Congratulations on your purchase of the Vicom FCmeter 8Gb Video FC SAN HBA. This FCmeter 8G with QoS management solution boosts workstation performance, while also eliminating streaming interruptions caused by congestion from burst I/O demands on shared storage.

This Quick Start Guide gives step-by-step instructions for configuring a basic system. The basic system consists of the FCmeter HBA, the FCmeter Client (HBA driver and management daemon), and the bundled Vmeter SAN Quality Management software.



1.1 Package Content Check List

The list below consists of all the items that are included in your FCmeter package:

- The FCmeter 8Gb FC HBA (Host Bus Adaptor)
- Instructions for downloading the FCmeter Client installation package
- Instructions for downloading the Vmeter Client installation package

2 FCMETER CLIENT

The FCmeter Client consists of an FCmeter HBA card together with its driver and associated software utilities.

2.1 System Requirements

The following are the minimum system requirements for an FCmeter client system:

2.1.1 Workstation

- Mac Pro System with Intel processor
- At least 1GB RAM
- At least 10 MB of available hard disk space

2.1.2 Operating Systems

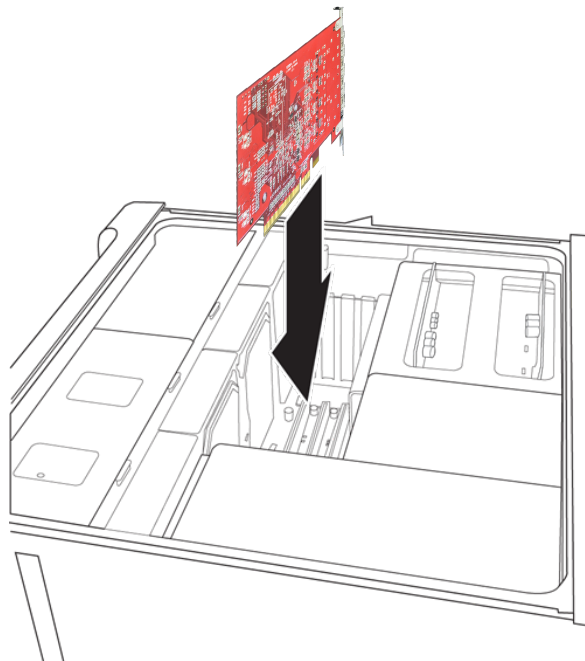
- Mac OS X 10.6 or 10.7

2.2 Installation Steps

Below is an outline of the installation steps that you will need to follow.

2.2.1 Installing the FCmeter HBA

The FCmeter HBA is a PCIe card that you must install in each client system. You should plug the HBA card into one of the workstation's PCIe x16 slots.



2.2.2 Installing the FCmeter Client Software

To install the FCmeter client software:

1. Retrieve the FCmeter installation package on client system
2. Launch the FCmeter client installation package. (Note: You must have Administrative Privileges to install this package)
3. Follow the on-screen instructions to complete the installation. (We strongly recommend that you carefully read the information presented on the Read Me screen)
4. Perform the required system restart at the end of the installation procedure

2.2.3 Starting the FCmeter Driver and Management Daemon

Following successful installation of the FCmeter client software package, the FCmeter driver and its companion management daemon are automatically launched during FCmeter client system startup. The management daemon is required to enable the FCmeter HBA's FC ports. If the management daemon is disabled, the FCmeter HBA's FC ports will be disabled too.

2.3 Uninstalling the FCmeter Client

To uninstall the FCmeter client software:

1. From the Terminal, go to /Users/FCmeter directory and issue the command:

```
sudo ./uninstall.sh
```

2. Reboot the system

2.4 FCmeter Client CLI

The FCmeter client software provides a number of CLI (Command Line Interface) programs. From the Terminal, FCmeter CLI dynamically controls the FCmeter HBA.

FCMConfig – FCmeter Driver Configuration

FCMConfig (as the name suggests) is for setting user configurable parameters of the FCmeter driver. These parameters are stored in non-volatile memory on the FCmeter HBA, and are preset at the factory to appropriate defaults.

Usage: `fcmconfig {a1 | a2 | b1 | b2} {-s {8 | 4 | 2}} | -t {p | l} | -i}`

Examples:

- The following command limits the speed of the A1 port to a maximum of 4 Gb/s (depending on the speed of the SFP or SFP+):

```
fcmconfig a1 -s 4
```

- The following command instructs the driver to operate the A2 port appropriately for arbitrated-loop (as opposed to point-to-point) topology:
fcmconfig a2 -t l
- The following command resets the configurable parameters of the B1 port to factory defaults (8 Gb/s and point-to-point):
fcmconfig b1, -i

FCMStatus – FCmeter HBA Status Checking

FCMStatus is used for checking the current status of the specified HBA port.

Usage: **fcmstatus {a1 | a2 | b1 | b2} [-s | -p <port index> | -l <LUN index>]**

Examples:

- The following command requests a summary report on the state of the A1 port:
fcmstatus a1

```

Driver version: 1.0.0
Logger is connected
SFP(+) speed is 8 Gb/s
Link is up
Link speed is 8 Gb/s
Topology is point-to-point with fabric present
Logged in with 2 target port(s)
  0: 0x010400
  1: 0x010500
4 total LUNs available

```
- The following command requests the display of detailed information about the SFP or SFP+ installed in the B2 port:
fcmstatus b2 -s

```

Identifier           : SFP transceiver
Connector            : LC
Nominal Bit Rate     : 8500 Mb/s
Vendor Name          : FINISAR CORP.
Part Number          : FTLF8528P2BCV-QL
Revision Level       : A
Serial Number        : PG54YEC
Date of Manufacture  : 08/05 2009

```
- The following command requests the display of detailed information about the first storage port seen by the A1 port:
fcmstatus a1 -p 0

```

Port ID: 0x010400
WWPN: 2100-006022-adadff
WWNN: 2000-006022-adadff
LUN indexes: 0 through 1

```
- The following command requests the display of detailed information about the second LUN behind second storage port seen by the A1 port:

fcmstatus a1 -l 1

Port ID: 0x010500
WWPN: 2100-006022-09094f
WWNN: 2000-006022-09094f
LUN: 0001-000000000000

3 VMETER CLIENT

Vmeter offers the speed management capability of SAN I/O to your Video workstation. It is optional. With Vmeter Client package installed, this additional SAN I/O monitoring and control feature enables SAN QoS management. Without Vmeter, FCmeter can be fully functioning to access FC SAN just as a typical 8Gb FC HBA.

You should confirm the proper installation of the FCmeter Client package (HBA, driver, and management daemon) first before installing the Vmeter Client package.

3.1 Installation Steps

Below is an outline of the installation steps that you will need to follow.

3.1.1 Installing Software

Double click on the Vmeter Client package in Finder on each FCmeter client (Note: You must have Administrative Privileges to install the Vmeter package.)

3.1.2 Creating Configuration File

1. Make a copy of:

“/Users/chtech/vmeter/client/vmeter.conf.sample”,

and rename it:

“/Users/cftech/vmeter/client/vmeter.conf”.

2. On each client, fill entries in the clients' section with the following information:

Hostname: output of `uname -n`

VID: output of `videntify` of the client system

port#: port number of the Vmeter client daemon

enabled: on – Vmeter enabled; off – Vmeter disabled

min-MBPS: reserved MBPS for the client

max-MBPS: maximum MPBS allowed for the client system

3.1.3 Starting the Vmeter Client Driver

1. Run the install script in /Users/cftech/vmeter/client as follows:

```
cd /Users/cftech/vmeter/client
```

```
sudo ./install vmeter.conf
```

2. Reboot the system

3.2 Uninstalling the Vmeter Client

1. On the client system:

```
cd /Users/cfttech/vmeter/client
```

```
sudo ./uninstall
```

2. Remove the directory /Users/cfttech/vmeter/client
3. Reboot the system

3.3 Vmeter Client CLI

Please refer to the Vmeter User Guide.