

VadaTech MicroTCA

Shelf Manager Web Interface Reference Manual

May 20, 2009

Version 2.0



vadatechTM
inc
THE POWER OF VISION

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1 Overview

This document describes connecting to and using the VadaTech MicroTCA Shelf Manager Web Interface.

1.1 Applicable Products

- UTC001
- UTC003
- VT850

1.2 Document References

- [Intelligent Platform Management \(IPMI\) Interface Specification v2.0](#)
- [PICMG® 3.0 Revision 3.0 AdvancedTCA® Base Specification](#)
- [PICMG® AMC.0 R2.0 Advanced Mezzanine Card Base Specification](#)
- [PICMG Specification MTCA.0 R1.0 \(MicroTCA\)](#)
- [VadaTech MCH Software Management Manual](#)
- [VadaTech MicroTCA MCH Getting Started](#)
- [VadaTech MicroTCA Management Interface Specification](#)
- [VadaTech MicroTCA Shelf Manager Command Line Interface Reference Manual](#)
- [VadaTech MicroTCA Carrier Manager Web Interface Reference Manual](#)

1.3 Acronyms Used in this Document

Acronym	Description
ATCA	Advanced Telecommunications Computing Architecture
CLI	Command Line Interface
CU	Cooling Unit
MC	Management Controller
MCH	MicroTCA Carrier Hub
MicroTCA	MicroTelecommunication Computing Architecture
PM	Power Module

Table 1: Acronyms

2 MicroTCA Shelf Manager Web Interface

The MicroTCA Shelf Manager Web Interface supports a subset of the commands specified by the [VadaTech MicroTCA Command Line Interface Reference Manual](#). The Web Interface interacts with the CLI which is based on the IPMI 2.0, AdvancedTCA™ PICMG 3.0, and MicroTCA 1.0 specifications. Administrators can access the Web Interface through any modern web browser supporting javascript. The Web Interface, through the CLI, provides access to information about the current state of the Shelf, obtain information such as the FRU population, or monitor alarms, power management, current sensor values, and the overall health of the Shelf. The interface can also be used to update Shelf-configurable parameters.

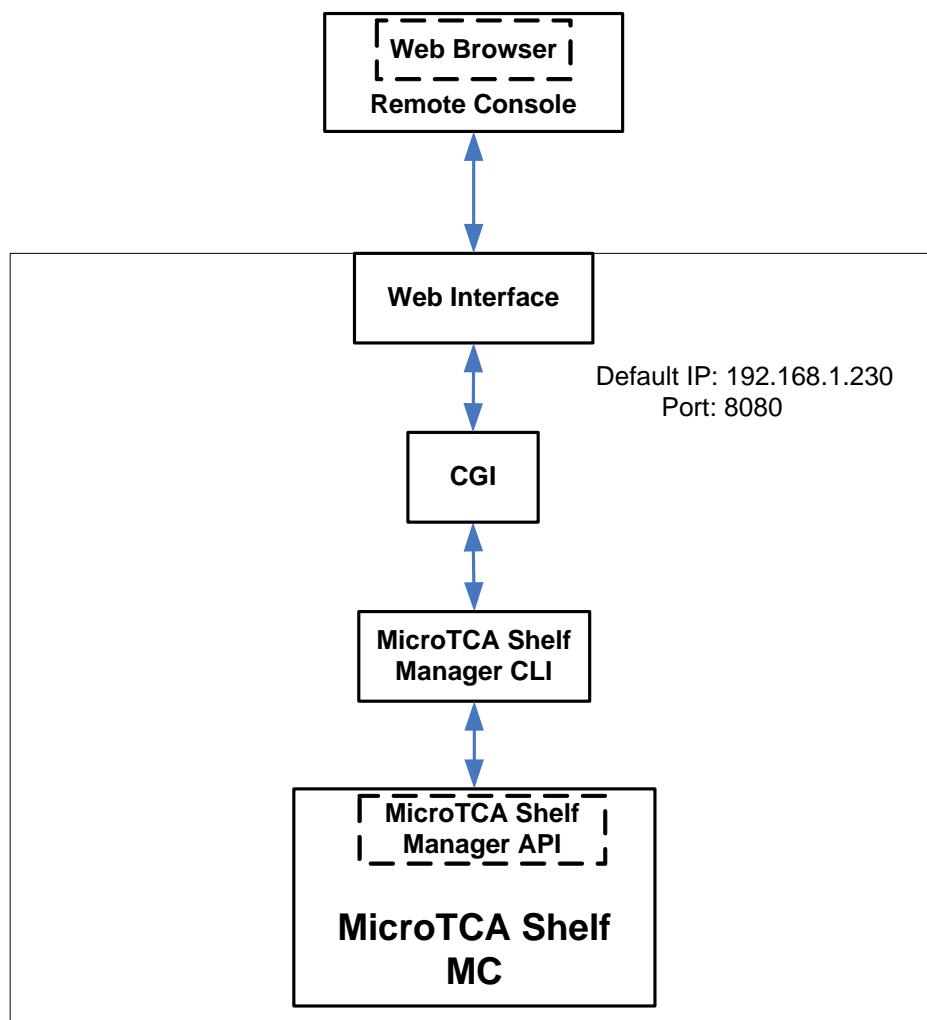


Figure 1: Web Interface

The Web Interface connects to the IP Address of the Shelf Manager and communicates with the CLI via the Common Gateway Interface (CGI). The CLI communicates with the MicroTCA

Shelf Management Controller (MC) Application Programming Interface (API), which communicates directly with the Shelf Manager.

For information on configuring network settings and setting up the system the first time, refer to the [VadaTech MicroTCA Management Interface Specification](#) and the [VadaTech MicroTCA MCH Getting Started](#) document.

Note: If a MicroTCA Shelf Manager is not active on the same MCH as the Carrier Manager, the Web Interface defaults to the Carrier Web Interface. For information on how to use the Carrier Web Interface, refer to the [VadaTech MicroTCA Carrier Manager Web Interface Reference Manual](#).

2.1 Web Interface User Configuration

As shown in Figure 1, the Web Interface communicates directly with the CLI. To do this, the Web Interface uses the default CLI user information, which is the user with ID 2, username “shelf”, password “shelf”. This user is configured with administrative privileges.

3 Addressing

Addressing for MicroTCA Shelf commands rely on knowledge of a FRU's access address and FRU ID. For information on how this is determined, and where this information is located, see the [VadaTech MicroTCA Shelf Manager Command Line Interface Reference Manual](#).

4 Site Profile

This section describes the web pages provided by the MicroTCA Shelf Manager web server. These pages directly invoke CLI commands, as detailed in the following sections. For more information on CLI and the commands available through the CLI, refer to the [MicroTCA Shelf Manager Command Line Interface Reference Manual](#).

The web server is a configurable setting in the `/opt/vadatech/startup/vtipmi.conf` file. For information on configuring startup applications, refer to the [VadaTech MicroTCA MCH Getting Started](#) document.

When connected, the start page should appear similar to that shown in [Figure 2](#). Variations on presentation of this page, and the pages described in the following subsections, will be browser-dependent.

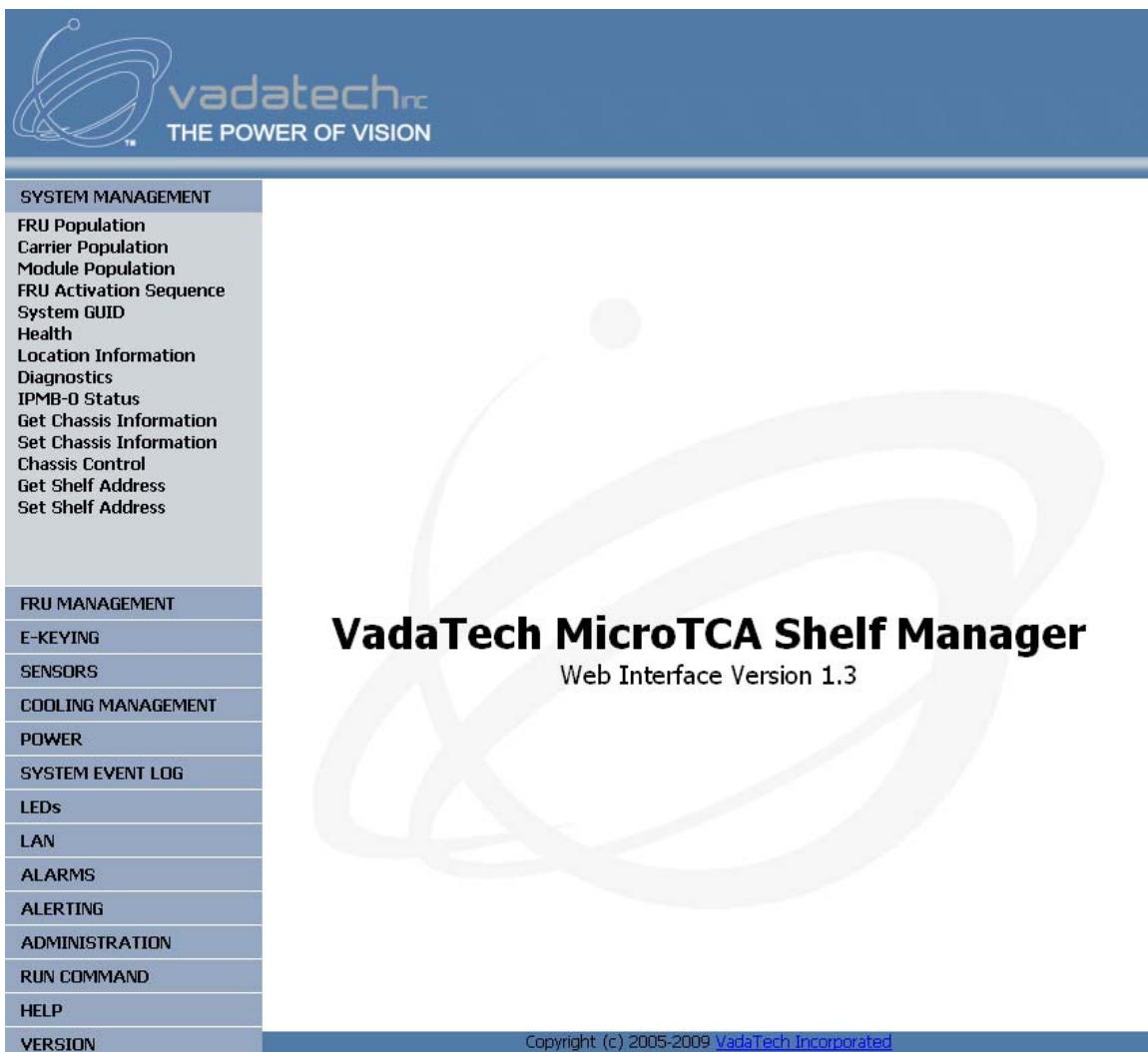


Figure 2: Web Interface Start Page

Pages that include an input form to specify command parameters will be depicted in the sections below. If a page is not shown for a specified command, no form is associated with the command.

Note: descriptions of commands that use addressing to target a FRU will describe any and all non-OEM applicable target FRUs accepted by the command. For more information on the parameter(s) available for the associated CLI command, refer to the [MicroTCA Shelf Manager Command Line Interface Reference Manual](#).

4.1 System Management

This section covers the commands associated with System Management, as listed in the **System Management** menu.

4.1.1 FRU Population

Description: provide a summary of the FRUs installed at a given address (default is Shelf Manager), filtered by a given Entity ID

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". A navigation bar on the left lists various management categories: SYSTEM MANAGEMENT (FRU Population, Carrier Population, Module Population, FRU Activation Sequence, System GUID, Health, Location Information, Diagnostics, IPMB-0 Status, Get Chassis Information, Set Chassis Information, Chassis Control, Get Shelf Address, Set Shelf Address); FRU MANAGEMENT; E-KEYING; SENSORS; COOLING MANAGEMENT; POWER; SYSTEM EVENT LOG; LEDs; LAN; ALARMS; ALERTING; ADMINISTRATION; RUN COMMAND; HELP; and VERSION. The main content area is titled "FRU Population" and contains fields for "IPMB Address" and "Entity ID", with a "Submit" button below them. A large watermark of a stylized eye is visible in the background of the content area. At the bottom right of the interface is the copyright notice "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 3: FRU Population

Associated CLI Command(s): `list_frus_present`

Applicable Target FRUs:

Entity	Entity ID	Access Address
MCH	C2h	82h - A0h
AMC	C1h	82h - A0h
CU	1Eh	82h - A0h
PM	0Ah	82h - A0h
OEM	DAh - DFh	82h - A0h

Table 2: FRU Population applicable target FRUs

4.1.2 Carrier Population

Description: display all installed MicroTCA Carriers in the Shelf
Associated CLI Command(s): `list_carriers_present`

4.1.3 Module Population

Description: display a summary of the Modules installed at a given address (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top header features the VadaTech logo and the tagline "THE POWER OF VISION". The left sidebar contains a vertical menu with several sections: SYSTEM MANAGEMENT (FRU Population, Carrier Population, **Module Population**, FRU Activation Sequence, System GUID, Health, Location Information, Diagnostics, IPMB-0 Status, Get Chassis Information, Set Chassis Information, Chassis Control, Get Shelf Address, Set Shelf Address); FRU MANAGEMENT; E-KEYING; SENSORS; COOLING MANAGEMENT; POWER; SYSTEM EVENT LOG; LEDs; LAN; ALARMS; ALERTING; ADMINISTRATION; RUN COMMAND; HELP; and VERSION. The main content area is titled "Module Population" and contains an "IPMB Address:" input field and a "Submit" button. At the bottom right of the content area, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 4: Module Population

Associated CLI Command(s): `list_modules_present`

Applicable Target FRUs:

Entity	Access Address
Carrier	82h – A0h

Table 3: Module Population applicable target FRUs

4.1.4 FRU Activation Sequence

Description: display the FRU activation sequence from a given Carrier's FRU Information

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top, there is a logo for 'vadatech inc' with the tagline 'THE POWER OF VISION'. A vertical navigation menu on the left includes categories like SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The 'FRU Activation Sequence' option under SYSTEM MANAGEMENT is highlighted. The main content area has a title 'FRU Activation Sequence'. It contains a form with an 'IPMB Address:' input field and a 'Submit' button. At the bottom right of the content area, there is a copyright notice: 'Copyright (c) 2005-2009 VadaTech Incorporated'.

Figure 5: FRU Activation Sequence

Associated CLI Command(s): `get_fru_activation_sequence`

Applicable Target FRUs:

Entity	Access Address(es)
Carriers	82h - A0h

Table 4: FRU Activation Sequence applicable target FRUs

4.1.5 System GUID

Description: display the globally unique ID (GUID) of the system

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top header features the VadaTech logo and the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with several sections: SYSTEM MANAGEMENT (FRU Population, Carrier Population, Module Population, FRU Activation Sequence, System GUID), FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The main content area is titled "System GUID" and contains a form with an "IPMB Address:" input field and a "Submit" button. At the bottom of the page, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 6: System GUID

Associated CLI Command(s): `get_system_guid`

Applicable Target FRUs:

Entity	Access Address
Carrier Manager	82h – A0h

Table 5: System GUID applicable target addresses

4.1.6 Health

Description: display a summary of the alarm statuses of all the FRUs installed in the Shelf
Associated CLI Command(s): `get_health`

4.1.7 Location Information

Description: display location information for a given FRU

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with several sections: SYSTEM MANAGEMENT (FRU Population, Carrier Population, Module Population, FRU Activation Sequence, System GUID, Health, Location Information, Diagnostics, IPMB-0 Status, Get Chassis Information, Set Chassis Information, Chassis Control, Get Shelf Address, Set Shelf Address); FRU MANAGEMENT; E-KEYING; SENSORS; COOLING MANAGEMENT; POWER; SYSTEM EVENT LOG; LEDs; LAN; ALARMS; ALERTING; ADMINISTRATION; RUN COMMAND; HELP; and VERSION. The "Location Information" link under SYSTEM MANAGEMENT is highlighted. The main content area is titled "Location Information" and contains two input fields: "IPMB Address:" and "FRU ID:", each with a small input box. Below these fields is a "Submit" button. A large watermark of a stylized eye is visible in the background of the main content area. At the bottom of the page is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 7: Location Information

Associated CLI Command(s): `get_location_info`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 6: Location Information applicable target FRUs

4.1.8 Diagnostics

Description: run system diagnostics and display the results for all FRUs (default) or a given FRU

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top, there is a logo for 'vadatech inc' with the tagline 'THE POWER OF VISION'. The main menu on the left includes 'SYSTEM MANAGEMENT', 'FRU MANAGEMENT', 'E-KEYING', 'SENSORS', 'COOLING MANAGEMENT', 'POWER', 'SYSTEM EVENT LOG', 'LEDs', 'LAN', 'ALARMS', 'ALERTING', 'ADMINISTRATION', 'RUN COMMAND', 'HELP', and 'VERSION'. The 'Diagnostics' option under 'SYSTEM MANAGEMENT' is highlighted. The right side of the screen displays a form titled 'Diagnostics' with fields for 'IPMB Address' (with a dropdown menu), 'FRU ID' (with a dropdown menu), and 'Verbose' (with a checkbox). A 'Submit' button is located at the bottom of the form. A watermark of a stylized eye is visible in the background.

Figure 8: Diagnostics

Associated CLI Command(s): `get_diagnostics`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 7: Diagnostics applicable target FRUs

4.1.9 IPMB-0 Status

Description: display the IPMB-0 sensor status for a given FRU (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with the following categories and sub-links:

- SYSTEM MANAGEMENT
 - FRU Population
 - Carrier Population
 - Module Population
 - FRU Activation Sequence
 - System GUID
 - Health
 - Location Information
 - Diagnostics
 - IPMB-0 Status** (highlighted)
 - Get Chassis Information
 - Set Chassis Information
 - Chassis Control
 - Get Shelf Address
 - Set Shelf Address
- FRU MANAGEMENT
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING
- ADMINISTRATION
- RUN COMMAND
- HELP
- VERSION

The main content area is titled "IPMB-0 Status". It features a form with a "IPMB Address:" input field containing "0000000000000000" and a "Submit" button. A large watermark of a stylized eye is visible in the background of the content area.

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Figure 9: IPMB-0 Status

Associated CLI Command(s): `get_ipmb0_status`

Applicable Target FRUs:

Entity	Access Address
Carrier Address	82h – A0h

Table 8: IPMB-0 Status applicable target FRUs

4.1.10 Get Chassis Information

Description: display the **Chassis Info Area**, located in the Shelf FRU
Inventory

Associated CLI Command(s): `get_chassis_info`

4.1.11 Set Chassis Information

Description: set the **Chassis Information**, located in the Shelf FRU Inventory Area

The screenshot shows a web-based management interface for a VadaTech MicroTCA shelf. At the top, there is a logo for 'vadatech inc' with the tagline 'THE POWER OF VISION'. The main menu on the left includes categories like SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The 'Set Chassis Information' option under SYSTEM MANAGEMENT is highlighted. The central panel displays the 'Set Chassis Information' form, which contains fields for 'Chassis ID' and 'Chassis Type', both represented by input boxes. A 'Submit' button is located below these fields. A large watermark of a stylized eye is visible in the background of the central panel.

Figure 10: Set Chassis Information

Associated CLI Command(s): `set_chassis_info`

4.1.12 Chassis Control

Description: change the power state of the Chassis or issue a diagnostic interrupt

SYSTEM MANAGEMENT

- FRU Population
- Carrier Population
- Module Population
- FRU Activation Sequence
- System GUID
- Health
- Location Information
- Diagnostics
- IPMB-0 Status
- Get Chassis Information
- Set Chassis Information
- Chassis Control**
- Get Shelf Address
- Set Shelf Address

FRU MANAGEMENT

- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING
- ADMINISTRATION
- RUN COMMAND
- HELP
- VERSION

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Figure 11: Chassis Control

Associated CLI Command(s): `chassis_control`

Applicable Target FRUs:

Entity	FRU ID(s)
Carrier	82h – A0h

Table 9: Chassis Control applicable target FRUs

4.1.13 Get Shelf Address

Description: display the **Shelf Information** record's address field
Associated CLI Command(s): `get_shelf_address_info`

4.1.14 Set Shelf Address

Description: set the **Shelf Information** record's address field

The screenshot shows a web-based management interface for a VadaTech MicroTCA system. At the top, there is a logo for 'vadatech inc' with the tagline 'THE POWER OF VISION'. A navigation menu on the left includes sections for 'SYSTEM MANAGEMENT' (with options like FRU Population, Carrier Population, etc.), 'FRU MANAGEMENT', 'E-KEYING', 'SENSORS', 'COOLING MANAGEMENT', 'POWER', 'SYSTEM EVENT LOG', 'LEDs', 'LAN', 'ALARMS', 'ALERTING', 'ADMINISTRATION', 'RUN COMMAND', 'HELP', and 'VERSION'. The main content area is titled 'Set Shelf Address' and contains a single input field labeled 'Shelf Address:' followed by a text input box and a 'Submit' button. A large watermark of a stylized eye is visible in the background of the main content area. At the bottom right of the page, there is a copyright notice: 'Copyright (c) 2005-2009 VadaTech Incorporated'.

Figure 12: Set Shelf Address

Associated CLI Command(s): `set_shelf_address_info`

4.2 FRU Management

This section covers the commands associated with FRU management, as listed in the **FRU Management** menu.

4.2.1 FRU Hotswap

Description: activate, deactivate, or extract a given FRU, bringing the FRU to the M4 state, M1 state, or removing it entirely, respectively

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top header features the VadaTech logo and the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with the following categories and sub-options:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
 - FRU Hotswap
 - FRU State
 - FRU Address Information
 - List FRU Inventory Devices
 - Read FRU Inventory
 - FRU Control
 - List SDR Records
 - List Device SDR Records
 - Get FRU Power Levels
 - Set FRU Power Levels
 - Update FRU Version
 - FRU Temperature
 - FRU Activation Policy
 - Module Information
 - Device ID
 - Get Event Receiver
 - Set Event Receiver
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING
- ADMINISTRATION
- RUN COMMAND
- HELP
- VERSION

The main content area is titled "FRU Hotswap". It contains a form with the following fields:

- A dropdown menu labeled "Select an Action".
- An input field labeled "IPMB Address" with two adjacent input boxes.
- An input field labeled "FRU ID" with two adjacent input boxes.
- A "Submit" button.

At the bottom of the page, a copyright notice reads "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 13: FRU Hotswap

Associated CLI Command(s): **activate**
 deactivate
 set_fru_extracted

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 10: FRU Hotswap applicable target FRUs

4.2.2 FRU State

Description: display the hotswap information for a given FRU (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". A vertical navigation menu on the left includes categories like SYSTEM MANAGEMENT, FRU MANAGEMENT, COOLING MANAGEMENT, POWER, and HELP. Under the FRU MANAGEMENT category, "FRU State" is selected. The main content area is titled "FRU State". It contains two input fields: "IPMB Address:" and "FRU ID:", each with a dropdown arrow icon. Below these is a "Submit" button. At the bottom of the page is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 14: FRU State

Associated CLI Command(s): `get_fru_state`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 11: FRU State applicable target FRUs

4.2.3 FRU Address Information

Description: display a given FRU's addressing information

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". A vertical navigation menu on the left includes: SYSTEM MANAGEMENT, FRU MANAGEMENT (selected), FRU Hotswap, FRU State, FRU Address Information (selected), List FRU Inventory Devices, Read FRU Inventory, FRU Control, List SDR Records, List Device SDR Records, Get FRU Power Levels, Set FRU Power Levels, Update FRU Version, FRU Temperature, FRU Activation Policy, Module Information, Device ID, Get Event Receiver, Set Event Receiver, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION (selected), RUN COMMAND, HELP, and VERSION. The main content area is titled "FRU Address Information". It contains input fields for IPMB Address (text box), Select a Type (dropdown menu), FRU ID (text box), Site Number (text box), and a Submit button. The bottom right of the content area has the copyright notice "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 15: FRU Address Information

Associated CLI Command(s): `get_address_info`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 12: FRU Address Information applicable target FRUs

4.2.4 List FRU Inventory Devices

Description: display a list of all the FRU Inventory Devices located in the given FRU (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo and slogan 'THE POWER OF VISION'. A vertical navigation menu on the left includes categories like SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. Under the 'FRU MANAGEMENT' category, 'List FRU Inventory Devices' is selected. The main content area is titled 'List FRU Inventory Devices'. It contains an input field labeled 'IPMB Address:' with a placeholder box, and a 'Submit' button below it. At the bottom right of the content area is the copyright notice 'Copyright (c) 2005-2009 VadaTech Incorporated'.

Figure 16: List FRU Inventory Devices

Associated CLI Command(s): `list_fru_storages`

Applicable Target FRUs:

Entity	Access Address
Shelf	20h
Carrier	82h - A0h

Table 13: List FRU Inventory Devices applicable target FRUs

4.2.5 Read FRU Inventory

Description: display content from a given FRU's FRU Inventory Device

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top navigation bar includes the VadaTech logo and the slogan "THE POWER OF VISION". The left sidebar contains a vertical menu with several sections and their sub-options:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
 - FRU Hotswap
 - FRU State
 - FRU Address Information
 - List FRU Inventory Devices
 - Read FRU Inventory** (highlighted)
 - FRU Control
 - List SDR Records
 - List Device SDR Records
 - Get FRU Power Levels
 - Set FRU Power Levels
 - Update FRU Version
 - FRU Temperature
 - FRU Activation Policy
 - Module Information
 - Device ID
 - Get Event Receiver
 - Set Event Receiver
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING
- ADMINISTRATION
- RUN COMMAND
- HELP
- VERSION

The main content area is titled "Read FRU Inventory". It features a form with the following fields:

- IPMB Address:
- FRU ID:
- Filter By:
 - Board Info Chassis Info
 - Product Info Multi Record Area
- A dropdown menu labeled "OEM" containing the following options:
 - Module Current Requirement
 - Carrier Point-to-Point Connectivity
 - AMC Point-to-Point Connectivity
 - FRU Information Partition
 - Carrier Manager IP Link
 - MicroTCA Carrier Information
 - MicroTCA Shelf Information
- OEM Multi-Record Type:
- Dump Raw

At the bottom of the form is a "Submit" button.

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Figure 17: Read FRU Inventory

Associated CLI Command(s): `read_fru_storage`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
Shelf Manager	20h	0
Physical Shelf FRU Info 1	20h	1
Physical Shelf FRU Info 2	20h	2
Logical Shelf FRU Info	20h	254
Carrier Manager	82h - A0h	0
Physical Shelf FRU Info 1	82h - A0h	1
Physical Shelf FRU Info 2	82h - A0h	2
Logical Carrier FRU Info	82h - A0h	253
MCH	82h - A0h	3 - 4
AMC	82h - A0h	5 - 16
CU	82h - A0h	40 - 41
PM	82h - A0h	50 - 53

Table 14: Read FRU Inventory applicable target FRUs

4.2.6 FRU Control

Description: control a given FRU's payload

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top navigation bar includes the VadaTech logo and the slogan "THE POWER OF VISION". The left sidebar contains a hierarchical menu with the following categories and sub-options:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
 - FRU Hotswap
 - FRU State
 - FRU Address Information
 - List FRU Inventory Devices
 - Read FRU Inventory
 - FRU Control** (highlighted)
 - List SDR Records
 - List Device SDR Records
 - Get FRU Power Levels
 - Set FRU Power Levels
 - Update FRU Version
 - FRU Temperature
 - FRU Activation Policy
 - Module Information
 - Device ID
 - Get Event Receiver
 - Set Event Receiver
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING
- ADMINISTRATION
- RUN COMMAND
- HELP
- VERSION

The main content area is titled "FRU Control". It features a form with the following fields:

- IPMB Address:
- FRU ID:
- Cold Reset
- Warm Reset
- Graceful Reboot
- Diagnostic Interrupt
- Quiesce

A "Submit" button is located below the form.

At the bottom of the page, a copyright notice reads: Copyright (c) 2005-2009 VadaTech Incorporated.

Figure 18: FRU Control

Associated CLI Command(s): `fru_control`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 15: FRU Control applicable target FRUs

4.2.7 List SDR Records

Description: display a list of SDRs in the Shelf SDR Repository
Associated CLI Command(s): `list_sdr`

4.2.8 List Device SDR Records

Description: display a list of device SDRs in a given SDR repository

The screenshot shows a web-based management interface for VadaTech MicroTCA components. At the top, there is a logo for 'vadatech' with the tagline 'THE POWER OF VISION'. A navigation menu on the left side lists various management functions: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The 'List Device SDR Records' option is highlighted in the menu. The main content area is titled 'List Device SDR Records'. It contains two input fields: 'IPMB Address:' and 'FRU ID:', both with empty text boxes. Below these fields is a 'Submit' button. In the bottom right corner of the content area, there is a copyright notice: 'Copyright (c) 2005-2009 VadaTech Incorporated'.

Figure 19: List Device SDR Records

Associated CLI Command(s): `list_device_sdr`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 16: List Device SDR Records applicable target FRUs

4.2.9 Get FRU Power Levels

Description: display the power level for a given FRU

The screenshot shows a web interface for VadaTech MicroTCA Shelf Manager. At the top is a blue header bar with the VadaTech logo and slogan 'THE POWER OF VISION'. Below the header is a left sidebar menu with various management options. The main content area is titled 'Get FRU Power Levels' and contains fields for IPMB Address and FRU ID, along with a 'Submit' button. A large watermark of a stylized eye is visible in the background of the main content area.

SYSTEM MANAGEMENT	Get FRU Power Levels	
FRU MANAGEMENT		
FRU Hotswap		
FRU State		
FRU Address Information		
List FRU Inventory Devices		
Read FRU Inventory		
FRU Control		
List SDR Records		
List Device SDR Records		
Get FRU Power Levels	<input type="text"/>	
Set FRU Power Levels		
Update FRU Version		
FRU Temperature		
FRU Activation Policy		
Module Information		
Device ID		
Get Event Receiver		
Set Event Receiver		
E-KEYING		
SENSORS		
COOLING MANAGEMENT		
POWER		
SYSTEM EVENT LOG		
LEDs		
LAN		
ALARMS		
ALERTING		
ADMINISTRATION		
RUN COMMAND		
HELP		
VERSION	Copyright (c) 2005-2009 VadaTech Incorporated	

Figure 20: Get FRU Power Levels

Associated CLI Command(s): `get_fru_power_levels`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 17: Get FRU Power Levels applicable target FRUs

4.2.10 Set FRU Power Levels

Description: set a given FRU's power level

The screenshot shows the 'Set FRU Power Levels' page of the VadaTech MicroTCA Shelf Manager Web Interface. The left sidebar contains a vertical list of management options under 'SYSTEM MANAGEMENT'. The 'Set FRU Power Levels' link is highlighted with a blue box. The main content area has a title 'Set FRU Power Levels' and a form with three input fields: 'IPMB Address' (with a dropdown menu), 'FRU ID' (with a dropdown menu), and 'Power Level' (with a dropdown menu). Below the form is a 'Submit' button.

Figure 21: Set FRU Power Levels

Associated CLI Command(s): `set_fru_power_levels`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 18: Set FRU Power Levels applicable target FRUs

4.2.11 Update FRU Version

Description: change the version number in the Product Info Area for a given FRU

The screenshot shows a web-based management interface for VadaTech MicroTCA components. At the top, there is a logo for 'vadatech inc' with the tagline 'THE POWER OF VISION'. A vertical navigation menu on the left lists various management functions: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The 'Update FRU Version' option under 'FRU MANAGEMENT' is highlighted. The main content area is titled 'Update FRU Version'. It contains three input fields: 'IPMB Address:' with a dropdown menu, 'FRU ID:' with a dropdown menu, and 'Version:' with a text input field. Below these fields is a 'Submit' button. In the bottom right corner of the content area, there is a copyright notice: 'Copyright (c) 2005-2009 VadaTech Incorporated'.

Figure 22: Update FRU Version

Associated CLI Command(s): `update_fru_version`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 19: Update FRU Version applicable target FRUs

4.2.12 FRU Temperature

Description: display the status of all temperature sensors for a given FRU

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top navigation bar includes the VadaTech logo and the slogan "THE POWER OF VISION". The left sidebar contains a hierarchical menu with the following categories and sub-options:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
 - FRU Hotswap
 - FRU State
 - FRU Address Information
 - List FRU Inventory Devices
 - Read FRU Inventory
 - FRU Control
 - List SDR Records
 - List Device SDR Records
 - Get FRU Power Levels
 - Set FRU Power Levels
 - Update FRU Version
 - FRU Temperature** (selected)
 - FRU Activation Policy
 - Module Information
 - Device ID
 - Get Event Receiver
 - Set Event Receiver
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING
- ADMINISTRATION
- RUN COMMAND
- HELP
- VERSION

The main content area is titled "FRU Temperature". It features a search form with fields for "IPMB Address" (with a dropdown menu), "FRU ID" (with a dropdown menu), and "Threshold" (with a checkbox). A "Submit" button is located below the form. The footer of the page includes the copyright notice "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 23: FRU Temperature

Associated CLI Command(s): `get_fru_temperature`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 20: FRU Temperature applicable target FRUs

4.2.13 FRU Activation Policy

Description: display the activation policy for a given FRU (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". A vertical navigation menu on the left includes categories like SYSTEM MANAGEMENT, FRU MANAGEMENT, COOLING MANAGEMENT, POWER, and HELP. Under the "FRU MANAGEMENT" category, "FRU Activation Policy" is highlighted. The main content area is titled "FRU Activation Policy". It contains two input fields: "IPMB Address:" and "FRU ID:", each with a small input box. Below these is a "Submit" button. At the bottom of the page is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 24: FRU Activation Policy

Associated CLI Command(s): `get_fru_activation_policy`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
Shelf Manager	20h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 21: FRU Activation Policy applicable target FRUs

4.2.14 Module Information

Description: display the configuration and hotswap information for a given Module

The screenshot shows the 'Module Information' page of the VadaTech MicroTCA Shelf Manager. The left sidebar contains a vertical list of management functions. The 'Module Information' link is highlighted with a red box. The main content area has two input fields: 'IPMB Address:' and 'FRU ID:', each with a small input box and a 'Submit' button below it.

SYSTEM MANAGEMENT
FRU MANAGEMENT
FRU Hotswap
FRU State
FRU Address Information
List FRU Inventory Devices
Read FRU Inventory
FRU Control
List SDR Records
List Device SDR Records
Get FRU Power Levels
Set FRU Power Levels
Update FRU Version
FRU Temperature
FRU Activation Policy
Module Information
Device ID
Get Event Receiver
Set Event Receiver
E-KEYING
SENSORS
COOLING MANAGEMENT
POWER
SYSTEM EVENT LOG
LEDs
LAN
ALARMS
ALERTING
ADMINISTRATION
RUN COMMAND
HELP
VERSION

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Figure 25: Module Information

Associated CLI Command(s): `get_module_info`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 22: Get Module Information applicable target FRUs

4.2.15 Device ID

Description: display a given FRU's device identifier information

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- FRU Hotswap
- FRU State
- FRU Address Information
- List FRU Inventory Devices
- Read FRU Inventory
- FRU Control
- List SDR Records
- List Device SDR Records
- Get FRU Power Levels
- Set FRU Power Levels
- Update FRU Version
- FRU Temperature
- FRU Activation Policy
- Module Information
- Device ID** (selected)
- Get Event Receiver
- Set Event Receiver
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING
- ADMINISTRATION
- RUN COMMAND
- HELP
- VERSION

The main content area is titled "Device ID". It contains two input fields: "IPMB Address:" and "FRU ID:", each with a corresponding text input box. Below these fields is a "Submit" button. At the bottom of the page is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 26: Device ID

Associated CLI Command(s): `get_device_id`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 23: Device ID applicable target FRUs

4.2.16 Get Event Receiver

Description: display the location of the event receiver for a given FRU

The screenshot shows a web-based management interface for VadaTech MicroTCA components. At the top, there is a logo for 'vadatech inc' with the tagline 'THE POWER OF VISION'. A vertical navigation menu on the left lists various management functions: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The 'Get Event Receiver' option under 'FRU MANAGEMENT' is highlighted with a red border. The main content area is titled 'Get Event Receiver' and contains two input fields: 'IPMB Address:' and 'FRU ID:', each with a small input box. Below these fields is a 'Submit' button. In the bottom right corner of the content area, there is a copyright notice: 'Copyright (c) 2005-2009 VadaTech Incorporated'.

Figure 27: Get Event Receiver

Associated CLI Command(s): `get_event_receiver`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 24: Get Event Receiver applicable target FRUs

4.2.17 Set Event Receiver

Description: change the location of the event receiver for a given FRU

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". A vertical navigation menu on the left includes: SYSTEM MANAGEMENT, FRU MANAGEMENT (selected), FRU Hotswap, FRU State, FRU Address Information, List FRU Inventory Devices, Read FRU Inventory, FRU Control, List SDR Records, List Device SDR Records, Get FRU Power Levels, Set FRU Power Levels, Update FRU Version, FRU Temperature, FRU Activation Policy, Module Information, Device ID, Get Event Receiver (selected), Set Event Receiver (highlighted), E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The main content area is titled "Set Event Receiver". It contains input fields for IPMB Address, Receiver IPMB Address, and LUN, each with a corresponding text input box. Below these is a "Submit" button. At the bottom right of the content area is the copyright notice "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 28: Set Event Receiver

Associated CLI Command(s): `set_event_receiver`

Applicable Target FRUs:

Entity	Access Address(es)
Shelf Manager	20h
Carrier Manager	82h – A0h

Table 25: Set Event Receiver applicable target addresses

4.3 E-Keying

This section covers the commands associated with electronic keying, as listed in the **E-Keying** menu.

4.3.1 Carrier Point-To-Point

Description: display Carrier point-to-point connectivity information for all Carriers in the Shelf (default) or a given Carrier

The screenshot shows a web-based management interface for a VadaTech MicroTCA Shelf. The top header features the VadaTech logo and the tagline "THE POWER OF VISION". A navigation menu on the left side lists various management categories: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The E-KEYING category is currently selected, with its sub-options visible: Carrier Point-To-Point, AMC Point-To-Point, Port State, Clock Point-To-Point, Clock Configuration, Get Clock State, and Set Clock State. The main content area is titled "Carrier Point-To-Point". It contains a form with an "IPMB Address:" input field and a "Submit" button. A large, faint watermark of a stylized eye is overlaid on the right side of the page. At the bottom, a copyright notice reads "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 29: Carrier Point-To-Point

Associated CLI Command(s): `get_carrier_ptp`

Applicable Target FRUs:

Entity	Access Address
Carrier	82h – A0h

Table 26: Carrier Point-To-Point applicable target FRUs

4.3.2 AMC Point-To-Point

Description: display AMC point-to-point connectivity information for a given AMC

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top navigation bar includes links for SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The main content area is titled "AMC Point-To-Point". It features two input fields: "IPMB Address:" and "FRU ID:", each with a dropdown menu. Below these fields is a "Submit" button. The background of the interface features a stylized graphic of three overlapping circles.

Figure 30: AMC Point-To-Point

Associated CLI Command(s): `get_amc_ptp`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16

Table 27: AMC Point-To-Point applicable target FRUs

4.3.3 Port State

Description: display the link status for a given FRU at a given channel

The screenshot shows the 'Port State' page of the VadaTech MicroTCA Shelf Manager Web Interface. The left sidebar contains a vertical list of management categories: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The 'Port State' link under E-KEYING is highlighted. The main content area has a title 'Port State' and a form with four input fields: 'IPMB Address' (with two input boxes), 'FRU ID' (with one input box), 'Channel Number' (with one input box), and 'Device ID' (with one input box). Below the form is a 'Submit' button. A watermark of a stylized eye is visible in the background of the main content area.

Figure 31: Port State

Associated CLI Command(s): `get_port_state`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16

Table 28: Port State applicable target FRUs

4.3.4 Clock Point-To-Point

Description: display clock point-to-point routing for a given Carrier

The screenshot shows a web-based management interface for a VadaTech MicroTCA system. At the top, there is a logo for 'vadatech' with the tagline 'THE POWER OF VISION'. A vertical navigation menu on the left lists several categories: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The 'Clock Point-To-Point' option under the E-KEYING section is highlighted. The main content area is titled 'Clock Point-To-Point'. It contains a form with a label 'IPMB Address:' followed by a text input field and a 'Submit' button. In the bottom right corner of the main content area, there is a copyright notice: 'Copyright (c) 2005-2009 VadaTech Incorporated'.

Figure 32: Clock Point-To-Point

Associated CLI Command(s): `get_clock_ptp`

Applicable Target FRUs:

Entity	Access Address(es)
Carrier Manager	82h – A0h

Table 29: Clock Point-To-Point applicable target FRUs

4.3.5 Clock Configuration

Description: display clock configuration descriptors for a given FRU

Figure 33: Clock Configuration

Associated CLI Command(s): `get_clock_configuration`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16

Table 30: Clock Configuration applicable target FRUs

4.3.6 Get Clock State

Description: display clock status for a given clock on a given FRU

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top header features the VadaTech logo and slogan "THE POWER OF VISION". The left sidebar contains a vertical menu with several sections: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The "E-KEYING" section is currently active, with its sub-options: Carrier Point-To-Point, AMC Point-To-Point, Port State, Clock Point-To-Point, Clock Configuration, Get Clock State (which is highlighted), and Set Clock State. The main content area has a title "Get Clock State" and a form with four input fields: IPMB Address, FRU ID, Clock ID, and Device ID, each with a corresponding text input box. Below the form is a "Submit" button. At the bottom of the page, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 34: Get Clock State

Associated CLI Command(s): `get_clock_state`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16

Table 31: Get Clock State applicable target FRUs

4.3.7 Set Clock State

Description: enable or disable a given clock on a given FRU

The screenshot shows the 'Set Clock State' configuration page. The left sidebar has a 'Set Clock State' link highlighted. The main form contains fields for IPMB Address, FRU ID, Clock ID, and Device ID. Under 'PLL', there are radio buttons for Default, Use, and Bypass. Under 'Clock Role', there are radio buttons for Clock Source and Clock Receiver. Under 'Clock State', there are radio buttons for Enable and Disable. At the bottom are fields for Clock Family, Accuracy, and Frequency (Hz, KHz, MHz), followed by a 'Submit' button.

Figure 35: Set Clock State

Associated CLI Command(s): `set_clock_state`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16

Table 32: Set Clock State applicable target FRUs

4.4 Sensors

This section covers the commands associated with sensors, as listed in the **Sensors** menu.

4.4.1 List Sensors

Description: display a list of sensors at a given address (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS** (highlighted in blue)
- List Sensors (selected)
- Sensor Information
- Sensor Reading
- Get Sensor Event Enables
- Set Sensor Event Enables
- Get Sensor Thresholds
- Set Sensor Thresholds
- Get Sensor Hysteresis
- Set Sensor Hysteresis

The main content area is titled "List Sensors". It includes a form with the following fields:

- IPMB Address:
- LUN:
- Sensor Type:
- Display Raw Readings:

A "Submit" button is located below the form. At the bottom of the page, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 36: List Sensors

Associated CLI Command(s): `list_sensors`

Applicable Target FRUs:

Entity	Access Address(es)
Shelf Manager	20h
Carrier Manager	82h - A0h

Table 33: List Sensors applicable target addresses

4.4.2 Sensor Information

Description: display sensor information for a given sensor or for an optionally filtered list of sensors

Sensor Information

IPMB Address:

LUN:

Sensor Type:

Sensor Number:

Dump Raw

Submit

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Figure 37: Sensor Information

Associated CLI Command(s): `get_sensor_info`

Applicable Target FRUs:

Entity	Access Address(es)
Shelf Manager	20h
Carrier Manager	82h – A0h

Table 34: Sensor Information applicable target addresses

4.4.3 Sensor Reading

Description: display the sensor reading for a given sensor or readings for an optionally filtered list of sensors

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top header features the VadaTech logo and the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS** (highlighted)
- List Sensors
- Sensor Information
- Sensor Reading** (highlighted)
- Get Sensor Event Enables
- Set Sensor Event Enables
- Get Sensor Thresholds
- Set Sensor Thresholds
- Get Sensor Hysteresis
- Set Sensor Hysteresis

The main content area is titled "Sensor Reading". It includes input fields for IPMB Address, LUN, Sensor Type, and Sensor Number, followed by a "Submit" button.

At the bottom of the page, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 38: Sensor Reading

Associated CLI Command(s): `get_sensor_reading`

Applicable Target FRUs:

Entity	Access Address(es)
Shelf Manager	20h
Carrier Manager	82h – A0h

Table 35: Sensor Reading applicable target addresses

4.4.4 Get Sensor Event Enables

Description: display sensor event generation capabilities for a given sensor or for an optionally filtered list of sensors

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top header features the VadaTech logo and the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with the following categories and sub-links:

- SYSTEM MANAGEMENT**
- FRU MANAGEMENT**
- E-KEYING**
- SENSORS**
 - List Sensors
 - Sensor Information
 - Sensor Reading
 - Get Sensor Event Enables** (highlighted)
 - Set Sensor Event Enables
 - Get Sensor Thresholds
 - Set Sensor Thresholds
 - Get Sensor Hysteresis
 - Set Sensor Hysteresis
- COOLING MANAGEMENT**
- POWER**
- SYSTEM EVENT LOG**
- LEDs**
- LAN**
- ALARMS**
- ALERTING**
- ADMINISTRATION**
- RUN COMMAND**
- HELP**
- VERSION**

The main content area is titled "Get Sensor Event Enables". It contains four input fields in a grid:

IPMB Address:	<input type="text"/>
LUN:	<input type="text"/>
Sensor Type:	<input type="text"/>
Sensor Number:	<input type="text"/>

A "Submit" button is located below the input fields.

At the bottom right of the content area, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 39: Get Sensor Event Enables

Associated CLI Command(s): `get_sensor_event_enable`

Applicable Target FRUs:

Entity	Access Address(es)
Shelf Manager	20h
Carrier Manager	82h – A0h

Table 36: Get Sensor Event Enables applicable target addresses

4.4.5 Set Sensor Event Enables

Description: set event generation capabilities for a given sensor

The screenshot shows the 'Set Sensor Event Enables' page. The left sidebar has a 'SENSORS' section with 'Set Sensor Event Enables' highlighted. The main form has fields for IPMB Address, LUN, Sensor Number, Event Messaging (radio buttons for Yes/No), Sensor Scanning (radio buttons for Yes/No), Individual Event (radio buttons for Enable/Disable), Assertion Mask, and Deassert Mask. A 'Submit' button is at the bottom.

Figure 40: Set Sensor Event Enables

Associated CLI Command(s): `set_sensor_event_enable`

Applicable Target FRUs:

Entity	Access Address(es)
Shelf Manager	20h
Carrier Manager	82h – A0h

Table 37: Set Sensor Event Enables applicable target addresses

4.4.6 Get Sensor Thresholds

Description: display sensor threshold values for a given sensor or for an optionally filtered list of sensors

The screenshot shows the 'Get Sensor Thresholds' page of the VadaTech MicroTCA Shelf Manager Web Interface. The left sidebar contains a navigation menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS** (highlighted)
- List Sensors
- Sensor Information
- Sensor Reading
- Get Sensor Event Enables
- Set Sensor Event Enables
- Get Sensor Thresholds** (highlighted)
- Set Sensor Thresholds
- Get Sensor Hysteresis
- Set Sensor Hysteresis
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING
- ADMINISTRATION
- RUN COMMAND
- HELP
- VERSION

The main content area is titled 'Get Sensor Thresholds'. It contains the following form fields:

IPMB Address:	<input type="text"/>
LUN:	<input type="text"/>
Sensor Type:	<input type="text"/>
Sensor Number:	<input type="text"/>

A 'Submit' button is located below the form fields.

At the bottom right of the page, there is a copyright notice: Copyright (c) 2005-2009 VadaTech Incorporated.

Figure 41: Get Sensor Thresholds

Associated CLI Command(s): `get_sensor_threshold`

Applicable Target FRUs:

Entity	Access Address(es)
Shelf Manager	20h
Carrier Manager	82h – A0h

Table 38: Get Sensor Thresholds applicable target addresses

4.4.7 Set Sensor Thresholds

Description: set sensor threshold values for a given sensor

The screenshot shows the 'Set Sensor Thresholds' page of the VadaTech MicroTCA Shelf Manager Web Interface. The left sidebar contains a navigation menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT**
- E-KEYING
- SENSORS**
- List Sensors
- Sensor Information
- Sensor Reading
- Get Sensor Event Enables
- Set Sensor Event Enables
- Get Sensor Thresholds
- Set Sensor Thresholds**
- Get Sensor Hysteresis
- Set Sensor Hysteresis
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING
- ADMINISTRATION
- RUN COMMAND
- HELP
- VERSION

The main content area has a title 'Set Sensor Thresholds'. It includes a form with the following fields:

IPMB Address:	<input type="text"/>
LUN:	<input type="text"/>
Sensor Number:	<input type="text"/>
Low Non Critical:	<input type="text"/>
Low Critical:	<input type="text"/>
Low Non Recoverable:	<input type="text"/>
Upper Non Critical:	<input type="text"/>
Upper Critical:	<input type="text"/>
Upper Non Recoverable:	<input type="text"/>

A 'Submit' button is located at the bottom of the form.

Figure 42: Set Sensor Thresholds

Associated CLI Command(s): `set_sensor_threshold`

Applicable Target FRUs:

Entity	Access Address(es)
Shelf Manager	20h
Carrier Manager	82h – A0h

Table 39: Set Sensor Thresholds applicable target addresses

4.4.8 Get Sensor Hysteresis

Description: display sensor hysteresis values for a given sensor or for an optionally filtered list of sensors

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top header features the VadaTech logo and the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with the following categories and links:

- SYSTEM MANAGEMENT**
- FRU MANAGEMENT**
- E-KEYING**
- SENSORS** (selected)
- List Sensors
- Sensor Information
- Sensor Reading
- Get Sensor Event Enables
- Set Sensor Event Enables
- Get Sensor Thresholds
- Set Sensor Thresholds
- Get Sensor Hysteresis** (selected)
- Set Sensor Hysteresis
- COOLING MANAGEMENT**
- POWER**
- SYSTEM EVENT LOG**
- LEDs
- LAN
- ALARMS
- ALERTING
- ADMINISTRATION
- RUN COMMAND
- HELP
- VERSION

The main content area is titled "Get Sensor Hysteresis". It contains four input fields with labels: "IPMB Address:", "LUN:", "Sensor Type:", and "Sensor Number:". Below these fields is a "Submit" button. At the bottom of the page, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 43: Get Sensor Hysteresis

Associated CLI Command(s): `get_sensor_hysteresis`

Applicable Target FRUs:

Entity	Access Address(es)
Shelf Manager	20h
Carrier Manager	82h – A0h

Table 40: Get Sensor Hysteresis applicable target addresses

4.4.9 Set Sensor Hysteresis

Description: set sensor hysteresis values for a given sensor

The screenshot shows the 'Set Sensor Hysteresis' page of the VadaTech MicroTCA Shelf Manager Web Interface. The left sidebar contains a vertical menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS**
- List Sensors
- Sensor Information
- Sensor Reading
- Get Sensor Event Enables
- Set Sensor Event Enables
- Get Sensor Thresholds
- Set Sensor Thresholds
- Get Sensor Hysteresis
- Set Sensor Hysteresis**
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING
- ADMINISTRATION
- RUN COMMAND
- HELP
- VERSION

The main content area has a title 'Set Sensor Hysteresis'. Below it is a form with the following fields:

IPMB Address:	<input type="text"/>
LUN:	<input type="text"/>
Sensor Number:	<input type="text"/>
Positive-Going Hysteresis:	<input type="text"/>
Negative-Going Hysteresis:	<input type="text"/>

At the bottom of the page is a copyright notice: Copyright (c) 2005-2009 VadaTech Incorporated.

Figure 44: Set Sensor Hysteresis

Associated CLI Command(s): `set_sensor_hysteresis`

Applicable Target FRUs:

Entity	Access Address(es)
Shelf Manager	20h
Carrier Manager	82h – A0h

Table 41: Set Sensor Hysteresis applicable target addresses

4.5 Cooling Management

This section covers the commands associated with Cooling Management, as listed in the **Cooling Management** menu.

4.5.1 Fan Tray Population

Description: display the locations of all Fan Trays installed in the Shelf
Associated CLI Command(s): `list_fan_trays`

4.5.2 Fan Geography

Description: display the Fan Tray to FRU connections
Associated CLI Command(s): `get_fan_geography`

4.5.3 Get Fan Level

Description: display the current Fan Tray fan operating speed level

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Figure 45: Get Fan Level

Associated CLI Command(s): `get_fan_level`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
CU	82h – A0h	40 – 41

Table 42: Get Fan Level applicable target FRUs

4.5.4 Set Fan Level

Description: set the current operating fan speed level for a given Fan Tray

The screenshot shows the 'Set Fan Level' page of the VadaTech MicroTCA Shelf Manager Web Interface. The left sidebar contains a vertical menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS
- COOLING MANAGEMENT**
- Fan Tray Population
- Fan Geography
- Get Fan Level
- Set Fan Level** (highlighted)
- Fan Information
- Get Cooling Parameters
- Set Cooling Parameters
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING
- ADMINISTRATION
- RUN COMMAND
- HELP
- VERSION

The main content area has a title 'Set Fan Level'. Below it is a form with three input fields:

- IPMB Address:
- FRU ID:
- Fan Level:

Below the form is a 'Submit' button.

At the bottom of the page, there is a copyright notice: Copyright (c) 2005-2009 VadaTech Incorporated.

Figure 46: Set Fan Level

Associated CLI Command(s): `set_fan_level`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
CU	82h – A0h	40 – 41

Table 43: Set Fan Level applicable target FRUs

4.5.5 Fan Information

Description: display the Fan Tray properties and hotswap status

The screenshot shows the 'Fan Information' page of the VadaTech MicroTCA Shelf Manager Web Interface. The left sidebar contains a vertical list of management categories: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The 'COOLING MANAGEMENT' section is expanded, showing sub-options: Fan Tray Population, Fan Geography, Get Fan Level, Set Fan Level, Fan Information (which is selected and highlighted in blue), Get Cooling Parameters, and Set Cooling Parameters. The main content area has a title 'Fan Information'. Below it is a form with two input fields: 'IPMB Address:' and 'FRU ID:', each with a small input box. A 'Submit' button is located below the form. At the bottom right of the content area, there is a copyright notice: 'Copyright (c) 2005-2009 VadaTech Incorporated'.

Figure 47: Fan Information

Associated CLI Command(s): `get_fan_info`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
CU	82h – A0h	40 – 41

Table 44: Fan Information applicable target FRUs

4.5.6 Get Cooling Parameters

Description: display the Shelf cooling management parameters
Associated CLI Command(s): `get_cooling_parameters`

4.5.7 Set Cooling Parameters

Description: set the cooling management parameters

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". A vertical navigation menu on the left includes: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT (which is selected), Fan Tray Population, Fan Geography, Get Fan Level, Set Fan Level, Fan Information, Get Cooling Parameters, Set Cooling Parameters (which is highlighted), POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The main content area is titled "Set Cooling Parameters". It contains several input fields: "Normal Level:" with a dropdown menu, "Increment Level:" with a dropdown menu, "Decrement Level:" with a dropdown menu, "Readiness Allowance (seconds):" with a dropdown menu, and "Monitor Cycle (seconds):" with a dropdown menu. Below these is a group of radio buttons: "Enable" and "Disable", with "Enable" being selected. At the bottom of the form is a "Submit" button. A watermark of a stylized eye is visible in the background of the form area. At the very bottom of the page is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 48: Set Cooling Parameters

Associated CLI Command(s): `set_cooling_parameters`

4.6 Power

This section covers the commands associated with power, as listed in the **Power** menu.

4.6.1 Power Management Information

Description: display the FRU activation sequence for a given Carrier

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top header features the VadaTech logo and the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- Power Management Information!** (highlighted in red)
- Power Feed Status
- Power Channel Status
- Power Feed Reset
- Power Feed Control
- Power Policy

The main content area is titled "Power Management Information". It includes a form field labeled "IPMB Address:" with a text input box, and a "Submit" button. At the bottom of the page, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 49: Power Management Information

Associated CLI Command(s): `get_power_management_info`

Applicable Target FRUs:

Entity	Access Address
PM	82h – A0h

Table 45: Power Management Information applicable target FRUs

4.6.2 Power Feed Status

Description: display the status information for a given Power Module (requires redundant PMs)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo and slogan "THE POWER OF VISION". A vertical navigation menu on the left includes: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, Power Management Information (with sub-options: Power Feed Status, Power Channel Status, Power Feed Reset, Power Feed Control, Power Policy), SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The main content area is titled "Power Feed Status". It contains two input fields: "Power Feed IPMB Address : ", "Power Feed FRU ID : ", and a "Submit" button. A watermark of a stylized eye is visible in the background of the content area. At the bottom right of the content area is the copyright notice "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 50: Power Feed Status

Associated CLI Command(s): `get_power_feed_status`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
PM	82h – A0h	50 – 53

Table 46: Power Feed Status applicable target FRUs

4.6.3 Power Channel Status

Description: display global and local power status information for a specified channel or for all channels (default)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top header features the VadaTech logo and the tagline "THE POWER OF VISION". The left sidebar contains a vertical menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER**
- Power Management Information
- Power Feed Status
- Power Channel Status** (highlighted in blue)
- Power Feed Reset
- Power Feed Control
- Power Policy

The main content area is titled "Power Channel Status". It contains three input fields with labels: "Power Feed IPMB Address : ", "Power Feed FRU ID : ", and "Power Channel Number : ". Below these fields is a "Submit" button.

At the bottom of the page, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 51: Power Channel Status

Associated CLI Command(s): `get_power_channel_status`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
PM	82h - A0h	50 - 53

Table 47: Power Channel Status applicable target FRUs

4.6.4 Power Feed Reset

Description: reset a given Power Module by a given backup Power Module (requires redundant Power Module)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo and slogan "THE POWER OF VISION". A vertical navigation menu on the left includes: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, Power Management Information, Power Feed Status, Power Channel Status, Power Feed Reset (which is selected), Power Feed Control, and Power Policy. Below this is another set of links: SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The main content area is titled "Power Feed Reset". It contains three input fields: "Carrier IPMB Address" (with an empty input field), "FRU ID of Power Feed to Handle Reset" (with an empty input field), and "FRU ID of Power Feed to Reset" (with an empty input field). A "Submit" button is located below these fields. At the bottom right of the content area is the copyright notice "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 52: Power Feed Reset

Associated CLI Command(s): `power_feed_reset`

Applicable Target FRUs:

Entity	Access Address	Target FRU(s)
PM	82h – A0h	50 – 53

Table 48: Power Feed Reset applicable target FRUs

4.6.5 Power Feed Control

Description: send a Chassis control request to a given Power Module

Figure 53: Power Feed Control

Associated CLI Command(s): `power_feed_control`

Applicable Target FRUs:

Entity	Access Address	Target FRU(s)
PM	82h – A0h	50 – 53

Table 49: Power Feed Control applicable target FRUs

4.6.6 Power Policy

Description: display the power policy configuration for a given Carrier

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". A vertical navigation menu on the left includes: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, Power Management Information, Power Feed Status, Power Channel Status, Power Feed Reset, Power Feed Control, and Power Policy (which is selected). Other menu items include: SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The main content area is titled "Power Policy". It contains a form with an "IPMB Address:" field containing "82h - A0h" and a "Submit" button. A large watermark of a stylized eye is visible in the background of the content area.

Figure 54: Power Policy

Associated CLI Command(s): `get_power_policy`

Applicable Target FRUs:

Entity	Access Address
Carrier	82h - A0h

Table 50: Power Policy applicable target FRUs

4.7 System Event Log

This section covers the commands associated with System Event Logs (SELs), as listed in the **System Event Log** menu.

4.7.1 SEL Allocation Information

Description: display information about a Management Controller's SEL

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". A vertical navigation bar on the left contains links for SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, SEL Allocation Information (which is highlighted in yellow), Query SEL Event, and Clear SEL. Below the navigation bar are links for LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The main content area is titled "SEL Allocation Information". It features two input fields: "IPMB Address:" and "FRU ID:", each with a dropdown arrow icon. Below these fields is a "Submit" button. At the bottom of the page is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 55: SEL Allocation Information

Associated CLI Command(s): `get_sel_info`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 51: SEL Allocation Information applicable target FRUs

4.7.2 Query SEL Event

Description: display the contents of a given SEL item, or all items in the SEL located at the given address (default is Shelf Manager), filtered by sensor type, physical location, and/or sensor number

The screenshot shows the 'Query SEL Event' page of the VadaTech MicroTCA Shelf Manager Web Interface. The top navigation bar includes links for SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, SEL Allocation Information, Query SEL Event (which is highlighted in blue), and Clear SEL. The main content area has a title 'Query SEL Event' and a form with the following fields:

IPMB Address:	<input type="text"/>		
FRU ID:	<input type="text"/>		
Item Number:	<input type="text"/> --OR-- Sensor Type :	<input type="text"/>	
		FRU IPMB Address:	<input type="text"/>
		Sensor Number :	<input type="text"/>
Verbose:	<input type="checkbox"/> --OR-- Dump Raw:	<input type="checkbox"/>	

A 'Submit' button is located below the form.

At the bottom of the page, there is a copyright notice: Copyright (c) 2005-2009 VadaTech Incorporated.

Figure 56: Query SEL Event

Associated CLI Command(s): `get_sel`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 52: Query SEL Event applicable target FRUs

4.7.3 Clear SEL

Description: erase the contents of a given SEL

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". The left sidebar contains a vertical menu with the following items: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, SEL Allocation Information, Query SEL Event, and Clear SEL (which is highlighted). The main content area has a title "Clear SEL" and two input fields: "IPMB Address:" and "FRU ID:". Below these fields is a "Submit" button. At the bottom of the page, a copyright notice reads "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 57: Clear SEL

Associated CLI Command(s): `clear_sel`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 53: Clear SEL applicable target FRUs

4.8 LEDs

This section covers the commands associated with LEDs, as listed in the **LEDs** menu.

4.8.1 LED Color Capabilities

Description: display a list of LEDs and the colors supported by each for a given FRU (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top navigation bar includes links for SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, and LEDs. The LEDs link is currently selected, highlighted in blue. A sub-menu under LEDs lists "LED Color Capabilities", "Led Properties", "Get LED State", and "Set LED State". The main content area is titled "LED Color Capabilities". It contains three input fields: "IPMB Address:" with a dropdown menu, "FRU ID:" with a dropdown menu, and "LED ID:" with a dropdown menu. Below these fields is a "Submit" button. At the bottom of the page, a copyright notice reads "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 58: LED Color Capabilities

Associated CLI Command(s): `get_led_color_capabilities`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 54: LED Color Capabilities applicable target FRUs

4.8.2 LED Properties

Description: display a list of LEDs controlled by a given FRU (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top navigation bar includes the VadaTech logo and the slogan "THE POWER OF VISION". The left sidebar contains a vertical menu with the following items: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LED Color Capabilities, Led Properties (which is selected and highlighted in blue), Get LED State, Set LED State, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The main content area is titled "LED Properties". It features two input fields: "IPMB Address:" and "FRU ID:", each with a small input box. Below these fields is a "Submit" button. At the bottom of the page, a copyright notice reads "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 59: LED Properties

Associated CLI Command(s): `get_led_properties`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 55: LED Properties applicable target FRUs

4.8.3 Get LED State

Description: display the state for a given LED on a given FRU

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs** (highlighted)
- LED Color Capabilities
- Led Properties
- Get LED State** (highlighted)
- Set LED State

The main content area is titled "Get LED State". It contains three input fields: "IPMB Address:", "FRU ID:", and "LED ID:". Below these fields is a "Submit" button. At the bottom of the page, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 60: Get LED State

Associated CLI Command(s): `get_led_state`

Applicable Target FRUs:

Entity	Access Address	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 56: Get LED State applicable target FRUs

4.8.4 Set LED State

Description: set the state for a given LED on a given FRU

The screenshot shows the 'Set LED State' page of the VadaTech MicroTCA Shelf Manager. The top navigation bar includes the VadaTech logo and the slogan 'THE POWER OF VISION'. The left sidebar contains a vertical menu with the following items: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LED Color Capabilities, Led Properties, Get LED State, and Set LED State. The 'Set LED State' item is currently selected and highlighted. The main content area has a title 'Set LED State'. It contains input fields for 'IPMB Address' (with a dropdown arrow), 'FRU ID' (with a dropdown arrow), and 'LED ID' (with a dropdown arrow). Below these are five radio button options: 'Lamp Test' (selected), 'Off Override', 'On Override', 'Restore to Local Control', and 'Blink'. There are also two input fields for 'LED On Duration (blink in 1/100 s, lamp test in 1/10 s)' and 'LED Off Duration (blink in 1/100 s)'. A 'Submit' button is located at the bottom of the form. The bottom navigation bar includes links for LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. Copyright information 'Copyright (c) 2005-2009 VadaTech Incorporated' is also present.

Figure 61: Set LED State

Associated CLI Command(s): `set_led_state`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 57: Set LED State applicable target FRUs

4.9 LAN

This section covers the commands associated with the LAN, as listed in the **LAN** menu.

4.9.1 Get LAN Configuration

Description: display local area network parameters for a given channel

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is a blue header bar with the VadaTech logo and the slogan "THE POWER OF VISION". Below the header is a navigation menu on the left with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN** (highlighted)
- Get LAN Configuration
- Set LAN Configuration
- Get Channel Access
- Set Channel Access
- List Channel Cipher Suites
- Channel Information
- List Active Sessions
- Session Information
- Get IP Connection
- Set IP Connection

Below the navigation menu is the main content area. The title "Get LAN Configuration" is displayed. To its right is a form with the following fields:

Channel Number:	<input type="text"/>			
Parameter:	<input type="text"/>	<input type="text"/>		
Set:	<input type="text"/>	--OR--	Revision:	<input type="checkbox"/>
Dump Raw:	<input type="checkbox"/>			

At the bottom of the content area is a "Submit" button. At the very bottom of the page is a dark blue footer bar with the copyright notice "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 62: Get LAN Configuration

Associated CLI Command(s): `get_lan_config_parameters`

4.9.2 Set LAN Configuration

Description: configure local area network parameters for a given channel

The screenshot shows a web-based management interface for a VadaTech MicroTCA Shelf Manager. The top navigation bar includes the VadaTech logo and the slogan "THE POWER OF VISION". A vertical sidebar on the left contains a menu with several sections: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The "Set LAN Configuration" option under the LAN section is currently selected and highlighted. The main content area is titled "Set LAN Configuration Parameters". It features a form with four input fields: "Channel Number" (with a dropdown menu), "Parameter" (with a dropdown menu), "Data" (a text input field), and "String" (a text input field). Below the form is a "Submit" button. A watermark of a stylized eye is visible in the background of the main content area. At the bottom of the page, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 63: Set LAN Configuration

Associated CLI Command(s): `set_lan_config_parameters`

4.9.3 Get Channel Access

Description: display whether a given channel at a given address (default is Shelf Manager) is enabled or disabled, whether alerting is enabled or disabled, and under which system modes the channel can be accessed

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Figure 64: Get Channel Access

Associated CLI Command(s): `get_channel_access`

Applicable Target FRUs:

Entity	Access Address(es)
Shelf	20h
Carrier	82h – A0h

Table 58: Get Channel Access applicable target FRUs

4.9.4 Set Channel Access

Description: update a given channel at a given address (default is Shelf Manager) to be enabled or disabled, to have alerting enabled or disabled, and/or to a given maximum privilege level limit

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top header features the VadaTech logo and the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with the following items under the "LAN" section: Get LAN Configuration, Set LAN Configuration, Get Channel Access, **Set Channel Access**, List Channel Cipher Suites, Channel Information, List Active Sessions, Session Information, Get IP Connection, and Set IP Connection. The "Set Channel Access" item is highlighted with a blue border. The main content area is titled "Set Channel Access" and contains a form with the following fields: IPMB Address (input field), Channel Number (input field), Privilege Level (input field), PEF Enable (radio buttons for Enable and Disable), Per-Message Authorization (radio buttons for Enable and Disable), User-Level Authorization (radio buttons for Enable and Disable), and Non-Volatile (checkbox). A "Submit" button is located below the form.

Figure 65: Set Channel Access

Associated CLI Command(s): **set_channel_access**

Applicable Target FRUs:

Entity	FRU ID(s)
Shelf	20h
Carrier	82h - A0h

Table 59: Set Channel Access applicable target FRUs

4.9.5 List Channel Cipher Suites

Description: display supported authentication, integrity, and confidentiality algorithms for a given channel at a given address (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo and slogan 'THE POWER OF VISION'. A vertical sidebar on the left contains a navigation menu with sections like SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. Under the LAN section, 'List Channel Cipher Suites' is highlighted. The main content area has a title 'List Channel Cipher Suites' and a form with fields for 'IPMB Address:' (with a dropdown menu), 'Channel Number:' (with a dropdown menu), and 'All:' (with a checkbox). A 'Submit' button is below the form. At the bottom right of the content area is the copyright notice 'Copyright (c) 2005-2009 VadaTech Incorporated'.

Figure 66: List Channel Cipher Suites

Associated CLI Command(s): `get_channel_cipher_suites`

Applicable Target FRUs:

Entity	Access Address(es)
Shelf	20h
Carrier	82h – A0h

Table 60: List Channel Cipher Suites applicable target FRUs

4.9.6 Channel Information

Description: display media and protocol information about a given channel at a given address (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". A vertical navigation menu on the left includes links for SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The "CHANNEL INFORMATION" link under the LAN section is highlighted. The main content area is titled "Channel Information" and contains fields for "IPMB Address:" and "Channel Number:", both with empty input boxes. Below these fields is a "Submit" button. At the bottom of the page is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 67: Channel Information

Associated CLI Command(s): `get_channel_info`

Applicable Target FRUs:

Entity	FRU ID(s)
Shelf	20h
Carrier	82h - A0h

Table 61: Channel Information applicable target FRUs

4.9.7 List Active Sessions

Description: display a list of active RMCP sessions for a given manager (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo and slogan 'THE POWER OF VISION'. A vertical navigation menu on the left includes: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN (which is selected), ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. Under the LAN section, 'List Active Sessions' is also selected. The main content area is titled 'List Active Sessions' and contains a form with an 'IPMB Address:' input field and a 'Submit' button. At the bottom right of the content area is the copyright notice 'Copyright (c) 2005-2009 VadaTech Incorporated'.

Figure 68: List Active Sessions

Associated CLI Command(s): `list_active_sessions`

Applicable Target FRUs:

Entity	FRU ID(s)
Shelf	20h
Carrier	82h - A0h

Table 62: List Active Sessions Applicable Target FRUs

4.9.8 Session Information

Description: display session information for a given session or current session, at a given address (default is current session on Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo and slogan "THE POWER OF VISION". A left sidebar contains a navigation menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN**
- Get LAN Configuration
- Set LAN Configuration
- Get Channel Access
- Set Channel Access
- List Channel Cipher Suites
- Channel Information
- List Active Sessions
- Session Information**
- Get IP Connection
- Set IP Connection

Below the menu is a main content area titled "Session Information". It contains two input fields: "IPMB Address:" and "Session Index:", followed by a separator "--OR--" and another input field "Session Handle:". Below these fields is a "Submit" button.

At the bottom right of the content area is the copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 69: Session Information

Associated CLI Command(s): `get_session_info`

Applicable Target FRUs:

Entity	FRU ID(s)
Shelf	20h
Carrier	82h – A0h

Table 63: Session Information applicable target FRUs

4.9.9 Get IP Connection

Description: display the system network configuration for a given manager (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top, there is a logo for 'vadatech inc' with the tagline 'THE POWER OF VISION'. A vertical navigation menu on the left includes links for SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The 'LAN' section is currently selected. Below the menu, the main content area has a title 'Get IP Connection'. It contains a form field labeled 'IPMB Address:' with a text input box and a 'Submit' button. In the bottom right corner of the content area, there is a copyright notice: 'Copyright (c) 2005-2009 VadaTech Incorporated'.

Figure 70: Get IP Connection

Associated CLI Command(s): `get_ip_connection`

Applicable Target FRUs:

Entity	Access Address
Shelf Manager	20h
Carrier Manager	82h – A0h

Table 64: Get IP Connection applicable target FRUs

4.9.10 Set IP Connection

Description modify the network interfaces with which an external application may communicate with the Shelf Manager

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". A vertical navigation menu on the left includes links for SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, Get LAN Configuration, Set LAN Configuration, Get Channel Access, Set Channel Access, List Channel Cipher Suites, Channel Information, List Active Sessions, Session Information, Get IP Connection, Set IP Connection, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The "Set IP Connection" link under LAN is highlighted. The main content area is titled "Set IP Connection" and contains fields for Primary Shelf IP Address, Primary Gateway Address, Primary Netmask, Secondary Shelf IP Address, Secondary Gateway Address, and Secondary Netmask, each with an associated input field. A "Submit" button is located below these fields. The bottom of the page has a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 71: Set IP Connection

Associated CLI Command(s): `set_ip_connection`

4.10 Alarms

This section covers the commands associated with alarms, as listed in the **Alarms** menu.

4.10.1 Alarm Status

Description: display the active alarms and whether or not the alarm cut-off is enabled for the Shelf (default) or a given Carrier

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo and slogan "THE POWER OF VISION". A vertical navigation bar on the left contains links for SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The ALARMS link is currently selected. The main content area has a title "Alarm Status" and a sub-section titled "Carrier Number:" with a text input field. Below the input field is a "Submit" button. At the bottom of the page is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 72: Alarm Status

Associated CLI Command(s): `alarm_status`

Applicable Target FRUs:

Entity	Carrier Numbers
Shelf	<blank>
Carrier	1 - 16

Table 65: Alarm Status applicable target FRUs

4.10.2 Alarm Clear

Description: remove a triggered alarm from the list of active alarms

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". A vertical navigation menu on the left includes links for SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The "ALARMS" link is currently selected. The main content area is titled "Alarm Clear". It contains input fields for "FRU Address" (with two empty text boxes), "FRU ID" (with one empty text box), "Event Code" (with one empty text box), "Sensor Number" (with one empty text box), and "Sensor Type" (with one empty text box). Below these fields is a "Submit" button. In the bottom right corner of the content area, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 73: Alarm Clear

Associated CLI Command(s): `alarm_clear`

Applicable Target FRUs:

Entity	Access Address(es)	FRU ID(s)
Shelf Manager	20h	0
Carrier Manager	82h – A0h	0
MCH	82h – A0h	3 – 4
AMC	82h – A0h	5 – 16
CU	82h – A0h	40 – 41
PM	82h – A0h	50 – 53

Table 66: Alarm Clear applicable target FRUs

4.10.3 Alarm Reset

Description: turn off alarm LEDs and silence Telco alarms for a given amount of time on a given Carrier

Alarm Reset

Carrier Number:

Timeout Interval (minutes):

Submit

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Figure 74: Alarm Reset

Associated CLI Command(s): `alarm_reset`

Applicable Target FRUs:

Entity	Carrier Number
Carrier	1 - 16

Table 67: Alarm Reset applicable target FRUs

4.10.4 List Event Code Descriptions

Description: describe Shelf Manager diagnostics event codes
Associated CLI Command(s): `list_event_code_description`

4.10.5 Telco Alarm Capabilities

Description: display the Telco alarm states and modes available for a given Carrier

The screenshot shows a web interface for 'vadatech inc THE POWER OF VISION'. On the left, a vertical menu bar lists various management functions: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The 'ALARMS' section is currently selected. Under 'ALARMS', there are links for 'Alarm Status', 'Alarm Clear', 'Alarm Reset', 'List Event Code Descriptions', 'Telco Alarm Capabilities' (which is highlighted), 'Get Telco Alarm State', and 'Set Telco Alarm State'. The main content area is titled 'Telco Alarm Capabilities'. It contains a text input field labeled 'Carrier Number:' with a placeholder box, a 'Submit' button, and a large watermark of a stylized eye.

Figure 75: Telco Alarm Capabilities

Associated CLI Command(s): `get_telco_capabilities`

Applicable Target FRUs:

Entity	Carrier Number
Carrier	1 - 16

Table 68: Telco Alarm Capabilities applicable target FRUs

4.10.6 Get Telco Alarm State

Description: display the Telco alarm state for a given alarm or all alarms (default) on a given Carrier

Figure 76: Get Telco Alarm State

Associated CLI Command(s): `get_telco_alarm_state`

Applicable Target FRUs:

Entity	Carrier Number
Carrier	1 - 16

Table 69: Get Telco Alarm State applicable target FRUs

4.10.7 Set Telco Alarm State

Description: configure the active Telco alarms for a given Carrier

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with the following items: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The "ALARMS" section is expanded, showing sub-options: Alarm Status, Alarm Clear, Alarm Reset, List Event Code Descriptions, Telco Alarm Capabilities, Get Telco Alarm State, and Set Telco Alarm State. The "Set Telco Alarm State" option is highlighted with a dotted border. The main content area is titled "Set Telco Alarm State". It contains a form with the following fields: "Carrier Number:" (input field), "Minor" (radio button), "Major" (radio button), "Critical" (radio button), "Power Indicator" (radio button), "Alarm Cutoff" (radio button), "Enable" (radio button), "Disable" (radio button), and "Test" (radio button). Below the form is a "Submit" button. At the bottom of the page is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 77: Set Telco Alarm State

Associated CLI Command(s): `set_telco_alarm_state`

Applicable Target FRUs:

Entity	Carrier Number
Carrier	1 - 16

Table 70: Set Telco Alarm State applicable target FRUs

4.11 Alerting

This section covers the commands associated with alerting, as listed in the **Alerting** menu.

4.11.1 Get PEF Configuration

Description: display parameters related to platform event filtering

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top navigation bar includes the VadaTech logo and the slogan "THE POWER OF VISION". The left sidebar contains a vertical menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING** (highlighted in blue)
- Get PEF Configuration (selected)
- Set PEF Configuration
- SNMP Trap Information
- SNMP Trap Enable
- SNMP Trap Addresses
- SNMP Traps Remove Address
- SNMP Trap Set Address
- SNMP Trap Test

The main content area is titled "Get PEF Configuration". It features a search form with fields for "Parameter", "Set", "Revision", and "Dump Raw", along with an "OR" operator selector. A "Submit" button is located below the form. At the bottom of the page, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 78: Get PEF Configuration

Associated CLI Command(s): `get_pef_config_parameters`

4.11.2 Set PEF Configuration

Description: set a given platform event filter parameter

The screenshot shows a web-based management interface for a VadaTech MicroTCA Shelf Manager. The top navigation bar includes the VadaTech logo and the slogan "THE POWER OF VISION". A vertical sidebar on the left contains links for various system management functions: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The ALERTING section is currently active, with its sub-links visible: Get PEF Configuration, Set PEF Configuration (which is highlighted), SNMP Trap Information, SNMP Trap Enable, SNMP Trap Addresses, SNMP Traps Remove Address, SNMP Trap Set Address, and SNMP Trap Test. The main content area is titled "Set PEF Configuration Parameters" and contains three input fields: "Parameter" (with an empty input box), "Data" (with an empty input box), and "String" (with an empty input box). Below these fields is a "Submit" button. At the bottom of the page, a copyright notice reads "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 79: Set PEF Configuration

Associated CLI Command(s): `set_pef_config_parameters`

4.11.3 SNMP Trap Information

Description: display the status of SNMP traps and available trap destinations
Associated CLI Command(s): `get_snmp_trap_info`

4.11.4 SNMP Trap Enable

Description: enable or disable SNMP traps on a given channel

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top navigation bar includes the VadaTech logo and the slogan "THE POWER OF VISION". The left sidebar contains a vertical menu with the following items: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING (which is currently selected), Get PEF Configuration, Set PEF Configuration, SNMP Trap Information, SNMP Trap Enable (which is currently selected), SNMP Trap Addresses, SNMP Traps Remove Address, SNMP Trap Set Address, and SNMP Trap Test. The main content area is titled "SNMP Trap Enable". It features a form with two radio buttons: "Enable" and "Disable" for "SNMP Traps", and a text input field for "Channel Number". A "Submit" button is located below the form. A watermark of a stylized eye is visible in the background of the content area. At the bottom of the page, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 80: SNMP Trap Enable

Associated CLI Command(s): `snmp_trap_enable`
`snmp_trap_disable`

4.11.5 SNMP Trap Addresses

Description: display a list of SNMP trap destinations for a given channel

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline "THE POWER OF VISION". The left sidebar contains a navigation menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING** (highlighted)
- Get PEF Configuration
- Set PEF Configuration
- SNMP Trap Information
- SNMP Trap Enable
- SNMP Trap Addresses** (highlighted)
- SNMP Traps Remove Address
- SNMP Trap Set Address
- SNMP Trap Test

The main content area is titled "SNMP Trap Addresses". It features two input fields: "Channel Number:" and "Destination Number:", each with a dropdown arrow icon. Below these fields is a "Submit" button. At the bottom right of the content area is the copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 81: SNMP Trap Addresses

Associated CLI Command(s): `snmp_trap_get_address`

4.11.6 SNMP Trap Remove Address

Description: remove a given SNMP trap destination for a given channel

The screenshot shows a web-based management interface for a VadaTech MicroTCA Shelf Manager. The top navigation bar includes the VadaTech logo and the slogan "THE POWER OF VISION". A vertical sidebar on the left contains a navigation menu with several sections: SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The "ALERTING" section is currently active, as indicated by a blue background. Under "ALERTING", the following sub-options are listed: Get PEF Configuration, Set PEF Configuration, SNMP Trap Information, SNMP Trap Enable, SNMP Trap Addresses, **SNMP Traps Remove Address**, SNMP Trap Set Address, and SNMP Trap Test. The main content area is titled "SNMP Trap Remove Address". It features two input fields: "Channel Number:" and "Destination Number:", each with a small input box. Below these fields is a "Submit" button. The bottom right corner of the content area contains the copyright notice "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 82: SNMP Trap Remove Address

Associated CLI Command(s): `snmp_trap_remove_address`

4.11.7 SNMP Trap Set Address

Description: add or update a given SNMP trap destination address for a given SNMP trap destination number

The screenshot shows a web-based management interface for a VadaTech MicroTCA Shelf Manager. At the top, there is a logo for 'vadatech inc' with the tagline 'THE POWER OF VISION'. A vertical navigation menu on the left includes links for SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING (with sub-links for Get PEF Configuration, Set PEF Configuration, SNMP Trap Information, SNMP Trap Enable, SNMP Trap Addresses, and SNMP Traps Remove Address), ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The 'ALERTING' section is currently active, as indicated by the highlighted background. The main content area is titled 'SNMP Trap Set Address'. It contains three input fields: 'Channel Number:' with a dropdown menu, 'Destination Number:' with a dropdown menu, and 'IP Address:' with a text input field. Below these fields is a 'Submit' button. At the bottom right of the main content area, there is a copyright notice: 'Copyright (c) 2005-2009 VadaTech Incorporated'.

Figure 83: SNMP Trap Set Address

Associated CLI Command(s): `snmp_trap_set_address`

4.11.8 SNMP Trap Test

Description: send a test SNMP trap to a given destination, or get or clear the status of a test alert sent to a given destination, on a given channel

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo and slogan "THE POWER OF VISION". The left sidebar contains a navigation menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING
 - Get PEF Configuration
 - Set PEF Configuration
 - SNMP Trap Information
 - SNMP Trap Enable
 - SNMP Trap Addresses
 - SNMP Traps Remove Address
 - SNMP Trap Set Address
 - SNMP Trap Test** (highlighted)
- ADMINISTRATION
- RUN COMMAND
- HELP
- VERSION

The main content area is titled "SNMP Trap Test". It contains the following form fields:

Channel Number:

Destination Number:

Action:

Get Status

Clear Status

Send Test

At the bottom right of the content area, the copyright notice reads "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 84: SNMP Trap Test

Associated CLI Command(s): `snmp_trap_test`

4.12 Administration

This section covers the commands associated with system administration, as listed in the **Administration** menu.

4.12.1 List Users

Description: display a list of available users at a given manager address (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. At the top is the VadaTech logo with the tagline 'THE POWER OF VISION'. A vertical navigation bar on the left contains links for SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The ADMINISTRATION section is currently selected, and the 'List Users' link is highlighted. The main content area is titled 'List Users' and contains a form with an 'IPMB Address:' input field and a 'Submit' button. At the bottom of the page is a copyright notice: 'Copyright (c) 2005-2009 VadaTech Incorporated'.

Figure 85: List Users

Associated CLI Command(s): `list_users`

Applicable Target FRUs:

Entity	Access Address
Shelf	20h
Carrier	82h - A0h

Table 71: List Users Applicable Target FRUs

4.12.2 List Users Access

Description: display all users' access properties for a given channel, at a given address (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top header features the VadaTech logo and the tagline "THE POWER OF VISION". The left sidebar contains a vertical menu with various management options. The "Administration" section is expanded, showing sub-links for "List Users", "List Users Access" (which is currently selected and highlighted in blue), "Get User Access", "Set User Access", and "Set User Information". The main content area has a title "List Users Access" and two input fields: "IPMB Address:" and "Channel Number:", each with a dropdown arrow icon. Below these fields is a "Submit" button.

Figure 86: List Users Access

Associated CLI Command(s): `list_users_access`

Applicable Target FRUs:

Entity	Access Address
Shelf	20h
Carrier	82h – A0h

Table 72: List Users Access applicable target FRUs

4.12.3 Get User Access

Description: display privilege level and channel accessibility for a given user on a given channel at a given address (default is Shelf Manager)

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top header features the VadaTech logo and the tagline "THE POWER OF VISION". The left sidebar contains a vertical menu with the following items:

- SYSTEM MANAGEMENT
- FRU MANAGEMENT
- E-KEYING
- SENSORS
- COOLING MANAGEMENT
- POWER
- SYSTEM EVENT LOG
- LEDs
- LAN
- ALARMS
- ALERTING
- ADMINISTRATION
 - List Users
 - List Users Access
 - Get User Access**
 - Set User Access
 - Set User Information
- RUN COMMAND
- HELP
- VERSION

The main content area is titled "Get User Access". It contains three input fields: "IPMB Address" (with a dropdown arrow), "Channel Number" (with a dropdown arrow), and "User ID" (with a dropdown arrow). Below these fields is a "Submit" button.

At the bottom of the page, there is a copyright notice: "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 87: Get User Access

Associated CLI Command(s): `get_user_access`

Applicable Target FRUs:

Entity	FRU ID(s)
Shelf	20h
Carrier	82h – A0h

Table 73: Get User Access applicable target FRUs

4.12.4 Set User Access

Description: configure privilege level and channel accessibility for a given user on a given channel at a given address (default is Shelf Manager)

The screenshot shows the 'Set User Access' page of the VadaTech MicroTCA Shelf Manager Web Interface. The left sidebar contains a navigation menu with various management options. The 'ADMINISTRATION' section is expanded, showing 'List Users', 'List Users Access', 'Get User Access', 'Set User Access' (which is selected and highlighted in blue), and 'Set User Information'. The main content area is titled 'Set User Access' and contains several configuration fields:

- IPMB Address:
- Channel Number:
- User ID:
- Privilege Limit:
- Session Limit:
- Restricted to Callback: Yes No
- Link Authentication: Enable Disable
- IPMI Messaging: Enable Disable

At the bottom of the form is a 'Submit' button.

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Figure 88: Set User Access

Associated CLI Command(s): `set_user_access`

Applicable Target FRUs:

Entity	FRU ID(s)
Shelf	20h
Carrier	82h – A0h

Table 74: Set User Access applicable target FRUs

4.12.5 Set User Information

Description: add a user; change a user's username; add, update, or test a user's password; or enable or disable a user

The screenshot shows the 'Set User Information' page of the VadaTech MicroTCA Shelf Manager Web Interface. The page has a blue header with the VadaTech logo and 'THE POWER OF VISION'. A sidebar on the left contains links for System Management, FRU Management, E-Keying, Sensors, Cooling Management, Power, System Event Log, LEDs, LAN, Alarms, Alerting, Administration, Run Command, Help, and Version. The 'Administration' section is expanded, showing 'List Users', 'List Users Access', 'Get User Access', 'Set User Access', and 'Set User Information', with 'Set User Information' being the active link. The main content area is titled 'Set User Information' and contains fields for 'User ID' (with a placeholder box), 'User Name' (with a placeholder box), 'Password' (with a placeholder box), 'Test Password' (with a placeholder box), and two radio buttons for 'Disable User' and 'Enable User'. A 'Submit' button is at the bottom. A watermark of a stylized eye is visible in the background.

Figure 89: Set User Information

Associated CLI Command(s): `set_user_info`

4.13 Run Command

4.13.1 Run Command

Description: run a CLI command in Command Mode

The screenshot shows the VadaTech MicroTCA Shelf Manager Web Interface. The top header features the VadaTech logo and the tagline "THE POWER OF VISION". A vertical navigation menu on the left includes links for SYSTEM MANAGEMENT, FRU MANAGEMENT, E-KEYING, SENSORS, COOLING MANAGEMENT, POWER, SYSTEM EVENT LOG, LEDs, LAN, ALARMS, ALERTING, ADMINISTRATION, RUN COMMAND, HELP, and VERSION. The "Run Command" link is highlighted. The main content area is titled "Run Command" and contains a text input field labeled "Run Command :" followed by a "Submit" button. At the bottom of the page, a copyright notice reads "Copyright (c) 2005-2009 VadaTech Incorporated".

Figure 90: Run Command

4.14 Help

This menu displays a list of the CLI commands implemented in the Web Interface. When a command is selected, the help information for the selected command is shown.

Associated CLI Command(s): `help`

4.15 Version

4.15.1 Version Information

Description: display the version of the CLI with which the Web Interface is connected

Associated CLI Command(s): `get_version`

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