COLDSTORE® OPUS

veracity

COLDSTORE Opus
User Guide

Version 1.2.1

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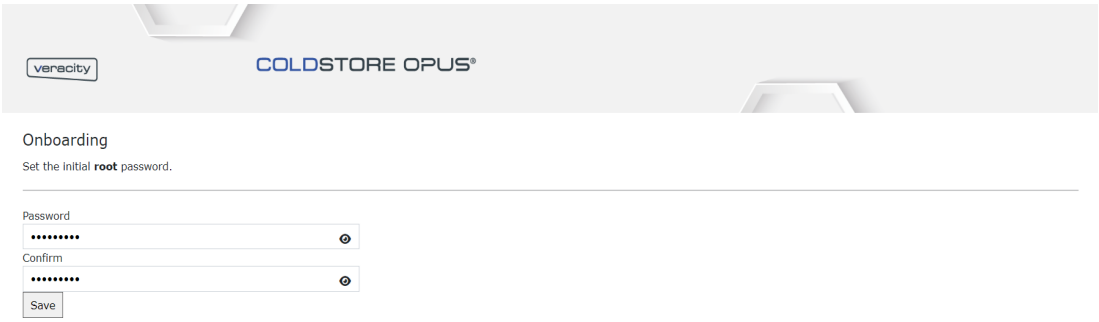
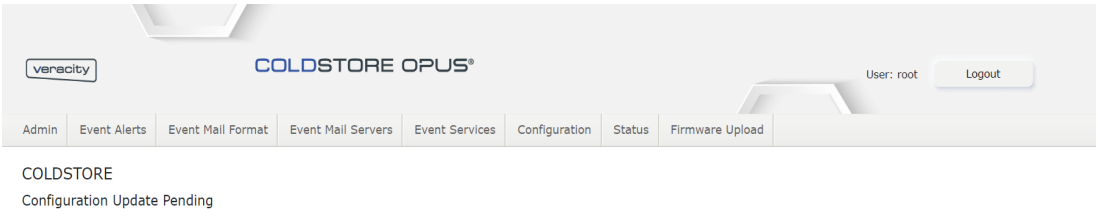
1) Introduction

This document describes how to use the COLDSTORE Opus web interface. This can be accessed from SITESCAPE or directly from a browser on port 8081.

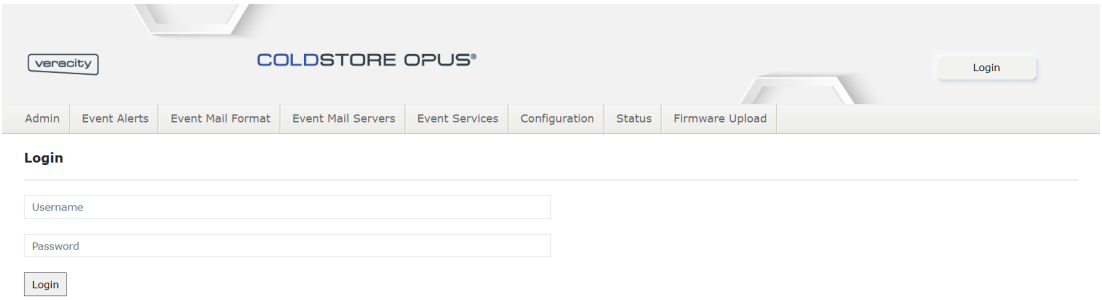
After opening the web interface for the first time, you will be prompted to set the root password.



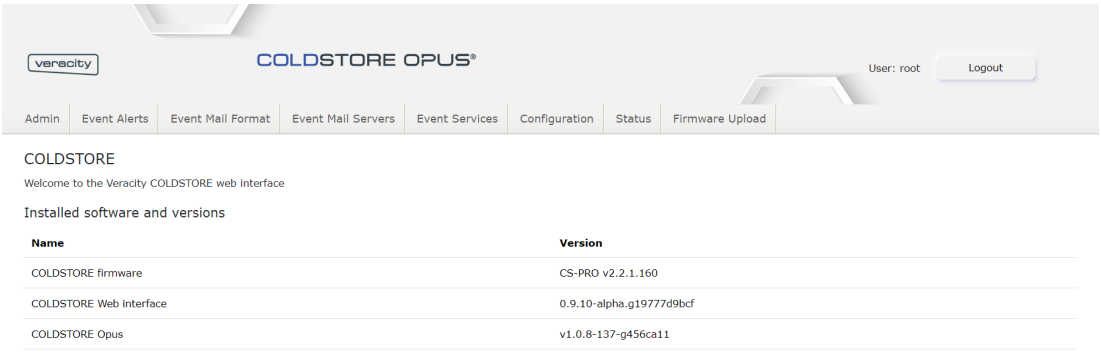
Enter the desired password in the Password field and also in the Confirm field, and click Save. The unit will reboot to apply this configuration change. During this time the web page will show Configuration Update Pending.



Once a root password has been set, you will be presented with a login page when opening the web interface. The username is root and the password is that which was previously set.



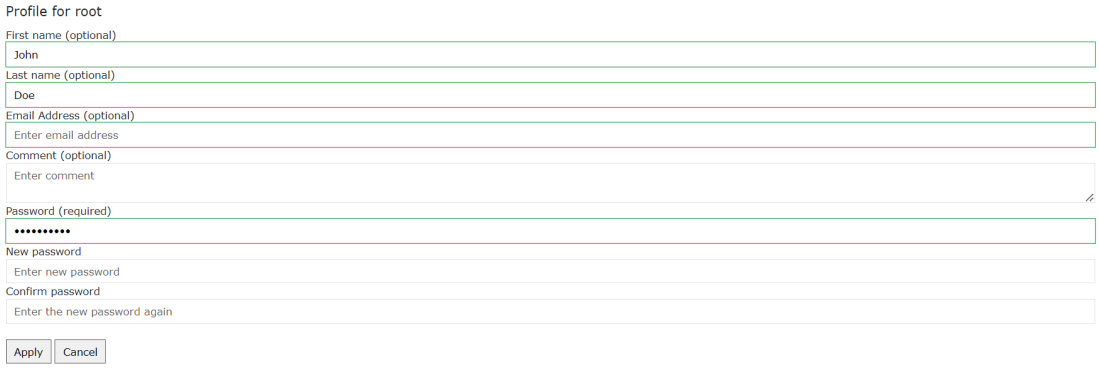
Once you have logged in, a welcome message with the web interface version will be shown.



2) Admin

The Admin page is used to configure access to the web interface.

Profile for root

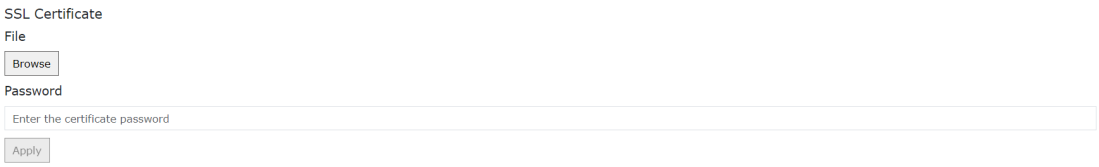


It is recommended that you change the password from the default. To change the password for root, enter the existing password in the 'Password' field, along with the new password in the 'New password' and 'Confirm password' fields, then click Apply.

You can also enter the first name, last name email address and a comment for this user. These fields are optional and have no effect on the functionality of the web interface.

SSL Certificate

This is the SSL certificate that the web server uses for the HTTPS protocol.



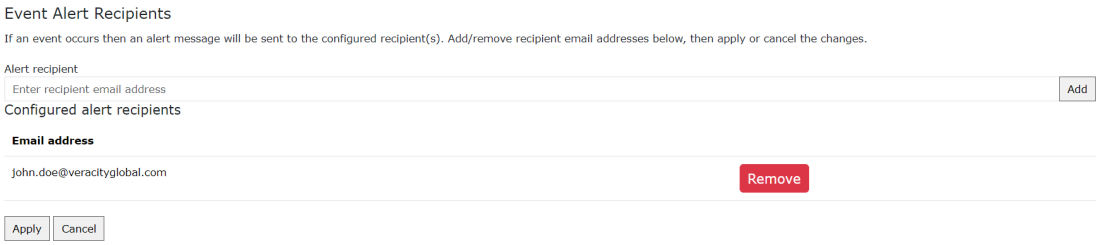
Click 'Browse' to select the .pfx containing the certificate and enter the certificate password in the 'Password' field, then click 'Apply'.

These changes will not take effect until the COLDSTORE Opus is restarted.

3) Event Alerts

The Event Alerts page is used to add and remove email recipients for generated events.

Event Alert Recipients



To add a new recipient, enter the email address in the ‘Alert recipient’ field and click ‘Add’.

The existing list of email recipients is shown in the ‘Configured alert recipients’ section.

Click ‘Remove’ to remove any entries from this list.

Click ‘Apply’ to apply all changes.

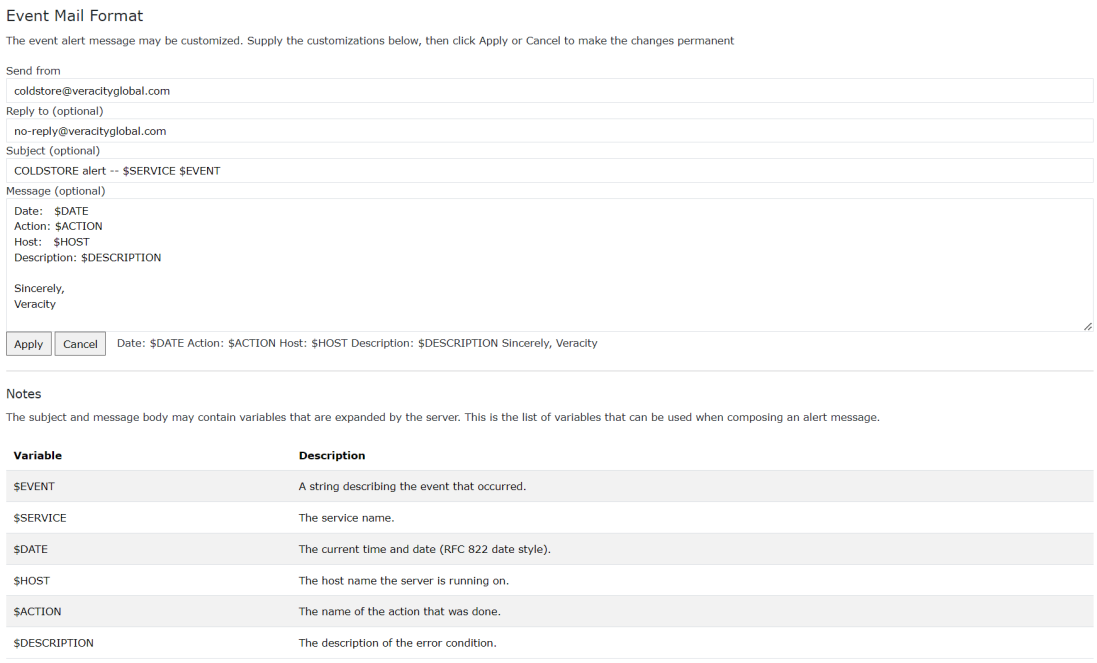
4) Event Mail Format

The Event Mail Format page is used to configure the format of event-triggered emails.

The Send from Field is mandatory.

The Reply to, Subject and Message fields are optional.

The Subject and Message fields can contain fixed text and/or pre-defined variables that are expanded by the server prior to the sending of the email. The pre-defined variables contain information relating to the nature of the event and are listed below.



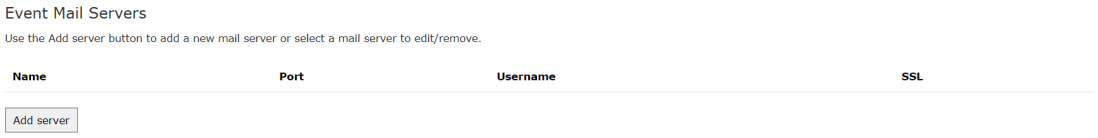
Notes

The subject and message body may contain variables that are expanded by the server. This is the list of variables that can be used when composing an alert message.

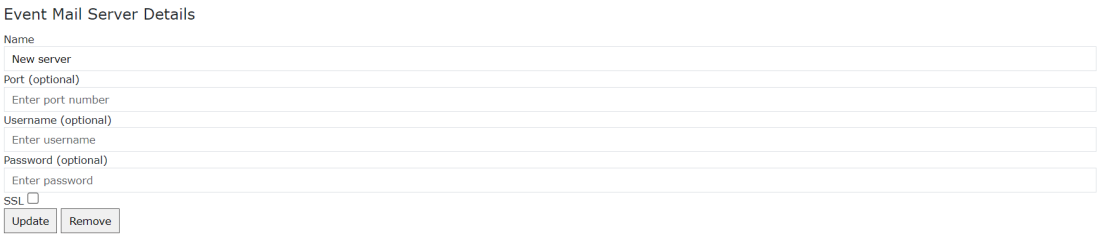
Variable	Description
$EVENT	A string describing the event that occurred.
$SERVICE	The service name.
$DATE	The current time and date (RFC 822 date style).
$HOST	The host name the server is running on.
$ACTION	The name of the action that was done.
$DESCRIPTION	The description of the error condition.

5) Event Mail Servers

The Event Mail Servers page is used to configure the list of email servers which are used to send event-triggered emails.



Click on ‘Add server’ to add a new email server to the list.



Enter the server and user details in the Name, Port, Username and Password fields, and check the SSL option if required. Click ‘Update’ to add this server.

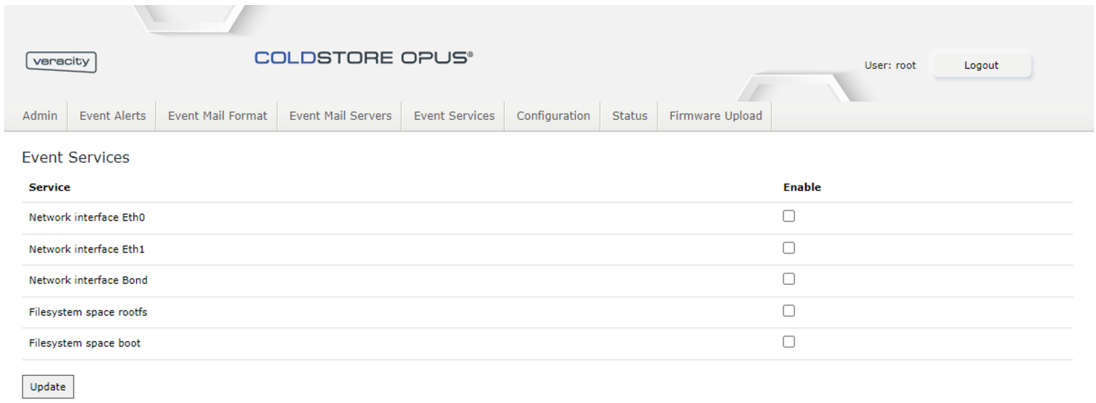
To modify server details, click on the server in the list to open the Event Mail Server Details form again.

To remove a server from the list, click on the server to open the Event Mail Server Details form, then click ‘Remove’.

6) Event Services

The Event Services page is used to configure which event services are to be monitored.

Check the 'Enable' option for all services that you wish to monitor.



When enabled, an email will be sent on service failure or pre-failure. The conditions for these are described below.

Network interface Eth0/Eth1/Bond

An email will be sent if the specific network link is down.

Filesystem space rootfs

An email will be sent if the rootfs partition is more than 80% full. If you receive this event please contact Veracity Support.

Filesystem space boot

An email will be sent if the boot partition is more than 80% full. If you receive this event please contact Veracity Support.

7) Configuration

The Configuration page is used to configure the network, time and storage properties of the COLDSTORE Opus.

DHCP

The DHCP section is used to enable or disable the DHCP mode of each network interface.

DHCP

Eth1 DHCP	Disabled
Eth2 DHCP	Disabled

Set this to 'Enabled' for any interface for which you wish to have the IP address and subnet mask assigned by a DHCP server. Note that enabling DHCP will remove the option to manually set the IPv4 and IPv6 address and subnet mask for that interface.

Network IPv4

The Network IPv4 section is used to configure the IPv4 address and subnet mask of each network interface and the IPv4 gateways and DNS servers. Note that not all fields may be visible, depending on the DHCP and Bonding settings.

Network IPv4

Eth0 IPv4 Address	10.3.7.25
Eth0 IPv4 Subnet Mask	255.224.0.0
Eth1 IPv4 Address	
Eth1 IPv4 Subnet Mask	
IPv4 Gateway 1	10.0.0.254
IPv4 Gateway 2	
IPv4 DNS Server 1	10.0.0.30
IPv4 DNS Server 2	
IPv4 DNS Server 3	

i) Eth0 IPv4 Address

The IPv4 address of the first network port.

ii) Eth0 IPv4 Subnet Mask

The IPv4 subnet mask of the first network port.

iii) Eth1 IPv4 Address

The IPv4 address of the second network port.

iv) Eth1 IPv4 Subnet Mask

The IPv4 subnet mask of the second network port.

v) IPv4 Gateway 1

The IPv4 address of the first gateway.

vi) IPv4 Gateway 2

The IPv4 address of the second gateway.

vii) IPv4 DNS Server 1

The IPv4 address of the first DNS server.

viii) IPv4 DNS Server 2

The IPv4 address of the second DNS server.

ix) IPv4 DNS Server 3

The IPv4 address of the third DNS server.

Network IPv6

The Network IPv6 section is used to configure the IPv6 address and subnet mask of each network interface and the IPv6 gateways and DNS servers. Note that not all fields may be visible, depending on the DHCP and Bonding settings.

Network IPv6

Eth0 IPv6 Address	
Eth0 IPv6 Subnet Mask	
Eth1 IPv4 Address	
Eth1 IPv4 Subnet Mask	
IPv4 Gateway 1	
IPv4 Gateway 2	
IPv6 DNS Server 1	
IPv6 DNS Server 2	
IPv6 DNS Server 3	

i) Eth0 IPv6 Address

The IPv6 address of the first network port.

ii) Eth0 IPv6 Subnet Mask

The IPv6 subnet mask of the first network port.

iii) Eth1 IPv6 Address

The IPv6 address of the second network port.

iv) Eth1 IPv6 Subnet Mask

The IPv6 subnet mask of the second network port.

v) IPv6 Gateway 1

The IPv6 address of the first gateway.

vi) IPv6 Gateway 2

The IPv6 address of the second gateway.

vii) IPv6 DNS Server 1

The IPv6 address of the first DNS server.

viii)IPv6 DNS Server 2

The IPv6 address of the second DNS server.

ix) IPv6 DNS Server 3

The IPv6 address of the third DNS server.

Network Bonding

The Network Bonding section is used to enable or disable the bonding mode of the two network interfaces.

Network Bonding

Bonding	Disabled

If bonding is enabled, Eth0 and Eth1 are bonded in active-backup mode, using the IPv4, IPv6 and DHCP settings for Eth0. All Eth1 settings are unused and hidden.

If bonding is disabled, Eth0 and Eth1 are independent network interfaces, each with their own IPv4, IPv6 and DHCP settings.

Network Share

The Network Share section is used to configure the Security mode, User mode, User name, password and share name of the network share. Note that not all fields may be visible, depending on the Network Security Mode setting.

Network Share

Network security mode	User
Mode	User Only
User name (max length 32)	coldstoreuser
Password	•••••••••
Share name (max length 80)	share

i) Network Security Mode

Currently, only User mode is supported. This allows the share to be protected by a single user name and password.

ii) Mode

'Guest Only' mode grants read/write access to the network share to the guest account only.

'User Only' mode grants read/write access to the network share to the specified user account only.

'User & Read-only Guest' mode grants read/write access to the network share to the specified user account and read-only access to the guest account.

'User & Guest' mode grants read/write access to the network share to the specified user and guest accounts.

iii) User Name

The name used for user-based access control. This field is hidden and unused if the mode is set to Guest Only.

iv) Password

The password used for user-based access control. This field is hidden and unused if the Mode is set to Guest Only.

v) Share Name

The share name used to access the storage on the network. For example, from a Windows client, the UNC path would be \\server\sharename

Time

The Time section is used to configure the time zone and NTP servers for the COLDSTORE Opus.

Time

Time Zone	America/Chicago
NTP Server 1	pool.ntp.org
NTP Server 2	
NTP Server 3	

i) Time Zone

The time zone for the location of the COLDSTORE Opus.

ii) NTP Server 1

The first NTP server, either an IP address or if DNS is configured, a FQDN.

iii) NTP Server 2

The second NTP server, either an IP address or if DNS is configured, a FQDN.

iv) NTP Server 3

The third NTP server, either an IP address or if DNS is configured, a FQDN.

Advanced

The Advanced section is used to configure settings relating to the tuning of the COLDSTORE Opus operation relating to its storage.

Advanced

Reserved drive space (100-1000 GB)	100
RAM Drive file settle time (1-60 seconds)	15
Force Format	Enabled

i) Reserved Drive Space

The minimum amount of space to be left unused on each HDD. A disk step will be triggered when the free space on any writing HDD reaches this value.

Note that it is necessary to leave some free space to account for delays in filesystem free space reporting.

ii) RAM Drive File Settle Time

The minimum delay between file closure and it being moved from the RAM drive buffer to the writing HDDs.

iii) Force Format

This is used to determine how COLDSTORE Opus handles a newly inserted HDD.

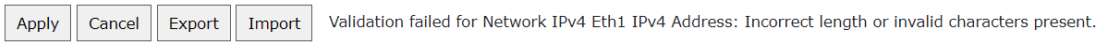
If enabled, COLDSTORE Opus will format and use it, even if it contains an existing filesystem and/or partition table. This will result in any existing data being permanently deleted.

If disabled, COLDSTORE Opus will only format and use it if it is blank. If it contains an existing filesystem and/or partition table, COLDSTORE Opus will not use it, preserving any existing data.

Validation of Entered Values

After changing any configuration settings and clicking 'Apply', all settings are validated.

If any are invalid, a message is displayed.



If all settings are valid, they are sent to the COLDSTORE Opus and the Configuration page shows that the update is pending.

Depending on the particular changes, the COLDSTORE Opus may perform a reboot. Please allow several minutes for the unit to come back online.

Export

Click the 'Export' button to export the settings. This will be saved as a text file called coldstore_settings.txt

Import

Click the 'Import' button to import a previously exported settings file. You will be presented with a File Open dialog to select the appropriate file.

Factory Reset

i) Factory Reset (preserve IP settings)

Click on this button to perform a factory reset of the COLDSTORE Opus, while preserving the existing IP settings.

To prevent accidental factory resets you must type 'confirm' in the text box and click 'Confirm Partial Factory Reset' to proceed.

Please allow several minutes for the unit to come back online.

ii) Factory Reset (reset all settings)

Click on this button to perform a factory reset of the COLDSTORE Opus, including the existing IP settings.

To prevent accidental factory resets you must type ‘confirm’ in the text box and click ‘Confirm Full Factory Reset’ to proceed.

Please allow several minutes for the unit to come back online.

8) Status

The Status page is used to display information about the array and individual disks. It is also used to perform operations on the disks.

Array Status

The Array Status section is used to display information about the entire array.

Array Status

Capacity	Used
8201 GB	464 GB

It shows the capacity of the array and the amount of space which has been used.

Disk Status

The Disk Status section is used to display information about the individual disks.

Disk Status

Slot	Capacity	Used	Writing	Status	
6	8001 GB	312 GB	No	Online	☐
9	250 GB	154 GB	No	Online	☐
10	250 GB	2 GB	Yes	Online	☐
11	250 GB	2 GB	Yes	Online	☐

At any given time, there should be two disks assigned for writing.

The blue oval shows the selection boxes for each individual disk. Use these when selecting disks for erase and shutdown operations.

The red circle shows the select/deselect all box. Use this to quickly select or deselect all disks.

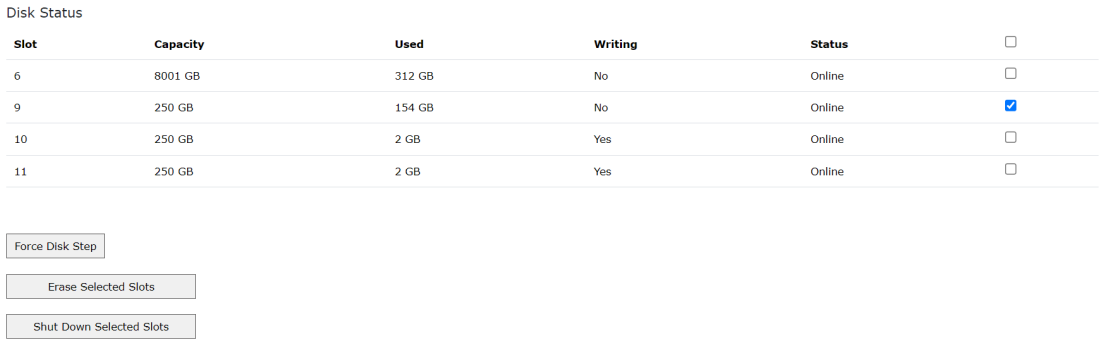
Force Disk Step

Force Disk Step | Confirm Disk Step

Click the ‘Force Disk Step’ button to force the system to do a disk step. Click the ‘Confirm Disk Step’ button which appears, to complete the operation.

Erase Selected Slots

When one or more disks are selected, the ‘Erase Selected Slots’ button will appear.



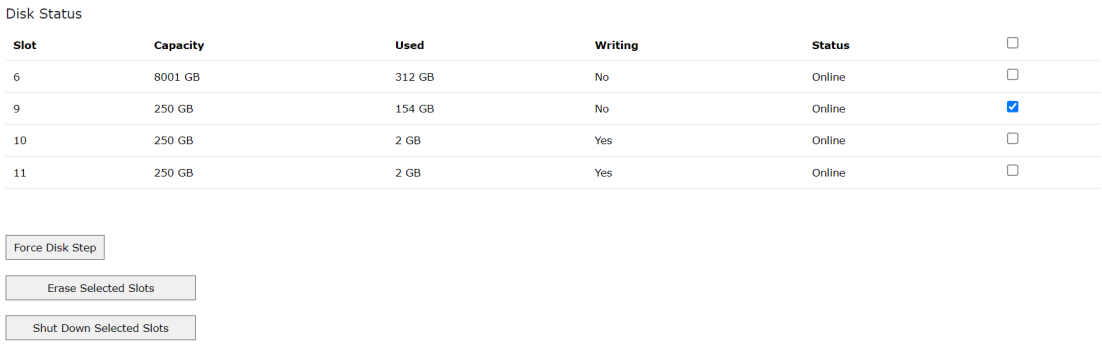
Click the ‘Erase Selected Slots’ button to erase these slots.

To prevent accidental erasures, you must type ‘confirm’ in the text box and click ‘Confirm Erase’ to proceed.

Please allow several minutes for this operation to complete.

Shut Down Selected Slots

When one or more disks are selected, the ‘Shut Down Selected Slots’ button will appear.



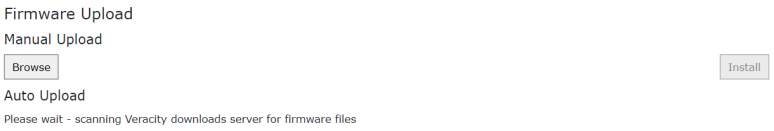
Click the ‘Shut Down Selected Slots’ button to shut down these slots.

To prevent accidental shutdowns, you must type ‘confirm’ in the text box and click ‘Confirm Shutdown’ to proceed.

Please allow several minutes for this operation to complete. Once it has, the disk status will changed to ‘Unmounted’. Disks in this state are ready to be physically removed from the COLDSTORE Opus.

9) Firmware Upload

The Firmware Upload page is used to upload firmware packages to the COLDSTORE Opus. These include the base COLDSTORE Opus firmware as well as the web interface and the COLDSTORE Opus package.



You can upload firmware manually or automatically.

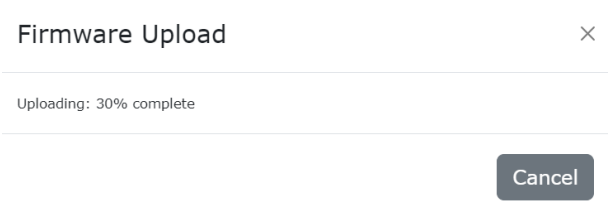
Manual upload allows you to specify a local file to upload.

Automatic upload scans the Veracity downloads server, and then allows you to specify which package should be uploaded. There may be a delay of several minutes before any packages are shown in the Auto Upload section, while waiting for the scan to complete.

Note that it is necessary to have internet access from the client computer. The COLDSTORE Opus itself does not need internet access.

Manual Upload

Click on the ‘Browse’ button to be presented with a File Open dialog. Select the file to be uploaded. Note that the file name should end with ‘-enc.zip’. Click the ‘Install’ button to begin the upload process. The file will be uploaded with a progress indicator shown.



Once the file upload is complete, the firmware upgrade will begin. Please allow several minutes for this to complete. The COLDSTORE Opus may reboot during this process.

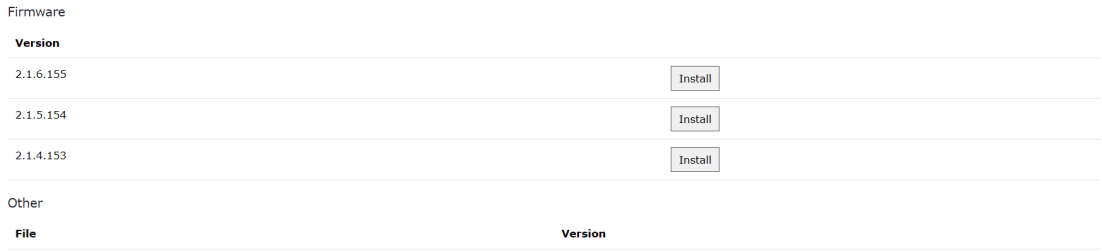
Auto Upload

Click the ‘Refresh’ button to force a rescan of the Veracity downloads server.

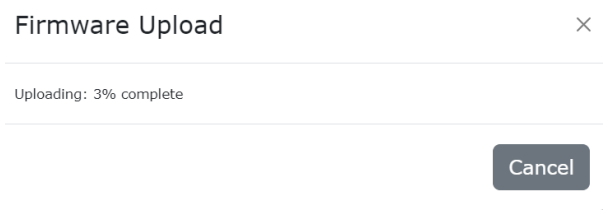
Once the scan is complete, a list of compatible packages will be shown.

The ‘Firmware’ section shows the base COLDSTORE Opus firmware packages.

The ‘Other’ section shows the other COLDSTORE Opus packages, such as the web interface and COLDSTORE Opus.



Click the ‘Install’ button for the version and package that you wish to install. The file will be transferred from the downloads server to the COLDSTORE Opus.



Once the file transfer is complete, the firmware upgrade will begin. Please allow several minutes for this to complete. The COLDSTORE Opus may reboot during this process.