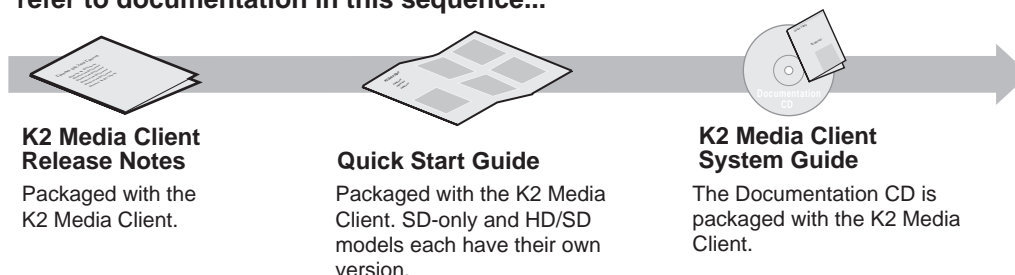


K2 Storage System Version 3.0.1 Release Notes

These release notes contain the latest information about the hardware and software of the K2 Storage System. For the complete description and instructions read the *K2 Storage System Instruction Manual*.

For complete coverage of the latest information about external (shared) storage K2 Media Clients, you must read these release notes and the *K2 Media Client Release Notes*. While these release notes contain information that relates to external storage K2 Media Clients, the *K2 Media Client Release Notes* contain additional information that applies to both external (shared) storage and internal (stand-alone) storage K2 Media Clients.

If you are installing new K2 Media Client models with internal storage, refer to documentation in this sequence...



If you are installing a K2 Storage System with connected K2 Media Clients, refer to documentation in this sequence...

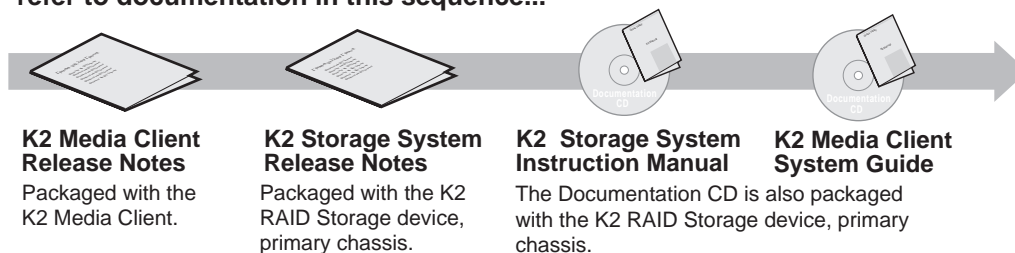


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Grass Valley Product Support

To get technical assistance, check on the status of problems, or report new problems, contact Grass Valley Product Support via e-mail, the Web, or by phone or fax.

Web Technical Support

To access support information on the Web, visit the product support Web page on the Grass Valley Web site. You can download software or find solutions to problems by searching our Frequently Asked Questions (FAQ) database.

World Wide Web: <http://www.thomsongrassvalley.com/support/>

Technical Support E-mail Address: gvgtechsupport@thomson.net.

Phone Support

Use the following information to contact product support by phone during business hours. Afterhours phone support is available for warranty and contract customers.

United States	(800) 547-8949 (Toll Free)	France	+33 (1) 34 20 77 77
Latin America	(800) 547-8949 (Toll Free)	Germany	+49 6155 870 606
Eastern Europe	+49 6155 870 606	Greece	+33 (1) 34 20 77 77
Southern Europe	+33 (1) 34 20 77 77	Hong Kong	+852 2531 3058
Middle East	+33 (1) 34 20 77 77	Italy	+39 06 8720351
Australia	+61 1300 721 495	Netherlands	+31 35 6238421
Belgium	+32 2 3349031	Poland	+49 6155 870 606
Brazil	+55 11 5509 3440	Russia	+49 6155 870 606
Canada	(800) 547-8949 (Toll Free)	Singapore	+656379 1390
China	+86 106615 9450	Spain	+ 34 91 512 03 50
Denmark	+45 45968800	Sweden	+46 87680705
Dubai	+ 971 4 299 64 40	Switzerland	+41 (1) 487 80 02
Finland	+35 9 68284600	UK	+44 870 903 2022

Authorized Support Representative

A local authorized support representative may be available in your country. To locate the support representative for your country, visit the product support Web page on the Grass Valley Web site.

Feature limitations in this release

The following information applies to features of the K2 Storage System. Also refer to the *K2 Media Client Release Notes* for similar information that applies to K2 Media Client features.

- AVI import/export is supported only via AppCenter import/export features and only for DV25/50 clips.
- Quicktime import/export is supported only via AppCenter import/export features and only for DV25/50 clips.
- There is no centralized logging of the K2 Storage System. Logs are stored on each individual device.
- There is no centralized control of the on-line/off-line state of the K2 Storage System.
- The Level 1 K2 Storage System is not yet available.
- NetCentral does not auto-discover the K2 Storage System structure. (NetCentral does auto-discover the individual devices of the K2 Storage System).

K2 Storage System version compatibility

Components and systems have been qualified for compatibility with this 3.0.1 release of the K2 Storage System as follows:

Component or system	Version	Comments
Profile XP Media Platform	5.4.6	Some transfer limitations. Refer to “Transfer mechanisms” on page 9 .
M-Series iVDR	2.0.11	
NewsEdit	5.5	—
NetCentral	4.1.10	—
NewsBrowse	3.1.x	Refer to NewsBrowse release notes for the complete version number
MediaFrame Transfer	1.0	—
NewsQ Pro	2.1	—
Ingest Station	1.6	—
ContentShare	—	Not supported

About Level 4 K2 Storage Systems

Level 4 systems are custom systems that do not fit one of the pre-defined Level 1, Level 2, or Level 3 configurations. For example, a K2 Storage System with Fibre Channel attached K2 Media Clients is considered a Level 4 system. Only qualified Grass Valley personnel should attempt to design, install, and configure Level 4 systems.

The K2 documentation set is intended for customers with Level 1 – 3 systems. While much of the information also applies to Level 4 systems, consult your Grass Valley representative before using Level 1 – 3 procedures on a Level 4 system.

Upgrading K2 Media Server software

This section provides information that is specific to version 3.0.1 software. For general information about K2 Media Server software, refer to the *K2 Storage System Instruction Manual*.

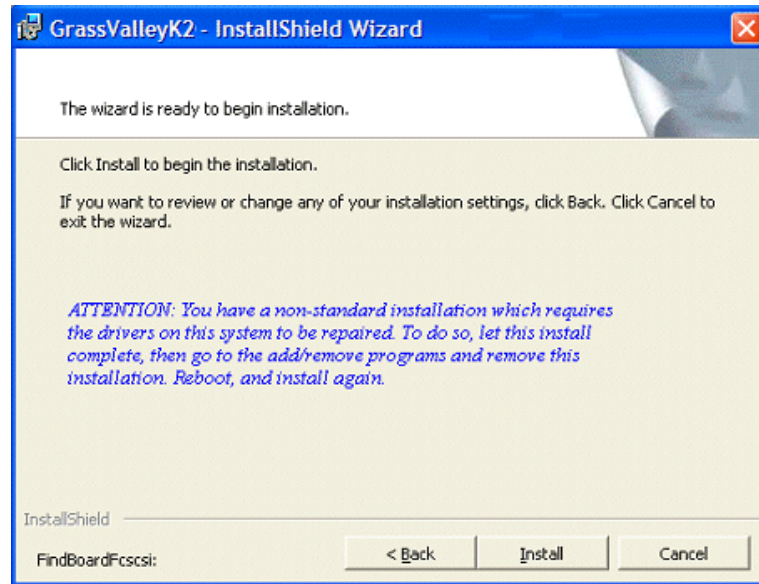
The following rules apply to the process of upgrading K2 Media Server software:

- When upgrading K2 Media Server software, keep all connected K2 Media Clients shut down. Do not power up K2 Media Clients until the upgrade on K2 Media Servers is complete and the media file system/database server is fully operational.
- If the K2 Storage System has multiple K2 Media Servers, you must upgrade all to the same version.
- If the K2 Storage System has redundant K2 Media Servers, for servers that take the role of media file system/database server, upgrade in the following sequence:
 1. Shut down the backup.
 2. Take the primary out of service.
 3. Upgrade the primary.
 4. Put the primary in service.
 5. Power up the backup.
 6. Upgrade the backup.
 7. Put the backup in service.
- Do not attempt to upgrade software incrementally across redundant K2 Media Servers while media access is underway. Online software upgrade is not supported.
- After upgrading all K2 Media Server software, use Server Control Panel to verify that the media file system and the media database is active and fully functional. Refer to the power up procedure in the *K2 Storage System Instruction Manual* for details.
- After servers are upgraded, upgrade all connected K2 Media Clients to the same version of software, as instructed in the *K2 Media Client Release Notes*. Do not resume media access on a K2 Media Client until it is upgraded.
- After upgrading software, make disk images of K2 Media Servers for recovery purposes. Refer to the *K2 Storage System Instruction Manual* for procedures.

NOTE: If the current software is version 2.1.5.1 or lower, first uninstall, then continue with the following procedure.

To upgrade version 3.0.1 K2 Media Server software, do the following:

1. Stop all media access on the K2 Storage System.
2. Shut down all connected K2 Media Clients.
3. If you have not already done so, connect keyboard/mouse/monitor to the K2 Media Server and logon with Windows administrator privileges. The default logon is administrator/adminK2.
4. If the server does not take the role of media file system/database server (Level 3 and Level 4 systems only), do the following:
 - a. From the Windows desktop, click **Start | Control Panel | Administrative Tools | Services**. The Services control panel opens.
 - b. Enable and start the **MSSQLSERVER** service.
 - c. Close the Services control panel.
5. Insert the version 3.0.1 K2 System Software CD in the K2 Media Server's CD drive.
6. On the CD, open the following file:
`..\K2Server\setup.exe`
7. Follow the onscreen instructions, and work through each page.
8. If the installation wizard does not proceed as expected, refer to the following:
 - If the installation wizard displays a "...non-standard installation..." message in blue text, as in the image below, follow the instructions in the message, as follows:



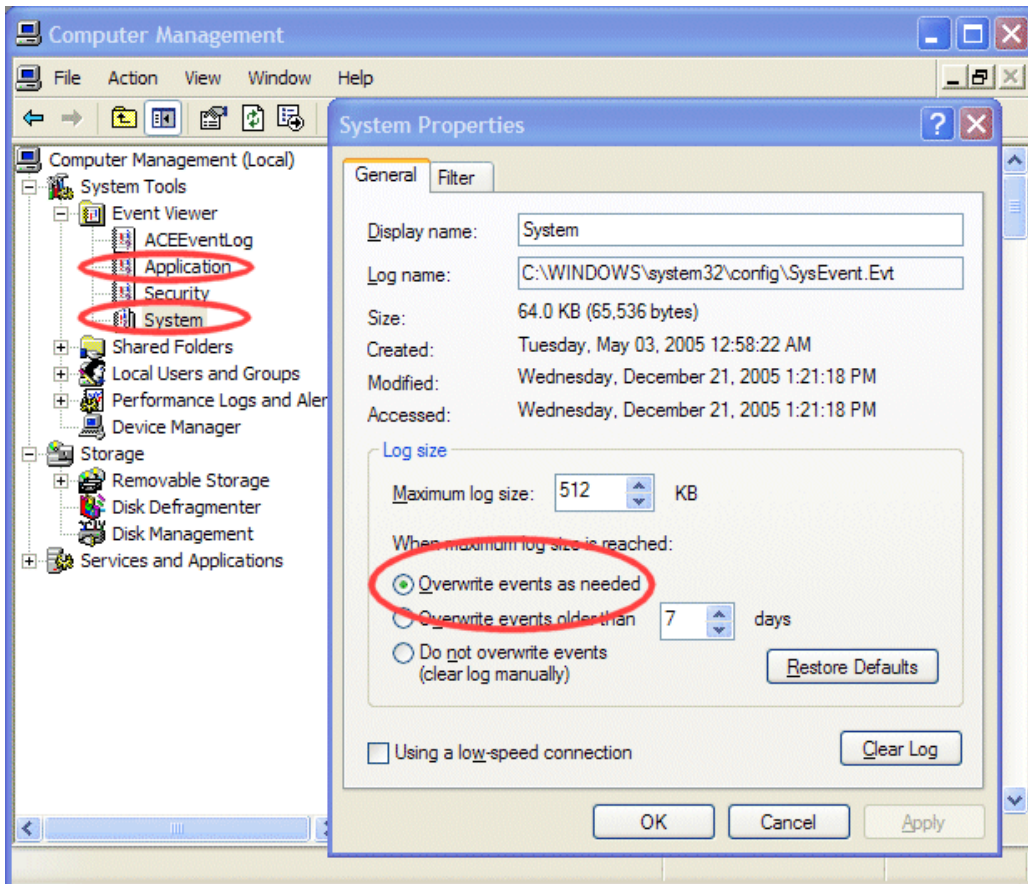
- Complete the installation wizard.
 - Uninstall K2 Media Server software.
 - Restart the K2 Media Server.
 - Repeat this procedure and install software again.
- If installation progress stops after about a minute and does not proceed, look in the Windows taskbar for a New Hardware Wizard window that has opened. Click Finish on the New Hardware Wizard to continue installation.
 - If installing from a CD and a "...insert disk..." message appears, cancel the installation wizard and do one of the following:
 - Uninstall the current version of software, then repeat this procedure.
 - Copy the directory that contains the installation files from the CD to the local hard drive, then repeat this procedure, opening the local *setup.exe* file rather than the file on the CD.
9. Click **Next** and **Finish** to complete the installation. When prompted, restart the machine.
 10. If you started the MSSQLSERVER service in step 4 of this procedure, do the following:
 - a. Log on with Windows administrator privileges. The default logon is administrator/adminK2.
 - b. From the Windows desktop, click **Start | Control Panel | Administrative Tools | Services**. The Services control panel opens.
 - c. Return the MSSQLSERVER service to the state it was in before the software upgrade. For a server that does not take the role of media file system/database server, the MSSQLSERVER service should be stopped and its startup type

should be set to Disabled.

d. Close the Services control panel.

11. Verify that Event Viewer is configured properly as follows:

a. From the Windows taskbar click **Start | Control Panel**. Open **Administrative Tools | Computer Management**.



b. Under **Event Viewer** right-click the **Application** node and select **Properties**. The System Properties dialog box opens.

c. If not already set, select **Overwrite events as needed**. Click **OK** to close.

d. Under **Event Viewer** right-click the **System** node and select **Properties**. The System Properties dialog box opens.

e. If not already set, select **Overwrite events as needed**. Click **OK** to close.

12. Upgrade K2 Control Point software on control point PCs. Simply run the Control Point installation program from the 3.0.1 K2 System Software CD. No special procedures are required.

13. After software upgrades are complete, make a recovery disk image of the K2 Media Server. Refer to the *K2 Storage System Instruction Manual* for procedures.

FTP/Transfer considerations

The following sections provide summary descriptions of transfer capabilities. Refer to the *K2 Media Client System Guide* for more information regarding transfer protocols and format types.

Limitations with complex media types

- Lists, or programs made from lists, that contain movies with mixed video compression types or mixed audio types can not stream to other devices, nor can they be exported to a file.
- MXF Op1A supports transfer of simple media types only, which are a subset of K2's encode/decode/metadata capabilities. For example, MXF Op1A does not support the transfer of complex clips, such as a subclip that spans two media files or a continuous record sub-clip. Do not attempt MXF Op1A transfers of complex clips.

Transferring between different types of systems

The following table summarizes what material can move between K2 systems and other systems:

Source	Destination	Support on destination
Profile XP Media Platform	K2 systems	All types of material fully supported, according to the SD and/or HD capability of the model.
M-Series iVDR	K2 systems	
K2 systems	Profile XP Media Platform	Profile XP system cannot play out 720p/50 or HD 4:2:2 (SD 4:2:2 plays out OK).
K2 systems	M-Series iVDR	iVDR plays DV25, DV50, and MPEG I-frame clips only.

Transfer mechanisms

You can move material between the systems listed in the preceding table using the following mechanisms, each of which offers a different set of features:

- K2 FTP interface — This interface supports transfers via third party FTP applications.
- AppCenter transfer features — When transferring between K2 systems and other types of systems, you must specify the IP address, path, and file name to initiate a transfer. When transferring between K2 systems you can browse and select files for transfer.
- MediaFrame Transfer — This available Grass Valley application provides a Windows Explorer type interface with drag-and-drop functionality.

FTP access and configuration

For basic LAN access, the following Grass Valley products can connect as an FTP client to the K2 FTP server with no special configuration required:

- K2 Media Clients
- UIM
- M-Series iVDR
- Profile XP Media Platform

For WAN access, contact your Grass Valley representative for assistance.

If the FTP client is not one of these Grass Valley products, contact the product's supplier or your network system administrator for assistance with configuring TCP window scaling. Any computer that connects as an FTP client to the K2 FTP server must have TCP window scaling enabled. Refer to <http://support.microsoft.com/kb/q224829/> for more information on this feature. Never set `Tcp1323Opts` without setting `TcpWindowSize`. Also, Windows NT 4.0 does not support TCP window scaling, but will still communicate with Grass Valley products in a LAN environment.

Operation considerations

- Do not neglect to make a "first birthday" disk image shortly after the K2 Media Server is installed and configured. Failure to do so results in significant complications should you need to restore the system. Refer to the Known Problem for CR62972 later in these release notes.
- If you are using the Grass Valley control point PC, you should also make a first birthday image of the control point PC. To do this you use the K2 Media Client Recovery CD. Both the Grass Valley control point PC and the K2 Media Client can boot from this CD and make recovery disk images. Refer to the instruction in the *K2 Media Client Service Manual* for creating a recovery disk image CD set. Though written for the K2 Media Client, the instructions apply to the control point PC as well.
- Minimum delay from start of record to start of transfer is 20 seconds for both 60Hz timing and 50Hz timing.

- In Server Control Panel, the following behaviors occur when using the Stop button. Refer to this description of Server Control Panel behavior rather than the description in the *K2 Storage System Instruction Manual*:

On a system with this configuration of K2 Media Servers taking the role of media file system/database server...	With server(s) in this state...	When you click the Stop button on this server...	The following behavior occurs.
Redundant servers	Both primary and backup are in service (online)	Primary	The server automatically powers itself down. This causes a failover event to occur and the backup server becomes primary. When you restart the former primary server, it comes up out of service.
		Backup	The server automatically powers itself down. When you restart the server, it comes up out of service.
Redundant servers	Only the primary is in service. The other server is either shut down or it is powered on but out of service.	Primary	The media file system services stop, but the server continues to run. It does not automatically shut down.
One (non-redundant) server	The server is in service	Primary (the only server)	The media file system services stop, but the server continues to run. It does not automatically shut down.

- To fix the screen resolution problem seen with NetCentral on the Grass Valley control point PC, do the following:
 1. Go to Display properties (right mouse selection of properties on the display area)
 2. Select Settings tab
 3. Select the Advanced button
 4. In the General tab, set the DPI setting to Normal size (96 DPI)
 5. Restart the PC
- Microsoft XML 4 Service Pack 2 is an additional system requirement for control point PCs. If you are building a control point PC from your own PC, install it from the *msxml4sp2* file on the K2 System Software CD. You do not need to install this on the Grass Valley control point PC, as it is pre-installed.

Configuring the HP ProCurve Ethernet switch

When configuring the HP switch via a console session, use the following procedure rather than the procedure in the *K2 Storage System Instruction Manual*.

For redundant systems with two switches, do the following on each switch.

1. Connect RS-232 cable between a PC and the switch.
2. Configure HyperTerminal as follows and connect to switch:
 - Baud rate 115200
 - 8 data bits, 1 stop bit, no parity, and flow control set to Xon/Xoff
3. Press **Enter** two or three times and you will see the copyright page and the message “Press any key to continue”. Press a key, and you will then see the switch console command (CLI) prompt.
4. Type **menu**, choose **SW Configuration** then **IP configure**, then **Edit**. Enter the switch’s control network IP address.
5. Change **Gateway** to be the default router.
6. Change **IP Config[DHCP/Bootp]** to **Manual** (Press Space to change values).
7. Change **Subnet mask** to appropriate value of the site.
8. Press **Enter**, then right-arrow to **Save**. Press **Enter** again and revert to previous menu. If you are at the command (CLI) prompt, enter **menu** to go to the main menu screen.
9. From the main menu, choose **Console Passwords** and press **Enter**. The Set Password Menu opens.
10. Chose **Set Manager Password** and press **Enter**.
11. Enter a password. You can use the default K2 administrator password “K2admin” or your site’s password for administering the K2 Storage System.
12. Return to the main menu
13. Tab to **Command Line (CLI)** and press **Enter**. The command prompt appears.
14. Type **configure** to change to configuration mode.
15. You now configure an administrator username. You can use the default K2 administrator username “K2admin” or your site’s username for administering the K2 Storage System. For example, to set the username to “K2admin” type the following:

```
password manager user-name K2admin.
```
16. When prompted for the password, enter a password. You can use the default K2 password “K2admin” or your site’s password for administering the K2 Storage System.
17. Decide your SNMP community name as explained in the following options, then proceed with the next step:
 - If you decide to use a unique SNMP community name (not “public”), add the

community and set its RW permissions. For example, if the community name is “K2”, type the following:

```
snmp-server community K2 unrestricted
```

- If you decide to use the default SNMP community “public”, which already has RW permissions set as required by NetCentral, proceed to the next step.
18. Enter the SNMP community and IP address of the NetCentral server PC. For example, if the IP address is “192.168.40.11” and the community is “public”, you type the following:

```
snmp-server host public 192.168.40.11
```

19. Enable Authentication traps by typing the following:

```
snmp-server enable traps authentication
```

This allows NetCentral to test the switch to verify that it can send its SNMP trap messages to NetCentral.

20. Type menu to get to menu mode.
21. If you have multiple switches and you need trunks to gang switches together using 1 Gig connections, do the following (Note: This is not required if you use the 10 Gig ISL connections):
- a. Select **Switch Configuration**.
 - b. Choose selection 2, **Port/Trunk Settings**.
 - c. Press the right-arrow key to choose **Edit**, then press **Enter**.
 - d. Down arrow until at the bottom of the list of ports.
 - e. Right-arrow over to the Group column.
 - f. Use the Space bar and set the bottom port to **Trk1**.
 - g. Set the next port up also to **Trk1**.
 - h. Press **Enter**, then right-arrow to **Save**. Press **Enter** again and revert to previous menu. If you are at the command (CLI) prompt, enter menu to go to the main menu screen.
22. Choose **Reboot Switch** to restart the switch.
23. You can now use the switch’s web browser interface for further configuration.
24. Close the PC terminal program and disconnect the console cable.
25. If you have redundant switches, repeat this procedure on the other switch.

Known problems

The following limitations are present in this 3.0.1 release of the K2 Storage System. If you wish to obtain more information about these limitations, please mention the reference numbers that follow the description of each limitation.

Documentation

Description: When setting the IP address and/or changing the mode from DHCP to Manual on the HP ProCurve Ethernet switch, the procedure in the K2 Storage System Instruction Manual does not work. (CR62930)

Work Around: Use the procedure found earlier in these release notes.

Description: The K2 Storage System Instruction Manual displays example host tables with multiple IP addresses assigned to the same hostname. This is not allowed in a host table, as it causes network conflicts. (CR62714)

Work Around: Do not enter the media network IP addresses in host tables. They are not necessary, as hostname resolution is not required for the media network.

K2 System Configuration

Description: When configuring a K2 Media Client, if the interface does not refresh, the bandwidth value is not entered for load balancing. (CR59602)

Work Around: After submitting the bandwidth value, allow the iSCSI Initiator Configuration page to refresh. The page must report the bandwidth subscription and the assigned target before you click Next.

Description: After configuring K2 Media Servers there can be multiple, conflicting media file systems active. (CR61721, CR62774)

Work Around: The problem occurs only when configuring a former media file system server to no longer take the role of media file system server. In this case file system remnants remain on the server and cause the problem. Some early servers had this problem as a result of testing in the manufacturing process. To prevent this problem, before configuring with K2 Config open, D:\SNFS\config and delete fsnameservers, fsmlist, and default.cfg files.

Description: For a generic iSCSI client (NewsEdit), the mapped drive letter is not displayed on the K2 System Configuration page. (CR62251)

Work Around: The K2 System Configuration application initially maps the drive successfully. The problem is only when viewing the page later. To verify that the drive letter is successfully mapped, view mapped drives on the local iSCSI client.

Description: NAS is not correctly configured by default in the K2 System Configuration application for Level 3 K2 Storage Systems. (CR62134)

Work Around: You must manually select the NAS role for server 1 (level 3) or server 1A (level 3R), even if you do not actually intend to use that server in the NAS role. This sets the share permissions correctly so that another server in the NAS role can access the V: drive.

NetCentral

Description: The automatic discovery by NetCentral of the K2 Storage System structure is not implemented in this release. (CR62931)

Work Around: Add K2 Storage System devices to NetCentral manually, then group them under a NetCentral tree view folder named for the K2 Storage System. For procedures, refer to the NetCentral User Guide and to the NetCentral Help menu for Device Providers.

RAID

Description: Loading controller firmware simultaneously on two controllers fails. (CR63092)

Work Around: Load firmware completely on one controller, then on the other controller. Do not load in parallel. Do not use Storage Utility for other tasks while firmware is loading.

System

- Description:** Using the recovery disk image supplied by the factory requires Windows registration and other tasks not documented. (CR62972)
- Work Around:** As soon as possible after the system is operating in your facility, make a first birthday image as instructed in the K2 Storage System Instruction Manual. Then if you need to restore, do so from the first birthday image, for which the manual provides a procedure. The factory-supplied disk image on the E: partition is a generic image, rather than your specific system's image. If you must restore from the factory-supplied image, contact Grass Valley Support for help with the additional tasks required.

Transfer

- Description:** On redundant K2 Storage System, a K2 Media Client does not redirect FTP traffic to the redundant FTP server after a failover event. (CR62027)
- Work Around:** In your facility's FTP application, provide an alternative path for FTP connections. If the connection at one FTP server fails, the FTP application should connect to the redundant FTP server.