Contacting Support

Section Two
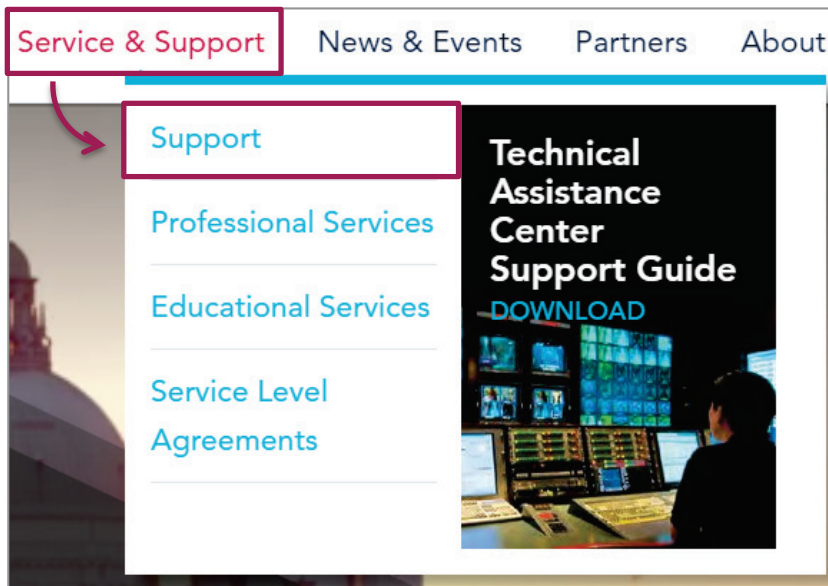
Contacting Support

- **Technical Assistance Center (TAC)**

    – Operates 24 x 7

    – Consolidated single point of contact for all customer support questions and issues

    – Geographically dispersed with staff located at key strategic locations worldwide

    – Staffed by Harmonic Technical Support Engineers (TSEs) who provide multi-level technical support, case management, and problem resolution

Contacting Support

harmonic

- ## Telephone and Email

Region	Telephone Support	Email Support
Americas	+1.888.673.4896 +1.408.490.6477	support@harmonicinc.com
Europe, Middle East, and Africa	+44.1252.555.450	emeasupport@harmonicinc.com
India	+91.120.498.3199	apacsupport@harmonicinc.com
Russia	+7.495.926.4608	rusupport@harmonicinc.com
Mainland China	+86.10.6569.5580	chinasupport@harmonicinc.com
Japan	+81.3.5565.6737	japansupport@harmonicinc.com
Asia Pacific – Other Territories	+852.3184.0045 +65.6542.0050	apacsupport@harmonicinc.com

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Contacting Support

- ## Report an Issue Online

  - www.harmonicinc.com

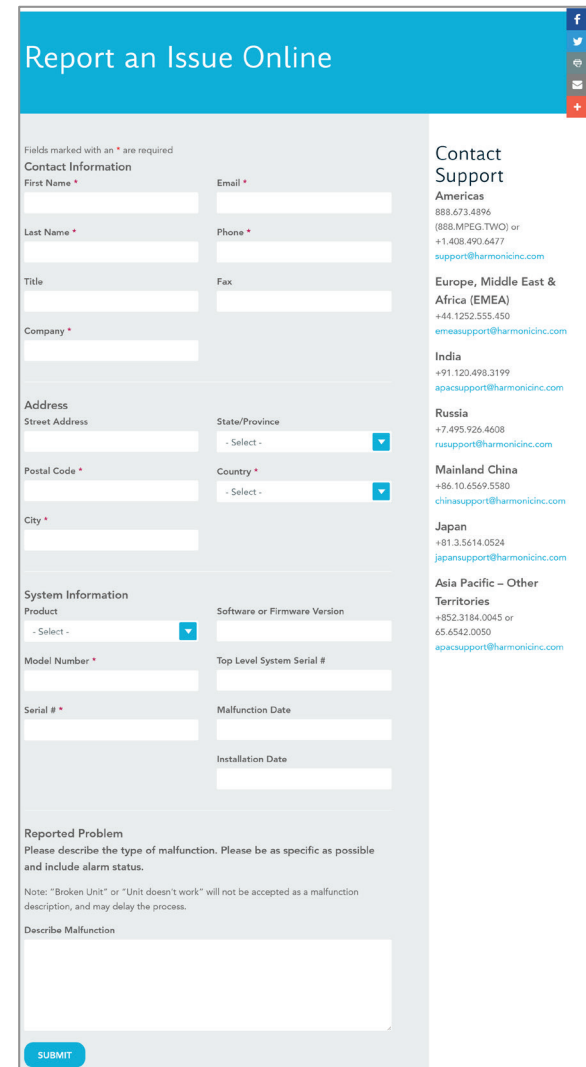 - Click **Service & Support** > **Support**, and then click **Report A Product Issue**

Contacting Support

- **Report an Issue Online**

  - Contact Information

  - Address

  - System Information

    - Product
    - Serial #
    - Software or Firmware Version
    - Top Level System Serial #
    - Malfunction Date
    - Installation Date

  - Description of Malfunction

Contacting Support

■ Severity Levels

– Define the type of failure of a system or software application that is not functioning as designed

Severity One	

Emergency: Down System	• The product(s) or any part thereof is inoperative or performance of the product is so degraded that normal operations are prevented almost entirely
	
	• Instability in the operation of one or more channels is causing intermittent on-air disturbances, and the outage could not be solved by switching to redundancy resources
	
	• Examples include the cessation of operation of one or more channels resulting in any of the following on-air disturbances:
	  – Unintentional black video or silence to air
	  – Unintentional video and/or audio distortion
	  – Unintentional video not synchronized to house reference
	  – Unintentional viewer-noticeable lip-sync problems
	  – Access to critical data is unavailable as a result of issues in the product(s) causing an impact to normal operations

Contacting Support

■ Severity Levels Cont.

Severity Two	

Critical	• Performance of the product is so degraded that substantial disruption to normal business operations is occurring, or the problem is threatening to cause a critical system failure
	
	• Examples include:
	  – The operation of one or more channels on redundancy equipment
	  – All redundancy resources being exhausted
	  – Data access and transfer times are so high that normal business operations are prevented

Severity Three	
Major Impact	• The product or any part thereof is experiencing errors or problems that have no impact on normal operations • An example includes the product being affected by minor problems such as a faulty redundant power supply in the backup video server while the server is still actively running using the main power supply

Severity Four	
Minor Impact	Minor problems, conditions, or documentation errors, which are easily avoided or circumvented by the customer. Also included are requests for new features defined as new functionality in existing products.

Collecting Information

Section Three

Collecting Information

- ## General Information

  - What date and time of the day was the problem first seen?

  - How long has the issue been present?

  - When was the most recent recurrence?

  - What workflow is trying to be accomplished?

  - What problem occurred when trying the workflow?

  - How was this different from what was expected?

  - What action, if any, was attempted to correct the issue and when?

  - What equipment was affected and what were the results?

  - Has there been any software/firmware upgrades recently?

Spectrum System Information

- What version of firmware is installed on your system?

- What is the model and serial number of the hardware involved?

- What version of SystemManager server software is installed?

- How much memory is installed on the SystemManager platform?

- Which Windows operating system is running on the SystemManager client PC?

Collecting Information

Locate Firmware Version, Model Number, and Serial Number in SystemManager

1. From the **Page** bar, click the **Home** tab.

2. From the **Home** panel, click **Upgrade Firmware**.

3. From the **Upgrade Firmware** page, under **Spectrum**, scroll to the desired *section*.

4. The information for each component is displayed under the Model Number, Serial #, and Current Firmware Version columns.

Collecting Information

Locate SystemManager Software Version

1. From the **Page** bar, click the **Help** tab.

2. The software version information is displayed under the Server Software section of the Version page.

Collecting Information

Locate Memory Installed on
SystemManager Platform

1. From the SystemManager platform, click
   the **Start** button.

2. Right-click **Computer**, and then click
   Properties.

3. From the **System** window, under **System**,
   view the **Installed Memory (RAM)**.

Collecting Information
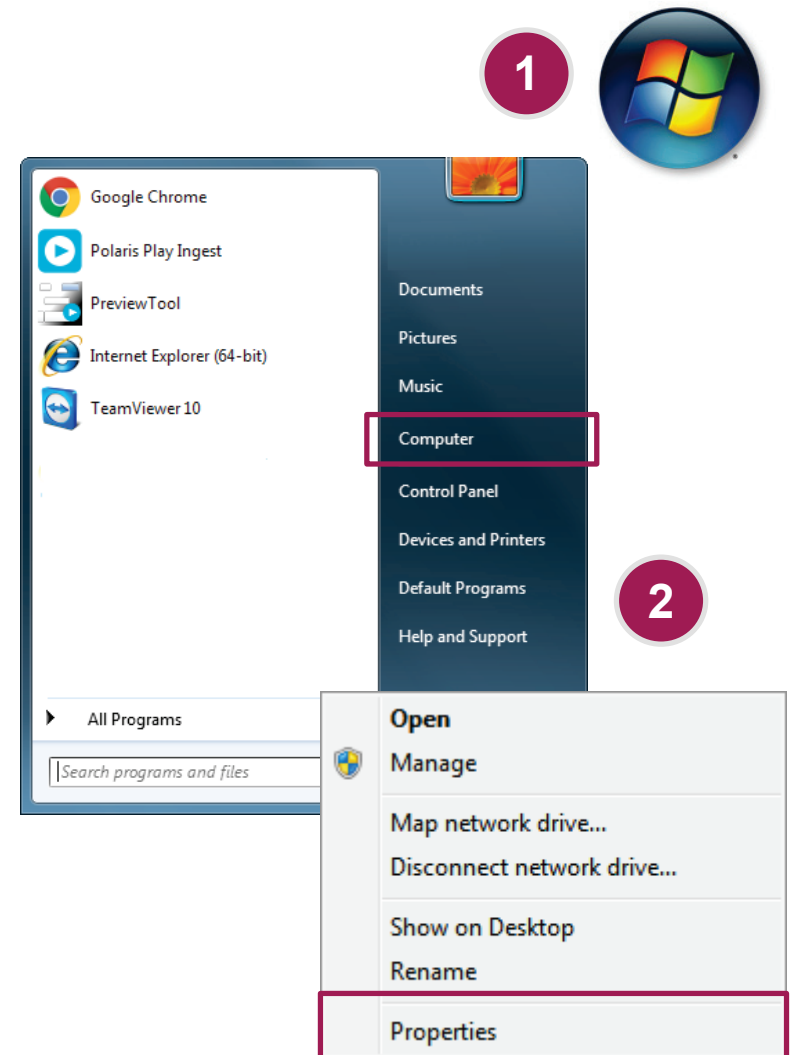
- For drive diagnosis and remediation, gather the following before you remove the failing/failed drive:

  - General Information
    - Site location
    - Server name
    - Date of failure
    - Time of failure
    - Description

  - Drive Information
    - Disk GUID
    - Disk Serial #
    - Disk Size (GB)

Collecting Information

Locate Drive Information

1. From the **Configuration** panel, click **Disk Utilities**.

2. From the **Spectrum – Disk Utilities** page, click the *Spectrum X* link for the video server whose drive information you want to locate.

3. From the **Disk Utilities** page, click the *Spectrum X* link for the drive that is whose information you want to locate.

4. From the **Drive Properties** page, gather the **Disk GUID**, **serial number**, and **size**.

Model	WDC-WD1003FBYX-0
Manufacturer	ATA
Serial Number	WD-WCAW32926802
Firmware Rev. Level	01.01VA3
Wink State	Off
Disk GUID	fe574443-2a8d1ea2
MediaStore	MediaStore2387 (50030480-00e3547f)
MediaStore Slot Number	2
Loop Master	Disabled (MSC Only)
Disk Statistics:	
Disk Size	1000 GB / 931 GiB
Block Size	4,096
Blocks	244,190,133

Collecting Information

- ## Player Information

  - What is the name of the player that is being used?

  - What file format and bitrate is the player configured for?

  - If the problem is related to ingest or playout of a clip, what is the Clip ID involved?

  - What brand of automation, if any, is being used for control?

  - Is the automation using VDCP or API for communication control?

  - What third party devices are involved?

Collecting Information

Locate Player Name, File Format, and Bitrate in SystemManager

1. From the **Page** bar, click the **Configuration** tab.

2. From the **Configuration** panel, click **Player Configuration**.

3. From the **Spectrum – Player Configuration** page, click the *name* link for the associated video server.

4. From the **Player List** page, the names of all players on that video server will display. To view their configuration details, click the associated **Film** icon.

5. The file format and bitrate are located in the Track rows.

Collecting Information

- ## Spectrum File System

    - ### Navigate to \om<serial # of director>

        - **General information**
            - Video server syslogs = \logs

        - **Storage issues and drive failures**
            - Bad block history logs = \logs
                - » Badblockhistory.csv, Badblockhistory_<serial #>.log, BlkSvcExceptionHist_<serial #>.csv, etc.
            - RAID snapshot logs = \diags
                - » RAIDsnap_<serial #>_<date/time>.csv, snapshot-<date>-<time>.tgz, etc.

        - **Player issues**
            - Player config files = \config\fss

Collecting Information
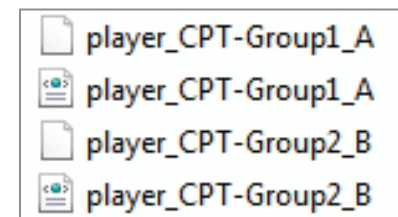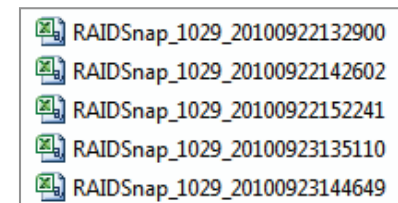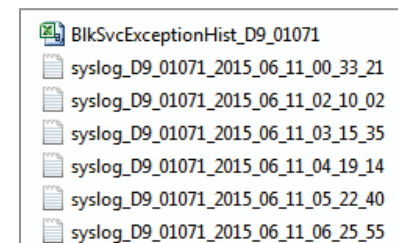
- ## System Debug Logging

  - Once the general information and system information has been documented, Debug Logging may need to be activated for the following:

    - Logging of simple API commands

    - Logging of VDCP related issues

    - Logging of Fibre Channel and storage issues

Collecting Information

- SystemManager Logs

  - SystemManager related issues

  - Especially useful when information from file system is not accessible

  - Directory = D:\omneon\manager\omdb
                C:\omneon\manager\omdb

  - Filename = manager.oda

Contacting Support

- When contacting support for template authoring issues, please have the following information ready

  - Copies of the project files

    - .fla source files

    - Published .swf files

    - Any associated assets

    - Any associated ActionScript code files

  - Copies of syslog

Remote Access

Section Four

- # Remote System Access

  - ## Harmonic TSEs need remote access

    - Make intelligent technical decisions when diagnosing a problem

    - Decrease the amount of time to diagnose and resolve the issue

    - Gain access to most log information

    - Turn on additional logging, if required

- **Remote System Access Continued…**

  - Without remote access:

    - Very difficult to figure out the problem

    - Amount of time to diagnose and resolve the issue increases substantially

    - Unclear what the next step should be without having an actual visual of the issue

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Remote Access

- **Two Access Methods**

  - Allow TSEs to gain access to:

    - Most log information

    - Ability to turn on additional logging, if required

  - TeamViewer

    - Available from Harmonicinc.com

  - Virtual Private Network (VPN)

    - Customer supplied, required VPN
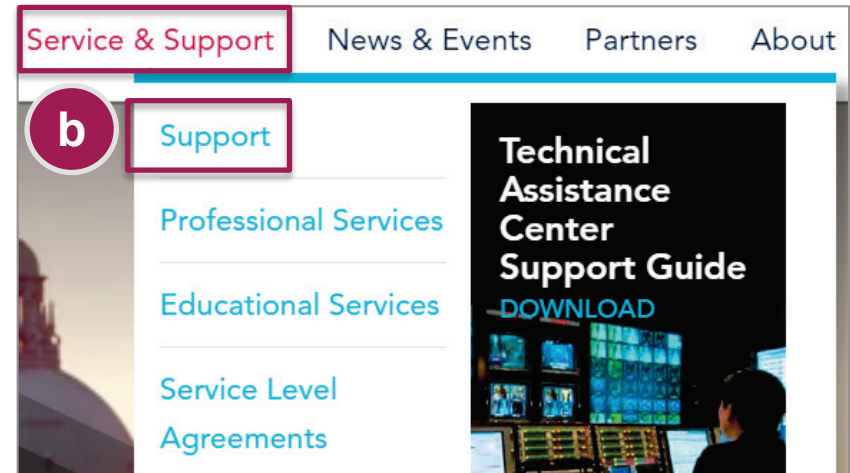
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- TeamViewer

  – Harmonic's preferred remote assistance software

  – Aids in the diagnosis of all Harmonic product lines

  – Other software may be used, but Harmonic is set-up and trained to use TeamViewer

  – Enables customers to run on a client on the affected computer

    • Client application that runs on Windows or Mac

    • No software is installed

Remote Access

Start a TeamViewer Remote Session

1. Contact Support to organize a remote assistance session.

2. Download the software.

   a. Navigate to the Harmonic website, www.Harmonicinc.com.

   b. From the **Menu** bar, click **Service & Support** > **Support**.

   c. From the **Remote Assistance** section, click the **Download** link.

3. Open the *executable file* on the PC/Mac you wish Harmonic to access.

4. Start the TeamViewer client.

5. Provide the ID and password to Support.

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Technical Assistance Center Support Guide
DOWNLOAD

Remote Assistance

The TAC utilizes remote assistance software to aid the diagnosis of all Harmonic product lines. This enables our support engineers to remotely administer Harmonic products alongside our customers, while conversing in real-time.

To start a remote assistance session, please follow these steps:

• Contact **c** to organize a remote assistance session

• Download the Teamviewer software

• Open the executable file on the PC/Mac you wish Harmonic to access

• Click 'Ok' to run which starts the TeamViewer client

• Provide the ID and password to Harmonic support so the engineer may connect remotely

Virtual Private Network (VPN)

- VPN client produces a secure pipe through a customer's firewall directly to the Harmonic equipment

- Customer supplies specific VPN requirements to support

Spectrum System

SSL-VPN

Harmonic Support

SSL-VPN

Internet

Firewall

Firewall

SSL Encrypted Traffic