



# SetUp **GUIDE**

Wisenet WAVE | COLDSTORE

Version 3.2

**WISeNET WAVE**

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## 1 Introduction

### 1.1 About This Setup Guide

This setup guide provides information about configuring your Wisenet WAVE system for use with COLDSTORE in Windows™ operating system environment only.

### 1.2 Before You Start

Before you can set up your COLDSTORE for use with your Wisenet WAVE system, you must ensure the following:

- | Your Wisenet WAVE system is installed and is working correctly.
- | You have confirmed what Windows™ operating system is installed on your computer (32-bit or 64-bit).
- | Each of your Wisenet WAVE servers has an internal enterprise level hard disk drive solely for use by the plug-in. The capacity of this drive should be at least 250GB.
- | Your COLDSTORE unit is correctly installed and has an IP address.
- | Veracity SITESCAPE is installed on your computer.

For more information about installing your COLDSTORE and SITESCAPE, see the COLDSTORE Quick Start Guide supplied with your COLDSTORE. More detailed information can also be found in the COLDSTORE users guide. Details of how to obtain the latest COLDSTORE users guide can be found in the Quick Start Guide.

You can download the latest version of SITESCAPE from the following location:

[http://veracitydownloads.com/Home/Perma?code=SITESCAPE\\_WAVE](http://veracitydownloads.com/Home/Perma?code=SITESCAPE_WAVE)

### 1.3 Supported Operating Systems

The COLDSTORE Wisenet WAVE storage plug-is compatible with the following Windows™ operating system versions.

- | Windows XP
- | Windows Vista
- | Windows 7
- | Windows 8
- | Windows 8.1
- | Windows 10
- | Windows Server 2003
- | Windows Server 2008
- | Windows Server 2012
- | Windows Server 2016

## 2 Understanding the Setup Process

This setup guide is intended to assist you in the setup process and guide you through each step individually. The main steps in the setup process are:

- 1 Ensuring your COLDSTORE is correctly installed and has an IP address assigned.
- 2 Setting the COLDSTORE's Retention Action to disabled.
- 3 Installing the COLDSTORE Wisenet WAVE storage plug-in.

- 4 Configuring the COLDSTORE storage settings for your Wisenet WAVE system.
- 5 Confirming the status of your COLDSTORE.

### 3 Finding Your COLDSTORE IP Address

This section assumes that you have already installed SITESCAPE and that your computer's firewall is not set to block SITESCAPE. To successfully configure the COLDSTORE unit for use with the Wisenet WAVE system, you will need to know the IP address assigned to the COLDSTORE unit for later use. If you already know the IP address, then skip to section 4.

- 1 Start SITESCAPE.

If you have previously run SITESCAPE and set up user authentication and created a site then go to step 7 in this section.

- 2 The Authentication and server selector page will be shown. Choose the desired option and click **Save**, then enter user details if requested.

- 3 The Welcome to SITESCAPE page will be shown. Click **Create a site**.

- 4 Enter a site name. Enter a site location and description if desired; these can be left blank.

- 5 Click **Next**.

- 6 Go to step 9 in this section.

- 7 Under the Home panel, choose the Site option.

The **Home** panel is the left-most part of the SITESCAPE window. If the **Home** panel is partially hidden, then to show the labels for the various options, click the circle button at the top-left end of the SITESCAPE window just below the title bar.

- 8 Click the **Add devices** link.

- 9 After some time, devices on the network should be listed.

SITESCAPE uses Bonjour - a group of technologies that includes service discovery, network address assignment, and hostname resolution - to find COLDSTORE, IP cameras and encoders units, and other Veracity devices. Note that some other devices on the network may also respond - these can be ignored.

- 10 Navigate to the COLDSTORE section in the list of discovered devices.

- 11 Identify the COLDSTORE(s) you want to configure and note the IP address displayed in the list.

If your COLDSTORE is not listed, refer to the COLDSTORE Quick Setup Guide for information about correctly installing your COLDSTORE.

## 4 Setting the Disabled Retention Action on a COLDSTORE

Once a COLDSTORE is configured, you must confirm that the retention action for the COLDSTORE is set to disabled. The following instructions describe how to add the COLDSTORE to SITESCAPE's database. If the COLDSTORE has already been added, then skip to step 6.

- 1 Follow the steps in section 3 to discover the COLDSTORE
- 2 Put a check against the COLDSTORE and click **Next**.

The Selected Devices page is shown.

- 3 If the credentials for COLDSTORE devices have been stored previously the device will be shown with status Online. Click **Add to Site** and skip to step 6.
- 4 If the credentials for COLDSTORE devices have not been stored previously then click the **Credentials Required** link.

The Set Credentials window is shown.

Enter the username and password for the COLDSTORE. The default COLDSTORE username is admin and default password is admin. Click **Save**.

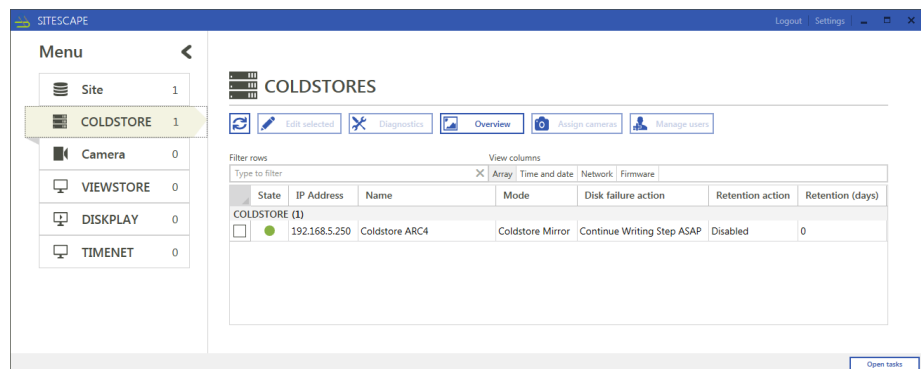
The Set Credential window closes.

Click **Next**.

- 5 Click **Finish**.
- 6 Under the **Home** column, choose the **COLDSTORE** option.

The COLDSTORES page is shown.

Figure 1 - SITESCAPE COLDSTORE Array Settings



- 7 Click on the check box to the left of the COLDSTORE entry.
- 8 Click **Edit selected**.

The **COLDSTORE settings** page is shown.

- 9 Check that the entry for the COLDSTORE has **Retention Action** set to Disabled.

If the action is already set to Disabled then skip the rest of this section.

- 10 Change the **Retention Action** to Disabled.

- 11 Click **Save**.

## 5 Installing the COLDSTORE Wisenet WAVE Storage Plug-in

When using COLDSTORE with your Wisenet WAVE system, video files are created and buffered in local storage by the plug-in. Buffered files are then moved to your COLDSTORE.

The storage plug-in is installed on the media server, allowing the media server to communicate with your COLDSTORE.

You will need to know whether your Windows™ operating system is a 32-bit or 64-bit version, so that you can select the correct plug-in to install.

If an older version of the plug-in is already installed, there is no need to uninstall it first.

- 1 Stop the media server.
- 2 Download the latest version of the storage plug-in.

For 32-bit operating systems, download:

[http://veracitydownloads.com/Home/Perma?code=Wisenet\\_WAVE\\_WIN32\\_PLUGIN](http://veracitydownloads.com/Home/Perma?code=Wisenet_WAVE_WIN32_PLUGIN)

For 64-bit operating systems, download:

[http://veracitydownloads.com/Home/Perma?code=Wisenet\\_WAVE\\_WIN64\\_PLUGIN](http://veracitydownloads.com/Home/Perma?code=Wisenet_WAVE_WIN64_PLUGIN)

Unzip downloaded file and run the executable ColdstorePluginInstaller.exe

- 3 Select "**I agree to the license terms and conditions**" and click **Install**.

The installation starts.

This may take some time to complete. The installer creates a system restore point on your computer which can take several minutes.

- 4 Once the plug-in is successfully installed, restart your media server to incorporate the changes.

When you restart your media server for the first time after installing the plug-in, a configuration file is created in the local Appdata folder of the user account you are using for the media server. This is normally a local system account.

- 5 Locate the configuration file on your computer.

A typical location for the configuration file is:

C:\Windows\System32\config\systemprofile\AppData\Local\Veracity WAVE COLDSTORE Plugin\config.txt

- 6 Open the configuration file using an appropriate text editor.

- 7 Edit the local storage drive location and the local storage usage limit. The location should be the path for the dedicated enterprise level drive. The usage limit depends on the capacity of this drive and the number of COLDSTOREs being used by this server. It should be equal to (drive capacity minus 10GB) divided by the number of COLDSTOREs.

Examples:

For a 250GB drive and one COLDSTORE:

```
LocalStorageLocation=D:\
```

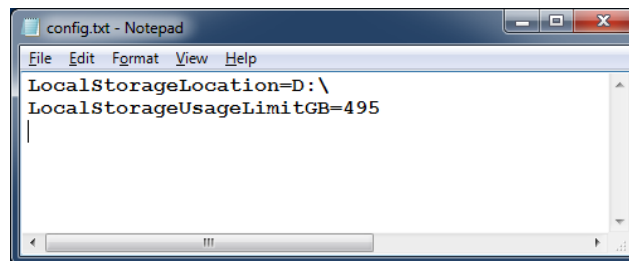
```
LocalStorageUsageLimitGB=240
```

For a 1TB drive and two COLDSTORES:

```
LocalStorageLocation=D:\
```

```
LocalStorageUsageLimitGB=495
```

Figure 2 - Config text file



**Note** You should avoid using the system drive of your computer for this purpose.

- 8 Save the changes in your configuration file and close the text editor.

- 9 Restart your media server to incorporate the changes.

**Note** The plug-in reports that the specified local storage location is unavailable when the local storage usage limit is reached. Once configured, if your COLDSTORE is offline, the plug-in also reports that storage is unavailable. If your COLDSTORE is offline, the plug-in does not use local storage, even if the specified usage limit has not been reached.

## 6 Configuring the Wisenet WAVE File Duration

The default duration of files created by the Wisenet WAVE Media Server is one minute. You should increase this to ten minutes.

- 1 Open Windows Registry editor.
- 2 Navigate to the key  
**HKEY\_LOCAL\_MACHINE\SOFTWARE\Hanwha\Hanwha Media Server**
- 3 Create a new string value in this key.
- 4 Assign the name **mediaFileDuration** to this value
- 5 Assign the data **600** to this value

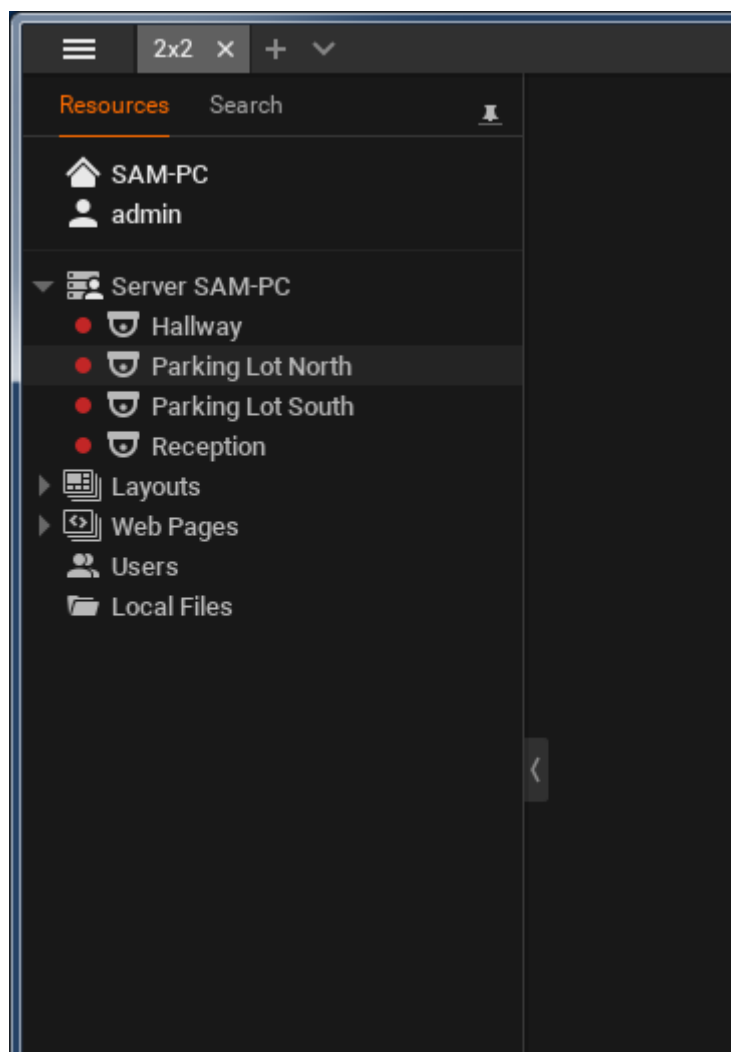
## 7 Configuring a COLDSTORE on the System

All steps in this section use the Wisenet WAVE client application.

- 1 Start the Wisenet WAVE client application.
- 2 Log into the appropriate media server.

The Wisenet WAVE interface is displayed and a list of servers and cameras is displayed in the left pane.

Figure 3 – Wisenet WAVE user interface



### 7.1 Adjust recording retention duration for cameras

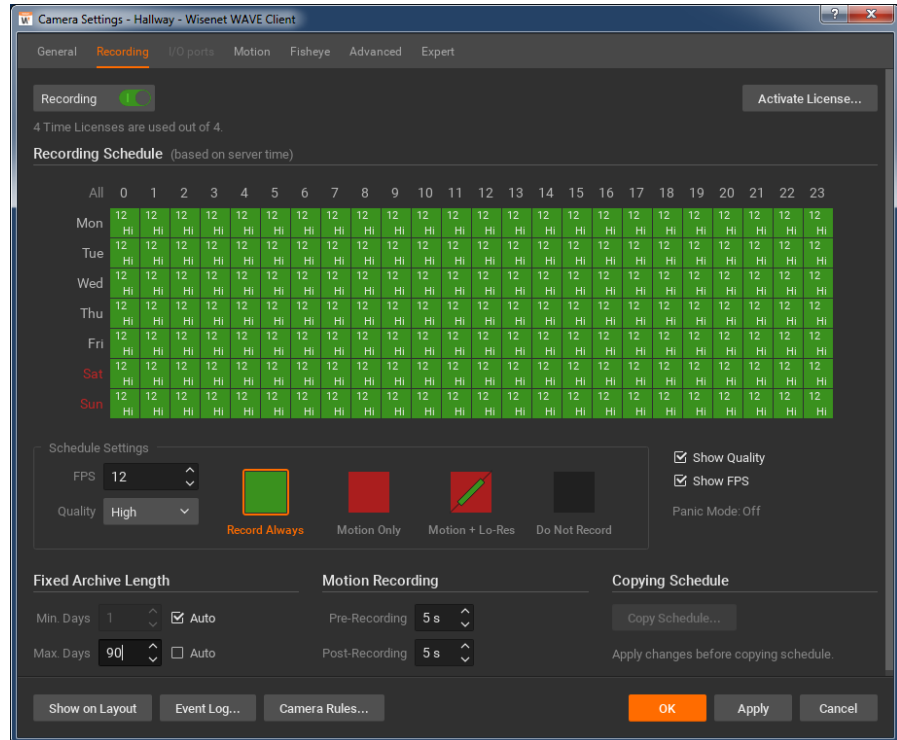
To calculate the retention time for all recorded cameras on a COLDSTORE, sum the bit-rates of *all* cameras recorded by a COLDSTORE and divide this into the storage capacity of the COLDSTORE. Convert the result from seconds into a duration in whole days rounding down. Alternatively, ensure that the COLDSTORE has sufficient storage to meet the desired retention time.

- 1 In the list of servers and cameras, right-click on a camera and select **Camera Settings...** from the context menu.

The **Camera Settings** dialogue box is displayed.

- 2 Click the **Recording** tab.

Figure 4 - Camera Settings dialogue – recordings tab



- 3 Under **Fixed Archive Length** for **Max. Days** uncheck **Auto** and enter the number of days value calculated previously.
- 4 For **Min. Days** check **Auto**.
- 5 Click **OK** to save your settings and close the dialogue box.
- 6 Repeat steps 1 to 5 for the remaining cameras being recorded to the COLDSTORE.

**Note** *COLDSTORE does not support differential retention therefore all cameras recorded or backed-up to a COLDSTORE must have the same number days entered into Max. Days.*

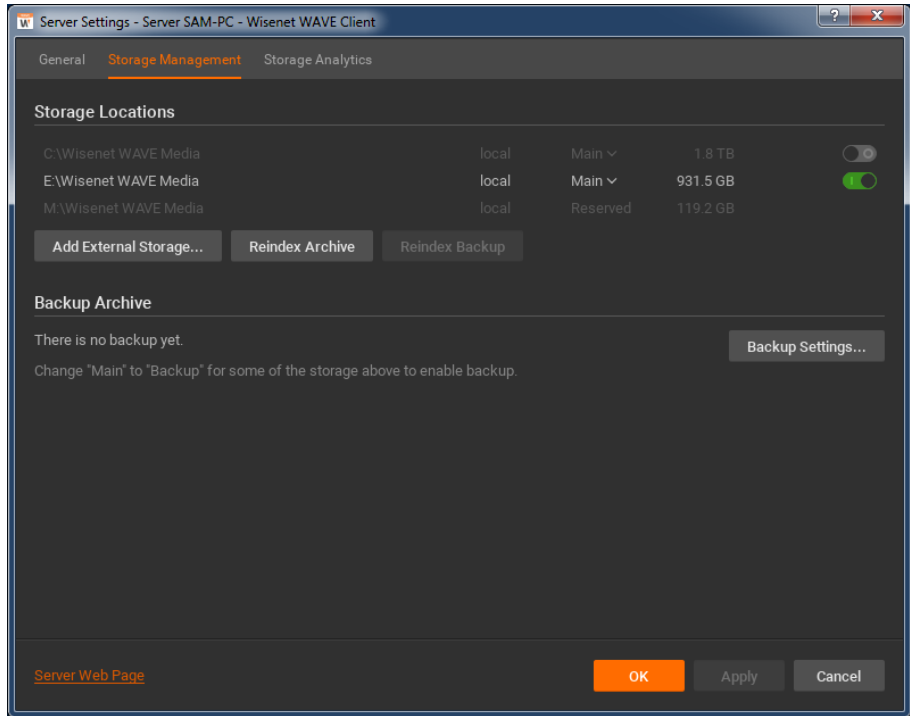
**Note:** *Where the system has been operational and has recorded data for most, or all, of the number of days specified under Max. Days, a large reduction of the Max. Days value could affect the performance of the system. After changing the Max. Days value, the system should be left to complete the removal of the older data. Normal system performance will resume automatically once removal is complete.*

## 7.2 Adding a COLDSTORE

- 1 In the list of servers and cameras, right-click on the media server you are configuring and select **Server Settings...** from the context menu.

The **Server Settings** dialog box is displayed.

Figure 5 - Server Settings dialogue box

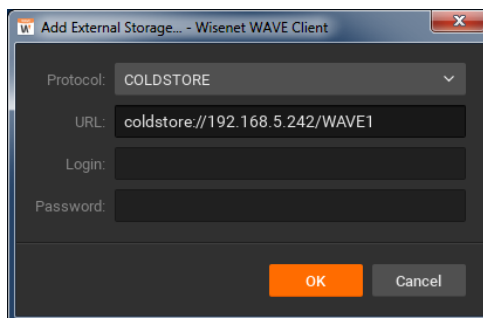


- 2 Click on **Storage Management**.

Under **Storage Locations**, click **Add External Storage...**

The **Add External Storage** dialogue box is displayed.

Figure 6 - Add External Storage dialogue box



- 3 Select **COLDSTORE** in the **Protocol** list.
- 4 Enter the **URL** location of the COLDSTORE.

This should include the IP address of your COLDSTORE and the folder within the COLDSTORE which relates to the media server you are configuring.

For example:  
`coldstore://[IP address]/[folder]`

**Note** *More than one media server can write to the same COLDSTORE. Each media server should use a unique path. The folder location you enter provides this unique path.*

- 5 Ensure the **Login** and **Password** fields are blank.
- 6 Click **OK** to save your settings and return to the **Server Settings** dialogue box.

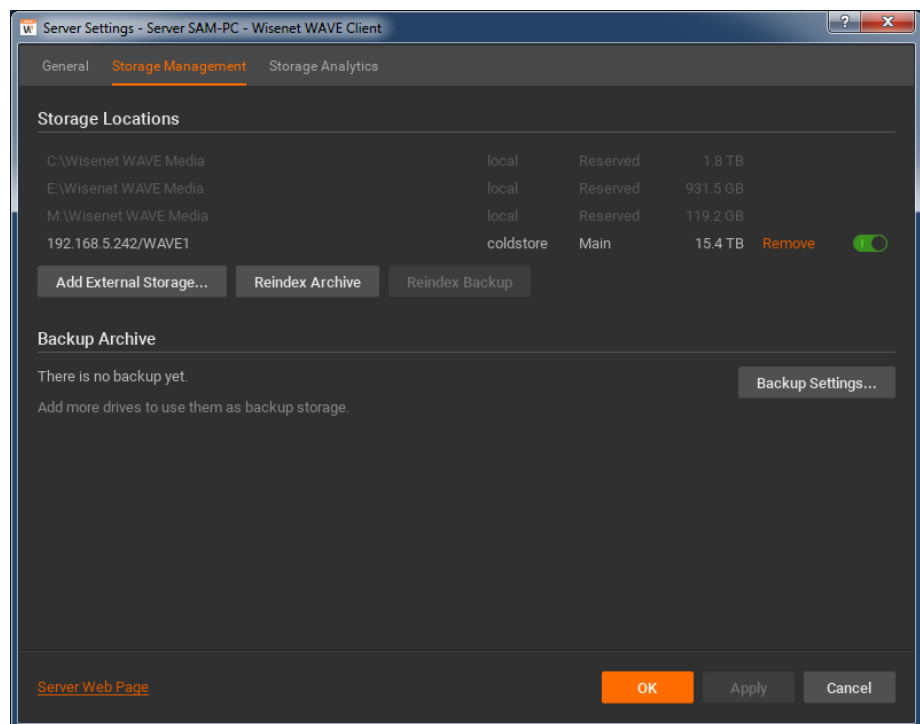
The COLDSTORE is now displayed in the **Storage Locations** list.

Once added to a media server COLDSTORE units can be used as main storage and/or backup storage. See sections 7.3 and 7.4.

### 7.3 Specify a COLDSTORE as Main storage

- 1 Ensure that the toggle switch next to the newly added COLDSTORE in the Main **Storage** Locations list is enabled.

Figure 7 - Server Settings dialogue box showing COLDSTORE



- 2 Ensure that no local storage locations are enabled.
- 3 Click **OK** to save your settings and close the **Server Settings** dialogue box.
- 4 If the COLDSTORE has been previously connected to the Wisenet WAVE system and contains video files, you should rebuild the archive index to make the files available for playback, by performing the following procedure:

- a In the list of servers and cameras, right-click on the media server you are configuring and select **Server Settings...** from the context menu.

The **Server Settings** dialogue box is displayed.

- b Open the **Storage Management** tab and click **Reindex Archive** in the **Storage Locations** section of the dialogue box.

A warning is displayed making you aware of the effect of the rebuilding process.

- c Read the warning.
- d Click **OK** to continue.

The rebuild process starts.

When the process is complete, a confirmation dialogue box is displayed.

- e Click **OK** to close the dialogue box.
- f Click **OK** to close the **Server Settings** dialogue box.

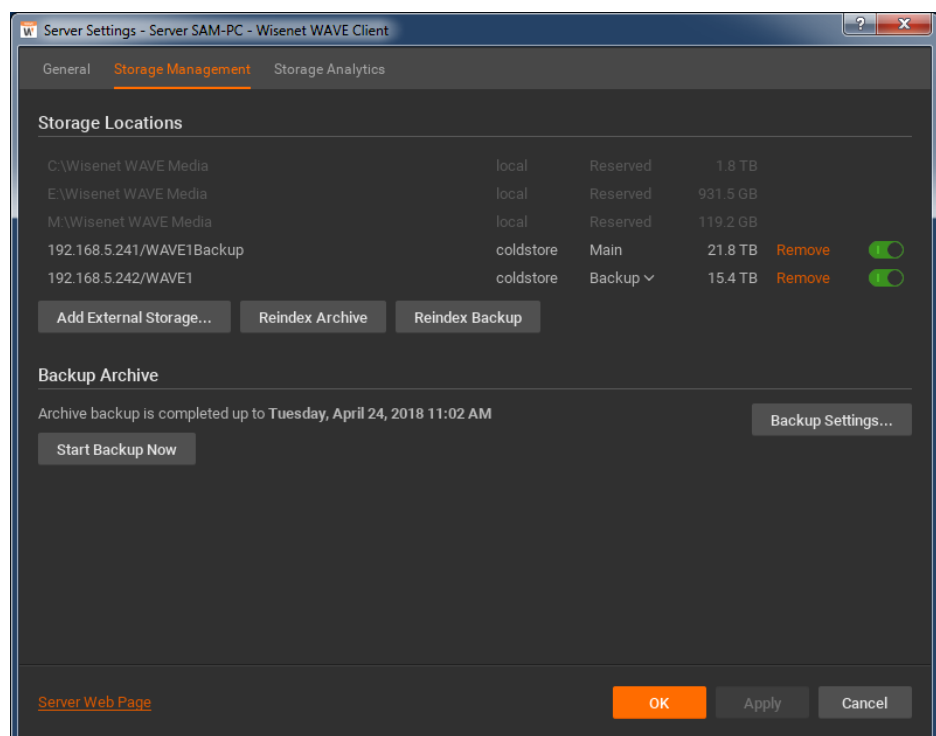
- 5 To add another COLDSTORE, repeat all steps in section 7.2.

**Note** *If you have more than one COLDSTORE in your configuration, you cannot direct files from specific cameras to a specific COLDSTORE. The media server balances the writing of all files to the COLDSTORE units to ensure files are moved at a rate proportional to storage capacity.*

## 7.4 Specify a COLDSTORE as Backup storage

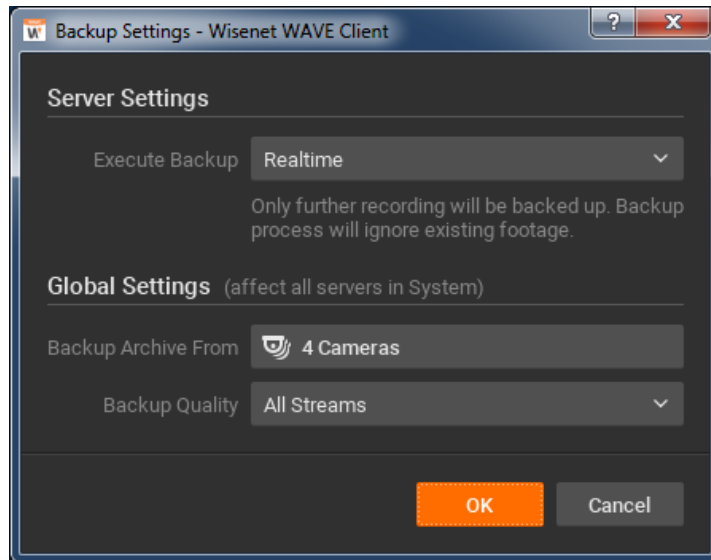
- 1 Choose a COLDSTORE unit from Main Storage Locations list not actively being used for main storage and change the storage type from **Main** to **Backup** and click **Apply**.

Figure 8 - Server Settings dialogue box showing COLDSTORE in back-up storage role



- 2 Ensure that the toggle switch next to the newly added COLDSTORE is enabled.
- 3 Click **Backup Settings**

Figure 9 – Backup Settings dialogue box

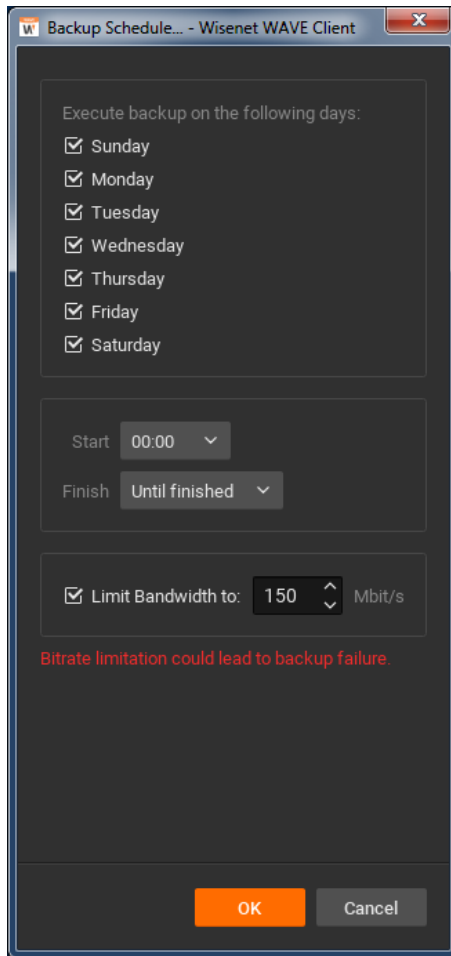


- 4 Under **Execute Backup** choose either **Realtime** or **By Schedule**.

**Note** *Never use On Demand backup and do not use Realtime backup when COLDSTORE is also being used as Main storage.*

- 5 If realtime backup is desired.
  - a Select the **Realtime** option in the **Server Settings** section.
  - b Select the cameras and streams to be backed up in the **Global Settings** section.
  - c Click **OK** to save your settings and close the **Server Settings** dialogue box.
- 6 If scheduled backup is desired
  - a Select the **By Schedule** option in the **Server Settings** section.
  - b Select the cameras and streams to be backed up in the **Global Settings** section.
  - c Click **Set Schedule**

Figure 10 – Backup Schedule dialogue box



- d Select the days on which backup should be executed.
- e Select the **Start** time for scheduled backup.
- f Select the **Finish** time for scheduled backup.
- g Ensure that **Limit Bandwidth** is checked.
- h Enter a value for the bandwidth limit. This must be large enough to prevent a backlog from developing but must not exceed 300Mbit/s.
- i Click **OK** to save your settings and close the **Server Settings** dialogue box.

## 8 Editing the COLDSTORE Settings

The Wisenet WAVE system does not allow you to edit the settings for a COLDSTORE that is already configured on the system.

To change the settings for a configured COLDSTORE you should delete the COLDSTORE as a storage location and add a new external storage to configure the COLDSTORE again.

**Note** *Deleting a COLDSTORE from the Storage list does not delete the files contained on the COLDSTORE.*

For more information, refer to the following procedures in this guide:

- 9 Deleting a COLDSTORE from the System
- 7.2 Adding a COLDSTORE
- 7.3 Specify a COLDSTORE as Main storage, or
- 7.4 Specify a COLDSTORE as Backup storage

## 9 Deleting a COLDSTORE from the System

You can delete a COLDSTORE from the system.

**Note** *Deleting a COLDSTORE from the Storage list does not delete the files contained on the COLDSTORE.*

- 1 Start the Wisenet WAVE client application.
- 2 Log into the appropriate media server.

The Wisenet WAVE user interface is displayed and a list of servers and cameras is displayed in the left pane.

- 3 In the list of servers and cameras, right-click on the media server you are configuring and select **Server Settings...** from the context menu.

The **Server Settings** dialogue box is displayed.

- 4 Click on **Storage Management**.
- 5 Identify the COLDSTORE you want to delete in the Main or Backup Storage Locations lists. If you intend to reconfigure the same COLDSTORE, it may be useful to note the path details before deleting the COLDSTORE.
- 6 Click on the **Remove** link adjacent to the COLDSTORE to delete.
- 7 The COLDSTORE is removed from the list.
- 8 Click **OK** to save your settings and close the **Server Settings** dialogue box.

## 10 Setting Up Email Status Alerts

If the local storage becomes full or the COLDSTORE is offline, the plug-in reports that storage is not available.

You can configure Wisenet WAVE to provide an email alert for this event. These notifications are configured in the same way.

For information about how to configure events and notifications, you should refer to the Wisenet WAVE User Manual, accessible from within the Wisenet WAVE client application.