



Video Surveillance Solution

Setup Guide

BUFFALOTM

Introduction

Surveillance technology is no longer considered 'new' technology as videos have been recorded and stored for reference, for many years. Looking back at the 1980's, systems would use the classic video recording technology together with analogue cameras. Even today this analogue technology is still widely in use.

However, in the past decade, we have seen dramatic growth in the digital camera market; installing, recording and configuration has been significantly simplified. With the ever increasing need to improve quality of surveillance videos, the reliability of CCTV footage to solve crime cases is now much stronger. It is also necessary to have storage technology to support the surveillance cameras - its crucial to be able to locate and provide the footage efficiently.

This guide provides an outline of how to set up an efficient system, using Buffalo's Surveillance Video Manager.



What is the situation?

For many organisations it is mandatory to have a certain level of security. For some companies it is vital to have an efficient tool to fight crime. For example petrol stations are struggling with increasing theft rates. In some cases you just need observation to manage traffic, crowds in a stadium etc. We could say the key tasks for such systems are:

- Providing security
- ensuring public safety
- preventing theft
- collecting evidence
- managing crowds
- protecting public and private property
- recording critical events

Nowadays small and medium business are looking for security enhancements like camera surveillance. The systems are more affordable and the deployment has become less complicated. But as a small, and possibly new business, who can be certain at what rate your business will grow? It then becomes difficult to predict what your requirement for data storage will be in say, three to five years time. Therefore, in terms of storage and surveillance it is most advisable look to a highly scalable solution.

Many companies are still using analog technology. If you are calculating the cost versus benefit of investing in a new solution, and are using analogue technology, it would serve as a more cost effective solution to look towards investing in digital technology.

What is the solution?

Following the invention of the digital IP surveillance camera, the natural progression was to record video streams, therefore combining cameras with storage.

You could of course leave the job to the camera! Many cameras can upload pictures or videos to an FTP or SMB server, or even to http; this would mean all files are simply stored. This can become very restrictive and a hindrance when finding a specific record which is, if we remember back, of the key requirements of a surveillance solution - providing evidence. That said, if the requirements are not too high, this basic set up could be sufficient.

Alternatively, you would look for a storage system combined with a surveillance server - a more cost efficient, long-term solution and possibly without discarding your former IT investments. The storage would provide the hard disk drive (HDD) space and help to manage the recorded video content. Buffalo's basic solution includes powerful storage and supports 1-10 cameras. But as you grow, your surveillance storage can grow with you!

What use is a plethora of data with no tools to sort through it? You would really be limited on how you could use it - certainly not productively. Manufacturers, such as Buffalo, have created a one-stop integrated solution that combines storage, cameras, a surveillance server and software to manage and use the data files.

The solution from Buffalo Technology

Buffalo Technology has its own solution to meet the requirements of users in the small and medium business and in the enterprise segment.

The solution includes:

NAS: TeraStation™ 3000, 4000, 5000, 7000 series

- Powerful hardware
- Easy to deploy
- Populated with HDDs and preconfigured
- Storage capacity per NAS device, from 2TB up to 48TB
- With pre-installed video surveillance server to record RTSP streams
- One free camera license

Flexible license model

- Buy as you need
- No subscriptions

Management software suite for PC and Mac

- Manage cameras, storage connected to the network
- Central management from one client
- Search for videos across all storages
- Video life cycle management
- Export videos of interest
- Camera live view
- View network activity

Using the RTSP stream (Real Time Streaming Protocol) makes the solutions compatible to standards. A wide range of cameras are natively supported. Currently about 1200 camera models from various vendors. If a camera is not natively supported but capable of RTSP it is possible to integrate the model by customising the settings.

The flexible license model enables you to scale the solution according your requirements. Because the costs are transparent, you don't need to buy unnecessary volumes of storage or licences above the current requirement.

The Buffalo Solution comes with a powerful management suite. Rather than connecting to one particular storage unit it manages everything from one central point. Meaning that certain events take place across the network; configuring cameras, storage policies such as duplicate, backup or purge; search for videos. The advantage of this become widely apparent as your storage requirements and set-up increases.



Setting up your system

You can quickly and easily set up the Buffalo Surveillance Server and your RTSP enabled IP cameras to record, store, and manage surveillance video.

The steps below show you how to get started.

If your camera is not listed, add your camera's information using the Camera Configurations window. See **Add an IP Camera – Standard Mode** for this procedure.

If your camera manufacturer and model are listed, Buffalo Surveillance Server automatically fills the required camera information.

When you want to:

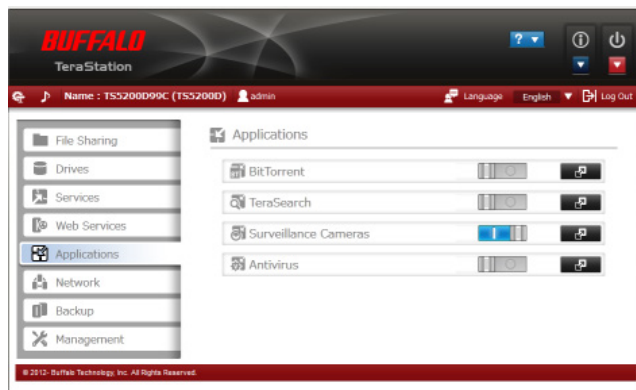
Connect and set up the storage device

Perform the following steps:

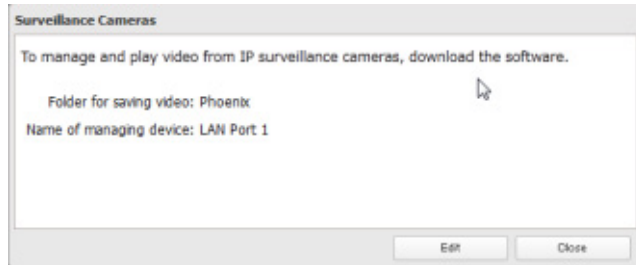
- Follow the instructions from your Buffalo storage device to:
- Physically connect the device to your network, power it up, and initialise it.
 - Ensure that your computer is properly configured and connected to a network.
 - Open the web-based administration interface for the device.

Enable Surveillance capabilities

In the Web Admin Interface, click **Applications** and then **Surveillance Camera** to configure the surveillance camera.



- **Folder for saving video** - Specifies where video will be stored; if you are not sure of a location then keep the default value. Use the Browse button to navigate to other folders.



- **Select a LAN Port.** If there are multiple network connections, then select the one that is connected to the desktop.
- **Click OK.**

Download and Install surveillance software for desktop client

- Visit the Buffalo Technology website to download a copy of the client software. The software can be acquired on the download page of all supported TeraStation models.
- Ensure that Buffalo Surveillance Server will not be blocked by your local firewall software.
- All devices running the Buffalo Surveillance Server must be **time synchronized**. If they are not, unexpected results may occur.

Connect your IP camera and determine its IP address

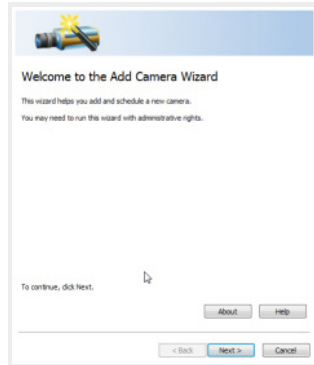
- Refer to the camera's user manual to install, configure, and initially access the camera.
- Use the camera's discovery software or other mechanism to determine its IP address, and write it down. You need it for the next step.

When you want to:

Add a camera configuration and schedule video recording

Perform the following steps:

- From the suite of Buffalo Surveillance Server applications on your computer, open the Camera Policies application.
- Click the **Add Camera Wizard** button on the toolbar. The Welcome screen appears.
- Click **Next**. The Camera Information window appears.

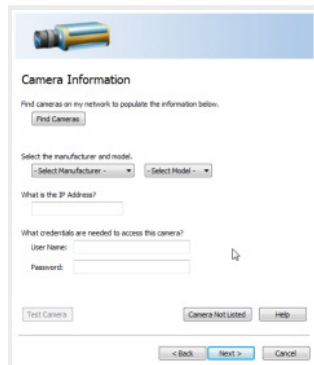


- To add camera information either click the **Find Cameras** button to display all the cameras found on the network, or from the pull-down lists **select the manufacturer and model**.

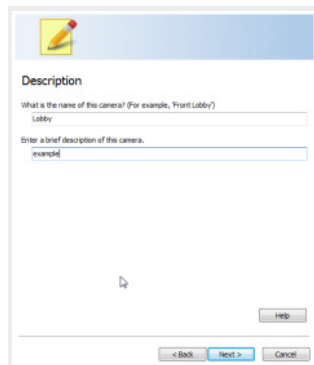
If your camera manufacturer or model is not listed, use the Camera Configuration window to add your camera, rather than this wizard. See Add an IP Camera - Standard Mode.

- In the **IP address box**, enter the host name or IP address in dot notation.
- Enter the **user name** and **password** for the camera if they are required to access it.
- Click the **Test Camera** button to start a viewer to test whether the supplied information is correct.

What if my camera is not listed in the Add Camera Wizard?



- Click **Next**. The Description window appears.



- Enter a meaningful name to identify the camera, and a brief description.
- Click **Next**. The Recording Schedule window appears.
- Select **Always** to record continuously. Video is captured into the Buffalo Surveillance Server Information Repository in 5-minute clips.
- Click **Next**. The Recording Computer screen appears.
- Select the computer that should be used for recording video from the drop-down list.
- Click **Next**. The Ready to Add window appears.
- Review the information. To make changes, use the **Back** button to go to the appropriate wizard screen.
- Click **Next**. The List of Cameras Added window appears.
- The cameras added during the wizard session are listed. To remove any camera, select it and then click the **Remove Selected Camera** button.

When you want to:	Perform the following steps:
	<ul style="list-style-type: none"> ■ If you do not want to add another camera, select No. To add another camera, select Yes in order to cycle through the wizard again. Click Next. ■ If you have no more cameras to add, the Ready to Save Camera Configurations and Recording Schedules window appears. ■ The list of cameras for save is displayed. To remove any camera, select it and then click the Remove Selected Camera button. ■ Click Finish. The Add Camera Wizard closes, and the focus is in the main Camera Policies application window. ■ By configuring a camera and setting a schedule for it to record, the new recording policy is listed on the left side of the main Camera Policies application.
Wait for your video feed to be recorded and processed	<ul style="list-style-type: none"> ■ After creating a recording policy, wait about 15 minutes to allow the system time to record a 5-minute clip, process and store it, and make it available for searching.
Search for and review recorded video	<ul style="list-style-type: none"> ■ From the suite of Buffalo Surveillance Server applications on your computer, open Surveillance Video Manager . ■ Click the Search button on the lower left. The search results pane in the middle of the screen displays the video clip that was just recorded. ■ Also select the camera whose video you want to search. ■ Click More Search Options to see more criteria to narrow search results. ■ Refer to the section on Searching for, Reviewing, and Exporting Surveillance Video for more information about how to export video out of the system.
Install Buffalo Surveillance Server clients on other computers	To run Buffalo Surveillance Server policies from other computers on your network, repeat Step 3 to download and then run the client software on those computers.

Final thoughts

The Buffalo video surveillance solution is designed to meet the varying needs of different businesses: starting with one NAS and one camera, increasing to large networks with multiple cameras and NAS devices. Adding resources to the network and managing them centrally becomes relatively easy and using the data practically is no hassle either!

Users are presented with a practical, scalable solution if video surveillance is needed. The TeraStation NAS is a very versatile device, so even if you consolidate your storage pool and free some for other tasks, you could still use the TeraStation as a NAS or iSCSI storage in a variety of network environments.

Product Part Numbers

TS3400D0404-EU	TS5200D0202-EU	TS5600D0606-EU	TS-2RZS08T04D-EU
TS3400D0804-EU	TS5200D0402-EU	TS5600D1206-EU	TS-2RZS12T04D-EU
TS3400D1204-EU	TS5200D0602-EU	TS5600D1806-EU	TS-2RZH24T12D-EU
TS3400D1604-EU	TS5200D0802-EU	TS5600D2406-EU	TS-2RZH36T12D-EU
TS3400R0404-EU	TS5400D0404-EU	TS5800D0808-EU	TS-2RZH48T12D-EU
TS3400R0804-EU	TS5400D0804-EU	TS5800D1608-EU	
TS3400R1204-EU	TS5400D1204-EU	TS5800D2408-EU	
	TS5400D1604-EU	TS5800D3208-EU	
TS4200D-EU	TS5400R0404-EU		
TS4400D-EU	TS5400R0804-EU		
TS4400R-EU	TS5400R1204-EU		
TS4800D-EU	TS5400R1604-EU		

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