Mobotix Overland and Wavestore

A Flexible Video Recording Solution from Mobotix, Overland Storage and Wavestore

Introduction

The security and surveillance industry has until recently relied upon mature video technology with cameras providing low quality images of 0.4 megapixels that are transmitted over coaxial cables, which is bulky and inflexible. Recent developments in camera technology has provided significant improvements through IP and megapixel cameras. The megapixel (high resolution) cameras deliver better image quality and resolution, enabling the user to digitally zoom into the image and view detail contained within.

Mobotix is acknowledged for their high quality megapixel IP cameras. These versatile high resolution cameras take video surveillance to a level that is practical, reliable and flexible. The cameras deliver high resolution images more efficiently than most other cameras, however they do place a heavy demand upon the network and require increased digital storage. Conventional digital video recording systems are designed as Direct Attached Storage (DAS), where the storage is integrated within the video recorder. Whilst this is adequate for applications with a few megapixel cameras, it does not fulfil the requirements of larger camera systems, is less flexible for applications that are expected to expand or where data is required to be retained for an extended period.

Fortunately Networked Attached Storage (NAS) devices have long been the forestay of the IT industry and the Snap Server a well respected product.

Snap Servers have been demonstrated to be ideal network storage solutions for handling the demands from multiple high resolution Mobotix camera data streams.

Please review the camera resolution table published by Mobotix to ascertain the typical bandwidth and storage volume for your application.

Snap Servers are available in a range of sizes to suit differing applications and can be expanded up to 84 Terabytes (SATA).

Control and management of the video

The Wavestore digital video controller is a comprehensive recording and management solution that provides instant access to live video images from the Mobotix cameras or enables the rapid search of archived video images stored on the Snap Server. This can be done on the Wavestore video controller or remotely from a PC which has been provided with a user name and password.

The Wavestore design operates on Linux and can simultaneously record from analogue, IP and megapixel cameras from different manufacturers utilising different protocols. This includes the proprietary Mobotix MxPEG protocol; delivering the full video performance corresponding to the resolution selected.

The settings and performance of each Mobotix camera can be accessed and optimised from within the Wavestore camera set-up routine.

Some of the benefits of the Mobotix, Snap Server and Wavestore solution are:

- High resolution video capture over IP networks
- Ability to record data from hundreds of cameras
- Fast access to archived video data
- Dual Gigabit network avoid network bottlenecks
- Integrated NAS storage protocol within Wavestore O/S
- Multiple camera compression algorithms supported simultaneously (including Mobotix MxPEG)
- Ability to use existing analogue cameras and cabling.
- Many camera makes recorded simultaneously
- Virtual PTZ functionality for detailed image analysis
- A fully scalable solution that is easily expanded
- Linux reliability underpins Mobotix, Snap Server and Wavestore solutions

Estimating how much storage is required

There are various facts that affect the amount of storage required including:

- Image size selecting a larger image format increases the file size
- Image rate (number of frames per second)
- Percentage of compression impacts upon the quality and image file size
- Image compression; the type of compression affects the file size
- Video Motion Detection; only records when activity is detected
- Number of hours per day the camera is required to record
- Number of days that archived video data is required
- Number of cameras on the network

Summary

Existing security installations with analogue cameras can be upgraded with IP and Megapixel cameras (such as those from Mobotix), using the Wavestore system. Such hybrid solutions retain the existing analogue cable infrastructure, while the new IP based cameras utilise an existing or new Ethernet network.

Wavestore recorders feature a dual Ethernet network, enabling the camera data stream to be maintained separate to the organisation's data network. This avoids the camera network's continuous demand for bandwidth impacting upon the enterprise network.

Wavestore video controllers are available in a range of options, to address a wide range of application configuration. Please contact your Wavestore dealer for more details.

The Mobotix camera, Snap Server and Wavestore Controller integration has been well developed such that the equipment can be installed with minimal configuration and set-up routines. The web browser set-up for each Mobotix camera can be accessed directly from the Wavestore "camera set-up" screen.

About Wavestore

Wavestore is a UK designed and manufactured digital video recording solution that operates on the reliable Linux platform.
The Wavestore design supports multiple compression technologies from a wide range of camera manufacturers including Axis, Arecont, Basler, Bosch, IQInvision, JVC, Lumenera, Mobotix, Panasonic, Pelco, Siemens and Sony.
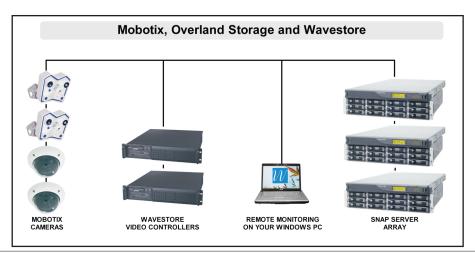
A proprietary data management design enables very fast access times to locate and view real-time or archive images, even in very large storage systems.
Large distributed surveillance systems can be created with flexible secure remote monitoring using a Windows PC.

The product range includes high MTBF rack mounted systems and mobile (in-vehicle and rapid deployment), recorders. Features such as Video analytics for counting, tracking and alerting and Video Intelligence for traffic management, ANPR, people counting and object monitoring are also supported.

Wavestore systems have been installed into security and surveillance applications, including ports, airports, motorways, casinos, city centres, manufacturing, on trains, metro stations, corporate buildings, banks, power stations and government and commercial property.

For details of the potential volumes of total storage that would be required for Mobotix cameras, please refer to the Overland Storage white paper *Using_Snap_w_Mobo.pdf*, available at www.snapserver.com

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MOBOTIX CAMERAS   WAVESTORE VIDEO CONTROLLERS   REMOTE MONITORING ON YOUR WINDOWS PC   SNAP SERVER ARRAY