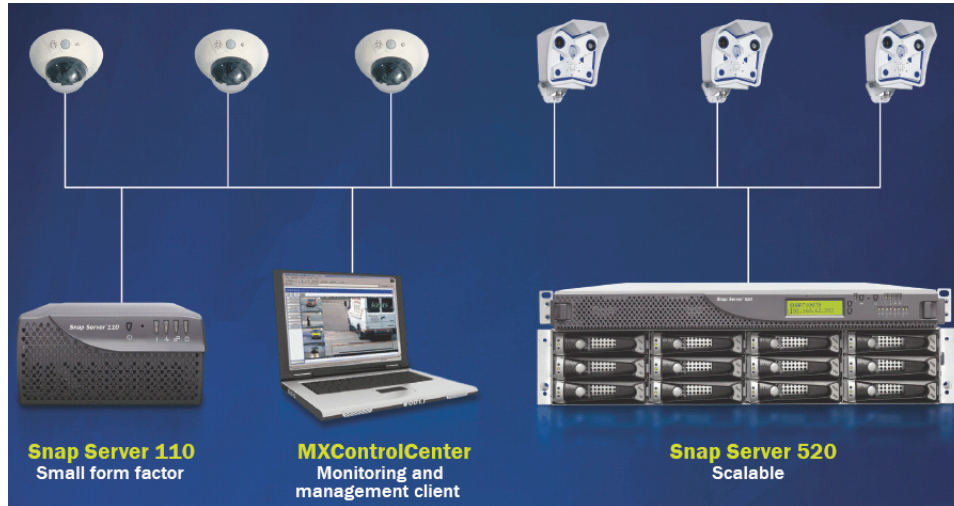


The Right Solution for Video Surveillance and Storage MOBOTIX Cameras and Overland Storage® Snap Server®



Introduction

MOBOTIX Cameras are known for their high quality megapixel Imaging IP Cameras. Their versatile line of high resolution cameras brings video surveillance to a higher level, providing megapixel resolution (1024 x 768, 1280 x 960, 2048 x 1536) video streams with audio and scalable frame rates. Their cameras store these high resolution images more efficiently than other cameras, thereby requiring less network bandwidth and placing a lower demand on the network storage device. Recent testing of Snap Servers in the MOBOTIX Camera Lab has shown Overland Storage Snap Servers to be an ideal network storage solution for handling the demands from multiple high resolution camera streams, while offering reliability, scalability, and ease of use. The Snap Server is easier to maintain and requires much less expertise to manage than a standard PC.

Storage for up to 80 MOBOTIX Cameras

Snap Servers can support multiple cameras to simplify the installation and ongoing management of the video system. Each Snap Server tested in the MOBOTIX lab was able to simultaneously process continuous video streams from 40 MOBOTIX cameras recording at a 1.3 megapixel resolution at the highest frame rate.

Snap Servers come in a variety of sizes, so they can fit a variety of video surveillance storage needs, whether the installation is large or small. A fixed capacity desktop unit can support up to 6 cameras streaming megapixel resolution, while an expandable 19-inch rackmount system can scale to support 80 cameras.






 Snap Server 110	 Snap Server 210	 Snap Server 410	 Snap Server 520	 Snap Server 650
250GB, 500GB, or 750GB SATA	500GB, 1TB, or 1.5TB SATA	1, 2, 3, or 4TB SATA	1, 2, 3, or 4TB SATA Expand with up to 84TB SATA or 25.2TB SAS	1.2TB SAS Expand with up to 84TB SATA or 25.2TB SAS
15 Cameras @ VGA 6 Cameras @ Megapixel	15 Cameras @ VGA 6 Cameras @ Megapixel	20 Cameras @ VGA 8 Cameras @ Megapixel	40 Cameras @ VGA 30 Cameras @ Megapixel	80 Cameras @ VGA 60 Cameras @ Megapixel

Table 1: Overland Storage Snap Server products with storage capacity and number of cameras supported

Accessing the video surveillance

MxControlCenter is a free video management software application from MOBOTIX, which enables you to instantly access live images from the MOBOTIX cameras, or intelligently search through recorded video footage stored on the Snap Servers. You can do this via the local computer network, or remotely via an Internet connection.

Benefits of the MOBOTIX/Snap Server Solution:

- High resolution video and audio capture over IP networks
- Archive functions are already integrated into the camera. Each camera independently records their images directly to the Snap Server for ease of management, maximum flexibility and scalability.
- Each high performance Snap Server storage system supports multiple cameras
- Snap Server storage systems are available in a variety of sizes, so the right size can be selected for each site
- Modularly expandable storage provides longer retention times of higher resolution images
- Easily manage one or many geographically dispersed Snap Servers
- Proven rock-solid reliability provided by Linux-based GuardianOS™ operating system

Using Overland Storage Snap Servers with MOBOTIX IP Network Cameras

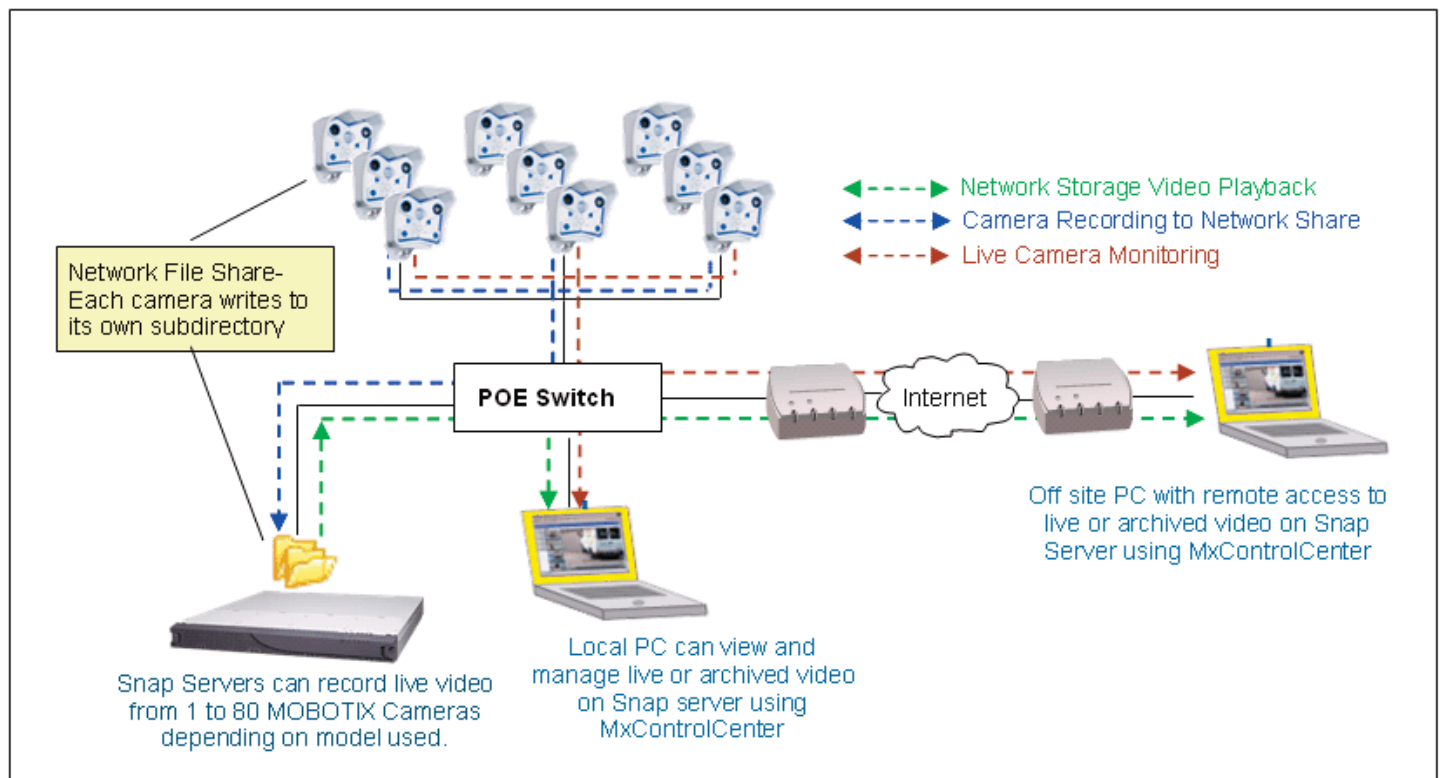
Built on the Linux-based GuardianOS Operating System, Overland Storage Snap Servers provide NAS storage for file storage and sharing, or as part of a backup to disk solution – whether at a single site, or across multiple remote sites.

Snap Servers are available in a variety of sizes, from 160GB desktop units to 19-inch rack mount systems that scale from 1TB to 66TB of raw storage capacity to fit a variety of video surveillance storage needs. Most Snap Servers also support multiple RAID data protection schemes, so critical video files remain safe and are available when they are needed.

As illustrated in the table below, each Snap Server can support multiple cameras to simplify the installation and ongoing management of the video system. And the modular expandability of the Snap Server 520 and 650 systems enable the flexibility for future growth, as well easily facilitating an archiving solution, should that be desired.

Snap Servers provide cross-platform support, including NFS and CIFS, and easily integrate into existing networks and security infrastructures on a single device, providing a safe and secure video archiving solution.

Each MOBOTIX camera writes its images independently to a network share configured on the Snap Server



How Much Storage Is Required?

There are many factors that affect the amount of storage required such as:

- Image size – a factor of resolution and image quality
- Frames per second when recording
- Recoding format – compression type
- Percent of compression – a factor in the quality of the image
- Number of hours of camera recording per day
- Days of video retention

The table below is intended to give some idea of the amount of total storage that would be needed in three image complexity scenarios for MxPEG recording format. All storage capacity below is in Gigabytes per camera, per day of retention.

	Quality = 60%, Recording Mode = Continuous, Resolution = VGA (640 x 480)								
Image Complexity	Low	Med	High	Low	Med	High	Low	Med	High
Frame Rate (fps)	Max (quality)	Max (quality)	Max (quality)	12	12	12	4	4	4
GB Per Day With Audio	13.4	20.1	26.8	11.95	17.9	23.9	9.1	13.6	18.1
GB Per Month With Audio	405.9	604.4	805.8	358.4	537.6	716.8	271.9	407.8	543.8
GB Per Day Without Audio	12.7	19.6	25.5	11.3	16.93	22.6	8.4	12.6	16.8
GB Per Month Without Audio	383.1	574.7	766	338.6	507.9	677.3	252.1	378.2	504.2
Number of Cameras	15	15	15	15	15	15	15	15	15
Capacity Per Day (GB)	201	302	402	179	269	359	137	204	272
Capacity Per Month (GB)	6,089	9,066	12,087	5,376	8,064	10,752	4,079	6,117	8,157
Number of Cameras	40	40	40	40	40	40	40	40	40
Capacity Per Day (GB)	508	784	1,020	452	677	904	336	504	672
Capacity Per Month (GB)	15,324	22,988	30,640	13,544	20,316	27,092	10,084	15,128	20,168

Frame Rate – Quality assumes 16.8fps, 60% compression

1000 Gigabytes = 1Terabyte

Conclusion

Snap Servers offer a cost effective and powerful network storage solution for your IP video surveillance. Snap Servers offer high performance throughput and provide right-sized storage from 160GB up to 66TB, to fit a variety of budgets and environments. Snap Servers integrate easily into your infrastructure offering: ease of use, rock solid reliability, RAID data protection, multi-unit management; and local backup and video file replication for added protection of your critical video files.