



SMART BOOST™

Experience

The Ultimate Performance

A Solution Brief by Promise Technology Inc.

An Eco-system Technology Built for Surveillance Storage & Video

Nowadays, General IT focus server / bare-bone storages are mostly used in surveillance eco-system. It goes without saying that the challenges in surveillance eco-system are not well handled, this result in unnecessary cost are incurred with the over-kill storage proposal.

Identifying the bottlenecks

Figure out causes is the first step prior to propose the solutions. What are the possible performance causes in a standalone type of surveillance systems? To a recording system, the major factors infer are computing power (CPU / GPU), transportation link (NIC & Ethernet for camera streaming, SATA/SAS/FC/USB/Ethernet link to storage), Memory buffers (system memory or video memory), the peripherals (the disks, IP cameras) and the mechanism for a better/efficient usage to all the factors listed.

In a contrast, most likely, raise up the CPU to server grade, add on powerful graphics, enlarge memory requirements and powerful SAS/FC disks are propose with a general purpose IT system to build a surveillance eco-system. This result in two possibilities, firstly, the performance casus was solved with a rather high cost as overall specified components are raised up or secondly, the cause was not solved by raise up all components built for surveillance eco-systems.

Promise devoting to be a surveillance eco-system solution provider with SMARTBOOST storage & videos solutions to address the bottle-necks incurred by the improper access (or w/o mechanism for a better/efficient access) to disk peripherals and video processing requirements for AI Video & 4K EVA.

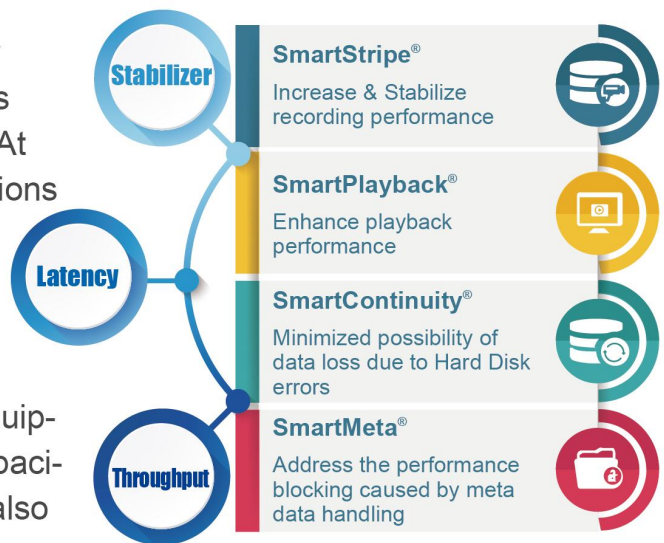


SMARTBOOST STORAGE

The Right Storage for the Right Surveillance System

The number of security cameras in use today is growing exponentially. At the same time, resolutions are getting higher and higher. These two factors are placing heavy demands on servers and storage equipment. Certainly, the capacity of these systems is also increasing, but that alone


does not make the equipment truly suitable for the most demanding applications - such as camera surveillance. A video stream is not comparable to 'normal' data, for which storage systems are usually designed. To address these issues, Promise Technology develops solutions that ensure that storage systems are not only extremely reliable, but will also last much longer.





What makes a server or storage system suitable for use with video? Of course, high storage capacity is important, but at least as essential is a high processing speed. In addition, several features are needed that increase the reliability of the entire system. For example, a so-called RAID configuration ensures that continuity does not depend on one disk. Multiple disks do the same work, so it does not matter if one or even two failures occur. The administrator gets a signal and can easily replace the malfunctioning disk without losing data, and it is not necessary to take the system temporarily 'offline'. It's true that these are features that many 'normal' servers and storage systems also have. So what makes Promise's solutions so special?


SMARTBOOST STORAGE

The Right Storage for the Right Surveillance System


SmartStripe®
 Sequentialized Stabilized

With SmartStripe®	Without SmartStripe®
 FAST	 SLOW


SmartPlayback®
 Better Prediction Higher Hit Rate

With SmartPlayback®	Without SmartPlayback®
 HIGH	 LOW


SmartContinuity®
 Surveillance Aware Service
 ContinuitySafe Data

With SmartContinuity®	Without SmartContinuity®
 CONTINUE READING	 STOP


SmartMeta®
 High WRITE performance
 Low READ latency

With SmartMeta®	Without SmartMeta®
 PRIORITY PASS	 QUEUE

Promise's SMARTBOOST™ technology is extremely unique. This technology allows the server to support a large number of cameras, eliminates frame drops and contributes to highly stable operation.

In addition to reliability, Promise's systems offer more convenience than servers and storage systems designed for normal data. They are specifically designed for connecting cameras and installing Video Management Software, such as xProtect from Milestone Systems. They are easy to use, and able to be installed and configured instantly. Many models also allow input from alarm systems, enabling cameras to be activated when an intruder is detected or an emergency door is opened. With expansion modules, highly complex systems can be realized, with storage capacity reaching up to 100 Terabytes. Such large capacities are achieved by Promise's smart technologies being used with unparalleled efficiency.



When it comes to a surveillance environment, the more cost-effective and efficient, the better. Promise SMARTBOOST VIDEO can help improve productivity and drive down costs, helping employees and your IT team work more efficiently.

Where Performance Meets Profitability

Technology advancements in business-mobility, the cloud, security, and fleet management-evolve rapidly. Businesses require innovation to keep pace in this changing environment. Streamline crucial consumption of the Central Processing Unit, using powerful Graphics Processing Unit workflow for setting you apart from the competition. These innovative technology have been designed and tested for optimal integration into your storage architecture. Help reduce workload and costs while motion detection recording , enhance storage productivity, and enable clients to record securely—wherever business demands.

Centralize Management, Take Control

Routine tasks can hijack your day. That's why Promise SMARTBOOST VIDEO help you centralize playback and live view channels in viewer client, so you can easily to utilize the operating power of Graphics Processing Unit, increase the accuracy of video analytics, reduce the time of deep learning and allow you to expand capability to display via HDMI. This will help the clients to save more time to focus on more important tasks. Automate and simplify device configuration, utilize memory channels, as well as optimize drivers and display configurations

Make Smarter, Faster Recordings

Large amounts of video data can be overwhelming. That's why Promise SMARTBOOST VIDEO make it easy for work teams to organize and archive important recorded video data where it's needed. Help streamline everyday tasks and improve employee manual checking, while keeping your surveillance environment running smoothly.

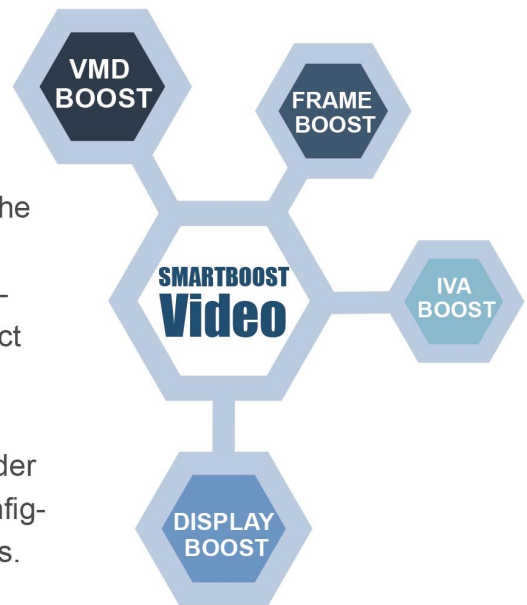
SMARTBOOST VIDEO

The Future of AI-NVR



Set Detective Productivity in Motion

A better solution is provided for the environment with multi-camera setups. In order to assure a comfortable experience for the subject of analysis, we have extensively optimized performance so that recording can be triggered in under 15 seconds for multi-camera configurations before detecting motions.



Accelerating Video Processing and FPS

Another key benefit here is accelerating and improving with the existing video assets, and supporting a large variety of video data sources through live view or playback to a client viewer storage. This can also enhance the system performance as well as ensure FPS.



IVA Engine Across Correlation and Trend Analysis

Deep learning differs from traditional machine learning techniques in that they can automatically learn representations from data such as video data. Promise is able to reduce the time of deep learning and adapt the patterns of AI applications, such as *Facial Recognition and License Plate Recognition*.



Experience the Power of Multi-Display

Keep your displays easily expanded and organized by adding a HDMI expansion card to Promise Vess Family. The HDMI expansion card on each machine can be configured to show all tableau, or only the tableau that are located on some certain monitors.