Milestone Solution Partner IT Infrastructure Components Certification Summary

AOPEN Digital Engine and Etile platform

23-10-2015

Table of Contents

Introduction: 3
Certified Products: 3
Solution Architecture: 3
Scenario 1: 3
Scenario 2: 4
Key Findings: 5
Conclusion: 5

About AOPEN:

AOPEN is a major electronics manufacturer and one of the world's leading providers of professional products and applied business solutions. It specializes in two areas: ultra-small form factor computing platform for home business and professional applications, from hardware to software and services. The core of the USFF platform is formed by our Digital Engine, a robust and flexible platform that has a proven track record of reliability throughout its lifespan.

Founded in 1996 in Taipei, Taiwan, AOPEN listed on the Taiwan Stock Exchange in August 2002. Through its parent company Wistron, AOPEN has access to a worldwide pool of expertise and solutions. AOPEN now operates a growing global business in over 100 countries worldwide. Its clients range from governments and financial institutions to retailers and branding agencies, including major global brands and blue chip Fortune 500 companies.

AOPEN's business has maintained its core values and beliefs throughout its evolution, and continues to focus on working with customers to achieve their business goals. It also fosters a culture of "entrepreneurship" to drive innovation and employee development. AOPEN works across the entire value chain. You may visit www.aopen.com/eu for more information

About Milestone Systems:

Milestone Systems is the world’s leading provider of open platform IP video surveillance software. Milestone has provided easy-to-use, powerful video management software in more than 100,000 installations worldwide.

Milestone XProtect® products are designed with open architecture and are compatible with more IP cameras, encoders and digital video recorders than any other manufacturer. Because Milestone provides an open platform, you can integrate today’s best business solutions and expand what’s possible with future innovations. Visit www.milestonesys.com for more.

Introduction:

This report highlights the performance results of certification tests performed on the AOPEN (Digital Engine) DE7200, Engine Core 650, and AOPEN Etile WT22M-FI in 2 scenarios

Scenario 1: The DE7200 hosted the XProtect Management and Recording Servers, the Engine Core 650 hosted the live and archive video databases, while the Etile was used as a Smart Client video display workstation.

Scenario 2: The DE7200 was used as a Management Server, Engine Core 650 hosted the archive database, and the Etile hosted the Recording Server, live video database, and Smart Client application.

Certification of the DE7200, Engine Core 650 and Etile 22 solutions ensure that any surveillance system built using these AOPEN products in combination with the Milestone XProtect components will be able to record, display and archive an amount of video consistent with the recommendations of the Milestone Server and Storage Calculator.

Certified Products:

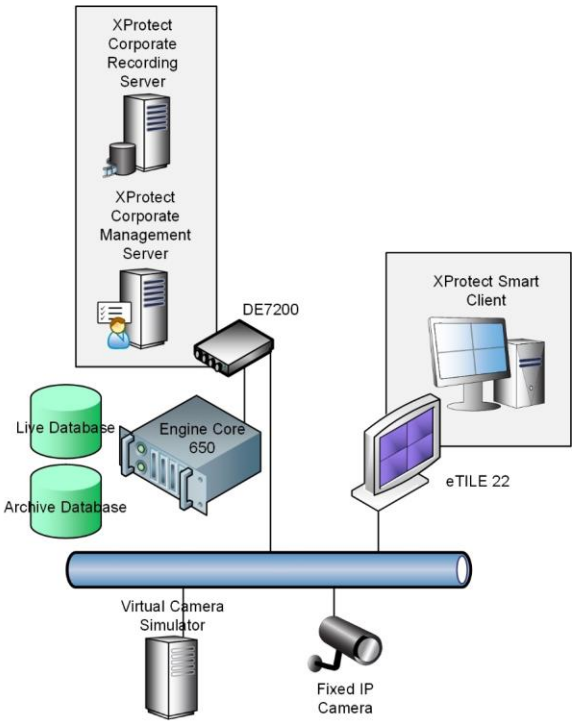
- DE7200
- Etile WT22m-FI
- Engine Core 650
- Milestone XProtect Corporate 2014

Performance of the solution may vary if different XProtect products and/or system components not listed in the tests details are included. For a complete list of all equipment used in the certification.

Solution Architecture:

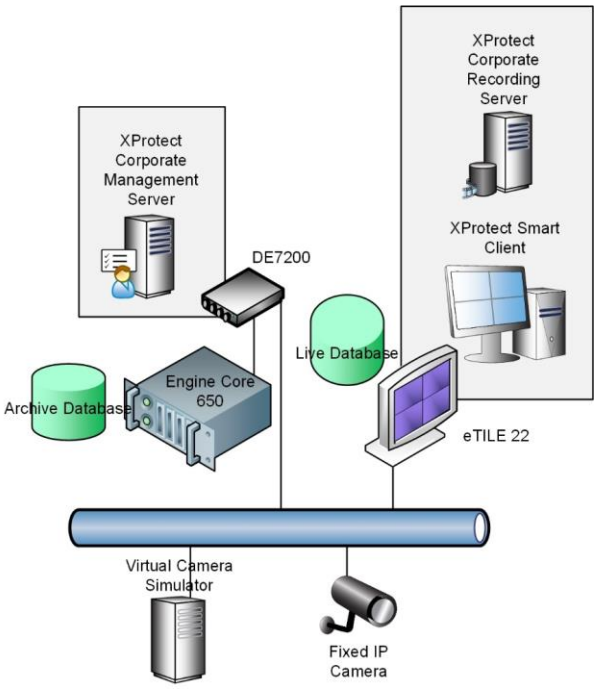
Scenario 1:

The system topology included one server and 1 client. The DE7200 is composed out of a main CPU unit with OS, running on SSD, with Engine Core 650 attached using SATA 3 as an external RAID controller. The XProtect Smart Client was installed on the Etile system. Client and server were connected using a 1Gb LAN infrastructure.



Scenario 2:

The second scenario included one server and one client. The server hosted the Milestone XProtect Corporate Management Server and was used as location for the Archive database. The client system was running the XProtect Smart Client, Recording Server, live video database, and Management Client.



Key Findings:

Both the Digital Engine and Etile series of hardware products can serve as video recording and display solutions supporting the Milestone XProtect VMS system at a level that is two to four times higher than the benchmark levels determined by the Milestone Server and Storage Calculator. AOPEN DE7200, Engine Core 650, and Etile 22 are certified MTP solutions. The maximum performance of the product is listed below:

Test Scenario 1	Video Stream Parameters	Maximum Number of Cameras	Live Video Database Read Latency (milliseconds)	Individual Video Stream Size (Mbps)	Maximum Disk I/O (MBps)
Benchmark:	H.264 1280x720 15 FPS 60% compression	25	0.5	2.7	31
Maximum:		60	16.9		264

Test Scenario 2	Video Stream Parameters	Maximum Number of Cameras	Live Video Database Read Latency (milliseconds)	Individual Video Stream Size (Mbps)	Maximum Disk I/O (MBps)
Benchmark:	H.264 640x480 15 FPS 60% comp.	10	0.07	0.55	1.02
Maximum:	H.264 1280x720 15 FPS 60% comp.	40	38.8	2.7	27.5

Conclusion:

The DE7200, Engine Core 650, and Etile 22 are certified server and storage solutions for use with the Milestone XProtect VMS. The calculator indicates that for Scenario 1 the system should support 25 cameras at the benchmark level, and it was able to support a maximum of 60 cameras. The performance testing determined that the DE7200 server and attached Engine Core 650 RAID storage solution can support at least twice the number of cameras as recommended by the calculator. For scenario 2, the calculator indicates that the Etile 22 and Engine Core 650 should support 10 VGA cameras at the benchmark level and it was able to support 4 times that amount of 1 Megapixel cameras.

The DE7200, Engine Core 650, and Etile 22 can be freely configured to meet any customer's demands. This platform performed very impressively in the tests which were conducted. A video surveillance system built using these AOPEN components could be scaled upwards endlessly with extra storage, redundant servers or redundant power supply configurations, to provide a highly resilient and powerful surveillance system.

Integrators and end users should have confidence when building video security and surveillance systems which include the XProtect VMS and the AOPEN solution. These solutions are certified, and can be used to support XProtect Recording Servers which are recording between 1 and 60 cameras at megapixel resolution. Larger systems could be built using multiple storage solutions, alternative disk configurations, and multiple Recording Servers. The XProtect and AOPEN integrated system is highly scalable with several excellent storage controller interface options, and multiple available redundancy methods to create reliable high performance surveillance and security solutions for mission critical applications.

GENERAL DISCLAIMER:

All information, to include but not limited to, documentation, configuration calculations, installation and trouble-shooting advice, consultancy and support services which may be provided within this document is delivered 'as is' without warranty of any kind. Unless otherwise agreed in writing between you and Milestone Systems A/S or its Affiliates, you, as the recipient, agree to assume the entire risk as to the results and performance achieved or not achieved by reliance on such information. Milestone Systems A/S and its Affiliates shall, to the extent allowed by law, assume no liability for the Recipient's reliance on such information and disclaims all warranties, whether express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose, title and non-infringement, or any warranty arising out of any proposal, specification or sample with respect to the document. Furthermore, Milestone Systems A/S and its Affiliates shall not be liable for loss of data, loss of production, loss of profit, loss of use, loss of contracts or for any other consequential, economic or indirect loss whatsoever in respect of delivery, use or disposition from the content of this document.