

Fibrenetix and barox cooperation

**“barox Switches can stream it,
and Fibrenetix servers/storage
can store it”**

barox – Switches made for Video

We are the Video-optimized manufacturers of Europe

barox Kommunikation GmbH manufacturer of switches built for video and Fibrenetix manufacturers of storage servers built for video are two European companies widely regarded as leaders in their fields. Together they have taken the initiative of a broad set of tests to prove reliability and performance when deployed together within a common network environment. Below is the generic white paper showing the results of testing and put forward their claim of best of breed for video security applications, and moreover orientate users towards best practices for professional video security deployments.

Before introducing the white paper we wish to share our core values, to highlight who we are, what we stand for and our commitment for users in the security industry

We are European

- Each of our products is proudly designed in Switzerland and Denmark to the very highest quality and reliability

We are Experienced

- barox and Fibrenetix share a long history. We share more than two decades of innovation and are proudly crafting/designing our products with the same passion and dedication as we did the day we were founded.

We are Compliant

- We follow ISO27001 so our components and software are Cyber Secure and comply with the tightest regulations, worldwide



Our products are purposely built for Video Security Industry

- Our extensive passion and understanding for the video media led both our teams to build exactly what was needed to provide Unique Task Oriented Architecture (TOA) for the Network

We Educate our Partners

- We make sure that our partners learn how to deploy and manage our technologies, themselves.

We do our Homework

- Quality and reliability are very important to us. We make sure to perform exhaustive pre-testing of all equipment pre-shipping. We conduct heavy testing sessions, so we guarantee the performance of our products within the Video Security Ecosystem.

The Test

barox and Fibrenetix has partnered to conduct extensive joint tests through the **Fibrenetix Benchmark and Validation Program** to provide data rich reports and statistics that could be used in Pre-sales stages for both companies.

In other words, we challenged our products to find out which one would fail first.

Fibrenetix Testing and Calibration Lab

Over the years, Fibrenetix has mastered the replication in laboratory to simulate a live scalable and controlled environment to perform benchmarking for any given surveillance architecture.

About the Hardware

- **barox RY-LGSP28-28:** This PoE switch with comprehensive L3 capabilities was designed specifically for high-data-load applications, such as video over IP and video streaming in conjunction with multicast. Both the switch and the network traffic are protected by the switch's comprehensive security features. Even complicated network needs may be addressed thanks to the numerous administration options.
- **Fibrenetix RS3 Video Server:** The Fibrenetix RS3 Series is a 1U, 4-bay server built on high-performance server technology with Intel® Xeon® E3-1200 v6 or Intel® Xeon® Scalable Processors and optionally integrated with Fibrenetix award-winning RAID-6 engine to offer enterprise-level performance. It's excellent as a VMS Management server or a low-space recording server, with storage capacity ranging from 18 to 72 Terabytes.-
- **Fibrenetix E88 iSCSI RAID Controller SAN Storage:** With hundreds of video streams and huge storage capacity, extended data retention periods, and the lowest feasible footprint, the E8-Series with twin 10Gbit iSCSI connections satisfies the demands of the most demanding surveillance environment.

- **Fibrenetix RS9 Video Server:** The SVS-RS9 storage video servers are built on high-performance server technology, with two Intel® Xeon® Processors and Fibrenetix award-winning RAID-6 engine, designed to handle massive video streams. Fibrenetix high-end broadcasting and 3D video editing solutions all employ the same Video Optimization Technology to ensure you never lose a frame. The Fibrenetix SVS-RS9 series has been certified to work with all major video management applications, and it supports more cameras per recording server and has a longer retention time than any competitor in its class.
- **Fibrenetix Great Dane Hybrid NVR Video Server:** At an unparalleled price-performance ratio, the Great Dane combines high-performance recording, high-capacity storage, and hardware-decoding. Up to 900 cameras (15fps-4MP) may be supported, and each unit has a storage capacity of up to 4.6PB and the latest hardware decoding technologies. The INTEL HD 630 hardware decoder allows for continuous playing during recoding, with no frame loss or CPU performance reduction.

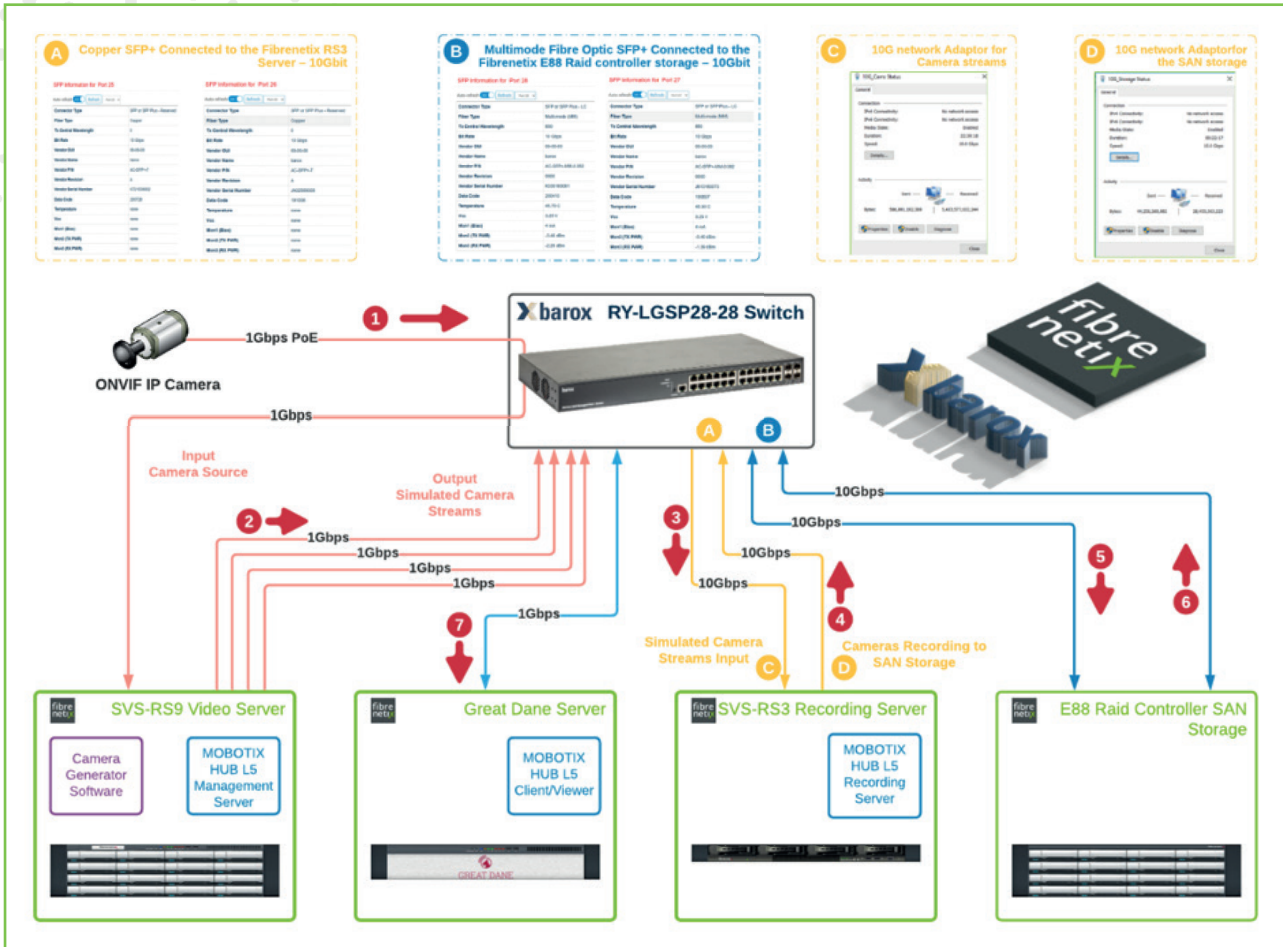
About the Software

- **Mobotix Hub L5 2020 R3:** The MOBOTIX HUB L5 video management platform is designed for large-scale, high-security applications. With maximal hardware performance, it guarantees end-to-end video integrity protection. L5 offers control of a professional video wall to provide the most comprehensive perspective, in addition to central administration of all servers, cameras, and users across various locations. MOBOTIX HUB L5 is designed for businesses and facilities that require uninterrupted access to live video records 24 hours a day, seven days a week, such as airports and casinos, thanks to its failsafe server.

About the Cameras

- **Cameras:** Several IP Cameras providing different resolution, bitrate were used

Benchmarking Architecture



1. The IP Camera connected through 1Gbps PoE port on the barox switch output a generic ONVIF video stream.
2. In this scenario, the Camera Generator Software installed in the SVS-RS9 multiplies the original stream 156 times and stream it back to the network through four Ethernet adapters of 1 Gbps each.
3. The Simulated streams input are received through a 10Gbps ethernet port to the SVS-RS3 where MOBOTIX Hub L5 Recording Server is managing all the video streams.
4. The video streams are then processed and sent back through a dedicated 10Gbps port to the network on the storage VLAN. Live video streams are transmitted to the Great Dane for live view.
5. The E88 Raid Controller SAN Storage, connected to the Switch through two 10 Gbps connections (dual Raid controllers for redundancy), handle the recording of the video data.
6. For playback purposes, the video data is streamed back through the network to be played in the Great Dane Server.
7. The Great Dane, acting as a workstation, is handling video visualization for multiple cameras, for both live and playback video data.

Conclusion

The test architecture put in place, replicating a real-life video surveillance configuration, didn't

highlight any failure in any component of the combine setup from Barox and Fibrenetix. Not a single frame was lost.

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