



Tyrone deploys Surveillance solution for a Leading Oil Producer in Kuwait for their high-end video surveillance requirement to secure their new oil field.

### SOLUTION BRIEF

A Kuwait based Leading Oil Producer approached Tyrone Systems to supply surveillance storage servers. The project includes 5000x 2MP cameras footage stored on Tyrone storage solution & Recording server compatible with Milestone XProtect® Corporate video management software (VMS)

### BENEFITS

- Easy to install, manage & service
- Supports Milestone VMS for superior ease of use
- Hot swappable drive bays, redundant power supplies
- Highly secure
- Scalability
- Efficient flow of data
- Remote access
- High-bandwidth
- Two similar storage solutions were deployed in two different locations in order to have data redundancy

### FEATURES

- NAS and iSCSI integrated in Tyrone Opslag FS2-S4AC-36
- Dual Socket 1U Recorder Server
- Remote monitoring
- Remote Management
- High performance SSD cache
- Highly available-system
- Supports fail-over clustering
- Supports remote replication.

### CLIENT PROFILE

A Kuwait based Leading Oil Company and one of the world's largest petroleum producer.

### CHALLENGES

The customer wanted a storage solution for the surveillance application in their new oil field. The project involved deployment of 5000x 2MP cameras with H.264 medium compression with continuous FPS of 15 for 24 hrs with retention days of 365 days having bit rate of 2444.07.

**SPEED:** Since there were a large number of cameras, they needed a storage which was fast enough to ingest data securely.

**SCALABILITY:** Client needed a scalable solution so that cameras can be easily added in the future.

**REMOTE MONITORING:** They had concerns about remotely monitoring the health of the systems installed in remote sites.

**FAST DATA ACCESS & RETRIEVAL:** They also wanted the fast retrieval of days data without delay.

**REDUNDANCY:** Client wanted no single point of failure and wanted to validate a few Video Management System along with the right price and sizing.

**ARCHIVAL:** They required archival space to store important footage for a longer duration.

### SOLUTIONS

The Tyrone Opslag FS2-S4AC-36 is used as the recording server along with Milestone XProtect® Corporate Video Management Software (VMS) solution to ensure security and maximum data efficiency. **Tyrone 1U server Camarero DS400TW-18RL was used as the management server as it offered benefits such as :-**

- Works in failover mode to provide high availability and redundancy
- For Large-scale installations, that requires expansion flexibility & cost-effectiveness
- Offers huge drive capacity for recording and support on-demand expansion
- Offers reliable and high throughput for immediate read and write access

Milestone is a global leader in intelligent video management solutions for security surveillance and business intelligence applications. The Tyrone Storage and Recorder Servers are ideal for customers who require expansion flexibility, rock-solid reliability, and a low total cost of ownership. Two similar storage systems were deployed in different buildings in order to have data redundancy for the storage boxes.

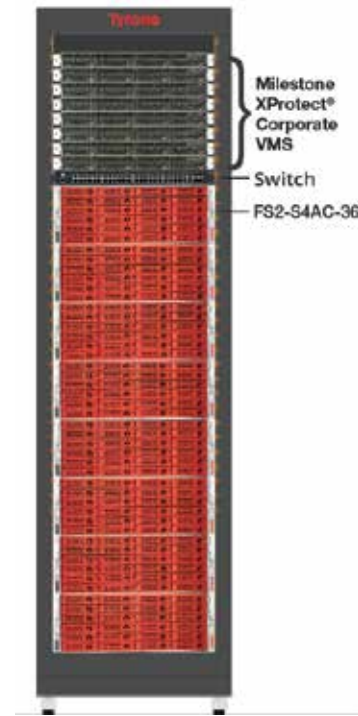
The customer specifically required a secure, scalable and cost-effective storage solution, so a single controller architecture was implemented. Tyrone recommended the Opslag FS2-S4AC-36 a highly scalable solution offering storage capacity starting from a few TBs to PetaBytes.

Opslag FS2-S4AC-36 comes with iSCSI which provides block-level storage to recorders in an efficient way. We also used 10G connectivity internally to see that further choking of network does not happen. Opslag FS2-S4AC-36 has both NAS and iSCSI in one box and this also provides potential for future archival for a later date, it reduces their need to get another box to do this part.

The Tyrone Opstag FS2-S4AC-36 is used as the recording server along with Milestone XProtect® Corporate Video Management Software (VMS) solution to ensure security and maximum data efficiency. Tyrone 1U server Camarero DS400TW-18RL was used as the management server. The Tyrone Opstag FS2 is ideal for an Oil producer who require expansion flexibility, rock-solid reliability, and a low total cost of ownership. And Milestone is a global leader in intelligent video management solutions for security surveillance and business intelligence applications.



The customer specifically required a secure, scalable and cost-effective storage solution, so a single controller architecture was implemented. Tyrone recommended the Opstag FS2-S4AC-36 - a highly scalable solution offering storage capacity starting from a few TBs to PetaBytes.



Since Opstag FS2 has been designed to be a flexible solution to cater to various requirements, it supports SSD caching for customers looking for extremely high IOPS. Our SSD caching algorithm is integrated at the hardware level and not at the system level and therefore offers performance acceleration irrespective of whether you are using file or block access protocol.

The high performance SSD cache helps clients get more data on-the-fly as the data is temporarily stored in the cache.

**FS2-S4AC-36 supports a variety of file and block protocols, supports a wide variety of client systems and many different configurations for host connectivity**

- Clients supported : Windows, MAC OS, Linux, FreeBSD, Solaris
- File Protocols1 : CIFS/SMB, AFP, FTP, NFS
- Block Protocols1 : iSCSI Target, FC Target, SRP Target
- Host Interface(s)2 : Gigabit Ethernet -> Up to 12 ports (RJ45)
- 10G Ethernet -> Up to 4 ports (SFP+)
- 40G Ethernet -> Up to 4 ports
- Fibre-Channel -> Up to 2 ports
- InfiniBand -> Up to 2 ports (QSFP)
- Omni-path -> Upto 2 ports

**Milestone XProtect® Corporate**

XProtect Corporate is IP video management software (VMS) designed for large-scale and high-security installations. It is built with innovative technology designed to ensure end-to-end protection of video integrity and boost the overall performance of your system with hardware accelerated video decoding. In addition to central management of all servers, cameras and users in a multi-site set-up, XProtect Corporate includes an integrated video wall for operators demanding supreme situational awareness of any event.

**ABOUT NETWEB**

For more than a decade now, Netweb has been helping thousands of companies worldwide run highly complex businesses efficiently, securely, and reliably. A leading provider of servers, storage, back-up, HPC and Big Data solutions. Our ability to meet the unique demands of our customer is also strengthened by our strong partner ecosystem. Our alliances with industry leaders in the storage, server, and HPC ecosystem allow us to provide solutions that combine speed, reliability, and scalability with energy efficiency.

© 2019 Tyrone Systems. All Rights Reserved. TYRONE ,the Tyrone logo, the Opstag FS2 are trademarks of TYRONE Technology, All other trademarks are the property of their respective owners. Information regarding products, services and offerings may be superseded by subsequent documents and are subject to change without notice.

