

INFRASTRUCTURE SOLUTIONS FOR ENERGY COMPANIES AND UTILITIES

Improving Safety, Operations, and Regulatory Compliance

Managing a Complex Environment of Regulations and Remote Facilities

In the world of energy companies and utilities, safety is truly priority one. Whether it's safety of employees during the extraction process, driver safety during delivery, loss prevention at storage facilities, or threats to production facilities, the physical security team plays a key role in maintaining safety and optimizing operations.

As one of the most regulated industries, energy companies and utilities must invest heavily in their physical security infrastructure to manage everything from EPA regulations monitoring flares, Critical Infrastructure Protection (CIP) requirements for North American Electric Reliability Corporation (NERC) compliance, or Transportation Worker Identification Credential (TWIC) and Chemical Facility Anti-Terrorism Standards (CFATS) for oil and gas companies. Regulatory compliance places significant demands on all aspects of the physical security infrastructure.

In addition, the physical resources of energy and utility companies are often spread across a diverse set of facilities, ranging from expansive headquarters to a wide range of remote production and storage facilities often located in dangerous environments. Managing scattered SCADA solutions, remote video surveillance systems, and theft protection in this environment compounds the challenges faced by the physical security team.

The safety, regulatory compliance, and geographic distribution concerns described above take on increased significance given the very public nature of the energy industry. Missteps can result in significant public scrutiny and risk to the brand and shareholder value, placing added pressure on the physical security team.

SOLUTION BRIEF

SOLUTION BENEFITS

- **Manage Video Over its Lifecycle**
Quantum provides a comprehensive portfolio of solutions matched to how video surveillance data needs to be managed and enriched over its lifecycle so that the optimum performance, resiliency, economics, and access time is achieved for that point in its lifecycle.
- **Reduced Risks**
Quantum technologies ensure security and safety are never compromised due to lost access to critical video, hardware failures disrupting video recording and playback, impact to the integrity of captured video, or unauthorized access to video and other data.
- **Value for Your Investment**
Quantum employs the latest generation industry-standard hardware and innovative software-based intelligence for longer lifecycles and the best return on investment that helps energy and utility companies stay within budget and achieve meaningful return on every dollar spent.
- **World-Class Service and Support**
Our customers benefit from world-class pre- and post-sale services provided by our global support organization, leveraging the experience gained from servicing tens of thousands of customers around the globe.

Energy and Utilities Challenges

Video Management

Recording and storing
high volumes of video data 24x7
with no frame loss

Real-time Insight and Response

Theft prevention, access control,
and forensics

Compliance

Uninterrupted video surveillance
and video data storage

Integration

Emergency responder reporting
and forensic reporting

Long-Term Archive

Video retention for analysis, investigative,
legal, and regulatory compliance

Energy and Utilities Requirements

Safety

Minimize incidents, falls, exposures;
incident tracking and reporting;
confirmed space; machine hazards;
employee authorization

Brand & Shareholder Value

Ensure brand is not negatively
impacted or diminished

Carbon Emissions

Decrease emissions or attain
net-zero emissions in the years ahead

**Regulatory & Policy Compliance**

Always-available video data
meeting established criteria

Remote Monitoring

Personnel access;
vehicle authorization;
restricted access zones;
perimeter surveillance; asset security

Supply Chain

Delivery to market
without incident or interruption

Providing a Solid Foundation for Intelligent Energy and Utility Infrastructure

VS-HCI Series. In today's reality, reliable video surveillance is critical to the operations of energy companies and utilities. Quantum's VS-HCI Series designed for mission-critical environments eliminates downtime, data loss or dropped video frames, meeting the demands for 24x7x365 security operations with advanced system-level resilience, predictive health monitoring, and non-disruptive updates and system expansion.

VS-NVR Series. For scenarios where a simple NVR is appropriate, the Quantum VS-NVR Series offers a range of form factors, storage capacities, and performance based on the latest generation server hardware that are both easy to deploy and maintain. This includes an ultra-dense 4U 60-bay rack mount server for recording and retaining footage from hundreds of cameras for months or years.

VS-A Series. As the energy industry turns to analytics software to optimize both security and operational efficiency, Quantum's VS-A Series provides a platform optimized for the processing requirements of today's video analytics applications for both edge and centralized environments.

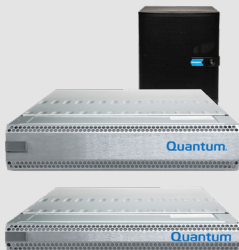
ActiveScale™ Object Storage and Scalar® Tape Libraries. Video retention times continue to get longer, increasing storage capacity requirements and leading to increased cost and complexity. Quantum has solutions optimized for automatically archiving video data in object storage, tape libraries, and the public cloud, plus software tools that automate the movement of cold video for long-term retention and protect it from cyber and ransomware attacks.

R-Series Edge Storage. Quantum offers the R-Series Edge Storage to meet the unique challenges of remote and edge environments common in the energy industry, such as moving vehicles and miles of tracks, roads, and remote stations. The R-Series is designed specifically to meet the demands of both video surveillance monitoring and Internet of Things (IoT) technologies in far-flung environments.

Virtual SOC. The Quantum Virtual Security Operations Center (SOC) delivers fully secure video streams and other security applications to any device, anytime, anywhere and overcomes the costs and complexity of managing individual physical desktops and workstations through a unified infrastructure of compute, storage, and virtual desktop technology.

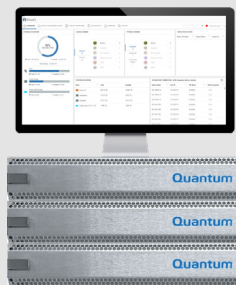
Quantum's Infrastructure Portfolio: Optimized for Surveillance and Physical Security

For over 40 years, Quantum has been a leader in high-speed video capture, storage, and processing. Our global customers include the world's largest energy and utility companies, gaming and entertainment complexes, airports, cities, transit systems, education institutions, and government agencies. By using software-based intelligence and automation, the latest industry-standard hardware, and our years of expertise in video ingest, storage, and management we've built a portfolio of solutions optimized for video surveillance and physical security that deliver the resilience, performance, scalability, and economics required in these unique environments.



VS-NVR Series

Cost-effective network video recording servers.



VS-HCI Series

Hyperconverged infrastructure for video recording, storage, and hosting other applications.



VS-A Series

Servers optimized for video analytics, access control, management, and more.



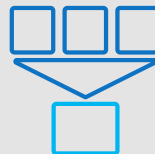
Shared and Archive Storage

Scale-out file storage, object storage, tape, and cloud.



Quantum StorNext®

Video Management Platform reduces storage and protection costs and manages video over its lifecycle using automated policies.



Quantum Acuity

Hyperconverged Infrastructure Software Platform in VS-HCI Series turns industry-standard servers into a resilient, scalable system of compute and storage optimized for video.



Quantum Cloud-based Analytics

The core of Quantum Distributed Cloud Services enables system admins and technical support personnel to monitor and proactively assess system health remotely.

Key Advantages

- Complete portfolio to meet the specific requirements of video at all stages of its lifecycle and environments from small to large and from remote to centralized locations.
- Performance, resilience, and density designed for demanding video surveillance, IoT, and security applications, including the latest in sensors, cameras, analytics, and incident reporting.
- Simple, centralized management of systems distributed around the energy and utility environment without specialized IT skills.
- Flexible scalability allows for growth without interruption as new security, video, and IT functions are deployed.
- Industry-leading archive solutions to cost-effectively address the requirements for long-term video retention.

Deep Technology Partnerships

Quantum has a long history of partnering with the leading video management, analytics, access control, and camera companies to jointly test, validate, and support mission-critical security solutions. You can deploy with confidence knowing the Quantum product you select has been validated as a total solution.

For more information about our video surveillance solutions, visit: www.quantum.com/surveillance

Quantum

Quantum technology, software, and services provide the solutions that today's organizations need to make video and other unstructured data smarter – so their data works for them and not the other way around. With over 40 years of innovation, Quantum's end-to-end platform is uniquely equipped to orchestrate, protect, and enrich data across its lifecycle, providing enhanced intelligence and actionable insights. Leading organizations in cloud services, entertainment, government, research, education, transportation, and enterprise IT trust Quantum to bring their data to life, because data makes life better, safer, and smarter. Quantum is listed on Nasdaq (QMCO) and the Russell 2000® Index. For more information visit www.quantum.com.

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