Infrastructure Solutions Designed for Safe Cities Physical Security

Enhancing Security and Quality of Life in Urban Environments

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INFRASTRUCTURE SOLUTIONS DESIGNED FOR SAFE CITIES PHYSICAL SECURITY

Enhancing Security and Quality of Life in Urban Environments

Modernizing to Ensure Safer Urban Environments

Safe city and smart city initiatives are emerging in cities around the world as a more reliable, efficient, and cost-effective way to ensure safer, more secure, and more sustainable urban environments. Safe and smart cities rely on information collated from an array of city sensors and databases combined with video surveillance data and analytics, including facial recognition, behavioral analysis, license plate recognition, and other intelligence. All elements of a city's safety and security environment must work together to protect citizens from crime and terrorism, mitigate risk associated with natural disasters and other threats, and support law enforcement agencies, fire and EMS departments, public health and social service organizations.

Safe City Requirements, Demands, and Challenges

Urban video surveillance systems are often decentralized, outdated, prone to downtime and costly to maintain. Additionally, increased requirements for real-time analytics to improve response times and situational awareness exceed the capabilities of the existing infrastructure. This requires city security and IT teams have an infrastructure of storage, server, and data management solutions optimized for the resilience, scalability, and performance requirements of video surveillance and other critical safe and smart city applications and a vendor experienced in designing, deploying, and supporting solutions for these environments. There is also no one-size-fits-all solution for the range of safe and smart city deployments, so working with a vendor with a broad portfolio of solutions to ensure the solutions are designed for your specific needs is critical.

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 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 innovative software-based intelligence and the latest industry-standard hardware for longer lifecycles and the best return on investment that helps transit systems 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.

Safe City Challenges

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

Real-time Insight and Response
Situational awareness, crowd monitoring, access control, and forensics

Business Requirements
Operations, personnel, retail and commercial activity

Integration
Emergency responder reporting, forensic reporting and event management

Long-Term Archive
Video retention for analysis, investigative, legal, regulatory compliance reasons

Safe City Requirements

Facilities/Buildings
Distributed Video Surveillance
Access Control
Incident Management
Personnel Authentication

Police and First Responders
Effective Mobility
Real-time Reporting and Analytics
Live Streaming

Streets and Parks
Visitor and Crowd Surveillance
Vehicle Authentication
Asset Monitoring
Evidence Reporting

Parking and Events
Vehicle Authentication
Incident Management
Traffic Flow
Perimeter Surveillance
Personnel Authorization

Providing a Solid Infrastructure Foundation for Safe Cities

Whether you're looking for an entry-level network video recorder (NVR) for a small number of surveillance cameras, a large-scale server and shared storage deployment for thousands of cameras, or a long-term archive solution to preserve critical video over the years, Quantum employs the latest in software-based intelligence and hardware technology to provide the best solution for your safe and smart city needs.

VS-HCI Series. Reliable video surveillance is critical to the operations of an urban area. 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 sever 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 cities turn 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.

Virtual SOC. For the city's Security Operations Center (SOC), the Quantum Virtual Security Operations Center 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.

ActiveScale™ Object Storage and Scalar® Tape Libraries. Due to regulatory compliance requirements, video retention times continue to get longer—increasing storage capacity requirements, which leads 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.
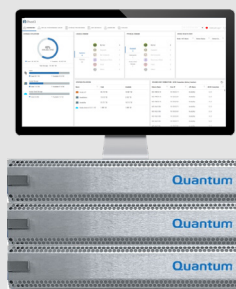
Quantum's Infrastructure Portfolio: Optimized for Surveillance and Physical Security

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 cities, gaming and entertainment complexes, airports, 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
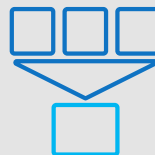Servers optimized for video analytics, access control, management, and more.

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 the 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 distributed city resources without specialized IT skills.

- Flexible scalability allows for growth without interruption as new security, video, and IT functions are deployed.

- Industry-leading long-term data archive solutions to address legal requirements for 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

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