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EXPERT PARTNER

PROVEN MISSION INFORMATION WORKFLOWS FOR INTELLIGENCE & DEFENSE

Enabling Fast Capture, Shared Access, and Cost-Effective Archives with StorNext

Mission owners are challenged as never before. Increases in the amount of Intelligence, Surveillance, and Reconnaissance (ISR) data—combined with advances in sensor, precision geolocation, and packet capture technologies—have created tremendous opportunities for those who defend national security, ensure the safety of citizens, protect against cybersecurity threats, and steward our environment. But these technology advances create storage and archive challenges as intelligence analysts, military personnel, first-responders, and scientists all struggle to capture, process, exploit, and share the growing influx of data.

ISR data can include geospatial data from satellites, motion imagery from remotely piloted vehicles (RPVs) or unmanned aerial vehicles (UAVs), optical, radar, and infrared sensor data, surveillance video from fixed towers or streets and mapping data. In today's hyperconnected world, ISR data also includes packet capture data used for network forensics. More than ever before, organizations are collaborating across boundaries—so it's not only important to collect, process, and exploit the data once, but to share it, collaborate on it, process it again, and preserve it for future investigations.

Massive Influx of Motion Imagery Creates Need for Speed & Scale

StorNext® high-performance storage is found at the center of some of the most demanding workflows in Intelligence and Defense. And the data collection demands keep growing—new maritime UAVs fly missions as long as 24 hours and can monitor 2,000 nautical miles of ocean at once to support surface warfare, intelligence operations, homeland defense, and search and rescue. StorNext scale-out storage specializes in large motion imagery files—up to 5 billion of these large files per StorNext cluster—and with its high-speed capture, StorNext has become an integral part of high-performance ISR workflows.

Preserve Geospatial Archives for Future Intelligence & Analysis

Cartography and mapmaking have always been an integral part of the human condition; today, geospatial technology gives us a wider and more dynamic lens through which to survey our world. Today's geospatial imagery—combined with data fusion and machine learning—gives our analysts and scientists unprecedented capabilities. But this geospatial data cannot be recaptured, and may be of even more value when connected to some future event; hence it must be preserved for future analysis. A StorNext tiered archive enables you to match the cost of the storage to the needs of the data—so that you can reduce the overall cost of the geospatial archive. StorNext archive options include the petascale, low-latency ActiveScale™ Object Storage platform with integrated active and cold storage classes, and cost-effective Scalar® Tape Libraries—seamlessly integrated with StorNext Storage Manager's policy-based data tiering.

SOLUTION BRIEF



STORNEXT SOLUTION PROFILE

The Quantum StorNext High-Performance File System and Tiered Archive solution is ideal for Intelligence and Defense agencies concerned about:

- **Fast Capture** of mission-critical data
- **Shared Access** to large sets of large files
- **Cost-Effective Tiered Archives** to preserve data for future intelligence
- **Massive Influx** of ISR data that needs to be collected, processed, and exploited
- **Increased Sophistication** of cyber attacks
- **Global Collaboration** across geographies without copying data from site to site

INTELLIGENCE & DEFENSE USE CASES

- Motion Imagery and FMV
- Geospatial & HPC Archives
- Video Surveillance
- Packet Capture
- Global Collaboration

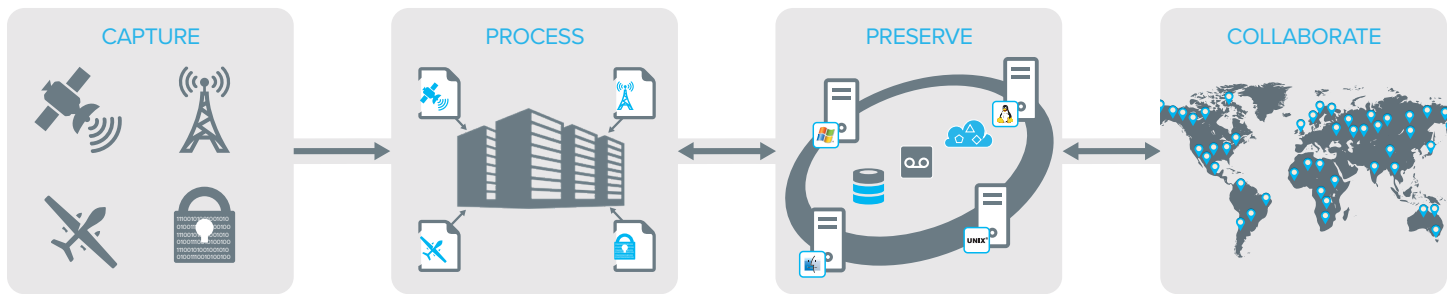


Figure 1. Quantum Mission Information Workflow

Ultrafast Packet Capture and Analysis for Network Forensics

The widespread adoption of high-speed network environments, combined with the increased sophistication of cyber attacks, has created demand for high-performance packet capture and network forensic tools that can write to disk at extremely high rates and index large amounts of “PCAP” data for quick search and retrieval. StorNext meets this need, plus offers a tiered archive that allows you to cost-effectively retain PCAP data for longer periods of time by leveraging lower-cost storage tiers based on ActiveScale Object Storage and low-power Scalar Tape Libraries.

Enable Global Collaboration—Across Agencies and Geographies

Collaboration is a top priority for many StorNext customers in Defense & Intelligence. StorNext is designed to enable shared access and to be flexible: our scale-out storage is built on top of an intelligent, shared file system, is optimized for systems connected over Ethernet, Fibre Channel, and InfiniBand, and is also compatible with a broad assortment of operating systems, including Linux, UNIX, Windows, and Mac. And when StorNext data has been tiered to ActiveScale Object Storage, the mission data can also be accessed via HTTP RESTful interfaces, enabling integration with Hadoop analytics and cloud infrastructures. StorNext file sharing works transparently no matter where the file physically resides—the pathname remains the same regardless of whether the file is tiered to NVMe flash, primary disk, object storage, tape, or a vaulted archive location. Whether you’re an emergency responder, or working to protect the environment, or an analyst for national intelligence, StorNext file sharing means that teams can collaborate on the most current mission data to raise situational awareness.

To learn more about how StorNext, ActiveScale, and Scalar solutions would work in your environment, please visit us at: www.quantum.com/government

MISSION INFORMATION WORKFLOW SOLUTIONS

- Proven end-to-end storage solutions
- Industry’s best streaming performance
- Shared collaboration via SAN and LAN, for NFS, SMB, StorNext and HTTP REST clients
- Flexible access to mission data via GbE, 10GbE, 25GbE, 100GbE, FC, iSCSI, or InfiniBand
- Independently scales performance and capacity to billions of files
- Optimized for NVMe, SSDs, disk, object storage, and LTO/LTFS tape
- Policy-based, cost-effective tiered archiving
- Extreme scale, performance, and low-latency access ActiveScale Object Storage
- Available via complete solution stack of StorNext H-Series converged storage for SSD and HDD, NVMe-based F-Series, ActiveScale Object Storage, and Scalar Tape Libraries

Contact us today for more information!

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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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