Quantum

Improving Geospatial Information Workflows

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

Increases in the amount of geospatial data, rapid advances in sensor technologies, and advances in the software used to process geospatial data all add up to tremendous opportunities in the geospatial arena. But these technology advances also introduce storage and archive challenges as researchers, scientists, humanitarians, and those who protect our environment and safeguard human life all struggle to capture, share, and preserve the growing influx of geospatial data.

Geospatial data comes in many forms from sources on land, at sea, in the air, or in space; including satellite, full-motion video (FMV) from unmanned aerial vehicles (UAVs), mapping data, aerial imagery, optical, radar, and infrared sensor data, GPS data—the list goes on. And more than ever before in history, agencies and departments are sharing geospatial data that used to be the sole provenance of intelligence communities. Advances in sensor and satellite technologies are increasing the amount of raw data that needs to be preserved—which leads to a need for a high-performance, scalable storage solution that is also cost effective.

USING STORNEXT TO CAPTURE MASSIVE INFLUX OF SENSOR DATA

StorNext's reliable and proven high-performance technology is found at the center of some of the most demanding workflows in the geospatial world. StorNext specializes in large files—up to 10 billion of these large files per StorNext cluster—and with its high-speed capture, StorNext has become an integral part of high-performance GIS workflows. It helps that StorNext can independently scale performance separate from capacity; so as your department's requirements grow and scale, StorNext can flexibly scale with you.

HIGH-PERFORMANCE FILE SYSTEM ENABLES COMMON OPERATING PICTURE

Quantum's scale-out storage technologies—StorNext® and Lattus™—are designed to support demanding geospatial applications that operate on large sets of large files, such as applications that fuse together disparate data sources to create a common operating picture. Software that allows scientists to visualize complex geospatial information can benefit from a high-performance shared storage solution that specializes in streaming data, such as StorNext. Together, StorNext and Lattus deliver a tiered storage solution that enables customers to capture massive amounts of geospatial data—as well as to share, process, and preserve this critical geodata—so that scientists and analysts can make effective decisions in the face of threats, emergencies, and changing environmental conditions.

StorNext®

STORNEXT SOLUTION PROFILE

The Quantum StorNext high-performance file system and tiered archive solution is ideal for geospatial teams concerned about:

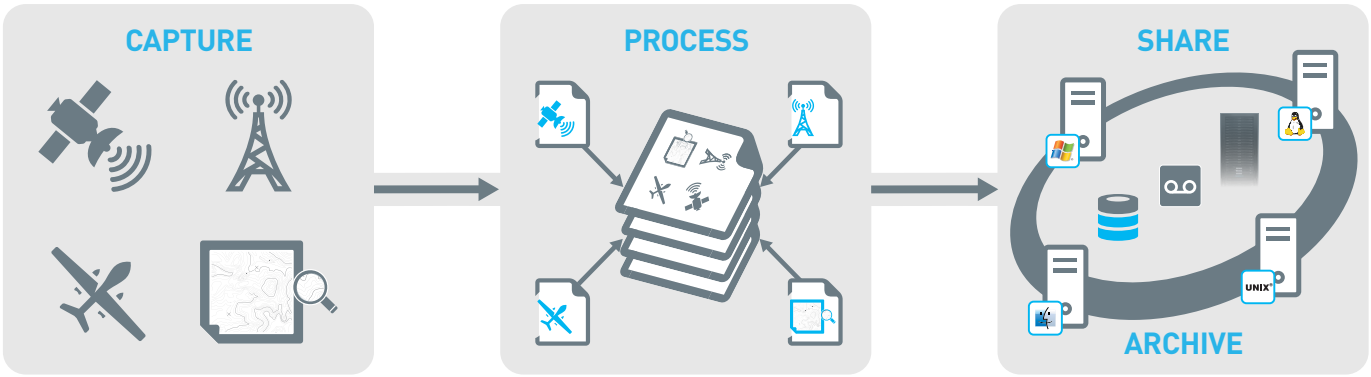
- **Fast capture** of satellite and sensor data
- **Shared access** to large sets of large files
- **Cost-effective archives** to preserve critical data
- **Advanced sensors** that generate richer information and more data than ever before
- **Scalable processing** of geospatial data, to enable data fusion and provide a common operating picture

GEOSPATIAL USE CASES

Geomatics customers who benefit from StorNext and Lattus object storage:

- Defense & Intelligence
- Emergency Response
- Humanitarian
- Environmental Stewardship
- Energy & Utilities
- Engineering & Construction
- Transportation

Figure 1. ***Geospatial Information Workflow***



ENABLING SHARED ACCESS TO GEOSPATIAL DATA

Collaboration is a top priority for StorNext geospatial customers, which is why StorNext is optimized for both SAN and LAN clients as well as HTTP REST access. And, StorNext and Lattus are compatible with a broad assortment of operating system clients, such as Linux, UNIX, Windows, and Mac. Moving from a traditional environment with data silos to a shared StorNext solution is often accompanied by reductions in workflow cycle times, because people find it more efficient to share data. Better still, StorNext file sharing works transparently no matter where the file physically resides—the pathname remains the same regardless of whether the file is tiered on primary disk, SSDs, Lattus object storage, tape archive, public cloud (including Amazon's C2S and GovCloud services), or in a vaulted archive location. Whether you're an emergency responder, working to protect the environment, or an analyst for national intelligence, Quantum file sharing with StorNext and Lattus means that teams can collaborate on the most current geospatial data to raise situational awareness.

REDUCE COSTS OF GEOSPATIAL ARCHIVES WITH STORNEXT AND LATTUS

Sometimes, the value of geospatial data is not fully realized when initially captured—rather, the value is only understood later, when you connect the archived geodata to some future event.

StorNext offers a policy-based, tiered archive that enables you to match the cost of the storage to the value of the data—so that agencies and scientists can leverage the economics of tiering to reduce the overall cost of the geospatial archive. StorNext archive options include petascale, low-latency Lattus object storage, cost-effective, tape-based archives, as well as leveraging public cloud infrastructures (including government-specific environments such as Amazon C2S)—all with the power of StorNext policy-based data tiering.

With StorNext and Lattus, sensor and satellite data can be accessed easily, regardless of where the geospatial data is physically archived. StorNext allows your geospatial data to keep working for you forever.

To learn more, please visit us at quantum.com/StorNext.

ABOUT STORNEXT AND LATTUS

- Proven end-to-end storage solution for geospatial workflows
- Industry's best streaming performance
- Shared collaboration via SAN and LAN, for NFS, CIFS, StorNext, and HTTP REST clients
- Flexible access to geospatial data via Fibre Channel, iSCSI, or InfiniBand
- Independently scales performance and capacity up to 5 billion files
- Optimized for SSDs, disk, object storage, and LTO/LTFS tape
- Policy-based and cost-effective tiered archiving
- Available via complete solution stack of StorNext metadata appliances, StorNext Q-Series storage, StorNext AEL Archives, and Lattus object storage

ABOUT QUANTUM

Quantum is a leading expert in scale-out tiered storage, archive, and data protection, providing solutions for capturing, sharing, and preserving digital assets over the entire data lifecycle. From small businesses to major enterprises, more than 100,000 customers have trusted Quantum to address their most demanding data workflow challenges. Quantum's end-to-end, tiered storage foundation enables customers to maximize the value of their data by making it accessible whenever and wherever needed, retaining it indefinitely and reducing total cost and complexity. See how at **www.quantum.com/customerstories**.

Quantum

www.quantum.com
800-677-6268

SB00095A-v03 Apr 2017