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Study on Quantum Stor Next and its application

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Abstract—Quantum can change the storage pattern by distributing the next generation of the file system specifically designed for storage scales and efficiency. It offers high-performance file management, massive scalability, long-term online archive, global security and distribution, and redlapsions. Because it is a virtual platform, it can also know the value / performance / security profile of business needs, even if they change over time. Like data usage of age and application uses ebbs and flows, IT can create new storage pools with different profiles and move data between pools. This design delivers the highest cost efficiency compared to the data lifecycle.

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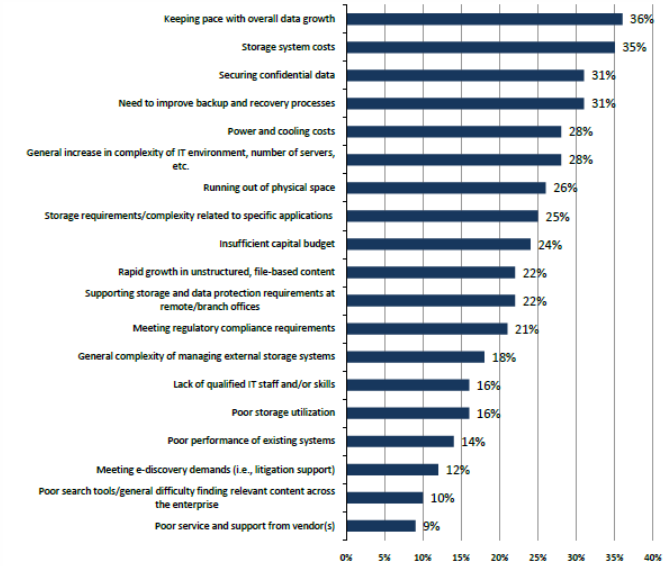
I. INTRODUCTION*(HEADING 1)*

It is the biggest solution to solve the problems of data development in the minds of IT managers. Proof of this point is shown in ESG research: Responsibilities of survey respondents asked about their biggest challenges in scanning storage environments to support apps, from which two scaling challenges for primary storage "with full data growth Coordinate "and" storage system cost "(see figure)

In general, what are your organization's greatest challenges with respect to its storage environment? (Percent of respondents, N=504, multiple responses accepted)



Scaling

First of all, the basics: Stores advance platform easily increases business as scales so that the huge challenge of data development can be met. Users can add storage nodes and processors in a transparent and non-decomposed shared storage pool when necessary; There is no salous or array limitations for volume placement and management needs, Scalability can be operated with StorNext, and organizations can provide fast access to millions of shared files and stubbytes. Virtualized storage pools provide consolidated data repositories in vendor platforms, so organizations can take advantage of both new technologies and existing investments. StorNext operates a wide variety of storage devices-including high speed disk arrays, value disk arrays, tape libraries, and network attached storage - so organizations can deploy customized storage level.

Scale with Flexibility

Organizations are usually compelled to choose between the simplicity of shared storage (using NAS) and high performance scalability of a SAN. StorNext delivers best of these two shared storage types, which enables users to create huge file systems with millions of files which are accessible to thousands of users on industry-standard servers. Providing direct, native access to storage on SAN or LAN, StorNext stores faster information as well as shares it in many operating systems using a single shared file system instance. While files remain on SAN storage, they can be presented in various applications running Linux, Windows, Unix and Mac OS servers simultaneously. It saves time and accelerates business processes because the file does not need to be moved physically or it is converted to accommodate different file systems. To support different workflow types, SAN and LAN access methods can be used simultaneously on the same file system: Workflow requires high throughput by some content surgeries (SA clients) and workflow, which Scalable access is required by many users (distributed LAN customers)

Applications:

1. **Powerful Cybersecurity for Network Forensics with "Flight Data Recorder" for your Network and High-speed Scale-out Storage**

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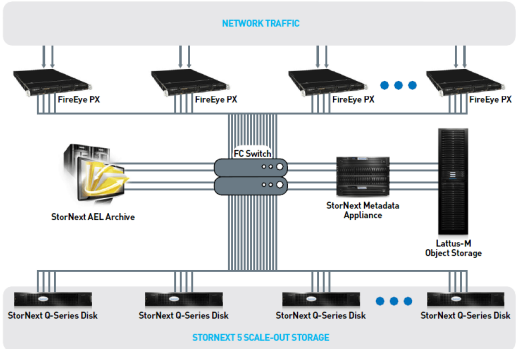
Cyber criminals are becoming increasingly advanced and no industry is immune. Everyone is vulnerable, from banks to retailers, higher education to care, government agencies for critical infrastructure. In addition to taking steps to prevent cyber attacks, organizations today need to prepare for the inevitable cyber burglary, be ready to respond to and recover from an incident ... because there is no perfect security.[2]

Hacktivists, state-funded threat actors and financially motivated cybercriminals have a common feature: they are determined and they will find a way. When an intrusion has been discovered, organizations need to answer quick and difficult questions, such as: How did the malware come? How long has it been there? Is it a real threat? Has private or confidential data been filtered? Is the attack over? In order to answer these questions, analysts need network forensics.[2]

Network forensics is the practice of detailed network traffic data to determine what has been transferred across the network, from where to where and when[2]. It looks like a phone bill to interpret the pattern and flow of conversations: to see who's spoken, how often, what time of day, and how long, except it's better because network forensics can also light throw on what was discussed. Network Forensics allows companies to check back in time to see how malware has behaved on the network so they can stop the attack, recover damage, and strengthen cyber defense for the future.[2]

Network forensics requires three things. Firstly, an ultra fast mechanism for capturing all network traffic, as it strikes. There is one chance to capture each package and its metadata, miss the package and it's gone so the capture solution needs to be fast. Ultra fast. Secondly, a high-performance, scalable, reliable repository to store network traffic; one that can follow with 20Gbps per recording device. Third: Effective analyzes to accelerate the path from detection to resolution, to answer questions in minutes that would take hours. Together, the FireEye Network Forensics Platform and Quantum StorNext® form this triple combo, and organizations can reduce the average time-to-resolution for cyber attacks.[2]



Companies need to prepare themselves for the new breed of cyber attacks today, such as zero-day attacks, advanced persistent threats and polymorphic threats that can constantly change shape. Network Forensics provides companies and agencies with valuable tools to investigate and solve cyber incidents. Together, FireEye and Quantum StorNext offer a combination of ultra-fast packages, along with cost-effective exclusion, proven in the most demanding information streams for video, satellite, intelligence, genomics and seismic data. Together, FireEye and Quantum StorNext provide a powerful cybersecurity solution for network forensics-with the speed, scalability and cost-effectiveness that organizations need.

2. Improving Geospatial Information Workflows

Increase in the amount of geospatial data, rapid advances in sensor technologies, and advances in software used to process geospatial data. Everything comes to huge possibilities in the geospatial arena. But this technological progress also addresses storage and archival challenges like researchers, scientists, humanitarians and those who protect our environment and ensure human life, strive to capture, share and maintain the growing influx of geospatial data.[3]

Geospatial data comes in many forms from sources on land, at sea, in the air or in space, including satellite; Full-motion video (FMV) of unmanned airplanes (UAVs); mapping data; aerial photographs; optical, radar and infrared sensor data; GPS data - The list goes on. And more than ever in history, agencies and departments share geospatial data that was once the only origin of intelligence communities. Advances in sensor and satellite technology increase the amount of raw data that needs to be retained, which results in the need for a high-performance, scalable, multi-tier storage solution that is also cost-effective and easy to manage.[3]

Together, the Quantum StorNext Scale Storage and Lattus ™ Object Storage are designed to support advanced applications that work on large sets of large files, such as applications that merge different data sources together to create a common control image. 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 provide a layered storage solution that allows customers to capture huge amounts of geospatial data, and efficiently share, process and save these critical geodata so that scientists and analysts can decide on time in a timely and effective way. of threats, emergencies and changing environmental conditions.[3]

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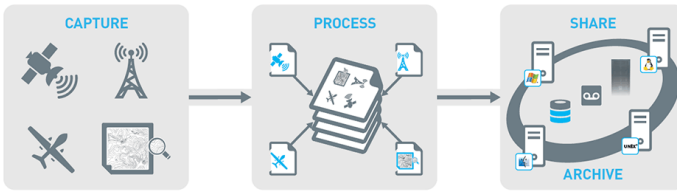

3. NerVveTechnolgies& Quantum StorNext

Intelligence and defense analysts are asked to perform their tasks with speed and accuracy, but their ability to discover objects is hampered by the overload of moving images - which explodes what someone thought a decade ago. In the intelligence community it is not uncommon for analysts to constantly follow a wall of full motion video screens.

Surveillance video and motion images, including infrared and electro optical data, including remote pilot vehicles (RPVs), unmanned aerial vehicles (UAV) and other sensor platforms, can extend to sub-bases in a single collection. And video surveillance is not limited to air footage-analysts by a video captured by CCTV and street cameras. In some cases, crowded-source civil footage on smart phones is also collected and analyzed. Today, many analysts inspect video frames, comment on events and interest-a costly manual process that does not result in a large stream of conceived motion imagery.

NerVve and StorNext solutions can process real-time video or previously captured content to make the data a high-speed, searchable, and compact representation. Video analysts can start searching any number together - either by using a simple-to-use interface, or by using the Programmatic API to find every frame to search for interest-items, enabling automatic extraction and alerts for related items. Nervow and Stornext Solutions give analysts the ability to find the needles in the heiststead in the daytime against the two seconds.

NerVve search results are presented as serialized search results- and NerVve NVSS may also trigger alerts, ignoring the requirements of analyzers to manually monitor the system. NerVve NVSS search workflows can be saved and restarted as necessary, or can be added to the fully automated review process. Narveve includes geological coordinates as well as timing, frame and file information in search results. And minimum training is required - most analysts may be working with the Navarvev NVS in less than 30 minutes. Nerove can easily find videos and images stored on high-speed stores -clad primary disks, as well as stereoxt tiered archives, such as low-latency object storage and other types of storage such as tape.

II. CONCLUSION:

Information Technology plays the most important role in this generation of security. Because most of the storage of confidential information is increasingly important as the need for computer data protection, so take care of both operating systems and user information of unauthorized access. Such a method of storage to protect sensitive data from theft or blocked unwanted third parties. Traditional storage techniques are definitely clever, but quantum mechanics ensure quantitative communication in Quantum StorNext.

REFERENCES:

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[2] http://www.quantum.com/applications/geospatial/index.aspx