Enterprise storage protects critical customer data

Industry: Professional Services / IT and Services
Country: U.S.

EarthCam
Webcam Technology

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EarthCam documents the world's most ambitious construction projects and readies new client services with extremely dependable, efficient and versatile Isilon storage

Business needs

EarthCam needs to accommodate growing masses of photo, video and sensor data as it continues to win clients around the globe. The company uses its data assets and storage arrays to improve service delivery and innovate new products and solutions.

Solutions at a glance

- Dell EMC Isilon
- Dell EMC PowerEdge servers
- Dell Precision workstations

Business results

82%
reduction in system administrator resources for managing the Isilon storage system

26x
greater Isilon storage density over the previous storage system

99.999%
uptime since implementation

100+ times
the sustained throughput of the previous storage system

20%
reduction in video-processing time

Doubles
raw capacity in less rack space than previous generation of Isilon

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EarthCam is the global leader in providing webcam content, technology and services to the construction industry. Founded in 1996, EarthCam provides live streaming video, time-lapse construction cameras and reality capture solutions for corporate and government clients. EarthCam leads the construction industry with the highest resolution imagery available, including the world's first outdoor gigapixel panorama camera system. This patent-pending technology delivers superior multibillion-pixel clarity for monitoring and archiving important projects and events. EarthCam has documented over $1 trillion dollars of construction projects around the world. The company is headquartered on a 10-acre campus in northern New Jersey and maintains 13 additional offices internationally.

Tens of thousands of cameras, sensors and other devices send millions of images and image data 24/7/365 to the Isilon storage systems in EarthCam's redundant and replicating data centers. Over the past 15 years, the demand for raw capacity has vastly increased, and EarthCam needed high-performing systems to manage this data and grow exponentially. Since Dell EMC Isilon was first implemented four years ago, it has effectively stored this data. Previous storage products required constant IT administrative oversight and did not scale well to accommodate EarthCam's nonstop data growth.

"EarthCam continues to develop innovative service offerings fully confident in the scalability and dependability of the Isilon system."

Bill Sharp
Senior VP of Product Development and Strategy
EarthCam

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> "Migrating our data to the new Isilon nodes was a simple, quick and safe process."

Elisabeth Van Rensalier
Director of IT Operations
EarthCam

Infrastructure for an evolving business

At EarthCam, Isilon is part of a technology environment that includes Dell EMC PowerEdge servers, Dell Precision workstations and Dell laptops. "We rely on Dell EMC solutions for a significant part of our computing," comments Elisabeth Van Rensalier, Director of IT Operations at EarthCam.

The company's IT group relies on the flexibility and reliability of Dell EMC technology, including servers. "When we need to support a new application or website, or refresh an existing service, we can easily customize Dell EMC PowerEdge servers for the role they need to fill," Van Rensalier adds.

Highly manageable storage

The Isilon implementation freed up significant IT time by providing a highly manageable storage technology. Van Rensalier says, "An Isilon administrator spends at most a few hours a week managing storage. Completing any task with the Isilon interface is very simple."

For EarthCam, Isilon proves to be both efficient and flexible. "By using the Isilon OneFS web interface or command line, we can configure data locations and protection levels," Van Rensalier explains. "That capability enables us to balance redundancy and storage efficiency and is not available on many other solutions. Isilon also allows hot updates, so a high uptime is easily achievable."

Recently, EarthCam upgraded to the sixth generation of Isilon with storage arrays at multiple data centers. Van Rensalier says, "Migrating our data to the new Isilon nodes was a simple, quick and safe process."

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Administrative transparency and data-center efficiency

EarthCam storage administrators rely on Isilon InsightIQ storage analytics to assess and improve storage performance. Van Rensalier says, "Isilon InsightIQ provides granular visibility of storage processes and server and network loads, and allows us to optimize our workflows."

In the data centers, Isilon storage uses space efficiently. Van Rensalier notes, "In the latest refresh, we doubled our raw capacity in less rack space than the previous Isilon generation required—a big difference when data-center space comes at a premium."

Enhancing client services

In addition to hosting customer data, EarthCam shifted internal workloads such as home directories, department shares and the video-editing platform to the Isilon arrays by adding a cluster of faster-performing Isilon nodes. Bill Sharp, Senior VP of Product Development & Strategy, says, "The in-house video production team reduced processing time by 20 percent by working directly on the Isilon storage instead of copying assets to their workstations and then transferring completed projects back to Isilon." Clients receive their videos sooner and benefit directly from the Isilon performance.

The versatility of Isilon storage is an advantage as EarthCam readies new services. Sharp says, "Our Isilon platform can be flexibly configured to meet business needs. EarthCam continues to develop innovative service offerings fully confident in the scalability and dependability of the Isilon system."

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EarthCam®

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Business needs

EarthCam needs to accommodate growing masses of photo, video and sensor data as it wins more clients around the globe. The company wants to use its data assets and storage arrays to improve service delivery and innovate new products and solutions.
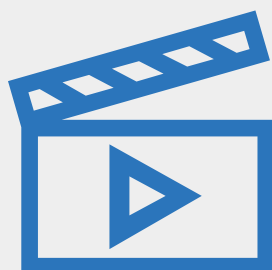
Solutions at a glance

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Business results

- 82% reduction in system administrator resources for managing the Isilon storage system

- 26x greater Isilon storage density over the previous storage system

- 100+ times the sustained throughput of the previous storage system

12%
reduction in video-processing time

99.9%
uptime since implemented

EarthCam is the global leader in providing webcam content, technology and services. Founded in 1996, EarthCam supplies live streaming video, time-lapse construction cameras and photography documentation to corporate and government clients in major cities around the world. EarthCam provides the highest resolution imagery available today, including the world's first outdoor gigapixel panorama camera system. This patent-pending technology delivers superior multibillion-pixel clarity for monitoring and archiving important projects and events. The company is headquartered in New Jersey and maintains 13 additional offices worldwide.

Thousands of cameras, sensors and other devices send massive amounts of data to the Isilon storage systems in EarthCam's redundant and replicating data centers. Over the past fifteen years, the demand for raw capacity demand has vastly increased. Dell EMC Isilon storage has housed this data since it was first implemented in 2015. Previous storage products required constant attention from IT and did not scale well to nonstop data growth.

Highly manageable storage

The Isilon implementation freed up significant IT time by providing a highly manageable storage technology. Michael Van Rensalier, director of IT operations at EarthCam, says, "An Isilon administrator spends at most a few hours a week managing storage. Completing any task with the Isilon interface is very simple."

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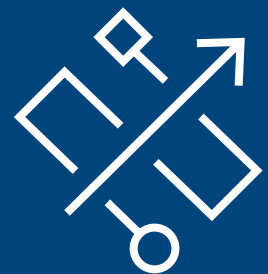
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Michael Van Rensalier
Director of IT Operations
EarthCam

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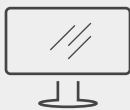
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EarthCam successfully scales up high-resolution imaging business during pandemic

Updated 17:30 - October 22 2020 - by Silvia Fregoni

siliconANGLE **theCUBE**

Ensuring good data storage is an obvious requirement for today's information-rich companies. But organizations often need more than that, including management tools and security.

Webcam and time-lapse technology provider EarthCam Inc. has partnered with Dell Technologies for high-volume storage, backup and archiving of its unstructured data.

"We've been using the system for five years already; we've already added capacity, [and] we can add capacity on the fly," said Bill Sharp (pictured), senior vice president of product development and strategy at EarthCam. "We can just keep innovating, which is what we do, without hitting any technological limits with our partnership."

Sharp spoke with Lisa Martin, host of theCUBE, SiliconANGLE Media's livestreaming studio, during the Dell Technologies World Digital Experience event. They discussed how Dell's Isilon and PowerScale meet the needs of EarthCam, how the company took advantage of business opportunities to grow during the COVID-19 pandemic, and its plans for the future. (* Disclosure below.)

Devices send millions of images per month

EarthCam has tens of thousands of cameras and sensors worldwide, capturing images mainly from major construction projects. These devices send millions of images per month to the company, which uses them to produce high-resolution documentation for its customers in various sectors, including construction, tourism, security, engineering and architecture.

"There are billions of files in the Isilon system right now," Sharp said.

After the images arrive on EarthCam's network and are saved on Isilon, the company's editors start working on the content. At this stage, the organization achieves a significant time and cost savings by using the Isilon platform, as it does not need to move the data to an editing environment — everything is done in Isilon clusters. Video processing time has been reduced by 20%, according to Sharp.

"Any time we have to update or change these movies as a project evolves, that all can happen right there on that live environment," Sharp explained. "And the retention is there, [so] if we have to go back later on, all of our customers' data is really kept within that one area. It's consolidated, and it's secure."

The storage, backup and archiving of EarthCam's unstructured data on Isilon has allowed for the elimination of unnecessary resources and wasted time. The company eliminated almost all of its downtime, according to Sharp.

"We really have good visibility on how the storage system is being used in both our production and also in our backup environments," Sharp stated. "It's really, really easy for us to make our business decisions as we innovate and change processes, having that continual visibility and really knowing where we stand."

Watch the complete video interview below, and be sure to check out more of SiliconANGLE's and theCUBE's coverage of the Dell Technologies World Digital Experience event.

(* Disclosure: TheCUBE is a paid media partner for Dell Technologies World. Neither Dell Technologies, the sponsor for theCUBE's event coverage, nor other sponsors have editorial control over content on theCUBE or SiliconANGLE.)