Qumulo | HEXAGON

Hexagon maps the globe with Qumulo's File Data Platform

Powers massive-scale industry autonomy and sustainability projects

There's nothing more powerful than hearing a customer share how the right data at the right scale can make a significant business impact for them and their clients. During Qumulo's recent employee event in Seattle, Hexagon's President of Geospatial Content Solutions, John Welter, gave a fascinating overview of how Qumulo has helped their company over the years. As a $4.3 billion global leader in digital reality solutions, Hexagon combines sensor, software and autonomous technologies that are the underpinning to many industries and businesses working to be more productive, efficient, and profitable. He emphasized how critical IT solutions like theirs, in concert with Qumulo's File Data Platform, support a smart digital reality that helps their clients test a wide variety of applications in a virtual environment.
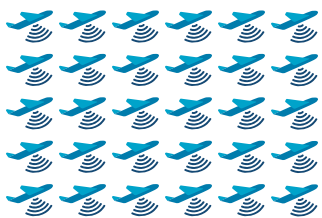
Creating a digital twin of the world to support industry autonomy

From construction to city services, and mining or federal government agencies, Hexagon captures reality by scanning environments on the ground or even below the water's surface—a city, building, roads, infrastructure assets, indoor spaces—to see what's important. They leverage the captured data to inform smart analytics, interpretations, and industry action.

Sweden-based Hexagon, with decades of leadership in accelerating digital transformation by unlocking data across industry applications, embraces Qumulo for storage scalability and improved performance, accuracy.

- **Streamlined storage:** With Qumulo storing five petabytes and growing of data from Hexagon, especially mission-critical government data often needed in 72 hours or less, they streamlined workflows and increased field-to-product time. Four petabytes of final data product eventually reside in the cloud as a result of Qumulo also running on Amazon Web Services (AWS).

- **Data proliferation and accuracy:** With Qumulo, Hexagon can scale its storage to support abundant, high-resolution data points under management. countrywide data sets are offered at 15 cm and 30 cm resolution in the U.S. and 12.5 cm and 30 cm in Europe. For cities, high-definition data sets are captured at 5 cm resolution for images alongside high-density LiDAR point clouds providing the highest positional accuracy and temporal consistency.

- **Optimized revenue and customer savings:** Qumulo helps Hexagon better manage its data and storage environment, while supporting storage purchases in a OPEX versus CAPEX way that impacts demand-driven consumption and cost-saving for customers, plus recurring revenue for Hexagon.
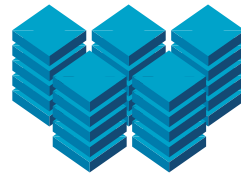
Hexagon's Content Program utilizes

20-30 aircraft
from their own fleet or operated by sensor customers

1 billion
high-resolution images streamed per month

27 million
square kilometers of worldwide data

2500+
CPU cores in a typical processing cluster

48+ petabytes
of data collected in 2022

> "
> Our HxGN Content Program—the largest library of high-quality aerial imagery, elevation data, 3D models and analytics covering North America and Western Europe–has captured more than 27 million square kilometers in the last 8 years and is storing 4 petabytes of final product on the cloud. There's a lot riding on it and we need to choose the right IT partner.

– John Welter
President
Geospatial Content Solutions
Hexagon

Hexagon's geospatial data library grew from 150 gigabytes captured in the field per day and stored in 2002 to **160 terabytes now stored daily**, processed, and quickly distributed to customers. "It's two orders of magnitude that require scale. And on our sensor roadmap, the next sensor will have 40 percent more data without faster cycles or higher resolution," added Welter. Sometimes, it is ingested and turned around for one of the company's top customers in as quick as three days.

Hexagon customers, including government agencies, will continue to push for more, faster data streams and mission-critical insights. Why? They are confronted with mounting pressure on urban planning, from smart city applications, and when facing unexpected challenges like city and state-wide emergencies, noise and light pollution, or fast-growing populations. Hexagon is ready to address these demands, unforeseen problems, and more, because Qumulo and other partners deliver IT infrastructure that gives choice, flexibility, and reliability when handling the unstructured data and changing points of reference.

The Qumulo partnership has "never felt transactional," concluded Welter. Hexagon can rely on Qumulo's round-the-clock support, storage choices (e.g., on-premise, cloud, or hybrid), and enhanced capabilities to achieve more productivity, creative business models, and engagement with communities or customers as solutions are brought to market and the company grows in the future.