DiGiCOR

Transforming Geospatial Data Management

Outline Global's Journey to Scalable and Efficient High Performance Infrastructure

Company

Outline Global

Location

Australia

Industry

Geospatial

Overview

Outline Global managed their data across three departments with off the shelf NAS systems, with the Imagery team consuming the most data due to their production of multiple terabytes of high-resolution images aerial imagery. As the business grew and imagery resolution increased, it became evident the existing storage lacked the necessary scalability, speed, and simplicity for streamlined operations.

Objectives

- Streamline the process of accessing and transferring imagery
- Enterprise network design to improve data transfer rates and redundancy
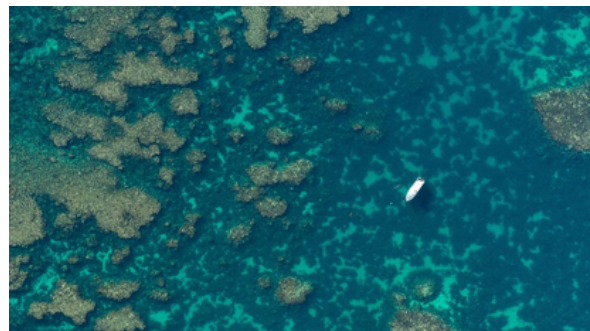- Implement a high performance scalable storage system

Results

- 2.5PB High performance file storage
- Enhanced collaboration and productivity due to the help of remote file access
- Efficient high performance networking and simple management

Challenges

Outline Global reached out to DiGiCOR to address several critical challenges hindering their operational efficiency:

- **Physical File Access:** The manual process of accessing raw imagery and copying them to workstations was time-consuming and inefficient. Additionally, it hindered collaboration, as multiple people could not work on the same file simultaneously.
- **Legacy Networking Systems:** The network switch requires improvement due to its slow data transfer rates, which negatively impact productivity and responsiveness.
- **Storage Constraints:** The storage system was slow and lacked scalability, causing headaches whenever additional data storage was needed, as it required constant rearrangement.

IT Transformation

DiGiCOR visited Outline Global to thoroughly examine their work processes and understand their workflow and needs. After assessing Outline Global's requirements, DiGiCOR recommended the following:

- **Upgrading Storage Infrastructure:** DiGiCOR partnered with IX Systems to deliver 2.5PB of raw storage based on the **TrueNAS R Series**, a scalable and future-proof storage solution designed for high performance and reliability. This system offers significant storage capacity and can be expanded as needed, ensuring it meets both current and future needs. The high performance TrueNAS NVMe systems with 100Gbe networking efficiently handles large amounts of data, providing robust data protection and high-speed access to stored information.
- **Upgrading Networking Infrastructure:** To address connectivity issues, DiGiCOR recommended the **Juniper EX4400 Switch**. This high-capacity, cloud-ready, AI-powered switch offers advanced security and is ideal for high-performance campus deployments. The EX4400 is easy to onboard, configure, and manage, thanks to Mist AI, which simplifies operations and enhances visibility into the performance of connected devices.

Additionally, DiGiCOR conducted a workflow analysis to help Outline Global fine-tune their processes and increase overall performance.

Truly a Scalable Storage Infrastructure

After careful consideration and approval from Outline Global's board, they agreed to the solution provided by DiGiCOR. DiGiCOR facilitated the assembly and delivery of the new storage and network infrastructure. As a result, Outline Global noticed the following improvements:

- **Remote File Access:** They now have remote access to their files, eliminating the need for manual copying. This streamlined workflow improves collaboration, productivity, and reduces downtime.
- **Faster Network:** The high-capacity network infrastructure ensures lightning-fast data transfer rates. With the help of Mist AI, they can effectively monitor the network.
- **Improved Storage:** Outline Global's storage capacity has expanded to nearly 2.5 petabytes, accommodating their data-intensive operations. They can now confidently manage their geospatial datasets without worrying about space limitations, as TrueNAS storage allows seamless expansion.

Noticing the increase in productivity, Outline Global reached out to DiGiCOR to discuss potential future upgrades, **including enhancements to their server infrastructure.**

> "Seeing the benefit that DiGiCOR provided for us with the storage upgrade enabled us to have a future conversation about server upgrades"
>
> *- Matthew Barnes*
>   *Head of Business Operations*

Outcome

More efficient and productive work environment.

Ability to scale the systems as a long-term solution.

Confidence in investing for a long-term cost savings.

Conclusion

The partnership between Outline Global and DiGiCOR highlights the transformative power of scalable, high-performance infrastructure. By addressing critical challenges in storage, networking, and workflow, DiGiCOR's solutions enabled Outline Global to significantly enhance efficiency, productivity, and scalability. The implementation of the TrueNAS R Series and Juniper EX4400 Switch has not only solved their immediate operational issues but has also positioned them for long-term growth and success in handling data-intensive geospatial projects. This case demonstrates how the right technology investments can lead to sustainable improvements and future-proof an organisation's operations.

Featured Solutions

TrueNAS R Series

- TrueNAS Scale Enterprise
- 20GB/s Throughput
- High performance NVMe pools
- Hybrid pools for general storage
- Self-healing OpenZFS file system
- Enterprise Support

Juniper EX4400 Series

- Cloud ready and AI powered by Juniper Mist
- 912 Gbps Switching Capacity
- EVPN-VXLAN, Virtual Chassis Fabric
- 1/10GbE access ports, 100GbE uplink/stacking, with 10/25GbE uplinks

About Outline Global

Outline Global is a leading provider of advanced geospatial solutions, specializing in LiDAR, photogrammetry, and spatial data services to support industries such as environmental management, mining, agriculture, and urban development. Leveraging cutting-edge technology and a highly skilled team, Outline Global offers end-to-end data collection, processing, and analysis services to deliver precise, actionable insights. Their projects range from large-scale topographic mapping and vegetation monitoring to site-specific 3D modeling and asset management. Committed to innovation and accuracy, Outline Global is dedicated to empowering clients with geospatial intelligence for informed decision-making.

About DiGiCOR

DiGiCOR was founded in 1997 with the goal of becoming a major player in the niche ICT infrastructure market in Australia and New Zealand. Our focus is in providing server, data storage, workstation, networking, edge computing, and IoT solutions. From designing IT infrastructure to deploying the solution, we cover the whole journey for our customers. Traditionally, we were known for Supermicro solutions, but in recent years we have expanded our partnerships to include servers, storage, workstations, and networking from Supermicro, ASUS, Chenbro, Seagate, iXsystems, Hitachi-Vantara, and Juniper Networks.

What can DiGiCOR do for Your Business?

DiGiCOR has helped Outline Global address critical challenges in storage, networking, and workflow. It's your turn to take action.

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