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With Define Techs’ extensive experience of cloud architecture and our own experience of AI it was a perfect partnership for a simple and successful migration”

Jim Geach  
Co-Founder

**ASPIA SPACE PROVIDES CLIENTS WITH ITS CLEARSKY EARTH OBSERVATION SOLUTION THAT USES AI TO REMOVE CLOUDS FROM SATELLITE IMAGERY. BY BRINGING TOGETHER CUTTING EDGE ARTIFICIAL INTELLIGENCE AND SATELLITE IMAGING, CLEARSKY OFFERS ORGANIZATIONS UNPRECEDENTED CLOUD-FREE EARTH OBSERVATION IMAGING AND UNDERSTANDING OF THE CONDITIONS AND TRENDS ON THE GROUND, ACROSS MULTIPLE SITES, ANYWHERE IN THE WORLD.**

#### **THE CHALLENGE**

Through a unique synergy between AI and expert human eye, Aspia Space discover solutions, insights and efficiencies vital to business performance, strategy and growth.

Delivering rapid, accurate and regular access to a wealth of AI-optimised information from satellite observation requires extensive computational resource. Historically, ClearSky originated as a project at the University of Hertfordshire, running on the university’s internal HPC resources.

With the desire to offer a 24/7 AI service, the project quickly outgrew the legacy infrastructure and the team looked to move the production service out to the public cloud - which would offer Aspia Space a simplified path to scale, resiliency and a globally secure and accessible service for its end customers

#### **THE SOLUTION**

Define Tech was tasked with scoping, architecting, migrating and productionising the AI environment in the Public Cloud (AWS), and now also offer ongo-

## FEATURES

Bare-metal provisioning  
Container provisioning  
Highly available  
control plane  
API-driven infrastructure  
Web based GUI  
Central Authentication  
Monitoring & Telemetry  
Centralised logging  
GPU & vGPU support

## GET IN TOUCH

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ing support on a consultancy basis. By creating a replica environment of Aspia Space's original HPC platform with all of the appropriate software, AI frameworks, toolsets, drivers and schedulers, Define Tech then made the new AI production environment available in the Cloud.

### THE BENEFITS

Having worked in the cloud industry for over 15 years, Define tech has a team of architects and engineers who understand the complexities of migrating workloads to the cloud. We were able to simplify Aspia Space's deployment process, enabling them to rapidly scale their new environment and deploy their architecture in a resilient, load-balance manner.

Define Tech also trained up the Aspia Space team to understand the benefits and best practices of using Public Cloud resource – such as utilising resources sparingly and efficiently to ensure on-going cost effectiveness.

In order to grow its offering, Aspia Space needed to understand the nuances between on-premise HPC infrastructure and Public Cloud infrastructure. Define Tech worked with the team to map their traditional workloads to the new Cloud environment easily and cost-effectively, giving Aspia Space a simplified path to scale for the future.

### GOING FORWARD

As Aspia Space captures and generates more and more data, its algorithms need to be continually retrained and optimised which will only increase the pressure on compute resource over time. As Aspia Space grows, it can expect its computational needs to grow in tandem. Thanks to the elasticity of the Cloud, Aspia Space can scale up and down its data processing resources on-demand and ultimately reduce the time required for its algorithm updates based on new data cycles – future-proofing its IT infrastructure.

**If you are interested in simplified IT management, scalable HPC resources, accelerated workloads and faster time to insight, talk to us about our Cloud solutions and services today.**