



**Aero Engine Services** is a privately owned UK-based aviation company, headquartered in Cardiff, just 30 minutes from GE Aviation Wales. With over 40 years of experience in the aviation services industry, the company has built a strong reputation for delivering high-quality aftermarket supply chain solutions and technical consultancy services to the global aerospace sector.

As the aerospace industry continues to grow, so do the technological and regulatory demands placed on companies operating within it. Aero Engine Services recognised the need to modernise their IT infrastructure and enhance their cyber security posture to:

- Meet industry compliance standards
- Protect sensitive client and operational data
- Automate internal systems for greater efficiency
- Support global operations with scalable, secure technology

Our partnership with Aero Engine Services became essential to future-proofing their operations, maintaining client trust and continuing to deliver exceptional service in a highly competitive and regulated market.

## **IT and cyber security challenges in the Aviation Services industry**

The aviation sector is governed by international standards such as ISO 27001, EASA Part 145 and CAA regulations, each demanding the highest level of data protection, audit

trails and secure communication protocols. Non-compliance can lead to operational restrictions, legal penalties and reputational damage.

Aero Engine Services handles highly sensitive data, including:

- Engine performance analytics
- Maintenance records
- Client contracts and commercial terms

This data is a prime target for cybercriminals and must be protected against breaches, ransomware and insider threats.

Outdated systems and siloed data make it difficult for companies in the aviation industry to maintain visibility, enforce security policies and scale operations efficiently. This is where the CSG team provided secure solutions to ensure that Aero Engine Services can continue promoting their exceptional services whilst maintaining a secure posture against cyber criminals.

In an industry where downtime can disrupt global supply chains, Aero Engine Services needed an industry-leading IT environment with strong backup, recovery and continuity planning.

## **How each MS365 helps supports technology challenges**

Microsoft 365 offers a suite of enterprise-grade tools that are individually selected from our account managers and technical team to suit to meet the complex demands of the aviation services industry.

For Aero Engine Services, this meant more than just modernising their workplace, it meant aligning with strict regulatory standards, protecting sensitive data and enabling secure global collaboration.

*“We were operating across multiple cloud-platforms for our data/emails, and I had concerns around our overall security, as well as how backups were completing, if at all. With our growth plans in mind, I tasked CSG with compiling a review of our current setup, and where they suggested we make improvements to mitigate risk, as well as introducing backups and continuity measures to prevent business downtime”.*

**Samuel Evans, Chief Financial Officer.**

## Phase 1: Adoption of Microsoft 365 Modern Workplace

### Email Migration

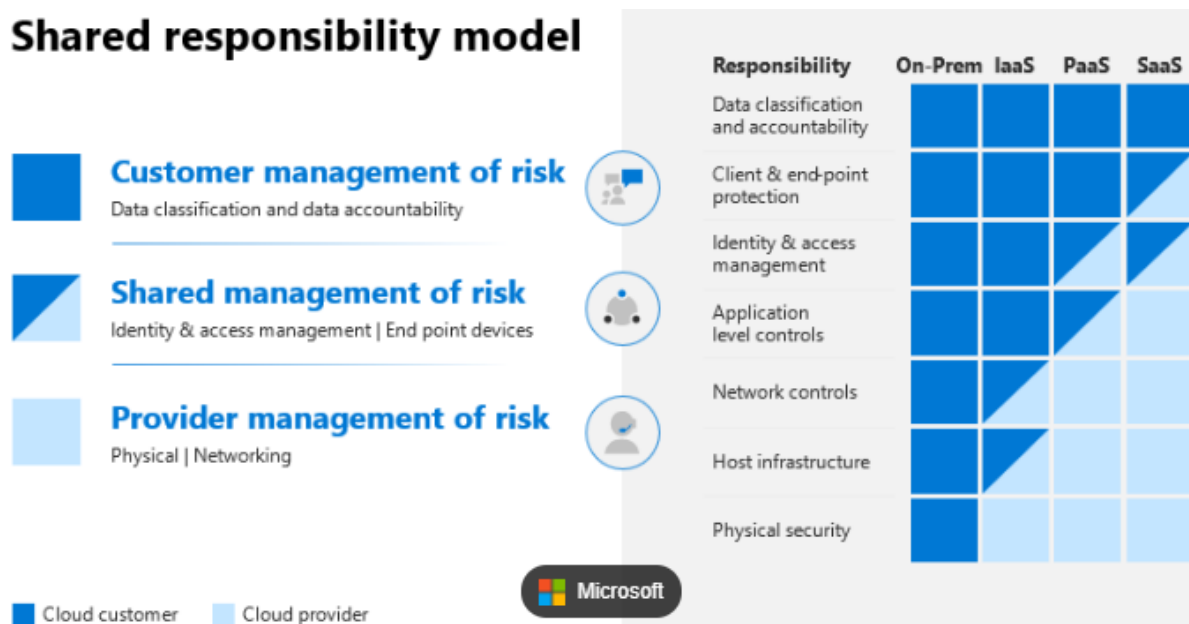
Emails were historically held within IONUS, but this lacked out-of-box features, and it was decided CSG would migrate the current mailboxes into Microsoft 365, utilising Business Premium licensing, to give more granular control over the environment, as well as allowing for the deployment of additional services – email filtering & backups.

### Email Filtering

To reduce the chances of malicious content reaching employee mailboxes, CSG heightened the configuration of Microsoft Defender for Office 365, as well as complementing it within Sophos Email Advanced; ensuring AES have robust defensive measures in place to protect against email-borne attacks.

### Email & Data Backup

Data held within Microsoft 365 is not natively backed up by Microsoft; their Shared Responsibility Model highlights as per the image below.



To protect AES data/emails, CSG introduced backups via Datto SaaS Protection, which is a fully automated solution which completes multiple backups of both their emails and company data held within M365, multiple times per day.

### Advanced Security Hardening

With AES' reliance on the Microsoft cloud, it was imperative that their security posture was assessed and corrective action taken to improve security; CSG worked through all of the MS Secure Score items in line with their Business Premium licensing to heighten base-level security, as well as introducing additional policies via Conditional Access to further improve security measures and controls.

### **EntraID (Formerly AzureAD)**

All company machines were adopted into EntraID & Intune for central management and authentication, with additional compliance policies introduced around access control. CSG managed this process in full, pulling all user profile data from their machines into the new environment, so the users could continue working with what felt like no change.

### **Phase 2: Onsite Infrastructure & Resilience**

A secure infrastructure is the first step to establishing the required security posture to protect against modern-day threats. The CSG team worked to deliver a suite of technology-driven solutions that allowed Aero Engine Services to confidently meet growing business demands and regulatory requirements, such as internet resilience and unified Wi-Fi throughout all offices and factories.

### **Sophos Firewall in High Availability (HA)**

In aviation, system downtime can lead to operational delays, missed deadlines and lost revenue. Sophos Firewall in High Availability allows Aero Engine Services to ensure redundancy and uninterrupted network protection. If one firewall fails, the second takes over instantly, maintaining secure connectivity and compliance with industry regulations without disruption.

### **Sophos Anti-Ransomware AV with Security Heartbeat & XGS Integration**

Cyber threats like ransomware pose a serious risk to aviation data and operations. Sophos Intercept X, integrated with XGS Firewall and Security Heartbeat, provides real-time threat detection and automated response. This synchronised security approach ensures that infected devices are instantly isolated, preventing lateral spread and protecting sensitive engine data, maintenance records and client communications.

### **Internet Resilience via 5G Backup Connection**

Reliable internet connectivity is essential for accessing cloud systems, communicating with global partners and managing real-time data. With *automatic failover to a backup 5G connection*, Aero Engine Services maintains continuous internet access, even during primary line outages, ensuring business continuity and uninterrupted service delivery.

## **Unifi WiFi & Hosted Controller**

CSG introduced a new WiFi environment via Unifi, with a newly provisioned hosted cloud controller within the CSG cloud that allows for remote monitoring and management. Access Points were provided and fitted at site throughout the building, with appropriate segregation in place to isolate Guest traffic.

## **Why does this all matter in the aviation industry?**

Together, CSG and Aero Engine Services help make the most out of the technologies available to form a secure, and scalable IT foundation, which is essential for aviation service providers who must:

- Meet strict compliance and security standards
- Protect mission-critical data
- Operate globally with zero tolerance for downtime
- Deliver consistent, high-quality service to clients

Through the above work Aero Engine Services is not only protecting its operations but also gaining a competitive edge in a fast-moving, highly regulated industry.

CSG's commitment to ongoing support ensures that the team at Aero Engine Services is never left to navigate IT or cybersecurity challenges alone. With a dependable partnership in place, Aero Engine Services benefits from proactive monitoring, instant response to emerging threats and continuous optimisation of their digital environment.

This reliable service allows the Aero Engine Services team to dedicate their attention fully to providing exceptional aviation solutions, confident that their IT infrastructure and cybersecurity are expertly managed by CSG.

By entrusting these critical functions to CSG, Aero Engine Services can focus on what they do best, secure in the knowledge that their technology backbone is always protected.

## **Customer quote**

“I'm really pleased with the works completed by CSG; the solution was clearly explained by our account manager and the communication through both phases of the project was on point, putting my mind at rest given our reliance on IT; I now possess a much better understanding of our IT environment which was my ultimate goal, and look forward to working with CSG to meet the milestones within the IT strategy we've developed together”.



**Samuel Evans, Chief Financial Officer.**