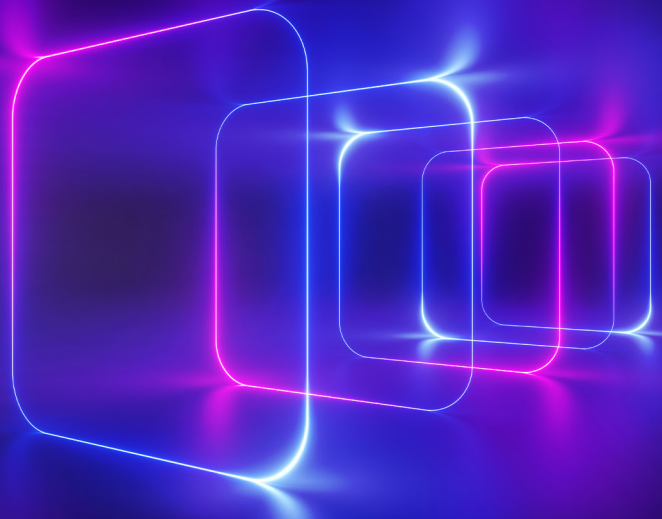# Securing the Stars

How Cyber Security is shaping the future of the space industry

Setting the stage

The space industry has rapidly grown in recent years and according to some predictions, over the next decade, the commercial space industry will triple in size to $1.4 trillion[1] with some estimates predicting $634 billions of revenue growth by 2026.[2] We have already reached the stage where governments and private companies are launching satellite missions to explore the solar system. According to the Space Foundation, in the first 6 months of 2022 alone, 1,022 spacecrafts were launched.[3] However, as the industry swiftly grows and the number of assets in space increases, so do the potential vulnerabilities to cyber-attacks.

In our series of analysis of cyber security considerations for the space sector, we address various potential treats, including interference with satellite communications, jamming, or spoofing of GPS signals, and the hacking of ground control systems.

Cyber Security in the Space Sector

Cyber-attacks can disrupt the operation of satellites, cause loss of data, and even lead to the loss of the satellite itself. Furthermore, the increasing interconnectivity of systems in the space industry has led to an increased risk of a cyber-attack cascading through multiple systems. As efforts to modernize critical infrastructure are ramped up, the risks of cyberattacks on Operational Technology (OT) networks are amplified as well.

A well-protected business has the potential to be confident and the most innovative. The smartest businesses don't just manage cyber risks, they use it as a source of growth and market edge. As cyber threats grow in volume and sophistication and technology becomes essential for meeting the needs of customers, employees, suppliers and society, cyber security must build resilience and trust.

Key considerations for cyber security in the space sector

Cyber-attacks are nothing new in the fast-growing space industry and cybersecurity challenges will continuously impact the industry as technology advances. As the space industry continues to grow, it will be important for stakeholders to continue to develop and implement cybersecurity measures to protect against potential threats.

Some of the most prevalent cyber threats to the space industry are Ransomware, DDOS attacks, Third Party Risk, Insider Threats, Supply Chain Attacks.

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[1] CNBC, Michael Sheetz (October 4, 2020).

[2] Forbes, Carlie Porterfield (July 27, 2022).

[3] Space Foundation, Space Foundation Editorial Team (July 27, 2022).

KPMG strives to help our clients improve their security posture and capabilities now and for the future. Our services include:

- We help clients increase their resilience to cyber-attacks through incident response strategic and operational program planning, cyber exercise drills, playbook development and incident automation.

- We support our clients and help them absorb and filter out malicious traffic while allowing legitimate traffic to pass through, implement bandwidth scalability, analyze traffic, and have an incident response plan.

- KPMG has a streamlined approach to serve our clients and to provide data protection and privacy that is grounded in three key tenets: visibility, protection, and trust. Fundamentally, organizations must understand what data they have, where it rests and flows, with whom it is shared, and for what purposes it is used.

- Assisting clients design, architect, and engineer security solutions needed to predict, prevent, detect, and respond to security threats by leveraging advanced security monitoring and automation across IT applications and SaaS platforms

- Enabling our clients to take control of their Operational Technology (OT) and IOT environments from validating compliance and risk review, asset and vulnerability discovery, and security architecture.

How KPMG can help your threat landscape

What can KPMG do for you and the space industry? **KPMG can help you** anticipate tomorrow, and can bring an uncommon combination of technological expertise, deep business and industry knowledge and **creative professionals** who are passionate about helping you protect and build your business. KPMG can help you to **create a resilient** and trusted digital world, move faster, and get an edge with technology that is secure.

From the boardroom to the data center KPMG is a trusted advisor for many of the top players in the space industry around the world. By assessing your **cyber security maturity** and aligning it to your business priorities, we help you develop advanced solutions, implement them, monitor ongoing risks, and help you respond effectively to cyber incidents. Through our global team focusing on **OT security**, we can provide help for overcoming the cybersecurity challenges you face with identifying areas of improvement with securing your OT infrastructure.

No matter where you are on the cyber security journey, KPMG can help you reach the destination. So together, let's create a trusted digital world, so you can push the limits of what's possible.

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