AI in space players that serve the government and military sector should focus on greenfield opportunities

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Interest in how AI can benefit the space industry is growing. Indeed, Analysys Mason has previously noted that the effects of the burgeoning AI sector on the space industry are only just now being felt. Commercial AI players must be prepared to advocate for themselves and demonstrate their abilities, as well as how their solutions can be integrated, in order to capture the revenue opportunity.

Government and military players are just starting to define strategies to enhance and understand their value proposition in the satellite market. In this article, we take a closer look at how AI in space companies can optimise their revenue capture opportunities within the government and military sector of the satellite market.

Satellite players must ensure that their AI offerings are mature because governments are starting to assess where and how AI can benefit them

Militaries are facing information overload due to growth in the number of missions, as well as their broadening geographic footprint and complexity. Indeed, Analysys Mason's *Military satellite communications, 20th edition* notes that the number of intelligence, surveillance and reconnaissance (ISR) missions will increase dramatically. Military players are increasingly finding that they have access to significant levels of data but no useful/integrated insights. This is increasing their appetite for as yet unexplored uses of AI to achieve their mission goals.

As such, government and military players are assessing how AI capabilities can be used to enhance and optimise their analytics and logistics. However, concerns remain regarding the accuracy, safety and reliability of the technology.

Ideally, the addition of AI would enable the removal of human checks, but the risk profile of government and military missions means that any errors are extremely problematic. False positives or negatives represent a high potential danger to life or mission goals, so the interest in AI at the moment is mainly for initial data assessment. This would remove the need for first passes by humans and would allow human operators to focus on precision analysis (while also checking the integrity of findings).

The space industry in general (and the government and military part of it, in particular) is risk-averse because projects are time- and capital-intensive. Nonetheless, the demand for AI will increase as AI-driven offerings become more mature and as error rates decrease.

Commercial AI in space players should assess the overall AI market activity to identify possible synergies in offerings

Governments are focusing on partnering with both commercial entities and allies in order to get information on the 'bigger picture' of what capabilities AI players can offer both now and in the future.

The US government is leading current efforts to understand how to integrate AI into government/military activities, both for new use cases and to enhance existing AI use cases. It is not looking to answer a specific market need, but rather to make use of what commercial players already provide. Using a range of services is likely to be the key to achieving this.

One example of such efforts is the United States Space Force's Tactical Surveillance, Reconnaissance and Tracking Program (TacSRT). It is designed to assess how to use commercial space capabilities to offer rapid intelligence and analytics, while also examining how new AI applications can extend the mission life of satellites.

Commercial AI players that are interested in the government and military sector of the satellite market should consider both what they can provide and how they can slot in with other companies' services. Much of the growth in the AI in space market will occur via the US Commercial Space Office, which is aiming to engage a large number of commercial players. These commercial AI players will need to look both internally and sideways for innovations and synergies if they are to optimise the opportunity.

AI in space players must showcase their products and services

Governments and militaries will continue to be risk-averse but will use AI to maximise insights while minimising the requirement for human intervention. For example, Viasat's AI tactical network technologies for warfighters aim to "reduce warfighters' cognitive loads in order to make more accurate, informed, lifesaving decisions with accelerated speed across the battlespace". The Department of the Air Force in the USA has also launched its Non-classified Internet Protocol Generative Pre-training Transformer (NIPRGPT) tool to explore how generative AI (GenAI) can be used in its work. The demand for AI capabilities will continue to grow among the various government and military entities that use satellite data, but AI in space players must prove their worth and reliability if they are to capitalise on the revenue opportunity.

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