Case Study: Altavec partnering with Sydney Trains
Measurement and Inspection Digital Twin (MIDT) Project

Project Overview: Altavec, renowned for their advanced geospatial solutions, played a crucial role in the ongoing Measurement and Inspection Digital Twin (MIDT) project for Sydney Trains. The project aimed to create a comprehensive and highly accurate digital twin of the entire Sydney Trains network, utilizing state-of-the-art technology for data capture and processing.

Implementation: Over the past five years, Altavec has conducted multiple surveys across the network, leveraging dual VUX-1HA Lidar scanners and 360° panoramic imagery technology. This equipment was selected for its exceptional precision and ability to create comprehensive and detailed mappings of the rail environment.

The data capture phase involved dealing with GNSS-compromised environments such as tunnels and urban canyons - scenarios that pose significant challenges in terms of signal interference. However, Altavec's specialized experience in creating digital twins in these conditions was invaluable. They demonstrated their ability to deliver high-quality results even under the most challenging conditions.

Post-Capture Processing and Deliverables: Once the data capture phase was complete, Altavec's team of geospatial professionals processed the captured data, turning raw information into a usable and accessible digital format. The result was a comprehensive, interactive, and highly detailed digital twin of the entire Sydney Trains network.

Impact and Outcome: Altavec's involvement in the MIDT project has enabled Sydney Trains to gain an unprecedented level of insight into its own infrastructure. This digital twin has provided the ability to carry out detailed inspections and measurements, plan maintenance and upgrades more effectively, and quickly identify any potential issues.

Conclusion: Altavec's success in delivering the MIDT project for Sydney Trains underlines their exceptional ability to handle complex and challenging projects. With their innovative approach, advanced technologies, and experienced team, Altavec continues to prove their worth as a trusted partner for rail network solutions.