

# Axient Program Highlight: Distributed Simulations & Live Virtual Constructive (LVC) Environments

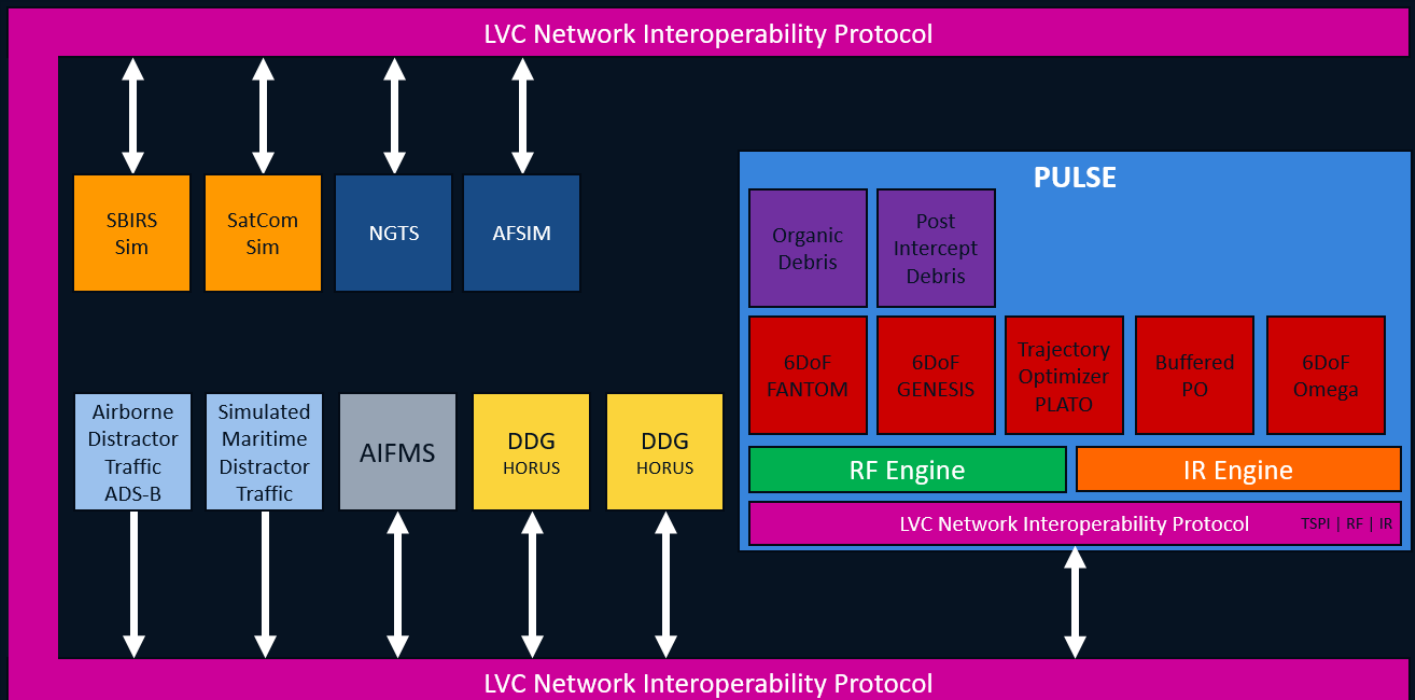
## Developing a Digital Analysis & Testing Ground

Axient's Distributed Simulations and LVC Environment is a key enabler to the integration of our products with one another, but also to easily promote their use within wider DoD LVC environments.

- **Interoperability:** Leveraging interoperability standards to integrate solutions and compose a complex system of systems simulation.
- **Infrastructure:** Leveraging high performance computing and cloud native design patterns and architectures to quickly and securely host distributed events.
- **Analysis:** Providing a web native integrated analysis tool suite to efficiently perform kinematics and sensor analysis as well as develop machine learning algorithms.

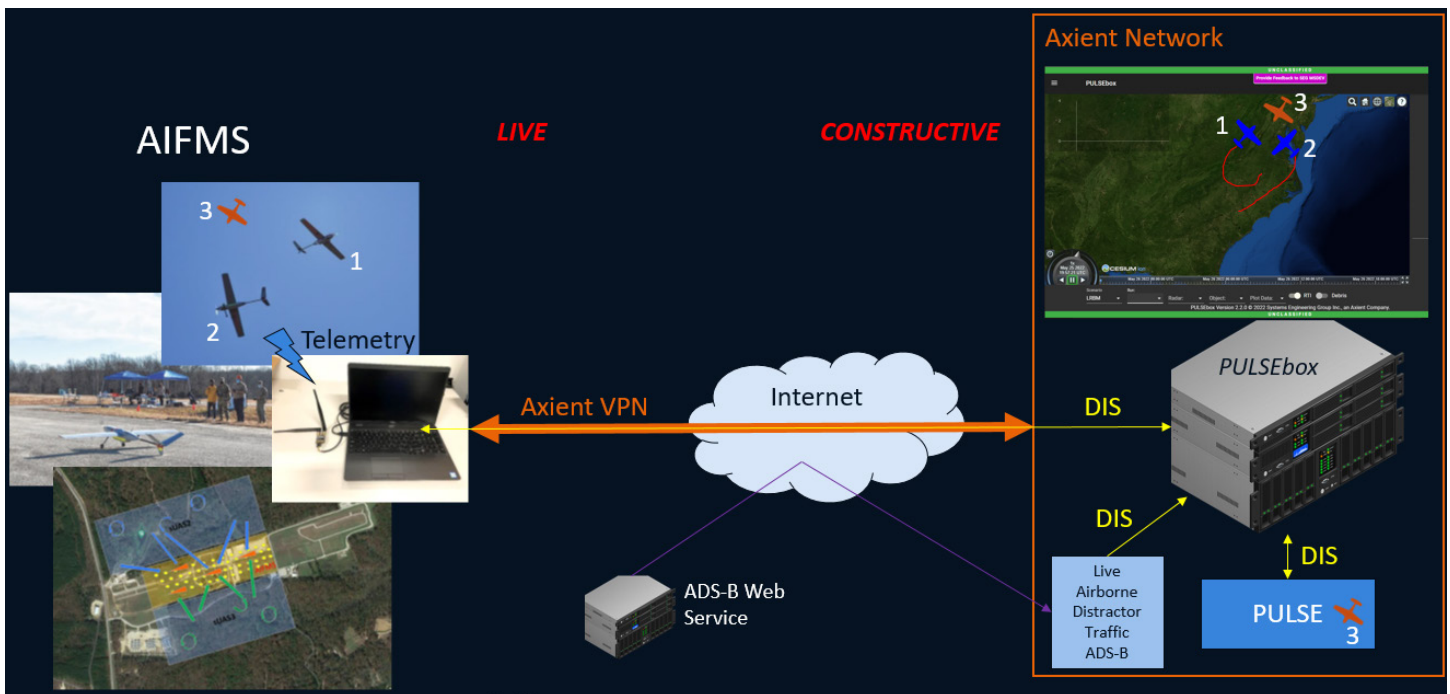
## OVERVIEW

Axient is developing a digital testing ground to satisfy the growing need for more complex and realistic testing and analysis environments. This testing ground requires a secure infrastructure both on- and off-premise for the expedient deployment and hosting of distributed events. An initial instance of this LVC environment is currently being tested. Additionally, the architecture will be capable of parallel realization of these distributed events to cover a parametric or Monte Carlo space of CONOPS, scenarios and uncertainties. We are leveraging a microservice architecture of containers deployed over a cluster and communicated over a network through standard interoperability protocols. Web-centric technologies are used throughout for data storage, data analysis and visualization.



# Distributed Simulations and LVC Use Cases

- Simulated and HWIL Sensor system testing and analysis in a complex environment
- Sensor signal processing algorithm development and testing using a realistic environment
- Threat system simulation development and testing using a realistic environment
- Flight hardware testing using synthetic stimuli
- Platform and weapon system crew training using a complex adversarial threat environment
- AI/ML algorithm development



## About Axient

With over 2,200 employees, Axient is the result of the merger of four leaders in the defense and civil markets: QuantiTech LLC, Millennium Engineering and Integration LLC, Systems Engineering Group, and Dynamic Concepts LLC. Axient is headquartered in Huntsville, Alabama and has provided premier services and solutions to the Federal Government for more than three decades. Axient is certified in the following: ISO 9001:2015, AS9100 Rev D, CMMIDEV Maturity Level 3, and has a DCMA Purchasing System, DCMA Property System, and DCAA Accounting System.

