

Alta Data Technologies and Avilution Announce Strategic Partnership to Accelerate MOSA Integration in Avionics Systems

Combined XFS Software and High-Performance Interface Solutions Deliver Unprecedented Agility Across Army Aviation and Global Defense Platforms

RIO RANCHO, NM, UNITED STATES, May 15, 2026 /EINPresswire.com/ -- Avilution, LLC, developer of the eXtensible Flight System (XFS), and Alta Data Technologies (Alta), a global leader in MIL-STD-[1553](#) and ARINC COTS avionics interface products, are pleased to announce a strategic partnership. The collaboration pairs Avilution's modular software with Alta's industry-leading hardware to deliver a flight-ready Modular Open Systems Approach (MOSA) solution that reduces vendor lock-in and accelerates aircraft modernization.

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Marc Spencer, Founder of Avilution



Alta Advanced 1553 Ethernet Converter. ENETX Model has raw 28V Avionics Power Supply and Deployed on 100s of Flight Systems.

As the Department of Defense (DoD) rapidly advances toward Sensor Open Systems Architecture (SOSA) and MOSA mandates, this partnership addresses a common challenge: integrating legacy data protocols into high-speed, software-defined systems.

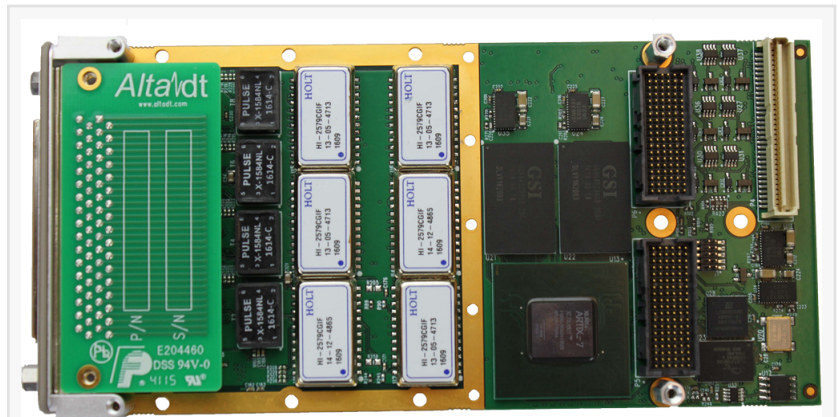
Philosophical Alignment: A Shared Vision for Open Architecture

While the industry often faces proprietary hurdles, the Avilution and Alta partnership is built on a shared "Open Architecture" philosophy. Both companies aim to:

- Decouple Hardware and Software: Abstract the underlying hardware so software applications remain stable even when hardware is upgraded.
- Enable Software Reusability: Modular components can be reused by changing configuration

files across different platforms and for integrating new capabilities, drastically reducing development times and certification costs.

□ Promote Rapid Innovation: Allowing new capabilities—such as those demonstrated at the U.S. Army’s EDGE 2023 exercise—to be added in response to rapidly evolving threats within days or weeks rather than years. Bridging the Gap: XFS and the FACE™ Technical Standard



XMC-1553 - The Industry's Most Advanced 1553 Interface for VME, VPX, cPCI, PXI Systems

Avilution’s XFS is a highly integrated, flexible system designed for rapid deployment and aligned with the Future Airborne Capability Environment (FACE™) standard. Through this partnership, Alta’s 1553 and ARINC hardware and software development kit (AltaAPI) serve as the essential connector. Using Alta’s [ENET™/NLINE™](#) appliances or SOSA-aligned [XMC](#) cards, XFS can be integrated into FACE-compliant systems as a high-performance subsystem.

The Synergy of Reconfigurable Integration Software and Adaptive Hardware

□ Avilution’s XFS: Flexible, reusable software that allows integrators to configure flight deck systems through data setup rather than manual coding—similar to a spreadsheet. It uses a set of standalone, safety-critical data microservices that are independent of hardware and operating systems and can be easily reconfigured to each customer’s requirements via non-executable configuration files, leaving the core XFS software untouched and its qualification intact.

□ Alta’s Interface Solutions: The industry’s leading portfolio of MIL-STD-1553 and ARINC interface devices, including XMC cards for SOSA/MOSA modular systems and ENET/NLINE appliances for network-centric architectures, used on top-tier platforms such as the C-130, Black Hawk, and Apache.

To streamline integration, AltaDT and Avilution provide an example program that maps XFS structures directly to Alta’s hardware data structures. Configurable via a simple text file, this utility supports 1553 and ARINC-429 setups, enabling rapid "hot-swappable" prototyping. Mark Spencer, Founder of Avilution, commented: "When my developers ask how to bring MIL-STD-1553 data into XFS, the answer is 'Just use Alta!' Their network-centric ENET products and SOSA-aligned XMCs let us treat legacy I/O as a simple network node. Their world-class support is a key factor in helping us deliver true MOSA agility."

"Avilution is the evolution of aviation integration and sustainment," says Richard Schuh, CEO of Alta. "Their XFS platform is the 'holy grail' of integration. By pairing their microservices with our low-latency interface appliances, we enable engineers to decouple mission capabilities from rigid hardware, making upgrades faster, cheaper, and simpler."

About Avilution

Avilution, LLC is a Huntsville-based avionics software company. Its eXtensible Flight System (XFS) replaces outdated designs with modern, safety-critical microservices, enabling rapid flight deck design. Contact: www.avilution.com

About Alta Data Technologies

Alta is an industry leader in MIL-STD-1553 and ARINC COTS avionics interface products. Alta's product portfolio includes high-density channel-count solutions, real-time Ethernet converters, and USB and Thunderbolt™ appliances. Interface cards include boards for PCI Express, PMC, XMC, VPX, MOSA, VME, cPCI/PXI, PXIe, and Mini PCI Express. Alta's software includes AltaView 1553 analyzer with signal capture and real-time data analysis, and AltaRTVal, the industry's leading SAE AS4111 protocol test package for 1553 systems. Learn more at www.altadt.com.

Harry Wild

Alta Data Technologies

+18059645390 ext.

[email us here](#)

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