



TechSAT Secure PDL Solutions

Secure,
Cost-Effective,
and Future Proof





Secure by Default

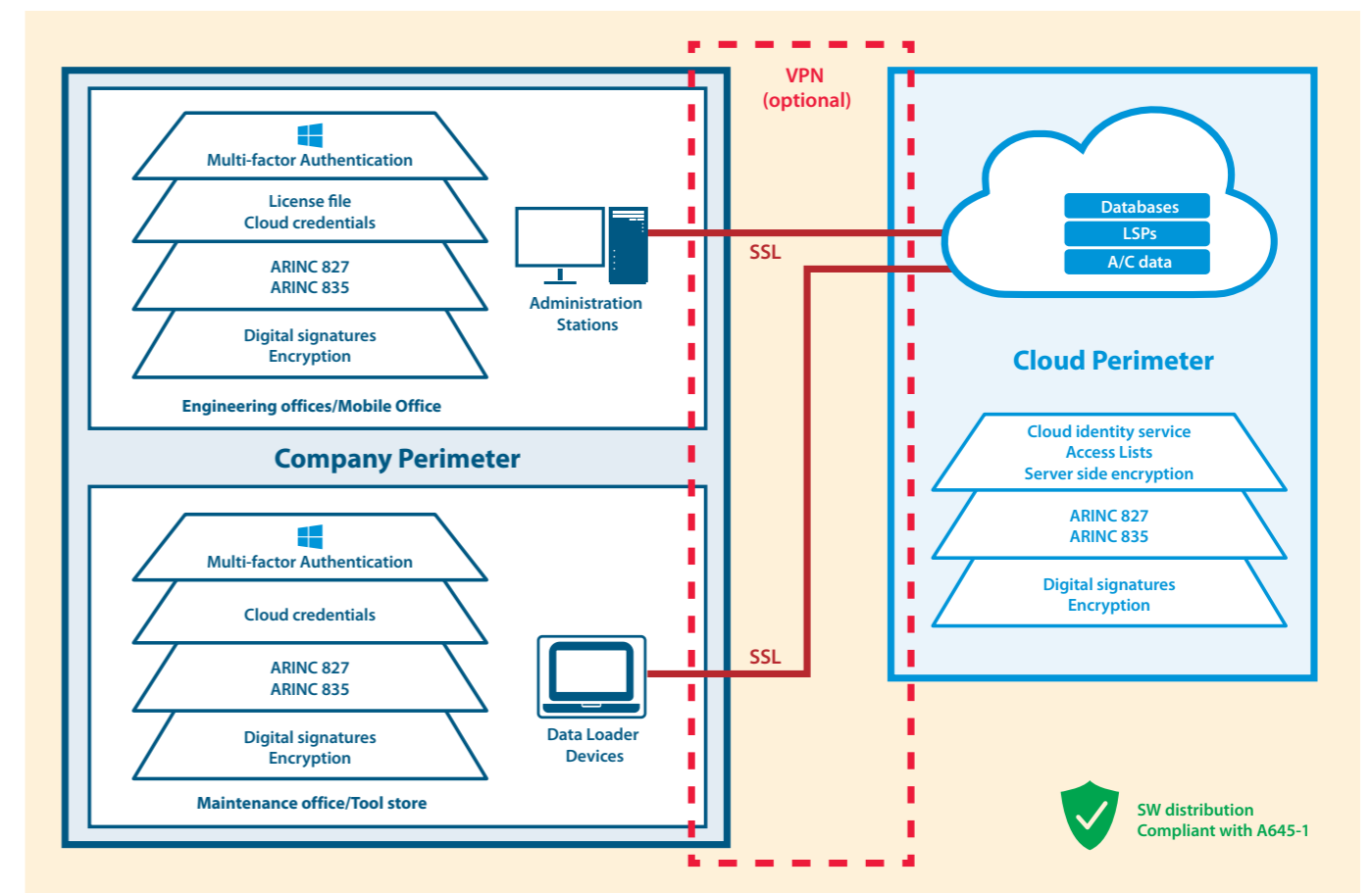
TechSAT's Secure PDLs use a layered approach combining the best components to guarantee the long-term security of data loading operations:

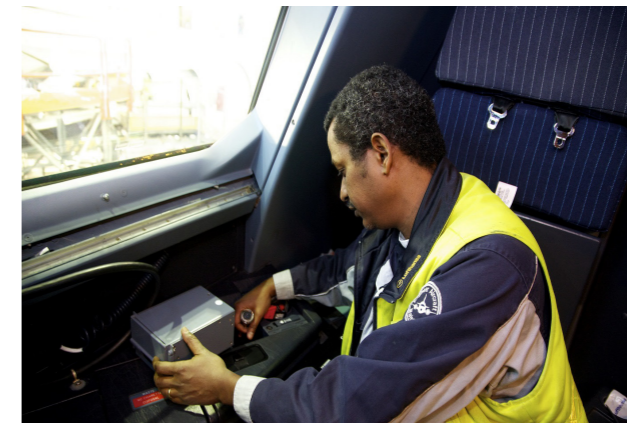
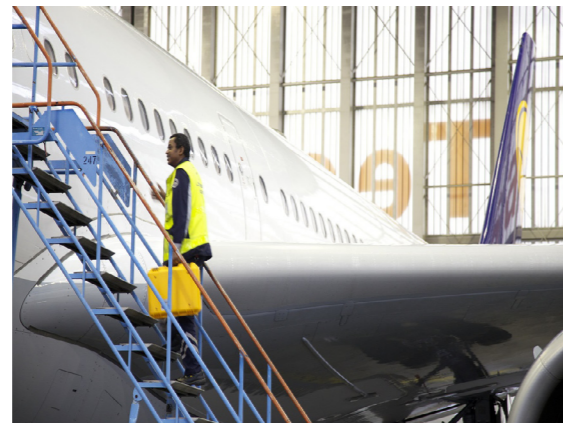
- The Secure PDL software architecture is based on TechSAT's certified experience in developing secure data loading products (already proven with the patented GARDT technology).
- The deployment of the latest and most advanced security technologies of Microsoft and computer manufacturers (secured core PCs, secure boot, TPM encryption, biometric multiple factor authentication) guarantee long-term support and adaptation to evolving threats.
- The integration with Azure (including the management of PDL computers, users, and data) guarantees compliance with the most recognized security standards and allows security from chip to cloud.
- The integration of the Secure PDL software in the airline's existing security infrastructure gives airlines complete control of PDL computers and their security.

TechSAT's Secure PDL solution offers the possibility to scale from individual, locked-down data loaders (fully integrated PDLs provided by TechSAT) to a complete fleet of PDL computers already owned and managed by airlines.

TechSAT's Secure PDL solution enables compliance with ARINC 645-1 (including the verification

of LSPs signatures) and airframer-specific requirements such as ANSOG and security directives. To ensure that security aspects are inherently addressed, the recommendations from NIST 800-218, ATA Spec 42, RTCA DO-355, and DO-326 are an essential part of the product development framework.





Secure LSP Management and Distribution System

TechSAT's Secure PDL Sync solution supports the secure exchange of aircraft data (including LSPs and aircraft-retrieved data) between the PDL computers and the central management system, which can either be hosted by the airline or integrated in the airline's existing Azure infrastructure.

Using the Azure integration guarantees the highest availability and security of the management system, while providing unlimited integration with Azure and third-party applications (e.g., for network management, auditing, reporting, SIEM) and supporting airlines business logic rules.

The Secure PDL Sync software ensures that the digital signatures are checked against LSP and crate signatures for ARINC 827 and 838, both at import and actual transfer time to the aircraft.

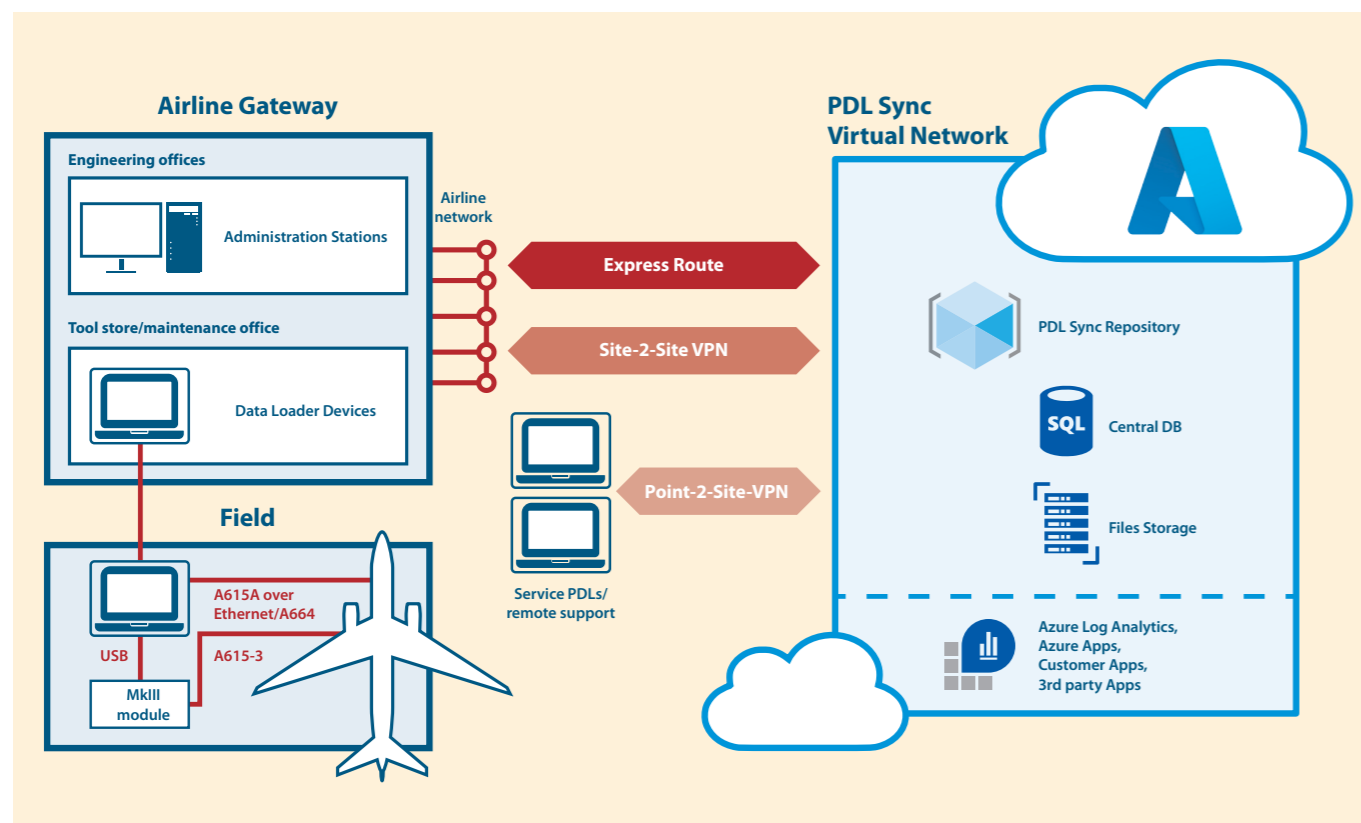
Secure PDL Devices

The Secure PDL is available as a fully locked-down, leading-edge Toughbook in a ruggedized case, or available as software and USB modules to be used with the operator's laptop or tablet of choice.

TechSAT's Secure PDL software has a highly intuitive user interface. TechSAT's loaders are known for their high-speed data performance, providing shortest load times and aircraft turn-around times.

TechSAT's Secure PDLs support data loading of all commercial aircraft types as well as select military planes. The Secure PDL software supports LSAPs with digital signatures created using the Airbus LSBM tool, Boeing CSCT, and Carillon's LSAP Suite.

TechSAT's Secure PDLs support all standard data loading protocols (ARINC 615-3, ARINC 615A over Ethernet and ARINC 664/AFDX, ARINC 826 over CAN) and allow interfacing with LRUs via PCMCIA (linear flash and ATA), compact flash, and USB.



You can use TechSAT's MK II (left) as our turn-key solution as well as MK III with any PC or laptop (middle, right).



Available Interfaces

Airlines can choose from TechSAT's complete range of electronic interfaces for Ethernet and AFDX/ARINC 664 (RJ45 and ARINC), ARINC 429 (via rugged MKIII module), as well as PCMCIA and USB/CF emulators.

The emulators support LRUs, including EGPWS, MKV, MKV-A, T2CAS, and T3CAS, and serve as transfer backup for e-enabled aircraft.

Airline GSE grade cables and adapters are available for all supported LRUs, including ARINC 603 adapter cable, MDDU adapter cable, CFM56 FADEC cable, 777 EFB adapter cable, 747 FMC adapter cable, and HGS adapter cable. Other cables can be built on request



Development Reference Loaders, Reference Targets, and Onboard Loaders

For 25+ years, OEMs, manufacturers, and airframers have used TechSAT's loaders and embeddable loading engines as reference solutions and platforms for integration and onboard solutions.

TechSAT's data loading product family includes engineering tools for LRU development (Netloader, Data Loading Protocol Checker, ARINC 665 Media Creator), scriptable tools usable in production and automated test equipment (media creation, signature verification, shop data loading), embeddable data loading function (e.g., for AIDs), and certifiable data loading engines already flying on thousands of LRUs.

Lowest Maintenance Costs

TechSAT's Secure PDL software provides the most cost-effective solution, as it is available for deployment on the airline's own hardened tablets and laptops. Potential issues with PDL computers do not incur additional maintenance and repair costs for vendor-locked equipment; airlines can simply replace faulty equipment with the device of their choice.

TechSAT's ruggedized design of its USB interfaces (for ARINC 615-3 data loading, PCMCIA, Compact Flash, and USB emulation) guarantees highest availability and lowest maintenance costs by requiring a smaller inventory of devices. No specific interface is required for ARINC 615A data loading (over Ethernet of A665/AFDX), allowing any hardened laptop to be used as a high-speed data loader.

TechSAT licensing policy allows airlines to install the secure PDL software on any hardened computer, supporting the simple deployment and unified management of whole fleets of data loader devices.

Future Proof

Hier bitte etwas Text zum Thema Future Proof, kurz zusammengefasst. Länge gemäss Blindtext.

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Trust and Experience Built Over Decades

TechSAT is the supplier with the largest selection of data loading tools and proven solutions in the military and commercial fields.

For over 35 years, TechSAT has served the industry at the forefront of technology with active leadership and participation in airborne standards. TechSAT's size with engineering capabilities in data loading, test systems, and onboard systems ensures dependable worldwide support capabilities.

The complete range of data loading products and capabilities makes TechSAT's Secure PDL product line the premier choice for long-term, cost-effective growth of airline maintenance operations, as attested by airlines and military operators worldwide.



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