

The logo for iNSTA, featuring a lowercase 'i' with a dot and the word 'NSTA' in all caps, all in white.

iNSTA



Insta DomainLink Secret™

Real-time data exchange
across networks and domains



Insta DomainLink Secret™

Insta DomainLink Secret™ is a cross domain solution (CDS) which enables bi-directional data transfer between domains and classification environments. Insta DomainLink Secret™ is designed for real-time exchange of data in complex network environments where data integrity and security is a dominant requirement.

Real time data exchange with high through between different networks and domains

Insta Cross Domain Solution is built on FPGA technology that enables hardware-based content validation and filtering, enhancing performance and security in critical environments. Users can federate different mission networks with it to support operators with accurate data at the speed of relevance. Mission network federation enables effective execution of joint operations while exploiting Multi Domain data feeds. Insta DomainLink Secret™ filtering feature allows users to control data flows in line with need-to-know policy.

Insta DomainLink Secret™ has been developed in collaboration with Lockheed Martin, in accordance with the Finnish Defence Forces (FDF) requirements. FDF's initial use case was the distribution of Recognized Air Picture enriched by Tactical Datalinks (secret) to mission network (confidential).



High through output while filtering and validating data flows between mission networks

State of the art solution enabling real time data flow between selected participants.

Bi-directional data validation and filtering using FPGA technology

Insta DomainLink Secret™ filters and validates data distribution and reception simultaneously. Hardware-based data filtering and validation make it a superior security solution.

Tamper proof

Insta DomainLink Secret™ is protected against physical security breaches. Software is designed safe and user-friendly to allow operators to focus on capitalizing shared data.

Use Case 1: Thorough content inspection and filtering

Insta DomainLink Secret™ performs thorough content inspection and filtering, ensuring that only valid data formats are passed while invalid data is blocked (validation) and defined sensitive information is prevented from leaking (filtering). The end user defines the filtering rules, and due to FPGA based implementation, the validation and filtering are performed in hardware, delivering high performance and security.

Use Case 2: Distribution of Joint Common operating picture (JCOP)

Insta DomainLink Secret™ enables distribution and reception of Tactical datalink and sensor data. Operator can set parameters for distribution and reception to filter unsolicited data increments out from out/inbound data stream. It also assures that data streams are consisting only of endorsed data elements. This allows effective data sharing between different actors, enabling missions to prevail while ensuring need-to-know policy. For example, rule can be set to filter messages out from the J-message data stream. This functionality facilitates assured Joint Common operation picture distribution between military domains and other Governmental actors (civil defence) even when using differently classified networks.

Use Case 3: Simulator integration

Insta DomainLink Secret™ enables the integration of simulation systems from different domains of defence into a unified training environment. The solution supports LVC environments, where simulated entities are integrated into live training to create a unified and interoperable system. With Insta DomainLink Secret™, nations can also securely connect their national systems to joint simulation exercises.

Use Case 4: Interoperability integration

Insta DomainLink Secret™ acts as a secure protocol adapter between different systems, enabling various command and control systems to work together, even when their data structures or security classifications differ.

Insta DomainLink Secret™ technical specifications



Hardware based solution

- HW based domain separation
- HW based data separation and filtering

Features

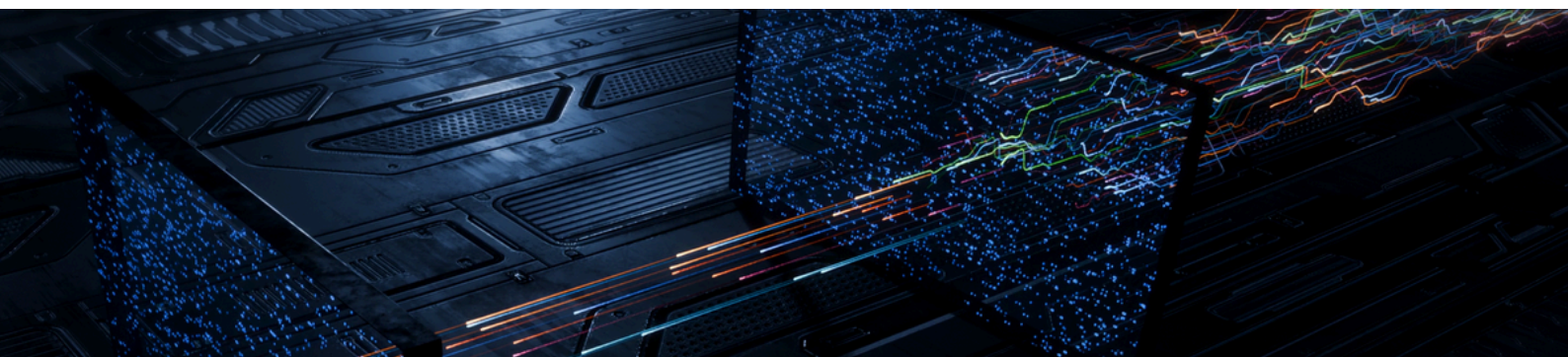
- Configurable to be either Bi-directional or Uni-directional
- Thorough content inspection
- Supports common military message standards
- Extendable Message Protocol Support
- Graphical User Interface for defining Filtering Policies and Connection Configurations

General

- Dimensios: 428 mm (19") x 43,4mm (1U) x 399mm (w., h., d.)
- Weight: 7,1 kg
- Power source: 100-240 VAC, 18-36 VDC
- Power consumption: 150W

Other

- Syslog
- NTP / Secure NTP
- Always-on tamper monitoring
- OLED display with self-diagnostics and status display



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 insta.fi/domainlinksecret

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