INFORMATION SECURITY

DATA SHEET

INFODIODE SMART

Solution for Critical Infrastructure

InfoDiode SMART Software & Hardware solution

InfoDiode SMART H&S solution provides simultaneous data transmission of several industrial protocols across the perimeter boundary. Specialized industrial protocol connectors allow to collect data from each network segment (from different SCADA systems, controllers, OPC servers, sensors) and transfer them further on a one-way channel, providing the highest insulation requirements for the protected segment.

InfoDiode SMART H&S solution is implemented on the Russian certified hardware platform, Russian software developed by AMT-GROUP.

www.infodiode.net

Critical Infrastructure Protection and Monitoring

Provides protection and monitoring of CI object, excluding any impact on it.

Support of Industry protocols OPC UA, Modbus, OPC DA, IEC 60870-5-104, IEC 61850 MMS and application protocols

Provides secure remote interaction of critical segments of individual enterprise and organization through untrusted networks. Transmits data beyond the trusted perimeter of the network on the protocols OPC UA, OPC DA, IEC-104 Modbus, MQTT, FTP(S), CIFS, SFTP, Syslog, UDP, etc.

The Foundation for Digital Twins

Transfers replicas of critical information resources (OPC servers, SCADA systems by major vendors) outside the ICS/CI perimeter borders for subsequent processing and analysis.

Centralized Control Rooms and Situation Centers

Provides centers with real online data, including video recording, in conditions of guaranteed isolation of observation objects.

Aggregation of SCADA data within ERP, MES and cloud solutions

Transmits data from multiple SCADA systems to ERP, MES systems, cloud solutions, eliminating any feedback from these systems.

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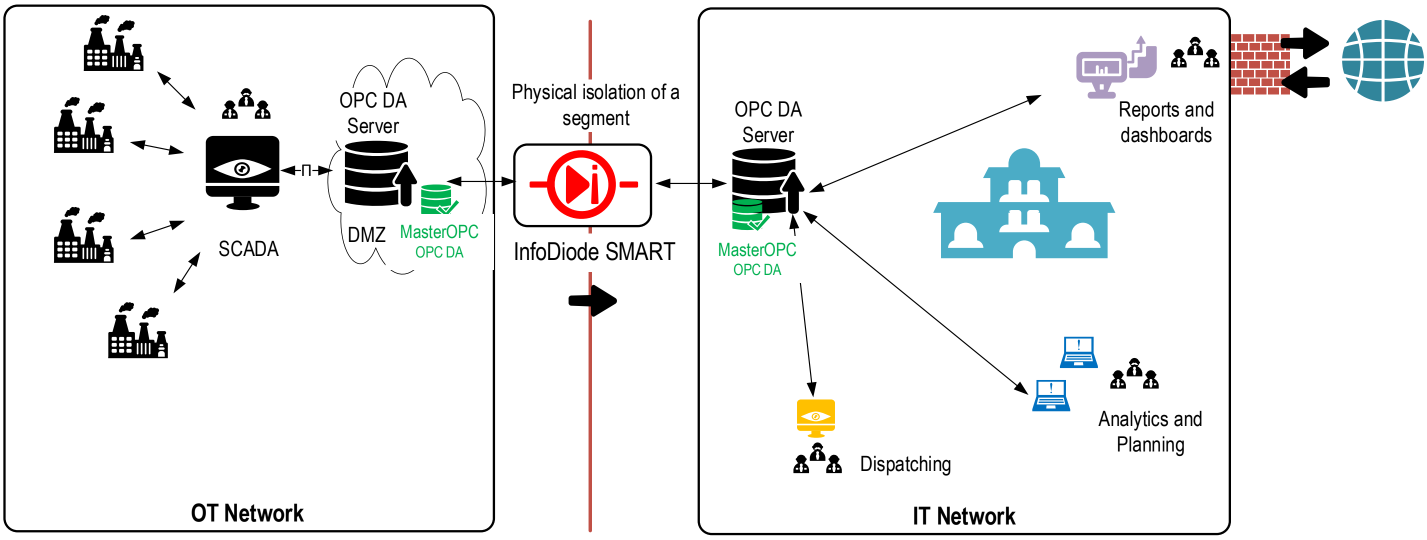
InfoDiode SMART Application Scenarios

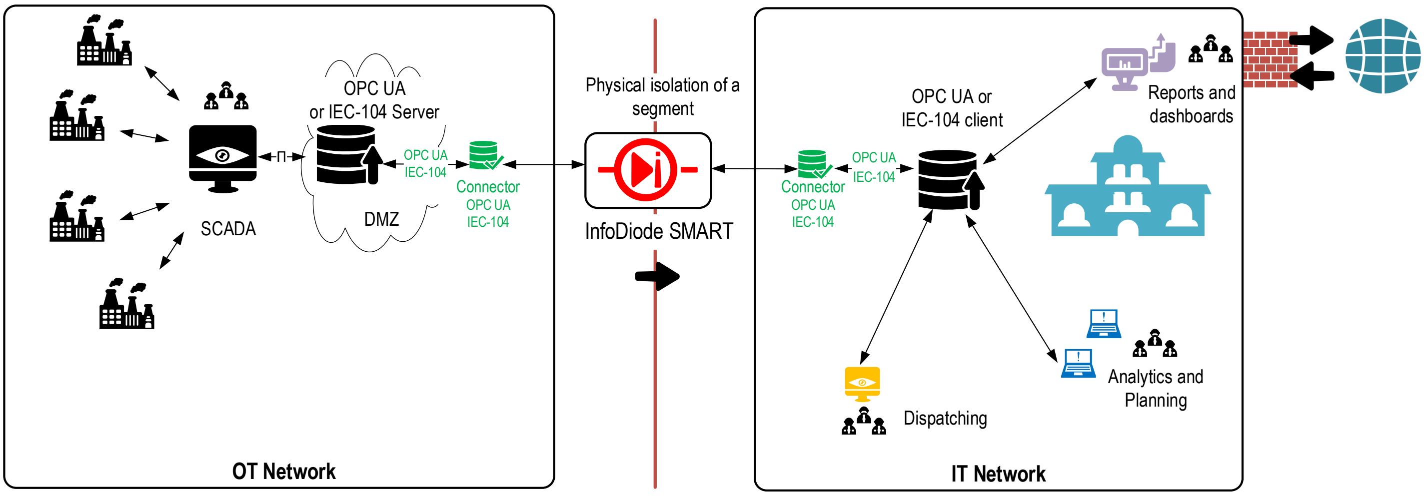
Scenario 1. Transfer OPC DA beyond the trusted perimeter

Implementation: Implemented by installing the MasterOPC server on an existing OPC DA source server in a trusted segment and an existing OPC DA receiver server in an untrusted segment. Next, the MasterOPC means on a regular basis performs reading and transfer of OPC DA tags through InfoDiode SMART. In an untrusted segment, OPC DA tag data is passed to a client or OPC DA server. In this case, a complete physical isolation of the entrusted segment is ensured.



Scenario 2. Transfer of OPC UA, IEC 60870-5-104, IEC 61850 MMS beyond the trusted perimeter

Implementation: Implemented by installing MasterOPC on a dedicated virtual machine or physical server in the trusted and untrusted segments. In the trusted segment, MasterOPC reads data via OPC UA, IEC 60870-5-104 or IEC 61850 MMS and transmits it to InfoDiode SMART. In an untrusted segment, MasterOPS reads data from InfoDiode SMART and transmits it to the users using the required protocol: OPC UA, IEC 60870-5-104 or IEC 61850 MMS. In this case, a complete physical isolation of the entrusted segment is ensured.



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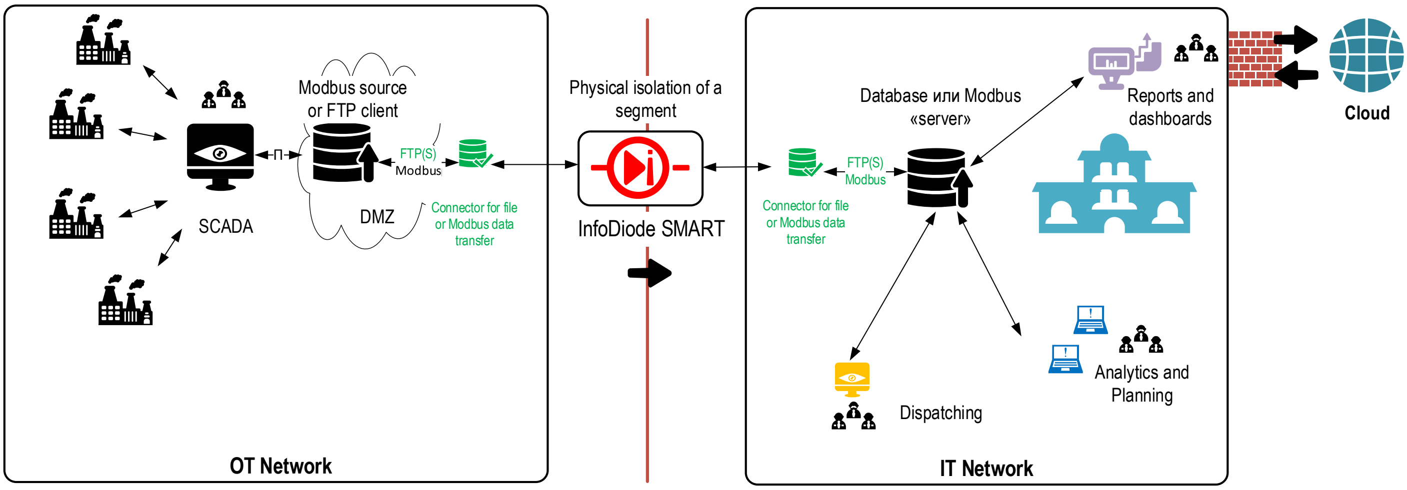
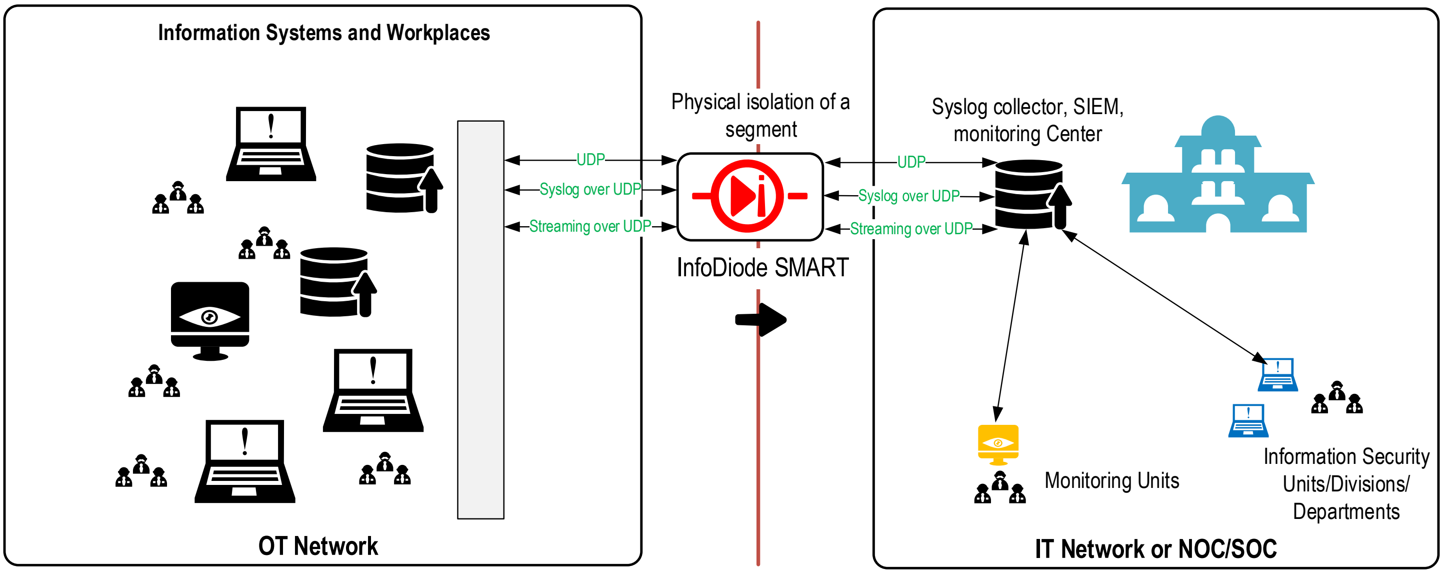
Scenario 3. Transfer Modbus TCP or file flow beyond the perimeter

Implementation: implemented by installing dedicated FTP(S) and/or Modbus connectors on a dedicated virtual machine or physical server in the trusted and untrusted segments. In a trusted segment, the connector reads data according to the required protocol and transmits it to InfoDiode SMART. In an untrusted segment, the connector reads data from InfoDiode SMART and transmits it to users using the required protocol: FTP(S) and/or Modbus. In this case, a complete physical isolation of the en-trusted segment is ensured.



Scenario 4. Transfer complex traffic - syslog, video, desktop streaming

Scope of application: transmission of Syslog, UDP and all protocols that function «over» UDP is possible directly - to InfoDiode SMART. Including possible scenarios of video transfer, operators workstation desktop streaming, etc.



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InfoDiode SMART technical specifications

Characteristics	Specifications
Transmission rate	Up to 1 Gbps
Supported protocols (including using additional connectors)	OPC UA/DA, Modbus TCP, Omron FINS, Mitsubishi SLMP, IEC 61850 MMS, IEC 60870-5-101/103/104, DLMS, S7, DNP.3, FDST, ICCP (TASE 2), C37.118
Supported integrations	Ovation OPC Server, Siemens WINCC, KepServerEX, Aveva Historian (Wonderware), MasterSCADA 4D/MasterOPC, КОТМИ, АСО-КУ, СДУ Фокус, Alpha.SCADA
Data/Management Interfaces	2 x 1000Base-T
Form Factor	(1RU) Rack unit
Possibility of mounting in 19" telecommunication rack	Yes
Power supply	4 inputs, 100-240 VAC, , Max 60 W, inrush current - no more than 10 A per input
Frequency	50—60 Hz
Cooling scheme	Passive (fanless)
Decreasing of atmospheric pressure, mmHg	500
Operating conditions	0 – 40 C, humidity 5—95 %
Chassis size (WxHxD, mm)	483 x 44,5 x 250
Unit weight (kg)	6,1

P/N	Description	Detailed description
	InfoDiode SMART	
AMTID-SMRT-BK-1000	InfoDiode SMART - Base KIT, 1Gbps, including InfoDiode SMART software	InfoDiode SMART, base kit: 1RU (1Gbps, 1000Base-T, RJ45), InfoDiode SMART software for InfoDiode SMART, support UDP, MQTT
	Connectors for InfoDiode SMART	
AMTID-SMRT-CN-MB	External software for InfoDiode SMART - external connector for ModBus	Software (connector) for virtual machines and/or servers - support ModBus industrial protocol
AMTID-SMRT-CN-OPCUA	External software for InfoDiode SMART - external connector for OPC-UA	Software (connector) for virtual machines and/or servers - support OPC UA industrial protocol
AMTID-SMRT-CN-FT	External software for InfoDiode SMART - external connector for FTP/FTPS, CIFS, SFTP	Software (connector) for virtual machines and/or servers - support FTP/FTPS, CIFS, SFTP