

REPLICATION OF OSISOFT PI SERVER HISTORIAN DATA

# Fox DataDiode PI Replicator

The Fox DataDiode can be used to replicate data from a OSIsoft PI Server to another using a true one-way connection.

Historian data collected in a PI Server within an Industrial Control Systems (ICS) network can be replicated to a PI Server in another network. By using a one-way connection instead of a normal two-way, bidirectional network connection, the ICS network is protected against attacks while facilitating availability of the historian data on another network, for example an office network.

The Fox DataDiode PI Replicator provides for a solid and secure way to send data updates through a one-way connection.

### The Fox DataDiode PI Replicator features include:

- High-performance transfer of data
- Easy and clear configuration utility
  - Autodiscovery of tags to be replicated
  - Possibility to restrict replication scope
  - Handles structure changes on the fly
  - Automatic creation of destination tags
- Replicate one or more source PI Servers to one or more destination PI Servers
- Provides for a true one-way connection by using the Fox DataDiode that has numerous certifications
- Works with all OSIsoft supported PI Server™ versions

### Prerequisites:

- Fox DataDiode solution (consisting of two proxy servers and one hardware Fox DataDiode)
- One or more source PI Servers
- One or more destination PI Servers

### Business Benefits

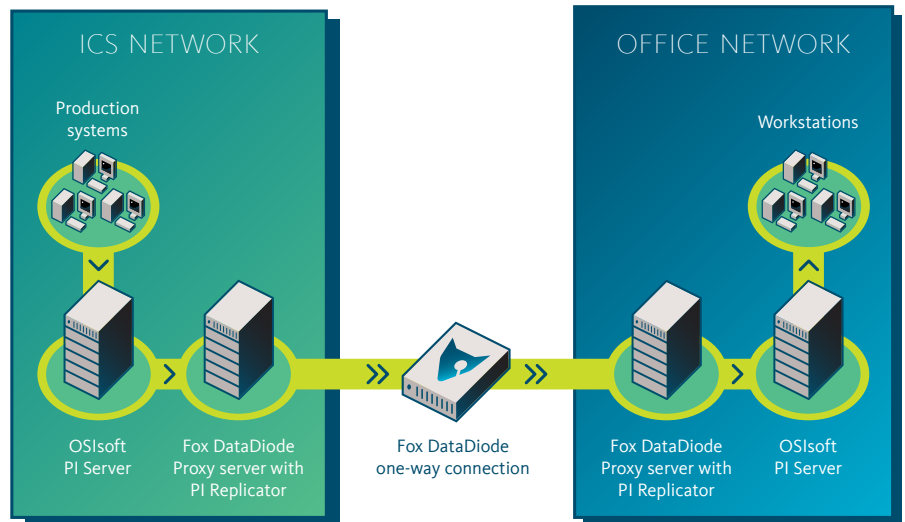
ICS networks are usually contained in a high physical security zone and the impact is high when availability is harmed. Office networks on the contrary are spread out all over your company and the impact is moderate when disruptions occur. Moreover, office networks are connected to the Internet and thereby more directly exposed to the threat of attacks.

By replicating data from OSIsoft PI Servers in an ICS network to a PI Server in another network using a Fox DataDiode to make a one-way connection, you no longer have to provision a network DMZ or otherwise make a direct bidirectional network connection between your ICS network and your office network. This way, information can be sent from your ICS network to your office network, without exposing your control systems to digital threats from the outside. Its use enables systems in the office network to work with live data from a production environment in corporate systems.

### Information Flow

To enable the Fox DataDiode to replicate data from PI Servers, the PI Replicator software is used. This software runs on both proxy servers. It reads data from one or more PI Servers on the ICS side, sends it through the Fox DataDiode to the other network and the PI Replicator on that side writes it to another PI Server. Replication from multiple source PI Servers to a destination is supported.

To know what tags should be replicated, the software can either read a list of points from a configuration file, or use an autodiscovery mechanism to replicate tags available. A configuration utility is provided to create the configuration file in a few steps.



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### Next steps

A wealth of information is available on the different applications and scenarios for the Fox DataDiode. The DataDiode is delivered through a global network of partners who are knowledgeable in handling confidential information. For more information, including partner details, please visit [www.datadiode.eu](http://www.datadiode.eu).

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