

# The Injector Concept

The GateScanner Injector is a unidirectional diode, allowing data to travel from one network to another in one direction only, eliminating any possibility for data to travel in the opposite direction. This design and connection does not allow any data to be extracted from the destination network, by that upgrading the network security, protection, and management. The GateScanner Injector was developed to complete the GateScanner solution, which offers clients an integrated process of scanning and transferring files into a network.

# The Injector Solution/Process

The GateScanner Injector Product Kit Includes:

- $\bullet\,$  Tx and Rx Hardware.
- Receiver Software
- Transmitter Software.
- · License Dongle.

#### Tx and RX Software:

An electrical fiber optic diode that enables data flow in one direction:

Tx to Rx.

#### **Transmitter Software:**

Can be installed on any computer (SSD Drive Recommended), the transmitter application monitors a specific directory (Source Directory) for new files. When a new file is detected, it is streamed and broadcasted in predefined sized packs. When a file transition is

complete the file is moved to the Transmitted directory, if successful or to the Failed directory if not successful. This application also enables "Network restrain" and "Double send" options to minimize transition packet loss.

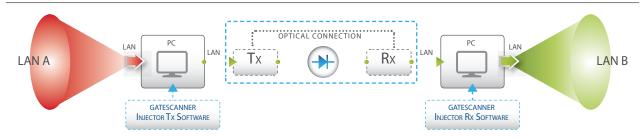
#### **Receiver Software:**

Can be installed on any computer (100MB - SSD Drive Recommended / 1GB - Windows 2012 R2 Server and SSD Drive Required), the receiver application, like the Transmitter software, also dedicates a specified directory (Target Directory) to place received files in. The file receiving process is done within the Target directory. Only if a file is verified it is moved to the "Verified" sub directory or otherwise to the "Failed" directory.

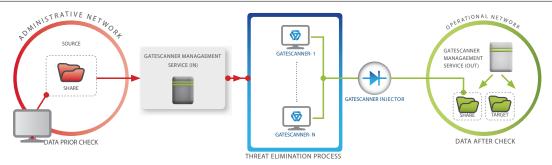
#### Scheduler

Both applications (Transmitter and Receiver) scan related directories: Source directory - Transmitter or Target directory - Receiver. When installing any of the two applications, prompt dialogues pop up for "SMPT" mail address and scheduler settings. This specifies how many hours a file should remain in any of the corresponding directories, including maximum size for these directories. The directories are scanned every hour, and an e-mail notification is sent to specify all deleted files. Also, if the directories exceed the specified size, an e-mail notification is sent with a warning. all notification and events are logged by the scheduler.

### **GateScanner Injector Basic Topology**



# GateScanner Injector Configuration for Data Transfer to Different Classified Networks







# GateScanner Injector

#### Injector Capabilities

- Based on 100MB /1GB connected fiber boxes.
- Supports SMB protocol Files transfer.
- Support for SMTP Protocol, Simple TCP and UDP Protocols.
- · Support for Syslog.
- RX Client can 'push' transferred data using UNC/SMB to a shared folder in the destination network.
- 'Iron folders' (both on the transmitter and receiver) Supports files transfers for different applications. Folders will not be erase by the scheduler
- Parrallel File Transfer (1GB), File Type Filter (1GB)
- · Full history of files transfers.
- · Configurable working ports
- 'Debug' mode (full & detailed logs)
- Option: transferring files twice or more (for extra confirmation).
- · Real time error & warning messages.
- · Timeout for files transfer.
- Scheduler: different configuration options on both transmitter & receiver end (with different STMP and recipient).
- Option: FTP/FTPS/SFTP servers on both Tx & Rx to receive and deliver files in the source network and the destination network.

### GateScanner Injector Performance (100MB):

Total File size	Number of files	Send Time	Overall Time	Average data transfer per hour
4.02 Gb	6854	0:16:12:469	0:16:35:282	14.88 Gb
150.14 Gb	6488	6:43:37:183	19:20:43:261	22.31 Gb
182.61 Gb	3336	7:50:17:929	20:27:24:353	23.29 Gb
86.54 Gb	3999	4:32:18:418	20:14:15:176	19.06 Gb
60.01 Gb	649	1:33:13:955	1:46:55:582	38.61 Gb
60.01 Gb	649	1:32:49:310	1:45:47:414	38.78 Gb
19.84 Gb	8	0:34:07:143	0:34:07:160	34.89 Gb

### Performance Overall:

- · Capacity 100MB: 40GB/Hour
- · Capacity 1GB: 160GB/Hour

## GateScanner Injector Hardware





### WSD-2/TXO and RXO (100MB), WSD-6/TXO and RXO (1GB):

The WSD-2/TXO/RXO and WSD-6/TXO/RXO are unique single-direction "Transmit Only" and "Receive Only" full featured Fast Ethernet transparent converters, Network/Data Diodes, providing 3R (Retiming, Reshaping and Regeneration) conversion between 100Base-TX copper media,100Base-FX fiber media and 1000Base-TX copper media and 1000Base-FX Fiber media, in compliance with IEEE802.3u standards.

#### Features

- Fast Ethernet single-direction transparent converters Network Data Diodes for secured file/data transfers and streaming.
- CIP device, TXO Transmit only and RXO Receive only.
- Local and remote over F/O link, up to 100Km.
- Circuit/HW secured single direction data transfer, compatible with standard 100Base-Tx, 100Base-Fx link and 1000Base-Tx, 1000Base-Fx link partners.
- Transparent 3R conversion.
- · Auto-negotiation, auto MDI, force modes.
- Enhanced Link Verification features:
  - > Propagation Of No Link (PONL)
  - > Far end-Fault Indication (FEFI)
- Easy setup
- Support Multi/Single mode fibers and SC or ST connectors.
- · Highly visible LED status indicators.
- Available for indoor, outdoor and industrial environments.

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