



WATERFALL[®]
Stronger Than Firewalls

FROST & SULLIVAN

2012 BEST

FROST & SULLIVAN

NORTH AMERICAN
FOR INDUSTRIAL C
ENTREPRENEURIAL COMP

2013 BEST
PRACTICES
AWARD

NORTH AMERICAN DEFENSE-IN-DEPTH
PLATFORM FOR UPSTREAM OIL & GAS
CUSTOMER VALUE ENHANCEMENT AWARD

One Way to

One Way to Connect

SANS Asia Pacific ICS Security Summit, Singapore, 2013

Innovation in Industrial Perimeter Security

Lior Frenkel, Co-Founder and CEO
Waterfall Security Solutions



Waterfall Security Solutions

- Headquarters in Israel, sales and operations office in the USA
- Hundreds of sites deployed in all critical infrastructure sectors



Best Practice Award 2012, Industrial Network Security
2013 Oil & Gas Customer Value Enhancement Award



IT and OT security architects should consider Waterfall
for their operations networks



Waterfall is key player in the cyber security market –
2010, 2011, & 2012

- Strategic partnership agreements / cooperation with: OSISOFT, GE, Siemens, and many other major industrial vendors

Waterfall's expanded mission: stronger than firewalls





Firewalls at Critical Network Perimeters - *Really?*

- Firewalls are deployed by default – do they make sense?
- Hackers are as good as penetration testers:
 - Ask a pen-tester how long ICS firewall compromise takes
 - Ask how often they fail to break through their target ICS firewall
- Security experts are also good:
 - Ask one how to break through firewalls
 - Ask if firewalls block script-kiddie attacks
 - Ask about misconfiguration issues...

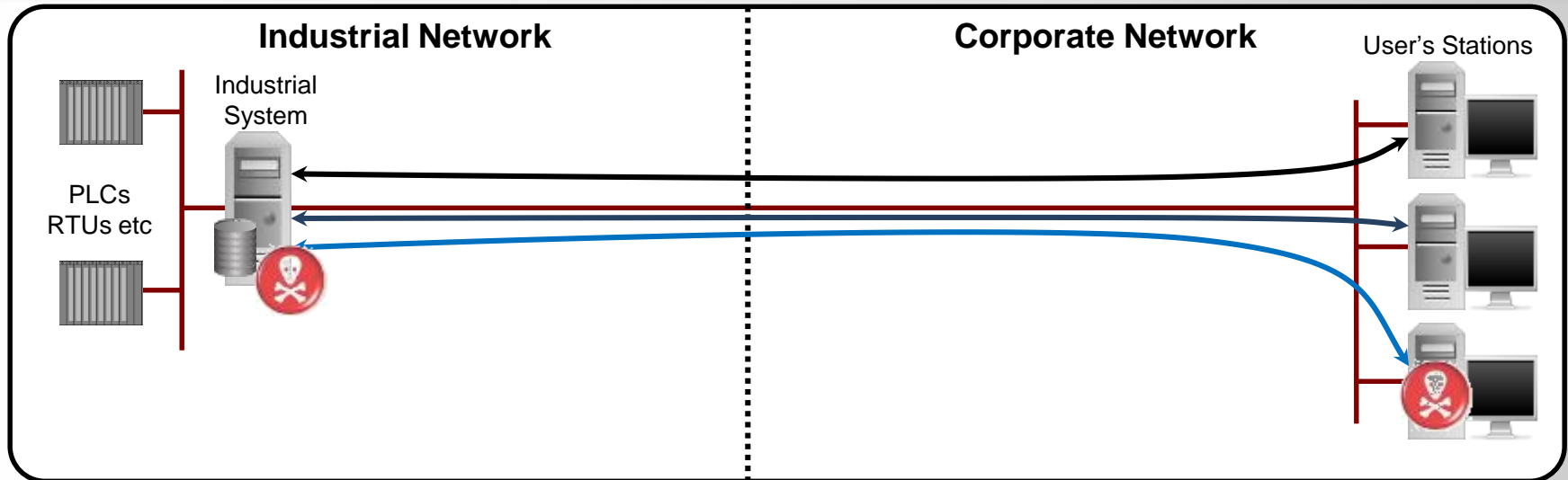
Note: no mention of "advanced persistent threats" here...



Photo: Red Tiger Security



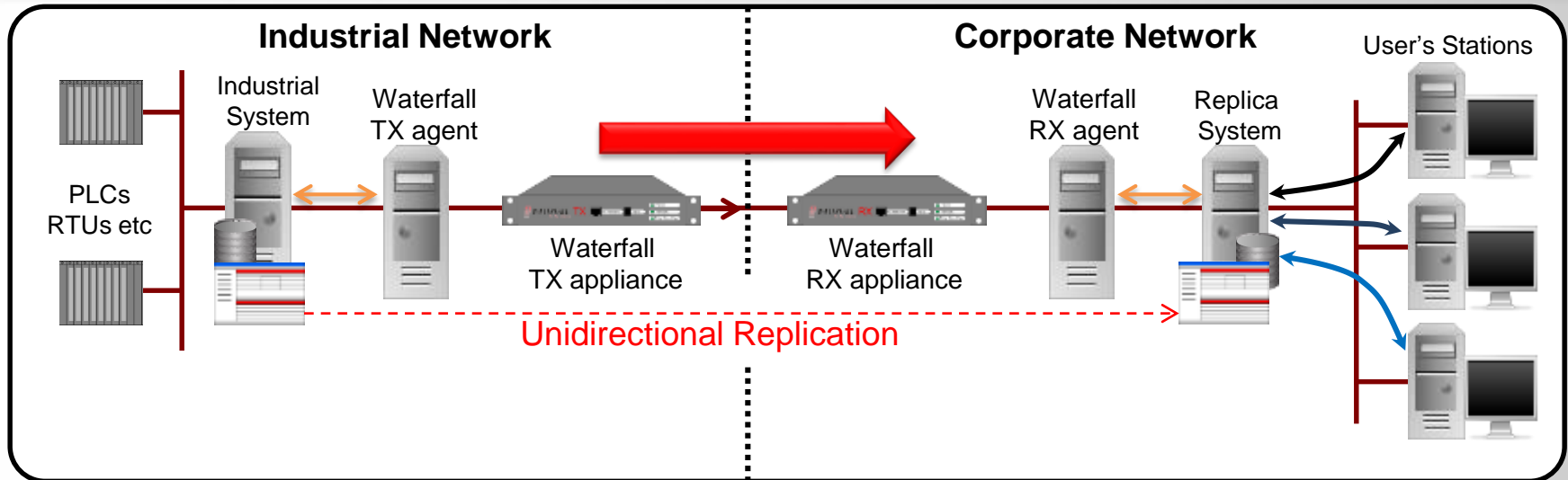
Common need: IT/OT Integration



- Continuous, real-time monitoring of sites: Medium/large, staffed
 - Power plants, Refineries, Water/Waste Water plant, etc...
- Production efficiency, Vendor Remote Assistance & Diagnostics, etc...
- Corporate network connected to the Internet
- Firewalls are deployed, by default



IT/OT Integration – Unidirectional Security Gateways



- Industrial systems and servers are 'exported' to the corporate network, in real-time
- Remote business or vendor users have continuous access to plant data, and "systems", without need to access the industrial network itself
- 100% security against any online attach from the external network





Implementations Worldwide

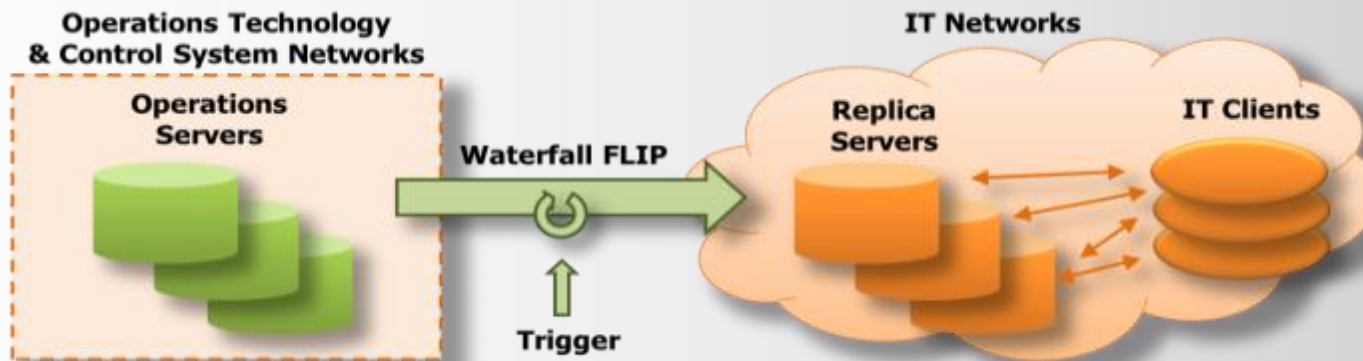
- Deployed at
 - Power Plants, Nuclear Power Plants, Water Facilities, Refineries, Off-shore platforms, Chemical plants, Pipelines, and many other types of industrial sites.
- Deployed in
 - Sites throughout North America
 - Multiple sites in Singapore, South Korea, Japan
 - Multiple countries and sites in Europe
 - All of Israel's Critical Infrastructure





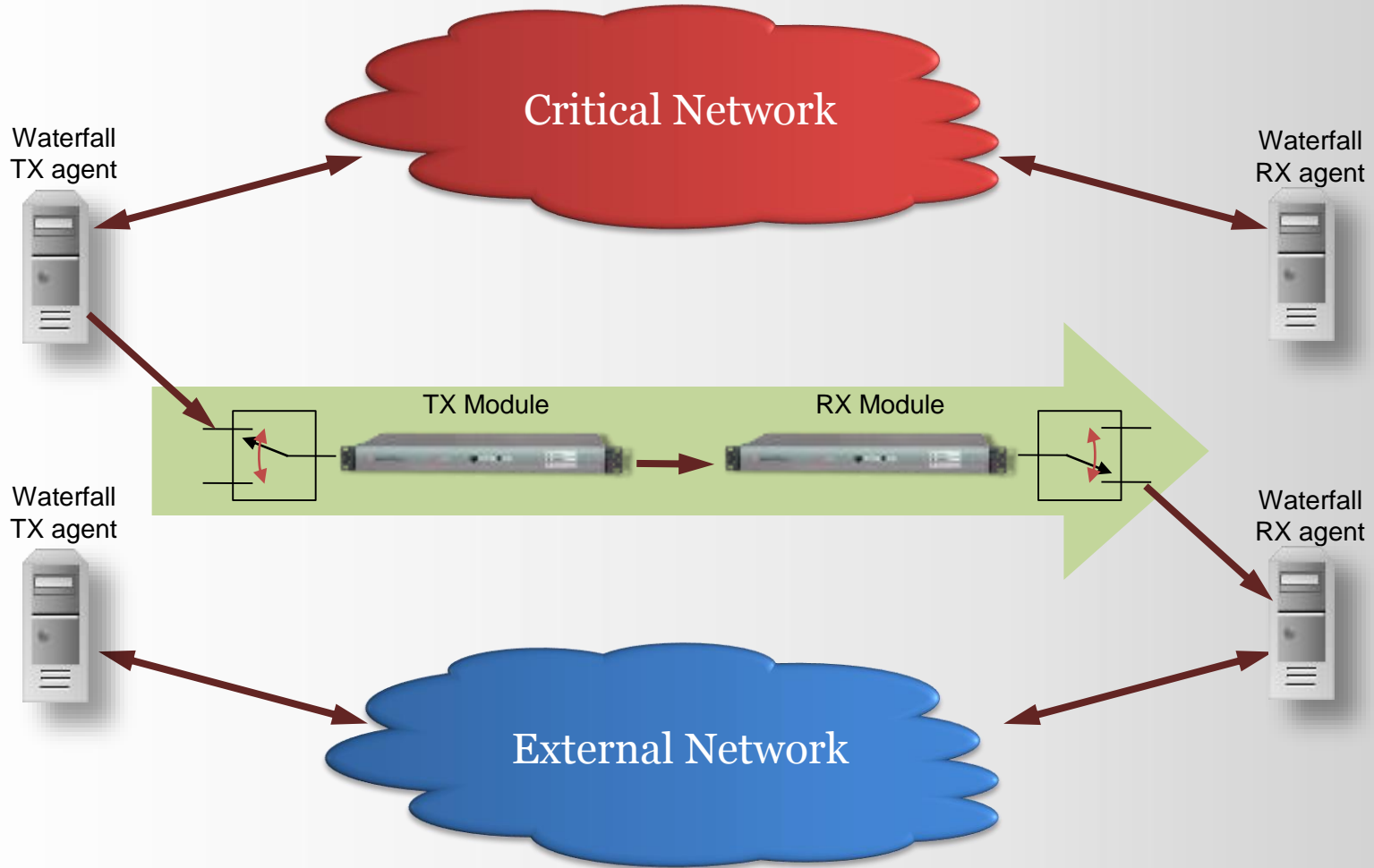
Announcing - Waterfall FLIP™

- Unidirectional Security Gateway whose direction can be reversed
- When 'flipped':
 - Is an incoming *unidirectional* gateway: One way only, no TCP/IP, no remote control attacks
- Variety of triggering options
- Stronger than Firewalls, stronger than removable media



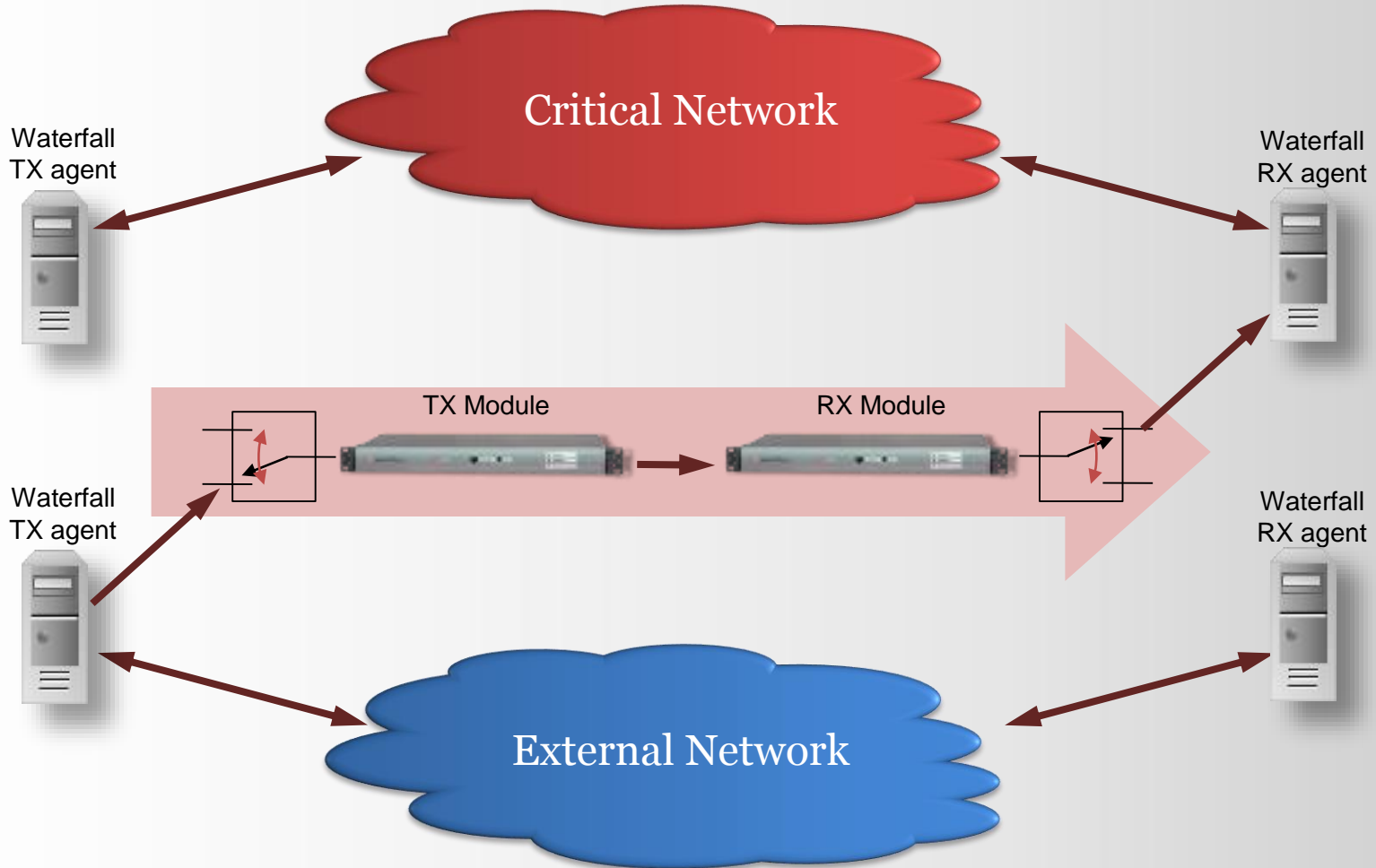


Waterfall Flip™ - Normal Operation





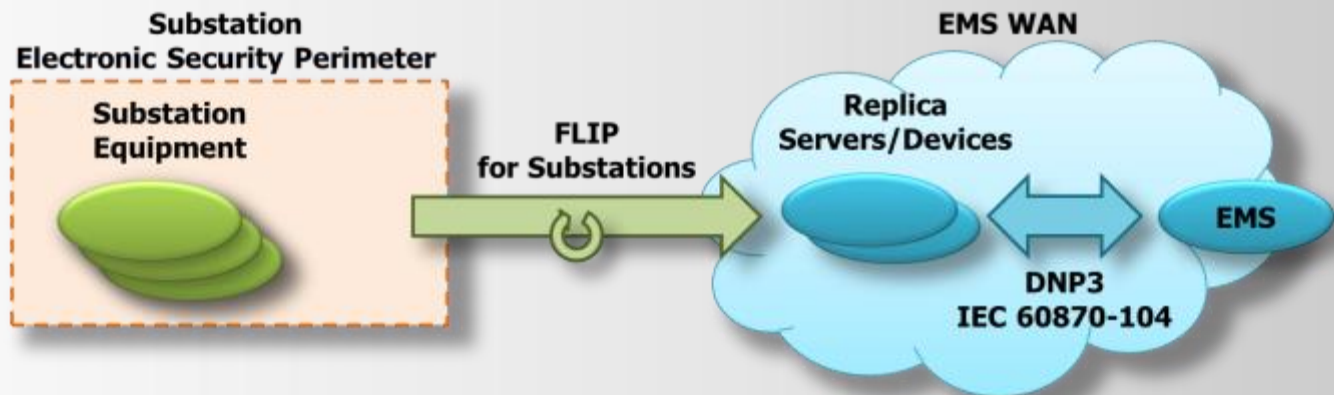
Waterfall Flip™ - Reversed





Use Case: Waterfall FLIP for Substations

- Designed for smaller, un-staffed sites
- Support for DNP3 and IEC 60870-104
- Continuous monitoring of remote substations, with a secure way to:
 - Allow “RESET” command after lightning strike (example)
 - To allow security updates or anti-virus updates





Waterfall Solution Suite: USG, FLIP

- Unidirectional Security Gateways -
 - **Provides the strongest solution possible, for remote monitoring and diagnostics**
- Waterfall FLIP - Designed to provide a secure gateway solution for:
 - Remote & unstaffed sites: Substations, Pumping stations, pipelines, etc...
 - Batch manufacturing: Pharmaceuticals, Mining, Chemical plants, automotive plants, etc...
 - **Provides a measurably stronger than firewall solution, for sites that must have regular updates or commands**



Waterfall's Mission: Stronger than Firewalls

- Waterfall's new mission: revolutionize ICS perimeter security with technologies stronger than firewalls
- Look for additional product announcements over the next 12 months

