Waterfall® for GE Bently Nevada System 1®
Cyber-Security Solution for Asset Condition Monitoring (ACM)

- Hardware-enforced unidirectional replication of GE Bently Nevada System 1® databases

- Fully transparent to GE Bently Nevada System 1® Asset Condition Monitoring systems and experts

- Eliminates cyber threats and risks from online attacks and human errors

- HA and 1Gbps options

- Simplified NERC-CIP, NRC, NIST, CFATS and other regulatory compliance

- Common Criteria EAL4+ certified. Assessed for security by Idaho National Labs

Overview
Bently Nevada's Asset Condition Monitoring (ACM) products and services help to improve the reliability and performance of production turbines, compressors, motors and generators. Waterfall's Unidirectional Security Gateway for GE Bently Nevada System 1® integrates industrial networks with business networks and business applications without putting the safety and reliability of the industrial networks at risk.

Together, Waterfall for GE Bently Nevada System 1® provides Bently Nevada's ACM experts and centralized monitoring systems with access to real-time turbine and other data in GE Bently Nevada System 1® databases, without ever introducing the threats to safe and reliable operations which always accompany firewalls and Virtual Private Networks connections.

GE Bently Nevada System 1® Unidirectional Replication
Waterfall for GE Bently Nevada System 1® is part of the Waterfall Unidirectional Gateway family of products. The gateways are a combination of hardware and software. The transmit gateway hardware contains a laser, and the receive gateway hardware contains a photocell. A fiber-optic cable links the two gateways. As a result, the transmit gateway can send data to the receive gateway, but the receive gateway cannot send anything back. There is no laser in the receive gateway that could send any signal, and there is no optical receiver in the transmit gateway that could receive any signal. No online attack originating on an external network can pass back into a protected network through the gateway hardware.

01101000011011110
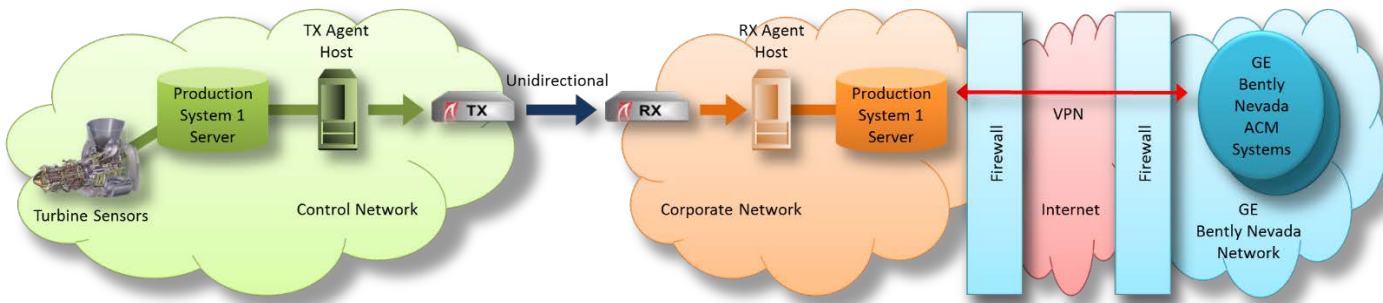
How does it work?

The Waterfall for GE Bently Nevada System 1® database replication software queries a GE Bently Nevada System 1® database on an industrial network for data, sends that data across the Unidirectional Gateway hardware to a business network, and uses the data to populate a replica database there. Business users and applications, as well as the GE Bently Nevada experts at the ACM Center use the replica database exclusively.

The replica database is maintained as a faithful, synchronized replica of the original GE Bently Nevada System 1® database on the industrial network. All GE Bently Nevada ACM expert users and their monitoring software interact with the replica database as if they were interacting with the original, protected GE Bently Nevada System 1® database. The two databases are synchronized sub-second, so the replica database provides users and applications with the same responses as would have been received from the original, protected database.

Highlighted Unique Features

Waterfall for GE Bently Nevada System 1® supports a wide variety of features:

- Real-time replication of GE Bently Nevada System 1® database
- Proven integration with GE Bently Nevada ACM systems
- Complete database replication, or selective replication
- High availability option

- 1Gbps option
- Support for all GE Bently Nevada System 1® value types and attributes
- Optional aggregation of many industrial system databases into a single enterprise database
- Real-time replication of schema and attribute changes

Replication of schema and attribute changes means that only the protected, industrial database must be managed and changed. All changes made to the industrial database are automatically applied to the replica.

Regulatory Compliance and Certifications

No misconfiguration of Unidirectional Gateway GE Bently Nevada System 1® replication software can impair the security provided by the gateway hardware. This results in dramatically reduced perimeter operating costs and costs of compliance with NERC-CIP, NRC, CFATS, NIST, ISA-SP99 and other standards, guidance, and regulations.

The gateway solution is certified Common Criteria EAL4+, resistant to high attack potential. Waterfall's Unidirectional Gateways are the only unidirectional solution assessed by Idaho National Labs

For further information, please contact us or visit our website: www.waterfall-security.com

USA V: +1 (212) 714-6058   **International** V: +972 3-900-3700   Information: info@waterfall-security.com
F: +1 (212) 465-3497   F: +972 3-900-3707   Sales: sales@waterfall-security.com