Operational Technology (Industrial Control Systems, SCADA etc) is vital to the continued efficiency, growth and productivity of the Defense, Energy, Utilities and Natural Resources sectors. Operational Technology also plays a significant part in ensuring the continued safety of workers in these sectors and the communities in which these organizations operate. The on-going convergence of Operational Technology systems with traditional IT offers significant efficiency benefits to operators but also increases the risk of these systems falling victim to cyber-attacks.

Many organizations in these sectors also form part of the Critical National Infrastructure, a prime target for cyber-attacks. Recent examples like Shamoon and those on the Korean peninsula illustrate just how important it is for these organizations to protect their networks. The potential real world impact of disruption to Operational Technology means the security of these systems must be a high priority.

Using innovative technologies proven in protecting secure government networks and BAE Systems own knowledge of using Operational Technology, IndustrialProtect™ is BAE Systems security solutions for Operational Technology. The core of IndustrialProtect™, Secure Network Bridge (SNB) is a 1U appliance capable of securing the information exchanges between Operational Technology and Enterprise IT systems (ERP, Management Information and Control Centers) enabling the benefits of connectivity yet preventing attacks.

The SNB provides either unidirectional or bidirectional information exchange with guaranteed end to end integrity. It verifies protocols typically used between Operational Technology and IT – OSIsoft® PI, Database Apps, OPC, DNP3 etc., operating on the principle of allowing only the known good to pass. Critical security enforcing functions are implemented in hardware, limiting the attack surface available to threat actors.

IndustrialProtect™ enables high assurance information exchange between operational technology systems and corporate IT.
THE SOLUTION

• The SNB uses digital signatures to guarantee the authorization and integrity of all information that passes between sites
• The critical security enforcing functions including protocol verification are implemented in hardware significantly reducing the attack surface over software based solutions
• Modular architecture allows for a combination of unidirectional and bi-directional information flows of different protocol types
• Designed to integrate with existing protective monitoring tools (SIEMs etc)
• Offers significant benefits above those of ICS firewalls and other diode based solutions including:
  – Protocol verification in hardware
  – Assurance of information source
  – Simple to deploy and easy to maintain

SOLUTION BENEFITS

• Reduces the risk of ICS compromise without disrupting existing business processes
• Allows for secure two way flows of information, reducing the need for local manual processes
• Can be simply extended for other control system protocols
• Centralized management interface to simplify large scale deployments and facilitates simple management, and maintenance of remote systems
• Designed to be simple to install and integrate for rapid deployment

FEATURES

SUPPORTED PROTOCOLS:

• OSIsoft(R) PI
• Database Apps
• JDBC
• ODBC*
• SCADA
• DNP3
• OPC*
• Modbus
• File Transfer
• SFTP
• CIFS
• Monitoring
• SNMP
• Syslog

*roadmap items, please contact us for more detail

TECHNICAL DETAILS:

• Form factor
• 1U 19” rack-mount
• 100 – 240V AC, 400W
• 10/100/1000 Ethernet (Optical or Copper) with autonegotiation

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