Bandolier
Auditing Control System Security with Vulnerability Scanners

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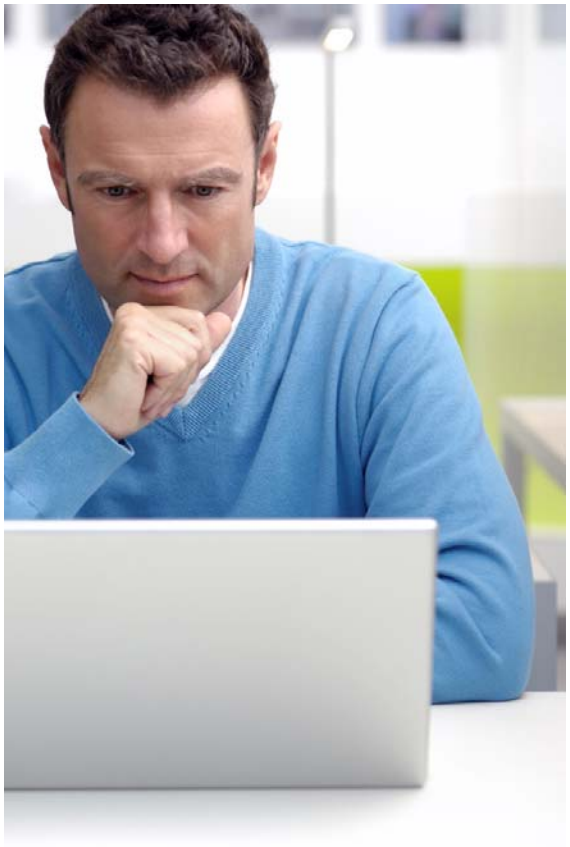
Identifying the Problem

- How do we establish an optimal / best possible secure configuration for our control system servers and workstations?
- How do we verify that this configuration has not changed over time?
- Can we do this using existing security tools at a low or no additional cost?



The Solution: Bandolier

Collaborate with vendor and asset owner partners to identify the optimal security configuration

Assess and extract security configuration data

Create audit files that can be used in Nessus and other scanners

Deliver through subscriber content and vendor support channels

Multiple Levels of Testing

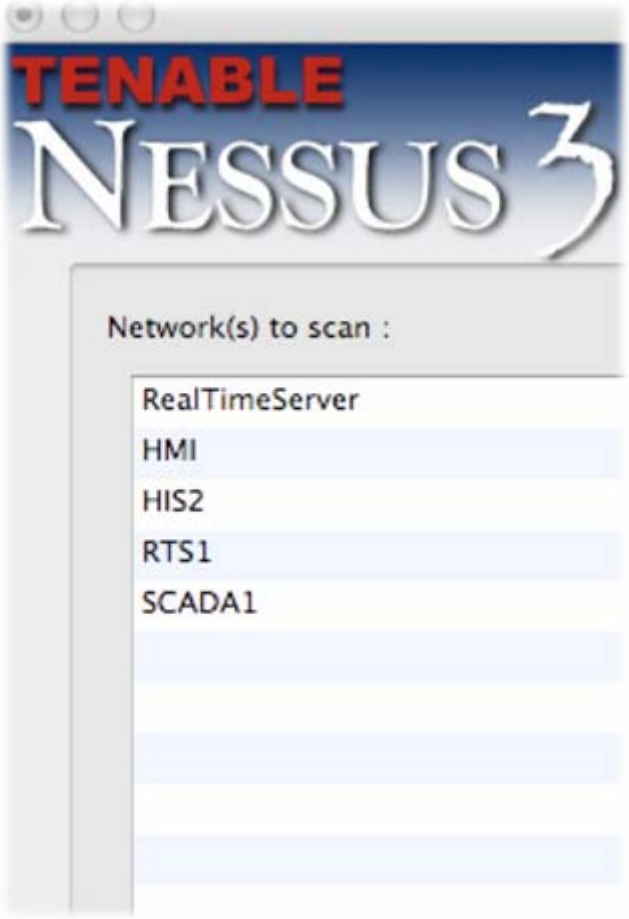
Operating System Settings	Supporting Application Settings	Control System Application Settings
• Policies • Account Management • Logging • Ownership and Permissions • Services • Processes • Windows Registry • Configuration Files	• Web Servers • Application Servers • Database Servers • SSH Servers • LDAP Servers • Authentication Libraries	• Authentication and Authorization • Configuration Files • Default Accounts • Logging • Application File Ownership and Permissions • Services

Example: Telvent OASyS DNA

Over 1,100 Security Audit Checks!

Realtime Server, Historian, HMI, Engineering Station

Nessus Compliance Check Plugin



- Only use one Nessus plugin
- Safer than traditional scanning
  - Secure management connection, not a scan
- Evaluates the “known good” rather than the “known bad”
- Customizable for local security policy
- Exporting to OVAL/XCCDF for use in other vulnerability scanners and security tools

Using Bandolier with Nessus

- Prerequisites
  - Digital Bond Site Subscription [$100] or
  - **Get file from your control system vendor**
  - Nessus Professional Feed Subscription
    - Many organizations already have a Nessus subscription

Bandolier Status

- Available
  - ABB Ranger
  - Siemens Power TG
  - SNC GENe
  - Telvent OASyS DNA
- In-Process
  - AREVA e-terra
  - Emerson Ovation
  - Matrikon OPC
  - OSIsoft PI
  - Wonderware InTouch

More Information

- **Funded by Department of Energy**
- SCADApedia Articles
  - www.scadapedia.com
- Digital Bond Website and Blog
  - www.digitalbond.com
- Your Control System Vendor
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  - info@digitalbond.com