SOLUTION BRIEF

tenable

Tenable and the NIS Directive

For Energy, Transport and Water Sectors

Directive (EU) 2016/1148 (NIS Directive) requires Operators of Essential Services (OES) to take "appropriate and proportionate technical and organisational measures to manage the risks posed to the security of network and information systems." OES entities are responsible to determine the specific measures (security controls) to implement. The directive does not require specific measures nor security control frameworks. However, the NS Cooperation Group, composed of representatives from Member States, the European Commission and ENISA has published security measure guidance[1] to help organizations select appropriate measures.

Challenges

Defining "Appropriate and Proportional Measures"

Responsible entities are challenged to define and implement a defensible set of measures. The NIS Directive intentionally did not define "appropriate and proportional measures" because appropriate measures vary by entity and will evolve over time. Fortunately, ENISA[2] has stepped into the void and has suggested that responsible entities base measures on existing international standards.

Meeting Multiple Member State's Requirements

Trans-national OES entities may be required to comply with very specific local standards. The challenge is to implement a common set of measures that support multiple standards and/or that can be readily adapted to do so.

Applying Appropriate Measures Across the Attack Surface

Technical measures must address the full range of network and information systems which may include industrial controls systems (ICS), IT-based assets in Operational Technology (OT) environments, traditional IT systems, network devices, mobile, web and cloud. These diverse technologies make measuring and managing the entire attack surface very challenging. The challengemust be met by cost-effectively implementing technical measures across the attack surface, without deploying and maintaining a multitude of narrowly focused products.

Key Benefits

- **Inventory the Entire Attack Surface**
  Gain visibility of all ICS, IT, web,and cloud assets that comprise critical network and information systems
- **Identify Weaknesses**
  Identify vulnerabilities, misconfigurations and other weaknesses that require remediation
- **Prioritize Remediation**
  Vulnerability prioritization based on factors such as asset accessibility, availability impact, exploitability and threat intelligence efficiently focuses remediation/mitigation
- **Measure Exposure over Time**
  Chart progress over time and highlight possible trouble spots
- **Streamline Reporting**
  Provide evidence to National Competent Authorities of effective implementation of security measures.

[1] Reference Document on Security Measures for Operators of Essential Services, CG publications 01/2018

[2] Improving the Recognition of ICT Security Standards, Version 1.0, December 2017

How Tenable Can Help

Inventorying the complete attack surface and then removing vulnerabilities and misconfigurations is foundational to any programme to manage the risk posed to the security of network and information systems. It requires Cyber Exposure, an emerging discipline for measuring and managing cybersecurity risk in the digital era. Tenable delivers the capabilities described below to help entities manage risk across their complete attack surface.

Discovery
Knowing what assets you have is foundational to protecting network and information systems. The days of traditional IT are gone. Today's modern the attack surface requires security leaders to consider not only IT assets, but ICS, web and cloud assets. A comprehensive asset inventory is likely to include network devices, desktops, servers, web apps, and possibly virtual machines, containers, mobile, the cloud and ICS assets, such as PLC's, RTUs, HMIs.

Assessment
Understanding the cyber exposure of all assets requires frequent assessment of which components are affected by new security vulnerabilities, insecure configurations and other security health indicators.

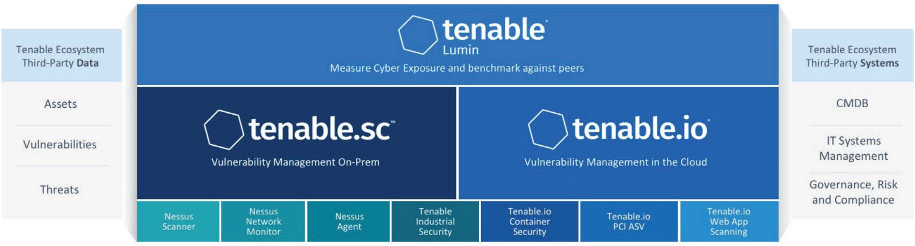
Analysis
Issues discovered during assessment must be Prioritized to identify vulnerabilities with the highest impact to your organization. Through a combination of threat intelligence and machine learning the Tenable **Vulnerability Priority Rating (VPR)** ensures remediation efforts are focused on what matters most.

Remediation
Remediation typically involves rolling out updates and patches. However frequently for ICS assets, compensating controls may be implemented. Alternately, the risk may be accepted; and reasons to justify the decision must be documented.

Measurement
Measurement and status reports are essential for self-assessments and for National Competent Authorities to determine whether an organization has met the NIS requirements. For example, reports will help answer the question, "Have the systems supporting essential services been regularly subjected to security scans?"

Tenable Solution

Tenable Cyber Exposure platforms assess, manage and measure cyber risk across the entire network and information system attack surface. Tenable provides the breadth of visibility into cyber risk across IT, Cloud, IoT and OT environments and the depth of analytics to measure and communicate cyber risk in business terms.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Threats
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More Information

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