

# TENABLE.OT VULNERABILITY MANAGEMENT

## MANAGING OT VULNERABILITIES

OT environments are often thought of as the lifeblood for both critical infrastructure and manufacturing environments. Composed of PLCs, HMIs, DCSs and IT assets, OT environments have become increasingly complicated. With the rapid adoption of IoT technology, as well as the convergence of IT and OT, these environments are more susceptible to cyber risk and threats.

One of the major attack vectors for OT involves vulnerabilities. Similar to IT environments, OT environments can have regular, newly discovered vulnerabilities that need constant attention. Unlike IT environments, however, OT environments may have less maintenance windows than IT to address these vulnerabilities. Tenable.ot addresses this challenge with its vulnerability management feature with VPR scoring.

## ASSET INVENTORY

On any given day, researchers publish new OT device and software vulnerabilities. However, a great majority will not be applicable to your organization because you don't have that specific make and model, or because it doesn't affect your firmware version. For this reason, you should always have an updated inventory of exactly what exists in your OT environment.

Tenable.ot provides asset inventory that gives you real-time status of both IT and OT assets in your environment and also deep information down to firmware, ladder logic and backplane on each asset. This depth of detail enhances your security posture while also empowering you to maintain a complete and accurate list of vulnerabilities relevant to specific gear in your environment.

## PRIORITIZING VULNERABILITIES WITH VPR

NVD provides CVSS ratings indicative of the general relative vulnerability severity in relation to other disclosed vulnerabilities with exploits. CVSS scoring does not take into account how the vulnerability may impact your exact environment. A specific vulnerability can rate low CVSS-wise, but because of other dynamic information,

## KEY BENEFITS

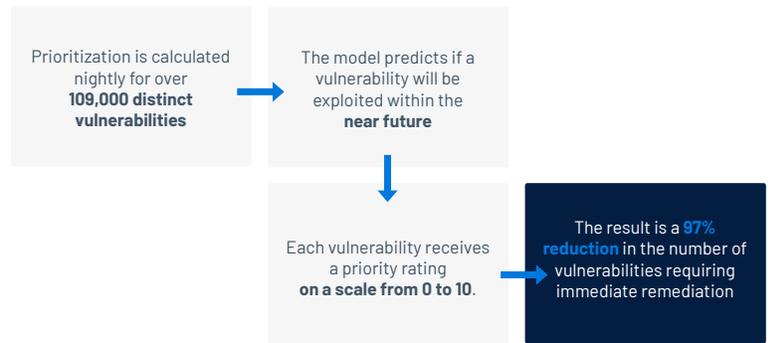
- **Asset Inventory** builds a real-time and up-to-date inventory list of what exactly is in your environments. Doing so helps flag the vulnerabilities that are relevant to you.
- **Target the vulnerabilities** that have exploits associated with them. With the deep knowledge of what is in your network, you'll only get flagged with the vulnerabilities that are relevant to your environment.
- **Complete Coverage** consists of getting a full view of all assets and their vulnerabilities in your environment whether they are IT, OT or IoT based.
- **Prioritized Scoring** with Vulnerability Priority Rating (VPR) combines Tenable-collected vulnerability data with third-party vulnerability and threat data and analyzes them together with the advanced data science algorithm developed by Tenable Research.

such as the exploit code maturity or the occurrence of specific threat events related to a vulnerability, the VPR score is generally more relevant. As such, Tenable.ot provides both a CVSS score and VPR score, along with full details. This helps prioritize which vulnerabilities you should deal with first and which may be a lower priority during a maintenance window.

## EARLY WARNINGS OF POTENTIAL EXPLOITS

It is not uncommon for threat actors to target a vulnerability prior to NVD publication. Given publication delays that can occur, security practitioners should be cautious about using NVD as a single source of truth for vulnerability information. VPR rates new vulnerabilities in a timely manner – VPR scores 84% of new vulnerabilities within one day of public disclosure and scores 93% within the first week. You can leverage VPR to reduce your attack surface by remediating pre-NVD vulnerabilities under active exploitation.

## HOW IT WORKS



## ABOUT TENABLE.OT

Tenable.ot protects industrial and critical infrastructure from cyber threats, malicious insiders and human error. From threat detection and mitigation to asset tracking, vulnerability management, configuration control and adaptive assessment checks, Tenable's industrial control systems (ICS) security capabilities maximize your operational environments visibility, security, and control.

CVE	VPR	CVSS v3.x	CVSS v2.0	PUBLISHED	AFFECTED AS...	DESCRIPTION	RESOURCES	COMMENT
<a href="#">CVE-2020-1472</a>	10	6	9.3	Aug 17, 2020	1	An elevation of privilege vulnerability exists when an attacker establishes a vulnerable Netlogon secure channel connection to a domain controller, using the Netlogon Remote Protocol (MS-NRPC), aka 'Netlogon Elevation of Privilege Vulnerability.'	13	
<a href="#">CVE-2017-8759</a>	9.9	5.9	9.3	Sep 13, 2017	1	Microsoft .NET Framework 2.0, 3.5, 3.5.1, 4.5.2, 4.6, 4.6.1, 4.6.2 and 4.7 allow an attacker to execute code remotely via a malicious document or application, aka ".NET Framework Remote Code Execution Vulnerability."	7	
<a href="#">CVE-2018-8453</a>	9.9	5.9	7.2	Oct 10, 2018	1	An elevation of privilege vulnerability exists in Windows when the Win32k component fails to properly handle objects in memory, aka "Win32k Elevation of Privilege Vulnerability." This affects Windows 7, Windows Server 2012 R2, Windows RT 8.1, Windows Server 2008, Windows Server 2019, Windows Server 2012, Windows 8.1, Windows Server 2016, Windows Server 2008 R2, Windows 10, Windows 10 Servers.	5	
<a href="#">CVE-2016-7255</a>	9.9	5.9	7.2	Nov 10, 2016	1	The kernel-mode drivers in Microsoft Windows Vista SP2, Windows Server 2008 SP2 and R2 SP1, Windows 7 SP1, Windows 8.1, Windows Server 2012 Gold and R2, Windows RT 8.1, Windows 10 Gold, 1511, and 1607, and Windows Server 2016 allow local users to gain privileges via a crafted application, aka "Win32k Elevation of Privilege Vulnerability."	11	
<a href="#">CVE-2019-1053</a>	9.8	6	7.2	Jun 12, 2019	1	An elevation of privilege vulnerability exists when the Windows Shell fails to validate folder shortcuts, aka "Windows Shell Elevation of Privilege Vulnerability."	1	
<a href="#">CVE-2019-0555</a>	9.8	6	4.4	Jan 8, 2019	1	An elevation of privilege vulnerability exists in the Microsoft XmlDocument class that could allow an attacker to escape from the AppContainer sandbox in the browser, aka "Microsoft XmlDocument Elevation of Privilege Vulnerability." This affects Windows Server 2012 R2, Windows RT 8.1, Windows Server 2012, Windows Server 2019, Windows Server 2016, Windows 8.1, Windows 10, Windows 10 Servers.	3	
<a href="#">CVE-2018-15982</a>	9.8	5.9	10	Jan 18, 2019	2	Flash Player versions 31.0.0.153 and earlier, and 31.0.0.108 and earlier have a use after free vulnerability. Successful exploitation could lead to arbitrary code execution.	4	
<a href="#">CVE-2014-6271</a>	9.8	5.9	10	Sep 24, 2014	1	GNU Bash through 4.3 processes trailing strings after function definitions in the values of environment variables, which allows remote attackers to execute arbitrary code via a crafted environment, as demonstrated by vectors involving the ForceCommand feature in OpenSSH sshd, the mod_cgi and mod_cgid modules in the Apache HTTP Server, scripts executed by unspecified DHCP clients, and other situations in which ...	168	

Items: 3921

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