



Tenable.ot for Aruba

Business Challenge

Unlike IT networks, industrial control systems (ICS) lack visibility, security and control.

OT networks do not have security features embedded and with increased threats targeting industrial environments, they are extremely vulnerable to attacks. Additionally, most of the devices on your network don't require authentication, making it virtually impossible to prevent unauthorized access or changes to critical devices. Moreover, as the Industrial Internet of Things (IIoT) continues to gain adoption in industrial and critical infrastructure environments, new devices are constantly coming online. Without the proper security and access control, they can introduce unacceptable risk into your network.

Solution

Tenable.ot provides full visibility of—and safety across—your industrial network.

By combining Tenable.ot's advanced threat detection, asset and vulnerability management—both at the network and device level, along with Aruba Networks ClearPass Access Control—the joint solution delivers complete visibility, security and control, across your IT and OT environments. This includes traditional Windows-based systems, Macs and mobile devices, as well as OT devices such as industrial controllers (PLCs, RTUs, DCS controllers).

IP	MAC Address	Device Name	Device Category	Host
10.10.10.10	000C42000101	Controller #11	Programmable Logic Controller	OT
10.10.10.11	000C42000102	Controller #12	Programmable Logic Controller	OT
10.10.10.12	000C42000103	Controller #13	Programmable Logic Controller	OT
10.10.10.13	000C42000104	Controller #14	Programmable Logic Controller	OT
10.10.10.14	000C42000105	Controller #15	Programmable Logic Controller	OT
10.10.10.15	000C42000106	Controller #16	Programmable Logic Controller	OT
10.10.10.16	000C42000107	Controller #17	Programmable Logic Controller	OT
10.10.10.17	000C42000108	Controller #18	Programmable Logic Controller	OT
10.10.10.18	000C42000109	Controller #19	Programmable Logic Controller	OT
10.10.10.19	000C42000110	Controller #20	Programmable Logic Controller	OT
10.10.10.20	000C42000111	Controller #21	Programmable Logic Controller	OT
10.10.10.21	000C42000112	Controller #22	Programmable Logic Controller	OT
10.10.10.22	000C42000113	Controller #23	Programmable Logic Controller	OT
10.10.10.23	000C42000114	Controller #24	Programmable Logic Controller	OT
10.10.10.24	000C42000115	Controller #25	Programmable Logic Controller	OT
10.10.10.25	000C42000116	Controller #26	Programmable Logic Controller	OT
10.10.10.26	000C42000117	Controller #27	Programmable Logic Controller	OT
10.10.10.27	000C42000118	Controller #28	Programmable Logic Controller	OT
10.10.10.28	000C42000119	Controller #29	Programmable Logic Controller	OT
10.10.10.29	000C42000120	Controller #30	Programmable Logic Controller	OT
10.10.10.30	000C42000121	Controller #31	Programmable Logic Controller	OT
10.10.10.31	000C42000122	Controller #32	Programmable Logic Controller	OT
10.10.10.32	000C42000123	Controller #33	Programmable Logic Controller	OT
10.10.10.33	000C42000124	Controller #34	Programmable Logic Controller	OT
10.10.10.34	000C42000125	Controller #35	Programmable Logic Controller	OT
10.10.10.35	000C42000126	Controller #36	Programmable Logic Controller	OT
10.10.10.36	000C42000127	Controller #37	Programmable Logic Controller	OT
10.10.10.37	000C42000128	Controller #38	Programmable Logic Controller	OT
10.10.10.38	000C42000129	Controller #39	Programmable Logic Controller	OT
10.10.10.39	000C42000130	Controller #40	Programmable Logic Controller	OT
10.10.10.40	000C42000131	Controller #41	Programmable Logic Controller	OT
10.10.10.41	000C42000132	Controller #42	Programmable Logic Controller	OT
10.10.10.42	000C42000133	Controller #43	Programmable Logic Controller	OT
10.10.10.43	000C42000134	Controller #44	Programmable Logic Controller	OT
10.10.10.44	000C42000135	Controller #45	Programmable Logic Controller	OT
10.10.10.45	000C42000136	Controller #46	Programmable Logic Controller	OT
10.10.10.46	000C42000137	Controller #47	Programmable Logic Controller	OT
10.10.10.47	000C42000138	Controller #48	Programmable Logic Controller	OT
10.10.10.48	000C42000139	Controller #49	Programmable Logic Controller	OT
10.10.10.49	000C42000140	Controller #50	Programmable Logic Controller	OT
10.10.10.50	000C42000141	Controller #51	Programmable Logic Controller	OT
10.10.10.51	000C42000142	Controller #52	Programmable Logic Controller	OT
10.10.10.52	000C42000143	Controller #53	Programmable Logic Controller	OT
10.10.10.53	000C42000144	Controller #54	Programmable Logic Controller	OT
10.10.10.54	000C42000145	Controller #55	Programmable Logic Controller	OT
10.10.10.55	000C42000146	Controller #56	Programmable Logic Controller	OT
10.10.10.56	000C42000147	Controller #57	Programmable Logic Controller	OT
10.10.10.57	000C42000148	Controller #58	Programmable Logic Controller	OT
10.10.10.58	000C42000149	Controller #59	Programmable Logic Controller	OT
10.10.10.59	000C42000150	Controller #60	Programmable Logic Controller	OT
10.10.10.60	000C42000151	Controller #61	Programmable Logic Controller	OT
10.10.10.61	000C42000152	Controller #62	Programmable Logic Controller	OT
10.10.10.62	000C42000153	Controller #63	Programmable Logic Controller	OT
10.10.10.63	000C42000154	Controller #64	Programmable Logic Controller	OT
10.10.10.64	000C42000155	Controller #65	Programmable Logic Controller	OT
10.10.10.65	000C42000156	Controller #66	Programmable Logic Controller	OT
10.10.10.66	000C42000157	Controller #67	Programmable Logic Controller	OT
10.10.10.67	000C42000158	Controller #68	Programmable Logic Controller	OT
10.10.10.68	000C42000159	Controller #69	Programmable Logic Controller	OT
10.10.10.69	000C42000160	Controller #70	Programmable Logic Controller	OT
10.10.10.70	000C42000161	Controller #71	Programmable Logic Controller	OT
10.10.10.71	000C42000162	Controller #72	Programmable Logic Controller	OT
10.10.10.72	000C42000163	Controller #73	Programmable Logic Controller	OT
10.10.10.73	000C42000164	Controller #74	Programmable Logic Controller	OT
10.10.10.74	000C42000165	Controller #75	Programmable Logic Controller	OT
10.10.10.75	000C42000166	Controller #76	Programmable Logic Controller	OT
10.10.10.76	000C42000167	Controller #77	Programmable Logic Controller	OT
10.10.10.77	000C42000168	Controller #78	Programmable Logic Controller	OT
10.10.10.78	000C42000169	Controller #79	Programmable Logic Controller	OT
10.10.10.79	000C42000170	Controller #80	Programmable Logic Controller	OT
10.10.10.80	000C42000171	Controller #81	Programmable Logic Controller	OT
10.10.10.81	000C42000172	Controller #82	Programmable Logic Controller	OT
10.10.10.82	000C42000173	Controller #83	Programmable Logic Controller	OT
10.10.10.83	000C42000174	Controller #84	Programmable Logic Controller	OT
10.10.10.84	000C42000175	Controller #85	Programmable Logic Controller	OT
10.10.10.85	000C42000176	Controller #86	Programmable Logic Controller	OT
10.10.10.86	000C42000177	Controller #87	Programmable Logic Controller	OT
10.10.10.87	000C42000178	Controller #88	Programmable Logic Controller	OT
10.10.10.88	000C42000179	Controller #89	Programmable Logic Controller	OT
10.10.10.89	000C42000180	Controller #90	Programmable Logic Controller	OT
10.10.10.90	000C42000181	Controller #91	Programmable Logic Controller	OT
10.10.10.91	000C42000182	Controller #92	Programmable Logic Controller	OT
10.10.10.92	000C42000183	Controller #93	Programmable Logic Controller	OT
10.10.10.93	000C42000184	Controller #94	Programmable Logic Controller	OT
10.10.10.94	000C42000185	Controller #95	Programmable Logic Controller	OT
10.10.10.95	000C42000186	Controller #96	Programmable Logic Controller	OT
10.10.10.96	000C42000187	Controller #97	Programmable Logic Controller	OT
10.10.10.97	000C42000188	Controller #98	Programmable Logic Controller	OT
10.10.10.98	000C42000189	Controller #99	Programmable Logic Controller	OT
10.10.10.99	000C42000190	Controller #100	Programmable Logic Controller	OT

If you rely on ClearPass to provide visibility and control for your IT environments, you can now get visibility on your OT networks with the same granularity, policies and workflow. This enables you to effectively detect and mitigate threats to the safety, reliability and continuity of your IT and OT converged environment.



a Hewlett Packard Enterprise company

Technology Components

- Tenable.ot
- Aruba Networks ClearPass

The Challenge

- Lack of a comprehensive view across your entire industrial infrastructure
- Inability to detect and mitigate threats impacting your IT and OT environments
- No situational awareness into who accesses restricted assets or the operations they perform
- No automated OT asset discovery and inventory management

Key Benefits

- End-to-end visibility and security for OT networks
- Automated asset discovery and management
- Continuous validation of asset configurations
- Access control and audit trail based on job role or authority
- Improved incident response and threat mitigation

ABOUT TENABLE

Tenable®, Inc. is the Cyber Exposure company. Over 30,000 organizations around the globe rely on Tenable to understand and reduce cyber risk. As the creator of Nessus®, Tenable extended its expertise in vulnerabilities to deliver the world's first platform to see and secure any digital asset on any computing platform. Tenable customers include more than 50 percent of the Fortune 500, more than 30 percent of the Global 2000 and large government agencies. Learn more at www.tenable.com.

ABOUT ARUBA, AN HP COMPANY

Aruba, a Hewlett Packard Enterprise company, is a leading provider of secure, intelligent networks that enable customers to thrive and deliver amazing digital experiences in the mobile, IoT and cloud era. We are changing the rules of networking to make it simple for IT and organizations to bridge the physical and digital worlds at the Edge.

Key Components

Managing IT and OT Assets in Industrial Networks

Since industrial networks lack access controls, new unmanaged connected devices can potentially introduce threats into these sensitive environments. Lack of automated asset discovery and management is also at the root of many operational incidents resulting from contractors, integrators or employees working on the wrong assets. Such incidents can result in severe operational disruptions. In addition, an unmanaged asset inventory is harder to support and maintain since it's not always clear which assets you should upgrade or patch, or which spare parts you need.

Detecting Threats to Operational Environments

As more and more industrial networks connect to corporate environments and cloud solutions, their risk exposure profile increases. Since OT environments are different from IT environments and use different proprietary protocols, IT security solutions like firewalls and intrusion detection solutions (IDS) are inadequate for threat detection.

NAC systems and other IT visibility tools are not effective across your OT environment because you cannot use agents on OT devices and IT scanning tools can make OT unstable. In addition, critical control devices lack event logs, so event tracing is nearly impossible.

Edit Endpoint			
Endpoint	Attributes	Fingerprints	
MAC Address	001d9cd42de9	IP Address	10.100.101.155
Description	PLC 12938	Static IP	FALSE
Status	<input checked="" type="radio"/> Known client <input type="radio"/> Unknown client <input type="radio"/> Disabled client	Hostname	Rouge
MAC Vendor	Rockwell Automation	Device Category	Programmable Logic Con
Added by	oauth2:Client:Indegy	Device OS Family	Rockwell ControlLogix55
Online Status	Not Available	Device Name	1756-L61/B LOGIX5561
Connection Type	Unknown	Added At	Apr 23, 2019 15:32:55 IDT
		Last Profiled At	May 06, 2019 16:54:40 IDT

Validating Configurations and Managing Changes

Controller configuration settings directly impact the industrial processes they manage. Any unauthorized change to the configuration logic or firmware can result in severe disruptions and damaged equipment.

Without a backup of past configurations and proper access controls that validate the operator's identity, it is difficult to ensure authorized work and it is not possible to restore a controller to a previously known good configuration after an incident.

The Tenable.ot and Aruba ClearPass solution provides visibility, security and access control to your IT and OT devices within industrial networks thereby reducing your overall cyber exposure and mitigating unacceptable risk.

More Information

For support please contact: support@tenable.com

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