Pulse Secure®

# Pulse Policy Secure

Complete endpoint visibility and Zero Trust Network Access Control

### Highlights

- Centralized visibility and policy management of all endpoints, including IoT
- Granular assessment of endpoint security posture before allowing access
- Dynamic network segmentation based on user role and/or device class
- Seamless roaming between remote and local, using Pulse Connect Secure Integration
- Granular integration with Pulse vADC for a scalable, resilient and responsive solution
- BYOD onboarding integration with Pulse Workspace MDM or 3rd party EMM
- REST API integration with security ecosystem
- Scales for organizations of any size

### Benefits

- End-to-end Zero Trust Network Access security
- Reduced threat response time
- Reduced risk from lateral spread of threats
- Automated policy enforcement, reduced auditing burden
- Simple and fast deployment

## Product Description

Modern networks experience a proliferation of connected endpoints; BYOD connectivity is now surpassed by IoT. Every additional endpoint increases the risk to be compromised and give attackers an opportunity to gain further access into the network and to corporate resources. To limit this risk, an endpoint's security posture must always show current software security updates, virus definitions, and so on. Also, users must only be given the least amount of access necessary to perform their role.

Pulse Policy Secure (PPS) provides complete visibility and Network Access Control (NAC) for all local or remote endpoints. Its open, high-performance design helps small and large organizations to easily enforce endpoint security compliance and Zero Trust security. The intuitive UI makes it easy to use for administrators, and provides customizable reporting.

Pulse Policy Secure continuously enforces foundational security policies and controls network access for managed and unmanaged endpoints, including IoT. PPS uses Zero Trust principles to manage network access by validating the user, a device's security posture and connects the device with least privilege access policy.

The open platform integrates with a wide range of switching, Wi-Fi and NGFW solutions to enforce access policies. Bidirectional integration with 3rd party security solutions improves overall security efficacy with automated endpoint access enforcement. Automated responses to Indicators of Compromise (IoC) reduces remediation time and streamlines administrative resources. PPS integrates with a wide range of NGFWs such as Palo Alto Networks, Checkpoint, Juniper and Fortinet, as well as SIEM solutions such as IBM Qradar and Splunk. Integration with McAfee ePolicy Orchestrator (McAfee ePO) fortifies endpoint management and automated threat response. For granular OT/IIoT visibility and control, PPS integrates with Nozomi Guardian.

## Key Components

The Pulse Policy Secure solution includes three components:

- **Pulse Profiler** identifies and classifies endpoint devices, including IoT. It provides end-to-end visibility, reporting and behavior analytics.
- **Pulse Policy Secure** provides a high-performance policy engine that leverages contextual information from users, endpoints, and applications. With a unified, open framework and policy engine, administrators can apply granular rules for dynamic monitoring, reporting, and access control of all endpoints, anywhere on the network, to minimize access risks.
- **Pulse Client** offers agent and agentless options for pre- and post-admission control. The solution incorporates the Host Checker functionality, which verifies an endpoint's security posture. This is the same Pulse Client used for our Pulse Connect Secure VPN solution and runs on Windows, Mac, Linux, Android and IOS platforms.

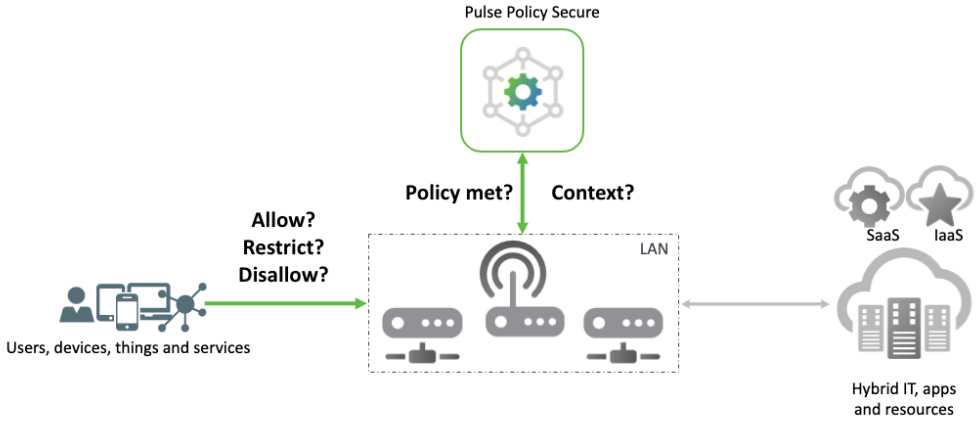


Figure 1: Access Decisions for endpoints

## Use Case Overview

Pulse Policy Secure helps to adapt Zero Trust Network Access security for small and large organizations. Enterprises use PPS to enforce endpoint policy compliance for employees, guests, and contractors regardless of location, device type, or device ownership. Users enjoy greater productivity and the freedom to work anywhere without limiting access to authorized network resources and applications. BYOD onboarding optimizes the user experience by allowing workers to use their preferred device. Pulse Policy Secure gives you complete visibility of managed and unmanaged network devices.

## Visibility

To protect your network endpoints, you need to see what endpoints are connected. Complete visibility enables the required insight to dynamically identify and classify all managed and unmanaged endpoints.

| CHALLENGES | PULSE POLICY SECURE SOLUTION |
|---|---|
| Profiling | Pulse Profiler dynamically identifies and enables automatic and custom classification of both managed and unmanaged endpoint devices, to provide operational visibility, reporting and policy-based controlled access to networks and resources based on the user, device, applications and other attributes. |
| Behavioral Analytics | Pulse Profiler continuously performs behavioral analytics and builds baseline behavior profiles for IoT devices by collecting and correlating NetFlow, user, and device data. This is used to detect anomalous device activity, anomalous user access, domain generation attacks and MAC spoofing. |
| Numerous Device Types | Pulse Profiler can automatically classify devices against a growing database of over 2.3M unique fingerprints. The solution profiles endpoints static or dynamic IP addresses and actively scans open ports to detect MAC spoofing. |

## The Internet of Things (IoT)

Enterprises today merge IoT devices with the IT environment to improve business. Pulse Policy Secure offers enterprises the ability to discover and secure these devices.

| CHALLENGES | PULSE POLICY SECURE SOLUTION |
|---|---|
| Discovery, profiling and segmentation of IoT devices | Pulse Profiler discovers managed and unmanaged IoT devices. It profiles them so they can be matched to specific access policies. Dynamic segmentation limits the risk of threats spreading laterally and helps with regulatory compliance in healthcare for example. |

## Device Onboarding and Policy Compliance

Pulse Policy Secure prevents unauthorized network, application, or data access by dynamically assessing and remediating device security before the device connects to the enterprise for both VPN and Wi-Fi access. This protects the corporate network from infected devices and enforces consistent, cross-network access policies. It also ensures only authorized workers have access to enterprise resources based on their role, location, and time of day.

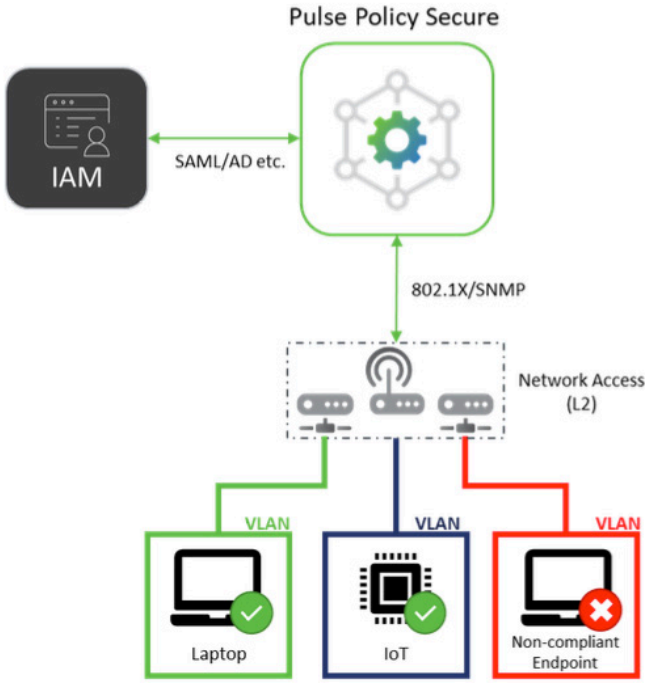


Figure 2: Dynamic access control and network segmentation (L2)

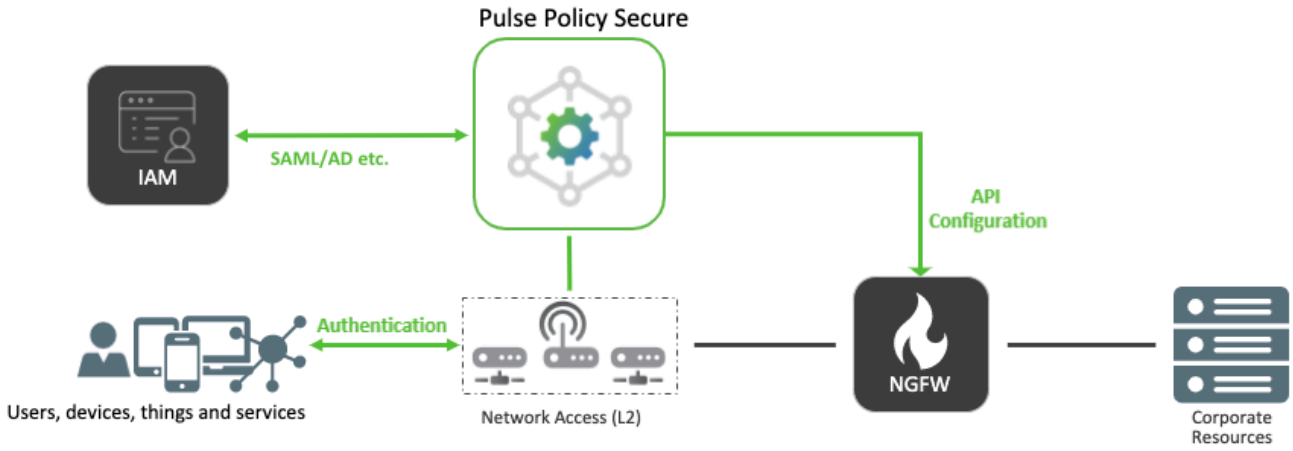


Figure 3: Dynamic access control at perimeter (L3)

| CHALLENGES | PULSE POLICY SECURE SOLUTION |
|---|---|
| Guest User Support | Pulse Policy Secure provides a self-service portal with a customizable interface. It is a highly scalable enterprise guest access platform that supports thousands of guest users, For additional control, secure guest access can be enabled by an admin such as a receptionist, or by a sponsor whom approves the guest's access request. PPS integrates with wireless controllers such as Aruba, Cisco, Huawei, Juniper Mist, Meraki and Ruckus. |
| BYOD Onboarding | Pulse Policy Secure empowers employees to use their personal devices for work with self-service onboarding of personal laptops and mobile devices. |

| KEY FEATURES | |
|---|---|
| Pulse Profiler | Identifies and classifies endpoint devices, including IoT. It provides end-to-end visibility, reporting and behavior analytics. |
| RADIUS/802.1X support | An integrated, high performance RADIUS authenticates users and devices that are forwarded from industry-standard 802.1X functions on network switches and wireless controllers. |
| TACACS+ support | Use the TACACS+ authentication system to distribute policies to the access infrastructure. Supports Two-Factor Authentication with Smart Cards. |
| Host Checker | Identifies the security posture of the device. Options include: OS or software patch status, active apps. |
| Session federation | Active VPN sessions seamlessly migrate to the local network without the need to re-authenticate. |
| UEBA Analytics | Correlation of user access, device data, and system logs in a new analytics engine integrates with Pulse One management solution. |
| Identity-based admission control | Shares identity context with NGFWs from vendors such as Fortinet, Palo Alto Networks, Checkpoint, and Juniper SRX, enabling each to be employed as policy enforcement points on the network perimeter. |
| Automated Threat Response | Leverages external threat intelligence alerts from NGFW or SIEM solutions to take automated actions at the device connection level. PPS' policy engine leverages rich contextual information to allow various mitigating actions based on threat severity. |
| Captive portal | Provides user-friendly access control for guests and contractors. |
| Self-service Guest access support | Provides secure, simple and differentiated guest access. |
| Wizard-based configuration | Simplifies configuration tasks for administrators to avoid mistakes and faster deployment. |
| Granular auditing and logging | Granular logging capabilities of system, user and device events in a clear, easy to understand format. Can be analyzed locally or shared with external syslog solutions or SIEMs such as IBM Qradar and Splunk. Supports WELF format and WELF-SRC-2.0-Access Report. |
| Centralized policy management | Saves administrative time and cost and a superior user experience by delivering common remote and local access control policy implementation and enforcement across a distributed enterprise. |
| REST API | Standardized interface for third party systems such as NGFWs and SIEMs to integrate with Pulse Policy Secure and limit an endpoint's access on the local network. |
| Flexible deployment options | Pulse Policy Secure runs on physical, virtual and cloud platforms. See the Supported Platforms Guide for details. |

Pulse Secure®

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## ABOUT PULSE SECURE

Pulse Secure, LLC offers software-defined Secure Access solutions that provide visibility and easy, protected connectivity between users, devices, things and services. The company delivers suites that uniquely integrate cloud, mobile, application and network access control for hybrid IT. More than 23,000 enterprises and service providers across every vertical rely on Pulse Secure to empower their mobile workforce to securely access applications and information in the data center and cloud while ensuring business compliance. Learn more at www.pulsesecure.net.

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VERSION 10052020