Fortinet Fabric Connector Integration with Aruba ClearPass

Executive Summary

From Internet of Things (IoT) to an always-on mobile workforce, organizations are more exposed to attacks than ever before. The rise in the number of IoT and other connected devices increases the vulnerabilities inside the business—adding to the operational burden.

Identifying who and what connects to the network is the first step to securing an organization. Control through the automated application of wired and wireless policy enforcement is also needed, to ensure that only authorized and authenticated users and devices are allowed to connect to the network. At the same time, real-time attack response and threat protection is required to secure and meet internal and external audit and compliance requirements.

The Fortinet Fabric Connector integration with Aruba ClearPass addresses the above needs. Aruba ClearPass provides agentless visibility and dynamic role-based access control for network access control across wired and wireless networks. The integration of Aruba ClearPass with Fortinet's award-winning FortiGate next-generation firewall (NGFW) and FortiManager management application is accomplished via the Fortinet Fabric Connector for Aruba ClearPass, which enables dynamic synchronization across these systems.

The solution enables organizations to centrally manage access control and user information using Aruba ClearPass, and enables security protection profiles assigned to each user or device to be automatically applied and associated security polices to be automatically enforced using the FortiGate firewalls. As user or device information changes over time, the information is dynamically updated and security policies are automatically applied and enforced via the FortiGate firewalls.

Solution Description

Fortinet Fabric Connectors deliver turnkey, open, and deep integration into partner technologies and platforms in multivendor ecosystems, enabling security automation and simplified management. By integrating with customers' multivendor ecosystems, Fortinet Fabric Connectors synchronize security with dynamic operational changes, automate security tasks, and support DevOps processes and time-to-market needs, while ensuring coverage of the entire attack surface from IoT devices to the cloud.

Joint Solution Benefits

- Leverage Fortinet's award-winning FortiGate next-generation firewall for unparalleled network security protection.

- Dynamically synchronize user/device information in Aruba ClearPass with the FortiGate next-generation firewall and automatically apply associated security policies.

- Utilize customer-defined intent policies configured in ClearPass Policy Manager (CPPM) and dynamically implement them on the FortiGate firewall via the API integration.

- Reduce operational complexity and eliminate errors arising from manual configuration via automated and dynamic synchronization of user and device information with the FortiGate firewall.

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FortiManager integrates with ClearPass Policy Manager using the Fortinet Fabric Connector. It receives information pertaining to user roles, and this information is used to map roles to Fortinet Single Sign-On (FSSO) user groups used in policy configuration. It also receives real-time user logon and logoff events from ClearPass, and pushes security policy configurations to the FortiGate firewall automatically, including address group and user group information. FortiManager also pushes FSSO events to FortiGate, including ClearPass logon and logoff events mapped to FortiGate/FortiManager user groups.

As a result, the solution enables organizations to centrally manage access control and user information using Aruba ClearPass, and enables security protection profiles assigned to each user or device to be automatically applied and associated security polices to be automatically enforced using the FortiGate firewalls.

Due to dynamic synchronization capabilities of the solution, as user or device information changes over time, the information is dynamically updated and security policies automatically applied and enforced via the FortiGate firewalls. This eliminates the need for error-prone manual actions to synchronize information across the systems and enforce security policies, improving security for users. The solution also greatly reduces complexity and simplifies operational management for IT organizations.

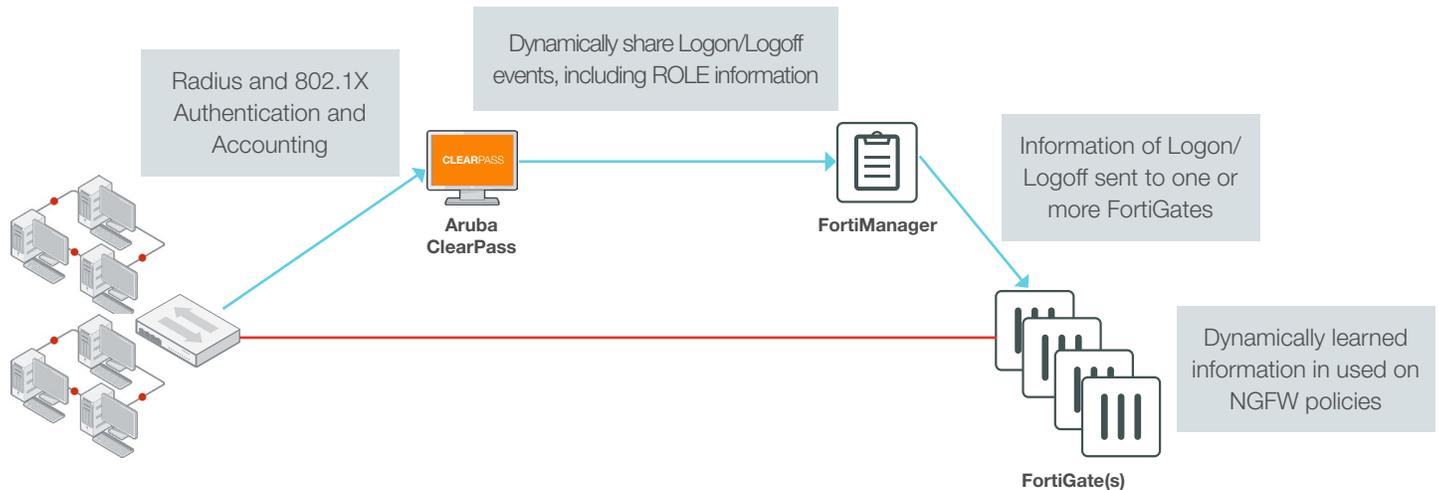The functionality of the joint solution is summarized in the illustration below.

Figure 1: Fortinet-Aruba ClearPass integration: how it works—an example using RADIUS.

An Example Use Case

The IT department of an enterprise could utilize the integration to implement network security policies in the firewall based on user information and/or device information managed in Aruba ClearPass. Aruba CPPM maps user and device information into roles (for example, operating system, device category, etc.). As a result of the solution integration, this information is automatically propagated to FortiManager via the Fortinet Fabric Connector. FortiManager can then automatically push the security protection profiles assigned to each user or device to the FortiGate firewalls for security policy enforcement. This eliminates the need for IT staff to manually map user/device/role information from Aruba to security policies for implementing in the firewall for policy enforcement, greatly reducing IT operational burden.

Summary

The Fortinet Fabric Connector integration with Aruba ClearPass provides automatic and dynamic synchronization of user, device, and role information across Aruba ClearPass and Fortinet FortiManager and FortiGate, thereby improving security for users, reducing complexity and simplifying operational management for IT organizations.

About Aruba, a Hewlett Packard Enterprise 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. To learn more, visit Aruba at http://www.arubanetworks.com.

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