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The Remote Access Point (RAP)

The Remote Access Point (RAP) solution empowers enterprise customers with the ability to extend Corporate SSID to a remote workplace such as a teleworkers' home office or a small remote branch office.

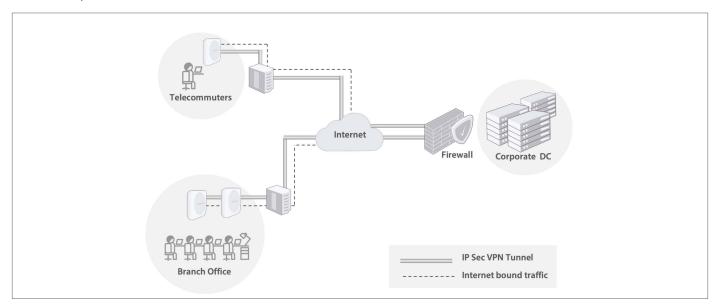
RAP offers the following benefits:

Enterprises	End Users
 Extension of the Enterprise SSIDs to the remote location with the same access controls and other policies. Unified management and monitoring of APs deployed in the enterprise as well as RWAP devices. Integrates seamlessly with industry standard firewalls. Hence, there is no need for additional investment. 	 High-performance, enterprise-grade WiFi AP for employees working remotely from home or small branch offices. Secure access to corporate network resources for users at the remote workplace.

RAP Overview

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Arista's RAP solution uses industry-standard protocols to securely connect the AP deployed at a workplace with the Enterprise datacenter (DC) over the public Internet.



Secure Access

By establishing an IPSec VPN tunnel from the AP to the DC, traffic to/from Wi-Fi endpoints, connecting to the Corporate SSID, is securely forward from/to the DC. This eliminates the need for VPN setup on each WiFi endpoint. Note that the RADIUS exchange between the AP and authentication server located in the DC is also tunneled.

Flexible Data Forwarding

Leveraging Arista's flexible data plane architecture, only corporate traffic needs to be forwarded through the tunnel and Internet-bound traffic can be directly forwarded over the ISP network from the AP. This preserves precious VPN throughput at the head-end.

For operational flexibility, the following tunnel-SSID options are supported:

- One tunnel can be used for multiple SSIDs
- Each SSID can be defined with a separate tunnel

Ease of Integration

The solution is designed to integrate seamlessly with industry standard firewalls from leading vendors such as Palo Alto, CheckPoint etc. It has been tested with the following firewall products:

- Palo Alto PA220
- Juniper vSRX
- Cisco FirePower 1010
- CheckPoint SG1530
- FortiGate 30E



RAP Configuration

Just like any other Arista WiFi AP, the RAP device also needs to be provisioned first on the CV WiFi and then the RAP-specific configuration profile is created, as per the steps described below.

Step 1: Create Tunnel Profile

Navigate to the Configure->Tunnel Interface menu in CV WiFi and click on 'Add Tunnel Interface Profile'.

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	🖁 🗀 Headquarters	SSID RADIUS Tunnel Interface Role Profiles Radio Settings Device Settings
DASHBOARD	► 🗀 East Zone	
MONITOR	🕶 🗀 New York	Add Tunnel Interface Profile
CONFIGURE	Corp Office	
TROUBLESHOOT	🗀 Warehouse	Test 1 Test 2
TROUBLESHOUT	► 🗀 West Zone	Tunnel Type : EoGRE - L2 Tunnel Tunnel Type : VPN with IPSec - VPN Tunnel
REPORTS	• 🗀 California	Primary Endpoint Primary Endpoint • IP/Hostname: 9999 • IP/Hostname: 9999
FLOOR PLANS	Corp Office	Local Endpoint VLAN : 99 Local Endpoint VLAN : 99 Secondary Endpoint Secondary Endpoint
SYSTEM	🗀 Warehouse	• IP/Hostname :8888 • IP/Hostname :8888 • Local Endpoint VLAN : 99 • Local Endpoint VLAN : 99
	► 🗀 North Zone	Location : //New York Location : //California
	🕶 🗀 Montana	
	Corp Office	
	🗀 Warehouse	

From the dropdown for the Tunnel Type field, select 'VPN with IPSec' option.

ARISTA	E Search Folders	Q % 🏭 🖨 🚈 252 🗖 123 🕼	23 🗂 5 🖾 12 🔥 5
	🖁 🗀 Headquarters	WIFI - SSID RADIUS Tunnel Interface Role Profiles Radio Settings Device S	Settings
DASHBOARD	East Zone	Tunnel Inteface Name	
MONITOR	• 🗀 New York		
CONFIGURE	Corp Office	Enter Profile Name Tunnel Type Tunnel Interface Name	
	🗀 Warehouse	L2 TUNNEL.	
TROUBLESHOOT	► 🗀 West Zone	Primary Secondary IPSec over EoGRE	
REPORTS	🕶 🗀 California	VxLan	
FLOOR PLANS	Corp Office	Remote Endpoint (IP / Hostname) VPN TUNNEL Remote Endpoint (IP / Hostname) VPN with IPSec	
SYSTEM	🗀 Warehouse	GRE Primary Key Local Endpoint VLAN	
	 North Zone 	[0-65535] [0-4094]	
	* 🗀 Montana		
	Corp Office		
	🗀 Warehouse		
Services	South Zone		
CA	🕶 🗀 Texas		
cvp admin	Corp Office		Cancel Save

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Provide the VPN Endpoint details

ARISTA	E Search Folders	Q < III A 🛎 202 🗆 10 10 20 10 10 10 10 10 10 10 10 10 10 10 10 10
	🚦 🗀 Headquarters	SSID RADIUS Tunnel Interface Role Profiles Radio Settings Device Settings
DASHBOARD	East Zone New York	Tunnel Inteface Name Enter Proble Name Tunnel Type
TROUBLESHOOT	Corp Office Warehouse West Zone	Tunnel Interface harno VPRI with IPSec - VPN Tunnel
REPORTS FLOOR PLANS	California Corp Office Watchouse	Local Endpoint VLAN [D-4054]
SHITEM	• 🗀 North Zone • 🗀 Montana	IPSec Remote Endpoint (IP / Hostname) Remote Endpoint (IP / Hostname)
Services	Corp Office Watehouse Corp Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Conce Co	▼ Show Less Phase I Parameters IKE Settings
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		P55. Key reput
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Step 2: Add the Tunnel to SSID Profile

Navigate to Configure->SSID and open the 'Network' configuration tab. Select 'VPN Tunnel' option.

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	🖁 🗀 Headquarters	SSID RADIUS. Tunnel Interface Role Profiles Radio Settings Device Settings
DASHBOARD	East Zone	Spectrum Basic Security Network
MONITOR	• 🗀 New York	VLANID'
CONFIGURE	🗀 Corp Office	0
TROUBLESHOOT	🗅 Warehouse	Bridged NAT L2 Tunnel VPN Tunnel
	 West Zone 	
REPORTS	🕶 🗀 California	Layer 2 Traffic Inspection and Foltering
FLOOR PLANS	Corp Office	Inter AP Coordination
SYSTEM	🗀 Warehouse	
	 North Zone 	Layer 2 Broadcast RF Neighbors This Server
	💌 🗀 Montana	Advertise Client Associations on SSID VLAN
	🗀 Corp Office	
	🗀 Warehouse	DHCP Option 82
Services	South Zone	
CA	• 🗀 Texas	
cvp admin	Corp Office	Cancel Save

This will result in display of additional configuration parameters. In the 'Tunnel interface' dropdown, select the tunnel defined in Step 1. Specify the NAT parameters for the SSID.



ARISTA	E Search Folders	Q, 🔩 III Q 📥 252 🗖 123 🞯 23 🗔 5 🖾 12 🛆 5
	🚦 🗀 Headquarters	SSID RADIUS Tunnel Interface Role Profiles Radio Settings Device Settings
DASHBOARD	• 🗀 East Zone	Spectrum Bassc Security Network
MONITOR	• 🗀 New York	VLAN ID*
CONFIGURE	Corp Office	0 🔹 [0 - 4094]
TROUBLESHOOT	🗀 Warehouse	Brdged NAT L2.Turnel VPN Turnel
THOUBLESHOOT	• 🗀 West Zone	Turnel interface*
REPORTS	🔹 🗀 California	None
FLOOR PLANS	Corp Office	Add/Edit
SYSTEM	🗀 Warehouse	NAT
	• 🗀 North Zone	Start IP Address" End IP Address" DNS Servers" 8888 ×
	• 🗀 Montana	Local IP Address" Subnet Mask'
	Corp Office	
Services	 Warehouse South Zone 	Lease Time*
CA	• 🗀 Texas	1440 Minutes [30-1440] Wred Extension
cvp admin	Corp Office	DNS Suffix
		Arista.com X
		Split Tunnel for Client Traffic Subnets Accessible via the Turnel*
		255.255.255.0 ×
		Use Tunnel for RADIUS Messages
		Layer 2 Traffic Inspection and Filtering
		Inter AP Coordination
		Layer 2 Broadcast RF Neighbors This Server
		Cancel Save

The following two additional options may also be enabled if required: Split Tunnel for Client Traffic Use Tunnel for RADIUS Messages



AP Model Compatibility

To find out which Arista WiFi Access Points support the RWAP functionality, see AP Feature Matrix.

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