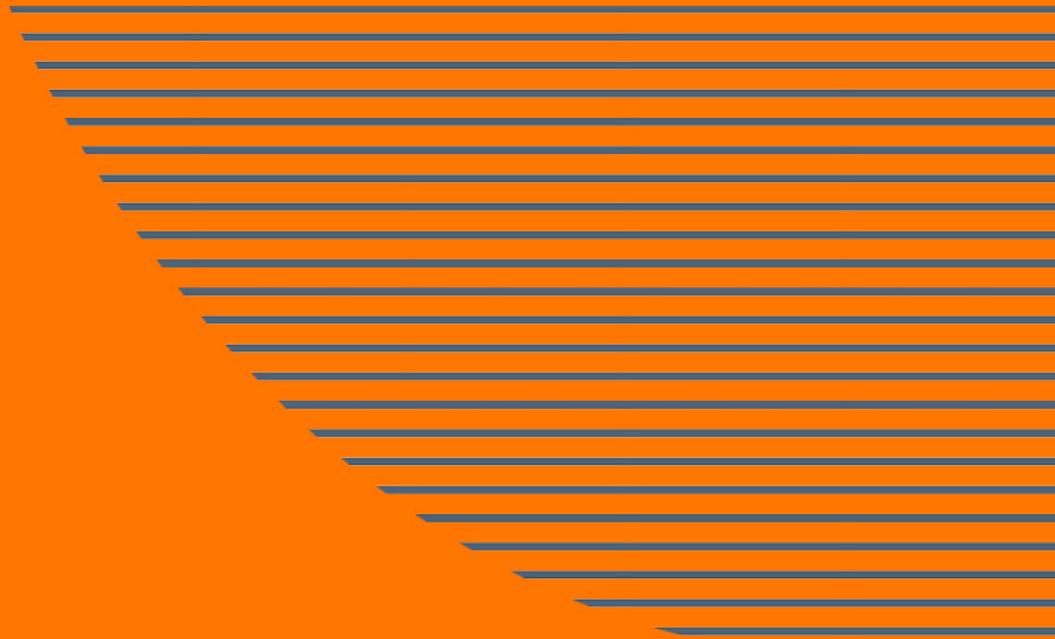


Aruba Central Wireless Workshop Lab Guide

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Getting Started with Central



Lab 0

Getting Started with Central

1. Create GLCP Account
2. Access Aruba Central via GLCP
3. Add your AP and Switch to Central
4. Assign Subscription to AP & Switch
5. Understand the Central UI & find Documentation

Task 0.1: Create Account

Create Account for GreenLake Cloud Platform (GLCP)

- Check your inbox for email from no-reply@hpe.com with subject 'HPE Cloud Signup Invite'



- Click 'Accept Invitation'
- Fill in Form to create new account
- Log into your account

Welcome to HPE GreenLake!

Hi User,

You have been invited to join the **HPE GreenLake** account in HPE GreenLake. Accept the invitation to create your user account for HPE GreenLake and start using its services.

[Accept Invitation](#)

Task 0.1: Create Account

Create Account for GreenLake Cloud Platform (GLCP)

Create an HPE Account

Access all of HPE with these credentials.

Email*

① This is a required field.

Password* 

① This is a required field.

First Name*

① This is a required field.

Last Name*

① This is a required field.

Organization Information

Organization Name

Street Address

Street Address 2

City

State / Province

Postal Code

Country or Region*

 Netherlands

Language

 Select Language

Time Zone

 Select Time Zone

Phone Number

Contact Preference

May HPE provide you with personalized communications about HPE and select HPE partner products, services, offers and events?

Email

Yes

No

Phone

Yes

No

I accept [HPE Terms of Use](#) and agree to the processing of my personal data as described in the [HPE Privacy Notice](#).*

* Required field

Create Account



Task 0.1: Create Account

Create Account for GreenLake Cloud Platform (GLCP)



Verification email sent

To finish signing in, check your email.

- Check your inbox for email from no-reply@auth.hpe.com with subject 'Action Required: Activate your HPE Sign In Account'



HPE Account Registration Activation

Hi René,

Thank you for requesting a Hewlett Packard Enterprise Sign In account.

One final step is required: please verify ownership of your email by activating your account.

[Activate HPE Account](#)

[Get Help](#)

Automatically generated message, please do not respond to this email.

Task 0.1: Create Account

Create Account for GreenLake Cloud Platform (GLCP)

- Click the icon on the top right and then click on 'Manage Account' under the HPE GreenLake Administration



Task 0.1: Create Account

Create Account for GreenLake Cloud Platform (GLCP)

- Click on Dashboard and from there Launch the Aruba Central application

The screenshot shows the HPE GreenLake dashboard interface. At the top, there is a navigation bar with icons for Home, Dashboard (which is highlighted with a red dashed border), Applications, and Manage. To the right of the navigation are icons for Notifications, Help, and User Profile (Rv). Below the navigation, there is a large blue circular profile picture with a white letter 'S' in it. To the right of the profile picture, the text "Manage Account" is displayed in bold, followed by the sub-instruction "Manage your HPE GreenLake company account." Further down the page, there is a section titled "Featured Applications" containing a card for "Aruba Central". The "Aruba Central" card has a yellow background and contains the following text:

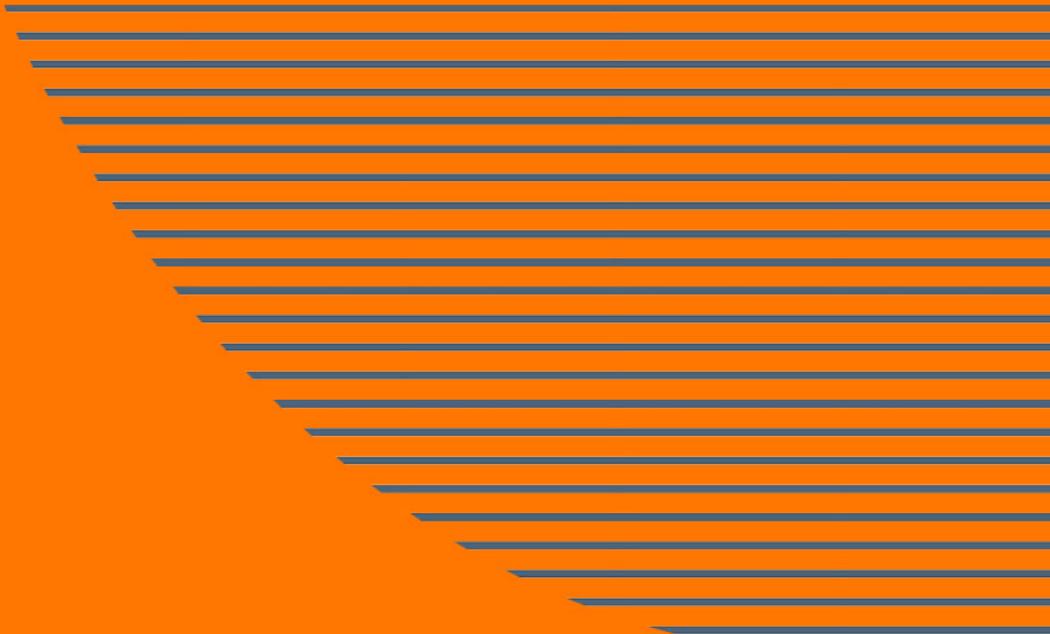
Aruba Central
Network management system designed to simplify the deployment and maintenance of Aruba wired and wireless infrastructure at scale

[Launch](#)

[View Networking Products](#)

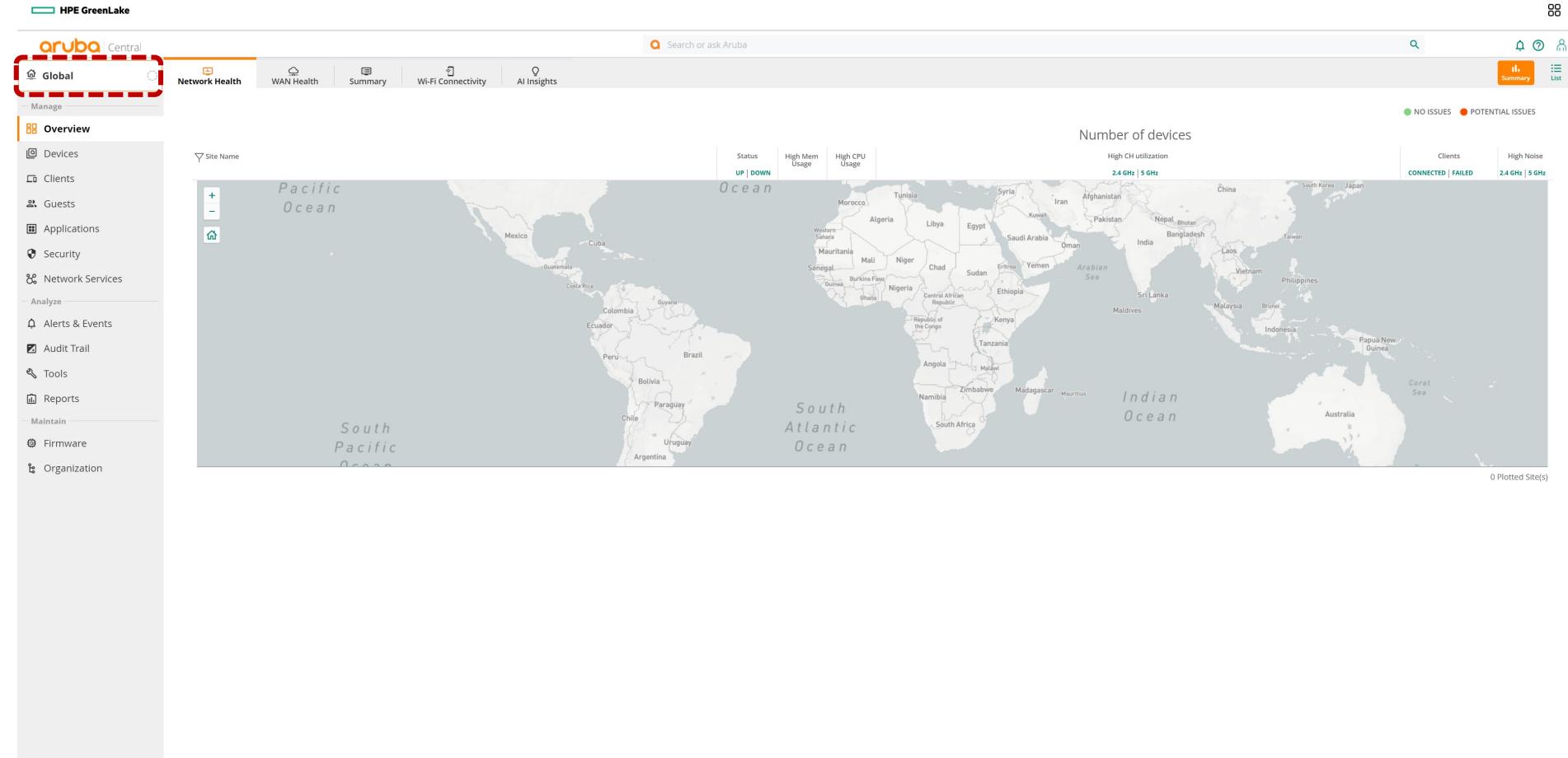
Getting Started with Central

Your turn...



Task 0.5: Central Landing Page

- Open Central:
Applications -> Aruba Central -> Launch
- Explore Landing Page
- Most important feature:
 - Context settings



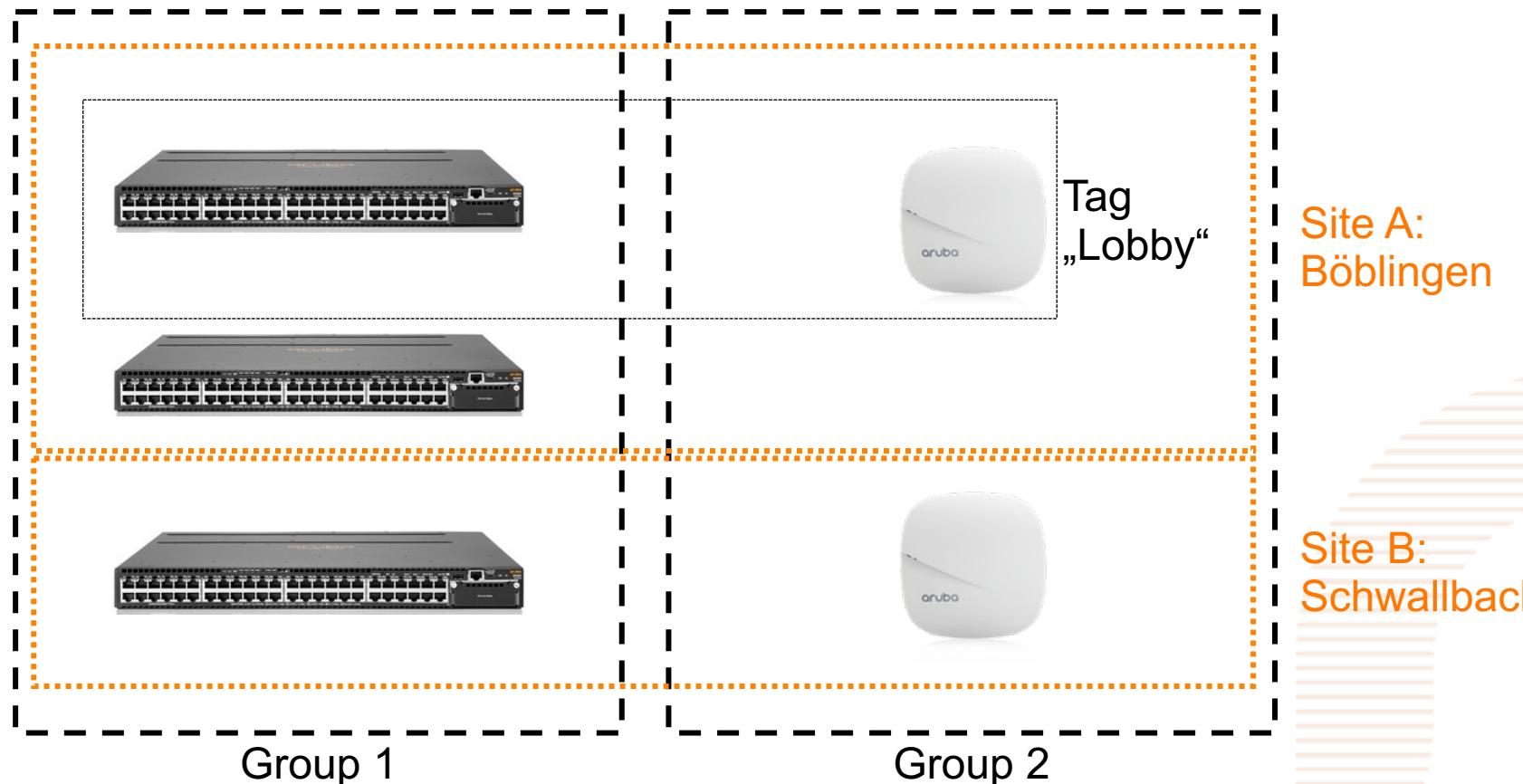
Think in Constructs

Groups, Sites and Labels – Example

Configuration within a group

Assigning to sites for better maintenance and visibility

Assigning tags for custom added information



Task 0.5: Explore Central UI Landscape

The screenshot shows the Aruba Central user interface with several key components highlighted:

- Top Header; AI Search Bar**: Located at the top right, featuring a search bar labeled "Search or ask Aruba".
- Context Filter**: A dropdown menu on the left side of the header.
- First Level Tabs**: Tabs for Network Health, WAN Health, Summary, Wi-Fi Connectivity, and AI Insights.
- View Selector**: Options for "Summary" and "List" views, located in the top right corner.
- Number of devices**: A map of the world showing device distribution across continents.
- Working Area**: The main content area where network data is displayed.
- Context Menu**: A dropdown menu on the left side of the Working Area.
- Left Sidebar**: A navigation menu with sections: Manage, Overview, Devices, Clients, Guests, Applications, Security, Network Services, Analyze, Alerts & Events, Audit Trail, Tools, Reports, Maintain, Firmware, and Organization.
- HPE GreenLake**: A logo in the top left corner.

Especially understand how the Context filter works and what it does



Task 0.5: Check out supporting documents

Documented Supported Devices, Release Notes, and Ports

The screenshot shows the Aruba Central dashboard. On the left, there's a navigation sidebar with sections like Global, Overview, Manage, Analyze, Maintain, and Organization. The main area features a world map with various countries highlighted in different shades of gray, representing the number of devices. Overlaid on the map are several status indicators: 'AI Insights' (High, Medium, Low), 'Status' (Up, Down), 'High Mem Usage', 'High CPU Usage', and 'High CH utilization' (2.4 GHz, 5 GHz). A search bar at the top right says 'Search or ask Aruba'. To the right of the map is a 'SUPPORT' sidebar, which is highlighted with a red dashed border. This sidebar contains sections for 'Get help through these useful links' (TUTORIALS, FEEDBACK, DOCUMENTATION CENTER, GET HELP ON THIS PAGE, AIRHEADS COMMUNITY, VIEW / UPDATE CASE, OPEN NEW CASE), 'Chat with a support agent' (with a note about quick replies and a 'New conversation' button), and 'Support case management' (with a 'Create new case' button).

Task 0.5: Check out supporting documents

Documentation Center



Support -> Documentation Center -> Home

Home Terminology Change PDFs FAQs Support Knowledge Base

Search



Monitoring the Network

Network Overview

Network Health

WAN Health—Global

Site Health

User Experience Insight Sensors Integration

Silver Peak Unity EdgeConnect Integration

Network Summary

Wi-Fi Connectivity

Topology

Floor Plans

Audit Trail

You are here: Home > Aruba Central Overview > Monitoring the Network > Network Health



Network Health Dashboard

The Network Health dashboard displays information of the network sorted by site. This dashboard displays information on network devices and WAN connectivity of individual sites.

To launch the Network Health dashboard, complete the following procedure:

1. In the Aruba Central app, set the filter to Global.
2. Under Manage, click Overview > Network Health to launch the Network Health dashboard.

The Network Health dashboard has two views, you can toggle between them by clicking on the view icons.

- **Summary**— This view displays the vital network information of individual sites on cards mapped by geographical location. Sites are marked with location pins—green pin for a site with no issues and red pin for a site with potential issues. Hover over a pin to view more details about a site in a card view. When there are multiple sites in a region and cannot be displayed as individual pins on the map view, they appear as numbers on a round pin in the condensed view. The pin color is red if it has one site in the Down status and green if all the sites are Up. Click the pin to zoom in and view the sites on the map.

The pin on the map changes to red when the value in one of the following parameters in the List view is greater than zero for the Down status:

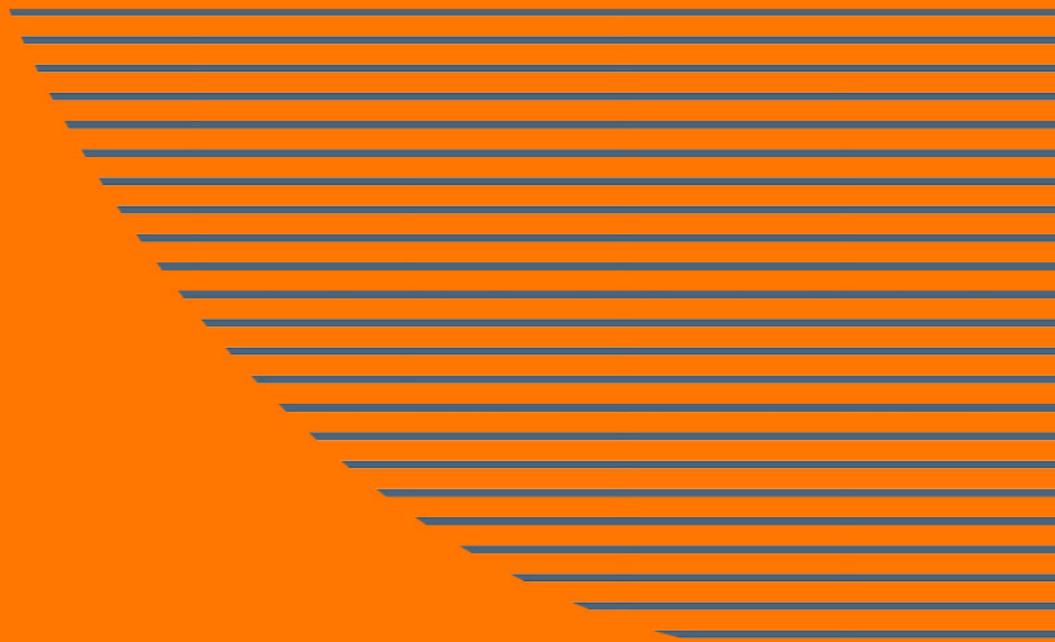
- EdgeConnect Status
- Number of devices
 - Status
 - High Mem Usage
 - High CPU Usage
 - High CH Utilization
 - High Noise
- Uplink Status
- Tunnels Status

The following table lists the information displayed in a Network health card:

Table 1: Network Health Card



Lab 1: Get to know Groups & Sites



Lab 1

Get to know Groups & Sites

1. Create the Group “AP-Config”
2. Create a Template Group & delete it
3. Assign devices to groups
4. Create the Sites “Coffee Shop” and “HPE Aruba Networking”
5. Assign devices to Sites
6. Set passwords for groups
7. Set Country Code and Timezone
8. Create RF-Profile
9. Rename your AP



Task 1.1: Create UI Group

The screenshot shows the Aruba Central dashboard under the 'Global' tab. The main content area is divided into several sections:

- Groups:** Shows 1 group and 0 unprovisioned devices. This section is highlighted with a red box.
- Sites:** Shows 0 sites and 1 unassociated device.
- Labels:** Shows 0 labels and 1 unassociated device.
- Install Manager:** Shows 0 site installations in progress (0 completed) and 0 authorized installers (0 inactive).
- Device Preprovisioning:** Shows 1 device.
- Certificates:** Shows 1 certificate.

The left sidebar includes navigation categories: Manage (Overview, Devices, Clients, Guests, Applications), Analyze (Alerts & Events, Audit Trail, Tools, Reports), and Maintain (Firmware, Organization). The 'Organization' item is highlighted with a red dashed box.

- Navigate to Organization on the left-hand side navigation bar
- Position to configure groups, sites and labels
- Click on Groups first

Task 1.1: Create 1. UI Group

- Click + in the top right corner of the Groups table
- Create a group named: AP-Config
- Group will contain: Access points
- Click Next, select ArubaOS 10 and Campus/Branch
- Click Add to finish group creation

The screenshot shows the Aruba UI interface for managing device groups. At the top, there is a search bar and a '+' icon. Below it, a table titled 'Groups (1)' displays one group entry: 'All connected devices (0)' and 'Unprovisioned devices (0)'. A 'default' row is also visible.

The main focus is the 'Add Group' dialog box. It has the following fields:

- Name:** AP-Config
- Group will contain:**
 - Access points
 - Gateways
 - Switches
- Configure using templates:** A toggle switch is turned off. A tooltip below it says: "Enable this option to use scripts/templates instead of device configuration pages."
- Buttons:** 'Cancel' and 'Next' (highlighted with a red dashed box).

Below the 'Add Group' dialog, another 'Add Group' dialog is partially visible, showing options for architecture (ArubaOS 10 selected), network role (Campus/Branch selected), and a checkbox for preferred group settings. The 'Add' button in this dialog is also highlighted with a red dashed box.

Task 1.1: Create 2. UI Group

- Click + in the top right corner of the group's table
- Create a group named: Switch-Config
- Group will contain: Switches
- Click Next, select AOS-CX only
- Click Add to finish group creation

What is the purpose of groups in Aruba Central?

Add Group

Name: Switch-Config

Group will contain:

Access points
 Gateways
 Switches

Configure using templates

Enable this option to use scripts/templates instead of device configuration pages.

Cancel **Next**

Add Group

Type of switches used in this group:

AOS-CX only AOS-S only Both AOS-CX and AOS-S

Make these the preferred group settings

Cancel **Add**

Task 1.2: Create Template Group

- Follow the same process but toggle Template Group mode this time
- See the difference in the group table
- Delete the template group you just created, we will not work with it (hover over the group and select *Delete Group* on the right side)

Add Group

Name: Switch-Config-Template

Group will contain:

Access points
 Gateways
 Switches

Configure using templates

For switches

Select the types of devices that will use templates for configuration. Manage templates in the Devices section for that group.

Groups (4)

Combine devices with common configuration into a single group to apply the same configuration

Group Name
All connected devices (2)
Unprovisioned devices (2)
default (0) ★
AP-Config (0)
Switch-Config (0)
TG Switch-Config-Template (0)

Cancel Next

Task 1.3: Add devices to groups

- Select devices and move to groups
 - AP -> AP-Config

Groups (2)
Combine devices with common configuration into a single group to apply the same configuration

Group Name	
All connected devices (1)	

Device Name	Type	Serial Number	MAC Address
34:3a:20:c3:ea:9a	Access Point	CNP2KPPPMF	34:3A:20:C3:EA:9A

Unprovisioned devices (0)

- default (1) ★
- AP-Config (0)

Move Devices

1 selected devices will be moved from 'All connected devices' group to

Destination group
AP-Config

Destination group settings:

- ArubaOS 10 architecture
- Campus/Branch access points
- UI Group

The devices will adopt the destination group configuration

Cancel **Move**

- Select Device
- Select *Move devices*
- Pick desired Group
- *Move*

1 item(s) selected
 Clear

Move Devices

Task 1.4: Create Sites

The screenshot shows the Aruba Central dashboard. On the left, there is a navigation bar with sections like Global, Network Structure, Platform Integration, and Organization (which is highlighted with a red dashed box). The main area has several cards: 'Groups' (1 group, 0 unprovisioned devices), 'Sites' (0 sites, 1 unassociated device, highlighted with a red box), 'Labels' (0 labels, 1 unassociated device), 'Install Manager' (0 site installations in progress, 0 completed, 0 authorized installers), 'Device Preprovisioning' (1 device), and 'Certificates' (1 certificate).

- Navigate to Organization on the left-hand side navigation bar
- Click on Sites

Task 1.4: Create Site



Add HPE Aruba
Networking Site:

CREATE NEW SITE X

SITE NAME

HPE Aruba Networking

STREET ADDRESS

Stroombaan 16

CITY

Amstelveen

Netherlands



Noord-Holland



ZIP/POSTAL CODE

1181 VX

LATITUDE (OPTIONAL)

LONGITUDE (OPTIONAL)

Add



Task 1.5: Assign Devices to Site

◀ | Manage Sites

Drag And Drop Devices To Add To A Site

To Select Multiple Devices Shift+Click Or Ctrl+Click

Convert Labels To Sites

– Go to Organization -> Sites

– By Drag and Drop – Assign AP to the Site „HPE Aruba Networking“

▽ Site Name	▽ Address	Device C...
All Devices		1
Unassigned		1
HPE Aruba N...	Stroombaan 16	0

▽ Name	▽ Group	▽ Type
34:3a:20:c3:ea:9a	AP-Config	IAP



CONFIRM ACTION

⚠ Do you want to move selected devices to the Site – HPE Aruba Networking

Yes

No

Task 1.6: Set passwords for group

The screenshot shows the Aruba Central management interface. A red dashed box labeled '1' highlights the 'AP-Config' group in the sidebar. A red dashed box labeled '2' highlights the 'Devices' section in the sidebar. A red dashed box labeled '3' highlights the 'Config' button in the top right corner. A red arrow points from the 'Config' button to a modal window titled 'SET DEVICE PASSWORD'. The modal contains instructions: 'Please set a password for access points in the group AP-Config'. It has two input fields: 'Password:' and 'Confirm Password:', both currently empty. A red dashed box labeled '31' is at the bottom right of the slide.

1 AP-Config

2 Devices

3 Config

31

SET DEVICE PASSWORD

Please set a password for access points in the group AP-Config

Password:

Confirm Password:

Set Password

Task 1.7: Set Country Code for group

- Change context to *AP-Config* group
- Select *Devices*
- Select *Show Advanced*
- Select *System*
- Set Country code for group: NL - Netherlands
- Set Timezone to Amsterdam

The screenshot shows the Aruba Central interface. A red dashed box labeled '1' highlights the 'AP-Config' section in the left sidebar. A red dashed box labeled '2' highlights the 'Devices' section in the left sidebar. A red dashed box labeled '3' highlights the 'Show Advanced' button in the top right corner of the main content area. The main content area shows a 'Wireless SSIDs' table and a configuration panel for 'System' settings. The 'General' tab is selected. Under 'Set Country code for group:', the dropdown menu is set to 'NL - Netherlands'. Under 'Timezone:', the dropdown menu is set to 'Amsterdam UTC+01'. A note says 'Please update device country code at device level'.

1 AP-Config

2 Devices

3 Show Advanced

System

General

Set Country code for group : NL - Netherlands

Please update device country code at device level

Timezone : Amsterdam UTC+01

Task 1.8: Create new RF Profile

- Change context to *AP-Config* group
- Select *Devices*
- Select *Radios*
- Click *Add Profile*

The screenshot shows the Aruba Central web interface. A red dashed box labeled '1' highlights the 'AP-Config' section in the left sidebar. A red dashed box labeled '2' highlights the 'Devices' section in the left sidebar. A red dashed box labeled '3' highlights the 'Radios' tab in the top navigation bar of the main content area. A red dashed box labeled '4' highlights the '+ Add Profile' button at the bottom of the Radio Profiles table.

aruba Central

Customer: Eberspächer

AP-Config

Manage

Overview

Devices

Clients

Guests

Applications

Security

Analyze

Alerts & Events

Search or ask Aruba

Access Points

WLANS Access Points Radios

Summary List Config

Show Advanced

Access Points

WLANS Access Points Radios

Summary List Config

Show Advanced

RF Coverage

Configuration of wireless optimization is set at the global level and applies to radios with automatic assignment.

Radio Profiles (1)

Name	Action
default	

+ Add Profile

1 Radio Profile(s)



Task 1.8: Create new RF profile

← | ADD PROFILE

1 Name : Skills-RF

2 Allowed Channels : 1,6,11

3 Allowed Transmit Power : Min 6 dBm - 12 dBm Max 15 dBm - 21 dBm

4 Show advanced settings ALLOWED CHANNELS - 5 GHZ

Channel bandwidth Minimum 20MHz Maximum 20MHz

Click on channels to allow/disallow them.

Channel	36	40	44	48	52	56	60	64	100	104	108	112	116	120	124	128	132	136	140	149	153	157	161	165
20 MHz	-----																							
40 MHz	-----																							
80 MHz	-----																							
160 MHz	-----																							

CANCEL OK

- Fill in the Name: Skills-RF
- Click on Allowed Channels for 5GHz
- Change Maximum to 20MHz
- Click OK and Save

Task 1.9: Rename your AP

- Change context to *AP-Config* group
- Select *Devices*
- Select *Show Advanced*
- Select *Access Points*
- Hover over your AP and select *EDIT* on the right side

The image consists of three screenshots of the Aruba Central web interface, each with numbered callouts (1, 2, 3) indicating specific actions:

- Screenshot 1:** Shows the main navigation bar with "Customer: Eberspächer...". A red dashed box highlights the "AP-Config" button in the top left. In the top right, there are buttons for "Summary", "List", and "Config". A red arrow points from callout 1 to the "Config" button.
- Screenshot 2:** Shows the "Access Points" page under the "AP-Config" section. A red dashed box highlights the "Devices" button in the sidebar. A red arrow points from callout 2 to the "Devices" button.
- Screenshot 3:** Shows the "Access Points" page under the "AP-Config" section. A red dashed box highlights the "Access Points" tab in the top navigation bar. A red arrow points from callout 3 to the "Access Points" tab.

Bottom Panel: Shows the "Access Points" table with one entry:

Name	Status	IP Address	WLANs	Radio Profile	Type
AP-303	Online	192.168.178.48	All SSIDs selected	default	AP-303P

Task 1.9: Rename your AP

The screenshot shows the Aruba Central interface for managing Access Points. The top navigation bar has tabs for WLANS, Access Points (selected), Radios, Interfaces, Security, Services, System, IoT, and Configuration Audit. Below this is a sub-navigation bar for Access Points / AP-303 with tabs for System (selected), WLANS, Radio, Uplink, Installation Type, and Mesh. A 'Hide Advanced' button is on the right.

Step 1: In the 'Name:' field, the value 'AP-00' is highlighted with a red dashed box. The 'System' tab is selected.

Step 2: The 'Radio' tab is selected, highlighted with a red dashed box.

Step 3: The 'RADIO PROFILE:' dropdown is open, showing 'Skills-RF' selected, highlighted with a red dashed box.

Step 4: The 'Save Settings' button at the bottom left of the configuration panel is highlighted with a red dashed box.

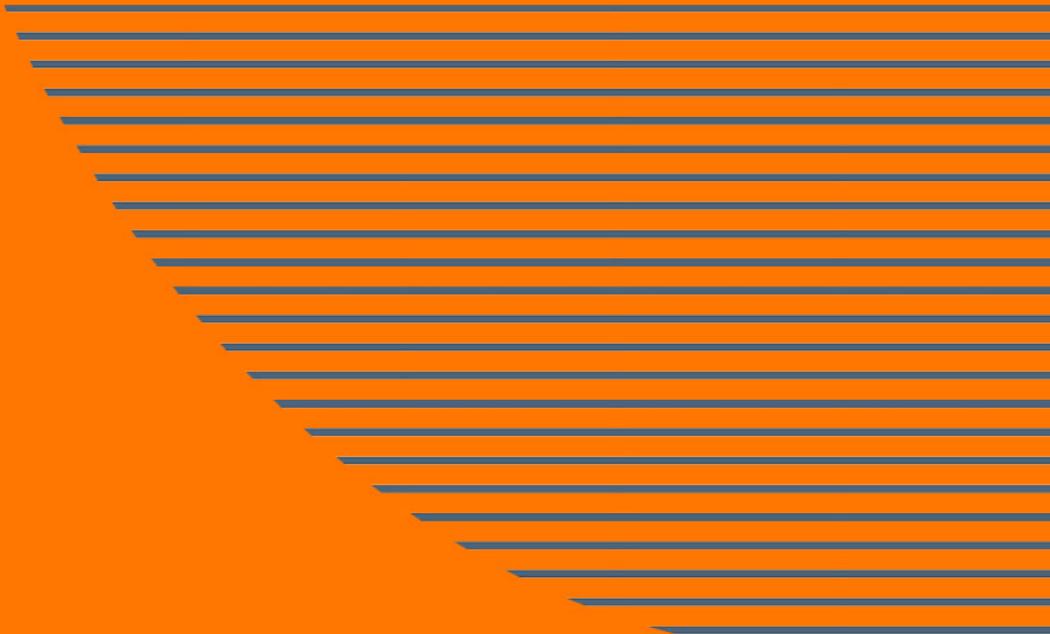
Result: The bottom right corner shows the updated Access Points list table. The row for AP-00 now shows 'Radio Profile' as 'default' and 'Type' as 'AP-303P'.

Name	Status	IP Address	WLANS	Radio Profile	Type
AP-00	Online	192.168.178.48	All SSIDs selected	default	AP-303P

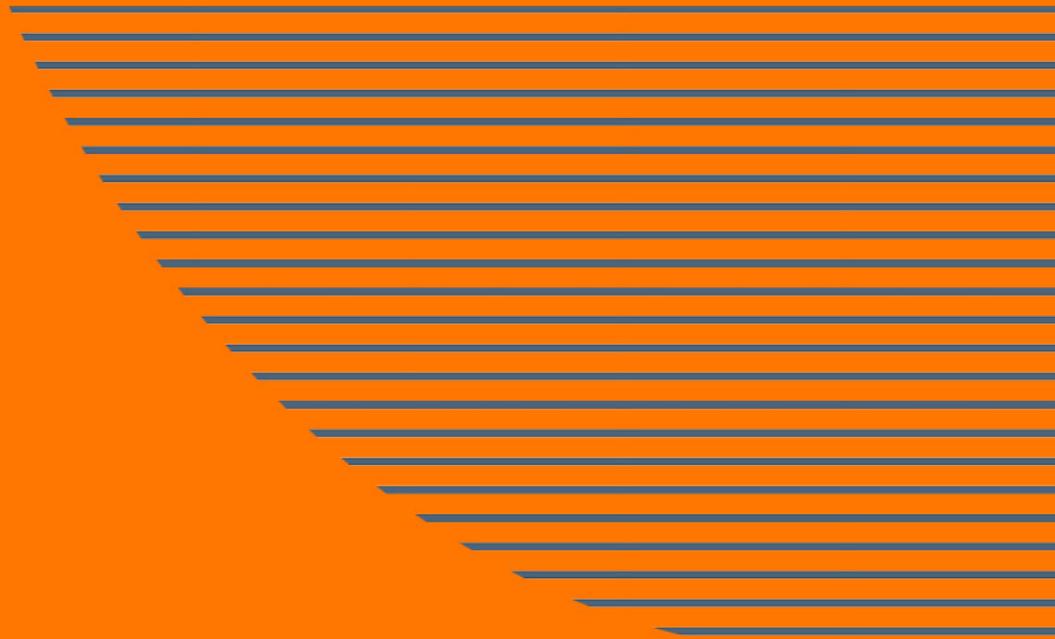
- Change name to for example AP-01
- Select Radio tab
- Select newly created Radio Profile
- Save Settings
- Check that AP has your desired name and Radio Profile

Lab 1: Get to know Groups & Sites

Your turn...



Lab 2: Wireless Configuration in Central



Lab 2

Wireless Configuration in Central

1. Switch to Context “AP-Config”
2. Create a basic PSK SSID
3. Apply advanced Settings
4. Verify connectivity with client
5. Create a Guest SSID
6. Verify connectivity with client
7. Create Cloud Guest Profile
8. Add new Splash Page to Guest SSID
9. Verify Splash Page with client

Task 2.1: Switch to Context “AP-Config”

Remember how to switch the context? Try yourself before checking out the screenshots on the next slide.

Task 2.1: Switch to Context “AP-Config”

The screenshot shows the Aruba Central dashboard. At the top, there is a navigation bar with tabs: Network Health (selected), WAN Health, Summary, Wi-Fi Connectivity, and AI Insights. Below the tabs is a search bar labeled "Search or ask Aruba". On the right side of the header are icons for search, notifications, help, and user profile.

Customer: Eberspächer... is displayed in the top left. A red dashed box highlights the "Global" context button, which is also highlighted in orange. To the right of the context buttons are two status indicators: "NO ISSUES" (green dot) and "POTENTIAL ISSUES" (red dot).

The main content area has a title "Number of devices" and a map of Stuttgart, Germany, showing various locations like Warmbronn, Rotwildpark bei Stuttgart, Büsnau, and Degerloch. The map includes a legend for device counts: MEDIUM (blue) and LOW (green). Below the map are several filter and status buttons:

- AI Insights: MEDIUM | LOW
- Status: UP | DOWN
- High Mem Usage
- High CPU Usage
- High CH utilization: 2.4 GHz | 5 GHz
- Clients: CONNECTED | FAILED
- High Noise: 2.4 GHz | 5 GHz

On the left side, there is a sidebar with sections for "Groups" and "Sites". The "Groups" section contains "AP-Config" (selected, highlighted with a red dashed box), "default", and "Switch-Config". The "Sites" section lists "Aruba Networks" and "Coffee Shop".

- Click context
- Select AP-Config group

Task 2.2: Create a basic PSK SSID

The screenshot shows the Aruba Central web interface. On the left, a sidebar menu includes 'Customer: Eberspächer...', 'AP-Config' (selected), 'Manage' (Overview, Devices, Clients, Guests, Applications, Security), and 'Analyze' (Alerts & Events). The main content area is titled 'Access Points' and shows tabs for 'WLANS' (selected), 'Access Points', 'Radios', 'Interfaces', 'Security', 'Services', 'System', 'IoT', and 'Configuration Audit'. A 'Show Advanced' button is visible. Below this, a section titled 'Wireless SSIDs' contains a table with columns: 'Name (Profile)', 'Security', 'Access Type', 'Traffic forward...', and 'Network Enabl...'. A large circular icon with a grid pattern and the text 'No data to display' is centered. At the bottom, a red box highlights the '+ Add SSID' button. The top right corner shows '0 SSID(s)' and the number '42'.

aruba Central

Customer: Eberspächer...

AP-Config

Manage

- Overview
- Devices
- Clients
- Guests
- Applications
- Security

Analyze

Alerts & Events

Search or ask Aruba

Access Points

WLANS Access Points Radios

Show Advanced

Summary List Config

WLANS Access Points Radios Interfaces Security Services System IoT Configuration Audit Hide Advanced

No data to display

+ Add SSID

0 SSID(s)

42

Task 2.2: Create PSK SSID

General

- Name your SSID: Basic SSID [your student number], for example, Basic SSID 01, if you are student-01
- **Important:** add your number to the name, so you will be able to recognize your SSID

The screenshot shows the Aruba Network Controller interface. At the top, there's a navigation bar with icons for Access Points, Summary, List, and Config. Below it is a tab bar with WLANS selected, followed by Access Points, Radios, Interfaces, Security, Services, System, IoT, and Configuration Audit. A 'Hide Advanced' button is on the right. The main area is titled 'Create a New Network' and shows a five-step wizard: 1 General (highlighted in green), 2 VLANs, 3 Security, 4 Access, and 5 Summary. Step 1 has a sub-section 'Name (SSID):' with 'Basic SSID' entered, which is highlighted with a red dashed box. There's also an 'Advanced Settings' link. At the bottom are 'Cancel' and 'Next' buttons, with 'Next' also highlighted with a red dashed box. To the right of the interface, there's a decorative graphic of a stylized orange and yellow shape.

Create a New Network

1 General > 2 VLANs > 3 Security > 4 Access > 5 Summary

1 Basic SSID

> Advanced Settings

Cancel Next

Task 2.2: Create PSK SSID

VLAN

Create a New Network

What is the difference between the different traffic forwarding modes?

1 General 2 VLANs 3 Security 4 Access 5 Summary

Traffic forwarding mode:

Bridge Tunnel Mixed



Client VLAN Assignment:

Static Dynamic Native VLAN

Use default settings:

- Traffic forwarding mode: Bridge
- Client VLAN Assignment: Native VLAN

Cancel

Back

Next

Task 2.2: Create PSK SSID

Security

- Choose Security Level Personal
- Select WPA3-Personal
- Set password which you will remember

Create a New Network

1 General 2 VLANs 3 Security 4 Access 5 Summary

Security Level: Personal Enterprise Personal Visitors Open

Key Management: WPA3-Personal ▾

Passphrase Format: 8-63 chars ▾

Passphrase: Aruba123!

Retype:

> Advanced Settings

Cancel Back Next

Task 2.2: Create PSK SSID

Access Control

Create a New Network

1 General > 2 VLANs > 3 Security > **4 Access** > 5 Summary

Access rules

Role Based Network Based Unrestricted

Access Rules For Selected Roles

- Allow any to all destinations

+ Add Rule

1 Rule(s)

– Select *Network-Based* Access Control
– Leave default role: Allow any to all destinations

Cancel Back **Next**

Task 2.2: Create PSK SSID

Finish

– Check summary

– Click *Finish* and create SSID

– OK

The screenshot shows a network configuration interface with the following details:

General		Security	
ESSID	Basic SSID	Security Level	Personal
Multicast Optimization	disabled	Key Management	WPA3-Personal
Band	all	MAC Authentication	disabled
DTIM Interval	1 beacons	VLANs	
Primary Usage	employee	Traffic forwarding mode	Bridge
Inactivity Timeout	1000 secs	Client VLAN Assignment	Native VLAN
Dynamic Multicast OPT	disabled	VLAN	
Content Filtering	disabled	Access	
Airtime	unlimited	ROLE ASSIGNMENTS FOR AUTHENTICATED USERS	disabled
Hide SSID	disabled	Enforce Mac Auth Only Role	disabled
Broadcast filtering	none	Assign Pre-Authentication Role	disabled
Transmit Rates (legacy Only)	2.4 GHz Min: 1Mbps Max: 54Mbps	Enforce Machine Authentication	disabled
	5 GHz Min: 6Mbps Max: 54Mbps		

A large callout box labeled "SUCCESS" contains the text "Basic SSID is Configured Successfully". An "OK" button is highlighted with a red dashed box and an arrow points from it to the "Finish" button at the bottom right, which is also highlighted with a red dashed box.

Bottom buttons: Cancel, Back, Finish

Task 2.3: Apply Advanced Settings

The screenshot shows the Aruba Central interface. The left sidebar has sections for Customer (Eberspächer...), AP-Config (selected), Devices, Clients, Guests, Applications, Security, and Analyze. The main area is titled "Access Points" and shows "Wireless SSIDs". A red dashed box highlights the "Show Advanced" button in the top right corner of the main content area.

- In advanced settings, select Services
- Open AppRF and choose Deep Packet Inspections: All
- Select Save Settings

The screenshot shows the "AppRF™" configuration screen. It includes fields for "Deep Packet Inspection:" (set to "All"), "Application Monitoring :" (with a toggle switch turned on), and "AirSlice Policy :" (with a toggle switch turned off). A red dashed box highlights the "All" option under "Deep Packet Inspection".

The screenshot shows the "Services" configuration screen. It lists several services: Real Time Locating System (Aruba), BLE Asset Tag Mgmt, Server(wss), Server(https), and 3rd Party (CALEA, Network Integration, Dynamic DNS, AppRF™, SIP). A red dashed box highlights the "All" option under "Deep Packet Inspection" in the AppRF™ section.

Task 2.4: Verify configuration has been pushed to the device

The screenshot shows the Aruba Central interface for managing Access Points. The top navigation bar includes tabs for WLANs, Access Points (selected), Radios, Interfaces, Security, Services, System, IoT, and Configuration Audit. A red dashed box highlights the 'Configuration Audit' tab. To the right are Summary, List, and Config buttons, along with a 'Hide Advanced' link.

OVERVIEW

In Aruba Central, the configuration of a virtual controller or switch can be individually modified. Modifications at the device level override the settings inherited from the group. This is known as a 'local override'. Use this view to review any configuration changes between devices and their parent group. Occasionally a Central managed device will fail to receive a configuration change from Central, and if this condition exists for any device in this group, you'll see it as a 'configuration sync issue'. If the condition persists, contact Aruba support.

AUTO COMMIT STATE

The group is set to Auto commit state **ON** ([Change to Auto commit state OFF](#))

⚠️ The group auto-commit is not applicable for Gateways on the Configuration Audit page.

Auto Commit State: ON 1 Device View & Edit	Auto Commit State: OFF 0 Device View & Edit
--	---

LOCAL OVERRIDES & CONFIGURATION SYNC ISSUES

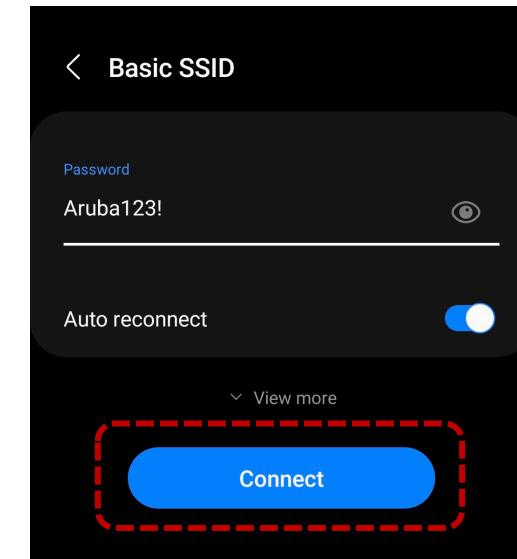
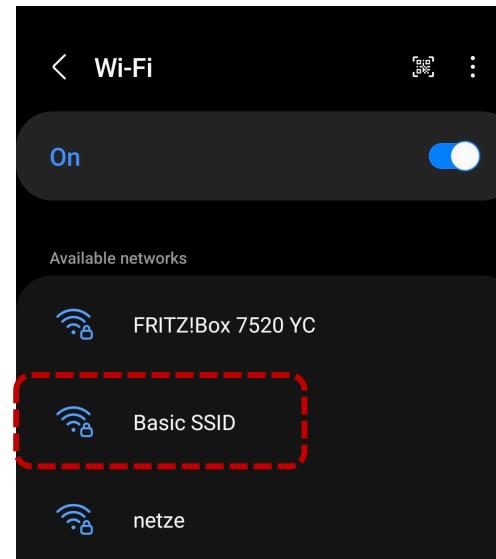
Configuration Status: **Not In Sync 0 Device** (with a red arrow pointing to this item)
[View Details](#)

Local Overrides: **0 Device**
[Manage Local Overrides](#)

- In advanced settings, select *Configuration Audit*
- Check Not In Sync 0 Device

Task 2.4: Verify connectivity with client

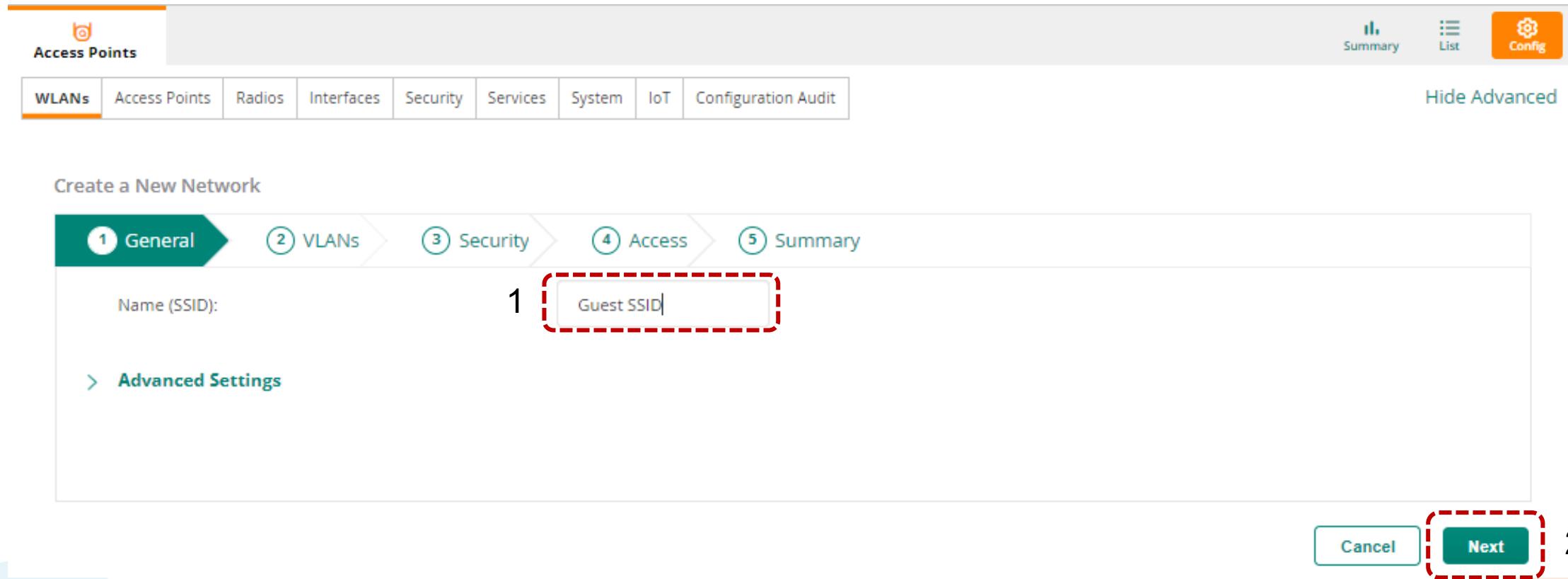
- Check for SSID with your Smartphone
 - Settings -> Connections -> Wi-Fi -> Check available networks
- Connect to your *Basic SSID XX* network
- Browse with your Smartphone to check if you get connectivity from your network



Task 2.5: Create Guest SSID

General

- Name your Guest SSID: Guest SSID [your student number], for example, Guest SSID 01, if you are student-01
- **Important:** add your number to the name, so you will be able to recognize your SSID



Task 2.5: Create Guest SSID

VLAN

Create a New Network

1 General 2 VLANs 3 Security 4 Access 5 Summary

Traffic forwarding mode:

Bridge Tunnel Mixed

Client VLAN Assignment:

Static Dynamic Native VLAN

[Cancel](#) [Back](#) [Next](#)

Use default settings:

- Traffic forwarding mode: Bridge
- Client VLAN Assignment: Native VLAN

Task 2.5: Create Guest SSID

Security

- Select the following options to create a network with a basic captive portal:
- Security Level: *Visitors*
- Type: *Cloud Guest*
- Profile: *Default*
- *Next*

Create a New Network

1 General 2 VLANs 3 Security 4 Access 5 Summary

Security Level: Enterprise Personal **Visitors** Open

Access Network

Type: Cloud Guest

Guest Captive Portal Profile: default

Encryption: Off

Key Management: Open ▾

> Advanced Settings

Cancel

Back

Next

Task 2.5: Create Guest SSID

Security

Create a New Network

1 General 2 VLANs 3 Security 4 Access 5 Summary

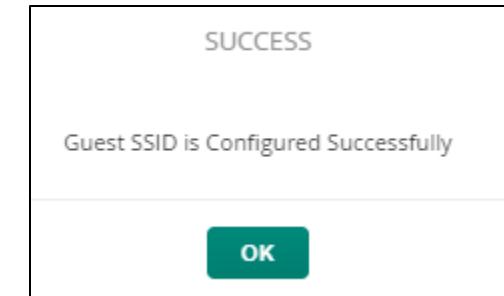
Access rules

Role Based Network Based **Unrestricted**

⚠️ Unrestricted option allows full access to the network. This may lead to potential security issues.

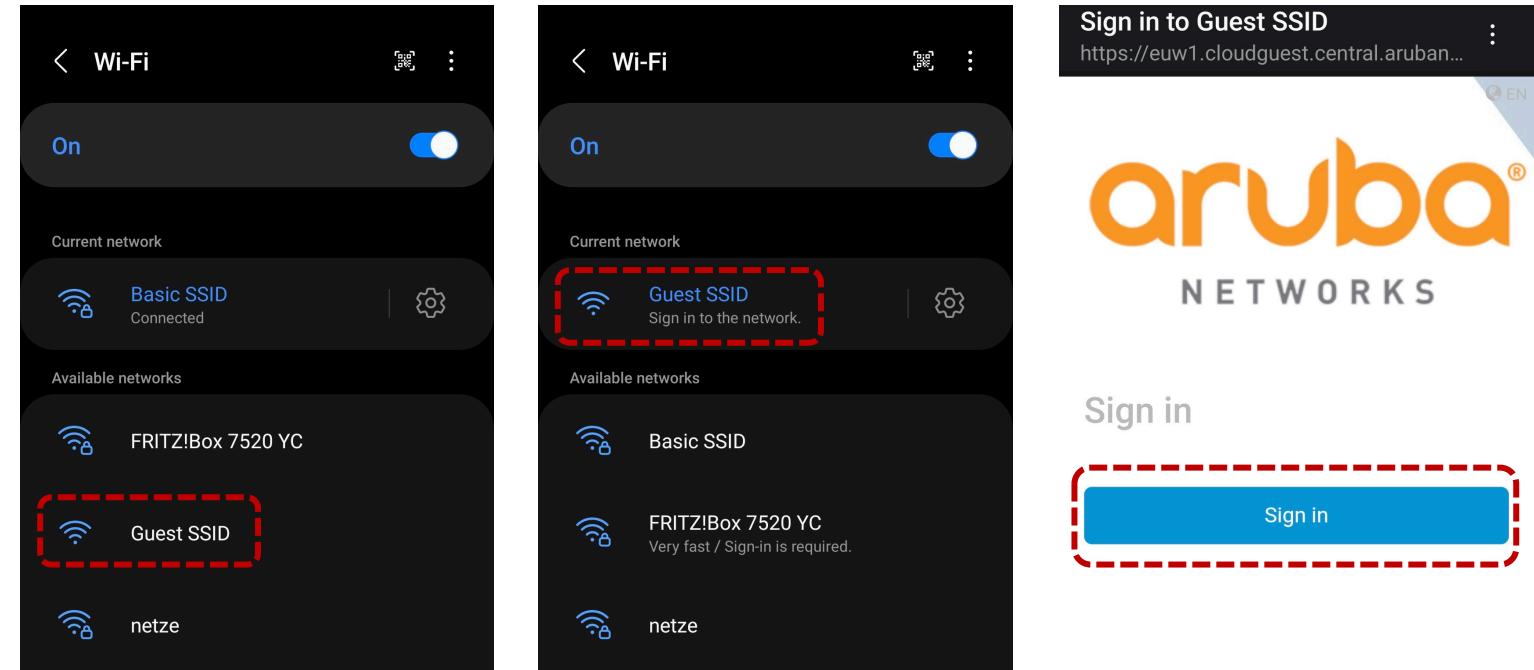
Cancel Back **Next**

- Keep *Unrestricted Access* rules
- *Next*
- Review *Summary* and *Finish*



Task 2.6: Verify connectivity with client

- Check for SSID with your Smartphone
 - Settings -> Connections -> Wi-Fi -> Check available networks
- Connect to your *Guest SSID* XX network through the Splash Page -> *Sign in*
- Browse with your Smartphone to check if you get connectivity from your network



Task 2.7: Create Cloud Guest Profile

Central Guest Splash Page

The screenshot shows the Aruba Central web interface. On the left, a sidebar menu is open, with the 'Guests' option highlighted by a red dashed box and labeled '1'. The main content area shows a 'Splash Pages (1)' list with one item named 'default'. A 'NEW SPLASH PAGE' dialog box is open over this list, labeled '2'. The dialog has three tabs: 'Configuration' (selected), 'Customization', and 'Localization'. The 'Configuration' tab contains fields for Name (set to 'GuestSplashPage'), Type (set to 'Anonymous'), Allow Internet In Failure (disabled), Override Common Name (disabled), Guest Key (disabled), Authentication Success Behavior (set to 'Return to Original URL'), Session Timeout (set to 8 hours), Enable MAC Caching (unchecked), Share This Profile (checked), Daily Usage Limit (set to 'No Limit'), and Allowlist URL (empty). At the bottom right of the dialog are 'Cancel' and 'Next' buttons, with 'Next' being highlighted by a red box.

Task 2.7: Create Cloud Guest Profile

Central Guest Splash Page

NEW SPLASH PAGE

① Configuration ② Customization ③ Localization

Layout: Vertical, better for phones

Background color: #0D2A45

Button color: #FF7600

Header fill color:

Page font color: #bbbbbb

Logo: junior systems engineer logo.png

Background Image:

Browse...

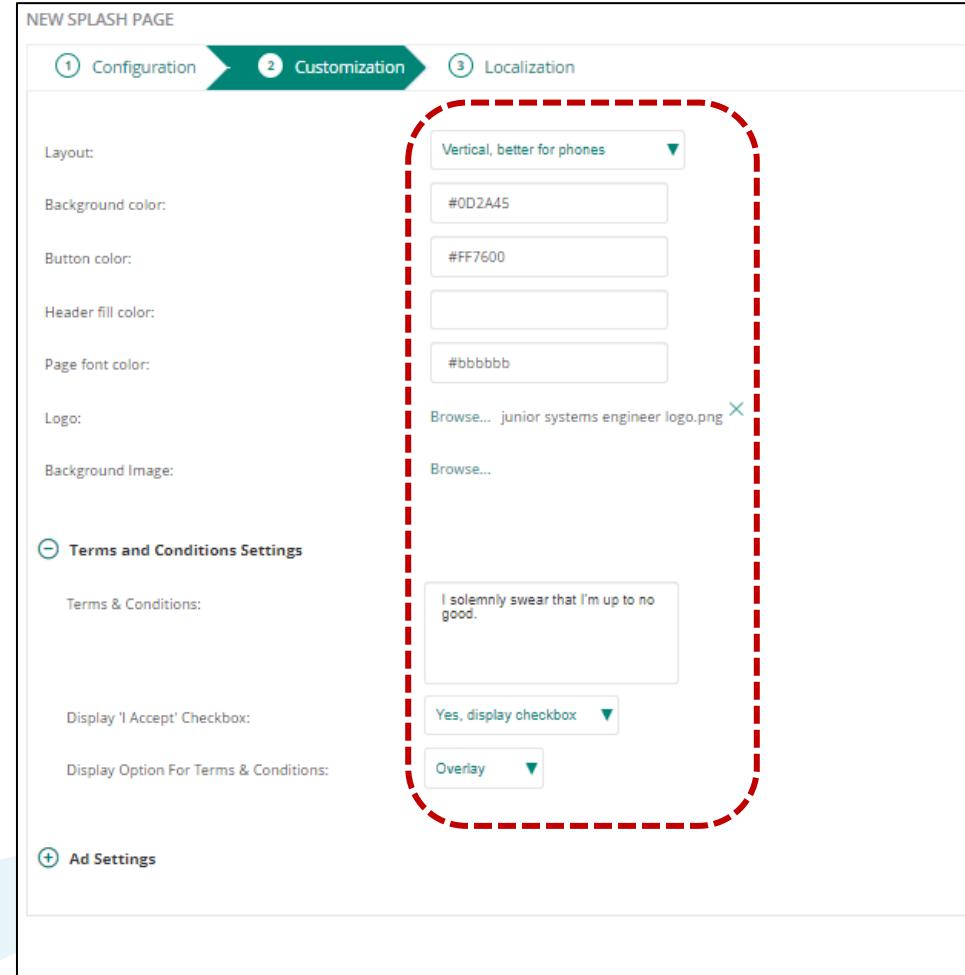
Terms and Conditions Settings

Terms & Conditions: I solemnly swear that I'm up to no good.

Display 'I Accept' Checkbox: Yes, display checkbox

Display Option For Terms & Conditions: Overlay

Ad Settings



NEW SPLASH PAGE

① Configuration ② Customization ③ Localization

Optional fields to localize (translate) guest portal's labels and text

Login Section

Login button title: Sign in

Network login title:

Login page title:

Access denied page title:

Logged in title:

Username label:

Username placeholder:

Password placeholder:

Email address placeholder:

Register button title:

Network login button title:

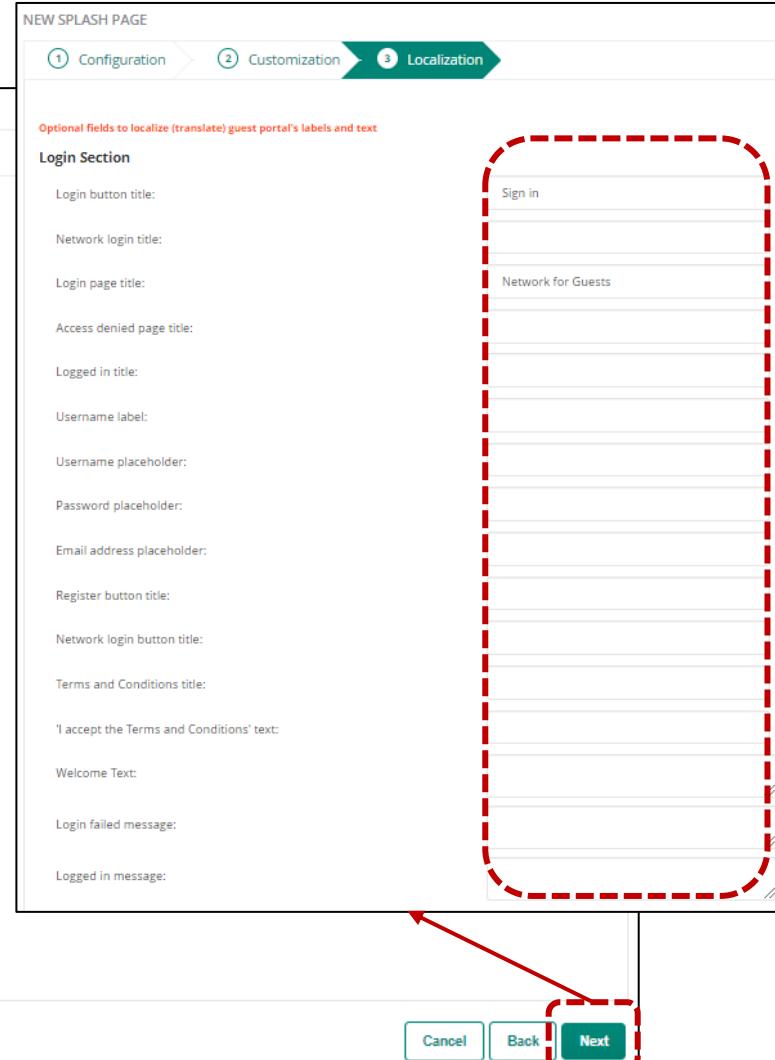
Terms and Conditions title:

'I accept the Terms and Conditions' text:

Welcome Text:

Login failed message:

Logged in message:



- Customize the splash page as you wish
- Check *Preview*
- *Finish* your splash page



Task 2.8: Add new Splash Page to Guest SSID

The screenshot shows the Aruba Central web interface. On the left, a sidebar menu includes options like AP-Config, Overview, Devices, Clients, Guests, Applications, Security, Alerts & Events, Audit Trail, and Tools. The main content area has tabs for WLANS, Access Points, Radios, Interfaces, Security, Services, System, IoT, and Configuration Audit. The WLANS tab is selected. A sub-section titled "Wireless SSIDs" lists two entries: "Basic SSID" and "Guest SSID". The "Guest SSID" row is highlighted with a teal background. A red dashed box highlights the "Guest Captive Portal Profile" dropdown menu in the "Security" tab of the configuration dialog. Another red dashed box highlights the "Save Settings" button at the bottom of the dialog. A red arrow points from the "Guest Captive Portal Profile" dropdown to a success message box. A second red arrow points from the "Save Settings" button to the same success message box. The success message box contains the text "SUCCESS" and "Guest SSID is Configured Successfully" with an "OK" button.

aruba Central

Customer: Eberspächer

AP-Config

Manage

Overview

Devices

Clients

Guests

Applications

Security

Analyze

Alerts & Events

Audit Trail

Tools

Access Points

WLANS

Radios

Interfaces

Security

Services

System

IoT

Configuration Audit

Search or ask Aruba

Summary

List

Config

Hide Advanced

Wireless SSIDs

Name (Profile)	Security	Access Type	Traffic forwarding mode	Network Enabled
Basic SSID	wpa3-sae-aes	Unrestricted	Bridge	Yes
Guest SSID	Captive Portal(external)	Unrestricted	Bridge	Yes

Add SSID

Networks > Configuration - Guest SSID

General VLANs Security Access Summary

Security Level: Enterprise Personal Visitors Open

Access Network

Type: Cloud Guest

Guest Captive Portal Profile: GuestSplashPage

Encryption:

Key Management: Enhanced Open

> Advanced Settings

Cancel Save Settings

SUCCESS

Guest SSID is Configured Successfully

OK

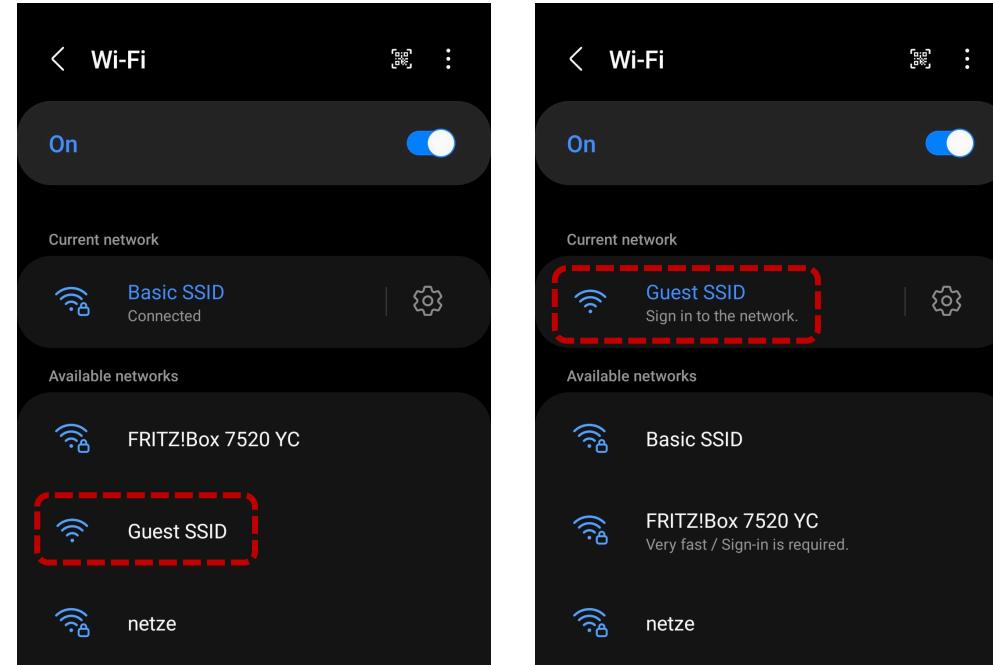
Enterprise Development LP

Privacy Terms of Use Ad Ch

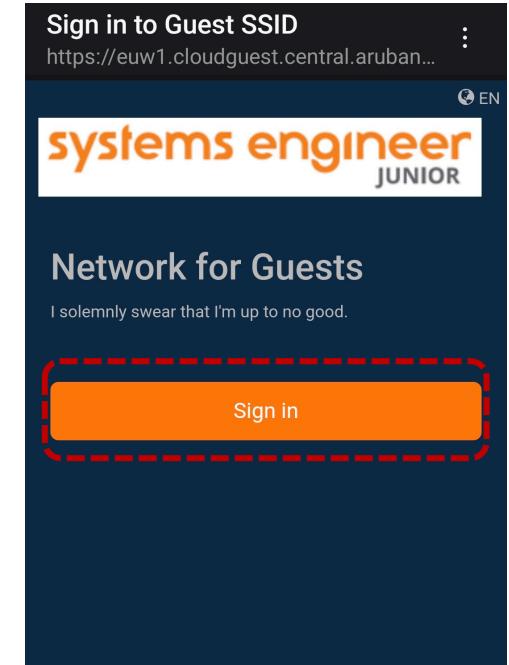
58

Task 2.9: Verify Splash Page with client

- Check for SSID with your Smartphone
 - Settings -> Connections -> Wi-Fi -> Check available networks
- Connect to your *Guest SSID XX* network through the Splash Page -> Check if it looks as expected
- Browse with your Smartphone to see if you get connectivity from your network

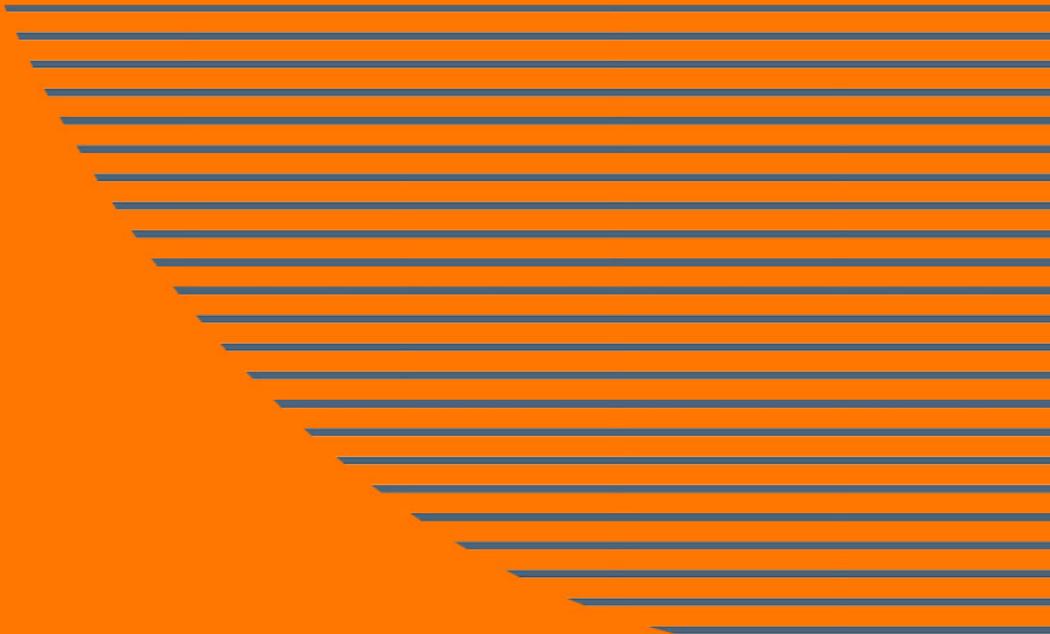


Your individual design



Lab 2: Wireless Configuration in Central

Your turn...



Lab 3: Monitor your Environment



Lab 3

Monitor your Environment

1. Check out Events in your network
2. Configure an Alert
3. Monitor your Clients
4. Spectrum Mode Monitoring
5. Get into CLI Interface of a device
6. Check CLI Troubleshooting Tool
7. Monitor the Wi-Fi Connectivity Dashboard
8. Monitor Site Health Dashboard
9. Monitor App usage

Task 3.1: Check out Events in your network

The screenshot shows the Aruba Central web interface. The top navigation bar includes the Aruba logo, customer name 'Eberspächer...', a search bar, and various navigation icons. On the left, a sidebar menu is open under the 'Global' context, with 'Alerts & Events' highlighted by a red dashed box. The main content area is titled 'Events (52)' and displays a table of event logs. The columns are: Occurred On, Device Type, Event Type, Description, and Collected Data. The events listed are primarily related to client authentication and roaming.

Occurred On	Device Type	Event Type	Description	Collected Data
Dec 5, 2022, 17:56:58	ACCESS POINT	Security	User 192.168.178.40 with MAC 56:8d:b8:69:35:9d was authenticated and the role assigned was Basic SSID	
> Dec 5, 2022, 17:56:49	CLIENT	802.11 De-authentication to Client	De-authentication sent to client 56:8d:b8:69:35:9d from BSSID 9c:8c:d8:59:33:40 on channel 11 of AP hostname AP-00. Re...	
> Dec 5, 2022, 17:56:49	CLIENT	Client Roaming Success	Client 56:8d:b8:69:35:9d associated to BSSID 9c:8c:d8:59:33:40 on channel 11 of AP hostname AP-00 roamed successfully t...	
> Dec 5, 2022, 17:56:49	CLIENT	Client DHCP Acknowledged	DHCP acknowledgement received from DHCP server 192.168.178.1 for client 56:8d:b8:69:35:9d associated to BSSID 9c:8c:...	
> Dec 5, 2022, 17:56:47	CLIENT	Client Roaming Success	Client 56:8d:b8:69:35:9d associated to BSSID 9c:8c:d8:59:33:50 on channel 149E of AP hostname AP-00 roamed successfull...	
> Dec 5, 2022, 17:56:45	CLIENT	802.11 De-authentication to Client	De-authentication sent to client 56:8d:b8:69:35:9d from BSSID 9c:8c:d8:59:33:50 on channel 149E of AP hostname AP-00. R...	
> Dec 5, 2022, 17:56:05	CLIENT	802.11 De-authentication from Cli...	De-authentication sent from client 56:8d:b8:69:35:9d associated to BSSID 9c:8c:d8:59:33:50 on channel 149E of AP hostna...	
Dec 5, 2022, 17:52:55	ACCESS POINT	Security	User 192.168.178.40 with MAC 56:8d:b8:69:35:9d was authenticated and the role assigned was Basic SSID	
> Dec 5, 2022, 17:51:58	CLIENT	Client Roaming Success	Client 56:8d:b8:69:35:9d associated to BSSID 9c:8c:d8:59:33:40 on channel 11 of AP hostname AP-00 roamed successfully t...	
> Dec 5, 2022, 17:51:58	CLIENT	Client DHCP Acknowledged	DHCP acknowledgement received from DHCP server 192.168.178.1 for client 56:8d:b8:69:35:9d associated to BSSID 9c:8c:...	
> Dec 5, 2022, 17:51:57	CLIENT	802.11 De-authentication from Cli...	De-authentication sent from client b6:30:05:71:d7:3d associated to BSSID 9c:8c:d8:59:33:52 on channel 149E of AP hostna...	

- Go to the *Global* context
- Select *Alerts & Events*
- Check out the *Events* in your network,
why are there no Alerts yet?

Task 3.2: Configure an Alert

The screenshot shows the NetworkMiner interface with the following highlights:

- 1**: Top right corner showing the number "1".
- 2**: Top left navigation bar with "Alerts" selected (highlighted by a red dashed box).
- 3**: Top navigation bar with "Config" selected (highlighted by a red dashed box).
- 4**: A specific event entry for "AP Disconnected" highlighted by a red dashed box.

The main area displays "ALERT severities & notifications" for "ACCESS POINT" events. The interface includes:

- A search bar at the top right.
- Filter tabs: USER, ACCESS POINT (selected), SWITCH, GATEWAY, CONNECTIVITY, AUDIT, SITE.
- A "Default Recipients" button and "All | Enabled" link.
- A note: "By Clicking on + icon, you can quickly generate notifications with default notification policy. You can also define the policy by clicking on the tiles. GOT IT"
- Event tiles:
 - New Virtual Controller Detected
 - Virtual Controller Disconnected (checked)
 - New AP Detected
 - AP Disconnected (highlighted by a red dashed box)
 - Rogue AP Detected (checked)
 - Infrastructure Attack Detected
 - Client Attack Detected
 - Uplink Changed
 - Modem Plugged

- Go to the *Config*
- Select *Alerts* and *Access Point*
- Go into *AP Disconnected*

Task 3.2: Configure an Alert

Configure an alert, with *Severity Major* which sends an *Email*, if an AP in the *AP-Config* group is disconnected for *longer than 10 min.*

ACCESS POINT > AP Disconnected

Severity: Critical Major Minor Warning

Duration: 10 mins

Devices Filter Options:

Group: AP-Config

Label: Select the Label

Site: Select the Site

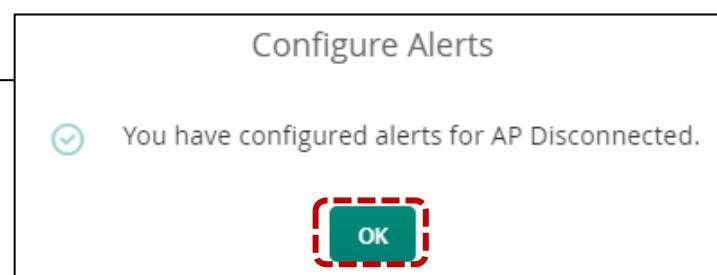
Device: Select the Device

Notification Options:

Email Streaming Webhook

Default recipients (0) Other recipients maxmustermann@gmail.com

Save



Task 3.3: Monitor your Clients

The screenshot shows the Aruba Central web interface. In the top navigation bar, the customer is set to "Eberspächer". The main menu on the left has sections for Global, Overview, Devices, Clients (which is highlighted with a red dashed box), Guests, and Applications. The "Clients" section is currently active. The main content area displays a summary of clients: 2 All, 0 Connecting, 1 Connected, 0 Failed, 1 Offline, 0 Blocked, 2 Wireless, 0 Wired, 0 Remote. Below this is a table titled "CLIENTS" with columns for Client Name, Status, IP Address, VLAN, Connected To, SSID/Port, AP Role, Gateway Role, and Health. A specific client, "Galaxy-S20-FE", is selected and highlighted with a red dashed box. The table row for Galaxy-S20-FE shows it is Connected, with IP address 192.168.178.40, VLAN 1, Connected To AP-00, SSID Basic SSID, AP Role Basic SSID, Gateway Role Basic SSID, and Health Good.

This screenshot shows the detailed view for the client "Galaxy-S20-FE" from the previous screen. The top navigation bar includes "Customer: Eberspächer", "Summary" (highlighted with a red dashed box), "AI Insights", "Location", "Sessions", and "Profile". The left sidebar includes "Manage", "Overview", "Applications", "Security", "Analyze", "Live Events", "Events", and "Tools". The main content area is titled "CLIENT DETAILS" and shows a "DATA PATH" diagram connecting a "CLIENT" (Galaxy-S20-FE) to an "SSID" (Basic SSID UP) which is connected to an "AP" (AP-00 UP) and then to a "SWITCH" (6100 UP). Below the diagram, three large boxes provide detailed information: "CLIENT" (Username: --, Hostname: Galaxy-S20-FE, IP Address: 192.168.178.40, etc.), "NETWORK" (VLAN: 1, AP Role: Basic SSID, etc.), and "CONNECTION" (Channel: 149 (80 MHz), Client Capabilities: 802.11ac, 802.11v, etc.). At the bottom, there is a "THROUGHPUT" section with a graph and the text "Overall Usage: 266.01 MB (Received: 246.83 MB | Sent: 19.17 MB)".

- In the *Global* context, go to **Clients** and select one client to go into details
- Check out which information is available

Task 3.3: Monitor your Clients

- In Search Bar search for clients and select your smartphone
- Go to Live Events, connect your Smartphone with Basic SSID XX, first time with wrong password, second time with the right password and compare the difference

The screenshot shows the NetworkMiner interface with the following details:

Search Results:

- Clients:**
 - IP: 192.168.178.40
MAC: 56:8d:b8:69:35:
NAME: Galaxy-S20-FE
 - IP: 192.168.178.40
MAC: 192.168.178.40
NAME: anonymous

Live Events: A table showing network activity over 6 minutes (Max: 15 minutes). The table includes columns for Occurred On, Device Name, Device Type, Category, and Description.

OCCURRED ON	DEVICE NAME	DEVICE TYPE	CATEGORY	DESCRIPTION
Dec 12, 2022, 16:59:27:329	AP-00	AP	Client ARP Response	ARP response with sender IP 192.168.178.1 and sender MAC 98:9b:cb:37:8c:7c received for target IP 192.168.178.40 and target MAC 56:8d:b8:69:35:9d
Dec 12, 2022, 16:59:27:326	AP-00	AP	Client ARP Request	ARP request with sender IP 192.168.178.40 and sender MAC 56:8d:b8:69:35:9d sent to gateway for target IP 192.168.178.1 and target MAC 98:9b:cb:37:8c:7c
Dec 12, 2022, 16:59:27:083	AP-00	AP	Client DHCP Acknowledged	DHCP acknowledgement received from DHCP server 192.168.178.1 for client 56:8d:b8:69:35:9d (192.168.178.40) associated to BSSID 9c:8c:d8:59:33:52
Dec 12, 2022, 16:59:27:075	AP-00	AP	Client DHCP Request	DHCP request to DHCP Server 192.168.178.1 from client 56:8d:b8:69:35:9d associated to BSSID 9c:8c:d8:59:33:52 on channel 149E of AP hostname AP-00
Dec 12, 2022, 16:59:27:064	AP-00	AP	Client DHCP Offer	DHCP offer from Server IP 192.168.178.1 to client 56:8d:b8:69:35:9d associated to BSSID 9c:8c:d8:59:33:52 of AP hostname AP-00
Dec 12, 2022, 16:59:27:062	AP-00	AP	Client DHCP Discover	DHCP Discover from Client Mac 56:8d:b8:69:35:9d associated to BSSID 9c:8c:d8:59:33:52 of AP hostname AP-00
Dec 12, 2022, 16:59:26:908	AP-00	AP	Client 802.11 Association Key Exchange	Client exchanged key WPA2_KEY4 with BSSID 9c:8c:d8:59:33:52 on channel 149E of AP hostname AP-00 Result: Handshake Success
Dec 12, 2022, 16:59:26:905	AP-00	AP	Client 802.11 Association Key Exchange	Client exchanged key WPA2_KEY3 with BSSID 9c:8c:d8:59:33:52 on channel 149E of AP hostname AP-00 Result: Handshake Success
Dec 12, 2022, 16:59:26:904	AP-00	AP	Client 802.11 Association Key Exchange	Client exchanged key WPA2_KEY2 with BSSID 9c:8c:d8:59:33:52 on channel 149E of AP hostname AP-00 Result: Handshake Success
Dec 12, 2022, 16:59:26:890	AP-00	AP	Client Role Assigned	Role Basic SSID assigned to client 56:8d:b8:69:35:9d associated to BSSID 9c:8c:d8:59:33:52 on channel 149E of AP hostname AP-00
Dec 12, 2022, 16:59:26:887	AP-00	AP	Client 802.11 Association Key Exchange	Client exchanged key WPA2_KEY1 with BSSID 9c:8c:d8:59:33:52 on channel 149E of AP hostname AP-00 Result: Handshake Success

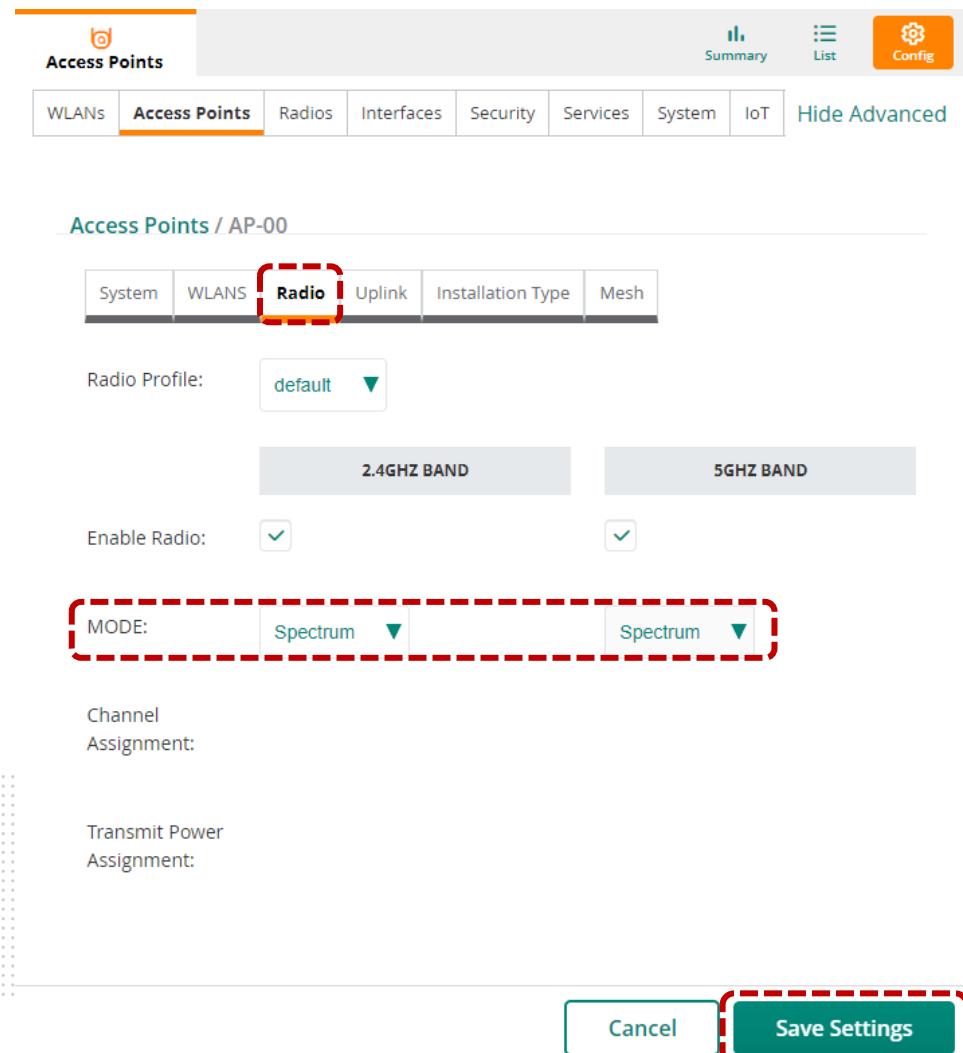
Task 3.4: Spectrum Mode Monitoring

Note: Spectrum monitors (SMs) are AP radios that gather spectrum data but do not service clients.

The image consists of three screenshots of the Aruba Central web interface. The top screenshot shows the main dashboard with a red box around the 'AP-Config' link in the left sidebar and another red box around the 'Config' button in the top right toolbar. A red arrow points from the 'Show Advanced' link in the top right to the second screenshot. The second screenshot shows a sub-menu with a red box around the 'Access Points' tab and another red box around the 'Access Points' link in the top navigation bar. A red arrow points from the 'Access Points' link in the second screenshot to the third screenshot. The third screenshot shows a detailed list of access points with a red box around the 'Access Points' tab in the top navigation bar and another red box around the 'Config' button in the top right toolbar. The table below lists one access point: AP-303, which is online with IP address 192.168.178.48, using the default radio profile, and is of type AP-303P.

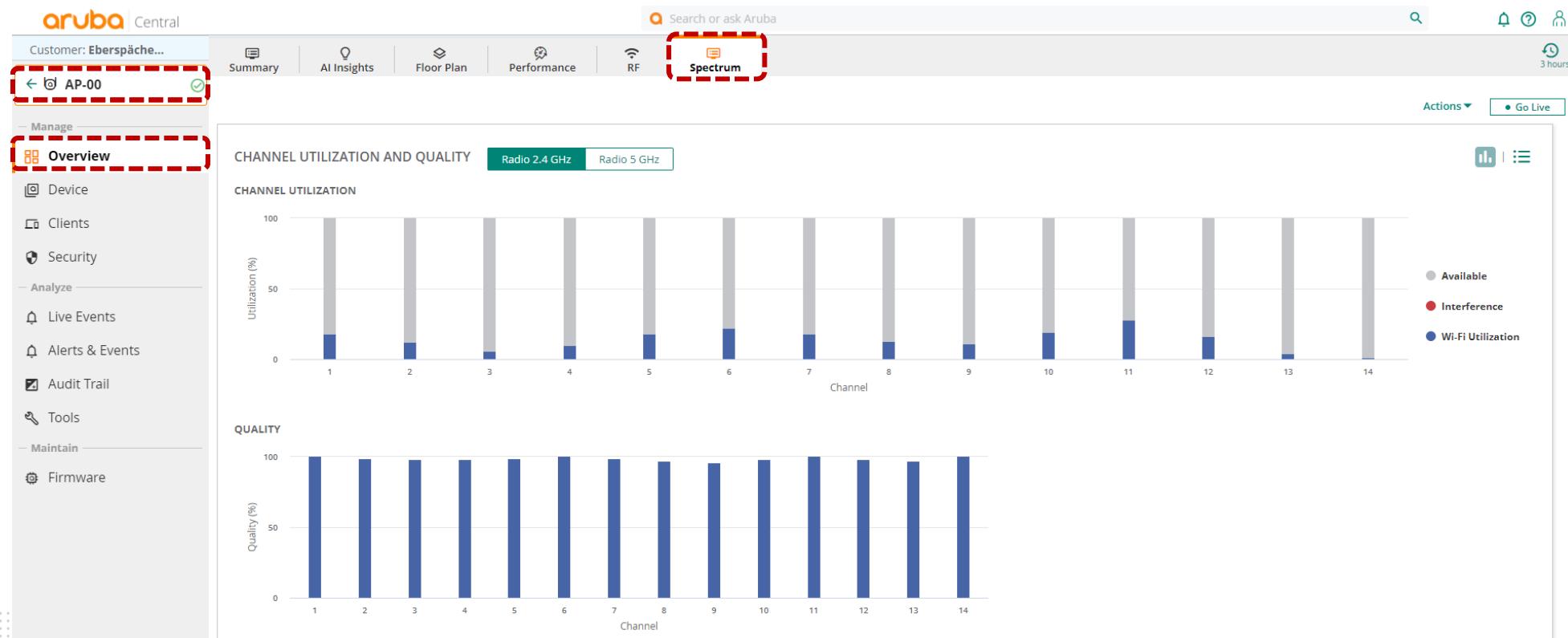
Name	Status	IP Address	WLANS	Radio Profile	Type
AP-303	Online	192.168.178.48	All SSIDs selected	default	AP-303P

Task 3.4: Spectrum Mode Monitoring



- Go to *Radio*
- Change the *mode* of the 2,4 and 5 GHz Radio to *Spectrum*
- *Save Settings*

Task 3.4: Spectrum Mode Monitoring



- Go to the *Spectrum* tab and check out the channel utilization
- **After checking the channel utilization, change the radio mode back to Access**

Info: May take a moment for the AP to switch into spectrum mode

Task 3.5: Get into CLI Interface of a device

- It is also possible to go into the CLI interface of the network devices
- Therefore, on your switch summary page, go to *Actions* and *Console*, insert Username/Password and *Create New Session*

The screenshot shows the Aruba Networks Switch Management interface. On the left, the navigation menu includes sections like Overview, Clients, LAN, Device, Alerts & Events, Audit Trail, and Tools. The main area displays 'SWITCH DETAILS' for a device labeled '6100'. The 'Actions' dropdown menu is open, with 'CONSOLE' highlighted. A red arrow points from the 'CONSOLE' option to a 'Remote Console Session' dialog box at the bottom. This dialog box contains fields for 'Device Type' (set to 'Switch'), 'Username' (set to 'admin'), and 'Password' (redacted). A large red button labeled 'Create New Session' is highlighted with a red dashed box. To the left of the dialog box, a terminal window shows a login session to the device's CLI.

Customer: Eberspächer...
6100

Manage

Overview

Clients

LAN

Device

Analyze

Alerts & Events

Audit Trail

Tools

SWITCH DETAILS

SWITCH

MODEL: 6100 12G CL4 2SFP+ 139W Swch

J-NUMBER: JL679A

LOCATION: --

CONTACT: --

SERIAL: CN11KNN0N5

MAC ADDRESS: 38:21:c7:dc:6b:20

UPTIME: 7 Hours 5 Minutes 41 Seconds

CONFIGURATION: In sync

LAST SYNC: 12 Dec 2022 17:13:13

FIRMWARE VERSION: 10.09.1000

GROUP: Switch-Config

SITE: Aruba Networks

LABEL(S): --

NAS STATUS: --

ACTIONS

REBOOT

TECH SUPPORT

CONSOLE

REMOTE CONSOLE

Console session for the device: 6100

```
admin@6100 [05:27:36 PM] ~ % +  
admin: client:  
Host 'localhost' key accepted unconditionally.  
(ecda-sha2-nistp256 fingerprint mds b1:f3:1c:89:4d:30:39:ff:e5:e5:5:ca:57:22:72:91:4f)  
(C) Copyright 2017-2022 Hewlett Packard Enterprise Development LP  
RESTRICTED RIGHTS LEGEND  
Confidential computer software. Valid license from Hewlett Packard Enterprise  
Development LP required for possession, use or copying. Restricted rights  
use, duplication, distribution or decompilation of this software  
Documentation, and Technical Data for Commercial Items are licensed to the  
U.S. Government under vendor's standard commercial license.  
We'd like to keep you up to date about:  
• Software feature updates  
• Product documentation  
• Special events  
Please register your products now at: https://asp.arubanetworks.com  
  
Last login: 2022-12-12 16:18:25 from 192.168.178.47  
User "admin" has logged in 2 times in the past 30 days  
6100#
```

Remote Console Session

New Session Saved Sessions

Device Type: Switch

Username: admin

Password: *****

Create New Session

a – Try some commands..

Task 3.6: Check CLI Troubleshooting Tool

Customer: Eberspächer... AP-00

Manage Overview Device Clients Security

Analyze Live Events Alerts & Events Audit Trail Tools

Maintain Firmware

Network Check Commands Console

Select a Device Type, Select Devices, Add the Commands and Run them

Device Type: Access Point Available Devices: AP-00

Select commands from one or more categories

Categories: All Category, Wireless, Security, Network, Airgroup, System

Commands: AP Client Match History, AP Client Match Live, AP Client Table, AP Client View, AP Driver Configuration, AP ESSID Table

Selected Commands: AP Allowed Channels

Add > < Remove < Remove All

Repeat

Devices which are already running commands shall not execute newly added commands
Output history of device with buffer space issues shall be automatically cleared
Few commands require the log level to be set as debug to see the output

RUN RESET

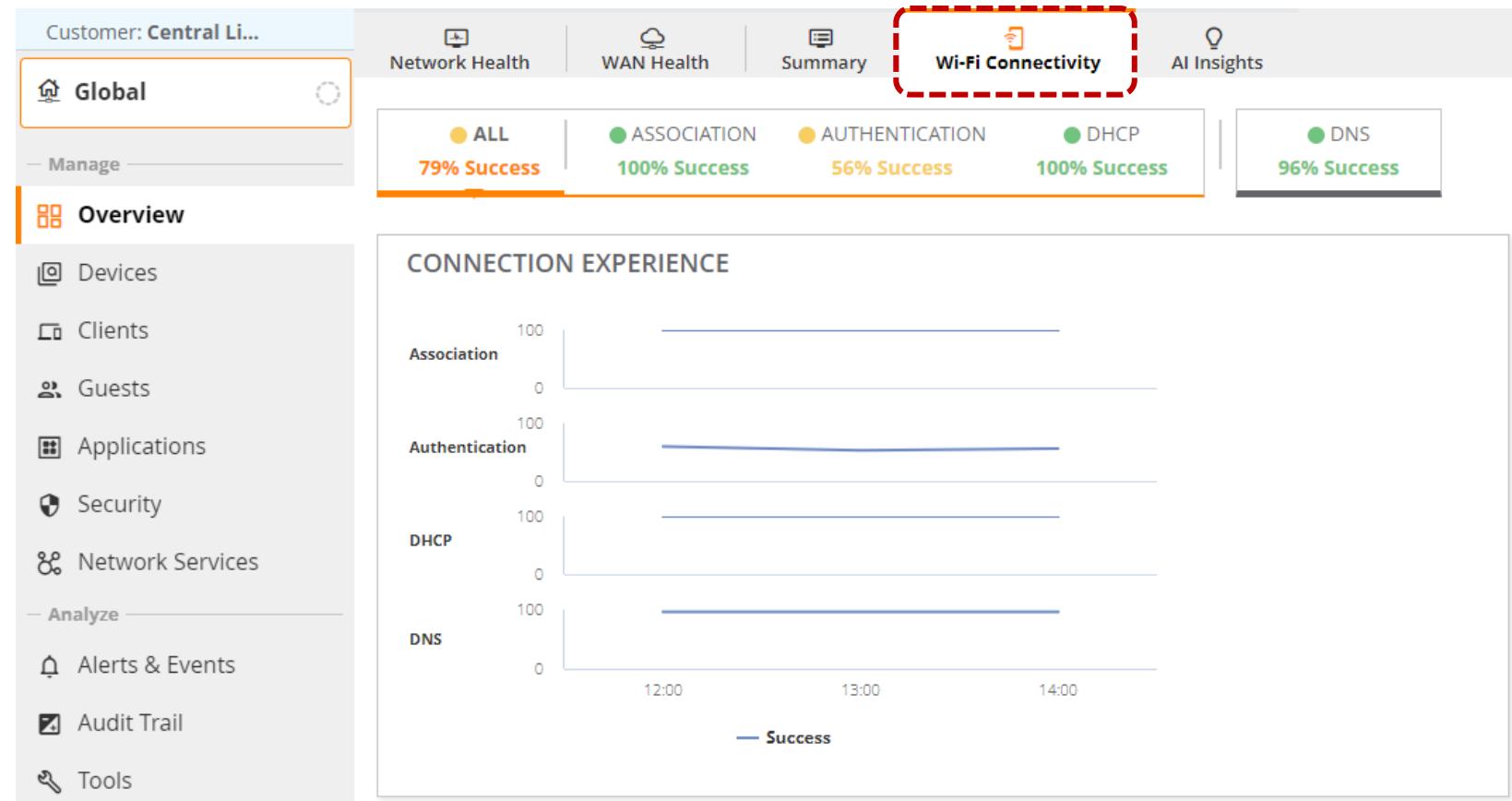
Output for the device: AP-00

```
COMMAND>show ap allowed-channels
Allowed Channels for AP Type 303P Country Code DE
-----  
PHY Type      Allowed Channels  
-----  
802.11g (indoor) 1 2 3 4 5 6 7 8 9 10 11 12 13  
802.11g (outdoor) 16 40 44 48 52 56 60 64 100 104 108 112 116 120 124 128 132 136 140 149 153 157 161 165  
802.11a (outdoor) 1 2 3 4 5 6 7 8 9 10 11 12 13  
802.11n (outdoor) 100 108 109 116 120 124 128 132 136 140 149 153 157 161  
802.11a 40MHz (indoor) 1 2 3 4 5 6 7 8 9 10 11 12 13  
802.11a 40MHz (outdoor) 36-40 44-48 52-56 60-64 100-104 108-112 116-120 124-128 132-136 149-153 157-161  
802.11a 80MHz (indoor) 1 2 3 4 5 6 7 8 9 10 11 12 13  
802.11a 80MHz (outdoor) 100-108 109-112 116-120 124-128 132-136 149-153 157-161  
802.11a 160MHz (indoor) None  
802.11a (OF5) 52 56 60 64 100 104 108 112 116 120 124 128 132 136 140  
802.11a (2mDF5) disable
```

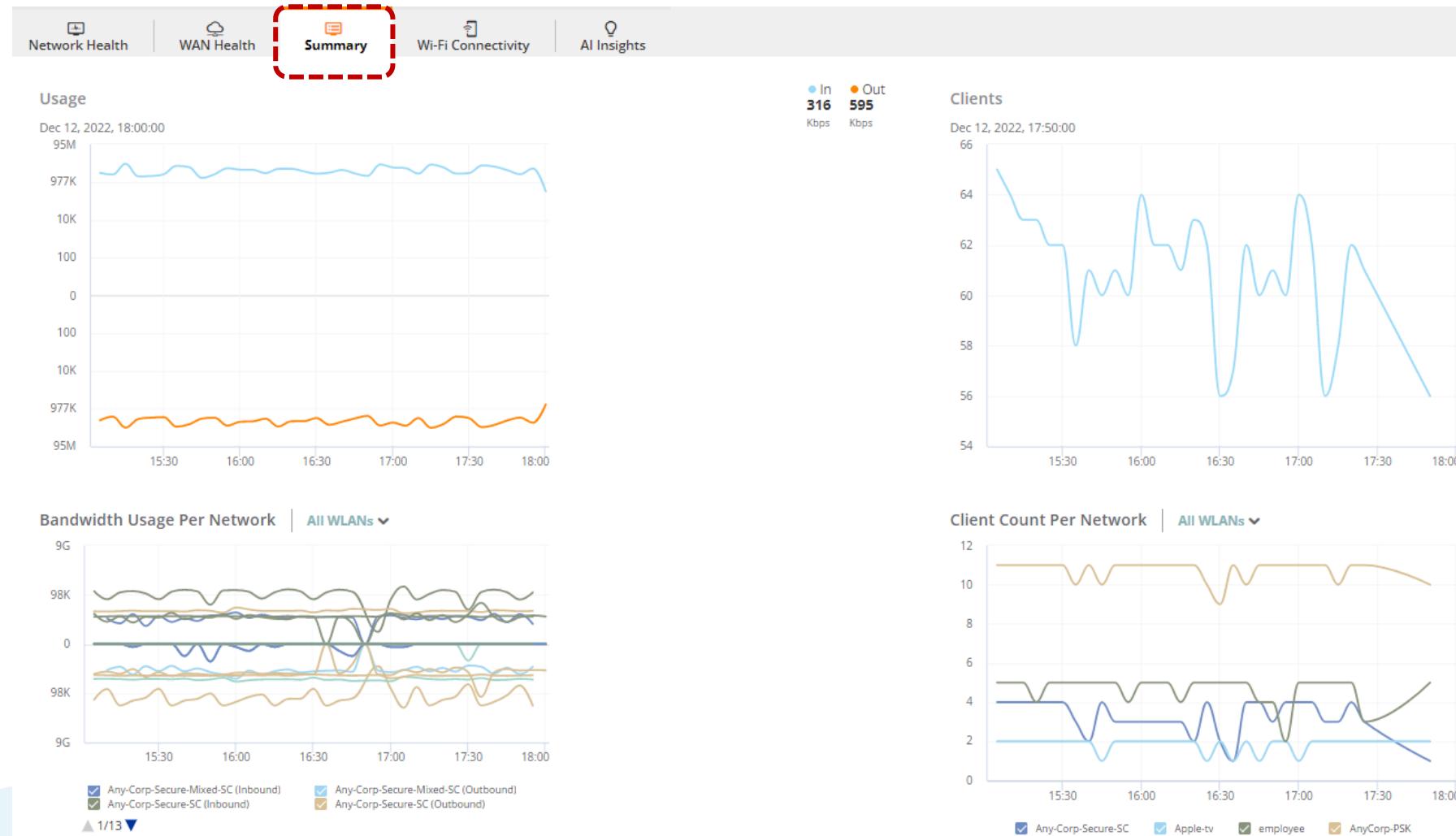
- Switch context to your AP -> Actions -> Console
- Go to Commands
- Select Category Wireless and add Commands
- Run and check output

Task 3.7: Monitor the Wi-Fi Connectivity Dashboard

- In Central demo (Global -> Overview), switch to *Wi-Fi Connectivity*
- See what services you can monitor there



Task 3.8: Monitor Site Health Dashboard



- In Central demo (Global -> Overview), switch to **Summary**
- Check how many clients are associated to different SSIDs
- Check which AP is the most utilized

Task 3.9: Monitor App usage

- In your Central instance, go to *Global -> Applications*, and check if this represents the apps you have been using

The screenshot shows the Cisco Meraki Central interface. On the left, there's a sidebar with various navigation options like Overview, Devices, Clients, Guests, Applications, Security, Network Services, Alerts & Events, Audit Trail, Tools, and Reports. The 'Applications' option is highlighted with a red dashed box. The main content area has tabs for 'Visibility' (selected), 'SaaS Express', 'UCC', 'AirGroup', and 'IoT Operations'. Below these are '3 hours', 'List', and 'Summary' buttons. The 'Global' tab is selected. Under 'Applications', there are tabs for 'Applications' (selected), 'Websites' (highlighted with a red dashed box), and 'Blocked Traffic'. The 'APPLICATIONS (Passive Monitoring)' section shows a table with data for Spotify, Snapchat, Microsoft Outlook, and other entries. The 'WEBSITES' section shows a table with Reputation (Trustworthy, Low Risk, Moderate Risk) and Usage percentages. A large table on the right lists website categories and their total usage.

CATEGORY	USAGE
Content Delivery Networks	2.9 MB (40.18%)
Streaming Media	1.8 MB (25.33%)
Internet Portals	497 KB (6.66%)
Web based email	382 KB (5.12%)
Social Networking Web	320 KB (4.29%)
Business and Economy	269 KB (3.61%)
Computer and Internet Info	229 KB (3.07%)
Shopping	67 KB (0.90%)
Internet Communications	27 KB (0.36%)
Search Engines	27 KB (0.36%)
Web Advertisements	19 KB (0.25%)
News and Media	17 KB (0.22%)
Personal sites and Blogs	12 KB (0.17%)
Unclassified	707 KB (9.48%)

- Change to the *Websites* tab
- Check the *Reputation* and *Category* of the websites you visited

Lab 3: Monitor your Environment

Your turn...

