

CERIO

Amplify your Wireless Network

DT-300N

**eXtreme Power 11n 2.4Ghz 2x2
Wireless Access Point (1000mW)**

With CenOS 3.0 Software



**Lightning
Arrester**
15kV ESD



Weather-Proof



Built-in
2x2
Smart omni
Directional Antenna



2.4GHz
11n/bg

- 1. Product Overview**
- 2. Product Diagram**
- 3. Highlight Features**
- 4. PoE Bridge Capability**
- 5. Pole / Wall Mount Installation**
- 6. Desk Mount Installation**
- 7. Competitive Points of Emphasis**



Product Overview

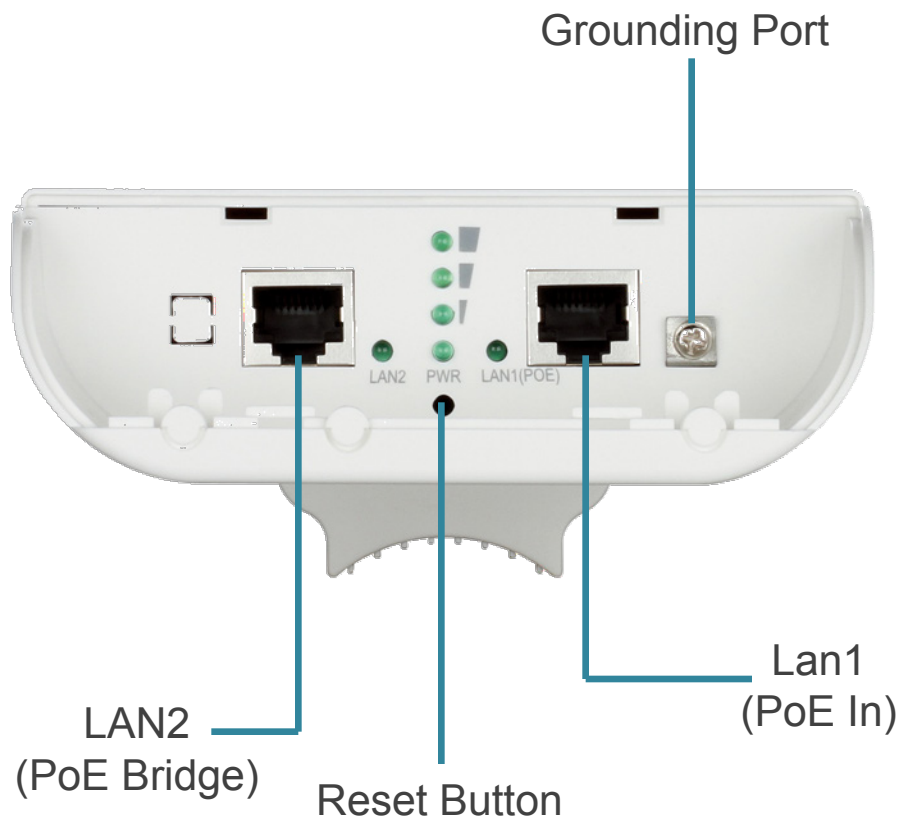
2.4 GHz Type



- DT-300N (Built-in 2.4 GHz) 2x2 10dBi Panel Directional Antenna
- Two 10/100 Fast Ethernet Ports
- Waterproof IPX6 Housing
- 533Mhz high level base CPU
- Supports Overload Current protection and Built-in lightning arrestor (15kV ESD)
- PoE Bridge Support
- Supports both Pole and Wall Mounting solutions that are easy to install

Product Diagram

2.4 GHz Type



eXtreme Power Wireless Capability

Enables connection to Wireless In/Outdoor Networks for service provider deploying last mile services

- Powerful wireless speed of up to 300Mbps
- 2x2 Built-in DT-300N (Built-in 2.4 GHz) 2x2 10dBi Panel Directional Antenna

Smart PoE Bridge Application

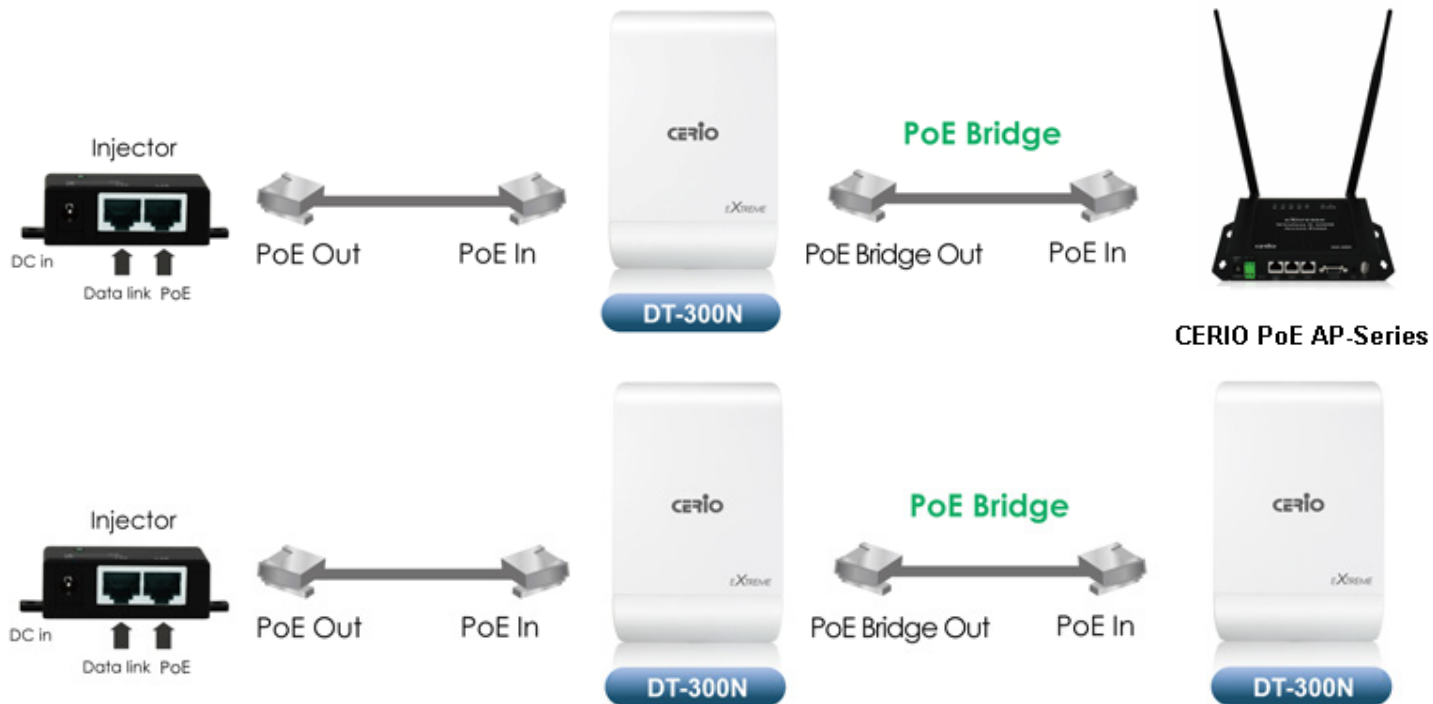
Conveniently provides power to subsequent Access Points/Devices through PoE Bridge

- Allows for easy structuring of devices through PoE power/data capabilities supplied through CAT5 Ethernet cabling

PoE Bridge Capability

2.4 GHz Type

Conveniently supply both power and data to subsequent APs/Devices through the PoE Bridge Function. This allows for convenience in structuring your network infrastructure, eliminating the need for additional power cables.



Pole / Wall Mount Installation

2.4 GHz Type

Pole Mount



Easily mount device onto poles using provided self-locking cable ties

Wall Mount: Step 1



First install the wall mount in desired position using screws provided in the mounting kit

Wall Mount: Step 2



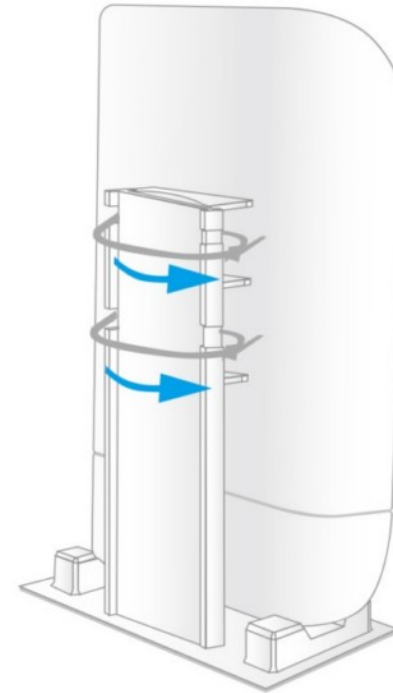
After the wall mount is securely installed, simply click the device onto the wall mount

Desk Mount: Step 1



Click the DT-300N device securely onto the desktop mount through the blister mounting component on the back of the device.

Desk Mount: Step 2



Use the self-locking cable ties to secure the DT-300N in place. Once mounted, simply place the device in desired location.

Competitive Points of Emphasis

2.4 GHz Type

PoE Bridge Capabilities

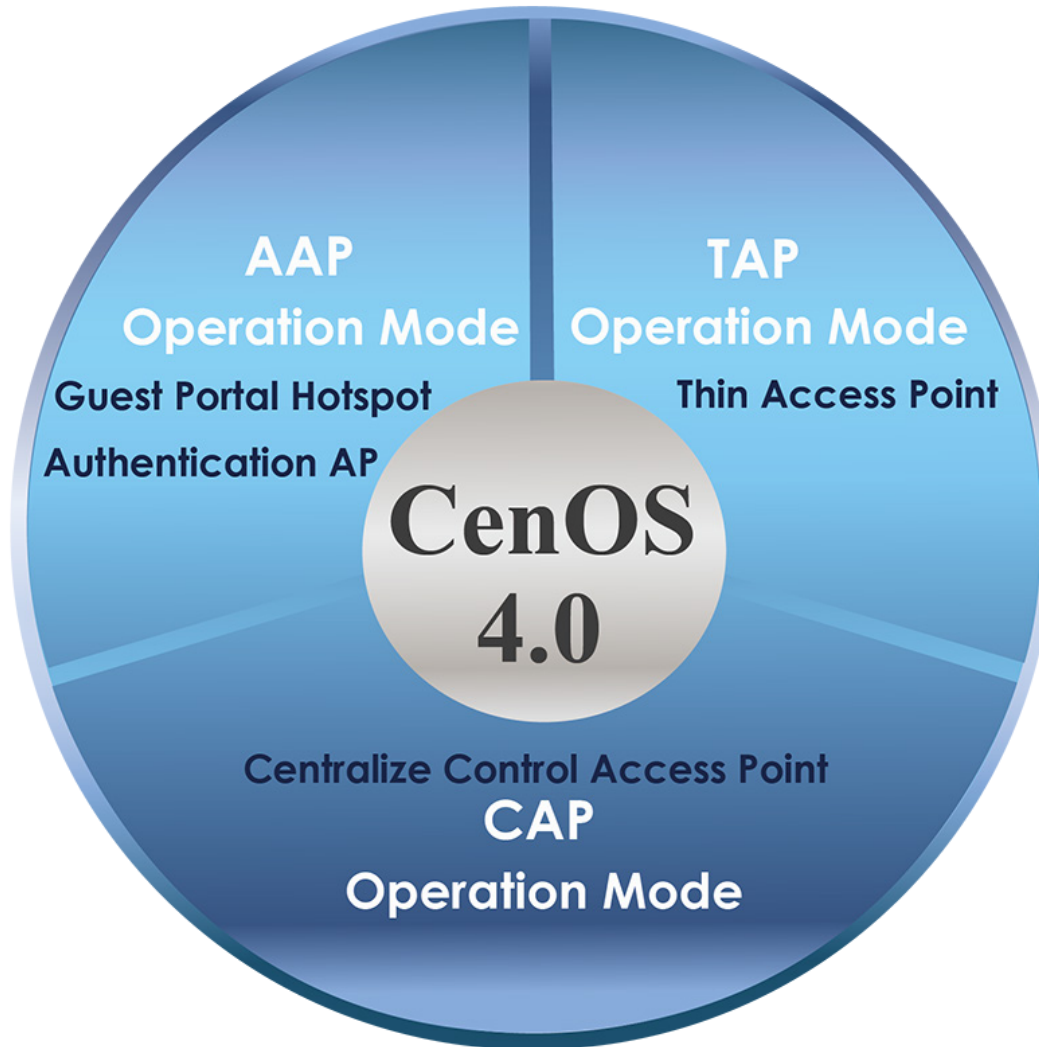
DT-300N utilizes a special LAN2 interface that provides both data connectivity and up to 12W power. This provides incredible convenience when setting up one's network infrastructure. Users can use LAN2's PoE Bridge to connect IP Cameras or subsequent APs without additional power cables.

IPX6 International Protection Standards

DT-300N's protective housing offers thorough protection from the elements. It's 6 grade represents extensive protection from water, making this device a reliable choice for outdoor deployment.



Cerio DT-300N CenOS 4.0 Software Overview

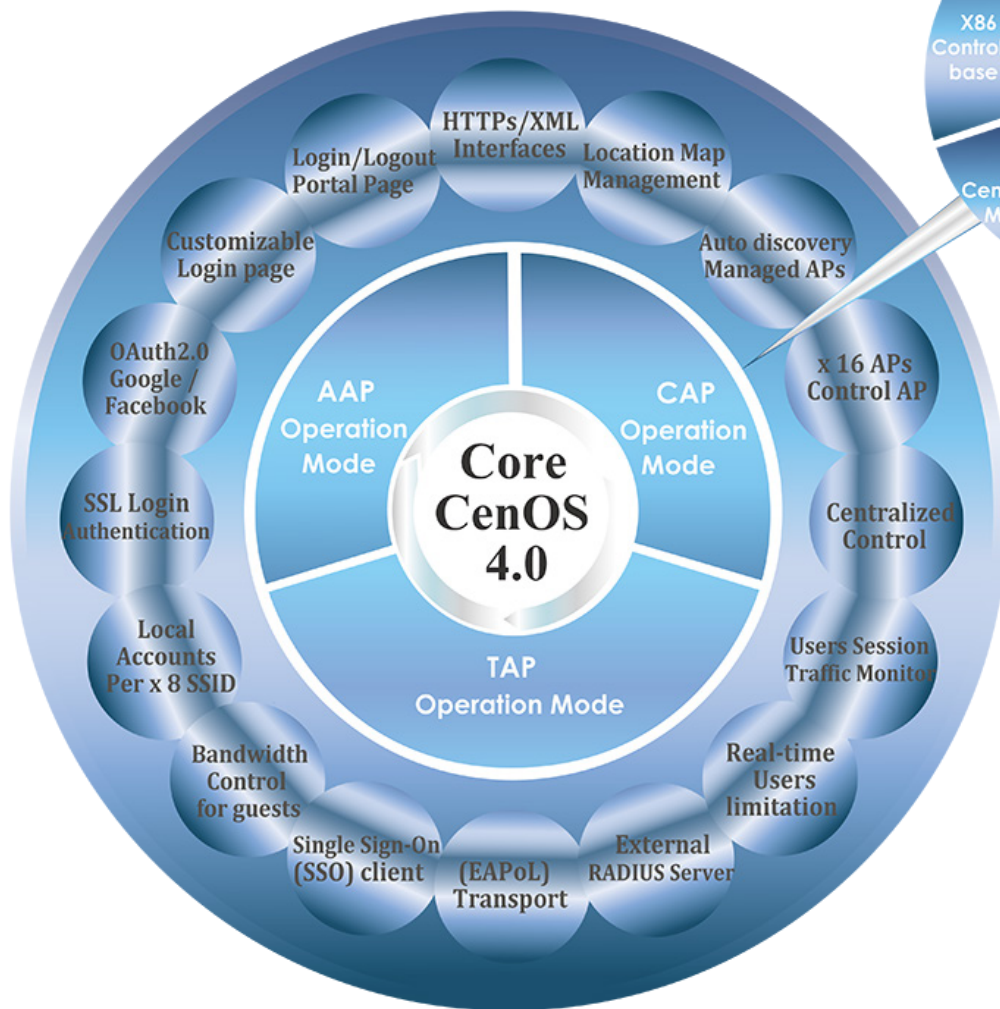


Only Cerio's special model supports CAP mode

Cerio CenOS Support

2.4 GHz Type

CenOS 4.0 Software Kernel

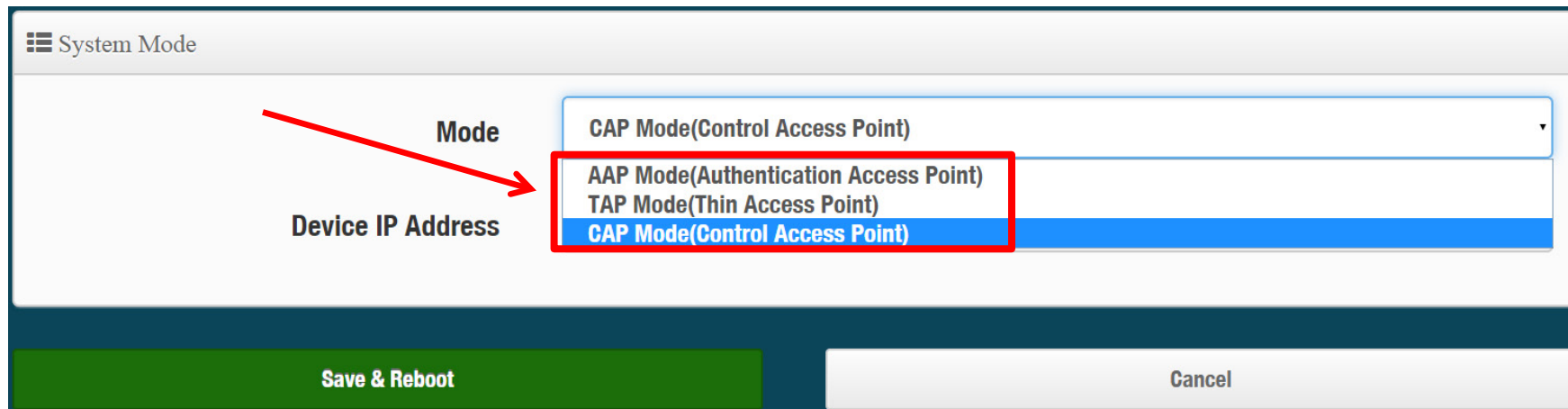


Supports



Cerio Hardware includes NGS Controller

DT-300N with CenOS4.0 includes Three Operation Mode



The screenshot shows a web-based configuration interface titled "System Mode". It features a "Mode" dropdown menu with four options: "CAP Mode(Control Access Point)", "AAP Mode(Authentication Access Point)", "TAP Mode(Thin Access Point)", and "CAP Mode(Control Access Point)". A red arrow points from the "Mode" label to the dropdown menu. A red box highlights the "AAP Mode(Authentication Access Point)" and "TAP Mode(Thin Access Point)" options. Below the dropdown menu, there are two buttons: "Save & Reboot" (green) and "Cancel" (white).

Mode 1: AAP Mode (Authentication Access Point)

Mode 2: TAP (Thin Access Point)

Mode 3: CAP (Control Access Point)

Control Access Point (CAP) Mode

Control Access Point (CAP)

2.4 GHz Type

Control Access Point (CAP) Mode's primary function is to manage and control access points operating in AAP and TAP mode. When in CAP Mode, the device itself loses access point capability, and operates solely as an AP manager. CenOS 4.0's CAP mode allows administrators to centrally manage a network infrastructure, which enables complete control and ensures convenience.

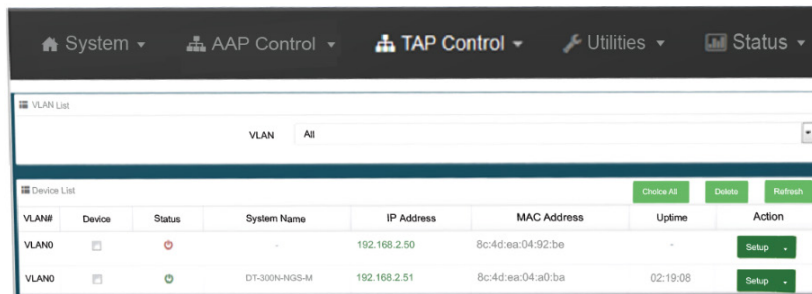
The screenshot displays the CERIO DT-300N CenOS 4.0 web interface. The top navigation bar includes 'System', 'AAP Control', 'TAP Control', 'Utilities', and 'Status'. The 'AAP Control' menu is expanded, showing options like 'AAP Setup', 'Map Setup', 'Scan AAP Device', 'Profile', 'Batch Setup', and 'Status'. The main content area shows the 'Overview' page with a 'Mode' dropdown set to 'CAP Mode' (highlighted with a red box). Other system information includes System Name (DT-300N-NGS-M), System Time (2015/04/08 14:50:36), System Uptime (19:47:59), Firmware Version (Cen-OS V4.0.13), and Firmware Date (2015/03/05 14:50:11). On the right, there are gauges for CPU Usage (0%) and Memory (89%). Below these is a 'Network' table with two VLANs.

#	IP Address	Netmask	Chart
VLAN 0	192.168.101.201	255.255.255.0	
VLAN 1	192.168.10.50	255.255.255.0	

Simultaneous AP Management

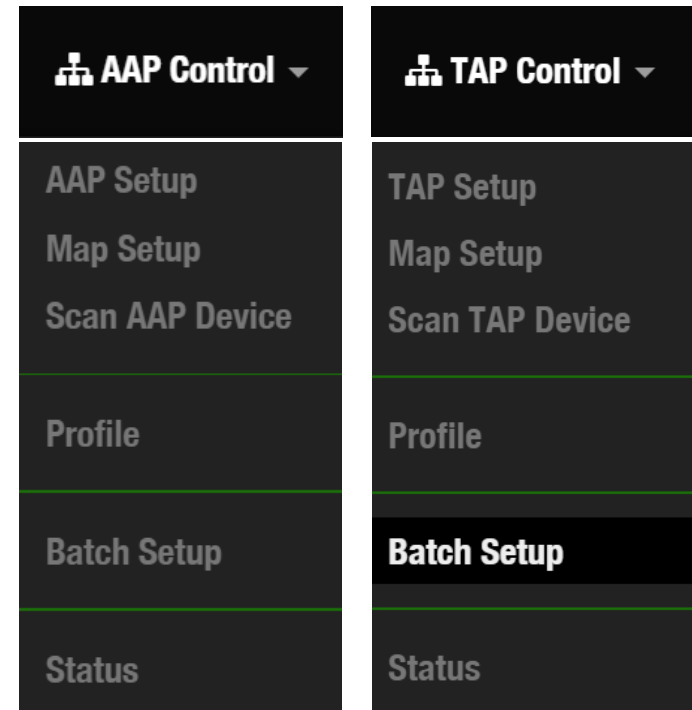
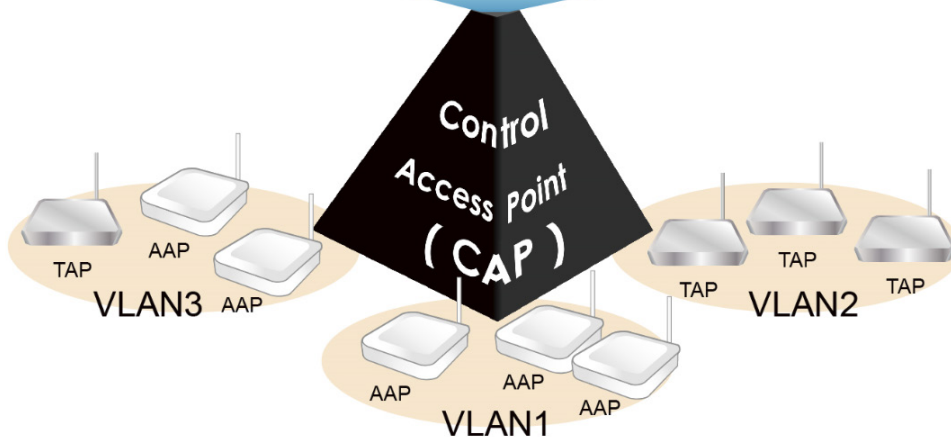
2.4 GHz Type

CenOS 4.0 enables simultaneous management of access points over a variety of network environments. When devices are operating in Control Access Point Mode, administrators can change managed AP settings through TAP and AAP control. Access Points in CAP mode can centrally manage both TAP and AAP Access points, regardless of what VLAN they are in.



The screenshot shows a web interface with a navigation bar at the top containing 'System', 'AAP Control', 'TAP Control', 'Utilities', and 'Status'. Below the navigation bar is a 'VLAN List' section with a dropdown menu set to 'All'. The main content area is a 'Device List' table with columns for VLAN#, Device, Status, System Name, IP Address, MAC Address, Uptime, and Action. There are buttons for 'Choice All', 'Delete', and 'Refresh' at the top right of the table.

VLAN#	Device	Status	System Name	IP Address	MAC Address	Uptime	Action
VLAN0		●		192.168.2.50	8c4d:ea:04:92:be		Setup
VLAN0		●	DT-300N-NGS-M	192.168.2.51	8c4d:ea:04:a0:ba	02:19:08	Setup



The diagram compares the menu options for 'AAP Control' and 'TAP Control'. The 'AAP Control' menu includes: AAP Setup, Map Setup, Scan AAP Device, Profile, Batch Setup, and Status. The 'TAP Control' menu includes: TAP Setup, Map Setup, Scan TAP Device, Profile, Batch Setup, and Status.

AAP Control	TAP Control
AAP Setup	TAP Setup
Map Setup	Map Setup
Scan AAP Device	Scan TAP Device
Profile	Profile
Batch Setup	Batch Setup
Status	Status

CAP Batch Management

2.4 GHz Type

CAP Mode's AAP/TAP control function supports centralized configuration of managed APs. This allows administrators to change AP operation modes, automatically assign IP addresses, configure local time, configure wireless general and security settings, and upgrade firmware for selected managed access points.

The screenshot displays the 'VLAN List' configuration page. At the top, there is a 'VLAN' dropdown menu set to 'VLAN 0 (192.168.101.0/24)'. Below it is a 'Batch Setup' dropdown menu currently showing 'Reboot'. A red arrow points to the 'Wireless Advanced Setup' option in the expanded dropdown menu. To the left, a 'Device List' table is partially visible with columns for 'Choice' and 'VLAN#', both containing dashes. A red text annotation with an arrow pointing to the 'Wireless Advanced Setup' option reads: 'Conveniently make Batch changes to a number of different settings'.

Choice	VLAN#
-	-

- Reboot
- Mode Setup
- VLAN Setup
- Profile Setup
- Gateway & DNS
- Time Server
- Management Setup
- Wireless Basic Setup
- Wireless Advanced Setup**
- Wireless WMM Setup
- Upgrade Via TFTP Server
- Upgrade Via HTTP URL
- Reboot

Conveniently make Batch changes to a number of different settings

CAP Batch VLAN Setup

2.4 GHz Type

Administrators can enable authentication, Spanning tree, and control port capabilities for batches of access points. These changes can be implemented differently for each VLAN, allowing for both centralized and organized control.

VLAN List							Create New VLAN
VLAN#	IP Address	Netmask	Native ETH0	ETH0 VLAN Tag	Native ETH1	ETH1 VLAN Tag	Action
0	192.168.101.201	255.255.255.0	★	-	★	-	Network ▾
1	192.168.10.50	255.255.255.0		-		-	Network ▾
2	192.168.102.50	255.255.255.0		-		-	Network ▾
3	192.168.103.50	255.255.255.0		-		-	Network ▾
4	192.168.104.50	255.255.255.0		-		-	Network ▾

CAP's Batch VLAN setup also allows batch VLAN Tagging (1-4096 VLAN Tags)

ETH1 VLAN Tag Setup	
ETH1	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
ETH1 Tag	<input checked="" type="checkbox"/> 1-4096

Authentication Access Point (AAP) Mode

Authentication Access Point (AAP)

2.4 GHz Type

AAP Mode deployment is centered on Pure AP and Web Authentication functions. Authentication through AAP mode supports Remote RADIUS Server, local authentication, and OAuth2.0 by means of Facebook or Google login. Administrators can build a customized and controlled Guest Portal (VLAN) to desired specifications through functions such as OAuth2.0, Page Customization, Walled Garden, and Access Control.

- Profile
- Wireless Setup
- Access Point
- MAC Filter
- Authentication Setup
 - General
 - Local User
 - OAuth 2.0
 - Customize Page**
 - Language
 - Walled Garden
 - Privilege Address

Create New Provider	
Provider	Action
Google	Edit
Facebook	Edit
Microsoft	Edit

OAuth2.0 authorizes third-party providers access into servers, This essentially allows third-parties such as Facebook and Google to grant users internet access through already established credentials. OAuth2.0 simplifies Guest Portal access and providers user convenience

AAP Customized Login Page

2.4 GHz Type

Administrators can create a customized Login Page which can become a platform:

- for self-promotion
- brand exposure
- Advertisement
- space for providing information.

The customize page feature has a template function where administrators can make simple changes such as set content width and setup color scheme.

Disabling the Template feature in the Customize Page setup, administrators enable HTML Source Code customization.

Preview

Please sign in

 Remember me

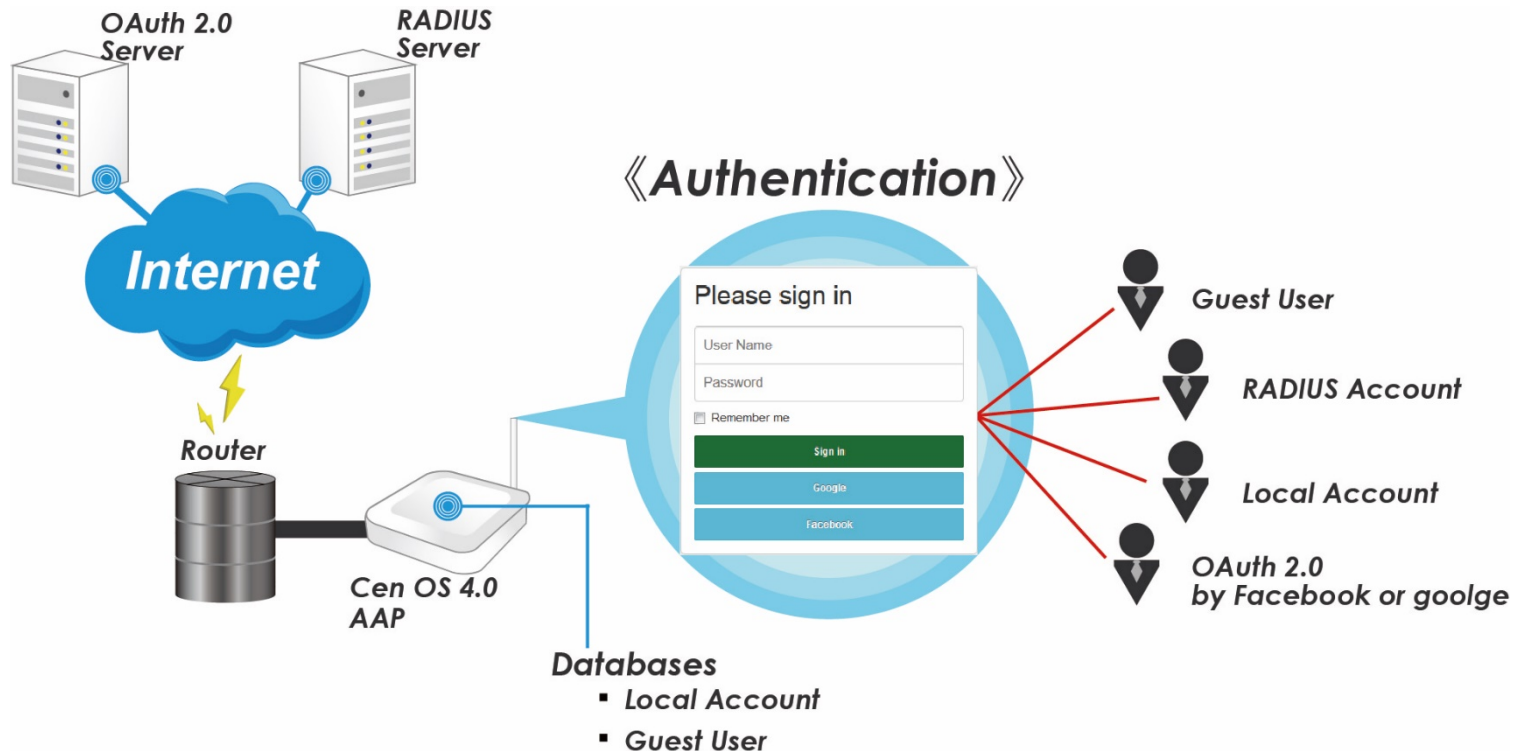
Customize HTML Source code

```
<html>
  <head>
    <title>Hotspot</title>
    <script src="/javascripts/login.js" charset="utf-8" type="text/javascript"></script>
  </head>
  <body>
    <div class="container"></div>
  </body>
</html>
```

AAP Guest Portal Authentication

2.4 GHz Type

This flexible service provides a set of location, browser, and user-specific information to the backend system to enable value added personalized service provided by the WISP. Detailed location information is available via HTTPs/XML interfaces. Web pages can be either stored locally on the OS or remotely on a guest portal server.

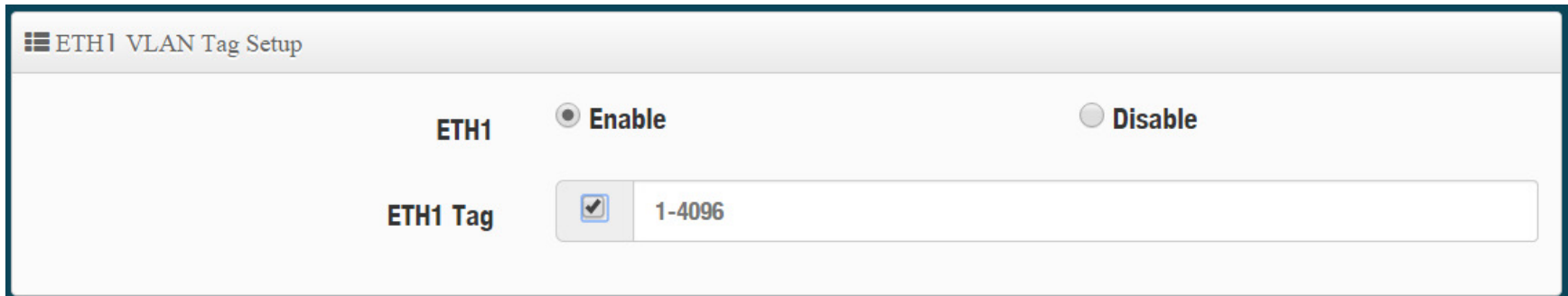


Administrators can create up to 10 Local User Accounts for each VLAN to grant user authentication through a Local User ID name and password.

For networks operating without RADIUS server authentication protocol, or for users lacking Facebook or Google accounts, pre-established Local User accounts can conveniently grant user network access. However, these Local User accounts are limited to a maximum of 10 accounts.

Local User List		
#	Name	Action
1	Jacky	Delete
2	Danny	Delete
3	Cathy	Delete
4	Mia	Delete
5	Andy	Delete
6	Gordon	Delete
7	Pan	Delete
8	Justin	Delete
9	Guest 1	Delete
10	Guest 2	Delete

VLAN Tagging effectively marks packets with a VLAN ID to determine which VLAN the packet belongs to. This allows users to deploy multiple VLANs (Guests/VIP) on a port, and distinguish which network each packet belongs to.



ETH1 VLAN Tag Setup

ETH1 Enable Disable

ETH1 Tag 1-4096

AAP Mode supports up to **4096** Tags. This is a crucial feature that ensures successful directing of packet traffic for VLANs that span across multiple switches.

Bandwidth Control of Wi-Fi user allows administrators to control individual user upload and download speeds, as well as set a maximum limit on the total amount of bandwidth that can be used at a single time.

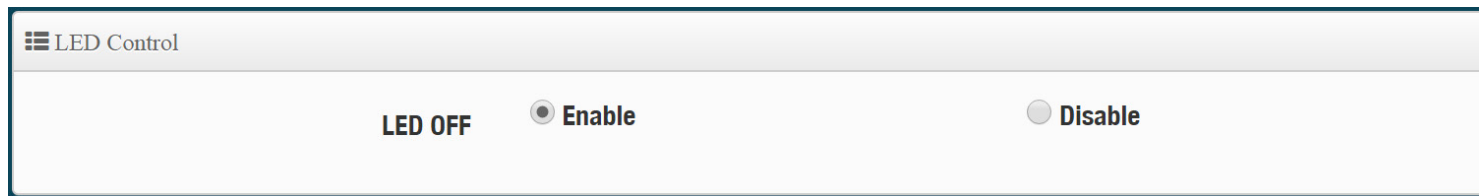
☰ Bandwidth Control

Peer Users	<input checked="" type="radio"/> Enable	<input type="radio"/> Disable
Upload	<input type="text" value="512"/>	Kbps
Download	<input type="text" value="512"/>	Kbps
Total	<input checked="" type="radio"/> Enable	<input type="radio"/> Disable
Upload	<input type="text" value="1024"/>	Kbps
Download	<input type="text" value="1024"/>	Kbps

Administrators can save system logs to remote servers through the **System Log Setup** feature. System logs are valuable for system management, security, and general information.



CenOS 4.0 is equipped with **LED Control** functions that allow administrators to turn On/Off the devices LEDs. This is especially convenient for indoor deployment, in situations where flashing LEDs may cause irritation.



AAP Modes Walled Garden function allows administrators to create a browsing environment that controls user access and accessible information. This function is ideal for directing users to specific parts of the Web such as;

1. Paid Content
2. Self-Promotions
3. Limited Free Internet Service
4. Advertisement web pages before login and authentication

User without the network access right can still have a chance to experience the actual network service free of charge in Walled Garden URL list.

The screenshot shows a web interface titled "Walled Garden". It contains three input fields and an "Add" button:

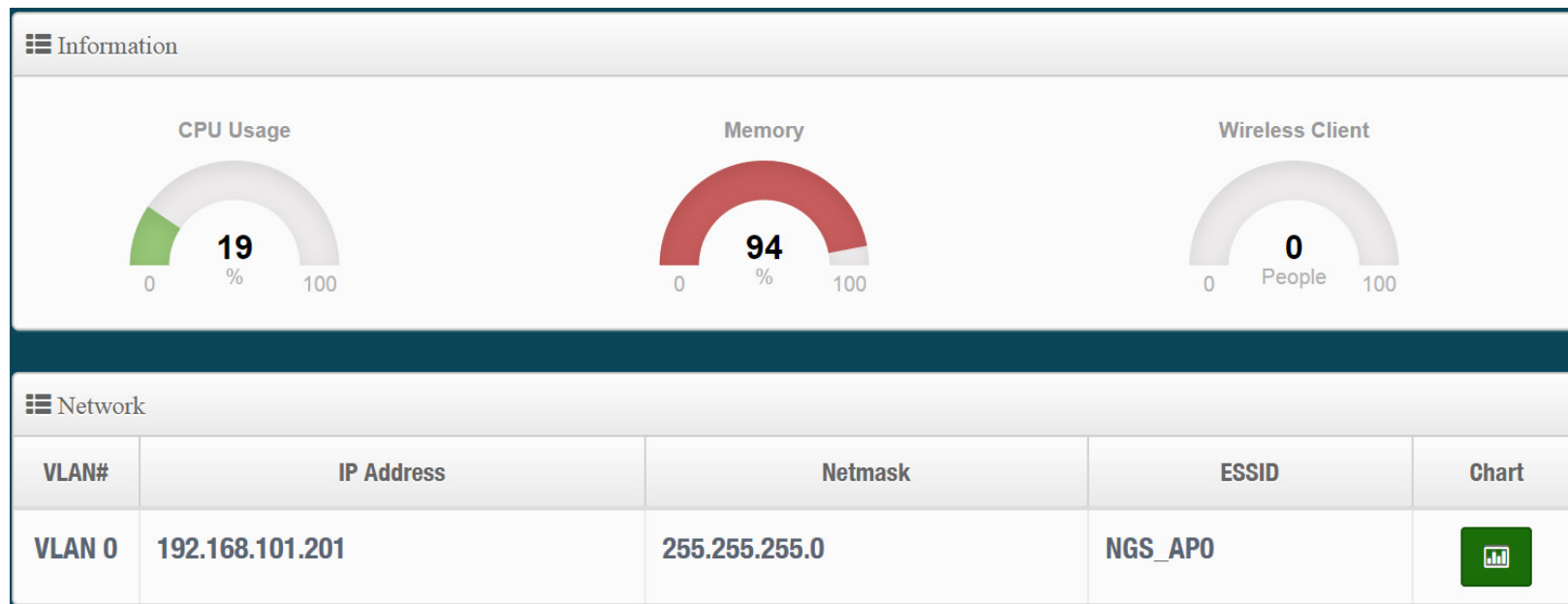
- Display Name:** A text input field with a placeholder "(4 -32 chars)".
- IP Address/Domain:** A text input field with a vertical cursor.
- Full URL:** A text input field.
- Add:** A green button with white text.

Thin Access Point (TAP) Mode

Thin Access Point Status Overview

2.4 GHz Type

When TAP (Thin Access Point) mode is activated, the software GUI will only display system statuses. Administrators must change the system mode of one NGS software AP to CAP (Control Access Point) Mode. This will allow the controller AP to change settings of all managed APs within the network.





CERIO

Amplify your Wireless Network

