

**CERIO**

*Amplify your Wireless Network*

# Introduction to DT-300N



With **CenOS 3.0** Software Bundle

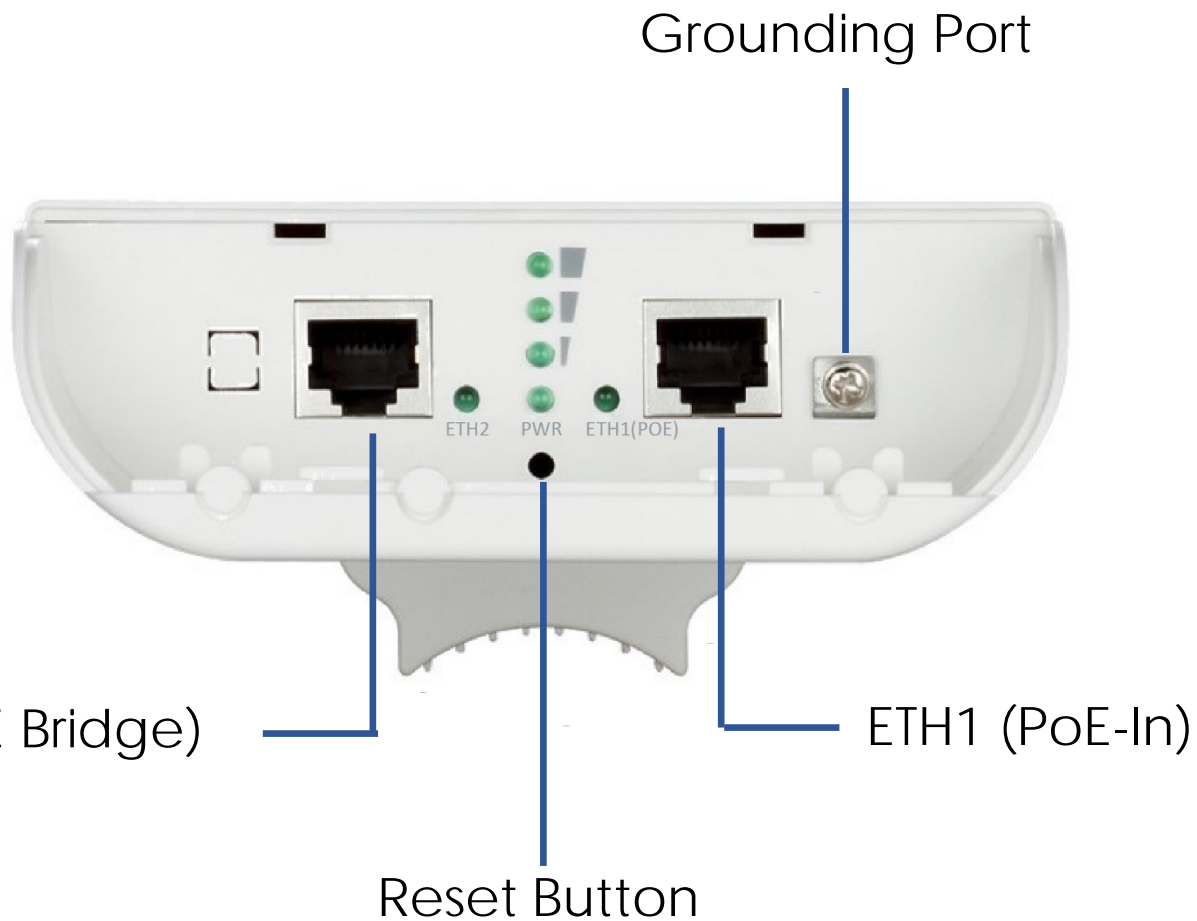


eXtreme Power 11n 2.4Hz 2x2 **Router Access Point** (1000mW)



- DT-300N (Built-in 2.4 GHz) 2x2 High Gain Antenna
- Two 10/100 Fast Ethernet Ports
- Waterproof IPX6 Housing
- Supports 5 Operational Modes
- 533Mhz high level base CPU
- Supports Overload Current protection and Built-in lightning arrestor (15kV ESD)
- PoE Bridge Support
- Point to Point / Point to Multi-Point Application Support

# Hardware Overview



**DT-300N eXtreme Power**  
11N 2.4Ghz 2x2 Wireless  
Access Point ( 1000mW )

## 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 2.4 GHz Dual Polarization High Gain Antenna

## Smart PoE Bridge Application

- Conveniently provides power to subsequent

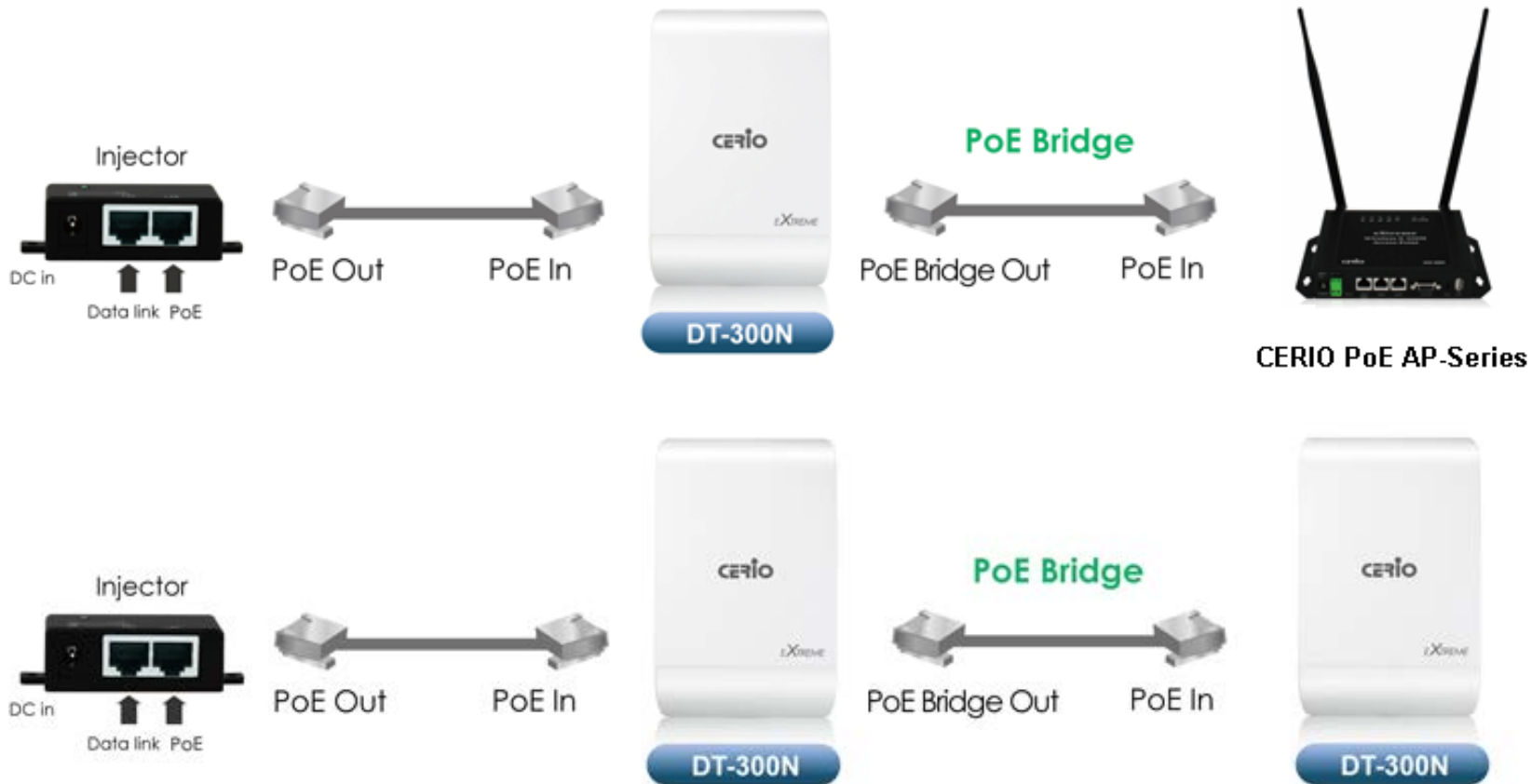
## Access Points/Devices through PoE Bridge

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

# PoE Bridge Application — CERIO

## CERIO's DT-300N utilizes PoE Bridge

- 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.



Cerio Wireless Management Software ( CWMS )

Centralized APs management software– PC Base



Control AP Group Management

Support up to 500 Access Point / Windows base

**CWMS only supports Cerio's CenOS 3.0 core**

## 8 Multiple-SSID Support

- Allows for network segmentation by administrators

## Integration

- Utilizes IGMP v1/v2/v3 Snooping Function
- Includes Web Support management
- Integrated SNMP (Simple Network Management Protocol) MIB-II
- Supports Hardware chipset base Watch Time Dog Function

## Quality of Service (QoS)

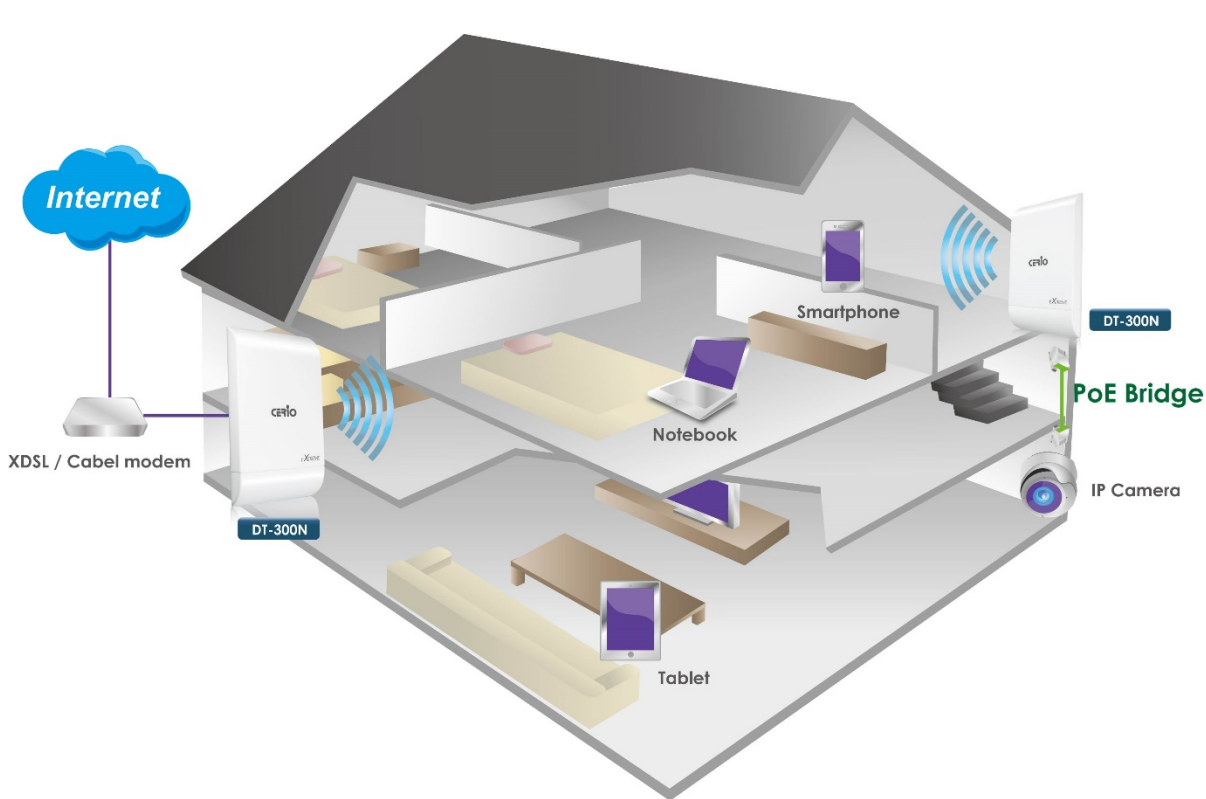
- For bandwidth management and Traffic Prioritization

## Bundles Software Interface

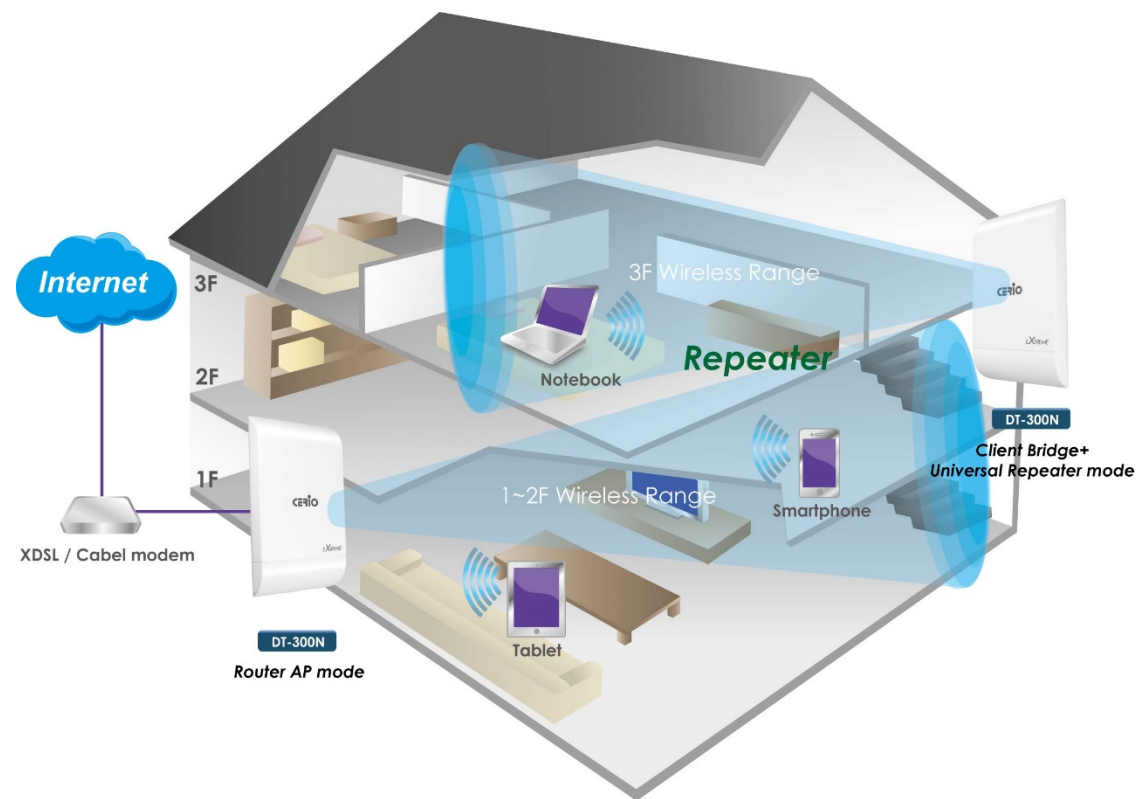
- Bundles Cerio CenOS3.0 allows for communication with CWMS Software Management and CERIO AM-Series AP Management







AP Mode / PoE Bridge



Client Bridge+ Universal Repeater Mode

# Mounting Options

Supports Pole Mounting



Supports Wall Mounting



## Pole Mount



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

## Wall Mount: Step 1



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

## Wall Mount: Step 2



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

## Watch Time Dog Function

The Cerio DT-300N is equipped with Watch Time Dog capabilities that allows for increased system stability. The Watch Time Dog function smartly reboots network systems after a set time period where the system is unresponsive. This allows for network reliability and minimizes the need for on-site IT staff maintenance.

## Mounting Kit

Cerio's DT-300N includes a comprehensive mounting kit that allows for easy installation in a wide range of environments (Walls / Poles)

## IPX6 International Protection Standards

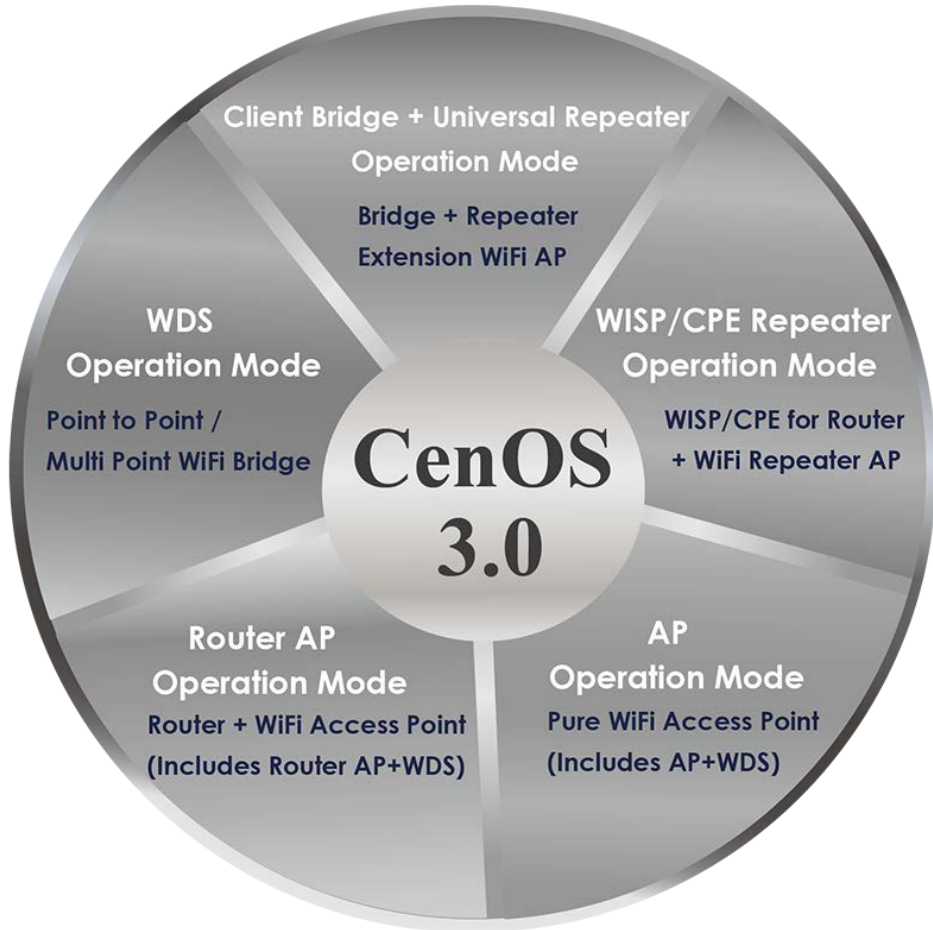
DT-300N's protective housing offers thorough protection from the elements. It's 6 grade represents extensive protection from water, making this device a reliable choice for outdoor deployment.



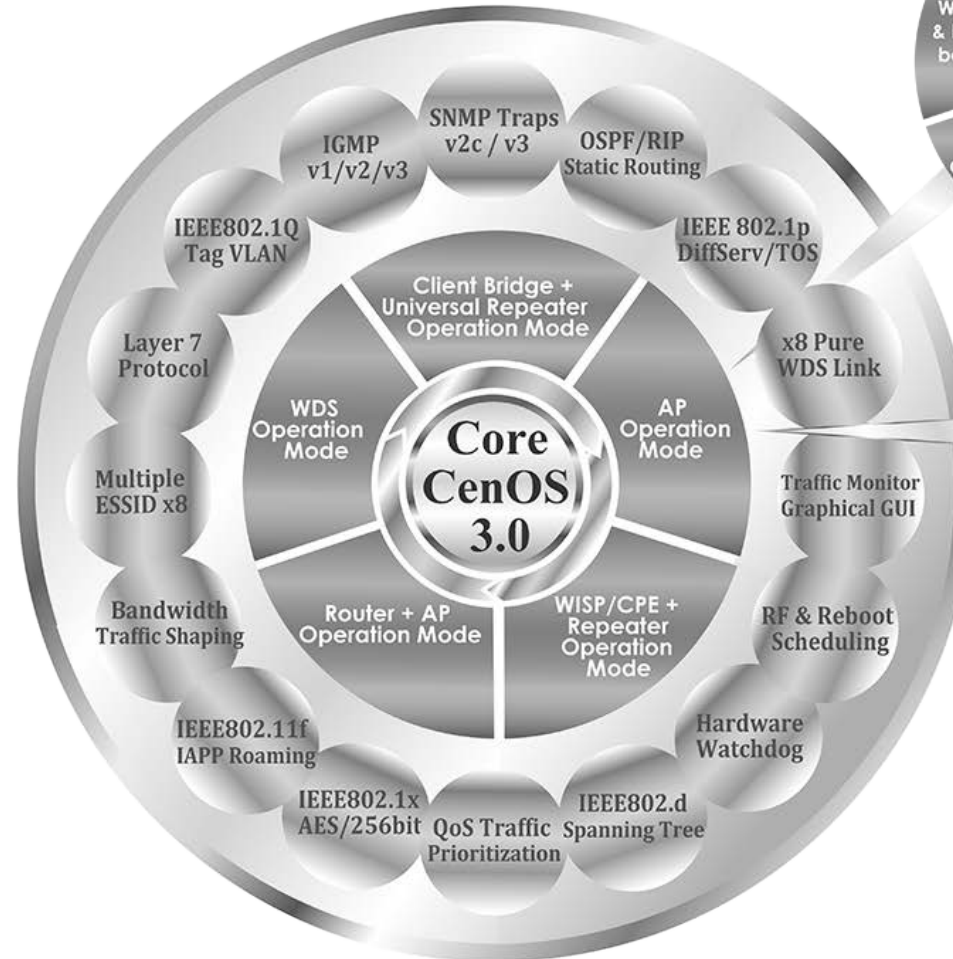
# CenOS 3.0

## Software Bundle

# CenOS 3.0 Diagram



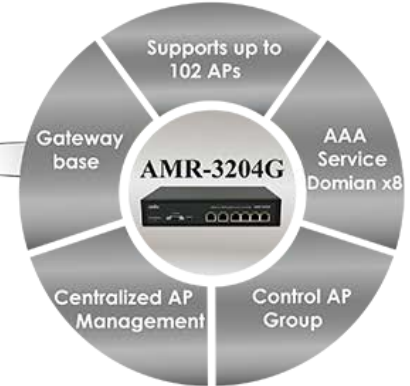
## CenOS 3.0 Software Kernel



### Cerio Wireless Management Software



### Supports



Cerio Hardware includes GS Controller

Only Cerio's special model supports Router AP mode

VAP List		
VAP	MAC Address	ESSID
VAP0	00:11:A3:1C:07:D0	AP00
<b>VAP1</b>		<b>AP01</b>
VAP2		AP02
<b>VAP3</b>		<b>AP03</b>
VAP4		AP04
<b>VAP5</b>		<b>AP05</b>
VAP6		AP06
<b>VAP7</b>		<b>AP07</b>

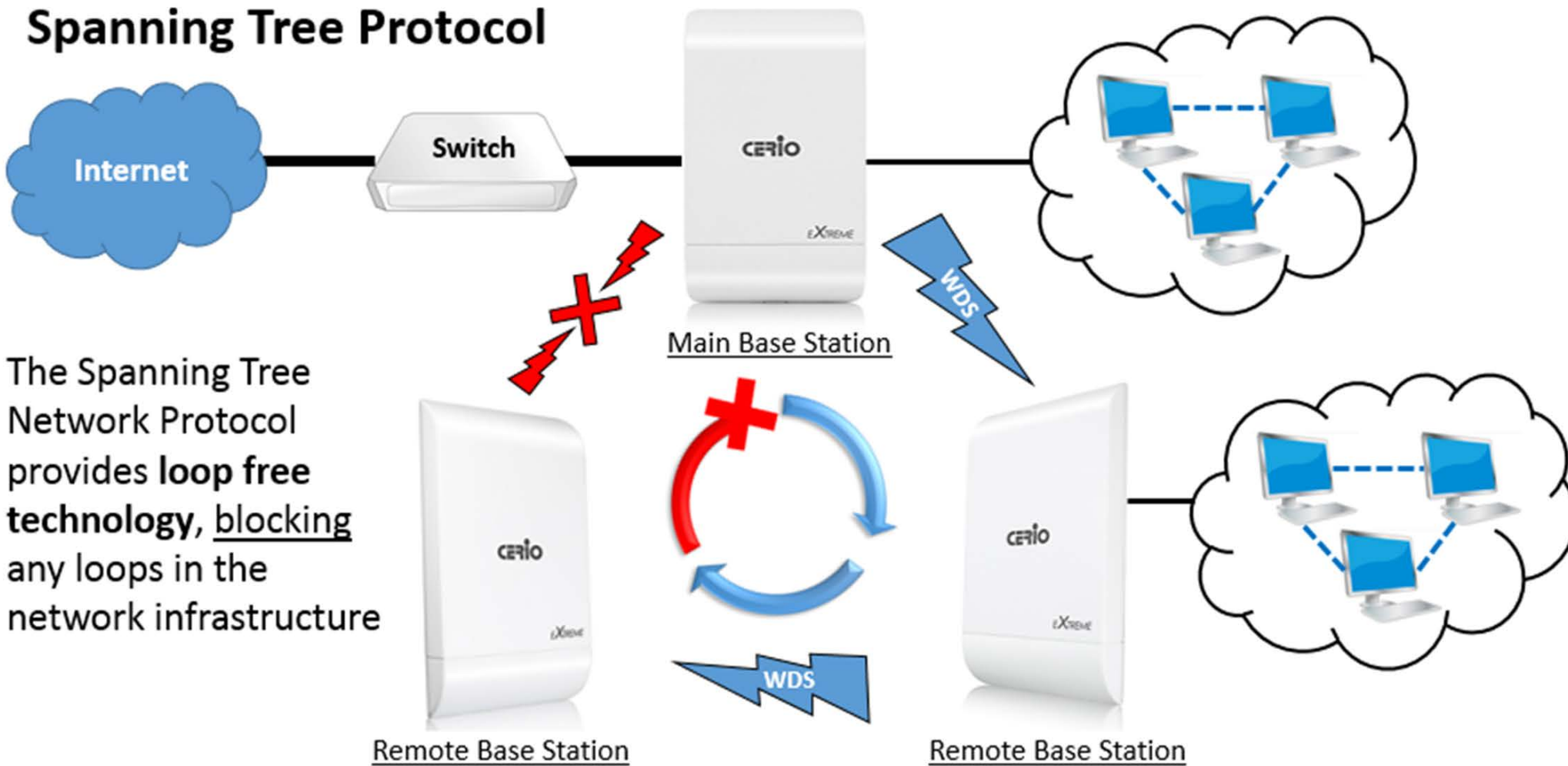
Cerio's CenOS 3.0 Software allows each DT-300N device to broadcast 8 SSIDs. Each SSID can be configured to a specified SSID by the network administrator. This is known as VLAN tagging.

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

# Spanning Tree Protocol — CERIO

DT-300N

Spanning Tree Protocol

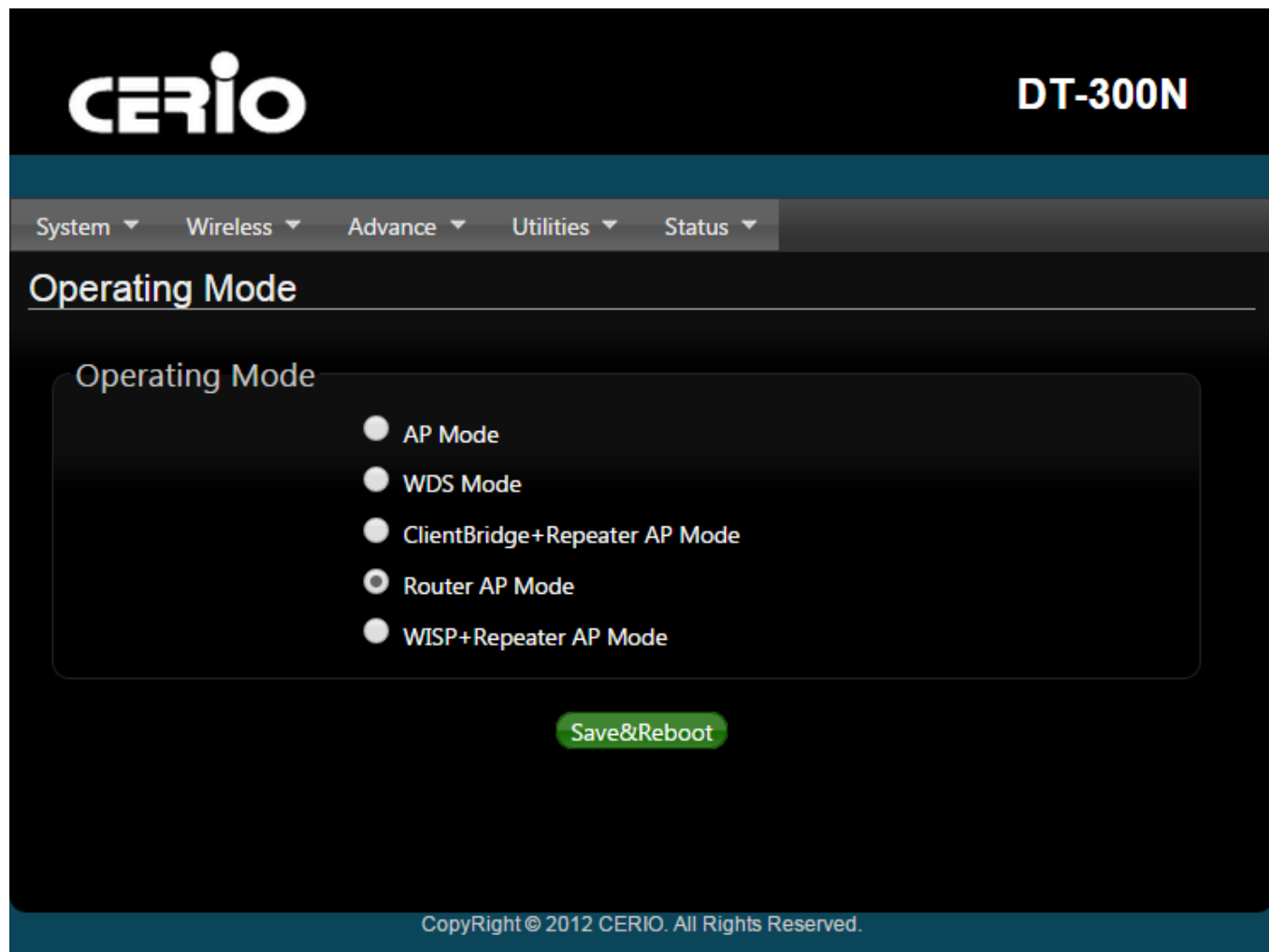


The Spanning Tree Network Protocol provides **loop free technology**, blocking any loops in the network infrastructure



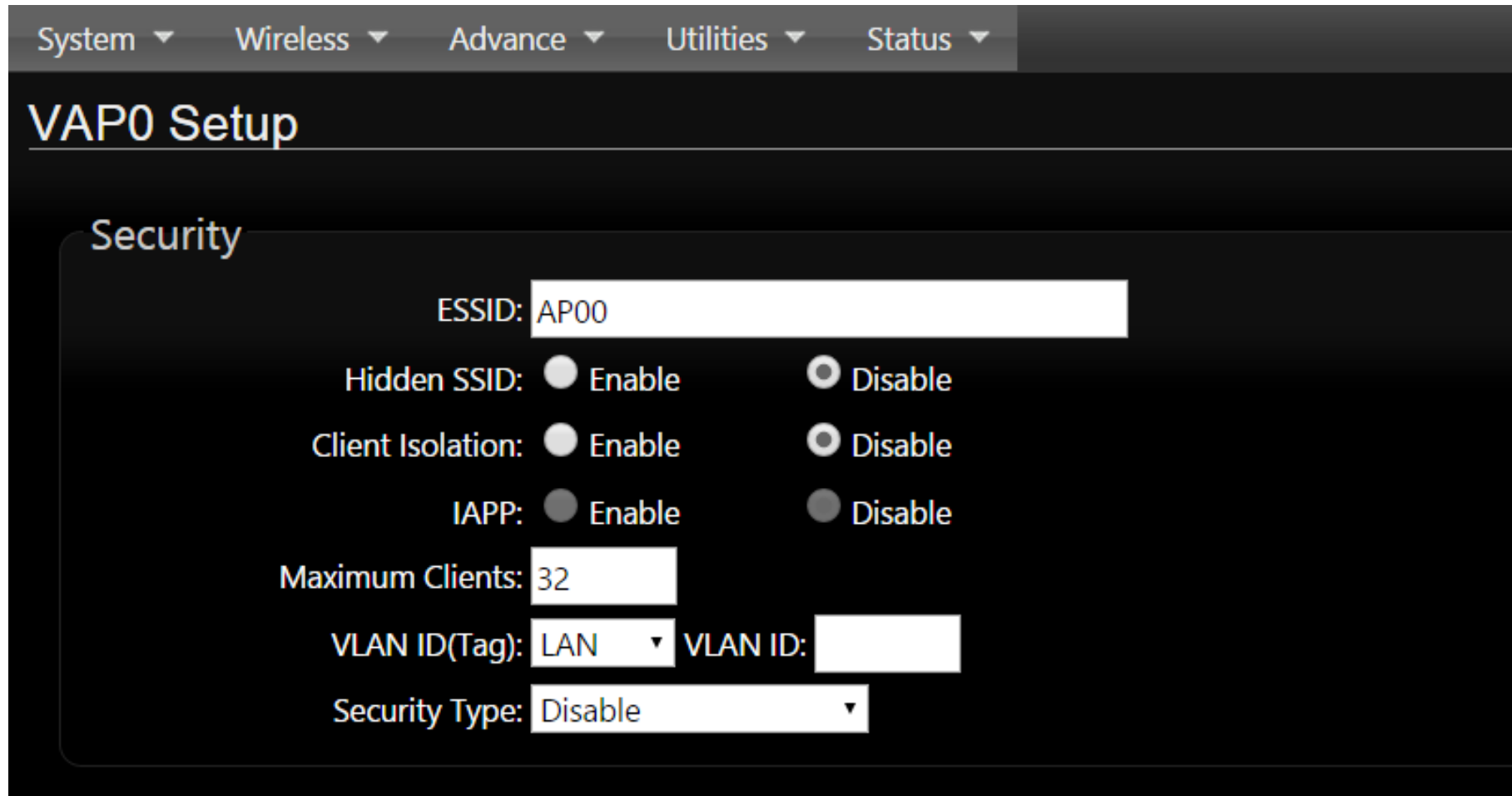
# 5 Operation Modes

Cerio's DT-300N Supports **5 Operation Modes**. The default operation mode for this device is Router AP Mode.



The screenshot displays the web management interface for the CERIO DT-300N device. At the top left is the CERIO logo, and at the top right is the model number DT-300N. Below the header is a navigation menu with tabs for System, Wireless, Advance, Utilities, and Status. The main content area is titled "Operating Mode" and contains a list of five radio button options: AP Mode, WDS Mode, ClientBridge+Repeater AP Mode, Router AP Mode (which is selected), and WISP+Repeater AP Mode. A green "Save&Reboot" button is located at the bottom of the configuration area. At the very bottom of the page, there is a copyright notice: "CopyRight © 2012 CERIO. All Rights Reserved."

Create and manage up to **8 ESSIDs** to segment you network. This allows administrators to **separate traffic** within VLANs, allowing for more organized network construction.



The screenshot shows the 'VAP0 Setup' configuration page. At the top, there is a navigation bar with tabs for 'System', 'Wireless', 'Advance', 'Utilities', and 'Status'. The 'VAP0 Setup' title is prominently displayed. Below it, a 'Security' section contains several configuration options:

- ESSID: AP00
- Hidden SSID:  Enable  Disable
- Client Isolation:  Enable  Disable
- IAPP:  Enable  Disable
- Maximum Clients: 32
- VLAN ID(Tag): LAN (dropdown) | VLAN ID: [ ]
- Security Type: Disable (dropdown)

System ▾ Wireless ▾ Advance ▾ Utilities ▾ Status ▾

## QoS Setup

### Bandwidth Control

Service:  Enable  Disable

Mode:  Total Bandwidth  Per Rule Bandwidth

Upload:  kbps

Download:  kbps

### Per Rule

Comment:

Type:  ▾

IP:

Upload:  kbps

Download:  kbps

### QoS List

#	Comment	Rule	Bandwidth(U/D)	Action
No items in the list!				

Quality of Service allows for bandwidth control which permits Administrators to allocate bandwidth to parties as they see fit

QoS also allows for Rule setting customization, where admins can enact QoS Rules to specific individual IP Addresses, Segments, MAC addressed, and even Ports.

Wi-Fi RF Signal on/ off By scheduling control

### Time Policy Setup

Policy 3

Policy: Policy 3

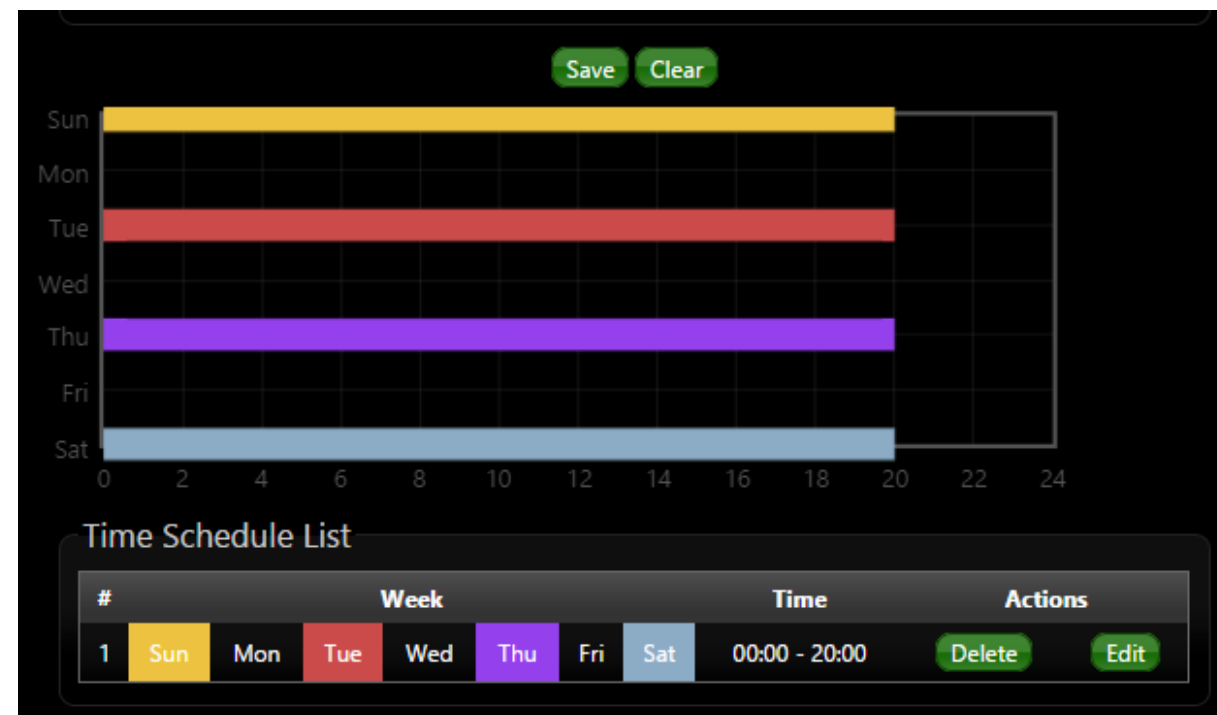
Schedule Rule:  On Schedule  Out of Schedule

### Time Schedule

Day of Week:  Sun  Mon  Tue  Wed  Thu  Fri  Sat

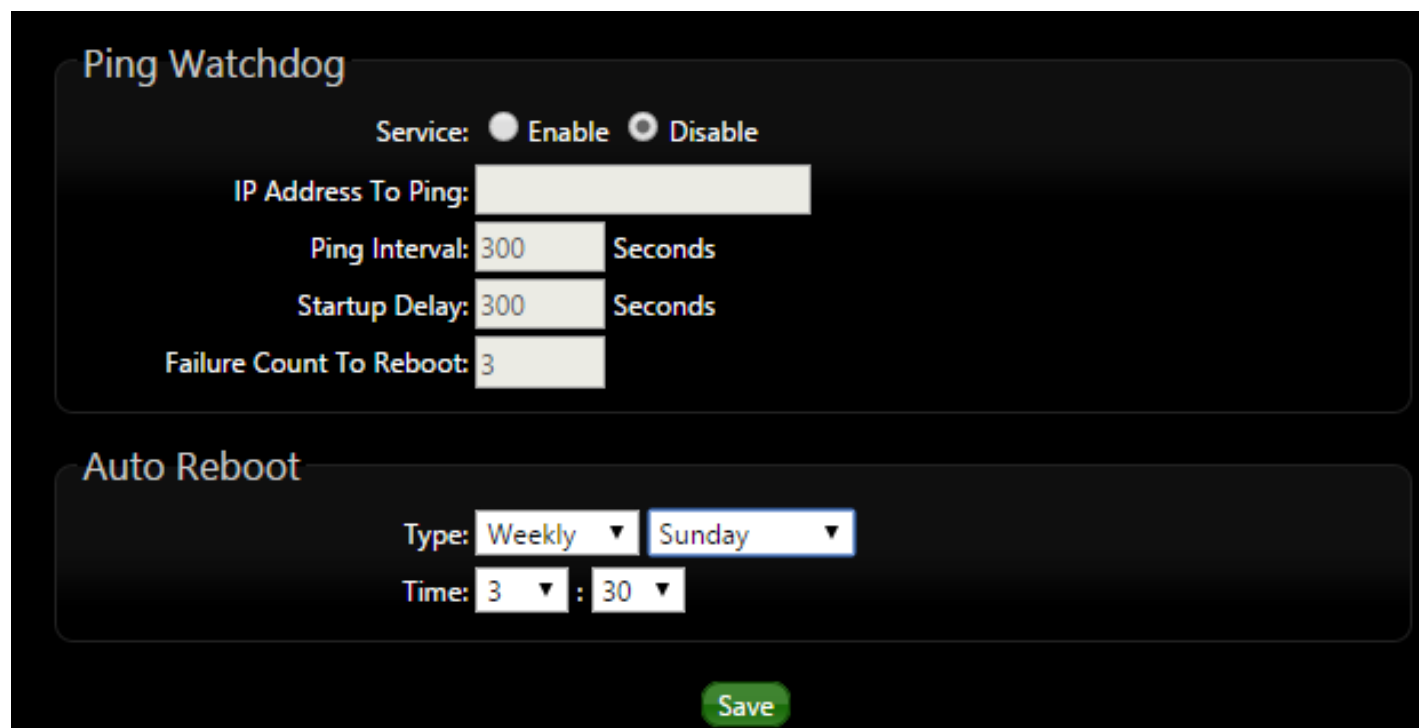
Start From: 00 : 00

End At: 20 : 00



DT-300N's CenOS 3.0 Time Policy function allows for **management of usage time** within a network. CenOS 3.0's easy to use interface allows for simple configuration of Day/Time restrictions that administrators can place on users within the network.

Administrators can activate the CenOS 3.0 Auto Reboot function that effectively reboots the network system routinely based on admin settings. This enables better system reliability and a lower likelihood of crashes. It also reduces the need for constant on-site system maintenance in case of system crashes. This setting is ideal for Hotel deployment.



**Ping Watchdog**

Service:  Enable  Disable

IP Address To Ping:

Ping Interval:  Seconds

Startup Delay:  Seconds

Failure Count To Reboot:

**Auto Reboot**

Type:

Time:  :

- AIM
- AIM web content
- Apple Juice
- Ares
- Armagetron Advanced
- Battlefield 1942
- BGP
- Bittorrent
- Chikka
- CIMD
- Cisco VPN
- Citrix ICA
- Code Red
- Counterstrike (using the new Source engine)
- CVS
- Day of Defeat: Source
- DHCP
- Direct Connect
- DNS
- Doom 3
- AIM



System Wireless Advance Utilities Status

### Control Setup

Rules

Comment:

MAC Address:  Add

Remove

Local IP:  -

Destination IP:  -

Protocol:

Application:   
popular network game - http://blizzard.com/

Schedule:

Service:  Enable  Disable

Save Clear

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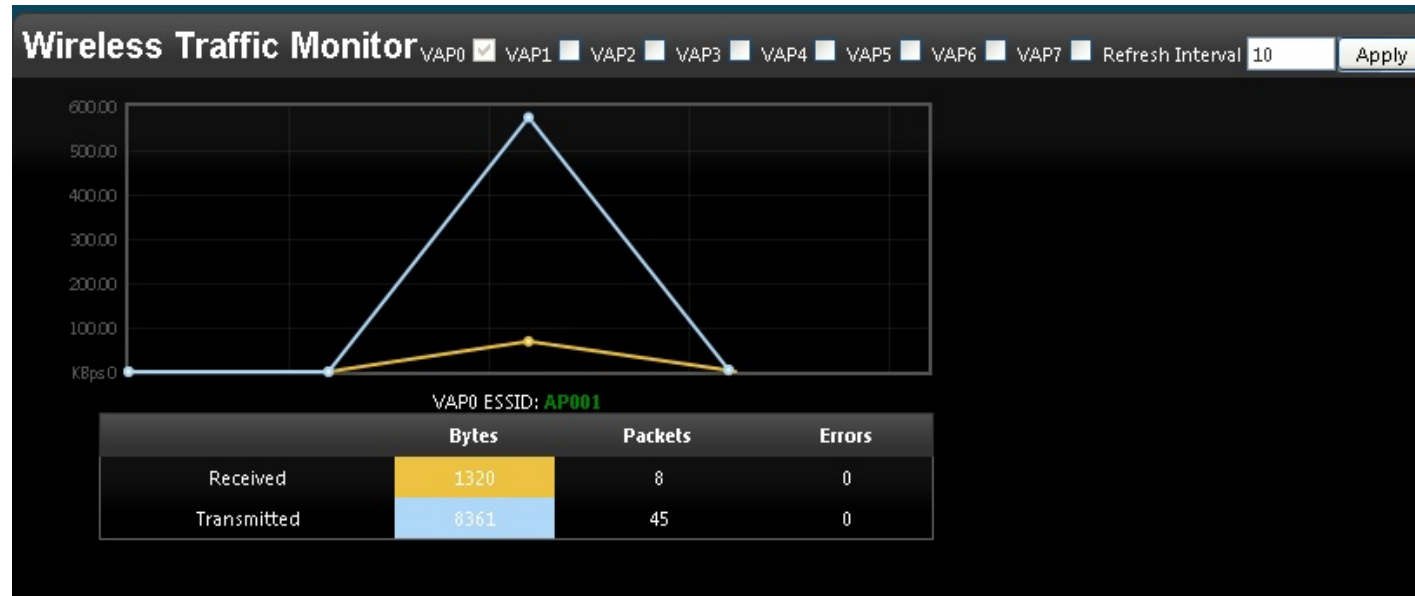
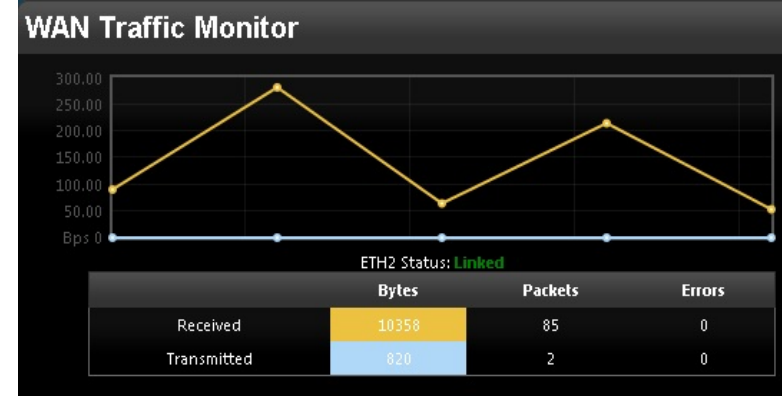
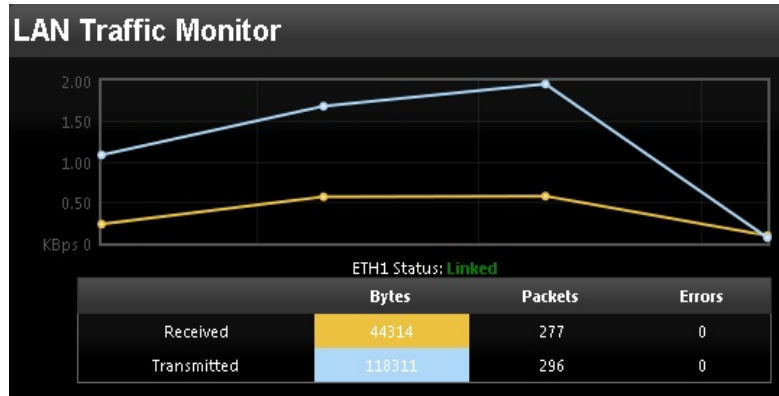
Parental Control List

	Comment	Status	Actions
#	Rules		
No items in the list!			

DT-300N's Access Control Setup is crucial for managing content that users have access to. Admins can easily block activities such as Games, Video Streaming, and Websites by adding Rules to the Parental Control List. These controls can be set to a desired time schedule.

# Traffic Monitoring

CenOS 3.0 provides a Traffic Monitor and Graphical GUI Status Interface.



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