

Following are the check points for verifying Ligo radio link parameters

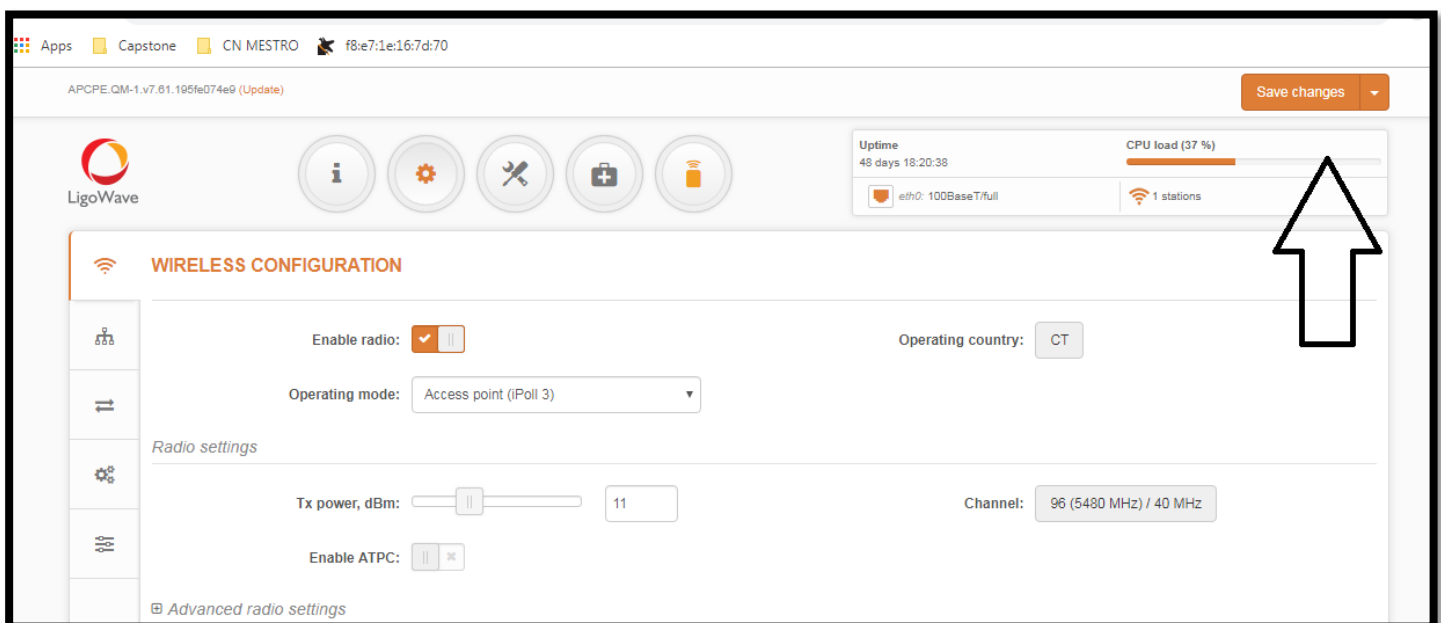
1st :- For Ligo Wave near end radio wireless mode should be “Access point (IPoll3)” and far end radio is “Station (WDS/iPoll2/ipoll3)”.

2nd:- On Home page following parameters can be seen.

- Radio Firmware
- Frequency
- Channel Width
- Output Power

Kindly Note

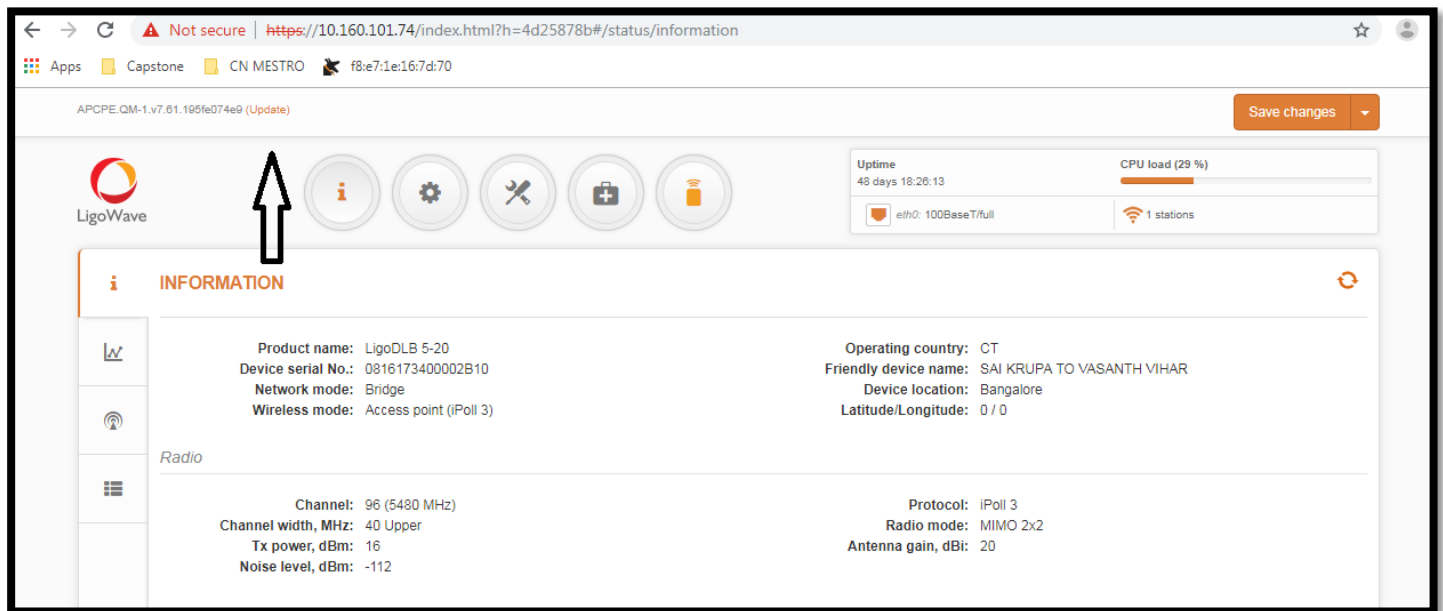
“If you going to change configuration in radio don’t apply directly, kindly check first in test mode and then apply”
If you done some changes in Radio then apply test in Far End Radio first then same will be select in Near End Radio



Radio Firmware

The firmware of Ligo Radio must be updated as following

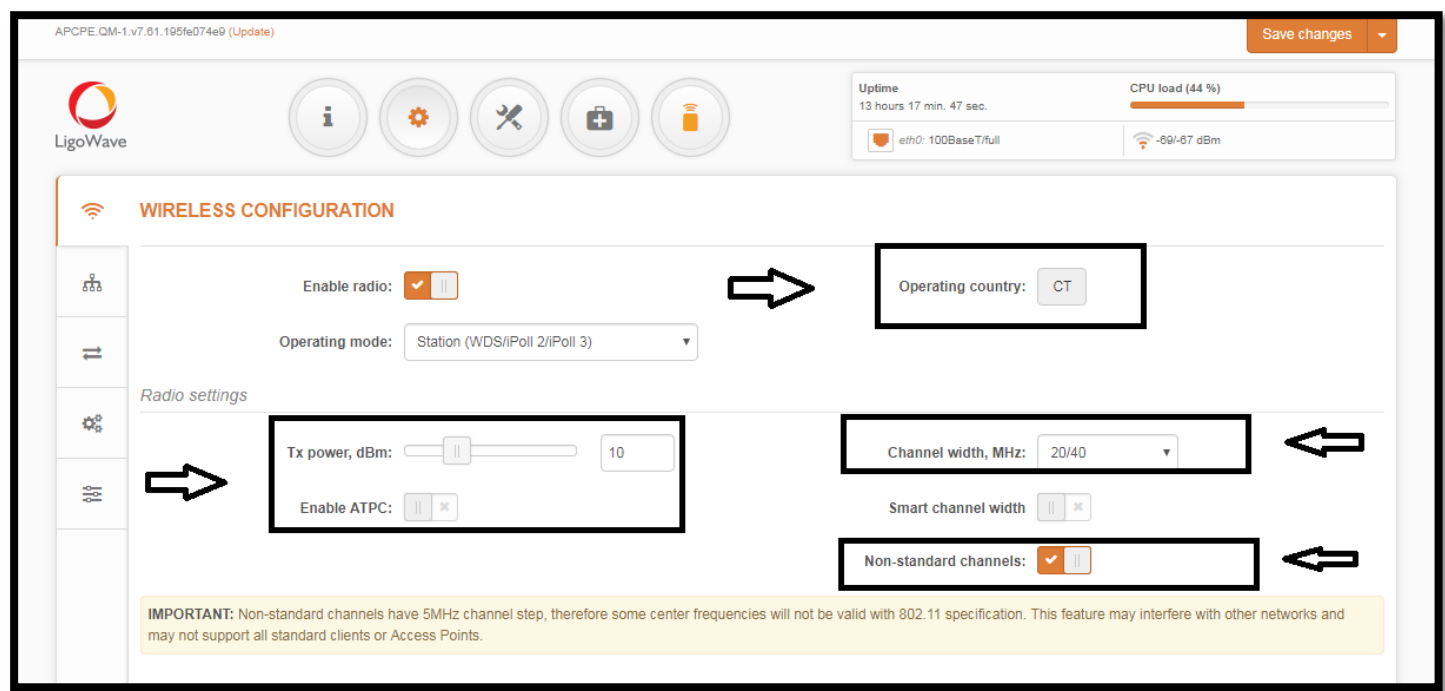
- ✓ First Login the radio and go to Update option upload Latest Firmware
- ✓ Upload Current Firmware version -APCPE.QM-1.v7.61.195fe074e9



Frequency Change

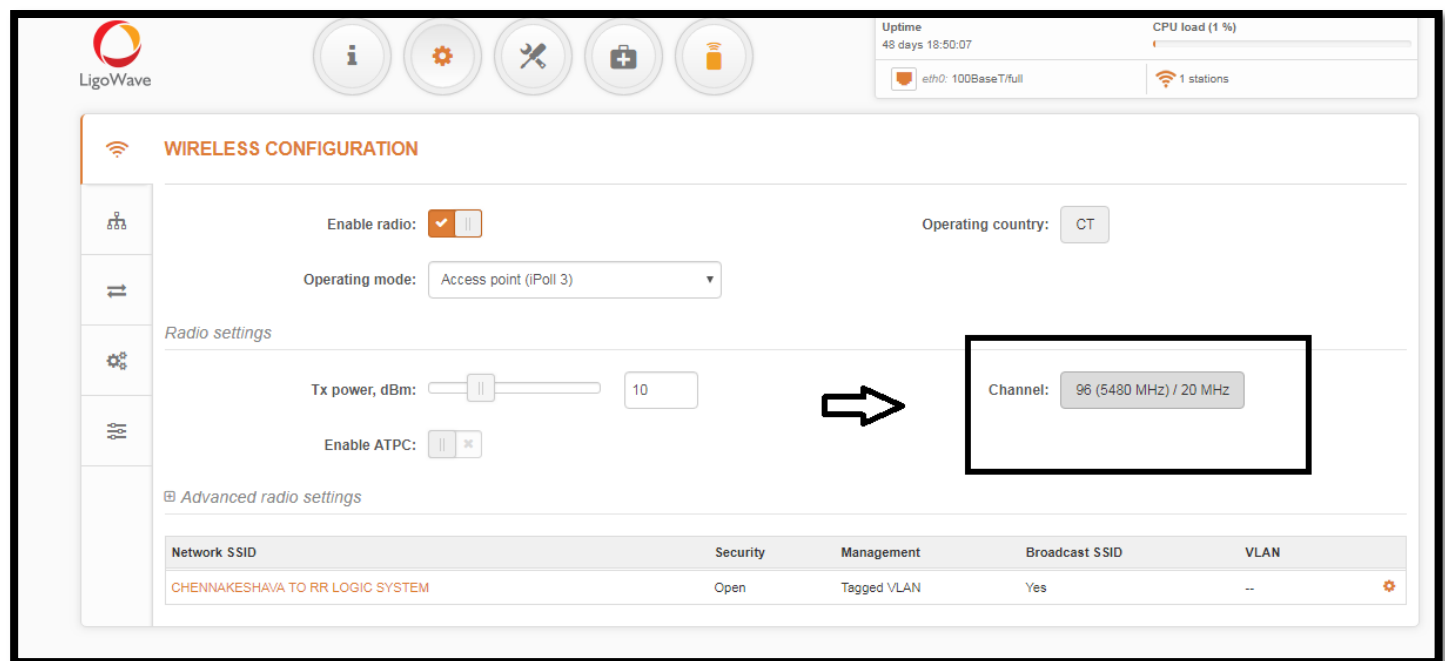
For Far End(Client) Radio

On Frequency changing time first check client end radio **“Enable Compliance Test mode/Non-standard channels/ Channel width on Far end 20/40 MHZ , power 10 dBm, disble ATPC”**.



For Near End Radio

✓ Select setting option to change the frequency for Near End Radio with **Channel 20MHZ output power 10 dbm**



Make sure the frequency range have must be “5470 to 5570” range

Link RSSI

✓ RSSI level should be in range 45dBm-55dBm,also check Tx/Rx rate.

APCPE.QM-1.v7.56-2.50386

Login

Uptime
4 hours 24 min. 44 sec.

eth0: 100BaseT/full

CPU load (31 %)
-57/-41 dBm

INFORMATION

Product name: LigoDLB 5-20

Device serial No.: 0816173400001E91

Network mode: Bridge

Wireless mode: Station (WDS/!Poll 2/!Poll 3)

Operating country: CT

Friendly device name: LigoDLB 5-20n

Device location: Indore

Latitude/Longitude: 0 / 0

Radio

Channel: 114 (5570 MHz)

Channel width, MHz: 40 Upper

Tx power, dBm: 10

Noise level, dBm: -116

Protocol: 802.11a/n/!Poll 3

Radio mode: MIMO 2x2

Antenna gain, dBi: 20

Wireless Station (WDS/!Poll 2/!Poll 3)

Network SSID	Security	Peer MAC	Tx/Rx rate, Mbps	Tx/Rx CCQ, %	Protocol	Link uptime
rajani_yashwantplaza	Open	00:19:3B:12:3A:32	120 / 240	99 / 100	!Poll 3	6 min. 33 sec.

✓ After changing radio parameters to check speed test using ZDE Link test (City wise link)

Force 300 x Force 300 x LigoDLB Ser... x LigoPTMP C... x CPE610 x SAI KRUPA 1... x (MANGALYA... x https://192.1... x

Not secure | https://192.168.13.22/tools/wc.jsp?cip=10.160.101.75

Apps Capstone CN MESTRO f8:e7:1e:16:7d:70

SpeedFlex Wireless Performance Test

10M 30M 50M

5M 100M

37M

Downlink

Uplink

Protocol UDP

START

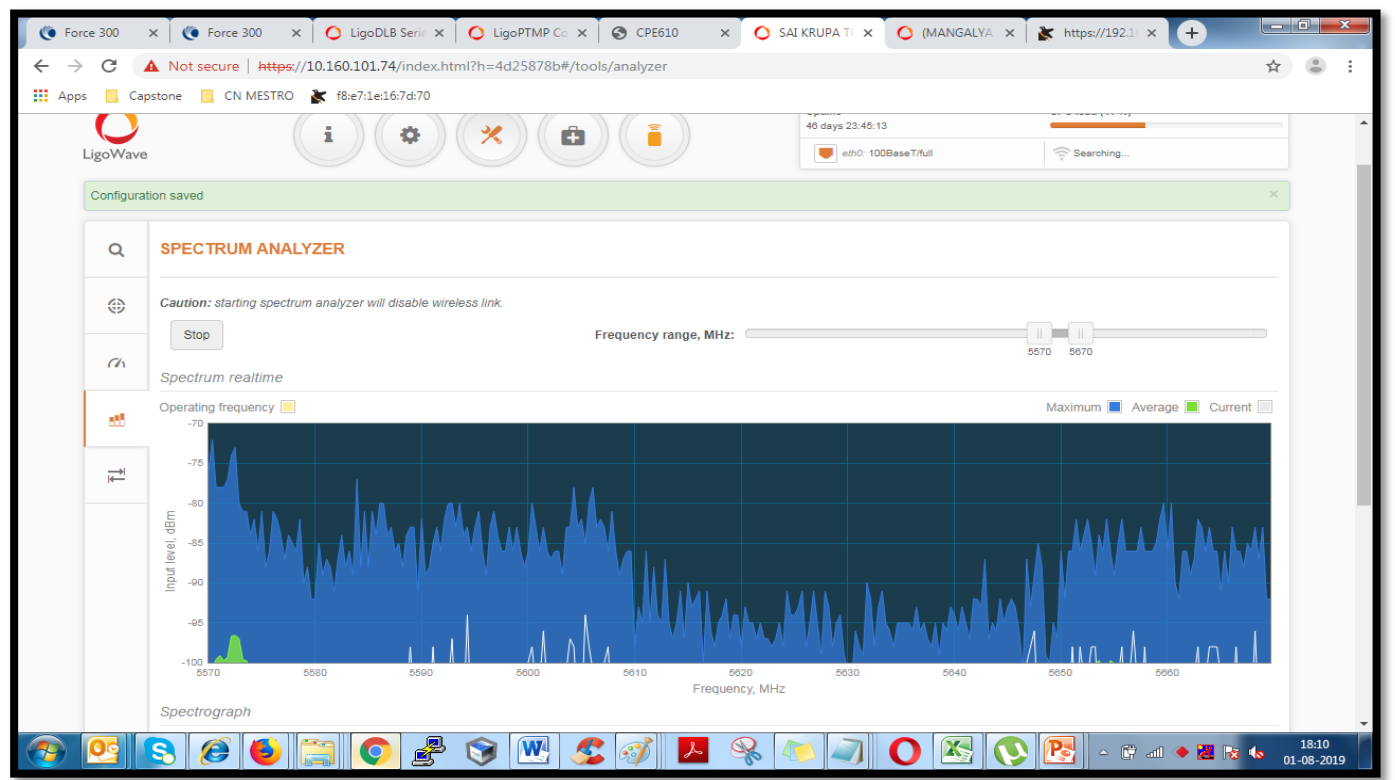
Downlink 52Mbps pkt-loss:0%

Uplink 37Mbps pkt-loss:0%

Client IP: 10.160.101.75

Windows taskbar with various icons and system clock showing 18:03 on 01-08-2019

✓ Before Frequency changing to check free band by using Spectrum Analyser To select Enterprise band 5470 to 5570 and learn Spectrum Analyser
(In Graph Below 80 dbm input level is the best frequency).



Vlan Tagging

✓ Go to setting option and add vlan

The screenshot displays the 'WIRELESS CONFIGURATION' page in the LigoWave interface. It includes sections for 'Radio settings' and 'Advanced radio settings'. The 'Radio settings' section contains options for 'Enable radio' (checked), 'Operating mode' (Station (WDS/I/Poll 2/I/Poll 3)), 'Tx power, dBm' (10), 'Channel width, MHz' (20/40), 'Enable ATPC' (unchecked), 'Smart channel width' (unchecked), and 'Non-standard channels' (checked). An important note states: 'IMPORTANT: Non-standard channels have 5MHz channel step, therefore some center frequencies will not be valid with 802.11 specification. This feature may interfere with other networks and may not support all standard clients or Access Points.' The 'Advanced radio settings' section features a table with columns for Network SSID, Security, Management, and VLAN. The table contains one entry: 'CHENNAKESHAVA TO RR LOGIC SYSTEM' with Security set to 'Open', Management set to 'Tagged VLAN', and VLAN set to '101'. A red gear icon is next to the VLAN value. A white arrow points to the 'Tagged VLAN' text in the Management column.

WIRELESS STATION SETTINGS

Primary SSID | Failover SSID

SSID: CHENNAKESHA TO RR LOG | Lock AP by MAC address: 00:19:3B:12:5A:F5

Security settings

Security: Open

Bandwidth limitation

Advanced settings

Map to data VLAN ID: 101 ☒

Management over wireless: VLAN tagged

Insert DHCP option 82: ☒

Circuit ID: Data VLAN

Remote ID: 00:19:3B:12:6B:60 (ath0)

Multicast enhancement: ☒

- >On the time of Vlan tagging select Management over wireless –VLAN tagged
- >DHCP option 82 is Enable for dynamic Customer only , static customer should be Disable

Remember Vlan should be Tagged only client end Radio

Basic Parameters

- ✓Public status page should be enabled.

SYSTEM CONFIGURATION

Device settings

Friendly name: LigoDLB 5-20n | Location: Indore

Contact information: Contact | Latitude: 0

Longitude: 0

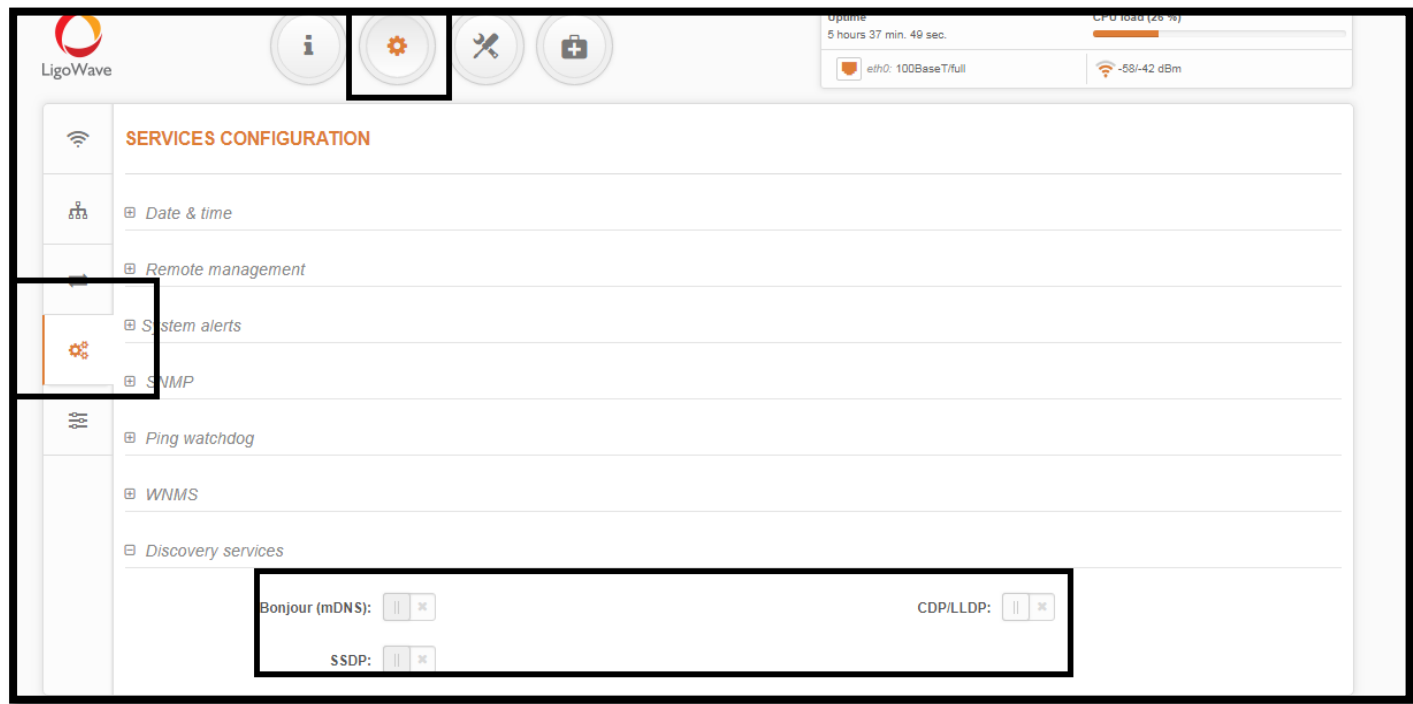
System functions

Backup configuration: Backup | Reboot device: Reboot

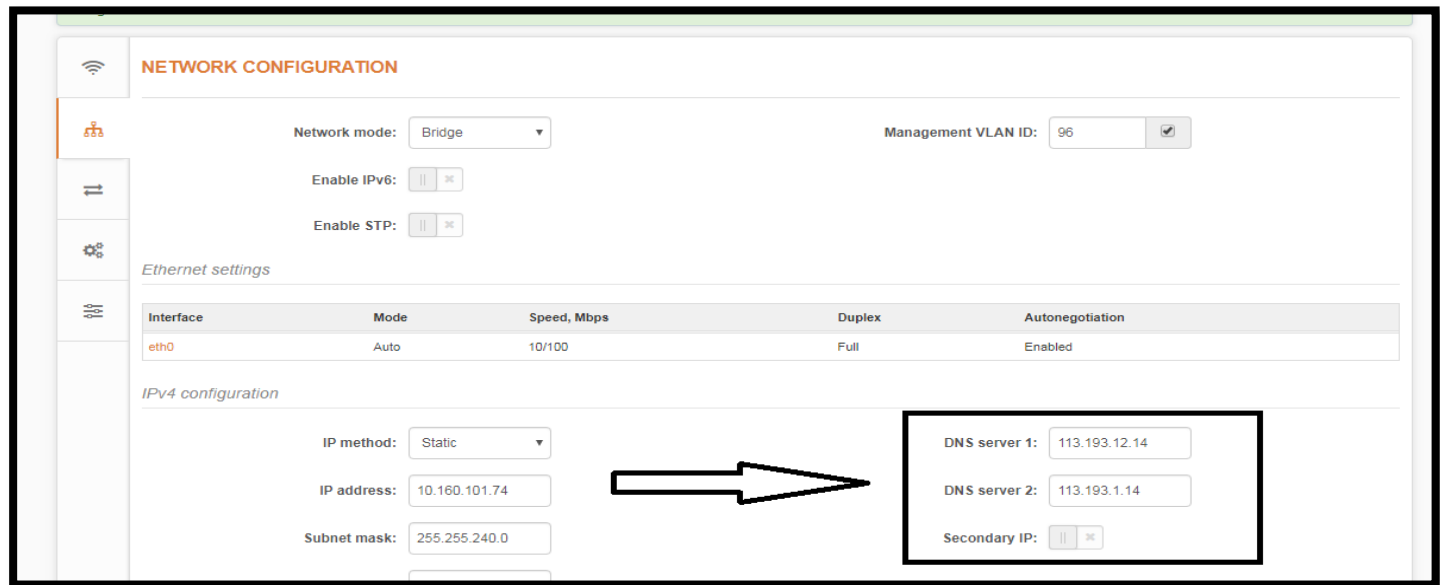
Restore configuration: Restore | Reset to factory defaults: Reset

User accounts

✓Always Disable **Bonjour (mDNS), CDP/LLDP, SSDP**



✓Enter DNS 1 & DNS 2 in respective City wise



✓Always ping watchdog disable

