2.3.1 NTU-RG-54xx (user)

NTU-RG-5402G-W
NTU-RG-5421G-Wac
NTU-RG-5421GC-Wac
NTU-RG-5421G-WZ
NTU-RG-5440G-WZ
NTU-RG-5440G-Wac

2.3.1 (03.2021)

IP-: http://192.168.1.1
: user
: user

GPON PON. « », 2,5 / downlink 1,25 / uplink. GPON IP .

GPON (OLT) (ONT). OLT Gigabit Ethernet GPON, PON . ONT . -.

ONT NTU «» , UNI 10/100/1000Base-T FXS [1] , Wi-Fi, USB, Z-Wave [2] , RF [3] :

- NTU-RG-5402G-W, NTU-RG-5421G-Wac, NTU-RG-5421GC-Wac, NTU-RG-5421G-WZ, NTU-RG-5440G-WZ, NTU-RG-5440G-Wac

, , , NTU-RG.

, .

, , .

---

[1] NTU-RG-5440G-WZ, NTU-RG-5440G-Wac

[2] NTU-RG-5421G-WZ, NTU-RG-5440G-WZ

[3] NTU-RG-5421GC-WAC

NTU-RG GPON ONT (Gigabit Passive Optical Network) – , . GPON PON-, Ethernet.

GPON . - . , ONT , -.

, . DoS , MAC/IP- /. Web-, LAN- DMZ. « » Web- . (VPN) .

FXS IP-, , , , , . .

USB USB- (USB--, HDD).

NTU-RG-5402G-W, Wi-Fi b/g/n – 2,4 . NTU-RG-5421G-Wac, NTU-RG-5421G-WZ, NTU-RG-5421GC-Wac, NTU-RG-5440G-WZ, NTU-RG-5440G-Wac Wi-Fi IEEE 802.11a/b/g/n/ac. 802.11ac 1733 / . Wi-Fi – 2,4 5 .

NTU-RG-5421G-WZ, NTU-RG-5440G-WZ " ".

" " . Wi-Fi IEEE 802.11 , , " " 1 (, /, , ..). (2,4 , , — Wi-Fi, ZigBee, Bluetooth).

" " , , , , , , .

NTU-RG-5421GC-Wac RF-, ( ).

NTU-RG , 1.

1 –

	WAN	LAN	FXS	Z-Wave	TV	Wi-Fi	USB
NTU-RG-5402G-W	1xGPON	41Gigabit	2	-	-	802.11n, 2*2 - 300 / – 2,4	1
NTU-RG-5421G-Wac	1xGPON	41Gigabit	1	-	-	802.11n, 2*2 - 300 / – 2,4 802.11ac, 2*2 - 866 / – 5	1
NTU-RG-5421GC-Wac	1xGPON	41Gigabit	1	-	1	802.11n, 2*2 - 300 / – 2,4 802.11ac, 2*2 - 866 / – 5	1
NTU-RG-5421G-WZ	1xGPON	41Gigabit	1	1	-	802.11n, 2*2 - 300 / – 2,4 802.11ac, 2*2 - 866 / – 5	1
NTU-RG-5440G-Wac	1xGPON	41Gigabit	-	-	-	802.11n, 2*2 - 300 / – 2,4 802.11ac, 4*4 - 1733 / – 5	1
NTU-RG-5440G-WZ	1xGPON	41Gigabit	-	1	-	802.11n, 2*2 - 300 / – 2,4 802.11ac, 4*4 - 1733 / – 5	1

:

- RJ-11 (FXS):
  - 2 NTU-RG-5402G-W;
  - 1 NTU-RG-5421G-Wac, NTU-RG-5421G-WZ, NTU-RG-5421GC-Wac.
- 1 PON SC/APC (WAN);
- Ethernet RJ-45 LAN (LAN):
  - 4 RJ-45 10/100/1000Base-T.
- Wi-Fi:
  - 802.11b/g/n NTU-RG-5402G-W;
  - 802.11a/b/g/n/ac NTU-RG-5421G-Wac, NTU-RG-5421G-WZ, NTU-RG-5421GC-Wac , NTU-RG-5440G-WZ, NTU-RG-5440G-Wac.
- 1 USB2.0 USB HDD;
- " ", NTU-RG-5421G-WZ, NTU-RG-5440G-WZ;
- 1 RF- (CaTV) NTU-RG-5421GC-Wac.

220/12B 2.

:

- *:*
  - «» «»;
  - PPPoE (auto, PAP, CHAP, MSCHAP-);
  - IPoE (DHCP-client static);
  - DHCP (DHCP- WAN, DHCP- LAN);
  - Multicast Wi-Fi;
  - DNS (Domain Name System);
  - DynDNS (Dynamic DNS);
  - UPnP (Universal Plug and Play);
  - IPsec (IP Security);
  - NAT (Network Address Translation);
  - Firewall;
  - NTP (Network Time Protocol);
  - QoS;
  - IGMP-snooping;
  - IGMP-proxy;
  - Parental Control;
  - Storage service;
  - SMB, FTP, Print Server;
  - VLAN IEEE 802.1Q.
- *Wi-Fi:*
  - 802.11a/b/g/n/ac;
  - : 2.4 5;
  - EasyMesh.
- *IP-:*
  - SIP;
  - : G.729 (A), G.711(A/U), G.723.1;
  - ToS RTP;
  - ToS SIP;
  - (G.164, G.165);
  - (VAD);
  - (CNG);
  - DTMF;
  - DTMF (INBAND, RFC2833, SIP INFO);
  - : G.711, T.38;

    - Caller ID.
- *:*
    - – Call Hold;
    - – Call Transfer;
    - – Call Waiting;
    - – Forward unconditionally;
    - – Forward on "no answer";
    - – Forward on "busy";
    - Caller ID ETSI FSK;
    - Caller ID ( ) – Anonymous calling;
    - – Warmline;
    - ;
    - – MWI;
    - – Anonymous call blocking;
    - – Call Barring;
    - " " – DND.
- *Web-, TR-069, OMCI;*
- *, :*
    - TR-069;
    - Web-;
    - OMCI;
    - Telnet.
- [1] .

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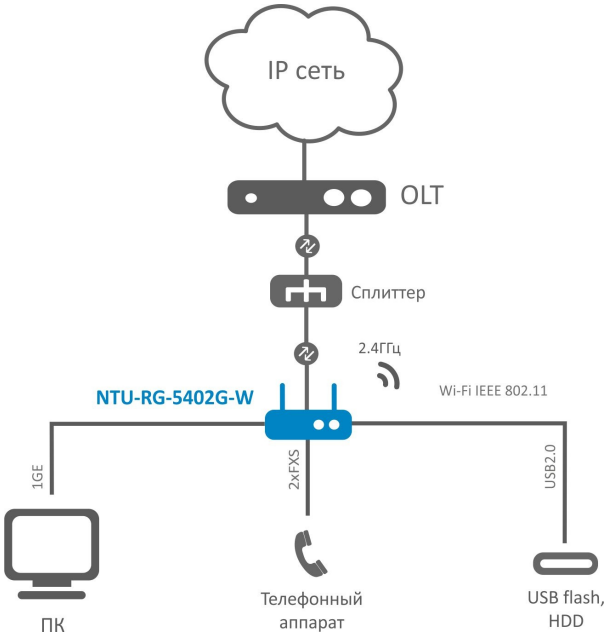
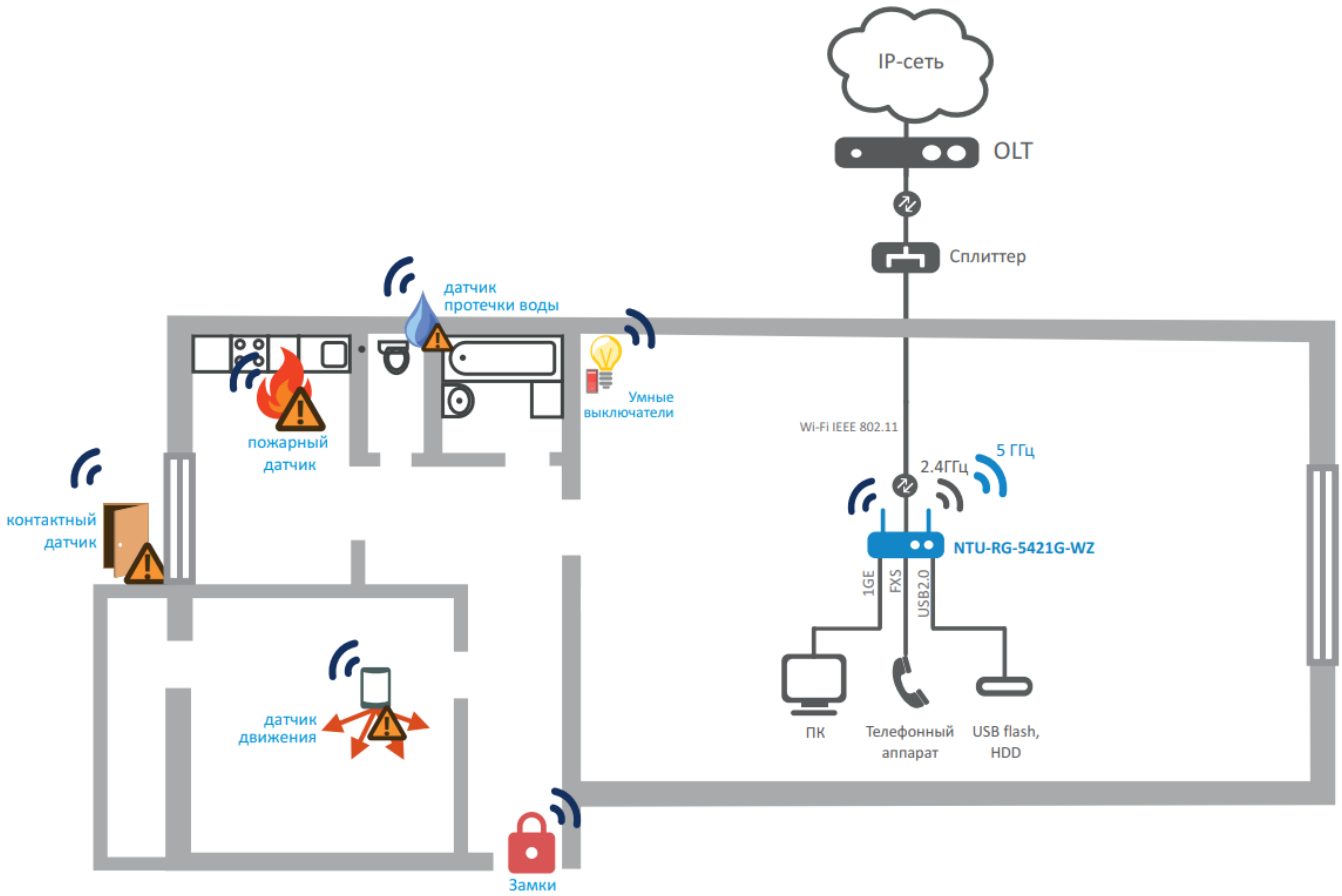
[1] NTU-RG-5421GC-Wac

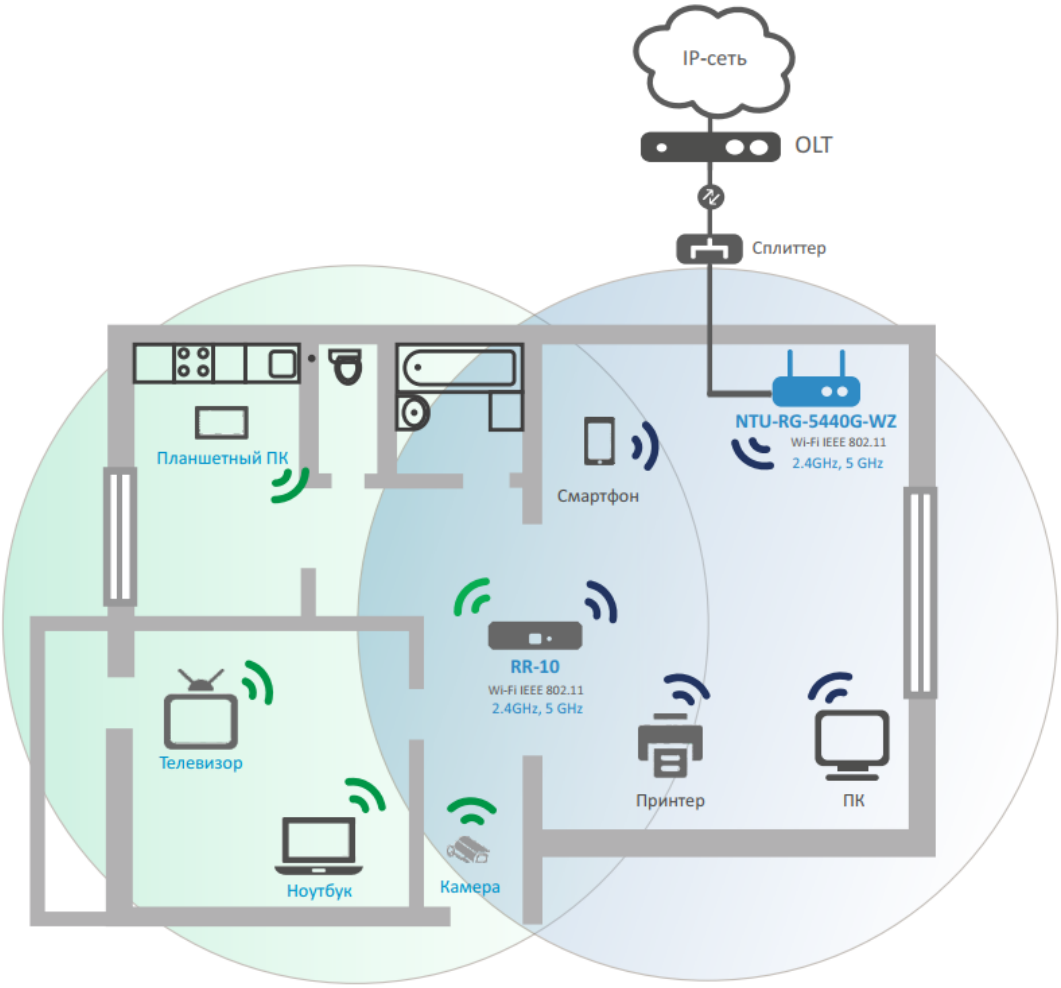
NTU-RG.



1 – NTU-RG-5402G-W



2 – NTU-RG-5421G-Wac, NTU-RG-5421G-WZ, NTU-RG-5440G-Wac NTU-RG-5440G-WZ



3 – NTU-RG-5421G-WZ NTU-RG-5440G-WZ

2:

2 –

VoIP

	SIP

	G.729, annex A G.711(A/µ) G.723.1 (5,3 Kbps) : G.711, T.38

Ethernet LAN

	4
	RJ-45
, /	, 10/100/1000 /, /

	IEEE 802.3i 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3x Flow Control IEEE 802.3 NWay auto-negotiation

PON

	1
	ITU-T G.984.x Gigabit-capable passive optical networks (GPON) ITU-T G.988 ONU management and control interface (OMCI) specification IEEE 802.1Q Tagged VLAN IEEE 802.1P Priority Queues IEEE 802.1D Spanning Tree Protocol
	SC/APC ITU-T G.984.2, ITU-T G.984.5 Filter, FSAN Class B+, SFF-8472
	SMF - 9/125, G.652
	1:128
	20
:	1310
• upstream	1244 /
•	+0,5 +5
• (RMS)	1
:	1490
• downstream	2488 /
•	-8 -28, BER1.0x10^{-10}
	-8

	NTU-RG-5402G-W	NTU-RG-5421G-Wac NTU-RG-5421GC-Wac NTU-RG-5421G-WZ
	2	1
	2	
	/ (DTMF)	
Caller ID		

Wi-Fi

	NTU-RG-5402G-W	NTU-RG-5421G-Wac NTU-RG-5421GC-Wac NTU-RG-5421G-WZ	NTU-RG-5440G-Wac NTU-RG-5440G-WZ

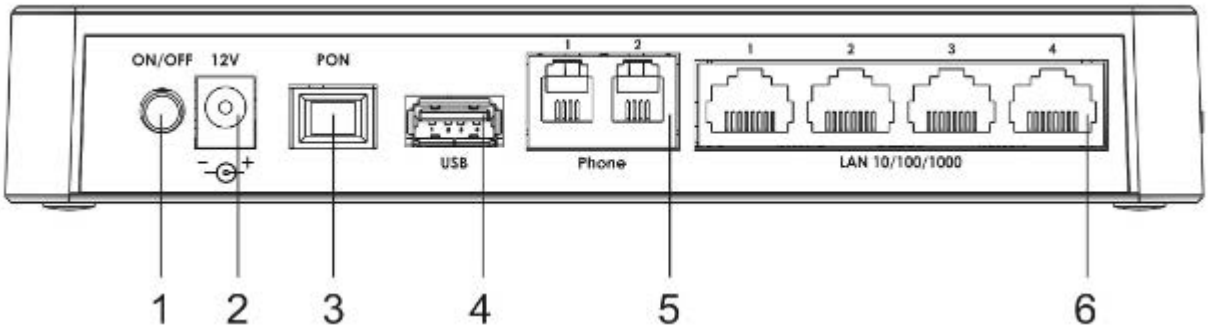
	802.11 b/g/n	802.11 a/b/g/n/ac	802.11 a/b/g/n/ac
	2400 ~ 2483,5	2400 ~ 2483,5 , 5150 ~ 5350 , 5650 ~ 5850 (Simultaneous Dual Band)	
	CCK, BPSK, QPSK, 16 QAM, 64 QAM, 256 QAM	CCK, BPSK, QPSK, 16 QAM, 64 QAM, 256 QAM	
, /	– 802.11b/g/n: 1-13 – 802.11b: 1; 2; 5,5 11 / – 802.11g: 6, 9, 12, 18, 24, 36, 48 54 / – 802.11n: 6,5 300 /c (MCS0 MCS15)	– 802.11b/g/n: 1-13 – 802.11b: 1; 2; 5,5 11 / – 802.11g: 6, 9, 12, 18, 24, 36, 48 54 / – 802.11ac: 866 /c (80)	– 802.11b/g/n: 1-13 – 802.11b: 1; 2; 5,5 11 / – 802.11g: 6, 9, 12, 18, 24, 36, 48 54 / – 802.11ac: 1733 /c (80)
	– 802.11b (11 Mbps): 17 – 802.11g (54 Mbps): 15 – 802.11n (MCS7): 15	– 802.11b (11 Mbps): 17 – 802.11g (54 Mbps): 15 – 802.11n (MCS7): 15 – 802.11 (MCS0): 19	2.4 : – 802.11b (11 Mbps): 18 – 802.11g (54 Mbps): 16 – 802.11n (MCS7): 16 – 802.11n (MCS0): 18 5 : – 802.11ac (MCS7): 18 – 802.11 (MCS0): 20
MAC-	CSMA/CA ACK 32 MAC		
	64/128- WEP- ; WPA, WPA2 802.1x AES & TKIP		
MIMO	2,4 - 22	2,4 - 22, 5 - 22	2,4 - 22, 5 - 44
	5		
	+5 +40°		

	Web-
	Telnet, TR-069, OMCI
	OMCI, TR-069, HTTP

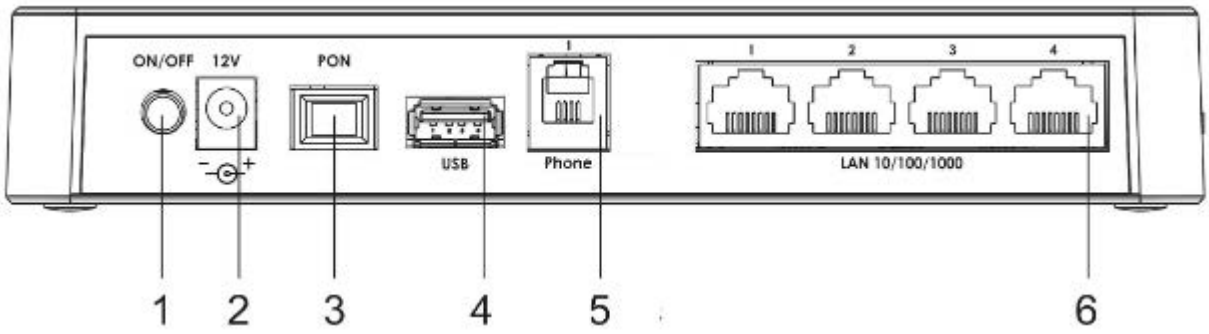
	NTU-RG-5402G-W NTU-RG-5421G-Wac NTU-RG-5421G-WZ	NTU-RG-5421GC-Wac	NTU-RG-5440G-Wac NTU-RG-5440G-WZ
	12 DC /220 AC		
	18		
	+5 +40°		
	80%		
	187x120x32	220x120x50	234x133x34
	0,3	0,45	0,57

.

4, 5, 6, 7.



4 – NTU-RG-5402G-W

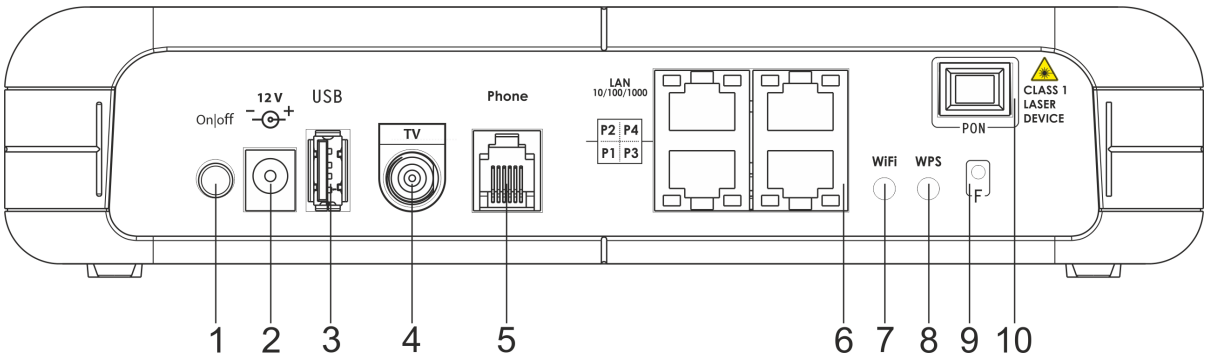


5 – NTU-RG-5421G-Wac NTU-RG-5421G-WZ

NTU-RG-5402G-W, NTU-RG-5421G-Wac NTU-RG-5421G-WZ , 3.

3 – ,

1	***On/Off***	
2	***12V***	
3	***PON***	SC () PON GPON
4	***USB***	USB-
5	***Phone***	RJ-11 : • 2 NTU-RG-5402G-W • 1 NTU-RG-5421G-Wac NTU-RG-5421G-WZ
6	***LAN 10/100/1000 1..4***	4 RJ-45

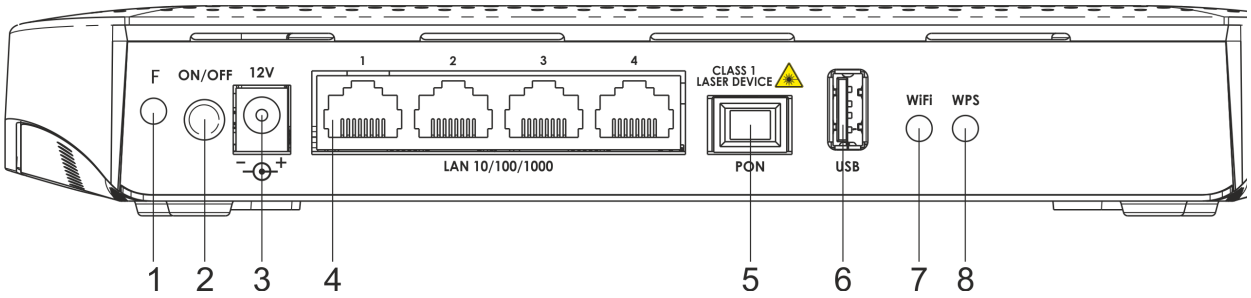


6 – NTU-RG-5421G-Wac

, 4.

4 – ,

1	***On/Off***	
2	***12V***	
3	***USB***	USB-
4	***TV***	RF-
5	***Phone***	RJ-11 .
6	***LAN 10/100/1000 P1..P4***	4 RJ-45
7	***Wi-Fi***	/ Wi-Fi
8	***WPS***	Wi-Fi
9	***F***	
10	***PON***	SC () PON GPON



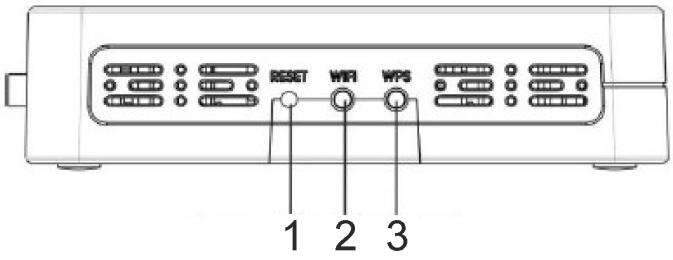
7 – NTU-RG-5440G-Wac NTU-RG-5440G-WZ

NTU-RG-5440G-Wac NTU-RG-5440G-WZ , 5.

5 – ,

1	***F***	
2	***On/Off***	
3	***12V***	
4	***LAN 10/100/1000 1..4***	4 RJ-45
5	***PON***	SC () PON GPON
6	***USB***	USB-
7	***Wi-Fi***	/ Wi-Fi
8	***WPS***	Wi-Fi

NTU-RG-5402G-W, NTU-RG-5421G-Wac NTU-RG-5421G-WZ 8 .



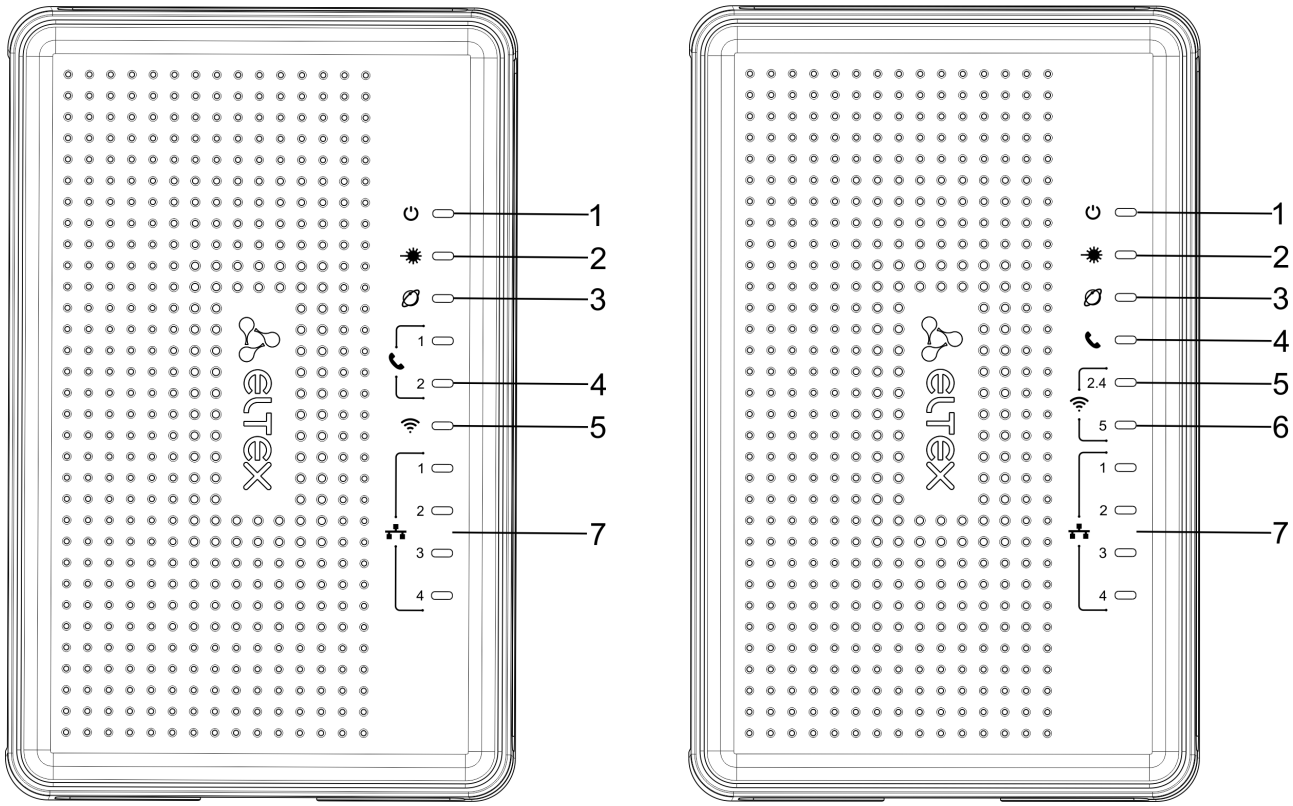
8 – NTU-RG-5402G-W, NTU-RG-5421G-Wac NTU-RG-5421G-WZ

, 6.

6 – NTU-RG-5402G-W, NTU-RG-5421G-Wac NTU-RG-5421G-WZ

1	***Reset***	
2	***Wi-Fi***	/ Wi-Fi
3	***WPS***	Wi-Fi

NTU-RG-5402G-W, NTU-RG-5421G-Wac, NTU-RG-5421G-WZ 9.



9 – NTU-RG-5402G-W () NTU-RG-5421G-Wac, NTU-RG-5421G-WZ ()

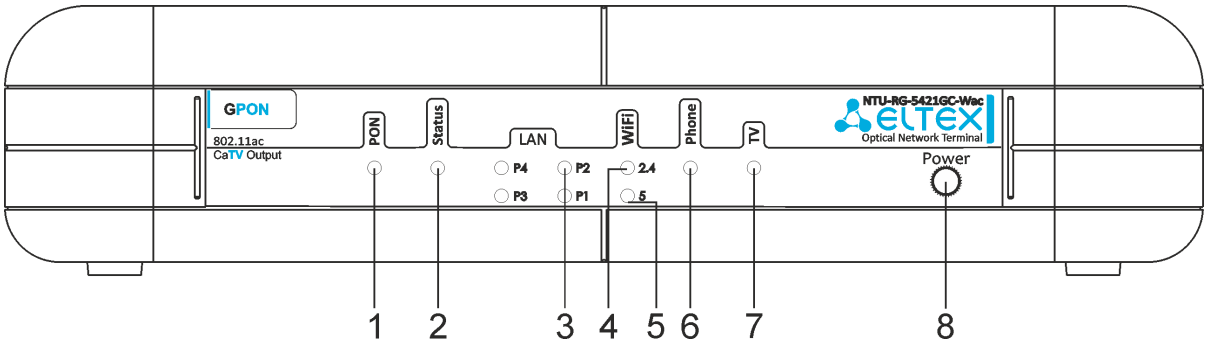
, . 7.

7 – NTU-RG-5402G-W, NTU-RG-5421G-Wac NTU-RG-5421G-WZ

1	⏻ –		

			, , -
			, -
2	–		
			,
3	–		
			,
			/
4	– FXS		SIP / /
			SIP
			/
5	*2.4* – Wi-Fi 2.4		Wi-Fi
			Wi-Fi
			Wi-Fi
6	*5* – Wi-Fi 5		Wi-Fi
			Wi-Fi
			Wi-Fi
7	*1..4* – Ethernet-		10/100 /
			1000 /

NTU-RG-5421G-Wac 10.



10 – NTU-RG-5421G-Wac

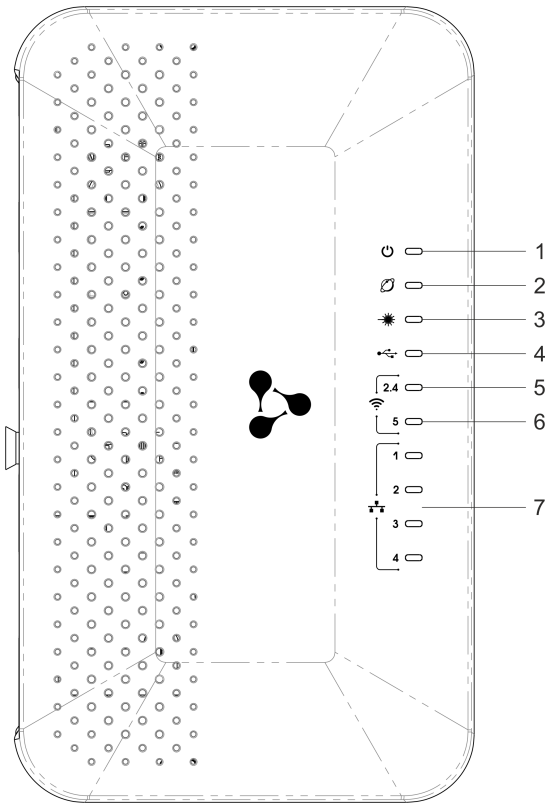
, . 8.

8 – NTU-RG-5421G-Wac

1	*PON* –		
			,
			/
2	*Status* –		
			,

3	***LAN P1..P4*** – Ethernet-		10/100 /
			1000 /
4	***WiFi 2.4*** – Wi-Fi 2.4		Wi-Fi
			Wi-Fi
			Wi-Fi
5	***WiFi 5*** – Wi-Fi 5		Wi-Fi
			Wi-Fi
			Wi-Fi
6	***Phone*** – *FXS*		SIP / /
			SIP
			/
7	***TV*** – "TV"		-8 dBm < CATV < +2 dBm
			RF-
			-
			(+2)
8	***Power*** –		
			, , -
			, -

NTU-RG-5440G-Wac, NTU-RG-5440G-WZ 11.



11 – NTU-RG-5440G-Wac NTU-RG-5440G-WZ

, . 9.

9 – NTU-RG-5402G-W, NTU-RG-5421G-Wac NTU-RG-5421G-WZ

1	⏻ –		
			, , -
			, -
2	∅ –		
			,
			/
3	✹ –		
			,
4	– USB		USB-
			USB-
			USB-
5	*2.4* – Wi-Fi 2.4		Wi-Fi
			Wi-Fi
			Wi-Fi
6	*5* – Wi-Fi 5		Wi-Fi
			Wi-Fi
			Wi-Fi
7	*1..4* – Ethernet-		10/100 /
			1000 /

LAN

, LAN , 10.

10 – LAN

1000Base-T,		
1000Base-T,		
10/100Base-TX,		
10/100Base-TX,		

/

:

- «Reset» NTU-RG-5402G-W, NTU-RG-5421G-Wac NTU-RG-5421G-WZ;
- «F» NTU-RG-5421G-Wac, NTU-RG-5440G-Wac, NTU-RG-5440G-WZ.

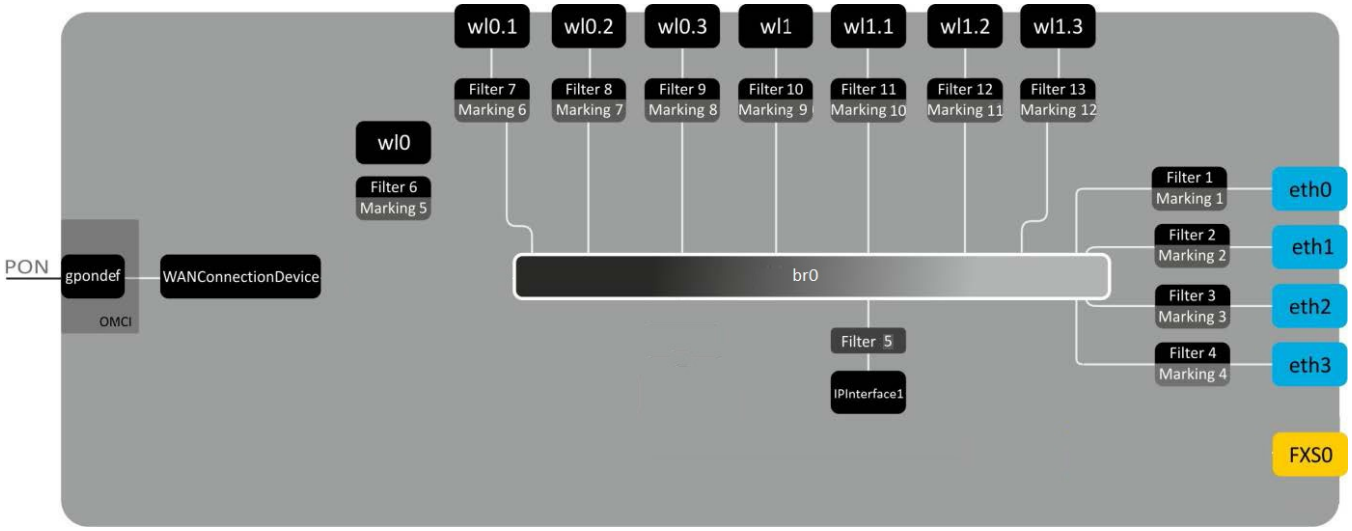
«Reset/F» 7-10 , ⏻ . IP-: *LAN - 192.168.1.1, – 255.255.255.0.* LAN 1, LAN 2, LAN 3 LAN 4.

NTU-RG :

- NTU-RG;
- 220/12;

- ;
- .

NTU-RG



12 –

:

- **- (SFF-)** – ;
- **(PON-)** – Ethernet GPON**;**
- **Wi-Fi** – .

() (. 12):

- Br0;
- Voice (IP);
- eth0…3;
- FXS0;
- wl0, wl0.1, wl0.2, wl0.3, wl1, wl1.1, wl1.2, wl1.3;
- IPInterface1.

br0 LAN .

eth0..3 Ethernet- RJ-45 , STB . **br0**.

FXS0 RJ-11 . Voice. Voice Web-, ACS TR-069. VoIP (SIP-, , ..).

wl0, wl0.1…wl1.3 Wi-Fi-. wl0 2,4 , wl1 – 5 .

Filter Marking (**br0**). , **Filter** , **Marking** – .

IPInterface1 , IP- , DHCP, .

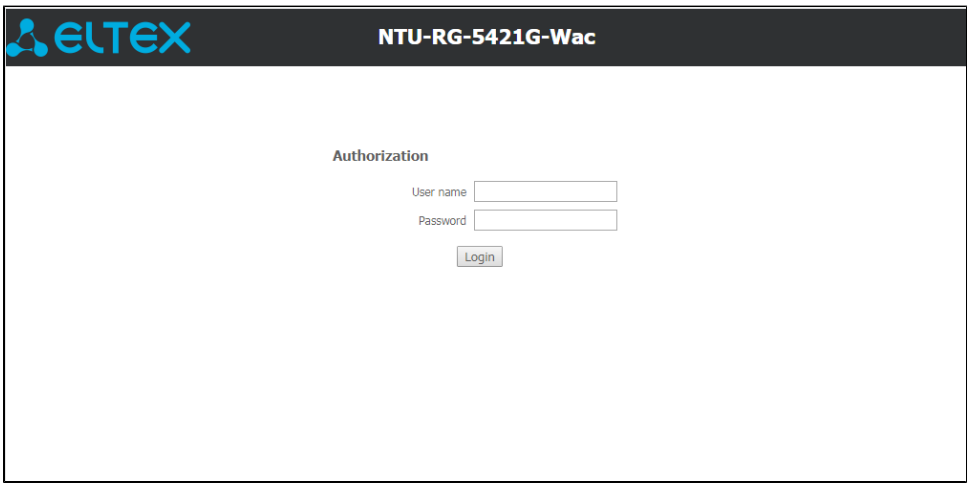
Web-.

, Web-:

1. Web- (- web-), , Firefox, Google Chrome.
2. IP-

> IP- : *192.168.1.1* , : *255.255.255.0*

:

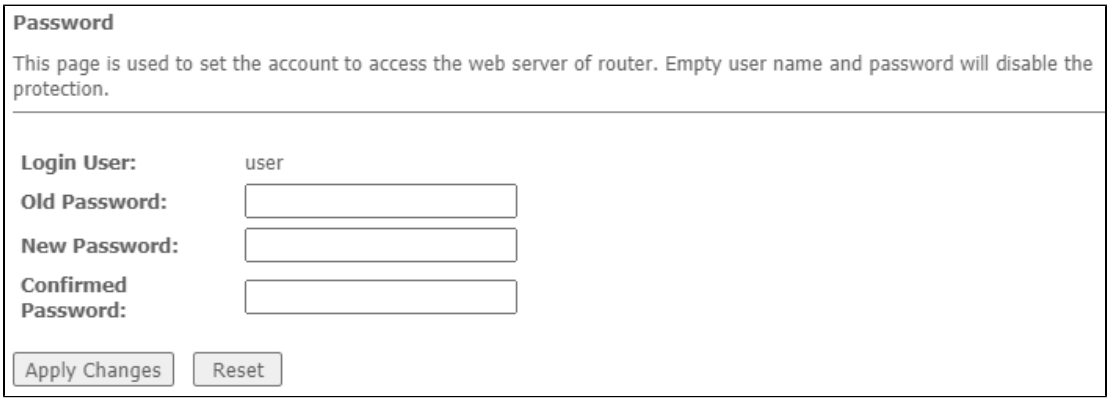


3. «User Name» «Password».

> *user*, *user.*

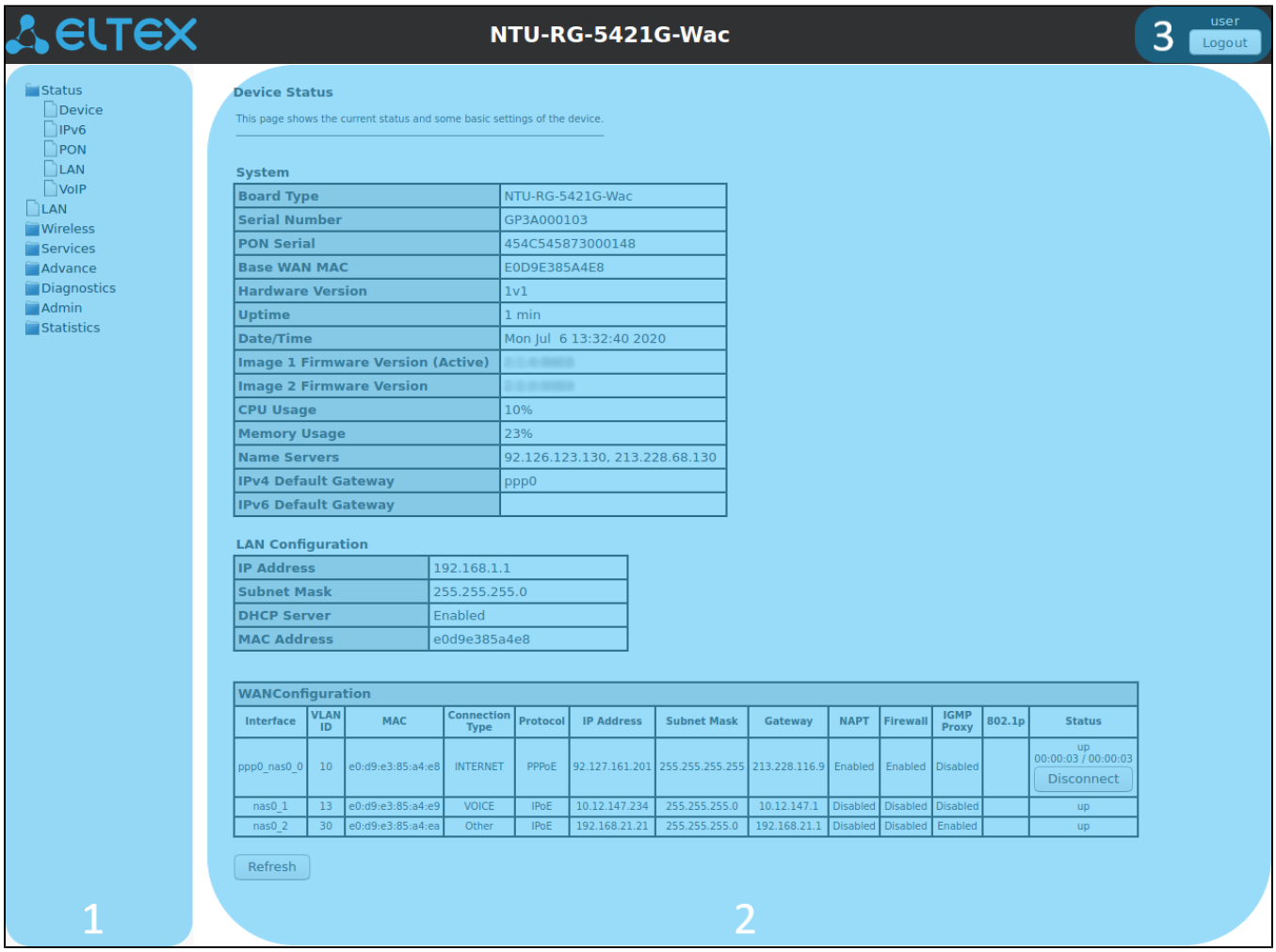
4. «Login». web- .

. *Admin*, *«Password»*, «*Old Password*» , *«New Password»* « *Confirm new password* » . *«Apply Changes»*.



web-

.



3 :

1. .
2. .
3. .

«Status».

«Device status».

, LAN WAN .

Status Device status

Device Status

This page shows the current status and some basic settings of the device.

System

Board Type	NTU-RG-5421G-Wac
Serial Number	GP3A000103
PON Serial	454C545873000148
Base WAN MAC	E0D9E385A4E8
Hardware Version	1v1
Uptime	1 min
Date/Time	Mon Jul 6 13:32:40 2020
Image 1 Firmware Version (Active)	[illegible]
Image 2 Firmware Version	[illegible]
CPU Usage	10%
Memory Usage	23%
Name Servers	92.126.123.130, 213.228.68.130
IPv4 Default Gateway	ppp0
IPv6 Default Gateway	

LAN Configuration

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
DHCP Server	Enabled
MAC Address	e0d9e385a4e8

WANConfiguration

Interface	VLAN ID	MAC	Connection Type	Protocol	IP Address	Subnet Mask	Gateway	NAPT	Firewall	IGMP Proxy	802.1p	Status
ppp0_nas0_0	10	e0:d9:e3:85:a4:e8	INTERNET	PPPoE	92.127.161.201	255.255.255.255	213.228.116.9	Enabled	Enabled	Disabled		up 00:00:03 / 00:00:03 Disconnect
nas0_1	13	e0:d9:e3:85:a4:e9	VOICE	IPoE	10.12.147.234	255.255.255.0	10.12.147.1	Disabled	Disabled	Disabled		up
nas0_2	30	e0:d9:e3:85:a4:ea	Other	IPoE	192.168.21.21	255.255.255.0	192.168.21.1	Disabled	Disabled	Enabled		up

Refresh

System

- *Board Type* – ;
- *Serial Number* – ;
- *PON Serial* – PON;
- *Base WAN MAC* – WAN MAC- ;
- *Hardware Version* – ;
- *Uptime* – ;
- *Date/Time* – ;
- *Image 1 Firmware Version (Active)* – ;
- *Image 2 Firmware Version* – ;
- *CPU Usage* – CPU;
- *Memory Usage* – ;
- *Name Servers* – DNS;
- *IPv4 Default Gateway* – IPv4;
- *IPv6 Default Gateway* – IPv6.

LAN Configuration

- *IP Address* – IP- ;
- *Subnet Mask* – ;
- *DHCP Server* – DHCH-;
- *MAC Address* – MAC- .

WAN Configuration

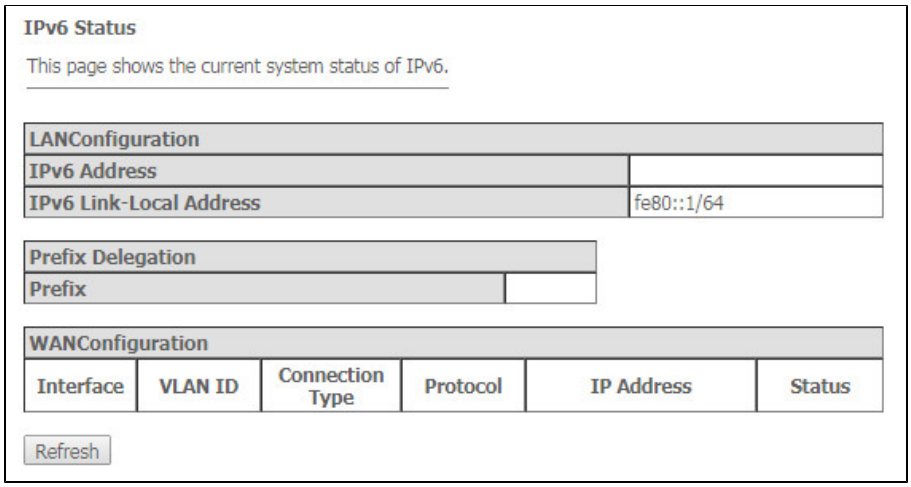
- *Interface* – ;
- *VLAN ID* – VLAN ID ;
- *MAC* – MAC- ;
- *Connection Type* – ;
- Protocol – ;
- *IP Address* – IP- ;
- *Gateway* – ;
- *Status* – .

«Refresh».

«IPv6 Status». IPv6

IPv6.

Status IPv6



LAN Configuration

- IPv6 Address – IPv6-;
- *IPv6 Link-Local Address* – IPv6-.

Prefix Delegation

- *Prefix* – IPv6- .

WAN Configuration

- *Interface* – ;
- *VLAN ID* – VLAN ID ;
- *Connection Type* – ;
- *Protocol* – ;
- *IP Address* – IP- ;
- *Status* – .

«Refresh».

«PON».

PON-.

Status PON

PON Status

This page shows the current system status of PON.

PON Status	
Vendor Name	Ligent Photonics
Part Number	LTB3468-BC1
Temperature	53.734375 C
Voltage	3.146000 V
Tx Power	2.139976 dBm
Rx Power	-9.951086 dBm
Bias Current	17.084000 mA

GPON Status	
ONU State	O5
ONU ID	45
LOID Status	Initial Status

Refresh

PON Status

- *Vendor Name –* ;
- *Part Number –* ;
- *Temperature –* ;
- *Voltage –* ;
- *Tx Power –* ;
- *Rx Power –* ;
- *Bias Current –* ;
- *Video Power –* [1] .

PON Status

- *ONU State –* OLT (O1 -> O2 -> O3 -> O4 -> O5);
- *ONU ID –* OLT;
- *LOID Status –* OLT (Initial -> Standby -> Serial Number -> Ranging -> Operation).

«Refresh».

---

[1] NTU-RG-5421GC-Wac

«LAN». LAN-

«LAN» LAN- Wi-Fi .

Status LAN

LAN Port Status

This page shows the current LAN Port status.

LAN1	Up; 1000M, Full Mode
LAN2	Down
LAN3	Down
LAN4	Down
wlan0	Up
wlan1	Up

Refresh

LAN Port Status :

- ;
- (Up/Down);
- (10/100/1000 /).

«VoIP». VoIP

«VoIP» VoIP.

Status VoIP

VoIP Register Status

This page shows the register status of port

Register Status

Port	Number	Status
1	2409481	Registered

Refresh

- Port - ;
- Number - ;
- Status - -.

«LAN». LAN

LAN.

LAN

LAN Interface Settings

This page is used to configure the LAN interface of your Device. Here you may change the setting for IP addresses, subnet mask, etc..

InterfaceName:	LANIPInterface
IP Address:	192.168.1.1
Subnet Mask:	255.255.255.0
IPv6 Address:	fe80::1
IPv6 DNS Mode:	HGWProxy
Prefix Mode:	WANDelegated
WAN Interface:	
Firewall:	Disabled Enabled
IGMP Snooping:	Disabled Enabled
Ethernet to Wireless Blocking:	Disabled Enabled

Apply Changes

- *Interface name* – ;
- *IP Address* – IP- ;
- *Subnet Mask* – ;
- *IPv6 Address* – IPv6-;
- *IPv6 DNS Mode* – :
  - *WANConnection* – WAN- DNS-;
  - *Static* – DNS- (IPv6 DNS1, IPv6 DNS2).
- *Prefix Mode* – Prefix (WAN):
  - *WANDelegated* – , ;
  - *Static* – Prefix.
- *IPv6 DNS* – DNS- (IPv6 DNS1, IPv6 DNS2);
- *WAN Interface* – WAN , WANDelegated.
- *Firewall (Enabled/Disabled) – /* LAN;
- *IGMP Snooping (Enabled/Disabled) –* / IGMP Snooping;
- *Ethernet to Wireless Blocking (Enabled/Disabled) – /* .

«Apply Changes».

«Wireless».

2.4 (wlan0) 5 (wlan1).

«Status». WLAN

WLAN.

Wireless wlan0 (2.4GHz) / wlan1 (5GHz) Status

WLAN Status

This page shows the WLAN current status.

WLAN Configuration	
Mode	AP
Band	2.4 GHz (B+G+N)
SSID	ELTX-2.4GHz_WiFi_A4E8
Channel Number	13
Channel Width	40 MHz
Encryption	WPA2
BSSID	e0:d9:e3:85:a4:e8
Associated Clients	0

WLAN Status

This page shows the WLAN current status.

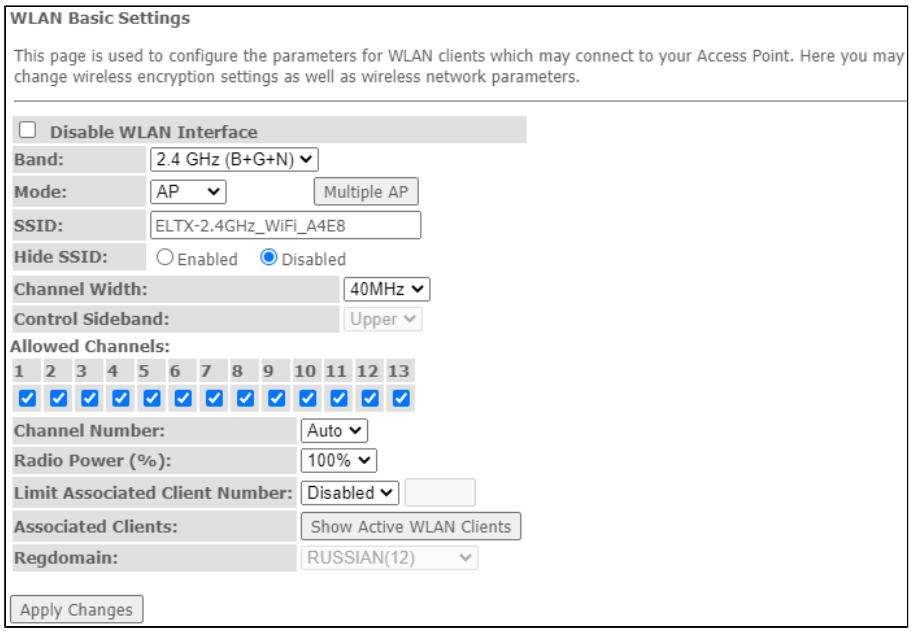
WLAN Configuration	
Mode	AP
Band	5 GHz (A+N+AC)
SSID	ELTX-5GHz_WiFi_A4E8
Channel Number	36
Channel Width	80 MHz
Encryption	WPA2
BSSID	e0:d9:e3:85:a4:e9
Associated Clients	0

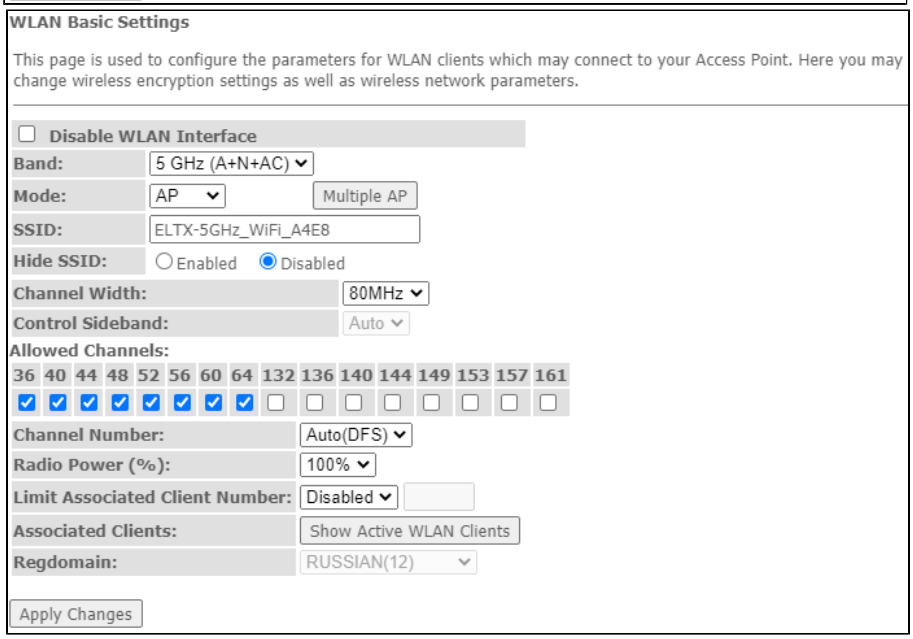
- *Mode* – AP - ;
- *Band* – , , ;
- *SSID* – ;
- *Channel Number* – ;
- *Channel Width* – ;
- *Encryption* – ;
- *BSSID* – MAC- ;
- *Associated Clients* – .

«Basic settings».

WLAN, .

Wireless wlan0 (2.4GHz) / wlan1 (5GHz) Basic settings





- *Disable WLAN Interface* – ;
- *Band* – Wi-Fi;
- *Mode* – (AP);
- *SSID (Service Set Identifier)* – ( );

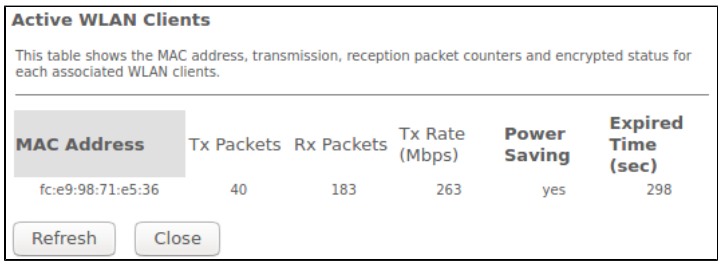
(SSID) ELTX-2.4GHz_WiFi-aaaa/ELTX-5GHz_WiFi-aaaa, - 4 WAN MAC. WAN MAC . (2.4/5).

- *Hide SSID* – (SSID). (SSID). , SSID, ;
- *Channel Width* – 20 40 ;
- *Control Sideband* – , (Lower Upper) 40 ;
- *Allowed channels* – Wi-Fi . - ;
- *Channel Number* – :
  - *Auto* – .
- *Radio Power (%)* – ;
- *Limit Associated Client Number (Enable/Disabled)* – l ;
- *Associated Clients* – ;
- *Enable Universal Repeater Mode (Acting as AP and client simultaneouly)* – ;
- *Regdomain* – .

«Apply Changes».

«Show Active WLAN Client» WLAN.

Wireless wlan0 (2.4GHz) / wlan1 (5GHz) Basic settings Show Active WLAN Client



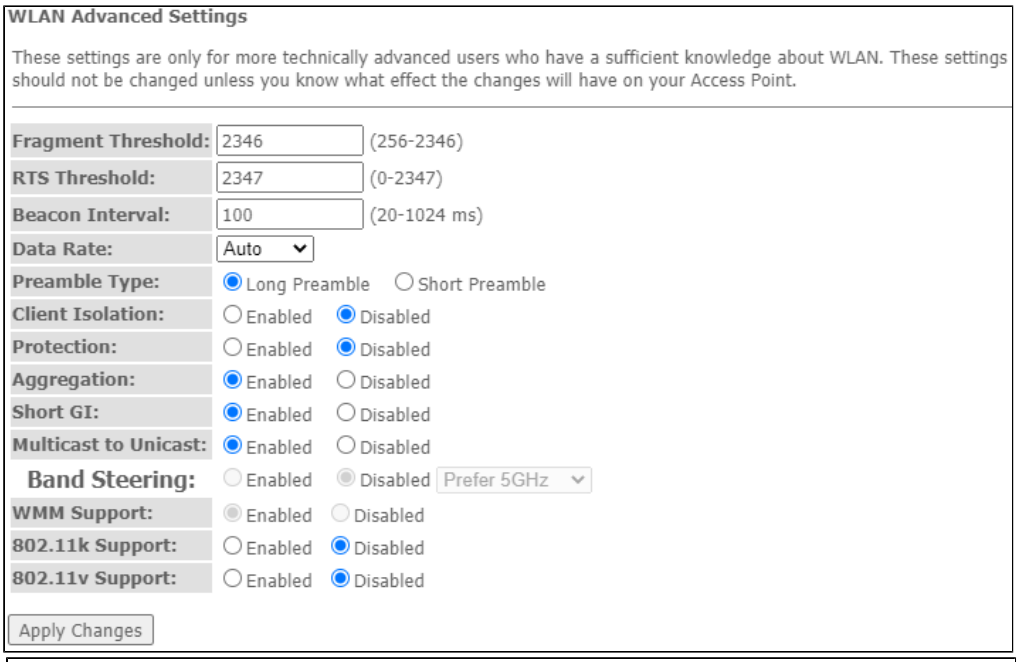
- *MAC Address* – MAC- ;
- *Tx Packets* – ;
- *Rx Packets* – ;
- *Tx Rate (Mbps)* – , *l*;
- *Power Saving* – ;
- *Expired Time (sec)* – , .

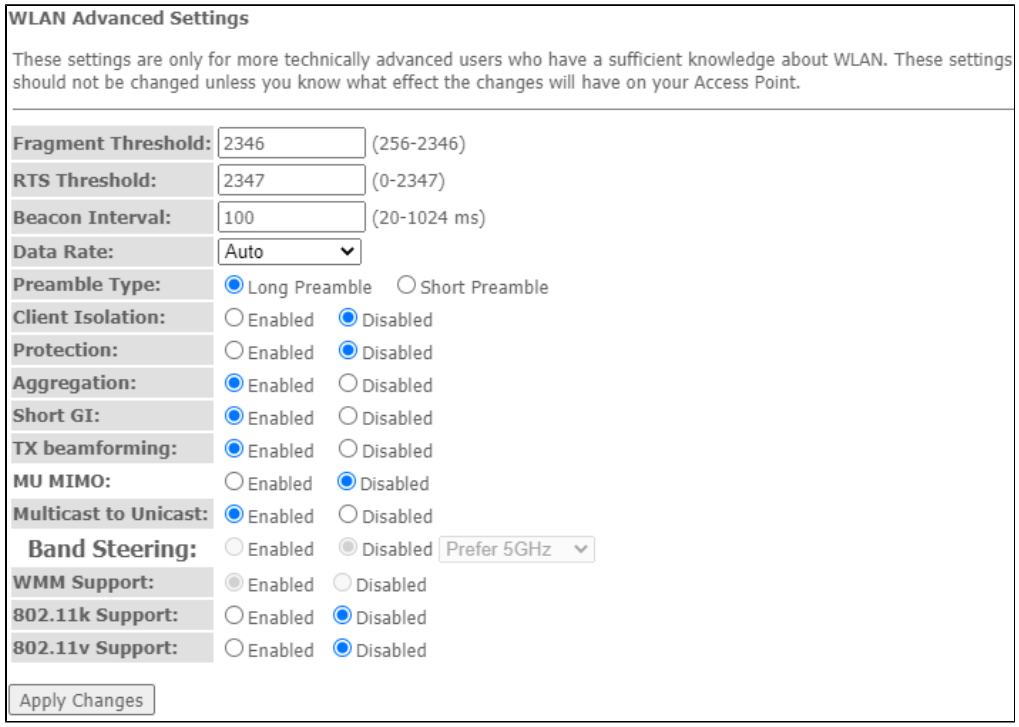
«Refresh», «Close».

«Advanced settings».

.

Wireless wlan0 (2.4GHz) / wlan1 (5GHz) Advanced settings





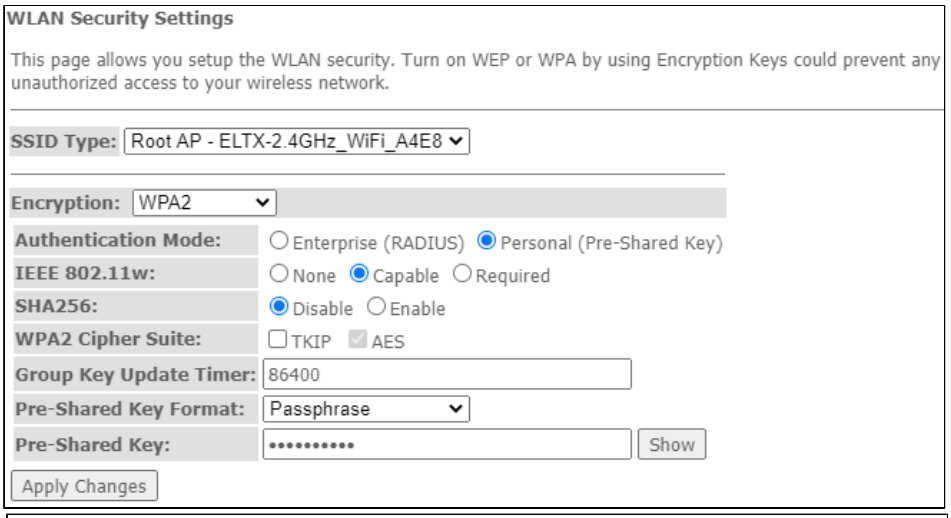
- *Fragment Threshold* – . , ;
- *RTS Threshold* – , RTS, RTS/CTS (/) ;
- *Beacon Interval* – , , ;
- *Data rate* – ;
- *Preamble Type* – - (*Long Preamble*) / (*Short Preamble*);
- *Client Isolation* (*Enable/Disabled*) – / ;
- *Protection (Enable/Disabled)* – / 802.11n protection;
- *Aggregation (Enable/Disabled)* – / ;
- *Short GI* (*Enable/Disabled*) – / ;
- *TX beamforming* (*Enable/Disabled*) – / ;
- *MU MIMO* – / Multi-user MIMO ;
- *Multicast to Unicast* (*Enable/Disabled*) – / multicast unicast;
- *WMM Support* (*Enable/Disabled*) – / Wi-Fi Multimedia;
- *802.11k Support* – / Radio Resource managment ;
- *802.11v Support* – / Wireless Network Managment .

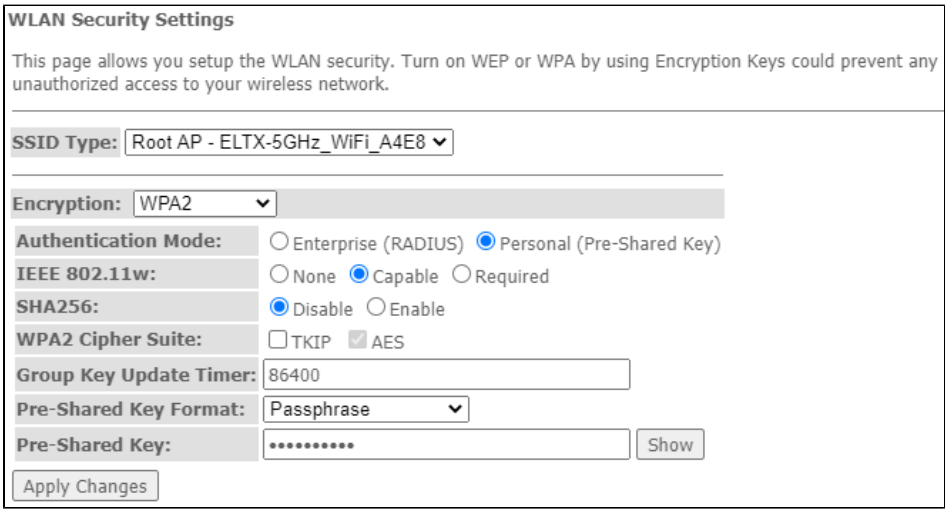
«Apply Changes».

«Security».

. , WPS.

Wireless wlan0 (2.4GHz) / wlan1 (5GHz) Security





- *SSID Type* – SSID;
- *Encryption* – :
  - *NONE ()* – ;
  - *WEP* – WEP;
  - *WPA / WPA2 / WPA2 Mixed* - WPA / WPA2 / WPA2 Mixed.

WEP, :

- *802.1x Authentication* – 802.1x (RADIUS, WEP-);
- *Authentication* – :
  - *Open system* – ;
  - *Shared Key* – ;
  - *Auto* – .
- *Key Length ( )* – 64 128 ;
- *Key Format ( )* – ASCII HEX;
- *Encryption Key ( )* – 10 16- , 5 ASCII1 64- . 26 16- , 13 ASCII 128- .

WPA / WPA2 / WPA2 Mixed, :

- *Authentication Mode* – Enterprise (RADIUS) Personal (Pre-Shared Key). Enterprise (RADIUS) :
  - *RADIUS Server IP Address* – IP- RADIUS-;
  - *RADIUS Server Port* – RADIUS-. 1812;
  - *RADIUS Server Password* – RADIUS-;
- *IEEE 802.11w* – ;
  - *None* – ;
  - *Capable* – ;
  - *Required* – .
- *SHA256 (Enable/Disable)* – / SHA256.

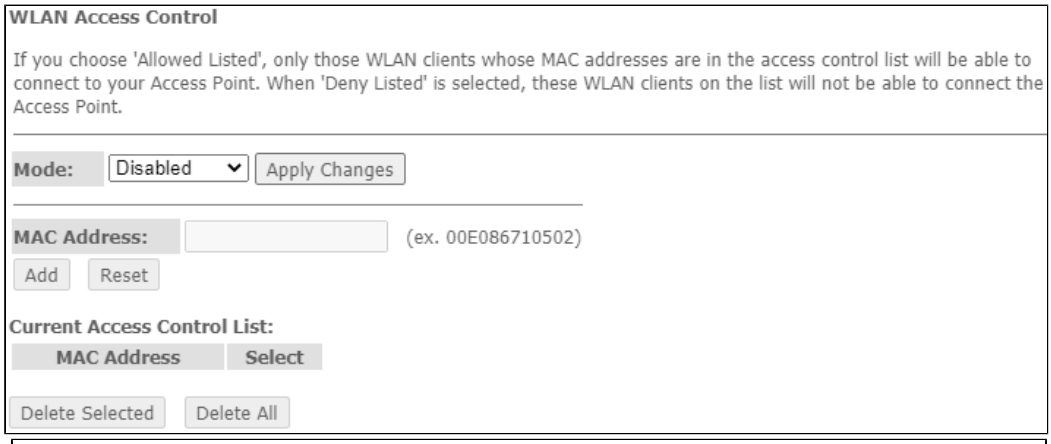
- *WPA Cipher Suite* – WPA *TKIP AES*;
- *Group Key Update Timer* – ;
- *Pre-Shared Key Format* – ASCII HEX;
- *Pre-Shared Key* – .

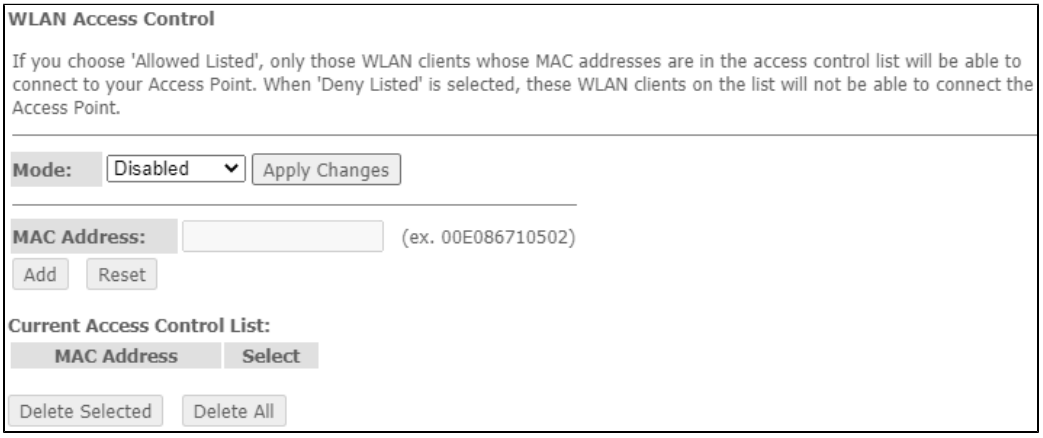
«Show». «Apply Changes».

«Access control».

MAC-. MAC- *Current Access Control List* – . *«Allowed Listed»,* MAC-, *Current Access Control List.* *«Deny Listed»* MAC-, , *Current Access Control List.* «Apply Changes».

Wireless wlan0 (2.4GHz) / wlan1 (5GHz) Access control





- *Mode* – MAC-:
  - *Disabled* – ;
  - *Allowed Listed* – ( );
  - *Deny Listed* – ( ).
- *MAC Address* – MAC- . «Add», «Reset».

, «Delete Selected», «Delete All».

«WiFi radar».

, IBSS.

Wireless wlan0 (2.4GHz) / wlan1 (5GHz) WiFi radar

WiFi Radar

This page provides tool to scan the wireless network. If any Access Point or IBSS is found, you could choose to connect it manually when client mode is enabled.

SSID	BSSID	Channel	Type	Encryption	RSSI
ELTX-2.4GHz_WiFi_47A3	e8:28:c1:e4:47:a3	13 (B+G+N)	AP	WPA2-PSK	-15 dBm
ELTX-2.4GHz_WiFi_FDF8	e0:d9:e3:82:fd:f8	3 (B+G+N)	AP	WPA2-PSK	-48 dBm
ELTX-2.4GHz_WiFi_8248	e0:d9:e3:56:82:4a	4 (B+G+N)	AP	WPA2-PSK	-48 dBm
ELTX-2.4GHz_WiFi_4CD0	e8:28:c1:d2:4c:d0	13 (B+G+N)	AP	WPA2-PSK	-48 dBm
Eltex-Local	e0:d9:e3:4e:35:12	6 (B+G+N)	AP	WPA-1X/WPA2-1X	-56 dBm
Eltex-Guest	e0:d9:e3:4e:35:11	6 (B+G+N)	AP	no	-56 dBm
BRAS-Guest	e0:d9:e3:4e:35:10	6 (B+G+N)	AP	no	-56 dBm
st444ef0	a8:f9:4b:11:51:89	8 (B+G+N)	AP	WPA-PSK/WPA2-PSK	-60 dBm
Eltex-Local	e0:d9:e3:4e:00:11	11 (B+G+N)	AP	WPA-1X/WPA2-1X	-64 dBm
BRAS-Guest	e0:d9:e3:4e:00:13	11 (B+G+N)	AP	no	-64 dBm
Eltex-Guest	e0:d9:e3:4e:00:10	11 (B+G+N)	AP	no	-68 dBm
ShowRoom_2G	e2:d9:e3:9f:80:50	4 (B+G+N)	AP	WPA2-PSK	-72 dBm
Eltex-Local	e0:d9:e3:91:20:31	1 (B+G+N)	AP	WPA-1X/WPA2-1X	-72 dBm
Eltex-Guest	e0:d9:e3:8f:be:d1	11 (B+G+N)	AP	no	-72 dBm
Eltex-Guest	e0:d9:e3:91:20:30	1 (B+G+N)	AP	no	-72 dBm
BRAS-Guest	e0:d9:e3:91:20:32	1 (B+G+N)	AP	no	-76 dBm
BrcmAP1	e8:28:c1:df:49:e3	1 (B+G+N)	AP	no	-80 dBm

Refresh

:

- *SSID* – ;
- *BSSID* – MAC ;
- *Channel* – ;
- *Type* – (AP, Client - ,);
- *Encryption* – ;
- *RSSI* – .

«Refresh».

«EasyMesh Settings». EasyMesh

EasyMesh . Wi-Fi EasyMesh , IoT-.

Wireless EasyMesh EasyMesh Settings

EasyMesh Settings

This page is used to configure the parameters for EasyMesh feature of your Access Point.

Device Name: EasyMesh_Device

Role: ○ Controller ◉ Disabled

Apply Changes

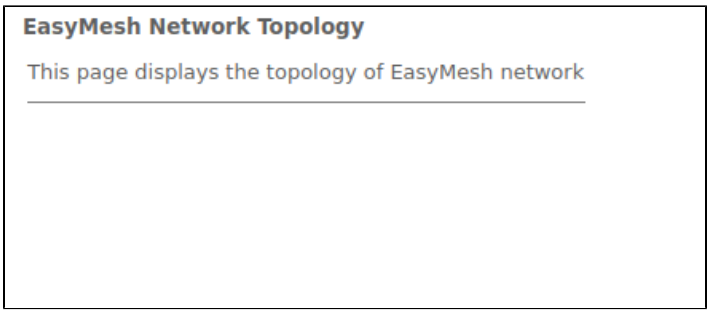
- *Device name* – ;
- *Role* – : .

«Apply Changes».

«Topology». EasyMesh

mesh- *«Controller»* : , MAC- , IP- .

Wireless EasyMesh Topology

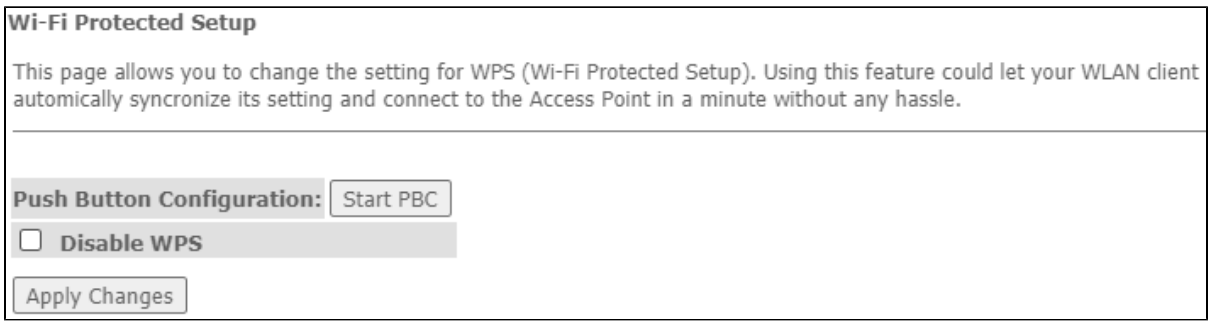


«Refresh».

«WPS». Wi-Fi

WPS (Wi-Fi Protected Setup, Wi-Fi).

Wireless wlan0 (2.4GHz) / wlan1 (5GHz) WPS



- *Push Button Configuration* – WPS ;
- *Disable WPS* – WPS.

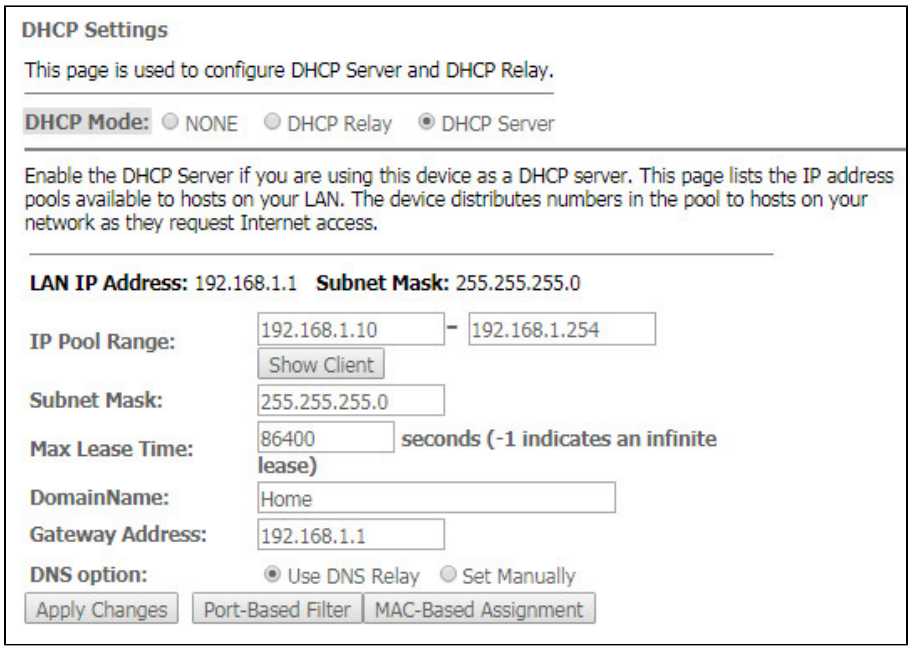
«Apply Changes».

«Services».

«DHCP Setting». DHCP

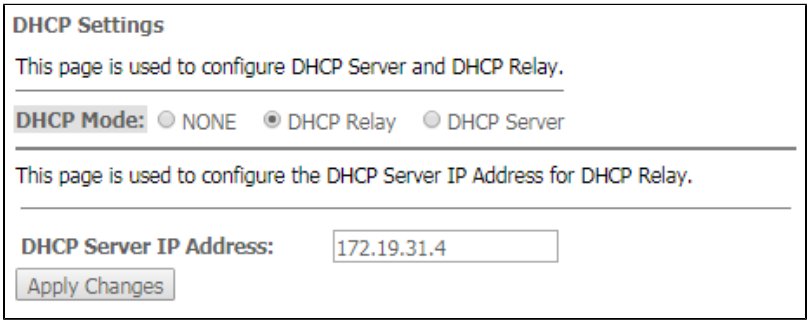
DHCP- DHCP-.

Services DHCP (Server)



- *DHCP Mode* – :
  - *NONE* – DHCP ;
  - *DHCP Server* – DHCP ;
  - *DHCP Relay* – DHCP .
- *IP Pool Range* – , ;
- *Show Client* – . DHCP, DHCP ;
- *Subnet Mask* – ;
- *Max Lease Time* – , -1 ;
- *DomainName* – ;
- *Gateway Address* – ;
- *DNS option* – DNS:
  - *Use DNS relay* – DNS ONT ONT;
  - *Set manually* – DNS .

Services DHCP (Relay)



- *DHCP Server IP Address* – IP- DHCP.

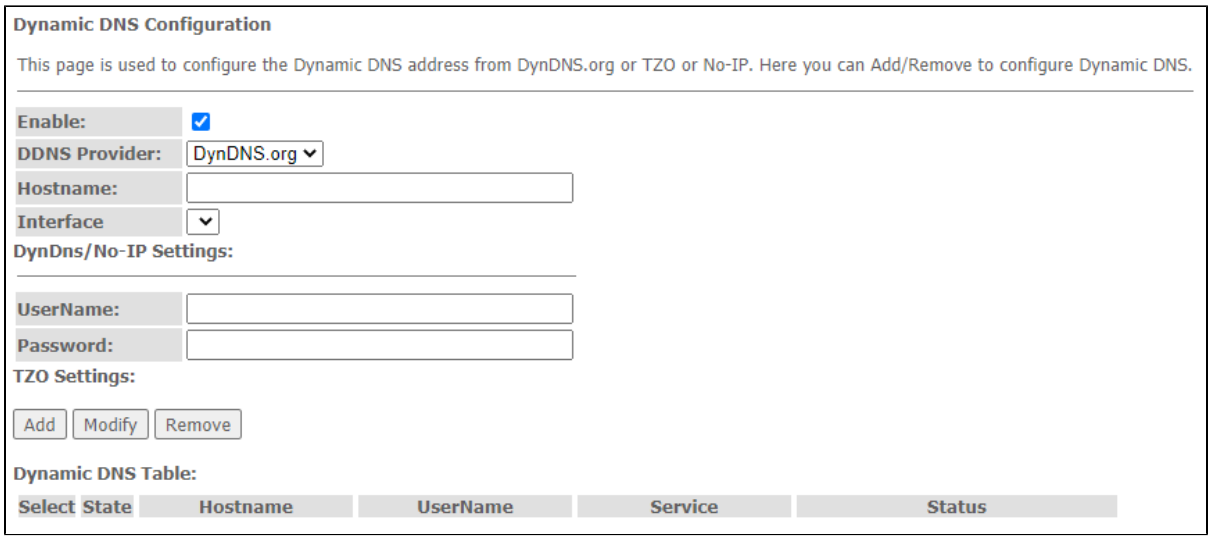
«Apply Changes». «Port-Based Filter» «MAC-Based Assignment» MAC, .

«Dynamic DNS».

DNS ( ) DNS- ( ) . (, , NTU-RG) IP-. IP-, IPCP PPP- DHCP.

DNS , IP- DHCP, DNS-.

Services DNS Dynamic DNS



- *Enable* – DHCP- (IP- ,);
- *D-DNS Provider* – D-DNS (): DynDNS.org, TZO.com, No-IP.com;
- *Custom* – , . (*Hostname*) (*Interface*) .

DynDns/No-IP Settings:

- *UserName* – ;
- *Password* – , D-DNS.

« Dynamic DNS Table» DNS . «Add». / , «Modify» / «Remove» .

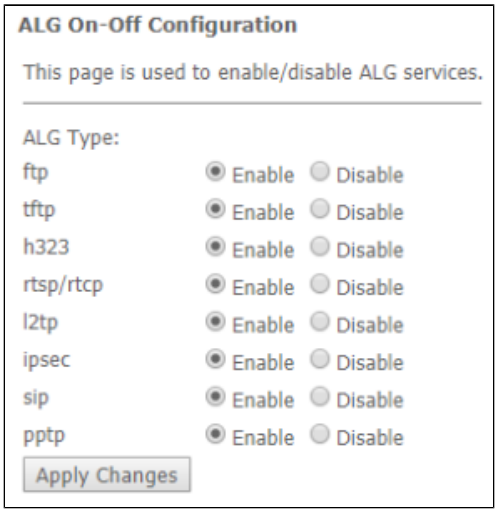
«Firewall».

«ALG On-Off Configuration». ALG

ALG.

Application-level gateway (ALG) — NAT-, - , , NAT .

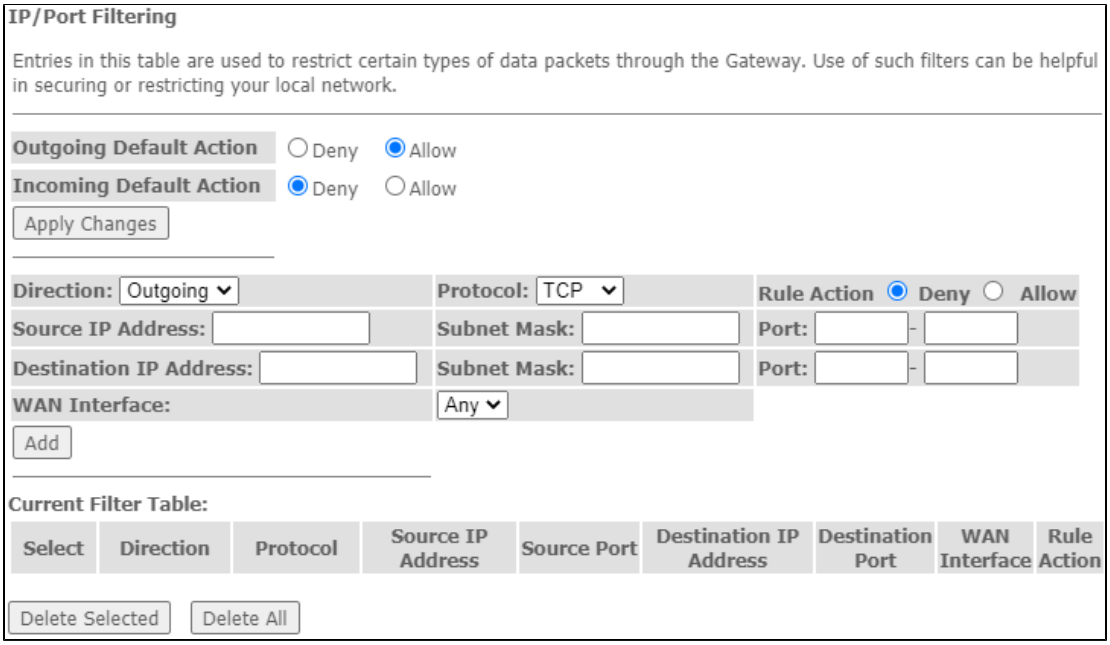
Services Firewall ALG



«IP/Port Filtering».

. IP- IP- . .

Services Firewall IP/Port Filtering



- *Incoming Default Action Deny Allow – - ;*
- *Outgoing Default Action Deny / Allow – .*

«Apply Changes».

«Add»:

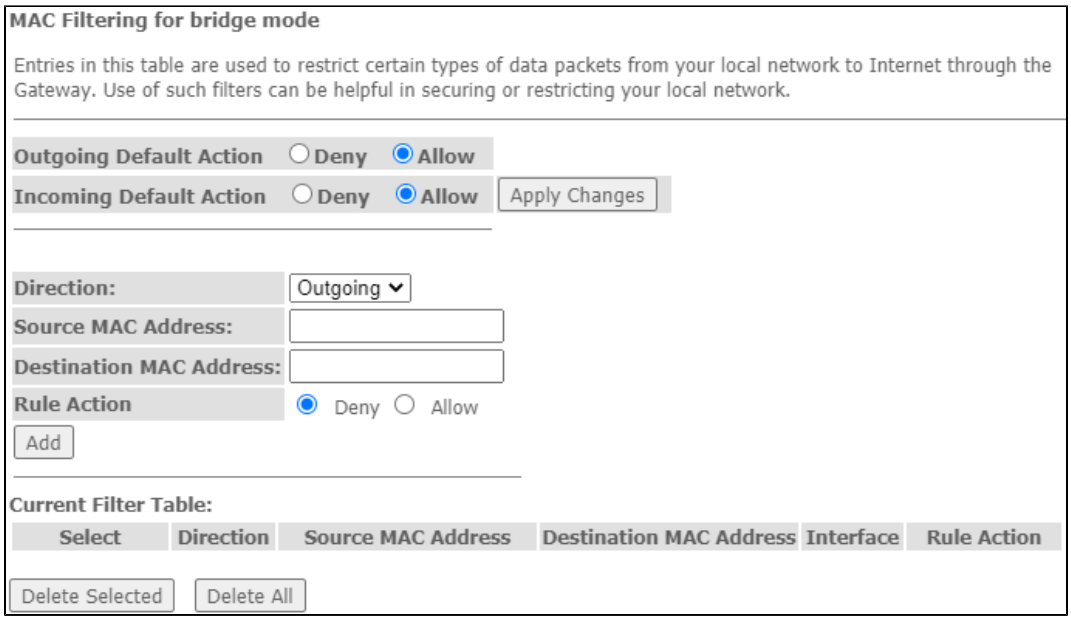
- *Protocol – ;*
- *Rule Action Deny / Allow – (/);*
- *Source IP Address* – IP- ;
- *Destination IP Address* – IP- ;
    - *Subnet mask – ;*
    - *Port – .*
- *Ingress Interface – .*

«Current Filter Table». . , «Delete selected», «Delete All».

«MAC Filtering». MAC-

MAC-, MAC- . «Apply Changes»

Services Firewall MAC Filtering



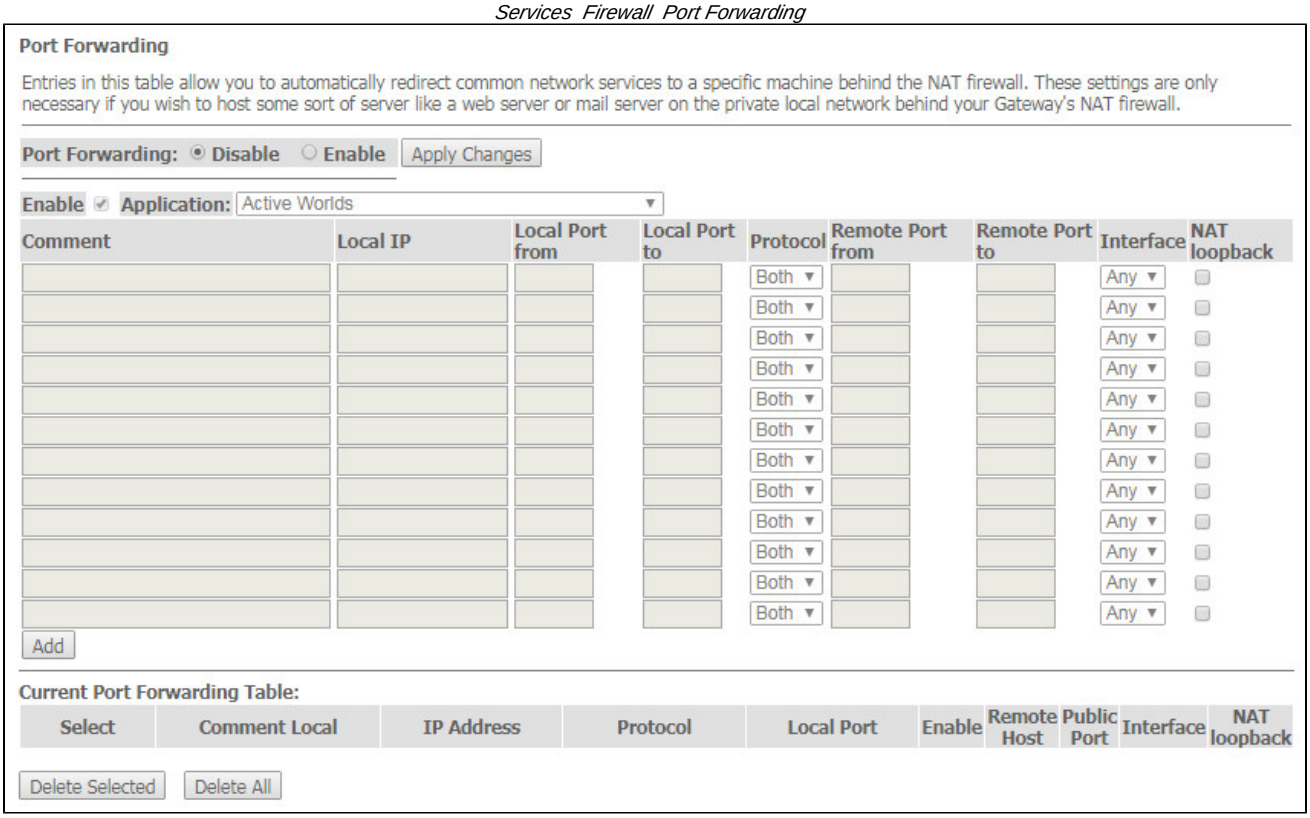
- *Default Action –* :
  - *Deny –* - ;
  - *Allow –* - ;
- *MAC Address –* MAC- *l*.

«Current Filter Table». «Rule» (*«Allow »,* *«Deny»,) .* , «Delete Selected», «Delete All».

«Port Forwarding».

«Current Port Forwarding Table» . NAT. , - , - , NAT . «Apply Changes».

Services Firewall Port Forwarding



«Current Port Forwarding Table» Enable :

- *Port Forwarding (Enable/Disable) – l* ;

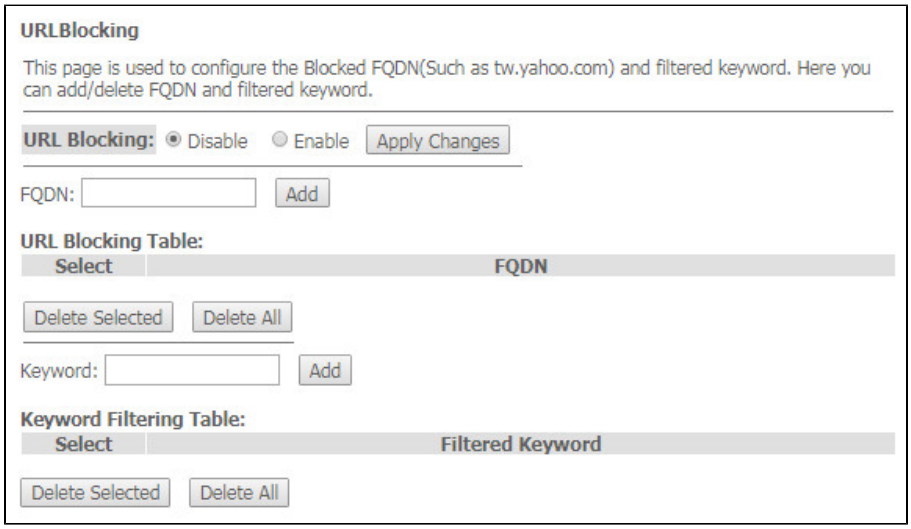
- *Application* – ;
- *Comment* – ;
- *Local IP* – IP-, ;
- *Local port from / to* – ;
- *Protocol* – (TCP, UDP);
- *Remote port from / to* – . *Remote port to* ;
- *Interface* – ;
- *NAT-loopback* – NAT "" , , , .

«Add». , «Delete Selected», «Delete All».

«URL Blocking».

URL . / URL- . / FQDN (Fully Qualified Domain Name) «Add», . *«URL Blocking Table» «Keyword Filtering Table»,* URL- , «Delete Selected». «Delete All»

Services Firewall URL Blocking



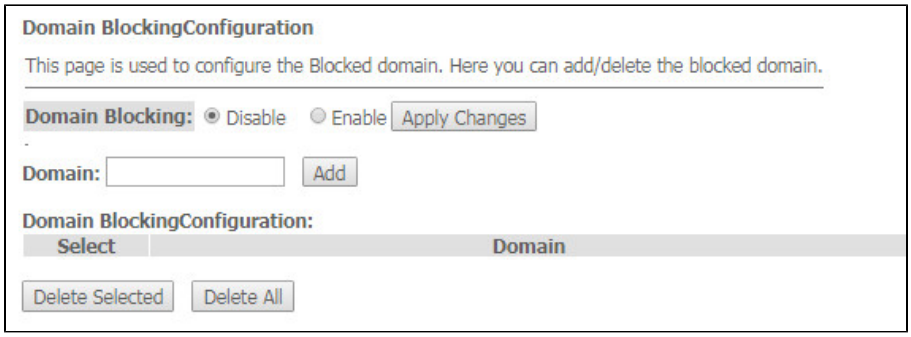
- *URL Blocking (Enable/Disable)* – / URL-Blocking;
- *FQDN (Fully Qualified Domain Name)* – ;
- *Keyword* – .

«Apply Changes».

«Domain Blocking».

.

Services Firewall Domain blocking



Enable, *Domain* «Add»

- *Domain Blocking (Enable/Disable)* – / ;
- *Domain* – .

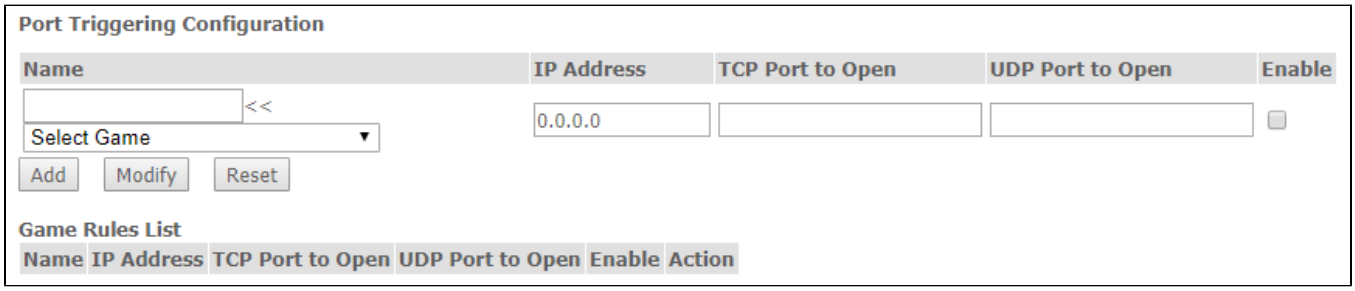
«Apply Changes». *«Domain BlockingConfiguration»*, «Delete Selected», «Delete All».

«Port Triggering».

1.2.0

, .

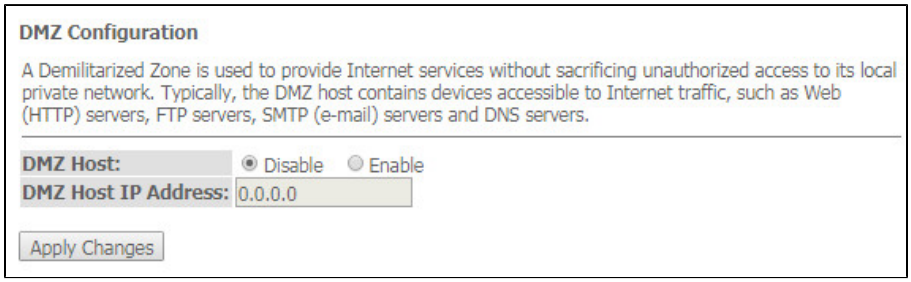
Services Firewall Port Triggering



«DMZ».

IP- *«DMZ Host IP Address»* , *Port Forwarding*, DMZ- (,).

Services Firewall DMZ



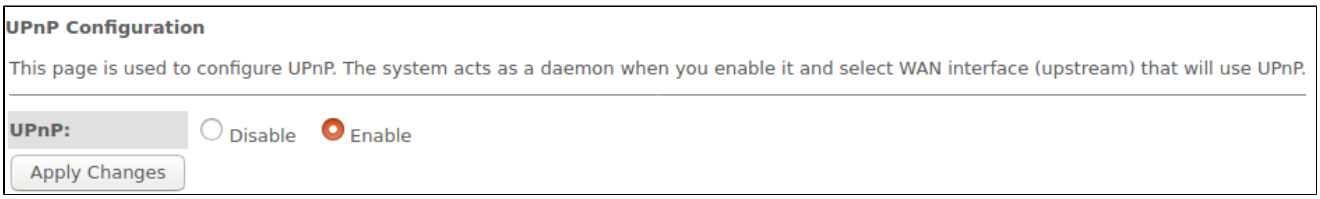
- *DMZ Host (Enable/Disable) – l* ;
- *DMZ Host IP Address* – IP-.

«Apply Changes».

«UPnP».

Universal Plug and Play (UPnP™). UPnP , .

Services UPnP



UPnP NAT WAN-.

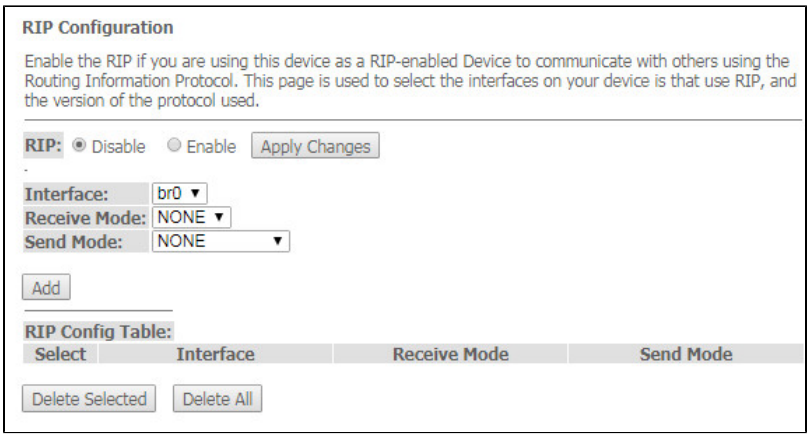
- *UPnP (Enable/Disable) – l* UPnP;
- *WAN Interface* – WAN , UPnP;

«Apply Changes».

«RIP».

, RIP . RIP, RIP RIP.

Services RIP



- *RIP (Enable/Disable) – l* RIP;

«Apply Changes».

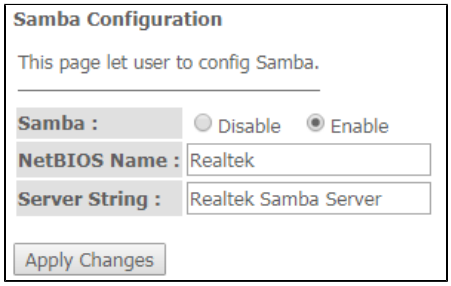
- *Interface* – , RIP;
- *Receive Mode* – (NONE, RIP1, RIP2, both);
- *Send Mode* – (NONE, RIP1, RIP2, RIP1 COMPAT).

RIP *«RIP Config Table»*. «Delete All», , «Delete Selected».

«Samba». Samba

Samba.

Services Samba Samba

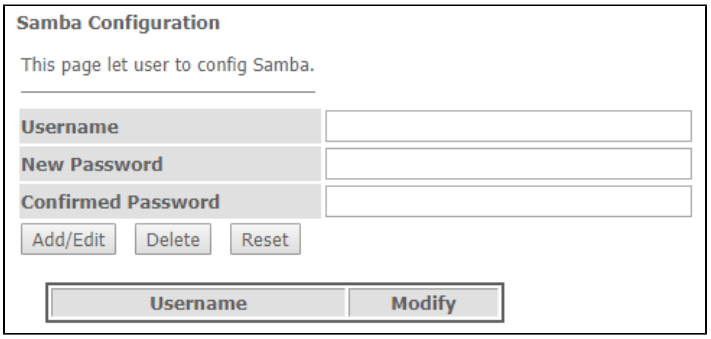


- *Samba Enable / Disable – l* Samba;
- *Server String* – .

«Apply Changes».

Accounts Samba.

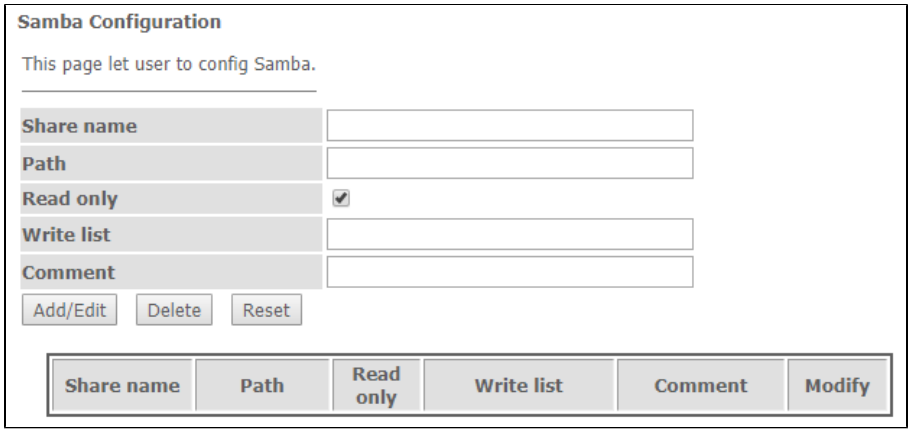
Services Samba Accounts



- *Username* – ;
- *New password* – ;
- *Confirmed Password* – .

Shares Samba.

Services Samba Shares



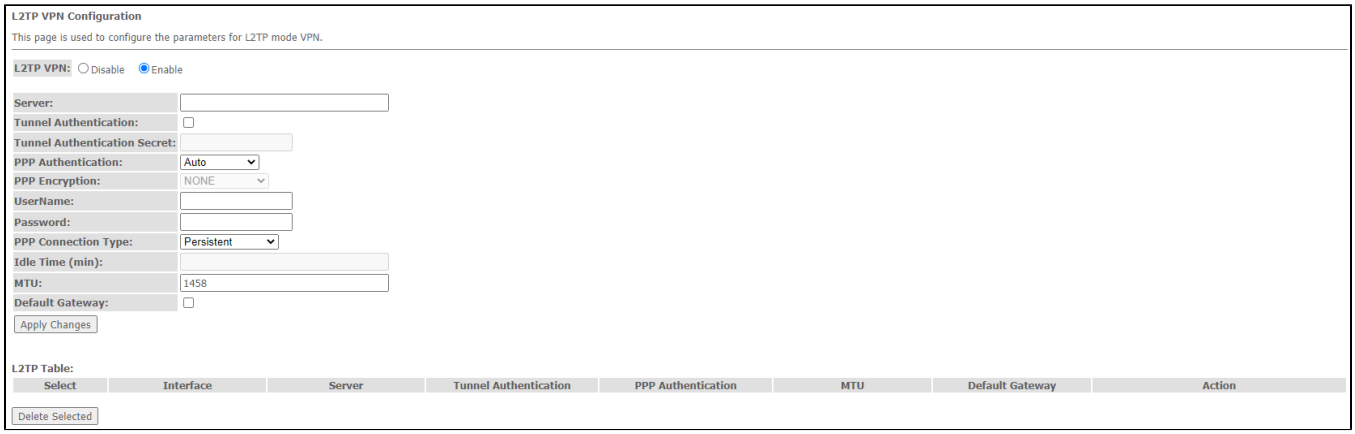
- *Share name* – ;
- *Path* – ;
- *Read only* – ;
- *Write list* – , ;
- *Comment* – .

«VPN».

«L2TP». L2TP VPN

L2TP VPN. L2TP Internet .

VPN L2TP



- *L2TP VPN* – , , L2TP. *«Enable»* :
- *Server* – L2TP (IP- IPv4);
- *Tunnel Authentication* – ;
- *Tunnel Authentication Secret* – ;
- *PPP Authentication* – , L2TP ;
- *PPP Encryption* – , (CHAPMSv2);
- *UserName* – L2TP-;
- *Password* – L2TP-;
- *PPP Connection Type* – ;
- *Idle Time (min)* – , ((dial-on-demand));
- *MTU* – , (– 1462);
- *Default Gateway* – , L2TP .

«Apply Changes».

«L2TP Table» L2TP VPN. , «Delete Selected».

«Advance».

«ARP Table». ARP

MAC-. ARP ARP-, . Internet- . 5 .

Advance ARP table

User List

This table shows a list of learned MAC addresses.

IP Address	MAC Address
192.168.1.15	ec-08-6b-05-c5-33

Refresh

- *IP Address* – IP- ;
- *MAC Address* – - .

«Refresh».

«Bridging». Bridging

. MAC-, / 802.1d Spanning Tree.

Advance Bridging

BridgingConfiguration

This page is used to configure the bridge parameters. Here you can change the settings or view some information on the bridge and its attached ports.

Ageing Time: 7200 (seconds)

802.1d Spanning Tree: Disabled Enabled

Apply Changes Show MACs

- *Ageing Time* – ();
- *802.1d Spanning Tree (Enable/Disable)* – / 802.1d Spanning Tree.

«Apply Changes».

, «Show MACs».

Advance Bridging Show MACs

Bridge Forwarding Database

This table shows a list of learned MAC addresses.

Port	MAC Address	Is Local?	Ageing Timer
2	ec-08-6b-05-c5-33	no	0.01
7	e0-d9-e3-9d-f7-b6	yes	---

Refresh Close

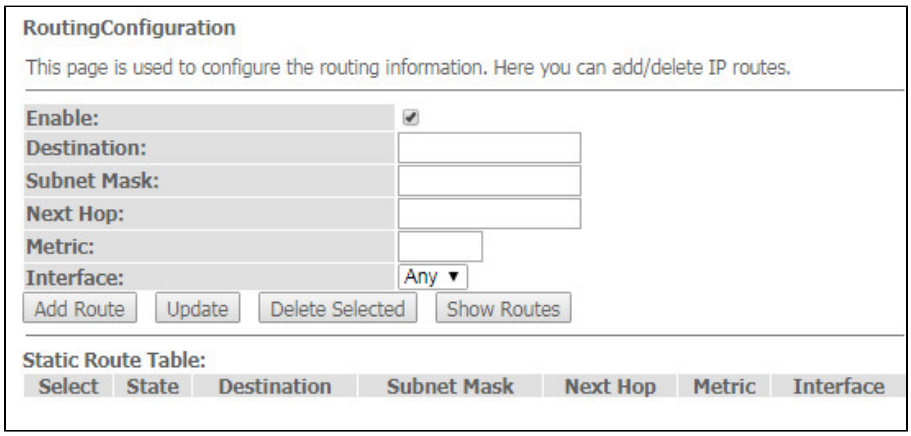
- *Port* – ;
- *MAC Address* – MAC-;
- *Is Local* – ;
- *Ageing Timer* – .

«Refresh», «Close».

«Routing».

.

Advance Routing



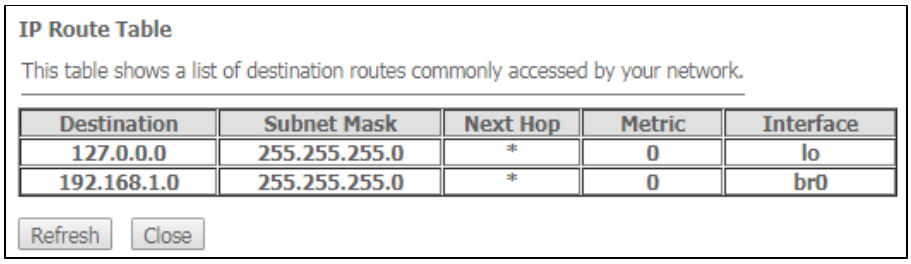
«Enable», «Add Route».

- *Enable* – ;
- *Destination* – ;
- *Subnet Mask* – ;
- *Next Hop* – ;
- *Metric* – ;
- *Interface* – .

«Static Route Table». «Update», «Delete Selected».

, «Show Routes», *«IP Route Table».*

Advance Routing Show Routes



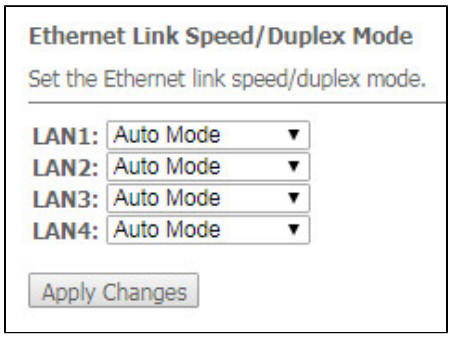
Destination	Subnet Mask	Next Hop	Metric	Interface
127.0.0.0	255.255.255.0	*	0	lo
192.168.1.0	255.255.255.0	*	0	br0

«Refresh», «Close».

«Link mode». LAN-

LAN-. *LAN1 / 2 / 3 / 4* – , *10M Half Mode, 10M Full Mode, 100M Half Mode, 100M Full Mode Auto Mode* ( ).

Advance Link mode

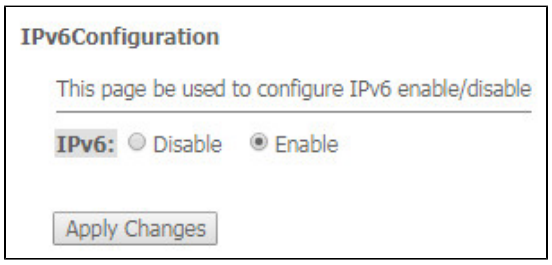


«Apply Changes»

«IPv6». IPv6

/ IPv6 , *«Enable» / «Disable»*.

Advance IPv6

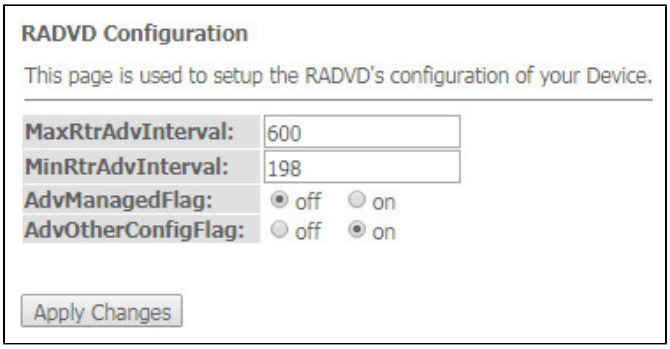


«Apply Changes».

«RADVD». RADVD

RADVD (Router Advertisement Daemon).

Advance IPv6 RADVD



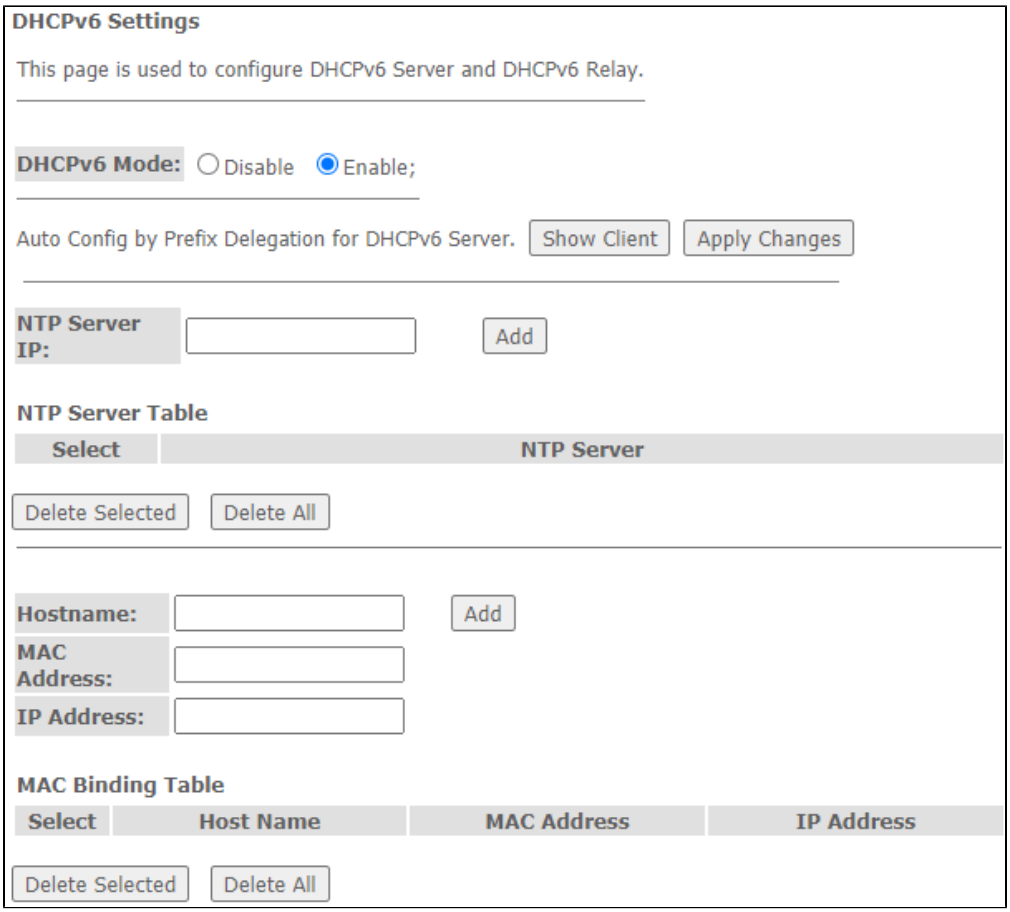
- *MaxRtrAdvInterval* – RA (Router Advertisement);
- *MinRtrAdvInterval* – RA;
- *AdvManagedFlag* – / Managed RA;
- *AdvOtherFlag* – / Other RA.

«Apply Changes».

«DHCPv6 setting». DHCPv6-

DHCPv6 . (DHCPServer(Auto)) .

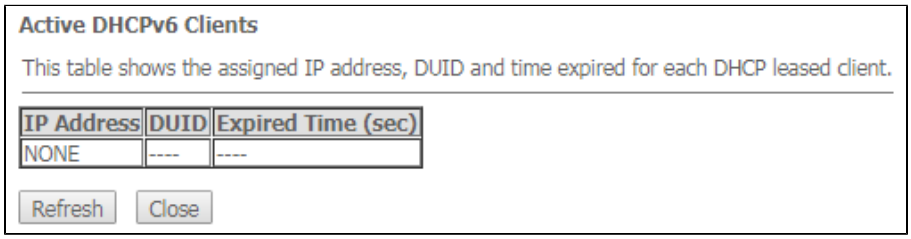
Advance IPv6 DHCPv6



- *DHCPv6 Mode* – / DHCPv6;
- *NTP Server IP* – IP- NTP- ;
- *Hostname* – ;
- *MAC Address* – MAC- IP-;
- *IP Address* – IP- MAC-.

«Apply Changes». «Show Client» IP- DHCPv6 .

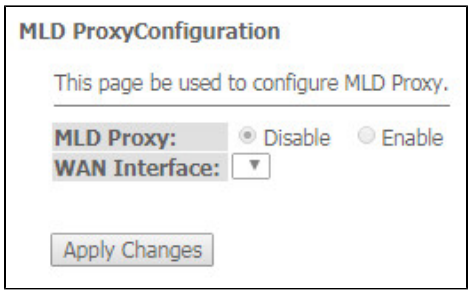
Advance IPv6 DHCPv6 Show Client



«MLD proxy». MLD proxy

/ MLD-proxy, *«Enable» / «Disable»*.

Advance IPv6 MLD proxy

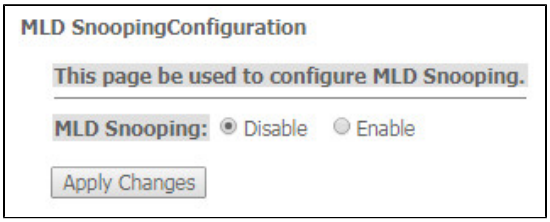


«Apply Changes».

«MLD snooping». MLD snooping

/ MLD-snooping, *«Enable» / «Disable»*.

Advance IPv6 MLD snooping

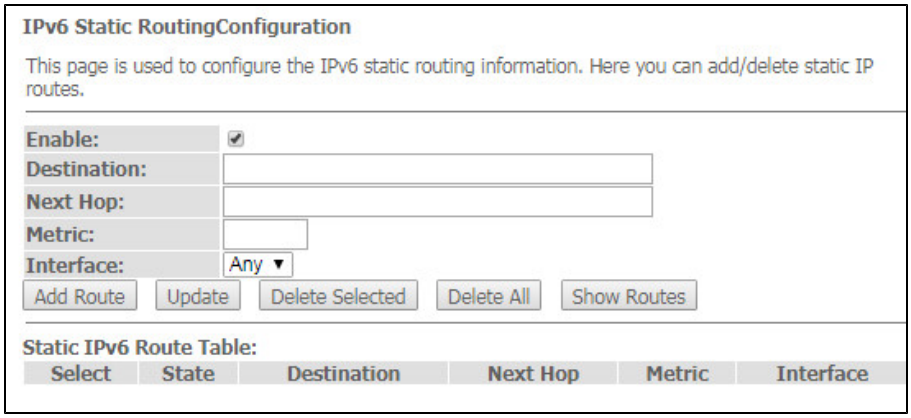


«Apply Changes».

«IPv6 routing». IPv6

IPv6 .

Advance IPv6 IPv6 routing



- *Enable* – ;
- *Destination* – ;
- *Next Hop* – ;
- *Metric* – ;
- *Interface* – .

IPv6 routing «Add Route». *«Static IPv6 Route Table»*, «Update». «Delete All», «Delete Selected». «Show Routes» IPv6 , .

Advance IPv6 IPv6 routing Show Routes

IP Route Table

This table shows a list of destination routes commonly accessed by your network.

Destination	Next Hop	Flags	Metric	Ref	Use	Interface
fe80::e2d9:e3ff:fe9d:f7b2/128	::	U	0	1	0	lo
fe80::e2d9:e3ff:fe9d:f7b2/128	::	U	0	1	0	lo
fe80::e2d9:e3ff:fe9d:f7b2/128	::	U	0	1	0	lo
fe80::e2d9:e3ff:fe9d:f7b2/128	::	U	0	1	0	lo
fe80::e2d9:e3ff:fe9d:f7b2/128	::	U	0	1	0	lo
fe80::e2d9:e3ff:fe9d:f7b6/128	::	U	0	1	0	lo
ff02::1:2/128	::	UC	0	0	7	br0
ff00::/8	::	U	256	1	0	br0
ff00::/8	::	U	256	0	0	eth0
ff00::/8	::	U	256	0	0	nas0
ff00::/8	::	U	256	0	0	wlan0
ff00::/8	::	U	256	0	0	wlan1
ff00::/8	::	U	256	0	0	eth0.3

Refresh Close

- *Destination* – ;
- *Next Hop* – ;
- *Flags* –;
- *Metric* – ;
- *Ref* – ;
- *Use* – ;
- *Interface* – , .

«Refresh», «Close».

«IPv6 IP/ Port filtering».

.

Advance IPv6 IP/Port filtering

IPv6 IP/Port Filtering

Entries in this table are used to restrict certain types of data packets through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

Default Action Deny Allow Apply Changes

Protocol: TCP **Rule Action** Deny Allow

Source Interface ID:

Destination Interface ID:

Source Port: -

Destination Port: -

Add

Current Filter Table:

Source	IP Address	Interface ID Source Port	Destination	IP Address Interface ID	Destination Port	Rule Action

Delete Selected Delete All

- *Default Action* – :
  - *Deny* – - ;
  - *Allow* – - ;
- *Protocol* – ;
- *Source Interface ID* – ;
- *Destination Interface ID* – ;
- *Source Port* – ;
- *Destination Port* – .

«Add». *«Current Filter Table»*. «Delete All», «Delete Selected».

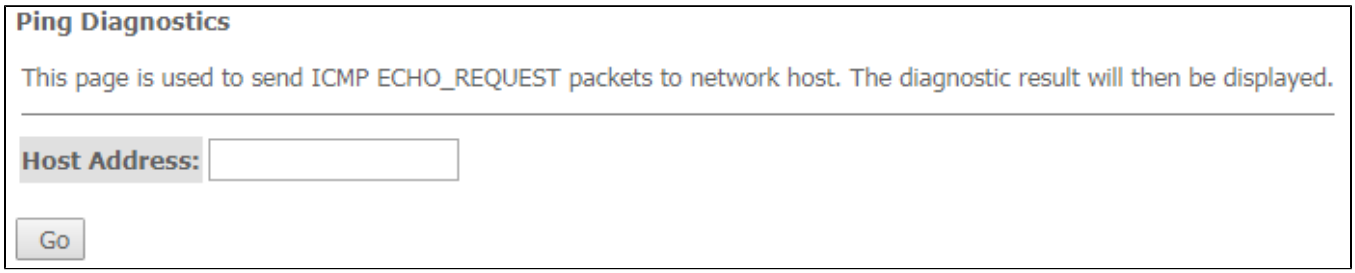
«Diagnostics»

.

«Ping».

Ping.

Diagnostics Ping

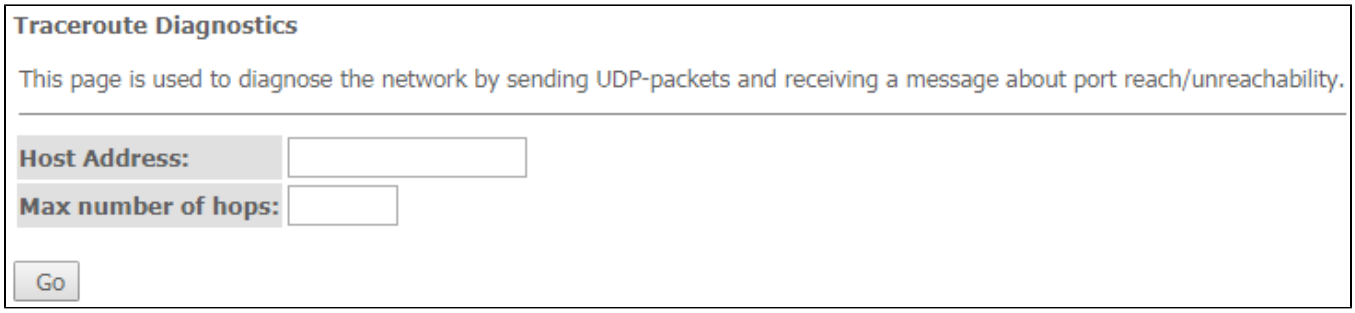


IP- *«Host Address»* «Go».

«Traceroute»

UDP- / .

Diagnostics Traceroute



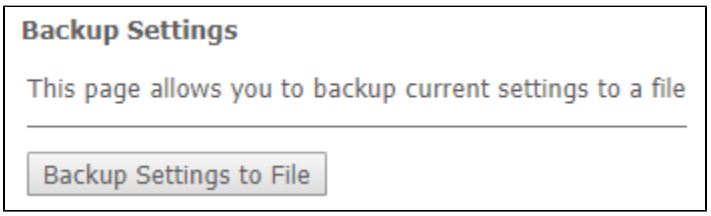
IP- *«Host Address»,* «Go».

«Admin»

. , , .

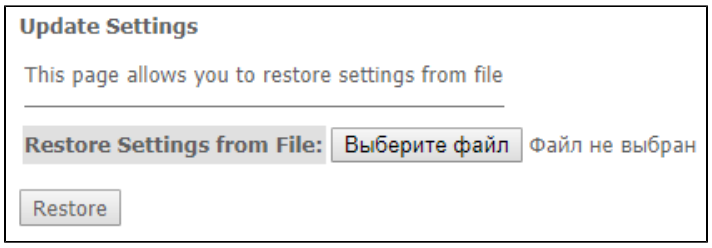
«Settings».

Admin Settings Backup Settings



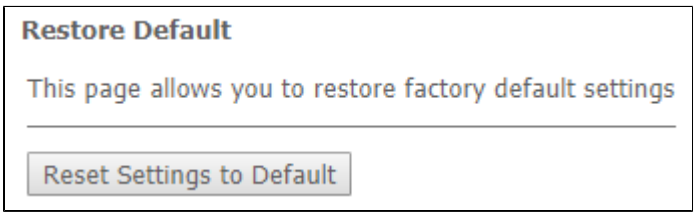
(*Backup Settings)* «Backup Settings to File».

Admin Settings Update Settings



, (*Update Settings*) «Restore».

Admin Settings Restore Default

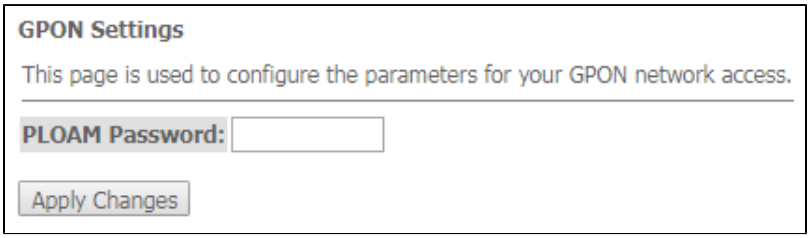


(*Restore Default*) «Reset Settings to Default».

«GPON Setting». GPON

OLT.

Admin GPON Setting



- *PLOAM Password* – OLT.

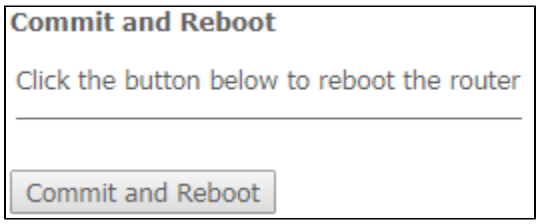
«Apply Changes».

-.

«Commit/Reboot».

«Commit and Reboot» . .

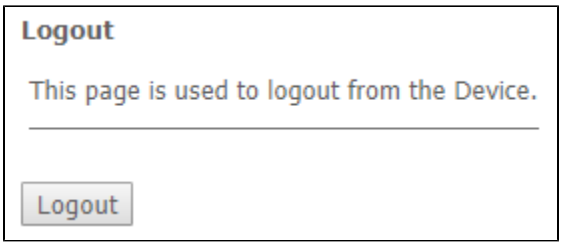
Admin Commit/Reboot



«Logout».

«Logout».

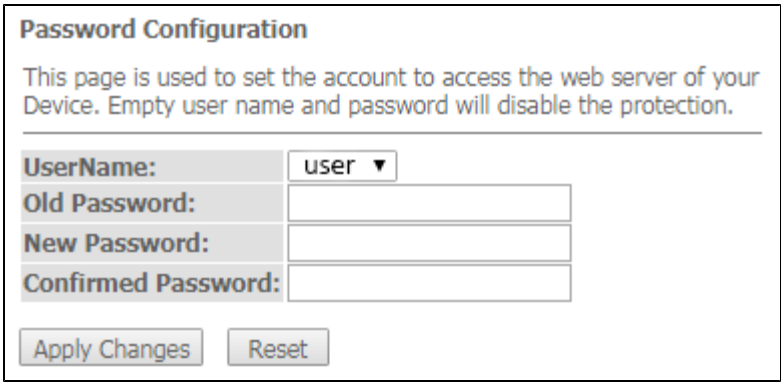
Admin Logout



«Password». ( )

.

Admin Password



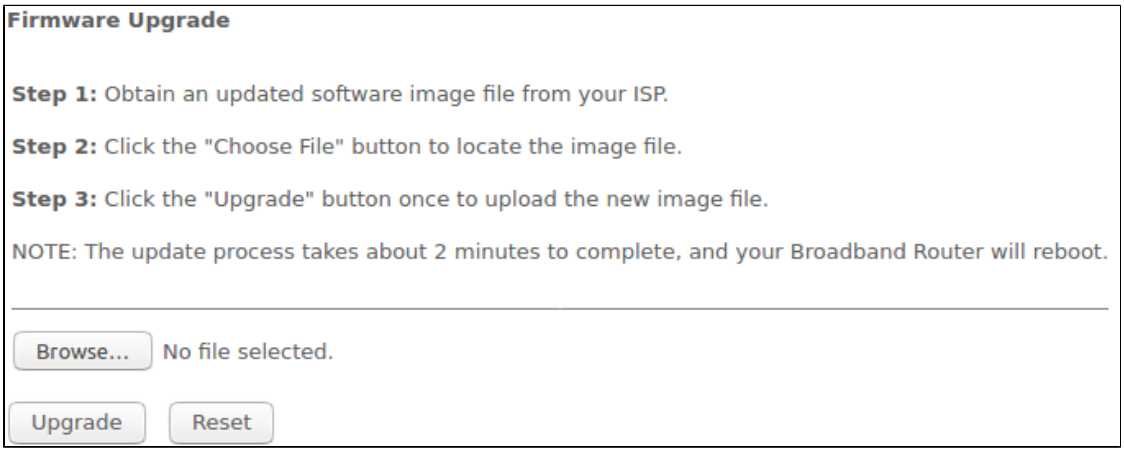
Old Password, *New Password* *Confirmed Password.*

«Apply hanges», «Reset».

«Firmware upgrade».

« » «Upgrade», «Reset».

Admin Firmware upgrade

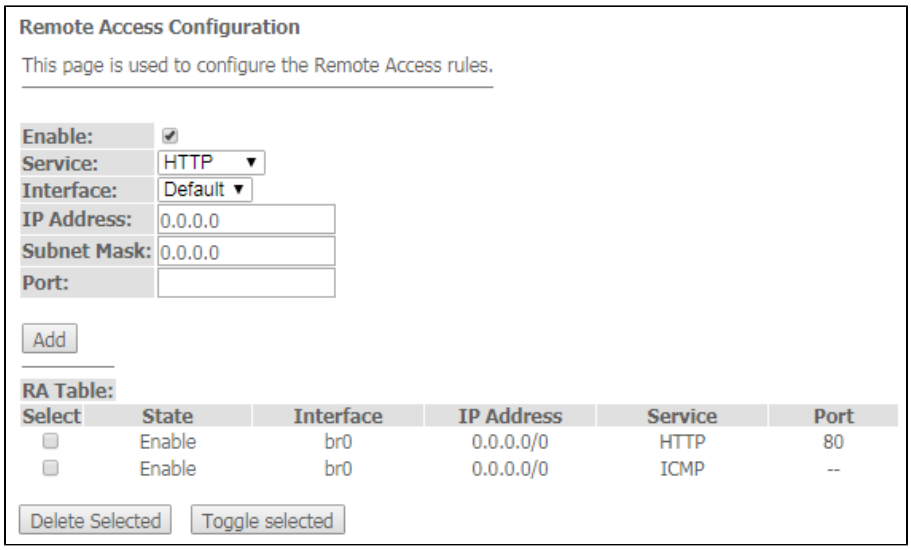


, . , .

«Remote Access».

HTTP / Telnet / ICMP.

Admin Remote Access



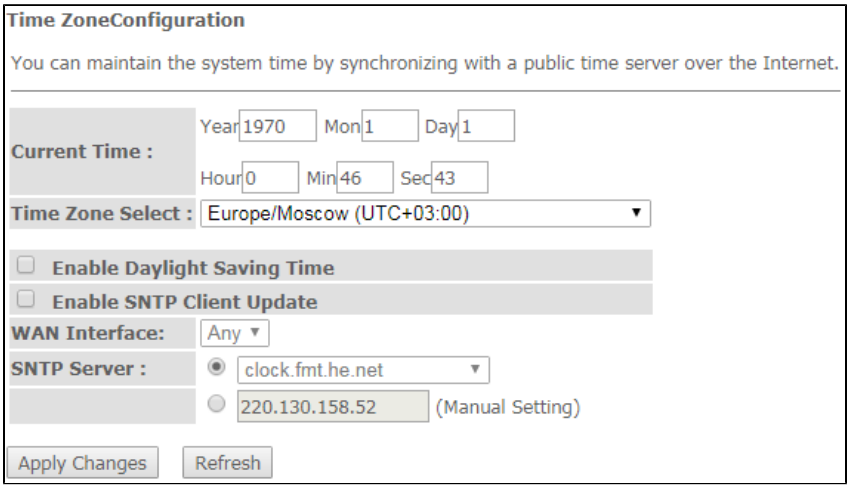
- Enable – ;
- Service – ;
- Interface – , ;
- IP Address – IP- ;
- Subnet Mask – ;
- Port – .

«Add». *«RA Table»* . / *«Toggle selected».* *Select* «Delete Selected».

«Time zone».

, - .

Admin Time zone



- *Current time* – ;
- *Time Zone Select* – ;
- *Enable Daylight Saving Time* – ;
- *Enable SNTP Client Update* – SNTP;
- *WAN Interface* – , ;
- *SNTP Server* – .

«Apply Changes», «Refresh».

«Statistics».

«Interface».

/ :

Statistics Interface

Interface Statisitcs

This page shows the packet statistics for transmission and reception regarding to network interface.

Interface	Rx pkt	Rx err	Rx drop	Tx pkt	Tx err	Tx drop
LAN 1	1893	0	2	3174	0	0
LAN 2	0	0	0	0	0	0
LAN 3	0	0	0	0	0	0
LAN 4	0	0	0	0	0	0
Wi-Fi 2.4GHz	682	0	0	0	0	0
Wi-Fi 5GHz	2111	0	0	277	0	0
ppp0_nas0_0	366	0	0	266	0	0
nas0_1	59	0	0	15	0	0
nas0_2	10	0	0	0	0	0

Refresh Reset Statistics

- *Interface* – ;
- *Rx pkt* – ;
- *RX err* – ;
- *Rx drop* – ;
- *Tx pkt* – ;
- *Tx err* – ;
- *Tx drop* – .

«PON»

:

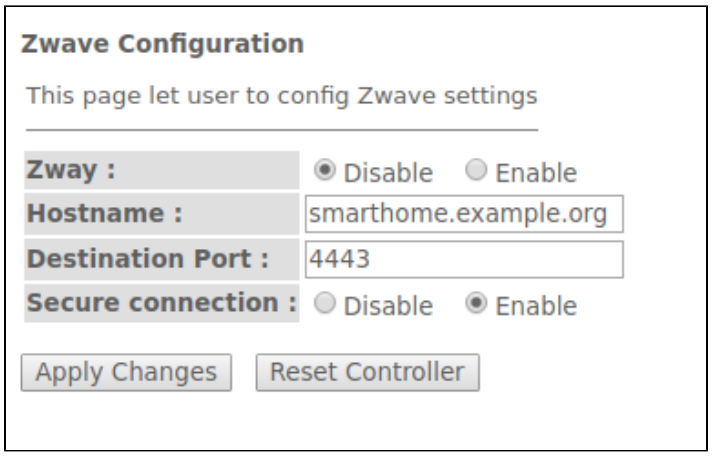
Statistics PON

PON Statistics

Bytes Sent	58932
Bytes Received	196338
Packets Sent	330
Packets Received	1309
Unicast Packets Sent	324
Unicast Packets Received	445
Multicast Packets Sent	0
Multicast Packets Received	549
Broadcast Packets Sent	6
Broadcast Packets Received	315
FEC Errors	0
HEC Errors	0
Packets Dropped	0
Pause Packets Sent	0
Pause Packets Received	0

- *Bytes Sent* – ;
- *Bytes Received* – ;
- *Packets Sent* – ;
- *Packets Received* – ;
- *Unicast Packet Sent* – Unicast ;
- *Unicast Packet Received* – Unicast ;
- *Multicast Packets Sent* – Multicast ;
- *Multicast Packets Received* – Multicast ;
- *Broadcast Packet Sent* – ;
- *Broadcast Packet Received* – ;
- *FEC Errors* – FEC
- *Packets Dropped* – .

«Z-Wave». NTU-RG-5421G-WZ, NTU-RG-5440G-WZ



« ».

- *Zway* – / « »;
- *Hostname* – « »;
- *Destination port* – , « »;
- *Secure connection* – Enable, ;
- *Reset controller (Zway)* – , , , .

«Apply Changes».

1.7	2.3.1	03.2021	
1.6	2.3.0	02.2021	
1.5	2.2.0	10.2020	
1.4	2.1.0	07.2020	
1.3	1.2.1	12.2019	
1.2	1.2.0	10.2019	
1.1	1.1.0	04.2019	
1.0	1.0.1	11.2018	