

OSBRIDGE 5G

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Configuration Manual

1. Initial setup and configuration.

OSBRIDGE 5G devices are configurable via WWW interface. Each device uses following default settings:

IP Address: 192.168.1.254

Subnet Mask: 255.255.255.0

Login: admin

Password: public

The initial login screen appears as follows:



OSBRIDGE 5G

Please enter Username and Password:

Login:

Password:

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Please enter username and password, then press submit to log into the device.

Please note that after changing device parameters and pressing "SUBMIT" button, new settings will only be saved when you press "Apply Configuration" button at the right bottom of the configuration page. You also need to reboot the device for the device to start with new settings.

2. System Information

System information tab shows information about system hardware and operational parameters:

OSBRIDGE 5G

[APPLY CONFIGURATION] [REBOOT]

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System Information:

Device Information

Device Type: OSBRIDGE 5G

Device Name: OSBRIDGE 5G

MAC Address: 00:15:D6:07:32:84

Firmware Version: 3.15R

Hardware Revision: 7.6.2.2

Regulatory Domain: FAR EAST&AFRICA

Uptime: 1 day, 6:46

System Load: 71%

IP Mode: Bridge

IP Address: 10.1.0.6

Subnet Mask: 255.255.255.0

Default Gateway: 10.1.0.1

Wireless Interface 1

Status: Enabled

Mac Address: 00:15:D6:07:32:85

WLAN Mode: Polling Base Station

ESSID: test1

Frequency: 5740MHz

Channel Width: 20 MHz

Data Rate: Auto

Supported Data Rates: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

Tx Packets: 107975833

Tx Errors: 112283

Tx Bytes: 180620552 bytes (172.2 MB)

Rx Packets: 109045256

Rx Errors: 2478638

Rx Bytes: 742026401 bytes (707.6 MB)

Fragmentation Threshold: 2346

Cell Size (km): 6

Wireless Interface 2

Status: Enabled

Mac Address: 00:15:D6:07:32:86

WLAN Mode: Polling Base Station

ESSID: test2

Frequency: 5460MHz

Channel Width: 20 MHz

Data Rate: Auto

Supported Data Rates: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

Tx Packets: 102166940

Tx Errors: 144558

Tx Bytes: 324348385 bytes (309.3 MB)

Rx Packets: 101947640

Rx Errors: 884246

Rx Bytes: 38745176 bytes (36.9 MB)

Fragmentation Threshold: 2346

Cell Size (km): 6

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Device Information:

Device Type – Device type you are logged into.

Device Name - This is the system name for easy identification of the OSBRIDGE 5G unit.

MAC Address – Device Ethernet MAC address.

Firmware Version – Current firmware version..

Hardware Revision – Device Hardware version.

Regulatory Domain – Currently configured regulatory domain.

Uptime – How long the device has been up and running since last reboot.

System Load – Percentage of CPU utilization.

IP Mode – Network mode the device has been configured to work with. Available modes are Bridge and Router.

IP Address – Device IP address.

Subnet Mask – Currently defined subnet mask.

Default Gateway – Currently defined default gateway.

Wireless Interface 1 / Wireless Interface 2:

On the device the inner N connector is for WLAN1 interface and the outer N connector is for WLAN2 interface.

Status – Enabled or Disabled, depending on the current configuration.

MAC Address – MAC address of the wireless interface.

WLAN Mode – Access Point (802.11a compatible) or Polling Base Station (OSBRIDGE proprietary WLAN MAC protocol, optimized for outdoor networks).

ESSID - ESSID of the WLAN interface. All wireless devices on a common wireless network must employ the same ESSID in order to communicate with each other.

Frequency – Current frequency the interface is configured to operate on.

Channel Width – Channel width the device is configured to operate. Available values are 20 MHz (standard width), 10 MHz (half width), 5 MHz (quarter width) and 40 MHz (802.11a Turbo mode).

Data Rate – Configured Data Rate for specific WLAN interface.

Supported Data Rates – Wireless Data rates the device supports.

Available Data Rates are:

6, 9, 12, 18, 24, 36, 48 and 54 Mbps for regular 802.11a mode,
12, 18, 24, 36, 48, 72, 96 and 108 Mbps in 802.11a Turbo mode,
3, 4.5, 6, 9, 12, 18, 24 and 27 Mbps for 802.11a mode with 10 MHz channel width,
1.5, 2.25, 3, 4.5, 6, 9, 12 and 13.5 Mbps for 802.11a mode with 5 MHz channel width.

TX Packets – Number of data packets that have been transmitted by the Access Point.

TX Errors – Number of errors in packets that have been transmitted by the Access Point.

TX Bytes – Number of bytes transmitted by the Access Point.

RX Packets – Number of data packets that have been received by the Access Point.

RX Errors – Number of errors in packets that have been transmitted to the Access Point.

RX Bytes – Number of bytes received by the Access Point.

Fragmentation Threshold - The size at which packets are fragmented on the WLAN interface.

Cell Size (km) - Configure distance between OSBRIDGE 5G device and the most distant client connecting to it.

3. General Settings

The screenshot shows the OSBRIDGE 5G web interface. At the top, there is a logo and a header bar with links for [APPLY CONFIGURATION] and [REBOOT]. The sidebar on the left contains the following sections:

- System Information**
- Settings**
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The main content area is titled "Device Settings" and contains the following configuration fields:

- Regulatory Domain:
- Device Name:
- WLAN 1 ESSID: ☒ Enabled
- WLAN 2 ESSID: ☒ Enabled
- IP Operational Mode:
- WLAN 1 Mode:
- WLAN 2 Mode:
- Web Login Timeout:
- Watchdog: IP Address:
- ETH Speed:
- Stats Update Interval:
- Traffic Shaping:
- Firewall:
- Wireless Traffic Forwarding: to MAC address:
- Reset to Default Password:
- NTP Server:

At the bottom of the main content area, there are two buttons: **SUBMIT** and **CLEAR**. The footer of the page contains the text: (C) 2006 OSLINK Sp. z o.o.

Regulatory Domain – Please select regulatory domain that is most appropriate to your location.

Supported Regulatory Domains and allowed frequency ranges are as follows:

Europe – 5500 – 5700 MHz with 20MHz channel step (11 channels) and DFS;

OFCOM UK – 5735 MHz, 5755 MHz, 5775 MHz, 5835 MHz with DFS;

USA – 5180 – 5320 MHz with 20MHz channel step, 5745 - 5825MHz with 20 MHz channel step (13 channels);

Far East & Africa – 4920 – 6100 MHz with 10 MHz channel step, 802.11a and 802.11a Turbo modes (118 channels).

Device Name - This is the system name for easy identification of the OSBRIDGE 5G unit.

WLAN 1 ESSID - An ESSID is the unique name shared among all peers in your wireless network. The name must be identical for all devices attempting to connect to the same network. It shall be up to 32 characters length.

WLAN 2 ESSID - An ESSID is the unique name shared among all peers in your wireless network. The name must be identical for all devices attempting to connect to the same network. It shall be up to 32 characters length.

IP Operational Mode –

Bridge - Bridge works at OSI model Layer 2. This means it does not know anything about protocols, but just forwards data depending on the destination address in the data packet. This address is not the IP address, but the MAC (Media Access Control) address that is unique to each network adapter card. With a Bridge, all your computers are in the same network subnet, so you don't have to worry about not being able to communicate between

computers or share an Internet connection. The only data that is allowed to cross the bridge is data that is being sent to a valid address on the other side of the bridge. Bridges don't require programming. They learn the addresses of the computers connected to them by listening to the data flowing through them. Bridges are very useful for joining networks made of different media types together into larger networks, and keeping network segments free of data that doesn't belong in a particular segment.

Router - Router is an OSI model Layer 3 device, and forwards data depending on the network address, not the hardware (MAC) address. For TCP/IP networks this means the IP address of the network interface. Routers isolate each LAN into a separate subnet. Routers provide bandwidth control by keeping data out of subnets where it doesn't belong, however routes need to be set up before they can get going.

WLANx Mode - Wireless LAN Operational mode for the device. Available modes are:

Access Point - This mode allows connection of any 802.11a based Client Devices.

Polling Base Station - This mode utilizes OSBRIDGE proprietary polling wireless mac protocol, that has been specifically optimized for high performance outdoor networks.

Web Login Timeout - Enter the value the management Web session should be kept alive without any action from the user.

Watchdog - If enabled then OSBRIDGE 5G device will send 3 ICMP Echo Requests to the configured IP address, each in 3 minutes interval. If there is no single ICMP Echo Reply to any of these requests, then the device will reboot itself. The device has also independent hardware watchdog built in, that checks for critical operational parameters and reboots the device, should the system hang or become unstable. That watchdog works all the time, regardless of the ping watchdog configuration.

ETH Speed - Ethernet connection speed, available values are Auto, 100Mbps Half/Full Duplex and 10Mbps Half/Full Duplex.

Stats Update Interval - time interval between subsequential graph updates.

Traffic Shaping - Enable or Disable built in traffic shaper.

Firewall - Enable or Disable built in packet filtering firewall.

Wireless Traffic Forwarding - If Enabled when device is operating as Access Point then all traffic coming from WLAN interface is forwarded to specified MAC address on the wired interface only.

Reset to Default Password - Password that is used to reset device to factory default settings using OSReset software.

NTP Server - Configure IP address of the external NTP (Network Time Protocol) server where OSBRIDGE device will obtain current time from at startup time.

4. IP Settings

Router Mode

OSBRIDGE5G

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IP Settings

IP Router Settings:

Wired Interface IP:

192.168.1.190

Wired Interface Mask:

255.255.255.0

Wireless Interface IP 1:

192.168.2.254

Wireless Interface Mask 1:

255.255.255.0

Wireless Interface IP 2:

192.168.3.254

Wireless Interface Mask 2:

255.255.255.0

Default Gateway:

10.1.0.1

Defined Routes:

Type	Network Address	Subnet Mask	Gateway / Interface	Delete
Direct	192.168.1.0	255.255.255.0	Wired	☐
Direct	192.168.2.0	255.255.255.0	Wireless1	☐
Direct	192.168.3.0	255.255.255.0	Wireless2	☐

Add Route:

Type

Network Address

Subnet Mask

Gateway

Indirect

SUBMIT

CLEAR

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Wired Interface IP – Enter IP address of the wired interface here.

Wired Interface Mask – Enter wired network subnet mask here.

Wireless Interface IP x – Enter IP address of the wireless interface here.

Wireless Interface Mask x – Enter wireless network subnet mask here.

Default Gateway – IP address of a router where traffic not destined for defined routes / local routes will be forwarded.

Defined Routes – This table displays currently defined static routes. To delete a route select "Delete" checkbox and press Submit on the bottom of the page. Please note that it is not possible to delete first two entries – direct routes to local interfaces.

Add Route:

Direct – Wired/Wireless - When router has two or more IP subnets directly attached to its different interfaces, it can route IP packets between those subnets using a direct route. A direct route consists of an IP Address which specifies the basic IP address to route, a Subnet Mask which defines the class of IP addresses that will be routed, and an interface which specifies where the IP subnet is attached. When an IP packet addressed to a system on the directly routed subnet arrives at the router, the router will send it directly to the target machine on the interface specified. When entering direct route use 0.0.0.0 as Gateway.

Indirect - When router needs to send IP packets between IP subnets which are not directly connected to one of its interfaces, it must have an indirect route for sending those packets. An indirect route consists of an IP Address which specifies the basic IP address to route, a Subnet Mask which defines the class of IP addresses that will be routed and a Gateway that will relay the IP packet. When an IP packet addressed to a system on the indirectly routed subnet arrives at the router, the router will route it over to the specified Gateway to be routed further.

Bridge Mode

OSBRIDGE5G

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IP Settings

Device IP: 192.168.1.190

Subnet Mask: 255.255.255.0

Default Gateway: 10.1.0.1

SUBMIT CLEAR

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Device IP – Enter device IP address here.

Subnet Mask – Enter network subnet mask here.

Default Gateway – IP address of a router where traffic going outside of the local network will be forwarded.

5. Wireless Settings

OSBRIDGE 5G

[APPLY CONFIGURATION] [REBOOT]

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Wireless Settings

Wireless Interface 1

MAC Address: 00:00:00:00:00:00

Output Power: Full (0)

Broadcast ESSID: Disabled

Fragmentation Threshold: 2346

Cell Size (kilometers): 0

Data Rate: Auto

Association Timeout (minutes): 0

Operating Frequency: DFS

Channel Width: 20 MHz

WLAN Inter Client Traffic: Disabled

Data Encryption: Disabled Passphrase (8 characters min.): OSBRIDGE

Supported Data Rates: ☒ 54 ☒ 48 ☒ 36 ☒ 24 ☒ 18 ☒ 12 ☒ 9 ☒ 6

Wireless Interface 2

MAC Address: 00:00:00:00:00:00

Output Power: Full (0)

Broadcast ESSID: Disabled

Fragmentation Threshold: 2346

Cell Size (kilometers): 0

Data Rate: Auto

Association Timeout (minutes): 0

Operating Frequency: DFS

Channel Width: 20 MHz

WLAN Inter Client Traffic: Disabled

Data Encryption: Disabled Passphrase (8 characters min.): OSBRIDGE

Supported Data Rates: ☒ 54 ☒ 48 ☒ 36 ☒ 24 ☒ 18 ☒ 12 ☒ 9 ☒ 6

SUBMIT CLEAR

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MAC Address – MAC Address the wireless interface should use for operation. When set to 00:00:00:00:00:00 (default value) device will use factory assigned MAC address, when set to any other valid value the device will use user configured MAC address. MAC address can not be set to ff:ff:ff:ff:ff:ff, MAC address of the other wireless interface nor to the MAC address of the ethernet interface (the main MAC address visible in the System Info tab).

Output Power - By default, the OSBRIDGE 5G transmits data at the maximum output power for the regulatory domain selected and frequency used. With Transmit Power Control (TPC), you can adjust the output power of the unit to a lower level in order to reduce interference from neighboring devices.

Broadcast ESSID – Choose whether the device should broadcast its ESSID, so it would be visible to anyone, or if ESSID should not be broadcasted.

Fragmentation Threshold – Enter the size at which the packets will be fragmented.

Cell Size (km) - Configure distance between OSBRIDGE 5G device and the most distant client connecting to it.

Data Rate – Choose data rate the device will support while connecting to the Access Point.

Available Data Rates are:

6, 9, 12, 18, 24, 36, 48 and 54 Mbps for regular 802.11a mode,
12, 18, 24, 36, 48, 72, 96 and 108 Mbps in 802.11a Turbo mode,
3, 4.5, 6, 9, 12, 18, 24 and 27 Mbps for 802.11a mode with 10 MHz channel width,
1.5, 2.25, 3, 4.5, 6, 9, 12 and 13.5 Mbps for 802.11a mode with 5 MHz channel width.

Association Timeout – Configure how much time has to pass before idle client device will be automatically disassociated by Access Point.

Operating Frequency – If the current configured Regulatory Domain allows manual frequency selection configure the frequency wlan interface operates on. If the Regulatory Domain requires auto channel selection then DFS (Dynamic Frequency Selection) is shown here.

Channel Width – Channel width the device is configured to operate. Available values are 20 MHz (standard width), 10 MHz (half width), 5 MHz (quarter width) and 40 MHz (802.11a Turbo mode).

WLAN Inter Client Traffic– Choose whether direct relaying of traffic from wireless clients connected to this wireless interface to other wireless clients connected to this wireless interface should be enabled or disabled.

Data Encryption – Enable or Disable over the air OSBRIDGE proprietary data Encryption here. This encryption scheme only works between compatible OSBRIDGE devices.

Supported Data Rates – Enable or Disable WLAN Data Rates the OSBRIDGE 5G device should support when communicating with client devices.

6. Quality of Service Settings

OSBRIDGE5G

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Quality of Service Settings

Currently Defined QoS Entries:

Type	Address	Rate Uplink/Downlink	Delete
Non Listed	N/A	Unlimited/Unlimited	☐

Non Listed Downlink Speed: kbps (Value between 64 and 65536 or 0 for unlimited)

Non Listed Uplink Speed: kbps (Value between 64 and 65536 or 0 for unlimited)

Add Entry:

Type

Address

Uplink Speed

Downlink Speed

MAC Address

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The built-in traffic shaper allows you to set up different data flow speeds for the device clients –
In IP Bridge Mode - based on MAC Address,
In IP Router Mode - based on IP Address or IP Subnetwork.

The **Currently Defined QoS Entries** table shows current traffic shaping configuration. First entry shows default uplink/downlink speed for connections that don't have matching entries in the table. After that there are configured entries shown.

Non Listed Downlink Speed – Cumulative data flow speed for all packets going out of the Access Point through WLAN interface, that don't match any of the configured entries.

Non Listed Uplink Speed – Cumulative data flow speed for all packets going out of the Access Point through Ethernet interface, that don't match any of the configured entries.

Add Entry –

Type – choose either MAC Address or IP Address.

Address – For MAC Address enter it as "xx:yy:xx:yy:xx:yy". For IP Address enter it as "x.x.x.x", or if you want to limit speed for whole subnetwork enter it as "x.x.x.x/y".

Uplink Speed – Enter data flow speed for all packets matching defined IP/MAC address, going out of the Access Point through Ethernet interface.

Downlink Speed - Enter data flow speed for all packets matching defined IP/MAC address, going out of the Access Point through WLAN interface.

7. Firewall Settings

OSBRIDGE 5G

[APPLY CONFIGURATION] [REBOOT]

Currently Defined IP/MAC Firewall Rules:

Ethernet:

No	Action	Proto	Source MAC	Port	Destination MAC	Port	Delete

Wireless 1:

No	Action	Proto	Source MAC	Port	Destination MAC	Port	Delete

Wireless 2:

No	Action	Proto	Source MAC	Port	Destination MAC	Port	Delete

Define New Rule:

Number Interface Action Protocol Source

Port Destination Port

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Built in Firewall allows you to pass or block traffic going through the device, based on selected criteria.

There are three tables shown on the configuration screen. "Ethernet" table shows currently defined firewall rules for the wired interface of the OSBRIDGE 5G device. "Wireless" tables show currently defined rules for the wireless interfaces. You can delete existing firewall rules by selecting "Delete" checkbox on the right side of the rule and pressing Submit button.

Define New Rule (IP Bridge Mode):

Interface – Select the incoming interface the rule should apply to. Choose either Ethernet or Wireless interface.

Action – Select what to do with the packet matching the rule. You can either pass that packet through, or block it.

Protocol – Enter the number representing protocol that should be matched. Use "*" to match all protocols. Most common numbers are:

- 0 – All IP protocols
- 1 – ICMP protocol
- 6 – TCP protocol
- 17 – UDP protocol

For complete list of protocols please see Appendix 1 of this document, or go to:
<http://www.iana.org/assignments/protocol-numbers>

Source – Source MAC address of the packet to be matched. Use "*" to match any MAC address.

Source Port – Source port of the packet to be matched. Use "*" to match any source port.

Destination – Destination MAC address of the packet to be matched. Use "*" to match any MAC address.

Destination Port - Destination port of the packet to be matched. Use "*" to match any destination port.

Define New Rule (IP Router Mode):

Interface – Select the incoming interface the rule should apply to. Choose either Ethernet or Wireless interface.

Action – Select what to do with the packet matching the rule. You can either pass that packet through, or block it.

Protocol – Enter the number representing protocol that should be matched. Use "*" to match all protocols. Most common numbers are:

0 – All IP protocols

1 – ICMP protocol

6 – TCP protocol

17 – UDP protocol

For complete list of protocols please see Appendix 1 of this document, or go to:

<http://www.iana.org/assignments/protocol-numbers>

Source – Source IP address or IP subnet (in x.x.x.x/y format) of the packet to be matched. Use "0.0.0.0/0" to match any IP address.

Source Port – Source port of the packet to be matched. Use "*" to match any source port.

Destination – Destination IP address or IP subnet (in x.x.x.x/y format) of the packet to be matched. Use "0.0.0.0/0" to match any IP address.

Destination Port - Destination port of the packet to be matched. Use "*" to match any destination port.

8. Authorized Stations

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Defined Entries:

No	MAC Address	Description	Delete
----	-------------	-------------	--------

Add New Entry:

Authorization Table: Disabled

MAC Address:

Description

SUBMIT

CLEAR

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Authorized stations list, if the Authorization Table option is Enabled, defines MAC addresses of devices allowed to connect to the OSBRIDGE 5G device WLAN interfaces.

9. Device Settings

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Device Security Settings

Current Password:

New Password:

New Password Again:

SUBMIT

CLEAR

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Use this screen to change password which is used to access and configure the device.

10. Interface Status



This screen shows data graphs of traffic going through ethernet and wlan interfaces.

11. Associated Stations

This page shows information about devices that are currently associated to the access point. Depending on the mode the OSBRIDGE 5G device is operating (Access Point or Polling Base Station) the table will show following information:

Access Point Mode

The screenshot shows the OSBRIDGE 5G web interface. At the top, there is a logo and navigation links: [APPLY CONFIGURATION] and [REBOOT]. The main content area is titled 'Associated Stations:'. It displays two sections: 'Wireless LAN 1' and 'Wireless LAN 2'. Each section contains a table of associated stations. The table for Wireless LAN 1 has the following data:

No	MAC Address	RX Signal	Data Rate	RX Bytes	RX Packets	TX Bytes	TX Packets
1	00:50:fc:48:04:16	-78dBm	384Kbps	672	8	660	8
2	00:15:06:05:16:12	-92dBm	0Kbps	469890	1666	825844	1625

The table for Wireless LAN 2 is empty. The sidebar on the left contains the following links:

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At the bottom of the interface, there is a copyright notice: (C) 2006 OSUNIC Sp. z o.o.

No – Number of the associated entry.

MAC Address – MAC address of the associated device.

RX Signal – The RX Signal strength is the signal level the OSBRIDGE 5G device sees the associated client with.

Data Rate – Over Air Data Rate for associated device. Data Rate is the speed at which OSBRIDGE 5G device sends packets to the client.

RX Bytes – Number of bytes that have been received from the station since it associated itself to the OSBRIDGE 5G device.

RX Packets – Number of data packets that have been received from the station since it associated itself to the OSBRIDGE 5G device.

TX Bytes – Number of bytes that have been transmitted to the station since it associated itself to the OSBRIDGE 5G device.

TX Packets – Number of data packets that have been transmitted to the station since it associated itself to the OSBRIDGE 5G device.

Polling Base Mode

OSBRIDGE5G

[APPLY CONFIGURATION] [REBOOT]

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Associated Stations:

Wireless LAN 1

No	MAC Address	Device Name	Firmware	Uptime	IP Mode	Signal (RX/TX)	Data Rate (RX/TX)	Packets (RX/TX)	Bytes (RX/TX)
1	00:15:06:05:05:50	Maria Szmajlinska	3.29	2d, 23h, 46m	Router	-77dBm/-75dBm	36Mbps/48Mbps	52903896/53010598	1273357972/1282824538
2	00:50:fc:48:02:02	Lessman, Usługi Transportowe	3.29	1d, 9h, 27m	Router	-87dBm/-83dBm	24Mbps/24Mbps	56166067/54911187	4825280575/1258627506

Wireless LAN 2

No	MAC Address	Device Name	Firmware	Uptime	IP Mode	Signal (RX/TX)	Data Rate (RX/TX)	Packets (RX/TX)	Bytes (RX/TX)
1	00:50:fc:48:06:06	OSBRIDGE 5GXi	3.29	3d, 2h, 23m	Router	-87dBm/-85dBm	18Mbps/18Mbps	101973666/102121771	2481149064/2474708057

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No – Number of the associated entry.

MAC Address – MAC address of the associated device.

Device Name – Device Name that has been configured on the client device, ie. if the client device is OSBRIDGE 5GXi operating in polling client mode and you configure device name "Uncle Sam" on it then that name will show up here in the associated stations list.

Firmware – Firmware version the client device operates.

Uptime – Uptime of the client device. This is the actual uptime of the client device since last reboot, not the time the device has been connected to the OSBRIDGE 5G.

IP Mode – mode the client device operates - ie. Bridge, Router or NAT Router.

Signal (RX/TX) – Signal strength in dBm for associated device. The RX Signal strength is the signal level the OSBRIDGE 5G device sees the client with, the TX Signal strength is the signal level the client device sees the OSBRIDGE 5G base station device with.

Data Rate (RX/TX) – Over Air Data Rate for associated device. RX Data Rate is the speed at which OSBRIDGE 5G device receives packets from the client, TX Data Rate is the speed at which OSBRIDGE 5G device sends packets to the client.

Packets (RX/TX) – Number of data packets that have been received (RX Packets) and transmitted (TX Packets) to/from the station since it associated itself to the OSBRIDGE 5G device.

Bytes (RX/TX) – Number of bytes that have been received (RX Bytes) and transmitted (TX Bytes) to/from the station since it associated itself to the OSBRIDGE 5G device.

12. Firmware Upgrade

OSBRIDGE5G

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Firmware Upgrade

This tool allows you to upgrade the device firmware. It is recommended to upgrade the firmware from wired stations.

Enter the path and name of the upgrade file and then click the SUBMIT button below.

(C) 2005 OSLink Sp. z o.o.

This page allows you to upgrade the device firmware. It is recommended to upgrade firmware only to newer version than the one currently installed in the device.

13. Load Configuration

OSBRIDGE5G

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Load Configuration

Enter the path and name of the load file and then click the SUBMIT button below.

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You can use this option to load current device configuration from file.

14. Save Configuration

OSBRIDGE5G

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Save Configuration

SUBMIT

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You can use this option to save device configuration to file.

15. SNMP Support

OSBRIDGE 5G devices support SNMP monitoring feature and appropriate .mib file is provided with each firmware release.

SNMP community string required for monitoring is always configured to be the same as **admin** user password used for device configuration.

An example usage of SNMP from a linux box looks as follows:

```
[root@gw root]# snmpwalk -c public -v 2c 10.0.0.6 enterprises.19025
SNMPv2-SMI::enterprises.19025.1.1.1.1.0 = STRING: "OSBRIDGE 5G"
SNMPv2-SMI::enterprises.19025.1.1.1.2.0 = STRING: "00:15:D6:07:32:84"
SNMPv2-SMI::enterprises.19025.1.1.1.3.0 = STRING: "3.15R"
SNMPv2-SMI::enterprises.19025.1.1.1.4.0 = STRING: "7.6.2.2"
SNMPv2-SMI::enterprises.19025.1.1.1.5.0 = INTEGER: 4
SNMPv2-SMI::enterprises.19025.1.1.2.1.0 = INTEGER: 1
SNMPv2-SMI::enterprises.19025.1.1.2.2.0 = STRING: "5740"
SNMPv2-SMI::enterprises.19025.1.1.2.3.0 = STRING: "Auto"
SNMPv2-SMI::enterprises.19025.1.1.2.4.0 = STRING: "447969899"
SNMPv2-SMI::enterprises.19025.1.1.2.5.0 = STRING: "435419"
SNMPv2-SMI::enterprises.19025.1.1.2.6.0 = STRING: "756325239"
SNMPv2-SMI::enterprises.19025.1.1.2.7.0 = STRING: "451904019"
SNMPv2-SMI::enterprises.19025.1.1.2.8.0 = STRING: "9186026"
SNMPv2-SMI::enterprises.19025.1.1.2.9.0 = STRING: "2935455760"
SNMPv2-SMI::enterprises.19025.1.1.2.10.0 = INTEGER: 1
SNMPv2-SMI::enterprises.19025.1.1.2.11.0 = STRING: "5460"
SNMPv2-SMI::enterprises.19025.1.1.2.12.0 = STRING: "Auto"
SNMPv2-SMI::enterprises.19025.1.1.2.13.0 = STRING: "445986491"
SNMPv2-SMI::enterprises.19025.1.1.2.14.0 = STRING: "489095"
SNMPv2-SMI::enterprises.19025.1.1.2.15.0 = STRING: "595597410"
SNMPv2-SMI::enterprises.19025.1.1.2.16.0 = STRING: "449823519"
SNMPv2-SMI::enterprises.19025.1.1.2.17.0 = STRING: "4420533"
SNMPv2-SMI::enterprises.19025.1.1.2.18.0 = STRING: "444397668"
SNMPv2-SMI::enterprises.19025.1.1.3.1.0 = INTEGER: 0
SNMPv2-SMI::enterprises.19025.1.1.3.2.0 = IpAddress: 10.0.0.6
SNMPv2-SMI::enterprises.19025.1.1.3.3.0 = IpAddress: 255.255.255.0
SNMPv2-SMI::enterprises.19025.1.1.3.4.0 = IpAddress: 192.168.2.254
SNMPv2-SMI::enterprises.19025.1.1.3.5.0 = IpAddress: 255.255.255.0
SNMPv2-SMI::enterprises.19025.1.1.3.6.0 = IpAddress: 192.168.3.254
SNMPv2-SMI::enterprises.19025.1.1.3.7.0 = IpAddress: 255.255.255.0
SNMPv2-SMI::enterprises.19025.1.1.3.8.0 = IpAddress: 10.0.0.1
SNMPv2-SMI::enterprises.19025.1.1.3.9.0 = STRING: "5 days, 5:49"
SNMPv2-SMI::enterprises.19025.1.1.3.10.0 = STRING: "Not Available"
SNMPv2-SMI::enterprises.19025.1.1.3.11.0 = STRING: "72%"
SNMPv2-SMI::enterprises.19025.1.1.3.12.0 = STRING: "osbridge1"
SNMPv2-SMI::enterprises.19025.1.1.3.13.0 = INTEGER: 2346
SNMPv2-SMI::enterprises.19025.1.1.3.14.0 = INTEGER: 6
SNMPv2-SMI::enterprises.19025.1.1.3.15.0 = STRING: "osbridge2"
SNMPv2-SMI::enterprises.19025.1.1.3.16.0 = INTEGER: 2346
SNMPv2-SMI::enterprises.19025.1.1.3.17.0 = INTEGER: 6
SNMPv2-SMI::enterprises.19025.1.1.3.18.0 = INTEGER: 600
SNMPv2-SMI::enterprises.19025.1.1.3.19.0 = INTEGER: 1
SNMPv2-SMI::enterprises.19025.1.1.3.20.0 = IpAddress: 10.0.0.1
SNMPv2-SMI::enterprises.19025.1.1.3.21.0 = INTEGER: 0
SNMPv2-SMI::enterprises.19025.1.1.3.23.0 = INTEGER: 0
SNMPv2-SMI::enterprises.19025.1.1.3.25.0 = STRING: "OSBRIDGE 5G"
SNMPv2-SMI::enterprises.19025.1.1.3.26.0 = INTEGER: 1
SNMPv2-SMI::enterprises.19025.1.1.3.27.0 = INTEGER: 1
SNMPv2-SMI::enterprises.19025.1.1.3.28.0 = INTEGER: 0
SNMPv2-SMI::enterprises.19025.1.1.3.29.0 = INTEGER: 5
```

```
SNMPv2-SMI::enterprises.19025.1.1.3.30.0 = INTEGER: 0
SNMPv2-SMI::enterprises.19025.1.1.3.31.0 = INTEGER: 0
SNMPv2-SMI::enterprises.19025.1.1.3.32.0 = INTEGER: 5740
SNMPv2-SMI::enterprises.19025.1.1.3.33.0 = INTEGER: 5460
SNMPv2-SMI::enterprises.19025.1.1.3.34.0 = INTEGER: 0
SNMPv2-SMI::enterprises.19025.1.1.3.35.0 = INTEGER: 0
SNMPv2-SMI::enterprises.19025.1.1.3.36.0 = INTEGER: 0
SNMPv2-SMI::enterprises.19025.1.1.3.37.0 = INTEGER: 0
SNMPv2-SMI::enterprises.19025.1.1.3.38.0 = INTEGER: 0
SNMPv2-SMI::enterprises.19025.1.1.3.39.0 = INTEGER: 0
SNMPv2-SMI::enterprises.19025.1.1.4.2.0 = STRING: "
NO MAC NAME FIRMWARE UPTIME IP_MODE SIGNAL(RX/TX) DATA_RATE(RX/TX) PACKETS(RX/TX)
BYTES(RX/TX)
1 00:50:fc:48:06:36 OSBRIDGE 5XLi 3.29 8d, 16h, 9m Router -87dBm/-83dBm 24Mbps/24Mbps
449829015/445407692 11413012253/9895107175"
[root@gw root]#
```