

OSBRIDGE 24XL(i)

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Configuration Manual

1. Initial setup and configuration.

OSBRIDGE 24XL devices are configurable via WWW interface. Each device uses following default settings:

IP: 192.168.1.250

Subnet Mask: 255.255.255.0

Login: admin

Password: public

The initial login screen looks as follows:

OSBRIDGE XL

Please enter Username and Password:

Login:

Password:

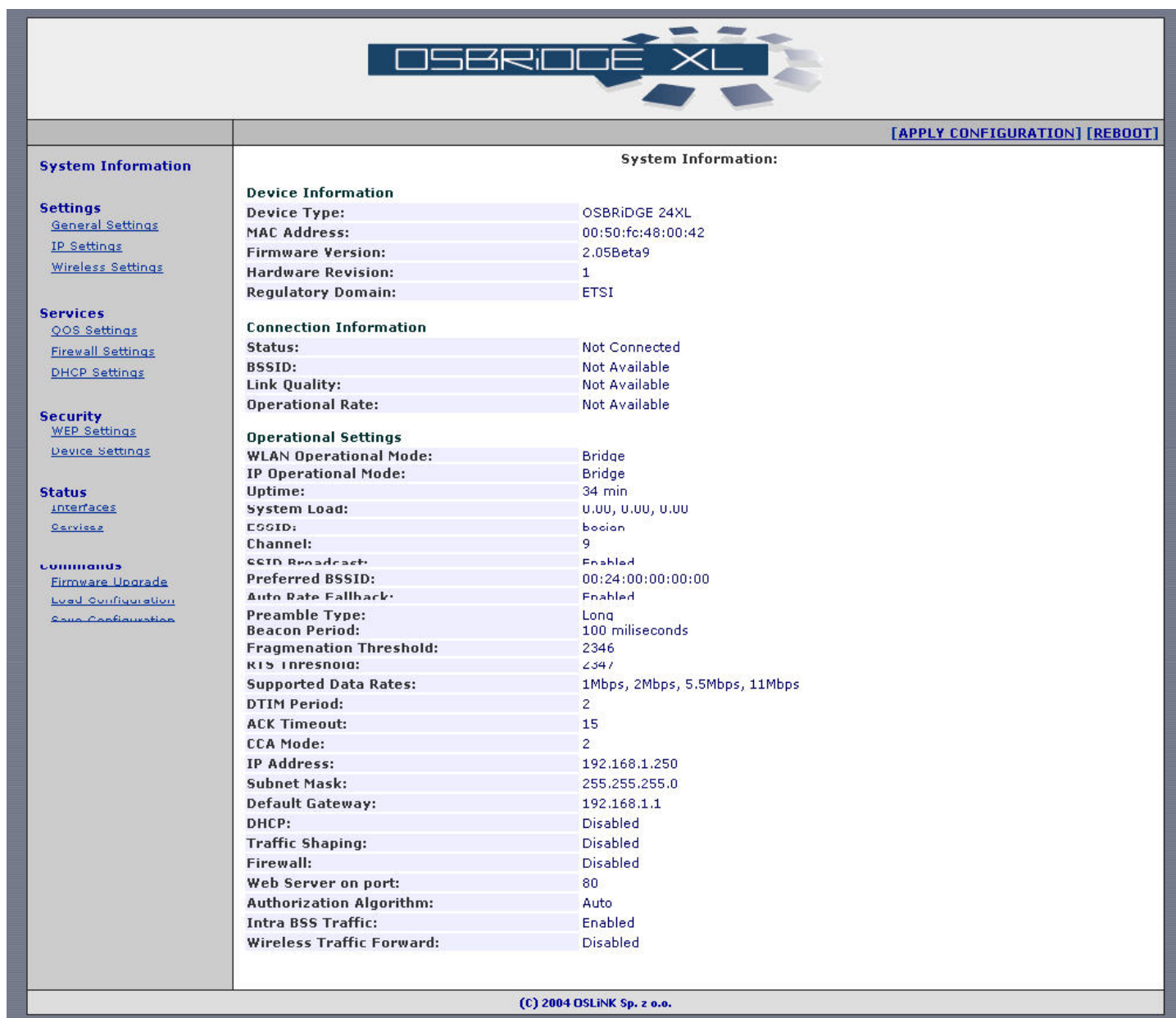
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Please enter username and password, then press submit to log into the device.

Please note that after changing device parameters and pressing submit button, new settings will only be saved when you press "Apply Changes" 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:



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System Information:

Device Information

| | |
|--------------------|-------------------|
| Device Type: | OSBRIDGE 24XL |
| MAC Address: | 00:50:fc:48:00:42 |
| Firmware Version: | 2.05Beta9 |
| Hardware Revision: | 1 |
| Regulatory Domain: | ETSI |

Connection Information

| | |
|-------------------|---------------|
| Status: | Not Connected |
| BSSID: | Not Available |
| Link Quality: | Not Available |
| Operational Rate: | Not Available |

Operational Settings

| | |
|---------------------------|-------------------------------|
| WLAN Operational Mode: | Bridge |
| IP Operational Mode: | Bridge |
| Uptime: | 34 min |
| System Load: | 0.00, 0.00, 0.00 |
| ESSID: | boeion |
| Channel: | 9 |
| CCTD Broadcast: | Enabled |
| Preferred BSSID: | 00:24:00:00:00:00 |
| Auto Rate Fallback: | Enabled |
| Preamble Type: | Long |
| Beacon Period: | 100 milliseconds |
| Fragmentation Threshold: | 2346 |
| RTS Threshold: | 2347 |
| Supported Data Rates: | 1Mbps, 2Mbps, 5.5Mbps, 11Mbps |
| DTIM Period: | 2 |
| ACK Timeout: | 15 |
| CCA Mode: | 2 |
| IP Address: | 192.168.1.250 |
| Subnet Mask: | 255.255.255.0 |
| Default Gateway: | 192.168.1.1 |
| DHCP: | Disabled |
| Traffic Shaping: | Disabled |
| Firewall: | Disabled |
| Web Server on port: | 80 |
| Authorization Algorithm: | Auto |
| Intra BSS Traffic: | Enabled |
| Wireless Traffic Forward: | Disabled |

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Device Information:

Device Type – Current device type you are logged into.

MAC Address – Device MAC address.

Firmware Version – Current firmware version the device is operating.

Hardware Revision – Device hardware type.

Regulatory Domain – currently programmed regulatory domain – ETSI for European countries or FCC for US or unregulated countries.

Connection Information: ([Access Point Client](#) or [Wireless Bridge mode](#) only)

Status – Connected – means that device is currently connected to another device.

Not Connected – means that no connection has yet been made.

BSSID – MAC address of the Access Point or Wireless Bridge the device is currently connected to.

Link Quality – Current connection quality, measured in percents (100% - best; 0% - worst).

Operational Rate – Supported data rates device uses for current connection. Available data rates are 11 Mbps, 5.5 Mbps, 2 Mbps and 1Mbps.

Operational Settings:

WLAN Operational Mode – Wireless LAN Operational mode the device has been configured to work with. Available modes are Access Point, Access Point Client or Wireless Bridge.

IP Operational Mode – Network mode the device has been configured to work with. Available modes are bridge and router.

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

System Load – Shows system load - average number of processes in the queue waiting for CPU time, over the last 1, 5, and 15 minutes.

ESSID - An ESSID is the name of a wireless local area network. All wireless devices on a WLAN must employ the same ESSID in order to communicate with each other.

Channel – The channel the device is currently operating on.

SSID Broadcast – Whether the device operating in Access Point mode broadcasts its ESSID or it is hidden.

Preferred BSSID – MAC Address of the Access Point or Wireless Bridge the device should connect to. If it is set to 00:00:00:00:00:00 then it is omitted and only ESSID is taken into account.

Auto Rate Fallback – If Enabled the device will use slower speeds for optimizing communication possibility in worse channel conditions and over larger distances. If Disabled the device operates at fixed data rate without looking at channel conditions.

Preamble Type - Preamble is the first subfield of PPDU, which is the appropriate frame format for transmission to PHY (Physical Layer). There are two options, Short Preamble and Long Preamble. The Short Preamble option improves throughput performance yet Long Preamble ensures greater compatibility with other vendors equipment.

Beacon Period - This value indicates the frequency interval of the beacon. A beacon is a packet broadcast by the AP to synchronize the wireless network. The default value is 100.

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

RTS Threshold - Minimum packet size to require an RTS (Request To Send) handshaking limiting on-the-air collisions. For packets smaller than this threshold, an RTS is not sent and the packet is transmitted directly to the WLAN. For packets larger than this threshold the RTS/CTS handshaking is established.

Supported Data Rates - Data rates the device supports. Available data rates are 11 Mbps, 5.5 Mbps, 2 Mbps and 1Mbps.

DTIM Period - DTIM stands for Delivery Traffic Indication Message. A DTIM is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the access point has buffered broadcast or multicast message for associated clients, it sends the next DTIM with a DTIM Interval value. Access point clients hear and awaken to receive the broadcast and multicast messages.

ACK Timeout - Value that represents the time after which wireless bridge, if ACK packet is not received, retries sending data packet. This is especially useful for long range links and links where devices report lot of duplicate packets – increasing this value helps improving performance.

CCA Mode – There are three Carrier Collision Avoidance modes available:

Mode 0: Energy detection above a threshold mechanism;

Mode 1: 802.11 DSSS PHY conformant signal detection;

Mode 2: Energy detection combined with an 802.11 DSSS PHY conformant signal detection.
This is the default value.

IP Address – Device IP address.

Subnet Mask – Currently defined subnet mask.

Default Gateway – Currently defined default gateway.

DHCP – Whether onboard DHCP (Dynamic Host Configuration Protocol) server or client is disabled or enabled.

Traffic Shaping – If enabled then device will use traffic shaping to limit data according to defined rules. If disabled then there is no data traffic limiting.

Firewall – If enabled then device will use build in firewall to pass/block traffic according to defined rules. If disabled then there is no packet filtering.

Web Server on Port - Port number the build-in web server currently runs on.

Authorization Algorithm – WEP -

Open System: With this setting any station in the WLAN can associate with an AP and receive and transmit data (null authentication).

Shared Key: With this setting only stations using a shared key encryption identified by the AP are allowed to associate with it.

Auto: With this setting stations communicate with the Access Point either with or without data encryption.

Intra BSS Traffic – If Enabled then all stations associated to device operating as Access Point will be able to talk with themselves directly. If Disabled then WLAN relaying is not possible.

Wireless Traffic Forward – 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.

Associated Stations - ([Access Point mode only](#))

This table shows information about devices that are associated to the access point.

No – Number of the associated entry.

MAC Address – MAC address of the associated device.

TX Packets – Number of data packets that have been transmitted to that station since it associated itself to the Access Point.

RX Packets – Number of data packets that have been received from that station since it associated itself to the Access Point.

LQ – Link Quality – in percents. This value shows how good the actual data connection is.

Rate – Data Rate at which the Access Point talks to the station.

Timeout – How much time has to pass before the station will be automatically disassociated by Access Point. This counter is reset to the **WLAN Association Timeout** value once any data is passed between Access Point and the associated station.

3. General Settings

The screenshot shows the OSBRIDGE XL web interface. At the top, there is a logo for OSBRIDGE XL. Below the logo, there are two buttons: [APPLY CONFIGURATION] and [REBOOT]. The main content area is titled "General Settings" and contains the following fields:

| | |
|-------------------------|---|
| Device Name: | <input type="text" value="OSBRIDGE 24XL"/> |
| ESSID: | <input type="text" value="bocian"/> |
| WLAN Operational Mode: | <input type="text" value="Bridge"/> |
| BSSID: | <input type="text" value="00:24:00:00:00:00"/> |
| Operational Channel: | <input type="text" value="9"/> |
| IP Operational Mode: | <input type="text" value="Bridge"/> |
| DHCP: | <input type="text" value="Disabled"/> |
| Traffic Shaping: | <input type="text" value="Disabled"/> |
| Firewall: | <input type="text" value="Disabled"/> |
| Watchdog: | <input type="text" value="Enabled"/> IP Address: <input type="text" value="0.0.0.0"/> |
| Run Web Server on Port: | <input type="text" value="80"/> |
| Web Login Timeout: | <input type="text" value="600"/> (60-600 seconds) |

At the bottom of the form, there are two buttons: SUBMIT and CLEAR. The footer of the page reads "(C) 2004 OSLINK Sp. z o.o."

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

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

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

Access Point - This mode provides access from Wireless Stations to Wired LAN and from Wired LAN to Wireless Stations. Furthermore, Wireless Stations within the range of the AP device may communicate with each other via the AP (unless Intra BSS Traffic is disabled).

Access Point Client - This mode allows connection of one or more remote LANs with a central LAN, creating thus an extended single virtual LAN. In this way, any station of the Remote LAN can successfully communicate with any station of the central LAN, as if all of them belonged to the same physical LAN.

Wireless Bridge - This mode enables a wireless connection between two wired LANs. Please note that OSBRIDGE XL device in Wireless Bridge mode will only connect to another OSBRIDGE XL device.

BSSID - BSSID corresponds to the MAC Address of the Access Point or Wireless Bridge you want to connect to. Using 00:00:00:00:00:00 as BSSID will make the device connect to any Access Point based on correct ESSID only.

Operational Channel - Select the channel to be used when acting as an Access Point. This field is irrelevant when operating as Access Point Client.

IP Operational Mode -

Bridge - Bridge works at OSI model Layer 2. This means it doesn't 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.

DHCP – Enable or disable built in DHCP client/server here.

Traffic Shaping – Enable or disable built in traffic shaper here.

Firewall – Enable or disable built in packet filtering firewall here.

Watchdog – If enabled then OSBRIDGE XL 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 the requests, then the device will reboot itself.

The device has also 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.

Run Web Server on Port – Enter the port the build-in Web server should be configured to run on.

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

3. IP Settings

Bridge Mode


The screenshot displays the OSBRIDGE XL web interface. At the top center is the logo "OSBRIDGE XL" with a stylized gear icon. In the top right corner, there are two links: "[APPLY CONFIGURATION]" and "[REBOOT]". The left sidebar contains a "System Information" section with sub-sections: "Settings" (with links for General Settings, IP Settings, and Wireless Settings), "Services" (with links for QoS Settings, Firewall Settings, and DHCP Settings), "Security" (with links for WEP Settings and Device Settings), "Status" (with links for Interfaces and Services), and "Commands" (with links for Firmware Upgrade, Load Configuration, and Save Configuration). The main content area is titled "IP Settings" and contains three input fields: "Device IP:" with the value "192.168.1.250", "Subnet Mask:" with the value "255.255.255.0", and "Default Gateway:" with the value "192.168.1.1". Below these fields are two buttons: "SUBMIT" and "CLEAR". At the bottom center of the page, there is a copyright notice: "(C) 2004 OSLINK Sp. z o.o."

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.

Router Mode



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IP Settings

IP Router Settings:

Wired Interface IP:

Wired Interface Mask:

Wireless Interface IP:

Wireless Interface Mask:

Default Gateway:

Defined Routes:

| Type | Network Address | Subnet Mask | Gateway / Interface | Delete |
|----------|-----------------|---------------|---------------------|--------------------------|
| Direct | 192.168.1.0 | 255.255.255.0 | Wired | <input type="checkbox"/> |
| Direct | 192.168.2.0 | 255.255.255.0 | Wireless | <input type="checkbox"/> |
| Indirect | 10.0.255.0 | 255.255.255.0 | 192.168.1.2 | <input type="checkbox"/> |
| Direct | 10.0.0.5 | 255.255.254.0 | Wireless | <input type="checkbox"/> |

Add Route:

| | | | |
|---------------------------------------|----------------------|----------------------|----------------------|
| Type | Network Address | Subnet Mask | Gateway |
| <input type="text" value="Indirect"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

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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 – Enter IP address of the wireless interface here.

Wireless Interface Mask – 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" field 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 further routed.

4. Wireless Settings



[\[APPLY CONFIGURATION\]](#) [\[REBOOT\]](#)

| System Information | Wireless Settings |
|---|---|
| Settings General Settings IP Settings Wireless Settings | Fragmentation Threshold: <input type="text" value="2346"/> (256-2346) |
| Services QoS Settings Firewall Settings DHCP Settings | RTS/CTS Threshold: <input type="text" value="2347"/> (0-2347) |
| Security WEP Settings Device Settings | Beacon Interval: <input type="text" value="100"/> (20-1024 milliseconds) |
| Status Interfaces Services | DTIM: <input type="text" value="2"/> (1-10) |
| Commands Firmware Upgrade Load Configuration Save Configuration | ACK Timeout: <input type="text" value="15"/> (5-60) |
| | WLAN Association Timeout: <input type="text" value="600"/> (60-6000) |
| | Data Rate: <input type="text" value="Auto"/> |
| | Authorization Algorithm: <input type="text" value="Auto"/> |
| | Preamble Type: <input type="text" value="Long"/> |
| | Broadcast ESSID: <input type="text" value="Enabled"/> |
| | Intra BSS Traffic: <input type="text" value="Enabled"/> |
| | CCA Mode: <input type="text" value="2"/> |
| | Wireless Traffic Forwarding: <input type="text" value="Disabled"/> to MAC address: <input type="text" value="00:00:00:00:00:00"/> |
| | <input type="button" value="SUBMIT"/> <input type="button" value="CLEAR"/> |

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

RTS/CTS Threshold – Enter the minimum packet size to require an RTS (Request To Send) handshaking limiting on-the air collisions. For packets smaller than this threshold, an RTS is not sent and the packet is transmitted directly to the WLAN. For packets larger than this threshold the RTS/CTS handshaking is established. This value should be only changed while operating as Access Point Client.

Beacon Interval - Enter value that indicates the frequency interval of the beacon. A beacon is a packet broadcast by the AP to synchronize the wireless network. The default value is 100.

DTIM – DTIM stands for Delivery Traffic Indication Message. A DTIM is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the access point has buffered broadcast or multicast message for associated clients, it sends the next DTIM with a DTIM Interval value. Access point clients hear and awaken to receive the broadcast and multicast messages. Default value is 2.

ACK Timeout – Enter the value that represents the time after which wireless bridge, if ACK packet is not received, retries sending data packet. This is especially useful for long range links and links where devices report lot of duplicate packets – increasing this value helps improving performance. Default Value is 15.

WLAN Association Timeout – Enter the value in seconds, that represents the time after which the device operating in Access Point mode will disassociate

Data Rate – Choose data rates the device will support while connecting to another device. Available data rates are 11 Mbps, 5.5 Mbps, 2 Mbps and 1Mbps or Auto.

Authorization Algorithm – WEP authorization algorithm:

Open System: With this setting any station in the WLAN can associate with an AP and receive and transmit data (null authentication).

Shared Key: With this setting only stations using a shared key encryption identified by the AP are allowed to associate with it.

Auto: With this setting stations communicate with the Access Point either with or without data encryption.

Please note, that while operating as Access Point Client you should only chose Open or Shared Key authorization – depending on the authorization scheme that is used by your Access Point.

Preamble Type – Preamble is the first subfield of PPDU, which is the appropriate frame format for transmission to PHY (Physical Layer). There are two options, Short Preamble and Long Preamble. The Short Preamble option improves throughput performance yet Long Preamble ensures greater compatibility with other vendors equipment.

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

Intra BSS Traffic – Choose whether direct relaying of traffic from wireless clients to wireless clients should be enabled or disabled.

CCA Mode – There are three Carrier Collision Avoidance modes available:

Mode 0: Energy detection above a threshold mechanism;

Mode 1: 802.11 DSSS PHY conformant signal detection;

Mode 2: Energy detection combined with an 802.11 DSSS PHY conformant signal detection.
This is the default value.

Wireless Traffic Forwarding – If Enabled, then all traffic from wireless interface will be forwarded to the specified MAC address on the wired side of the Access Point.

4. QOS Settings

Access Point Mode

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Quality of Service Settings

Currently Defined QoS Entries:

| Type | Address | Rate Uplink/Downlink | Delete |
|-------------|-------------------|----------------------|--------------------------|
| Non Listed | N/A | Unlimited/Unlimited | <input type="checkbox"/> |
| MAC Address | 00:02:2d:43:11:22 | 256 kbps/1024 kbps | <input type="checkbox"/> |
| IP Address | 192.168.1.5 | 128 kbps/128 kbps | <input type="checkbox"/> |
| IP Address | 192.168.2.0/24 | 512 kbps/512 kbps | <input type="checkbox"/> |

Non Listed Downlink Speed: kbps (Value between 64 and 8192 or 0 for unlimited)

Non Listed Uplink Speed: kbps (Value between 64 and 8192 or 0 for unlimited)

Add Entry:

| | | | |
|-------------|----------------------|----------------------|----------------------|
| Type | Address | Uplink Speed | Downlink Speed |
| MAC Address | <input type="text"/> | <input type="text"/> | <input type="text"/> |

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When the device operates as Access Point the built-in traffic shaper allows you to set up different data flow speeds for it's 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" (ie. 192.168.0.0/24 if you want to limit all IP addresses within 192.168.0.0 to 192.168.0.255 range).

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.

Access Point Client and Bridge Mode



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| | |
|---|--|
| System Information Settings General Settings IP Settings Wireless Settings Services QoS Settings Firewall Settings DHCP Settings Security WEP Settings Device Settings Status Interfaces Services Commands Firmware Upgrade Load Configuration Save Configuration | Quality of Service Settings Downlink Speed: <input type="text" value="256"/> kbps (Value between 64 and 8192 or 0 for unlimited) Uplink Speed: <input type="text" value="256"/> kbps (Value between 64 and 8192 or 0 for unlimited) <input type="button" value="SUBMIT"/> <input type="button" value="CLEAR"/> |
|---|--|

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Downlink Speed - Enter data flow speed for all packets passing the device, going out of the OSBRIDGE XL through WLAN interface.

Uplink Speed – Enter data flow speed for all packets passing the device, going out of the OSBRIDGE XL through Ethernet interface.

4. Firewall Settings

[APPLY CONFIGURATION] [REBOOT]

Currently Defined IP/MAC Firewall Rules:

Ethernet:

| No | Action | Proto | Source MAC | Port | Destination MAC | Port | Delete |
|----|--------|-------|-------------------|------|-----------------|------|--------------------------|
| 1 | Block | 03 | 00:02:2d:43:22:1a | * | * | * | <input type="checkbox"/> |

Wireless:

| No | Action | Proto | Source MAC | Port | Destination MAC | Port | Delete |
|----|--------|-------|------------|------|-----------------|------|--------|
|----|--------|-------|------------|------|-----------------|------|--------|

Define New Rule:

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 two tables shown on the configuration screen. "Ethernet" table shows currently defined firewall rules for the wired interface of the OSBRIDGE XL device. "Wireless" table shows currently defined rules for the wireless interface. You can delete existing firewall rule by selecting "Delete" field 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.

5. DHCP Settings

OSBRIDGE XL

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DHCP Server Settings

Server Enabled on Interface:

Offered IP Starting Address:

Offered IP Ending Address:

Default Subnet Mask:

Default Gateway IP:

First DNS Server IP:

Second DNS Server IP:

Lease Time in Minutes:

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Depending on what DHCP option is enabled (or disabled) on the **General Settings** page this page will show appropriate information.

If DHCP server is enabled then you can configure its operational parameters on this page.

Server Enabled on Interface – Choose the interface the DHCP server should listen for requests on. You can choose either Wired or Wireless interface.

Offered IP Starting Address – First IP address from the range that will be provided to hosts requesting DHCP server to provide them an address.

Offered IP Ending Address – Last IP address from the range that will be provided to hosts requesting DHCP server to provide them an address.

Default Subnet Mask – Subnet Mask that will be provided to hosts requesting IP information.


Default Gateway IP – Gateway IP address that will be provided to hosts requesting IP information.

First DNS Server IP – First DNS IP address that will be provided to hosts requesting IP information.

Second DNS Server IP – Second DNS IP address that will be provided to hosts requesting IP information.

Lease Time in Minutes – Lease time the information received from DHCP service is valid. After that time computer that has requested the DHCP server to provide it IP address information will automatically request that information again.

6. WEP Settings



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Wireless Equivalent Privacy Settings

WEP Security:

WEP Encryption Key 1:

WEP Encryption Key 2:

WEP Encryption Key 3:

WEP Encryption Key 4:

Encrypt Data Using:


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WEP Security – Please choose Disabled, 40-Bit WEP Keys or 128-Bit Wep Keys.

WEP Encryption Key 1 to 4 – Enter WEP Keys. Depending on the Key length use 5 or 12 characters long keys, entered as hexadecimal numbers.

Encrypt Data Using – Choose which key to use when sending the data.

7. Device Settings




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| | |
|---|--|
| <p>System Information</p> <p>Settings General Settings IP Settings Wireless Settings</p> <p>Services QoS Settings Firewall Settings DHCP Settings</p> <p>Security WEP Settings Device Settings</p> <p>Status Interfaces Services</p> <p>Commands Firmware Upgrade Load Configuration Save Configuration</p> | <p>Device Security Settings</p> <p>Current Password: <input type="text"/></p> <p>New Password: <input type="text"/></p> <p>New Password Again: <input type="text"/></p> <p><input type="button" value="SUBMIT"/> <input type="button" value="CLEAR"/></p> |
|---|--|

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

8. Interface Status




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| System Information | Interface Information: | |
|---|----------------------------|---------------------------|
| Settings General Settings IP Settings Wireless Settings | Ethernet: | |
| | Bytes Received: 27004 | Packets Received: 308 |
| | RX Errors: 0 | RX Drop: 0 |
| | RX FIFO: 0 | RX Frame: 0 |
| | RX Compressed: 0 | RX Multicast: 0 |
| Services QoS Settings Firewall Settings DHCP Settings | Bytes Transmitted: 151888 | Packets Transmitted: 1598 |
| | TX Errors: 0 | TX Drop: 0 |
| | TX FIFO: 0 | TX Collisions: 0 |
| | TX Carrier: 0 | TX Compressed: 0 |
| Security WEP Settings Device Settings | Wireless: | |
| | Bytes Received: 306027 | Packets Received: 1508 |
| | RX Errors: 0 | RX Drop: 0 |
| | RX FIFO: 0 | RX Frame: 0 |
| | RX Compressed: 0 | RX Multicast: 0 |
| Status Interfaces Services | Bytes Transmitted: 0 | Packets Transmitted: 234 |
| | TX Errors: 0 | TX Drop: 0 |
| | TX FIFO: 0 | TX Collisions: 0 |
| | TX Carrier: 0 | TX Compressed: 0 |
| Commands Firmware Upgrade Load Configuration Save Configuration | Bridge Learn Table: | |
| | Interface: | MAC Address: |
| | ETH | 00:04:25:9e:05:65 |
| | WLAN | 00:30:4f:27:50:7c |

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This page shows statistical information about packets that traversed the bridge/router. In IP Bridge mode there is also Bridge Learn Table shown, in IP Router mode there is device ARP table shown, containing it's neighbours MAC addresses.

9. Firmware Upgrade



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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.

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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.

10. Load Configuration



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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 save current device configuration to file.

11. Save Configuration

OSBRIDGE XL

[APPLY CONFIGURATION] [REBOOT]

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Save Configuration

SUBMIT

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