CellPipe® 7130

VDSL RESIDENTIAL GATEWAY

6Vz.A2131,6Ve.B2131 | RELEASE 1.0

USER MANUAL

3EQ-10280-AAAA-TCZZA
EDITION 01
FEBRUARY 2011

Conformance statements

The equipment has been tested in the regulation lab and complied with the limits for VDSL device, pursuant to Europe CE/CB, Australia A-Trick and China CCC. These limits of different regulations are designed provide reasonable protection against harmful interference or damage in a residential installation.

Security statement

In rare instances, unauthorized individuals make connections to the telecommunications network through the use of remote access features. In such an event, applicable tariffs require the customer to pay all network charges for traffic. Alcatel-Lucent cannot be responsible for such charges and will not make any allowance or give any credit for charges that result from unauthorized access.

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About this document

Purpose

This document provides information on the hardware setup, software configuration, and administration necessary to operate the CellPipe 7130 Residential Gateway 6Vz.A2131/6Ve.B2131.

Reason for revision

The following table shows the revision history of this document.

Revision	Date	Reason for reissue
Edition 01	February 2011	First release of this document

Intended audience

This document is intended for users and administrators of the CellPipe 7130 RG 6Vz.A2131/6Ve.B2131.

How to use this document

This document introduces the CellPipe 7130 RG 6Vz.A2131/6Ve.B2131 hardware, connections, and setup. It also explains the web configuration interface and provides parameter definitions for the fields that appear on those windows.

Conventions used

This guide uses the following typographical conventions:

Appearance	Description
Italicized text	• File and directory names. • Emphasized information. • Titles of publications. • A value that the user supplies.
graphical user interface text or key name	• Text that is displayed in a graphical user interface or in a hardware label. • The name of a key on the keyboard.

Appearance	Description
input text	Command names and text that the user types or selects as input to a system.
output text	Text that a system displays or prints.
↵	Press the **Return** or **Enter** key on the keyboard.

Structure of hazard statements

Overview

For the safety of you and your equipment, this document contains hazard statements. Hazard statements are given at points where there may be a risk of damage to personnel, equipment, or operation. Failure to follow the directions in a hazard statement may result in personal harm, equipment damage, or network loss.

General structure

Hazard statements include the structural elements shown in the figure below.

Structure of hazard statements

Item	Structure element	Purpose
1	Personal injury symbol	Indicates the potential for personal injury (optional).
2	Hazard type symbol	Indicates hazard type (optional).
3	Signal word	Indicates the severity of the hazard.
4	Hazard type	Describes the source of the risk of damage or injury.
5	Damage statement	Consequences if protective measures fail.
6	Avoidance message	Protective measures to take to avoid the hazard.
7	Identifier	The reference ID of the hazard statement (optional).

Signal words

The following table defines signal words that identify the hazard severity levels.

Signal words for hazard severity

Signal word	Meaning
DANGER	Indicates an imminently hazardous situation (high risk) which, if not avoided, will result in death or serious injury.
WARNING	Indicates a potentially hazardous situation (medium risk) which, if not avoided, could result in death or serious injury.
CAUTION	*When used with the personal injury symbol:* Indicates a potentially hazardous situation (low risk) which, if not avoided, may result in personal injury. *When used without the personal injury symbol:* Indicates a potentially hazardous situation (low risk) which, if not avoided, may result in property damage, such as service interruption or damage to equipment or other materials.

Related information

The documentation set accompanying this family of routers includes this *User Manual* and a *Quick Installation Guide*.

Technical support

For technical support, contact your local Alcatel-Lucent customer support team. See the Alcatel-Lucent Support website (http://alcatel-lucent.com/support/) for contact information.

Contents

1 Product overview

Overview

Purpose

This chapter provides an introduction to the physical aspects of the CellPipe 7130 RG 6Vz.A2131/6Ve.B2131 including safety precautions and features.

The CellPipe 7130 RG 6Vz.A2131/6Ve.B2131 will be referred to as CellPipe 7130 RG throughout the rest of this document.

Contents

This chapter covers the following topics:

Hardware introduction

The CellPipe 7130 RG connects residential users to a broadband WAN via an Ethernet-over-VDSL link or a Gigabit Ethernet connection. For this purpose, it provides the following WAN interfaces:

- one VDSL port
- one Gigabit Ethernet port

Note: The WAN interfaces cannot be used concurrently.

The devices on the LAN of residential users are interconnected and connected to the WAN via IP routing or Ethernet bridging. The following interfaces can be used to connect devices in the home:

- Four Gigabit Ethernet LAN ports (10/100/1000Base-TX)

- wireless access point

Safety precautions

WARNING

Risk of electric shock or fire

1. Pay attention to the power load of the electrical outlet or extension cord. An overburdened power outlet or damaged cords and plugs may cause electric shock or fire. Check the power cords regularly. If you find any damage, replace the cord immediately.
2. Leave adequate space for heat dissipation to avoid any damage caused by overheating the CellPipe 7130 RG. Do not cover the ventilation holes. Blocking the ventilation holes may cause fire.
3. When connecting a PC or other electronic device to the CellPipe 7130 RG, make sure you use the right cables and connect the device to the right port of the CellPipe 7130 RG. Incorrect connections may damage the device and/or CellPipe 7130 RG..

CAUTION

Potential equipment damage

Follow these recommendations to protect yourself and the CellPipe 7130 RG from harm:

1. Do not insert any sharp object into the openings of the CellPipe 7130 RG..
2. Never install telephone wiring during inclement weather; for example, during a storm.
3. Electrostatic discharge (ESD) can permanently damage semiconductor devices. Always follow ESD-prevention guidelines for equipment handling and storage.
4. Use the power adapter provided with the CellPipe 7130 RG and do not fasten the power cable to building surfaces. Ensure the cable can move freely. Do not place heavy objects on the cable. Check the power cords regularly. If you find any damage, replace the cord immediately.
5. Do not put the CellPipe 7130 RG near a heat source. Avoid placing the CellPipe 7130 RG in direct sunlight.
6. Do not put the CellPipe 7130 RG in damp or wet locations. Do not spill any liquid on the CellPipe 7130 RG..
7. Do not place the CellPipe 7130 RG on an unstable surface or support.
8. Do not place heavy objects on top of the CellPipe 7130 RG..
9. Do not use liquid or aerosol cleaners; use a soft, dry cloth for cleaning.

Prerequisites

Ensure that you have the following items before attempting to use the CellPipe 7130 RG:

- Internet services subscription (connection type, account information, and addresses)
- 10/100Base-T Ethernet NIC installed in your PC
- Operating system: Windows 98SE, Windows 2000, Windows NT, Windows ME, Windows XP, Windows Vista, Windows 7, or Mac OS
- Internet Explorer v4.0 or higher, Netscape v4.0 or higher, or Mozilla Firefox v1.5 or higher

Note: For optimal display quality, use Internet Explorer v5.0 or Netscape v6.1.

Description of LEDs and interfaces

Figure 1-1 Front panel

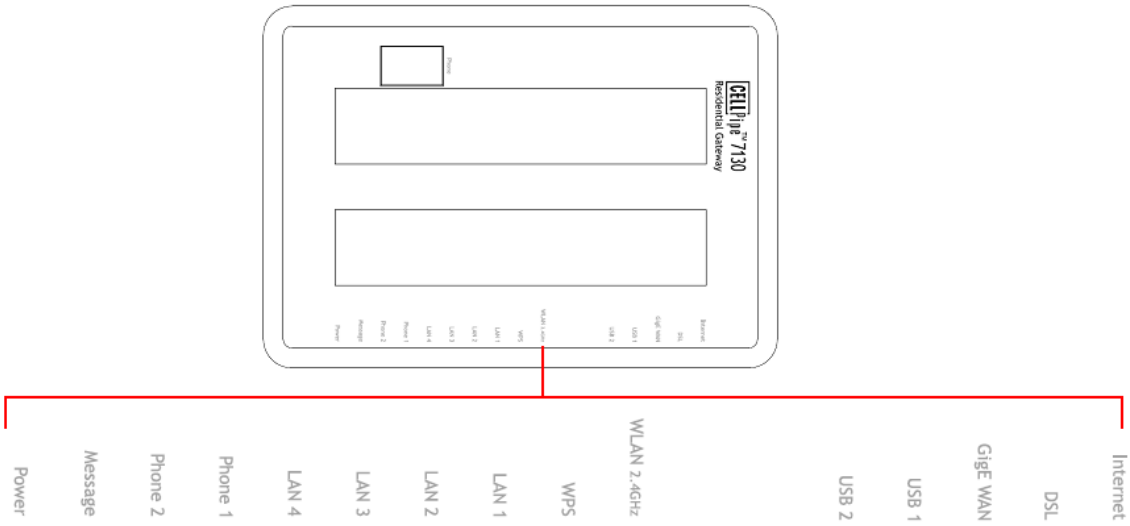


Table 1-1 Front panel LEDs

LED	Status	Description
Internet	On	The CellPipe 7130 RG is connected to the Internet.
	Flashing	Data is being transmitted over the Internet connection.
	Off	The CellPipe 7130 RG is not connected to the Internet.
DSL	On	DSL is operating.
	Flashing	DSL is training.
	Off	DSL is disconnected.

LED	Status	Description
GigE WAN	On	Gigabit Ethernet WAN link is up.
	Flashing	Data is being transmitted on the Gigabit Ethernet WAN link.
	Off	Gigabit Ethernet WAN is disconnected.
USB 1 to 2	On	A device is connected to the USB port.
	Flashing	USB port has data traffic.
	Off	No device is connected to USB port.
WLAN2.4GHz	On	Wireless function is enabled.
	Flashing	Data is being transmitted on the wireless link.
	Off	Wireless function is disabled.
WPS	On	WPS is enabled.
	Off	WPS is disabled.
LAN 1 to 4	On	Ethernet LAN port 1 to 4 is connected and active.
	Flashing	Network activity over the corresponding ports.
	Off	Ethernet LAN port 1 to 4 is not active.
Phone 1 to 2	On	Phone 1 to 2 is connected.
	Off	No phones are connected.
Message	Slow flashing*	Firmware upgrade in progress.
	Off	No firmware upgrade in progress.
Power	On	CellPipe 7130 RG is powered on.
	Off	Power is disconnected.

Notes:

* Slow flashing: LED flashes at the rate of 2 seconds on and 2 seconds off.

Figure 1-2 Rear panel of 6Vz.A2131

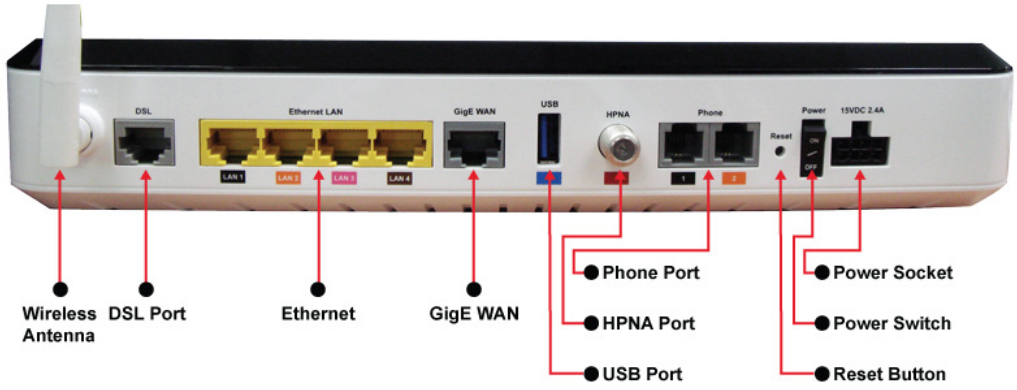


Figure 1-3 Rear panel of 6Ve.B2131

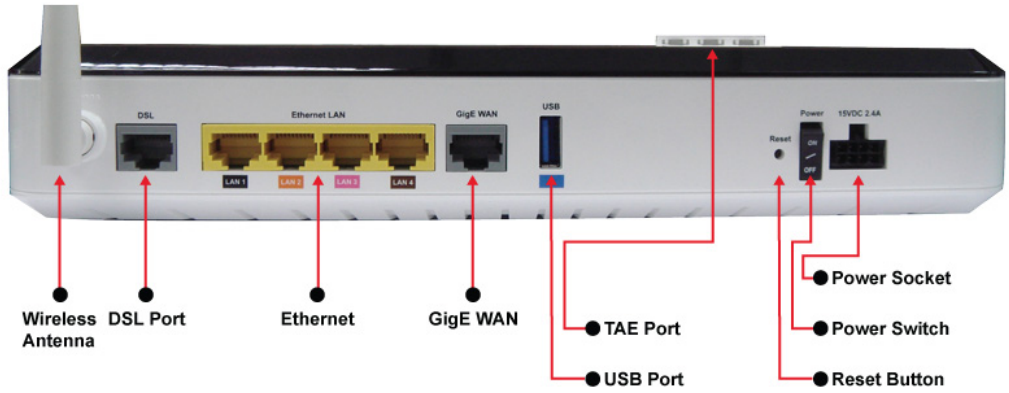


Table 1-2 Rear panel items

Item	Description
Wireless Antennae	Antennae for transmission of wireless signal.
DSL Port	DSL network connection from your ISP. The DSL port connects to an RJ-11 cable (only for 6Vz.A2131). The DSL port connects to an TAE-RJ45 cable (only for 6Ve.B2131).
Ethernet LAN1 to LAN4	Four RJ-45 ports to connect up to four PCs or a Hub.
GigE WAN	Ethernet network connection from your ISP. The GigE WAN port connects to an RJ-45 cable. **Note:** The GigE Ethernet port cannot be used simultaneously with the DSL port.

Item	Description
USB	Support USB 2.0 for file sharing, printer sharing, UPnP digital Media sharing and sensor network interface support.
HPNA (only for 6Vz.A2131)	One HPNA interface to connect to a HPNA device.
Phone 1 to 2 (only for 6Vz.A2131)	Two RJ-11 ports for connecting telephones for VoIP.
Reset Button	Press and release to reboot the CellPipe 7130 RG. Press and hold for 10 seconds to restore to factory default settings.
Power Switch	Power On/Off switch.
15VDC 2.4A	DC power adapter port.
TAE (only for 6Ve.B2131)	Slot to insert the CellPipe 7130 Residential Gateway Application Module . See Figure 1-4

Figure 1-4 TAE interface for the CellPipe 7130 6Ve.B2131 residential gateway

Figure 1-5 Front side of 6Ve.B2131

Table 1-3 Front side items

Item	Description
WPS	Activates the Wireless Protected Setup (WPS) function
WLAN 2.4GHz	Button to activate and de-activation the Wireless interface.
TAE (only for 6Ve.B2131)	TAE phone connector

2 Hardware installation

Overview

Purpose

This chapter provides the instructions to install the CellPipe 7130 RG hardware.

Contents

This chapter covers the following topics:

To mount the CellPipe 7130 RG

There are three ways to mount the CellPipe 7130 RG:

- wall mounting
- desktop mounting
- stand-up mounting

Wall mounting

Pre-Requirements

- Anchors
- Screws
- Drill & Drill bit

1. Locate a high position on the wall that is free of obstructions and insert two screws in the wall 5 cm (2 in.) apart. Do not insert the screws all the way into the wall.

Important! Make sure that the screws are securely fixed to the wall and strong enough to hold the weight of the CellPipe 7130 RG (recommended screw type and size: Nylon wall plug [T8x25mm] and screws [T3.5x16mm]).

2. Align the holes on the back of the CellPipe 7130 RG with the screws on the wall and then hang the CellPipe 7130 RG on the screws.

END OF STEPS

Desktop mounting

Place the CellPipe 7130 RG with the rubber feet at the bottom on a flat and stable surface.

Stand-up mounting

Snap the cradle into the holes located on the side of the CellPipe 7130 RG and then place it on a desk so that LEDs are visible.

To install the CellPipe 7130 RG

Supplies

- CellPipe 7130 RG
- One RJ-11 telephone cable (only for 6Vz.A2131)
- One TAE-F to RJ45 cable (only for 6Ve.B2131)
- One RJ-45 category 5 Ethernet cable (yellow)
- Power adapter

Before you begin

CAUTION

Potential for equipment damage and personal harm

Before installing the CellPipe 7130 RG, ensure you have thoroughly read the Safety precautions and Prerequisites in chapter 1.

Turn off all devices (computer, hub, CellPipe 7130 RG) before beginning this procedure.

Figure 2-1 Cable connections of 6Vz.A2131

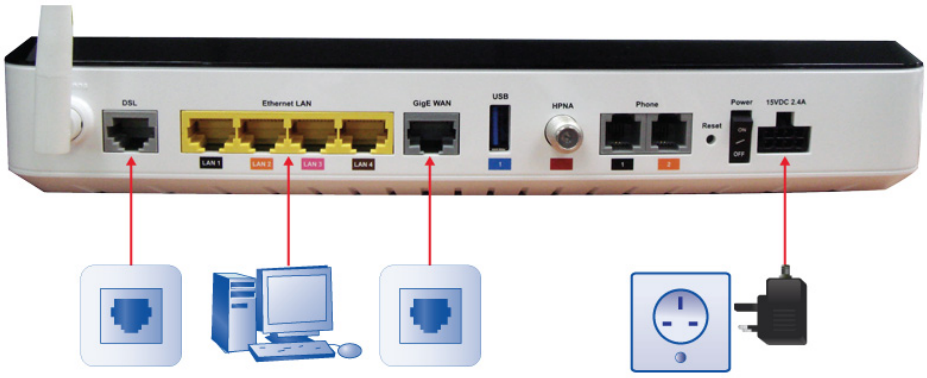
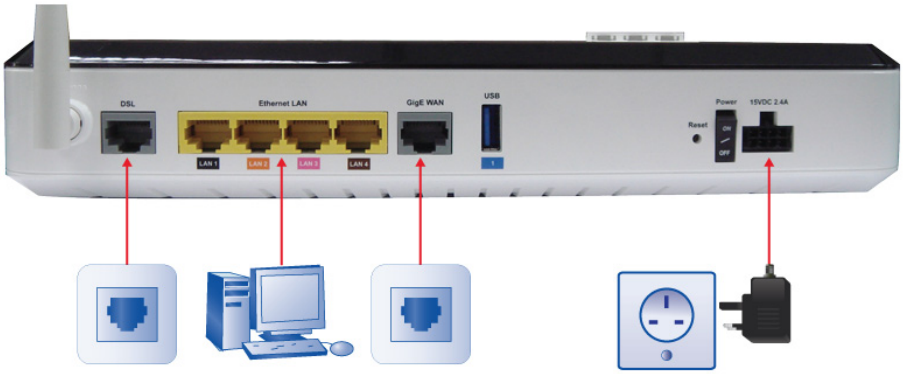


Figure 2-2 Cable connections of 6Ve.B2131



Procedure

1. Connect one end of the gray RJ-11 cable (omly for 6Vz.A2131) or gray TAE-RJ45 cable (only for 6Ve.B2131) into the gray DSL port on the CellPipe 7130 RG and the other end to your telephone/VDSL service connection.
2. Connect one end of the yellow RJ-45 Ethernet cable to any of the yellow Ethernet LAN ports (1 to 4) on the CellPipe 7130 RG. Connect the other end of the cable to your Ethernet PC (or LAN hub if you are setting up an intranet).
3. Turn the power switch on.

END OF STEPS

You might need to configure the Internet properties on your Ethernet PC; see Appendix B, **TCP/IP configuration**, or the *Quick Installation Guide* for detailed instructions.

After setting up the CellPipe 7130 RG and your PC(s), you can access the web configuration tool; see **Accessing the CellPipe 7130 RG web configuration tool**.

RGAM installation of the Residential Gateway Application Module

Purpose

The CellPipe 7130 Residential Gateway Application Module (RGAM) is an USB devices which adds processing power to the residential gateway. This will allow future home services to be deployed in your home, provided by your service provider.

Installation

As shown in the drawing, the RGAM has a USB 2.0 metal interface. This metal interface should go into the RGAM slot first. The ventilation holes should facing up. Slide the RGAM into the slot until it is blocked. Once inserted, the top of the RGAM will stick outside the enclosure as illustrated below. Once the RGAM is inserted, the RGAM will start up automatically. On the front panel of the residential gateway, the "USB 2" LED will light up, indicating that the RGAM is up and running.

Figure 2-3 RGAM installation

WARNING

Do not connect the RGAM to devices which are not RGAM-READY. This may damage the RGAM or the device.

3 Accessing the CellPipe 7130 RG web configuration tool

Overview

Purpose

This chapter explains how to access the CellPipe 7130 RG web configuration tool by entering the IP address and the default passwords.

The management interface software is HTML-based and can be accessed using a web browser.

Contents

This chapter covers the following topic:

To access the CellPipe 7130 RG web configuration tool

When to use

Use this procedure to access the web configuration interface of the CellPipe 7130 RG. The configuration interface enables you to secure the CellPipe 7130 RG, limit access, set traffic routes, modify passwords, and configure advanced settings.

Before you begin

Before you can configure the CellPipe 7130 RG, it must be installed, connected to a web-enabled PC, and turned on.

To establish the initial connection with the CellPipe 7130 Gateway, your computers should be configured to obtain automatically a network address via DHCP or via statically configuration of the network address. In this case, the IP address should be in the range of 192.168.2.2 up to 192.168.2.99, for instance 192.168.2.10 The netmask should be 255.255.255.0

Note: If you are not sure how to configure your computer to be a DHCP client or to set your IP address and subnet mask, please refer to Appendix B, **TCP/IP configuration**, or the *Quick Installation Guide* for more information.

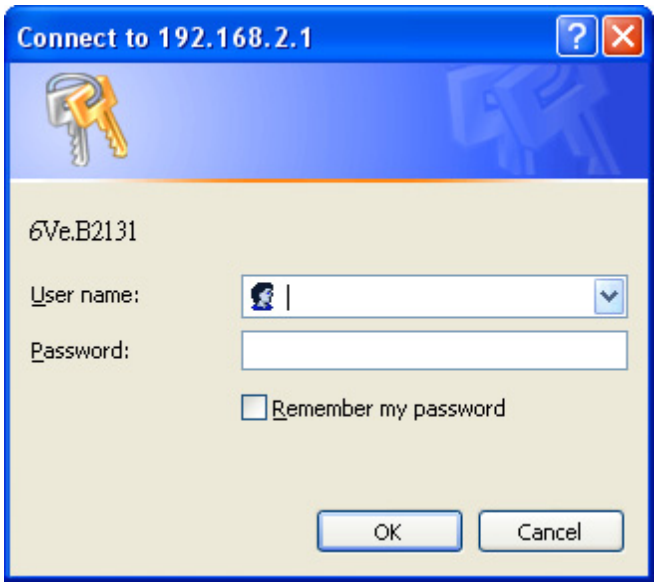
Procedure

1. Open a web browser and enter the IP address of the CellPipe 7130 RG in the address bar:

   `http://192.168.2.1` ↵

   The login window appears; see Figure 3-1.

Figure 3-1 Login window

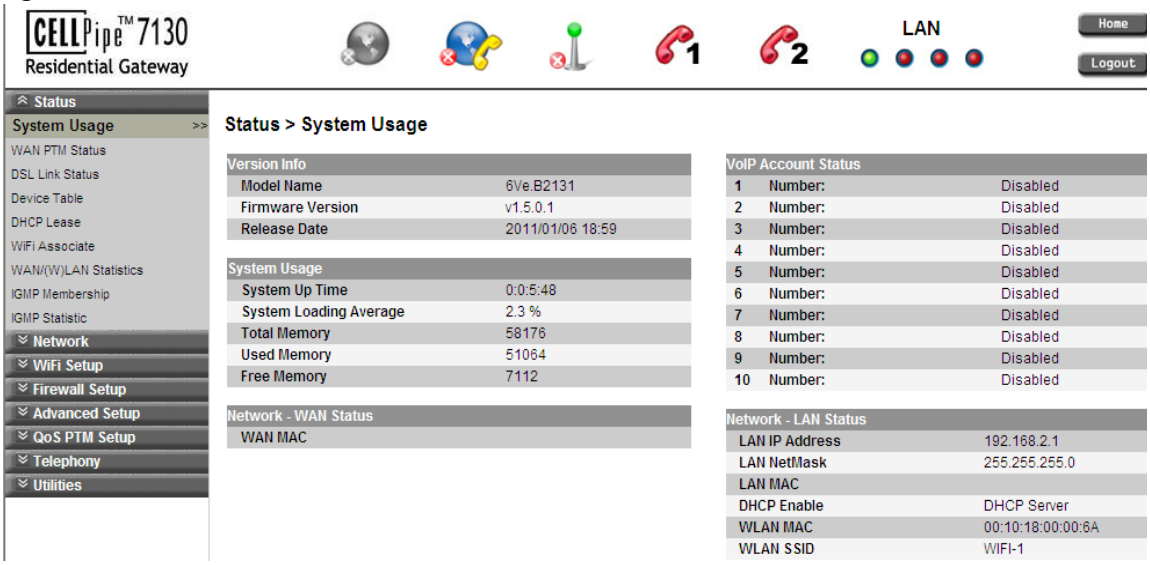


2. Enter your username and password and click **OK**.

   The default admin username is **`admin`** and the default admin password is **`admin`**.

   The Status window appears; see Figure 3-2.

Figure 3-2 Status window



The status window is described in Chapter 4, Status.

Note: Once you have logged in for the first time, you should change your login password. See the System Settings section in the **Utilities** chapter for instructions.

3. Click the **Logout** button to log off; see Figure 3-3.

Figure 3-3 Logout button

END OF STEPS

Configuration menus

All configuration and management of the CellPipe 7130 RG is done using the web configuration tool. Click on **Status**, **Network**, **WiFi Setup**, **Firewall Setup**, **Advanced Setup**, **QoS PTM Setup**, **QoS ATM Setup**, **Telephony**, or **Utilities** in the main menu to view the configuration menus or information located in each directory.

4 Status

Overview

Purpose

This chapter describes the contents of the Status menu, which contains the status information for the CellPipe 7130 RG, its connections, and the connected hardware.

Click **Status** in the main menu to open the **Status** menu.

Contents

This chapter covers the following topics:

System Usage

The System Usage window shows the current status of the software, system time, memory, WAN connection, and LAN connection.

Select **System Usage** in the **Status** menu to access the System Usage window; see Figure 4-1.

Figure 4-1 System Usage window

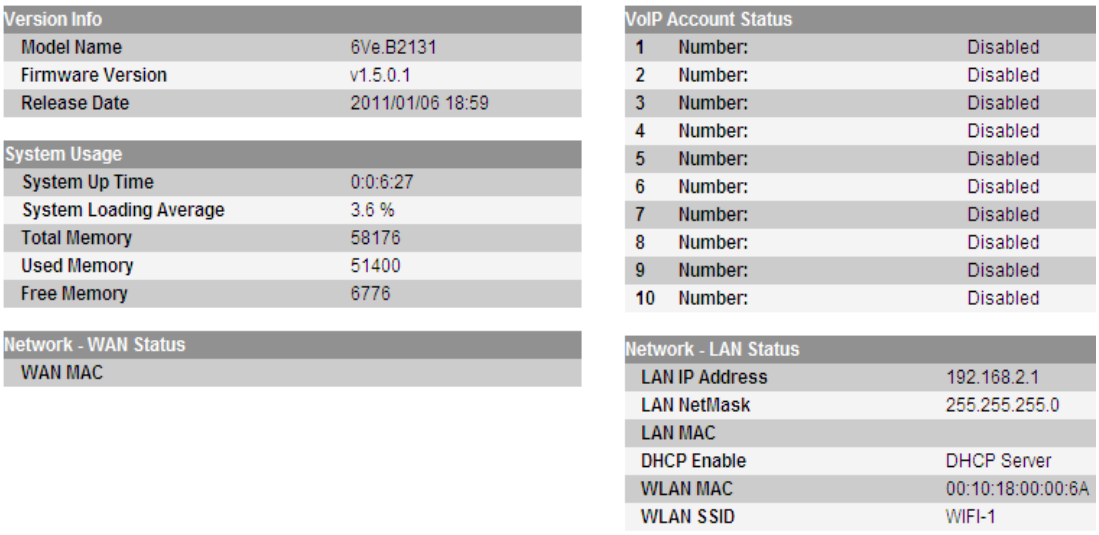


Table 4-1 describes the fields of the System Usage window.

Table 4-1 Field descriptions

Field	Description
Version Info	
Model Name	The model name of the CellPipe 7130 RG.
Firmware Version	The current version of the firmware.
Release Date	The release date of the firmware.
System Usage	
System Up Time	The amount of time the system has been operational.
System Loading Average	The average loading time of the CPU.
Total Memory	The memory capacity of the system in Kb.
Used Memory	The amount of system memory used in Kb.
Free Memory	The amount of memory available in Kb.
Network - WAN Status	
WAN MAC	The MAC address of the WAN connection.
VoIP Account Status	
1 to 10 Number:	The status (Enabled or Disabled) of accounts 1 to 10.
Network - LAN Status	
LAN IP Address	The management IP address of the LAN interface.

Field	Description
LAN NetMask	The subnet mask of the LAN IP address.
LAN MAC	The MAC address of the LAN interface.
DHCP Enable	DHCP handling method at LAN device.
WLAN MAC	The MAC address of the WLAN interface.
WLAN SSID	The SSID used to identify the CellPipe 7130 RG.

WAN PTM Status

This menu shows the WAN packet transfer Mode (PTM) status and data.

Select **WAN PTM Status** in the **Status** menu to access the WAN PTM Status window; see Figure 4-2.

Figure 4-2 WAN PTM Status window

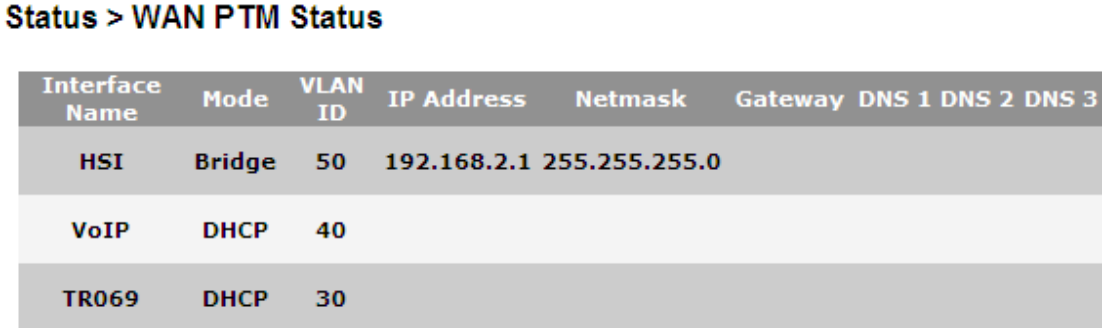


Table 4-2 describes the fields of the WAN PTM Status window.

Table 4-2 Field descriptions

Field	Description
Interface Name	The name assigned to this connection.
Mode	The connection mode: • Static IP • DHCP • PPPoE • Bridge
VLAN ID	The VLAN ID number from 0 to 4094.
IP Address	The IP address of the connection.
Netmask	The subnet mask of the IP address.
Gateway	The IP address of the gateway.

Field	Description
DNS 1 to 3	The IP address of the DNS.

DSL Link Status

The DSL Link Status window shows the DSL connection status and data.

Select **DSL Link Status** in the **Status** menu to access the DSL Link Status window; see Figure 4-3.

Figure 4-3 DSL Link Status window

Status > DSL Link Status

DSL Firmware Version:	A2pv6C032b.d23e			
Mode:				
Traffic Type:				
Status:	Disabled			
Link Power State:	L3			
	Downstream		Upstream	
Line Coding(Trellis):	-		-	
SNR Margin (0.1 dB):	-		-	
Attenuation (0.1 dB):	-		-	
Output Power (0.1 dBm):	-		-	
Attainable Rate (Kbps):	-		-	
	Path 0		Path 1	
	Downstream	Upstream	Downstream	Upstream
Rate (Kbps):	-	-		
MSGc (# of bytes in overhead channel message):				
B (# of bytes in Mux Data Frame):				
M (# of Mux Data Frames in an RS codeword):				
T (# of Mux Data Frames in an OH sub-frame):				
K (number of bytes in DMT frame):				
R :				
S :				
L :				
D (interleaver depth):				
I (interleaver block size in bytes):				
N (RS codeword size):				
Delay (msec):				
INP (DMT symbol):				
OH Frames:				
OH Frame Errors:				
Super Frames:	-	-		
Super Frame Errors:	-	-		
RS Words:	-	-		
RS Correctable Errors:	-	-		
RS Uncorrectable Errors:	-	-		
HEC Errors:	-	-		
OCD Errors:	-	-		
LCD Errors:	-	-		
Total Cells:	-	-		
Data Cells:	-	-		
Bit Errors:	-	-		
Total ES:	-		-	
Total SES:	-		-	
Total UAS:	-		-	

Table 4-3 describes the fields of the DSL Link Status window.

Table 4-3 Field descriptions

Field	Description
DSL Firmware Version	The version of firmware in use.
Mode	The modulation protocol
Traffic Type	The channel type
Status	This is the status of the DSL link.
Link Power State	Displays the power management state of the DSL connection.
Line Coding (Trellis)	The Trellis Coding status of downstream and upstream.
SNR Margin(0.1dB)	This is a signal-to-noise ratio (SNR) margin for traffic going in both directions.
Atternuation(0.1dB)	An estimate of the average loop attenuation downstream and upstream.
Output Power(0.1dBm)	The total output power in both directions.
Attainable Rate (Kbps):	This is the maximum achievable downstream rate.
Rate (Kbps)	The actual rate at which data is flowing in both directions.
MSGc (# of bytes in overhead channel message)	Number of bytes in overhead channel message
B (# of bytes in Mux Data Frame)	Number of bytes in Mux Data Frame
M (# of Mux Data Frames in an RS codeword)	Number of Mux Data Frames in FEC Data Frame
T (# of Mux Data Frames in a OH sub-frame)	Mux Data Frames over sync bytes
K (number of bytes in DMT frame)	This is the number of data bytes in an DSL data frame.
R	The number of redundant check bytes per Reed-Solomon code word.
S	The length of the Reed-Solomon code word, in data frames.
L	Number of bits in PMD Data Frame
D (interleabver depth)	The interleaver depth.
I (interleaver block size in bytes)	Number of bytes in interleaver block size
N (RS codeword size)	The size of RS codeword.
Delay (msec)	The delay, in microseconds, of the DSL connection.

Field	Description
INP (DMT symbol)	INP:Impulse Noise Protection DMT:Discrete Multi-tone
OH Frames	The number of overhead frames.
OH Frame Errors	The number of overhead frame errors.
Super Frames	This is the total number of super frames.
Super Frame Errors	The number of super frames received that had errors.
RS Words	This is the total number of Reed-Solomon code words.
RS Correctable Errors	The number of Reed-Solomon code words with correctable errors.
RS Uncorrectable Errors	The number of R-S code words that had uncorrectable errors.
HEC Errors	The total number of header error checksum errors.
OCD Errors	The number of out-of-cell delineation errors.
LCD Errors	The total of lost-cell-delineation errors.
Total Cells	Total number of cells.
Data Cells	The number of data cells.
Bit Errors	The number of Bit Error.
Total ES	Total number of Errored Seconds.
Total SES	Total number of Severely Errored Seconds.
Total UAS	Total number of Unavailable Seconds.

Device Table

The Device Table shows information about the devices that have connected to the CellPipe 7130 RG.

Select **Device Table** in the **Status** menu to access the Device Table; see Figure 4-4.

Figure 4-4 Device Table

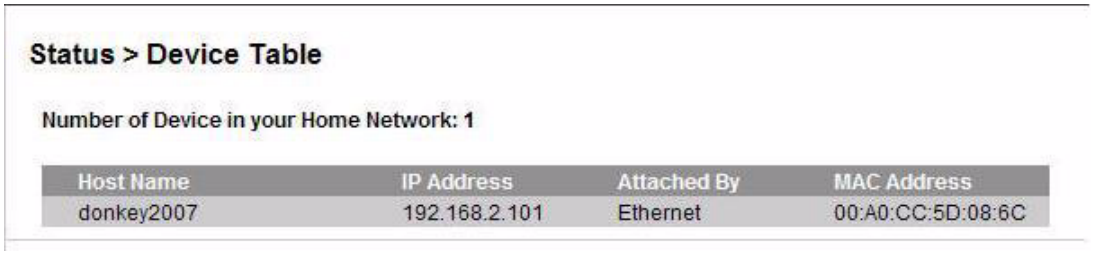


Table 4-4 describes the fields of the Device Table window.

Table 4-4 Field descriptions

Field	Description
Host Name	The name of the device connected to the gateway.
IP Address	The IP address assigned to the device.
Attached By	Method used to connect to the gateway.
MAC Address	The MAC address of the attached device.

DHCP Lease

The DHCP Lease window lists the IP addresses leased to the DHCP clients in the LAN environment.

Select **DHCP Lease** in the **Status** menu to access the DHCP Lease window; see Figure 4-5.

Figure 4-5 DHCP Lease window

Table 4-5 describes the fields of the DHCP Lease window.

Table 4-5 Field descriptions

Field	Description
No.	The index number of the entry in the table.
IP Address	The IP address leased to the LAN device.
MAC Address	The MAC address of the LAN device.

Field	Description
Host Name	The host name of the DHCP client.
Vendor	The platform of the DHCP client.
Expiry	The time remaining before the lease expires.

WiFi Association

The WiFi Association window lists the wireless clients that are currently connected to the CellPipe 7130 RG.

Select **WiFi Association** in the **Status** menu to access the WiFi Association window; see Figure 4-6.

Figure 4-6 WiFi Association window

Table 4-6 describes the fields of the WiFi Association window.

Table 4-6 Field descriptions

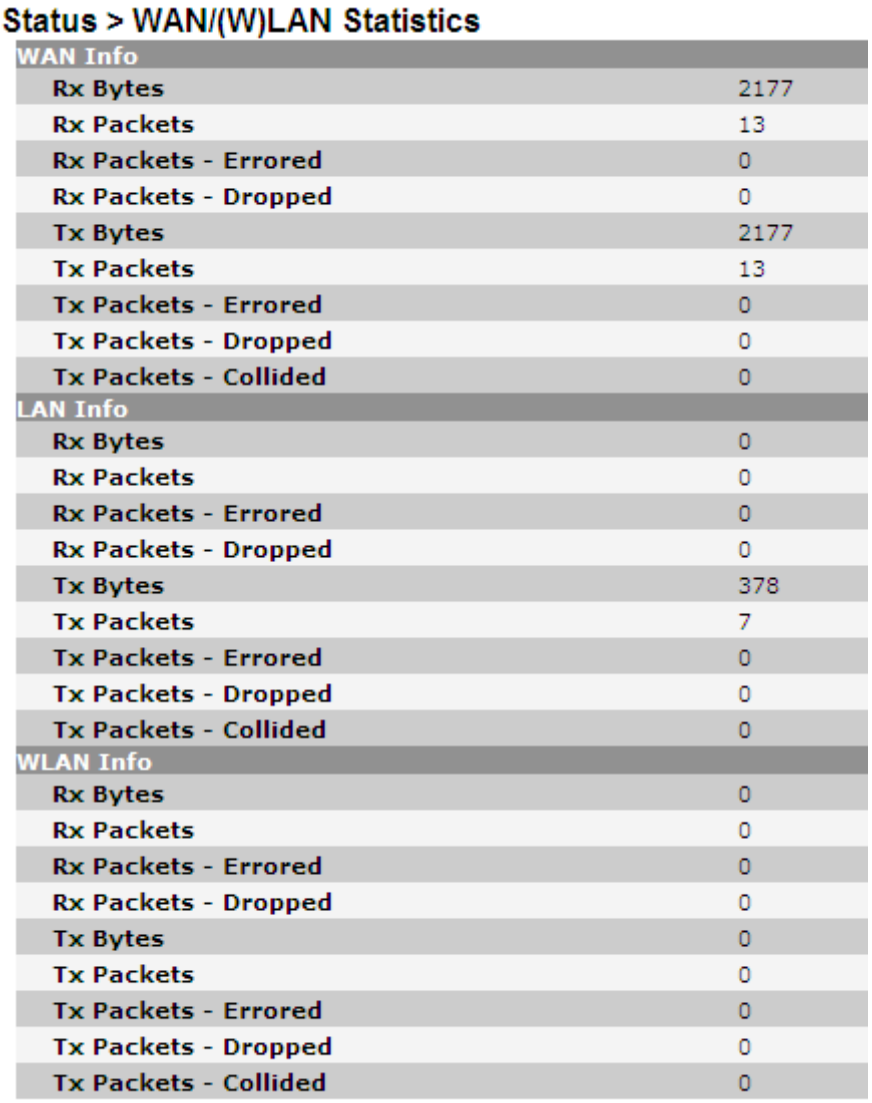
Field	Description
No.	The index number of the entry.
MAC Address	The MAC address of the wireless device connected to the CellPipe 7130 RG.
Rate	The transmission rate of the wireless device connected to the CellPipe 7130 RG.

WAN/(W)LAN Statistics

The WAN/(W)LAN Statistics window shows the number of bytes that have been received or transmitted by the WAN, LAN, and WLAN interfaces.

Select **WAN/(W)LAN Statistics** in the **Status** menu to access the WAN/(W)LAN Statistics window; see Figure 4-7.

Figure 4-7 WAN/(W)LAN Statistics window



Status > WAN/(W)LAN Statistics

WAN Info	
Rx Bytes	2177
Rx Packets	13
Rx Packets - Errored	0
Rx Packets - Dropped	0
Tx Bytes	2177
Tx Packets	13
Tx Packets - Errored	0
Tx Packets - Dropped	0
Tx Packets - Collided	0
LAN Info	
Rx Bytes	0
Rx Packets	0
Rx Packets - Errored	0
Rx Packets - Dropped	0
Tx Bytes	378
Tx Packets	7
Tx Packets - Errored	0
Tx Packets - Dropped	0
Tx Packets - Collided	0
WLAN Info	
Rx Bytes	0
Rx Packets	0
Rx Packets - Errored	0
Rx Packets - Dropped	0
Tx Bytes	0
Tx Packets	0
Tx Packets - Errored	0
Tx Packets - Dropped	0
Tx Packets - Collided	0

Table 4-7 describes the fields of the WAN/(W)LAN Statistics window.

Table 4-7 Field descriptions

Field	Description
Rx Bytes	The number of bytes that have been received.
Rx Packets	The number of packets that have been received.
Rx Packets-Errored	The number of packets that have been received with errors.
Rx Packets-Dropped	The number of packets that have been dropped after being received.
Tx Bytes	The number of bytes that have been transmitted.
Tx Packets	The number of packets that have been transmitted.

Field	Description
Tx Packets-Errored	The number of packets that have been transmitted with errors.
Tx Packets-Dropped	The number of packets that have been dropped after being transmitted.
Tx Packets-Collided	The number of packets that collided when transmitted.

IGMP Membership

The IGMP Membership window shows the IGMP members.

Select **IGMP Membership** in the **Status** menu to access the IGMP Membership window; see Figure 4-8.

Figure 4-8 IGMP Membership window

Table 4-8 describes the fields of the IGMP Membership window.

Table 4-8 Field descriptions

Field	Description
Multicast IP Group	The multicast group.
Client	Lists the IP address of the client in the specific multicast group.

IGMP Statistics

The IGMP Statistics window shows the IGMP statistics.

Note: This window only shows the IGMP activity statistics for each group within the time period you have set.

Select **IGMP Statistics** in the **Status** menu to access the IGMP Statistics windows; see Figure 4-9.

Figure 4-9 IGMP Statistics window

Table 4-9 describes the fields of the IGMP Statistics window.

Table 4-9 Field descriptions

Field	Description
Period	Select a time period in minutes to collect and display the IGMP statistics.
Apply	Click to show the IGMP group information for the selected time period.
Join	Number of clients in the IGMP group domain.
Leave	Number of clients that have left the IGMP group domain.

5 Network

Overview

Purpose

This chapter explains how to configure the network settings for the CellPipe 7130 RG.

Click the **Network** in the main menu to open the **Network** menu.

Contents

This chapter covers the following topics:

USB

The USB windows allows you to configure services using the USB 2.0 interface. On the USB 2.0 interface, the following devices can be connected: Printer, storage device, sensor network interface.

By enabling the printerserver service "USB printer", you can print via your home network to this printer. By connecting a storage devices, the gateway can be used as fileserver. When enabling the DMS service, all digital media on the storage device will become available on your home network. (UPnP AV)

Select **USB** in the **Network** menu to access the USB&DMS window; see Figure 5-1.

Figure 5-1 USB&DMS window

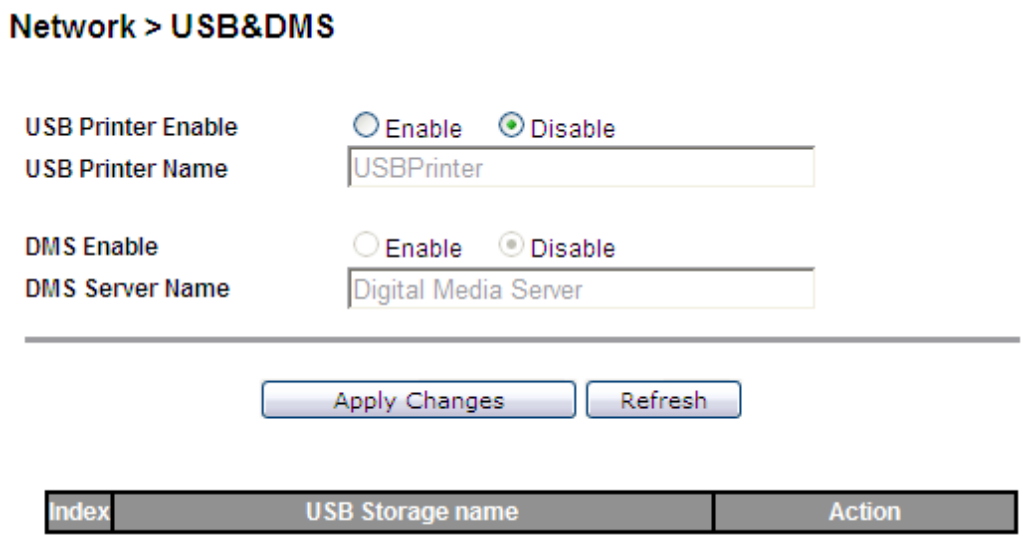


Table 5-1 describes the fields of the USB&DMS window.

Table 5-1 Field descriptions

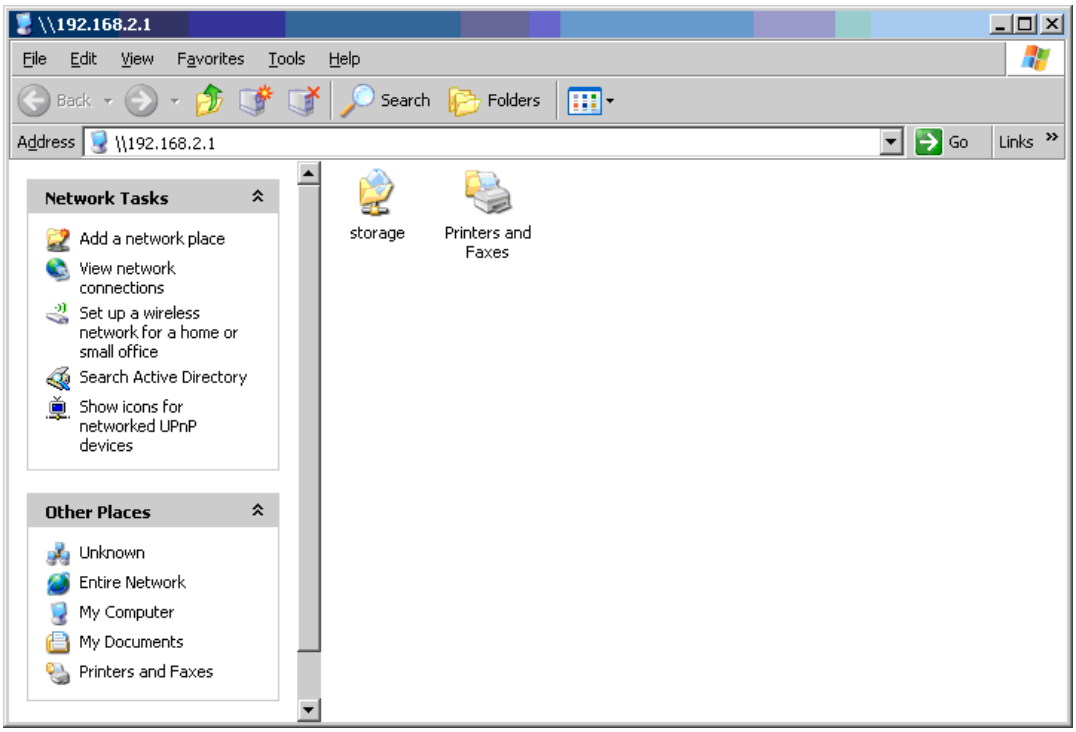
Field	Description
USB Enable	Select **Enable** to enable USB. Select **Disable** to disable USB.
USB Printer Name	Enter a USB printer name.
DMS Enable	Select **Enable** to enable DMS. Select **Disable** to disable DMS.
DMS Server Name	Enter a DMS Server name.
Apply Changes	Click to save your changes.

Connecting storage device

When a storage device is connected, this storage can be accessed via the LAN (Home network) and can not be accessed from the WAN side due to security reasons. The following file-systems are supported : FAT16, FAT32, NTFS, EXT2, EXT3. No access rights can be set, neither user accounts.

For windows, the filesharing can be access by opening the internet explorer and typing the IP address of the gateway. The default IP address is \\192.168.2.1\ The default userid and password are used : guest / guest

Figure 5-2 Connecting storage device



Note:

- DMS works only for devices which are directly connected to the LAN interface of the gateway.
- The content cannot be reached from the WAN interface.
- DMS only works when an storage devices is connected to the USB 2.0 interface.
- The DMS will support UMLAUT characters
- The following file systems will be supported: FAT16, FAT32, NTFS, EXT2, EXT3 via USB

WARNING

When a storage (USB-harddisk or USB memory stick) is connected to the gateway, the content will be automatically be available on your home network and accessible by everybody on that home network.

If the DMS function is enabled, the gateway discovers all digital media on the connected storage device (Harddisk/USB-memory-stick) and make this accessible via PnP AV protocol.

LAN Settings

The LAN Settings window enables you to configure the IP address, subnet mask, DHCP settings, DHCP relay, and static IP lease.

Select **LAN Settings** in the **Network** menu to access the LAN Settings window; see Figure 5-3.

Figure 5-3 LAN Settings window - DHCP Server option selected

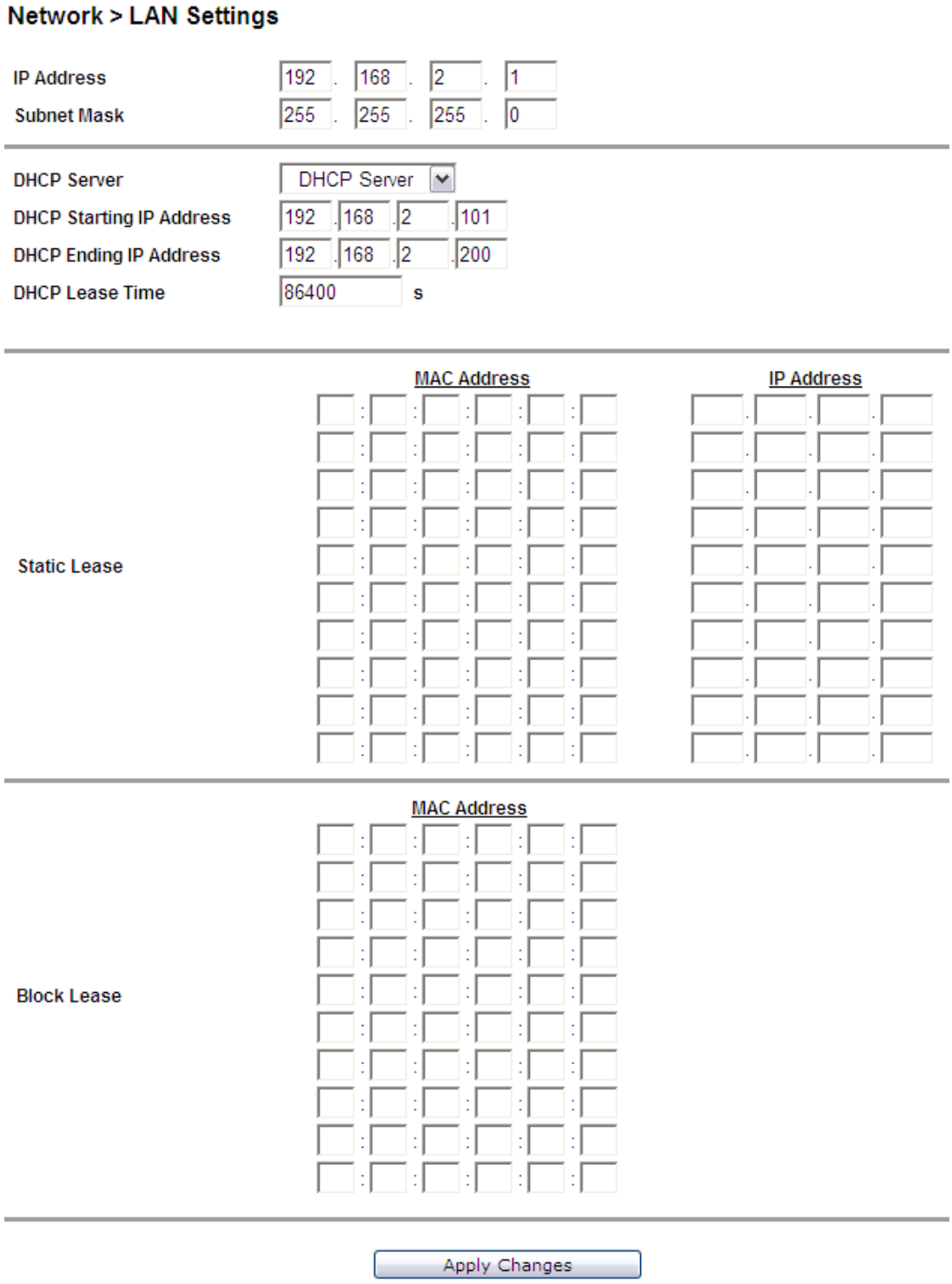


Table 5-2 describes the fields of the LAN Settings window.

Table 5-2 Field descriptions

Field	Description
IP Address	The IP address of the LAN interface in dotted decimal notation. The default is 192.168.2.1. You can change this address as necessary to any address that is reserved for private use.
Subnet Mask	The subnet mask of the IP addresses in your LAN; for example, 255.255.255.0.
DHCP Server	Select **DHCP Server** to enable DHCP server. The CellPipe 7130 RG automatically assigns the IP addresses, default gateway, and DNS servers to computers that support the DHCP client; for example, Windows 95 or Windows NT. Select **DHCP Relay** to enable DHCP Relay. Select **Disable** to disable DHCP server. **Note:** Figure 5-2 shows the DHCP Server options. Selecting **DHCP Relay** will open the DHCP Relay server options.
DHCP Relay Server 1	Enter the IP address of the DHCP server.(**DHCP Relay**)
DHCP Relay Server 2	Enter the IP address of the second DHCP server for a different service, if applicable.(**DHCP Relay**)
Mapping Vendor ID	Enter the Vendor ID for DHCP Option 60. When the client sends a DHCP request that contains vendor ID is equal to the Vendor ID, the request will be sent to "DHCP Relay Server 2". (**DHCP Relay**)
DHCP Starting IP Address DHCP Ending IP Address	The range of IP addresses that will be assigned to the DHCP client.
DHCP Lease Time	The time period during which the computers retain the IP addresses assigned to them.
Static Lease	Assign a static IP address to DHCP clients based on their MAC address.
Block Lease	The MAC address of the client to block from acquiring an IP address.
Apply Changes	Click to save your changes.

WAN Link Selection

The WAN Link Selection window specifies which link will be used for the WAN connection, one of auto-dedicate mode, Gigabit Ethernet, or DSL.

Note: You must reboot the CellPipe 7130 RG to switch from one WAN interface to another.

Select **WAN Link Selection** in the **Network** menu to access the WAN Link Selection window; see Figure 5-4.

Figure 5-4 WAN Link Selection window

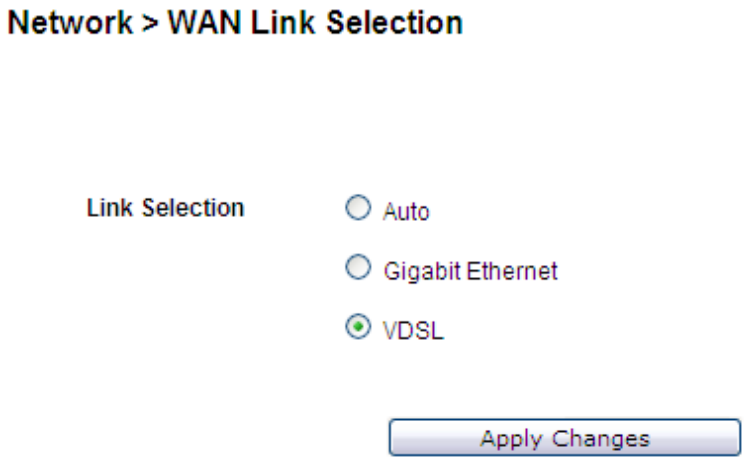


Table 5-3 describes the fields of the WAN Link Selection window.

Table 5-3 Field descriptions

Field	Description
Auto	Select to automatically detect the WAN link. **Note:** Only one of the two LAN ports should be physically connected.
Gigabit Ethernet	Select to use only the Gigabit Ethernet port as the WAN link.
VDSL	Select to use the VDSL port.
Apply Changes	Click to save your changes.

WAN PTM Connections

WAN PTM connections are the connections used when the device operates in DSL-PTM mode (if you are uncertain whether your DSL service is PTM, contact your ISP). The WAN PTM Connections window enables you to configure multiple connections.

CAUTION

It is recommended that the WAN PTM connections be changed by trained service personnel. Improper configuration can lead to loss of connectivity to the residential gateway from the LAN side as well as the WAN side.

There are three different binding methods for the connections:

- Port based binding
- MAC based binding
- No LAN/WLAN binding

The four following types of connections can be used:

- Static IP
- DHCP Mode
- PPPoE Mode
- Bridge Mode

Select **WAN PTM Connections** in the **Network** menu to access the WAN PTM Connections window; see Figure 5-5.

Figure 5-5 WAN PTM Connections window

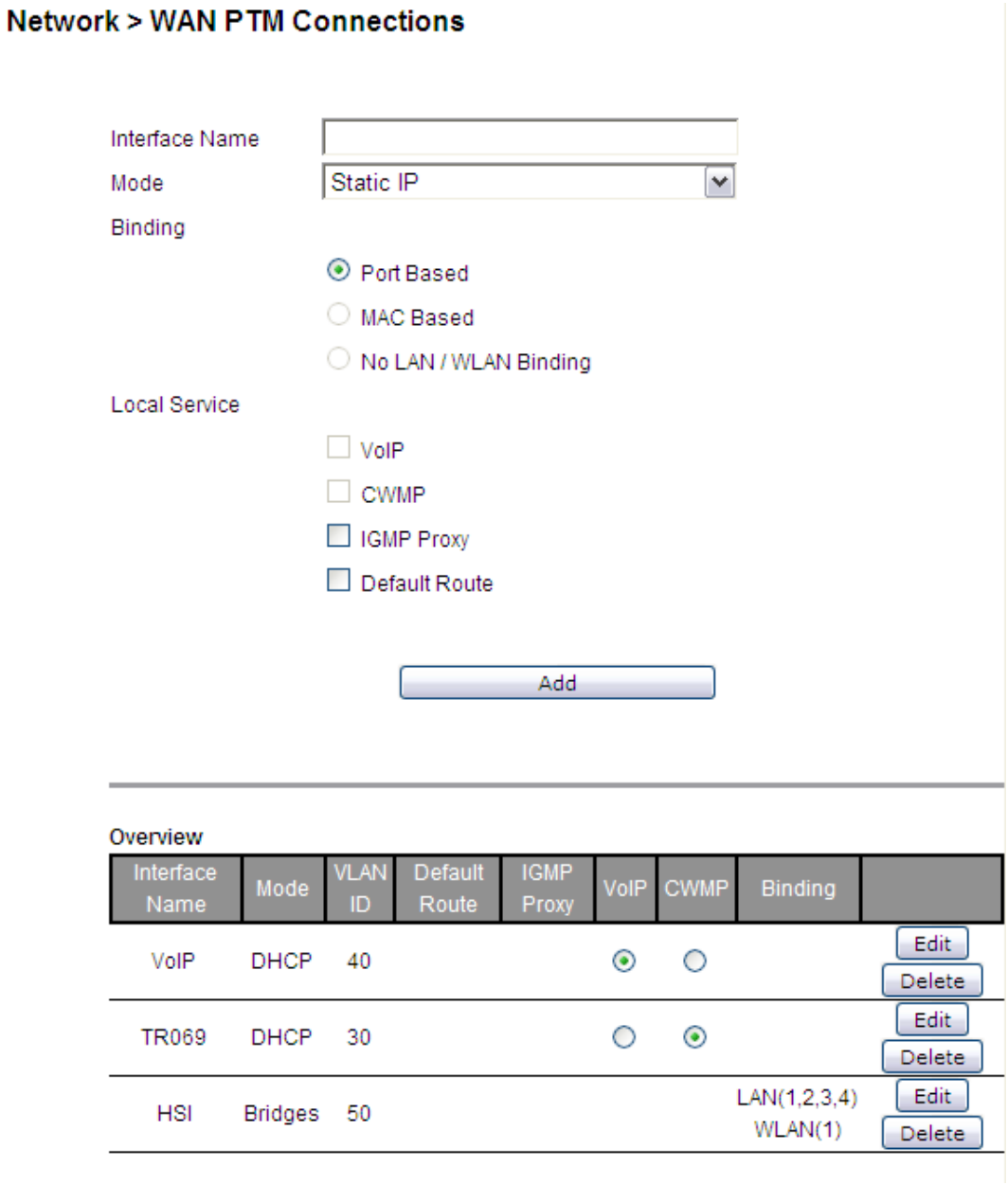


Table 5-4 describes the fields of the WAN PTM Connections window.

Table 5-4 Field descriptions

Field	Description
Interface Name	Enter a name for your new connection.
Mode	Select a mode for the connection type: • **Static IP** • **DHCP** • **PPPoE** • **Bridge**

Field	Description
Binding	Select a binding method: • **Port Based** to bind traffic to the connection by LAN or WLAN port. • **MAC Based** to bind traffic to the connection by MAC address. • **No LAN/WLAN Binding** so that the connection does not bind traffic to any port or MAC. **Note:** You cannot use a combination of Port based and MAC based binding. **Note:** When using MAC based binding, you must define a Default connection first. This default connection can be a routed or bridged connection. After defining the default MAC based connection, you can add extra bridged (not routed) connections which are selected on basis of configurable MAC layer based criteria.
Local Service	Enable a local service: • Enable **VoIP** to provide VoIP service. • Enable **CWMP** to provide remote control service. It allows a remote server to manage the gateway • Enable **IGMP Proxy** to provide service to be used for video streaming and gaming. • Enable **Default Route** to set the connection as the gateway of last resort.
Add	Click to add the new connection and proceed to the next configuration window. **Note:** After adding new connections, click **Activate WAN Settings** to activate the connection. This button will be only visible if you added a new connection or made changes to the settings.
Interface Name (read-only)	The name of the interface.
Mode (read-only)	The selected mode.
VLAN ID (read-only)	The VLAN ID.
Default Route	All connections will be routed via the default route, except for the connection that has special routing. There can be only one default route between all the connections.
IGMP Proxy	Select the interface to support IGMP service.
VoIP	Select the interface to support VoIP service.
CWMP	Select the interface to support CWMP service.

Field	Description
Binding (read-only)	Shows which ports or MAC addresses are bound on the connection.
Delete All	Click to delete all the connections.
Edit	Click to modify the settings of the connection. After changing the connection settings, press **Activate WAN Settings** to activate the connection. This button will be only visible if you made changes to the settings or added a new connection.
Delete	Click to delete the connection.

Port based binding

Port based mode enables you to bind ports to your WAN connection. You can bind LAN ports 1 to 4 and WLAN SSID 1 to 4 in the WAN mode you selected. The default WLAN SSID number is 1 and you can configure 2 to 4 in the **WiFi Settings**.

You can select the **Port Based** radio button for each WAN mode and then click **Add** to proceed to the next configuration window.

In Port based mode, you can add up to four connections in routed mode.

Note: If you do not set a VLAN ID in the connections, you can only have one connection in Static IP or DHCP mode and three connections maximum in PPPoE.

Note: If you already have a connection with Port based binding, you can not select MAC based binding for any other connections.

The following WAN modes support port-based binding:

- Static IP
- DHCP
- PPPoE
- Bridge

Static IP

If you select **Static IP** as the mode in the **WAN PTM Connections**, the Static IP settings window with Port based binding opens; see Figure 5-6.

Figure 5-6 Static IP settings window with Port based binding

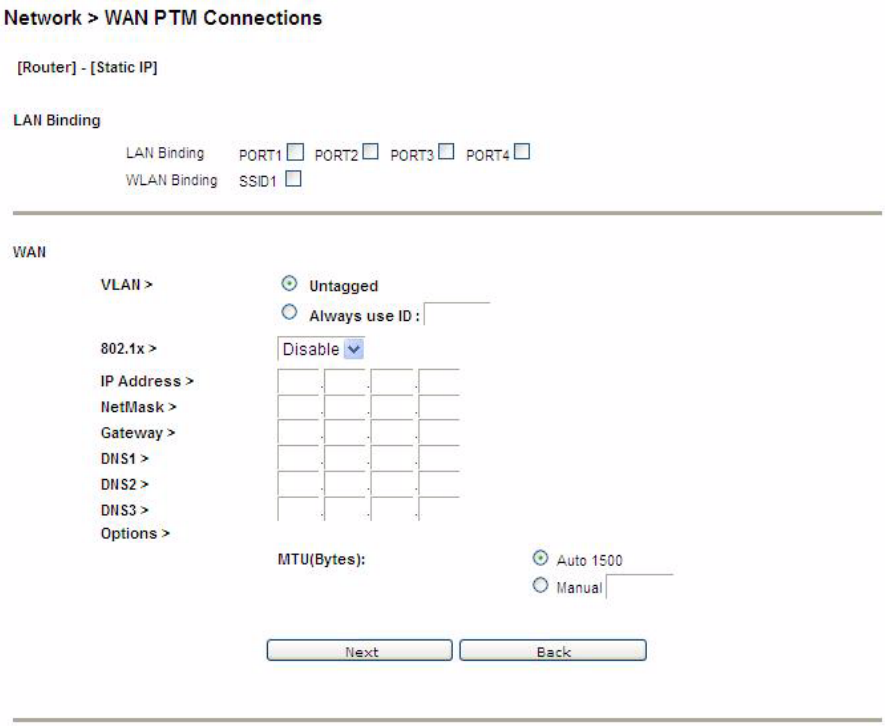


Table 5-5 describes the fields of Static IP settings window with Port based binding.

Table 5-5 Field descriptions

Field	Description
LAN Binding	
LAN Binding	Select the port to which you want to bind the connection.
WLAN Binding	Select the SSID to which you want to bind the connection.
WAN	
VLAN	Select **Untagged** if VLAN tagging is not to be used for this WAN connection. Select **Always use ID** if VLAN tagging is to be used and enter the VLAN ID number (between 0 and 4094).
802.1X	Select **Enable** to use 802.1x or select **Disable** to turn off 802.1x.
IP Address	Enter the IP address provided by your ISP.
NetMask	Enter the subnet mask provided by your ISP.
Gateway	Enter the gateway IP address provided by your ISP.
DNS1 to 3	Enter the DNS IP address (these are optional).

Field	Description
MTU(Bytes)	Select **Auto** to set the MTU to the default (1500) or select **Manual** and enter a value in bytes.
Next	Click to go to the QoS Defaults window.
Back	Click to return to the previous window.
Activate WAN Setting	Click to activate the connection.
Delete All	Click to remove all WAN connections.
Edit	Click to make changes to a specific connection.
Delete	Click to remove a specific connection.

DHCP

If you select **DHCP** as the mode in the **WAN PTM Connections** window, the DHCP settings window with Port based binding opens; see Figure 5-7.

Figure 5-7 DHCP settings window with Port based binding

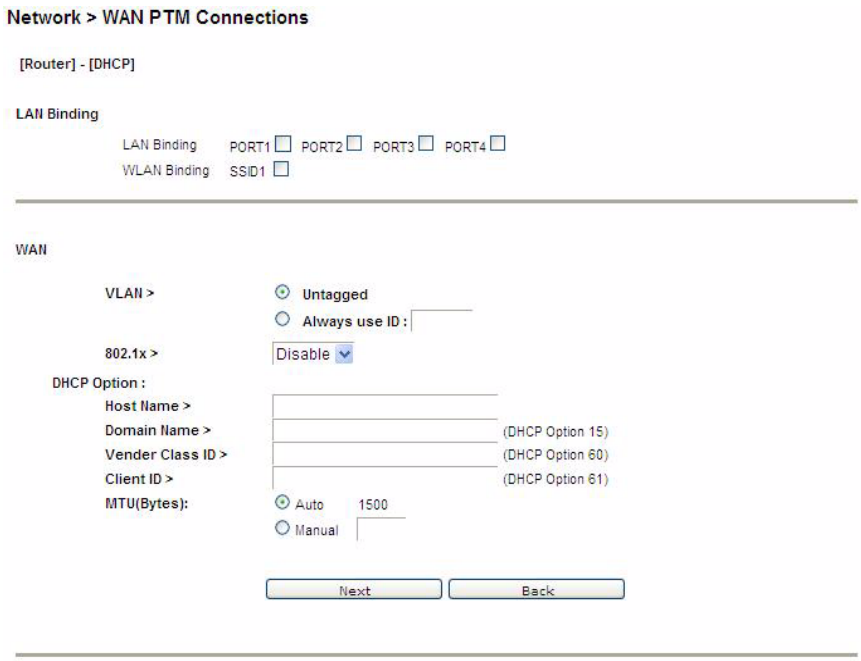


Table 5-6 describes the fields of DHCP settings window with Port based binding.

Table 5-6 Field descriptions

Field	Description
LAN Binding	
LAN Binding	Select the port to which you want to bind the connection.

Field	Description
WLAN Binding	Select the SSID to which you want to bind the connection.
WAN	
VLAN	Select **Untagged** if VLAN tagging is not to be used for this WAN connection. Select **Always use ID** if VLAN tagging is to be used and enter the VLAN ID number (between 0 and 4094).
802.1X	Select **Enable** to use 802.1x or select **Disable** to turn off 802.1x.
Host Name	Enter the host name provided by your ISP. If you are unsure of the host name, please consult with your ISP for more information.
Domain Name	Enter the domain name provided by your ISP. If you are unsure of the domain name, please consult with your ISP for more information.
Vender Class ID	If required, set the vender class ID to obtain its lease from the DHCP server. Please consult with your ISP for more information.
Client ID	If required, set the client ID to obtain its lease from the DHCP server. Please consult with your ISP for more information.
MTU(Bytes)	Select **Auto** to set the MTU to the default (1500) or select **Manual** and enter a value in bytes.
Activate WAN Setting	Click to activate the connection.
Delete All	Click to remove all WAN connections.
Edit	Click to make changes to a specific connection.
Delete	Click to remove a specific connection.
Next	Click to go to the QoS Defaults window.
Back	Click to return to the previous window.

PPPoE

If you select **PPPoE** as the mode in the **WAN PTM Connections** window, the PPPoE settings window with Port based binding opens; see Figure 5-8.

Figure 5-8 PPPoE settings window with Port based binding

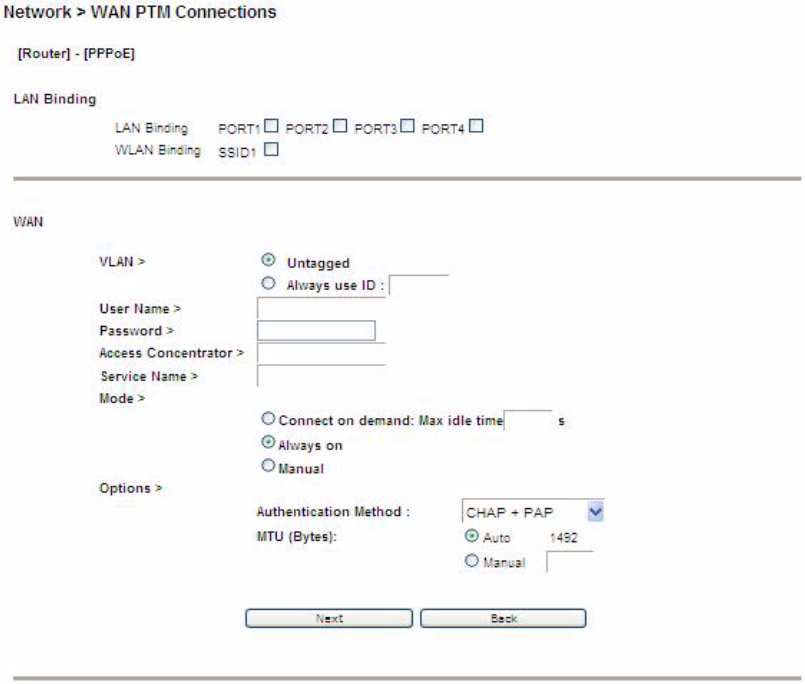


Table 5-7 describes the fields of PPPoE settings window with Port based binding.

Table 5-7 Field descriptions

Fields	Description
LAN Binding	
LAN Binding	Select the port to which you want to bind the connection.
WLAN Binding	Select the SSID to which you want to bind the connection.
WAN	
VLAN	Select **Untagged** if VLAN tagging is not to be used for this WAN connection. Select **Always use ID** if VLAN tagging is to be used and enter the VLAN ID number (between 0 and 4094).
User Name	Enter the username for the PPPoE connection. Please consult with your ISP for more information.
Password	Enter the password for the PPPoE connection. Please consult with your ISP for more information.
Access Concentrator	The access concentrator is optional. Please consult with your ISP for information.

Fields	Description
Service Name	The service name is optional. Please consult with your ISP for information.
Mode	Select the mode: • Select **Connect on demand** to allow the gateway to connect to the Internet only when you are trying to access it. Enter a Max idle time. If there are no activities in the specified time period, the CellPipe 7130 RG will disconnect the connection. • Select **Always on** to set the CellPipe 7130 RG to always connect to the Internet. • Select **Manual** and then click **Connect** to manually connect the CellPipe 7130 RG to the Internet. Click **Disconnect** to disconnect the connection.
Authentication Method	Select the authentication mode: • **CHAP + PAP** • **Only MS-CHAP** • **Only CHAP** • **Only PAP** This is optional. Please consult with your ISP for more information.
MTU (Bytes)	Select **Auto** to set the MTU to the default (1492) or select **Manual** and enter a value in bytes.
Activate WAN Setting	Click to activate the connection.
Delete All	Click to remove all WAN connections.
Edit	Click to make changes to a specific connection.
Delete	Click to remove aspecific connection
Next	Click to go to the QoS Defaults window.
Back	Click to return to the previous window.

Bridge

If you select **Bridge** as the mode in the **WAN PTM Connections** window, the Bridge settings window with Port based binding opens; see Figure 5-9.

Figure 5-9 Bridge settings window with Port based binding

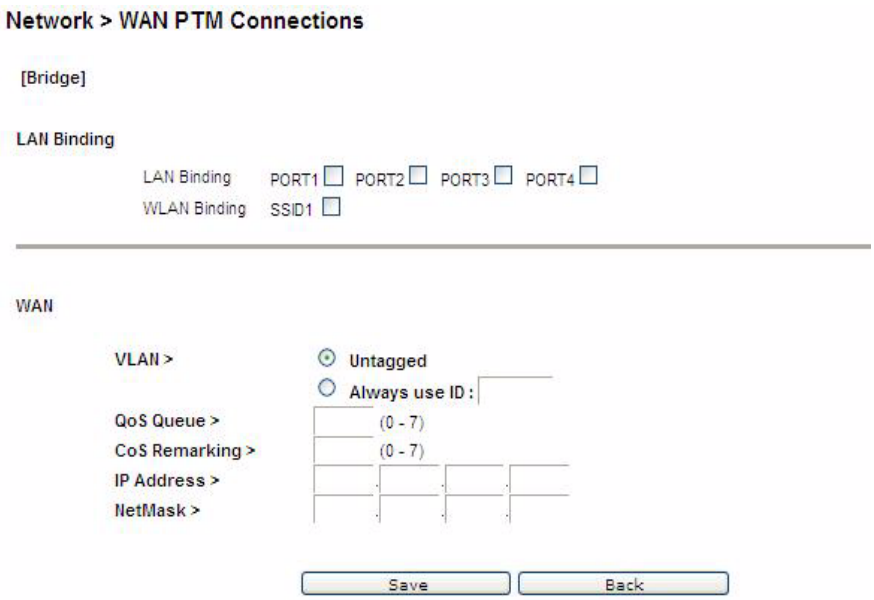


Table 5-8 describes the fields of Bridge settings window with Port based binding.

Table 5-8 Field descriptions

Fields	Description
LAN Binding	
LAN Binding	Select the port to which you want to bind the connection.
WLAN Binding	Select the SSID to which you want to bind the connection.
WAN	
VLAN	Select **Untagged** if VLAN tagging is not to be used for this WAN connection. Select **Always use ID** if VLAN tagging is to be used and enter the VLAN ID number (between 0 and 4094).
QoS Queue	Enter the QoS queue number.
CoS Remarking	Enter the CoS remarking number.
IP Address	Enter the IP address provided by your ISP.
NetMask	Enter the subnet mask provided by your ISP.
Save	Click to save your changes.
Back	Click to return to the previous window.
Activate WAN Setting	Click to activate the connection.

Fields	Description
Delete All	Click to remove all WAN connections.
Edit	Click to make changes to a specific connection.
Delete	Click to remove aspecific connection

MAC based binding

MAC based mode enables you to bind your connection by DHCP Option 60, Ethernet type, source MAC, or destination MAC.

Before you begin, you must configure a default connection. It should be routed or bridge mode. Afterwards you can configure MAC based binding (the other binding options are Port based and No LAN/WLAN) by DHCP Option 60, Ethernet type, source MAC, or destination MAC.

You can select the **MAC Based** radio button for each WAN mode and then click **Add** to enter the next configuration window.

You can set a maximum of 20 connections in MAC based binding.

> **Note:** If you already have a connection with MAC based binding, you cannot select Port based binding for any other connections.

The following section shows the creation of a default DHCP connection with MAC based binding.

DHCP

If you select DHCP as the mode, the DHCP settings window with MAC based binding opens; see Figure 5-10.

Figure 5-10 DHCP settings window with MAC based binding

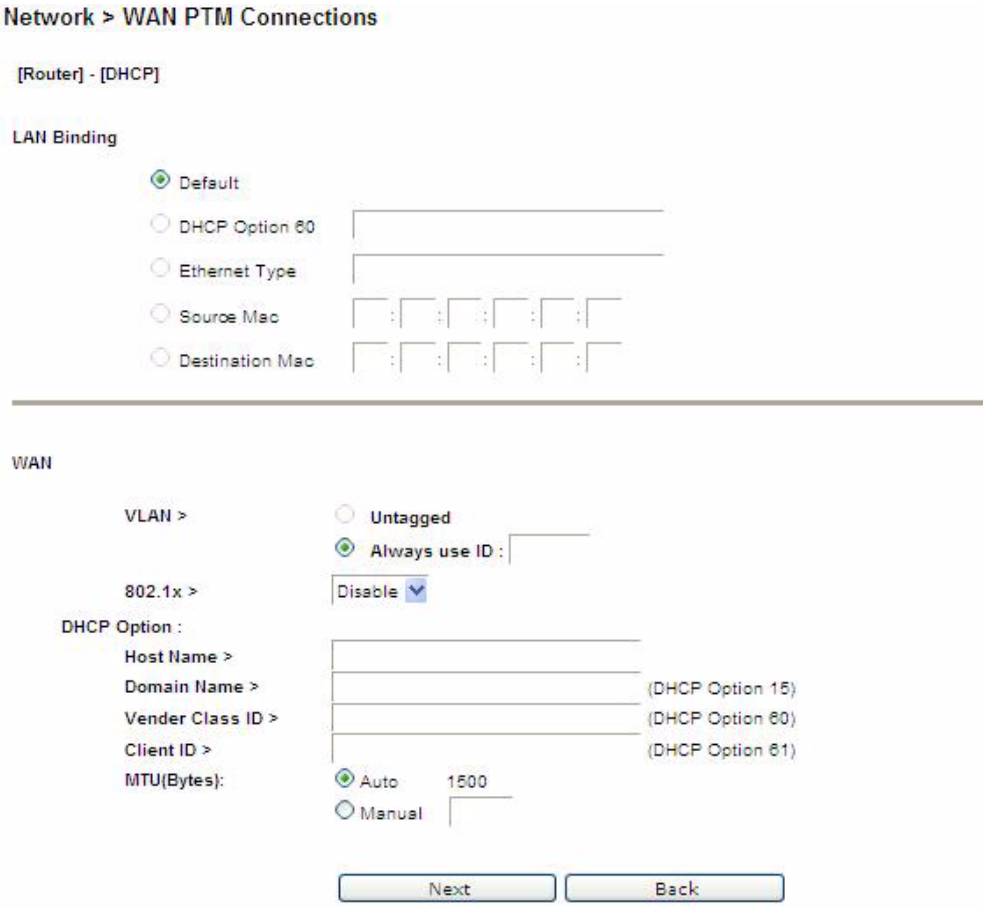


Table 5-9 describes the fields of DHCP settings window with MAC based binding.

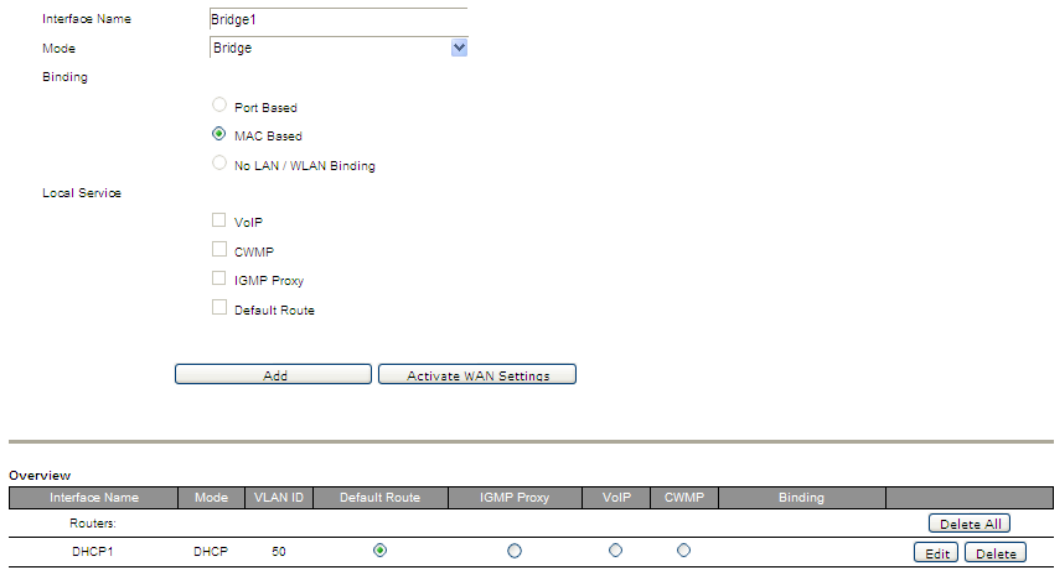
Table 5-9 Field descriptions

Fields	Description
LAN Binding	
Default	The first rule must be the default. After you have a default rule you can choose the other options. For example, you can select DHCP Option 60, Ethernet Type, Source MAC, or Destination MAC.
DHCP Option 60	Select the radio button and enter the applicable alphanumeric identification (wildcard * is also applicable).
Ethernet Type	Select the radio button and enter the applicable Ethernet Type code (4 hex digits).
Source MAC	Select the radio button and enter the applicable Source MAC address in hexadecimal format.
Destination MAC	Select the radio button and enter the applicable Destination MAC address in hexadecimal format.

Fields	Description
WAN	
VLAN	Select **Untagged** if VLAN tagging is not to be used for this WAN connection. Select **Always use ID** if VLAN tagging is to be used and enter the VLAN ID number (between 0 and 4094).
802.1x	Select **Enable** to use 802.1x or select **Disable** to turn off 802.1x. Please consult your ISP for more information.
Host Name	Enter the host name provided by your ISP. Please consult with your ISP for more information.
Domain Name	Enter the domain name provided by your ISP. Please consult with your ISP for more information.
Vender Class ID	If you are required, set the vender class ID to obtain its lease from the DHCP server. Please consult with your ISP for more information.
Client ID	If you are required, set the client ID to obtain its lease from the DHCP server. Please consult with your ISP for more information.
MTU(Bytes)	Select **Auto** to set the MTU to the default (1500) or select **Manual** and enter a value in bytes.
Next	Click to go to the QoS Defaults window.
Back	Click to return to the previous page.

Now that you have a default connection, the WAN PTM Connections window with MAC based binding opens; see Figure 5-11.

Figure 5-11 WAN PTM Connections window with MAC based binding



After you have a default connection, you can choose the WAN Mode you want and click **Add** to add a new connection. You can only choose Bridge mode with MAC based binding. Click **Add** to set the configurations.

When you select Bridge mode with MAC based binding and click **Add**, the Bridge settings window with MAC based binding opens; see Figure 5-12.

Figure 5-12 Bridge settings window with MAC based binding

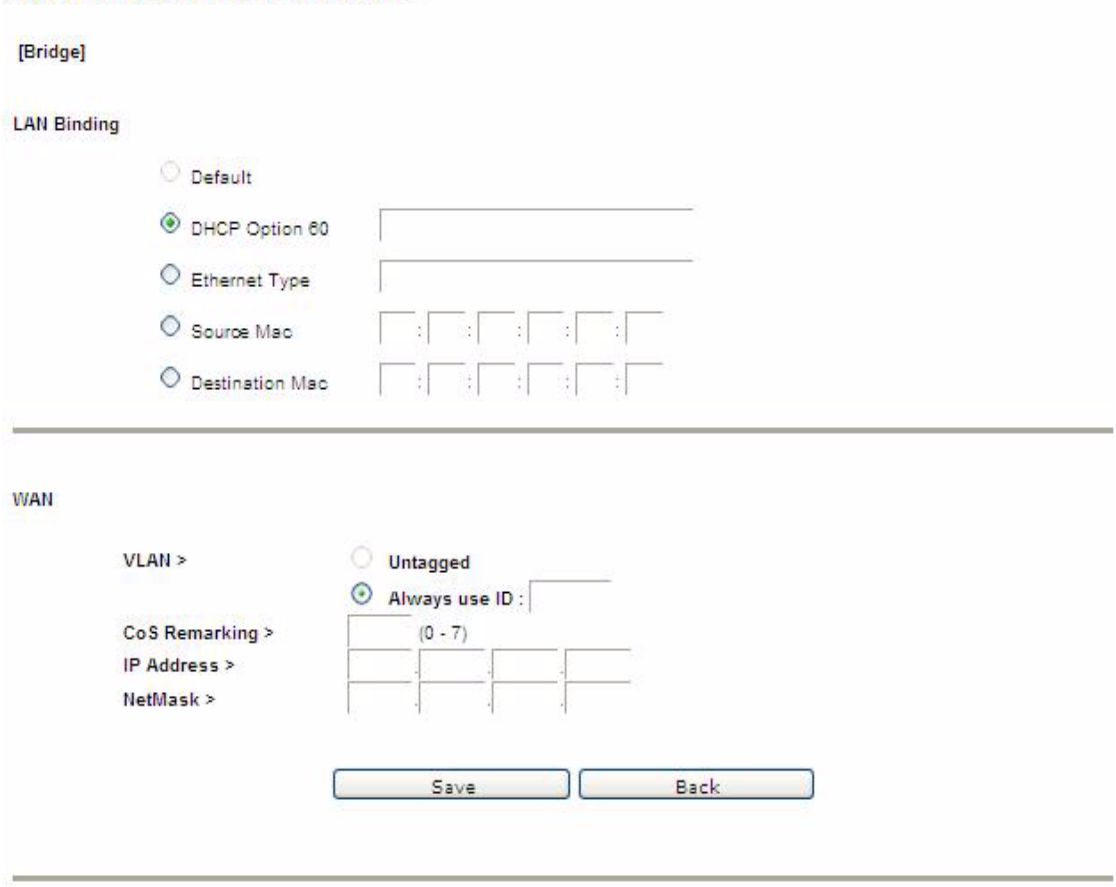


Table 5-10 describes the fields of Bridge settings window with MAC based binding.

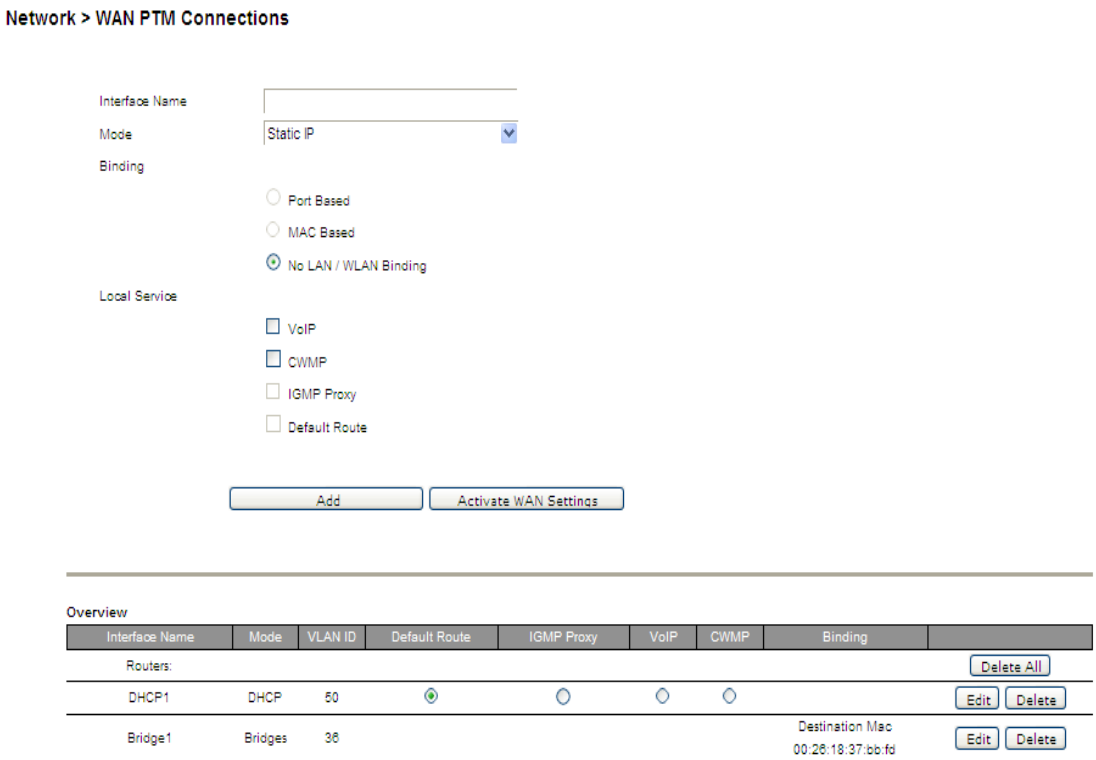
Table 5-10 Field descriptions

Fields	Description
LAN Binding	
Default	The first rule must be the default. After you have a default rule you can choose the other options. For example, you can select DHCP Option 60, Ethernet Type, Source MAC, or Destination MAC.
DHCP Option 60	Select the radio button and enter the applicable alphanumeric identification (wildcard * is also applicable).
Ethernet Type	Select the radio button and enter the applicable Ethernet Type code (4 hex digits).
Source MAC	Select the radio button and enter the applicable Source MAC address in hexadecimal format.
Destination MAC	Select the radio button and enter the applicable Destination MAC address in hexadecimal format.

Fields	Description
WAN	
VLAN	Select **Untagged** if VLAN tagging is not to be used for this WAN connection. Select **Always use ID** if VLAN tagging is to be used and enter the VLAN ID number (between 0 and 4094).
CoS Remarking	Enter the CoS remarking number.
IP Address	Enter the IP address provided by your ISP.
NetMask	Enter the subnet mask provided by your ISP.
Next	Click to proceed to the next step.
Back	Click to return to the previous page.

After the second connection is set, you are returned to the WAN PTM Connections window; see Figure 5-13. The two new connections, default and bridged, appear in the Overview table.

Figure 5-13 WAN PTM Connections window with MAC based binding



You can only choose Bridge mode with MAC based binding and you can select Static IP, DHCP, or PPPoE with No LAN/WLAN Binding for CWMP and VoIP.

No LAN/WLAN binding

No LAN/WLAN binding enables you to configure your connection with local service CWMP and VoIP. In order to avoid other connections using CWMP and VoIP, No LAN/WLAN Binding is specifically for CWMP and VoIP to build an independent connection.

Select the **No LAN/WLAN Binding** radio button for the binding method and then click **Add** to enter the next configuration page.

Static IP

If you select **Static IP** as the mode and click **Add**, the Static IP window with No LAN/WLAN Binding opens; see Figure 5-14.

Figure 5-14 Static IP window with No LAN/WLAN Binding

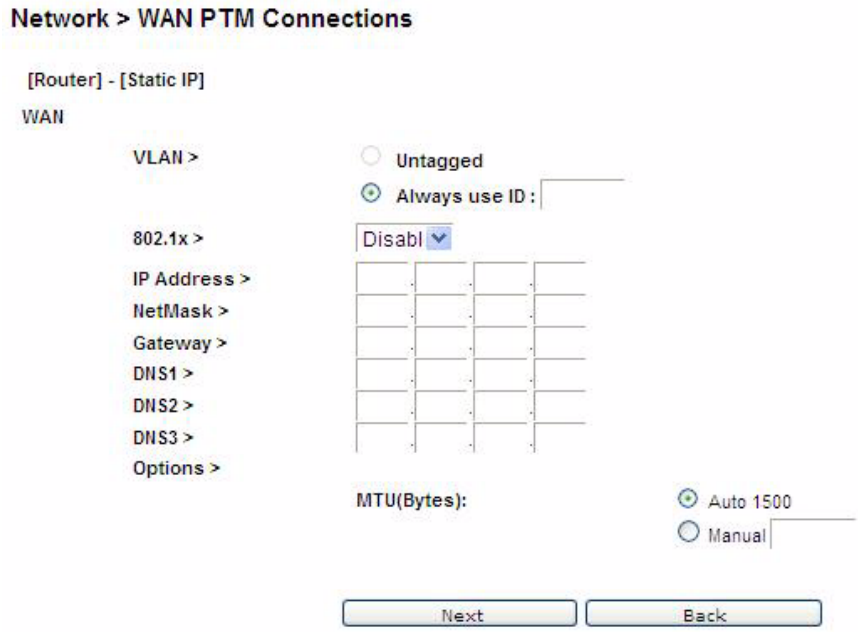


Table 5-11 describes the fields of Static IP window with No LAN/WLAN Binding.

Table 5-11 Field descriptions

Field	Description
WAN	
VLAN	Select **Untagged** if VLAN tagging is not to be used for this WAN connection. Select **Always use ID** if VLAN tagging is to be used and enter the VLAN ID number (between 0 to 4094).

Field	Description
802.1x	Select **Enable** to use 802.1x or select **Disable** to turn off 802.1x. Please consult your ISP for more information.
IP Address	Enter the IP address provided by your ISP.
NetMask	Enter the subnet mask provided by your ISP.
Gateway	Enter the gateway IP address provided by your ISP.
DNS1 to 3	Enter the DNS IP address (these are optional).
MTU(Bytes)	Select **Auto** to set the MTU to the default (1500) or select **Manual** and enter a value in bytes.
Next	Click to proceed to the QoS Defaults window.
Back	Click to return to the previous window.

Figure 5-15 WAN PTM Connections window with Static IP No LAN/WAN CWMP connection created

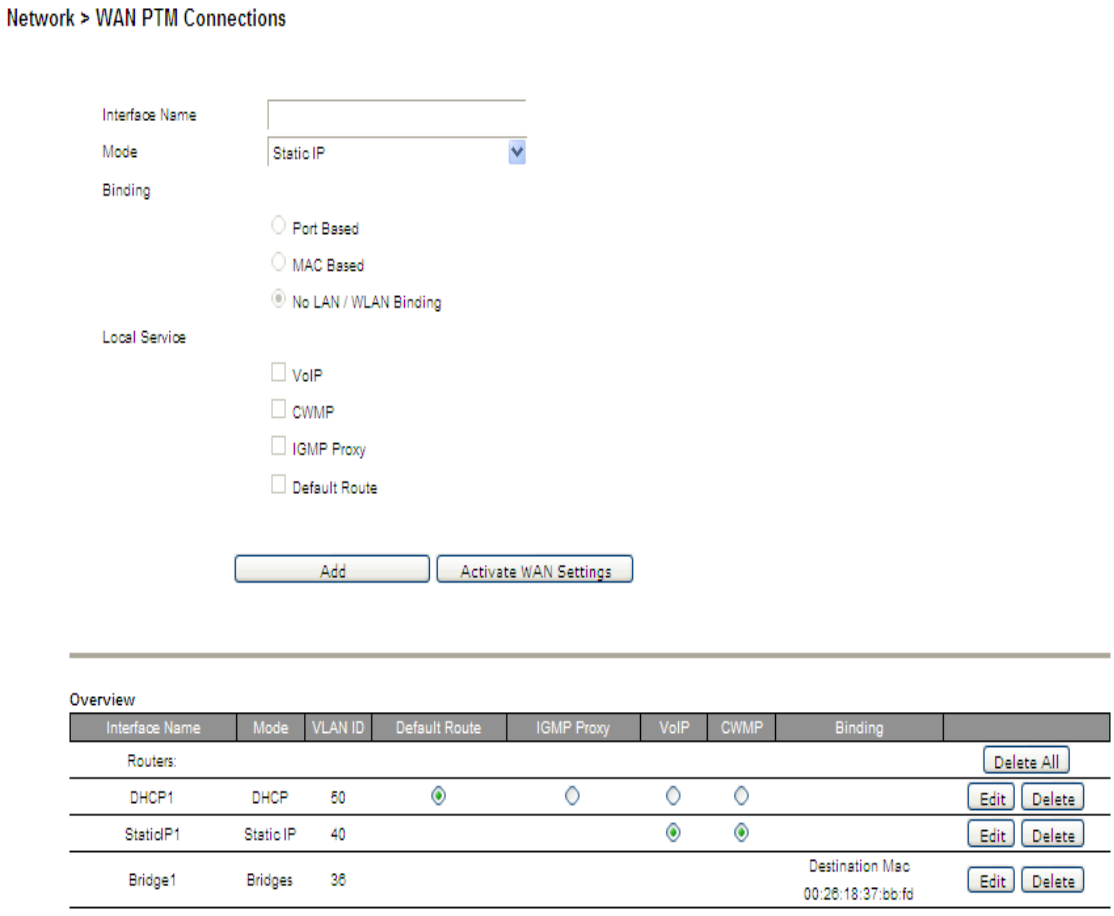


Table 5-12 Field descriptions

Field	Description
Activate WAN Settings	Click to activate the connection.
Delete All	Click to delete all the connections.
Edit	Click to modify the settings of the connection. After changing the connection settings, press **Activate WAN Settings** to activate the connection. This button will be only visible if you made changes to the settings or added a new connection.
Delete	Click to delete the connection.

DHCP

If you select **DHCP** as the mode and click Add, the DHCP window with No LAN/WLAN Binding opens; see Figure 5-16.

Figure 5-16 DHCP window with No LAN/WLAN Binding

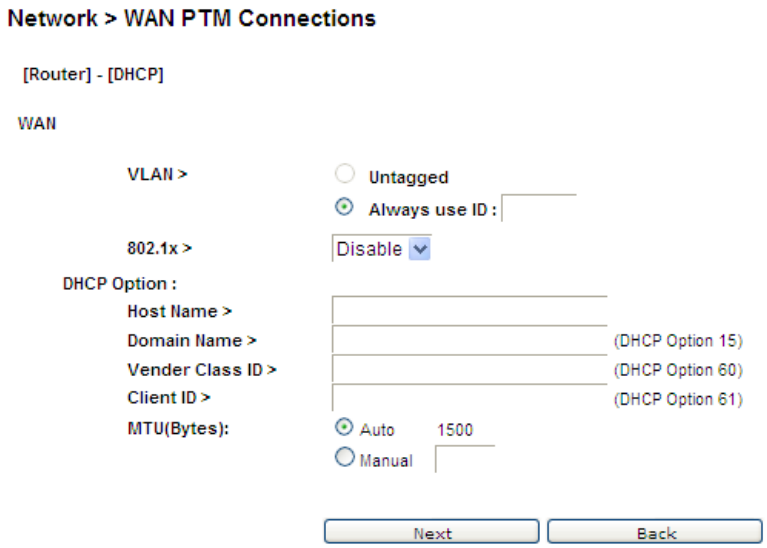


Table 5-13 describes the fields of DHCP window with No LAN/WLAN Binding.

Table 5-13 Field descriptions

Field	Description
VLAN	Select **Untagged** if VLAN tagging is not to be used for this WAN connection. Select **Always use ID** if VLAN tagging is to be used and enter the VLAN ID number (between 0 and 4094).

Field	Description
802.1x	Select **Enable** to use 802.1x or select **Disable** to turn off 802.1x. Please consult your ISP for more information.
Host Name	Enter the host name provided by your ISP. Please consult with your ISP for more information.
Domain Name	Enter the domain name provided by your ISP. Please consult with your ISP for more information.
Vender Class ID	If you are required, set the vender class ID to obtain its lease from the DHCP server. Please consult with your ISP for more information.
Client ID	If you are required, set the client ID to obtain its lease from the DHCP server. Please consult with your ISP for more information.
MTU(Bytes)	Select **Auto** to set the MTU to the default (1500) or select **Manual** and enter a value in bytes.
Next	Click to go to the QoS Defaults window.
Back	Click to return to the previous window.

PPPoE

If you select **PPPoE** as the mode and click **Add**, the PPPoE window with No LAN/WLAN Binding opens; see Figure 5-17.

Figure 5-17 PPPoE window with No LAN/WLAN Binding

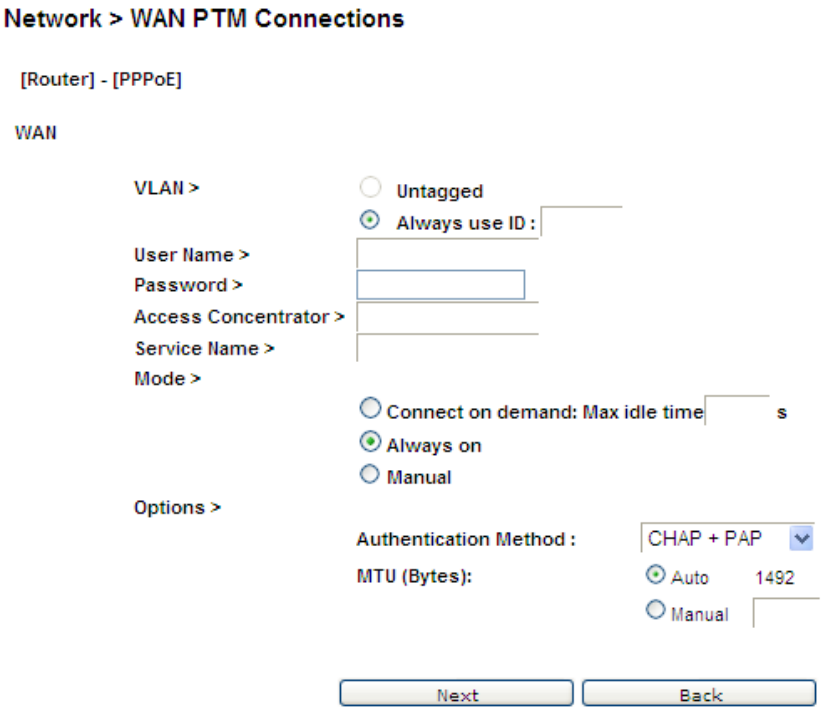


Table 5-14 describes the fields of PPPoE window with No LAN/WLAN Binding.

Table 5-14 Field descriptions

Field	Description
VLAN	Select **Untagged** if VLAN tagging is not to be used for this WAN connection. Select **Always use ID** if VLAN tagging is to be used and enter the VLAN ID number (between 0 to 4094).
User Name	Enter the username for the PPPoE connection. Please consult with your ISP for more information.
Password	Enter the password for the PPPoE connection. Please consult with your ISP for more information.
Access Concentrator	The access concentrator is optional. Please consult with your ISP for more information.
Service Name	The service name is optional. Please consult with your ISP for more information.

Field	Description
Mode	Select the mode: • Select **Connect on demand** to allow the gateway to connect to the Internet only when you are trying to access it. Enter a Max idle time. If there are no activities in the specified time period, the CellPipe 7130 RG will disconnect the connection. • Select **Always on** to set the CellPipe 7130 RG to always connect to the Internet. • Select **Manual** and then click **Connect** to manually connect the CellPipe 7130 RG to the Internet. Click **Disconnect** to disconnect the connection.
Authentication Method	Select the authentication mode: • **CHAP + PAP** • **Only MS-CHAP** • **Only CHAP** • **Only PAP** This is optional. Please consult with your ISP for more information.
MTU (Bytes)	Select **Auto** to set the MTU to the default (1492) or select **Manual** and enter a value in bytes.
Next	Click to go to the QoS Defaults window.
Back	Click to return to the previous window.

QoS Defaults

The QoS Defaults window enables you to configure the default QoS policy for each WAN connection, see Figure 5-18.

Figure 5-18 QoS Defaults window

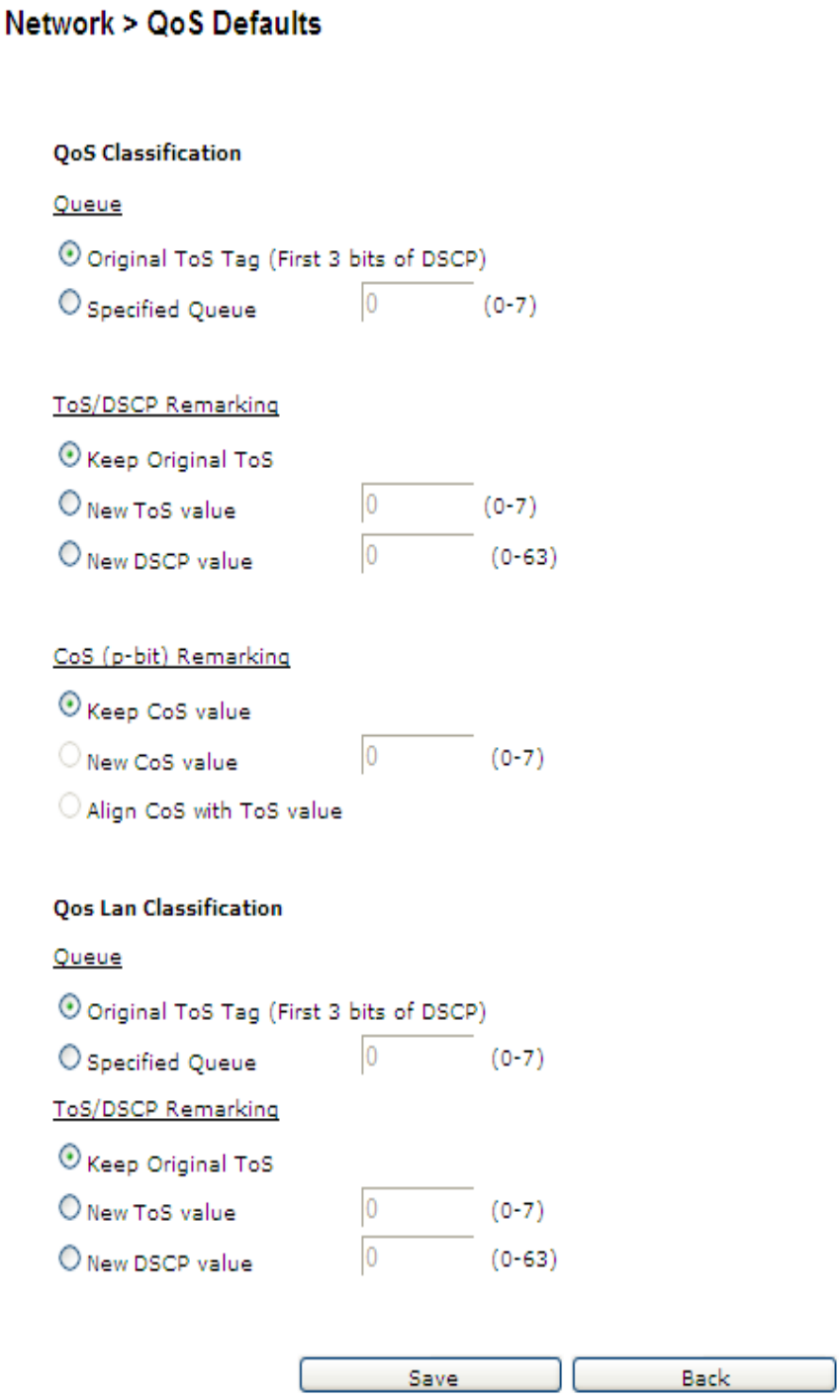


Table 5-15 describes the fields of the QoS Defaults window.

Table 5-15 Field descriptions

Field	Description
QoS Classification	
Queue	
Original ToS Tag (First 3 bits of DSCP)	Select **Original ToS Tag** to assign the queue according to the ToS value of the packet.
Specified Queue	Select **Specified Queue** and enter a queue number (0 to 7) to which the network traffic will be assigned. **Note:** When **Specified Queue** is chosen, you cannot choose **Align CoS with ToS Value**.
ToS/DSCP Remarking	
Keep Original ToS	Select **Keep Original ToS** to retain the original ToS value.
New ToS Value	Select **New Tos Value** and enter a queue number (0 to 7) to assign to the network traffic.
New DSCP Value	Select **New DSCP Value** and enter a DSCP value (0 to 63).
CoS (p-bit) Remarking	
Keep CoS Value	Select **Keep CoS Value** to retain the original CoS value.
New CoS Value	Select **New CoS Value** to assign CoS for network traffic.
Align CoS with ToS Value	Select to align CoS with ToS value. **Note:** This field can only be set if you keep **Original ToS Tag** in queue setting.
QoS LAN Classification	
Queue	
Original ToS Tag (First 3 bits of DSCP)	Select **Original ToS Tag** to assign the queue according to the ToS value of the packet.
Specified Queue	Select **Specified Queue** and enter a queue number (0 to 7) to which the network traffic will be assigned. **Note:** When **Specified Queue** is chosen, you cannot choose **Align CoS with ToS Value**.
ToS/DSCP Remarking	
Keep Original ToS	Select **Keep Original ToS** to retain the original ToS value.

Field	Description
New ToS Value	Select **New Tos Value** and enter a queue number (0 to 7) to assign to the network traffic.
New DSCP Value	Select **New DSCP Value** and enter a DSCP value (0 to 63).
Save	Click to save your changes.
Back	Click to return to the previous window.

6 WiFi setup

Overview

Purpose

This chapter explains how to configure the WiFi settings for the CellPipe 7130 RG.

Click **WiFi Setup** in the main menu to open the **WiFi Setup** menu.

Contents

This chapter covers the following topics:

WiFi Settings

The WiFi Settings window enables you to configure the common wireless settings.

Click on **WiFi Settings** in the **WiFi Setup** menu to access the WiFi Settings window; see Figure 6-1.

Figure 6-1 WiFi Settings window

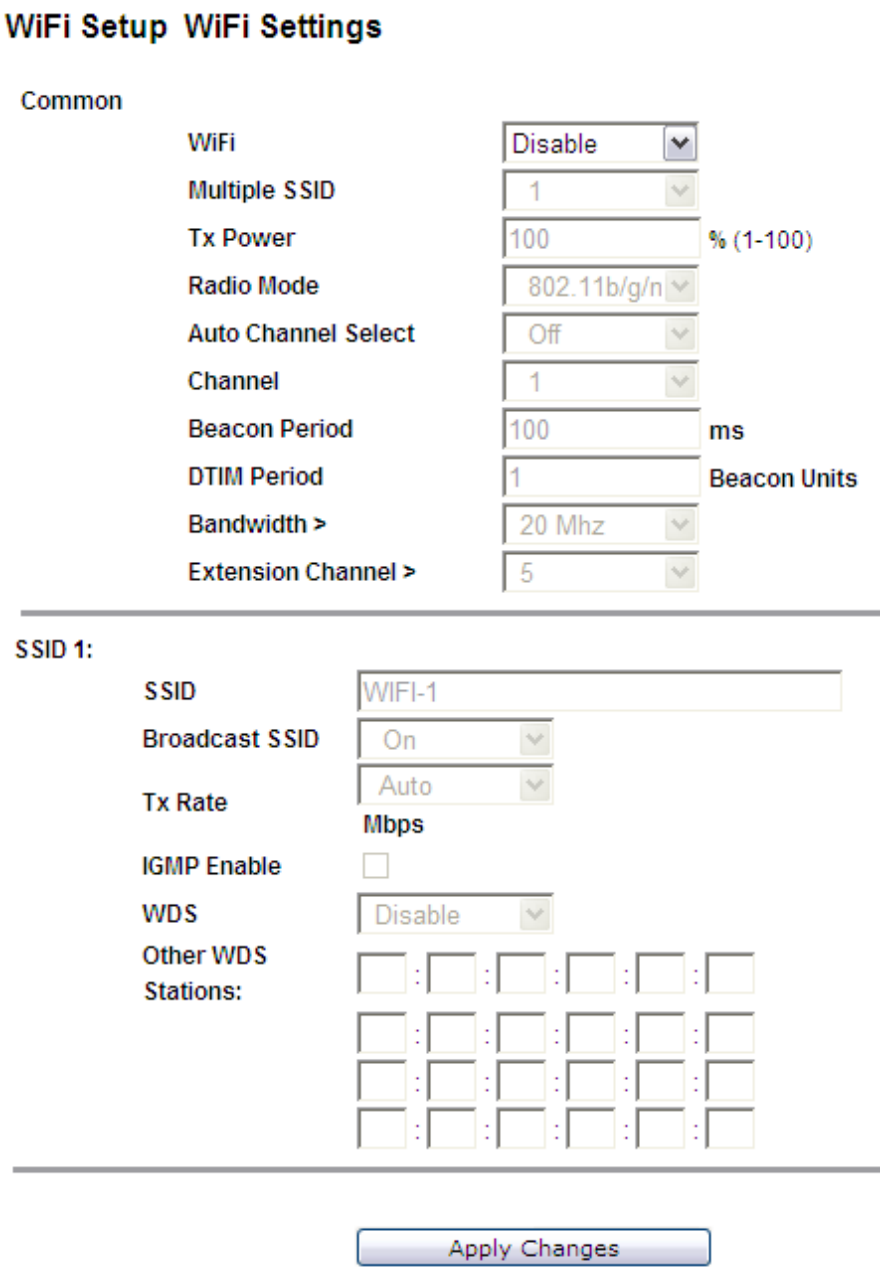


Table 6-1 describes the fields of the WiFi Settings window.

Table 6-1 Field descriptions

Field	Description
Common	
WiFi	Select **Enable** to turn on wireless and configure the wireless settings. Select **Disable** to turn off wireless.

Field	Description
Multiple SSID	Select the number of SSIDs: • **1** • **2** • **4**
Tx Power	Enter a value between 1 and 100 to control the transmitting signal strength.
Radio Mode	Select the wireless mode: • **802.11b/g** • **802.11g/n** • **802.11b/g/n** • **802.11b** • **802.11g** • **802.11n**
Auto Channel Select	Select **On** to let the wireless access point automatically select a channel with the least interference. Select **Off** to configure manually. Select **Now** to set the channel automatically one time.
Channel	If Auto Channel Select is off, you can manually select a channel for the wireless access point. The default is 1.
Beacon Period	Enter a beacon period in milliseconds to determine the frequency of the beacon to keep the network synchronized. This is optional.
DTIM Period	Enter a value to set the delivery traffic indication message. The DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages.
Bandwidth	Select to enable channel bonding (20/40Mhz) or disable channel bonding . If channel bonding is selected, please also select which extension channel is been used. Note: Not all wireless clients support this.
Extension Channel	An extension channel is a secondary channel used to bond with the primary channel to increase the performance.

Field	Description
SSID 1 to 4	
SSID	Enter an SSID name (maximum of 32 characters). The SSID is an alphanumeric name shared by all the devices on the wireless network. It must be unique.
Broadcast SSID	Select **On** to broadcast the SSID or select **Off** to hide the SSID.
TxRate	Select **Auto** to automatically determine the transmission rate or manually select a transmission rate (maximum 54Mb/s).
IGMP Enable	Enable to use IGMP or disable to turn off IGMP.
WDS	Select **Enable** to use WDS or select **Disable** to turn off WDS. **Note:** If you enable WDS, ensure that all other WDS APs are enabled, configured with the same channel, SSID, and encryption keys, and that each AP has a different LAN port IP address.
Other WDS Station	Enter the wireless MAC addresses of other wireless APs or routers that are in the same WDS.
Apply Changes	Click to save your changes.

WiFi Security

WiFi security enables you to configure the WEP, WPA, or WPA2 security settings.

Select **WiFi Security** in the **WiFi Setup** menu to access the WiFi Security window; see Figure 6-2.

Figure 6-2 WiFi Security window

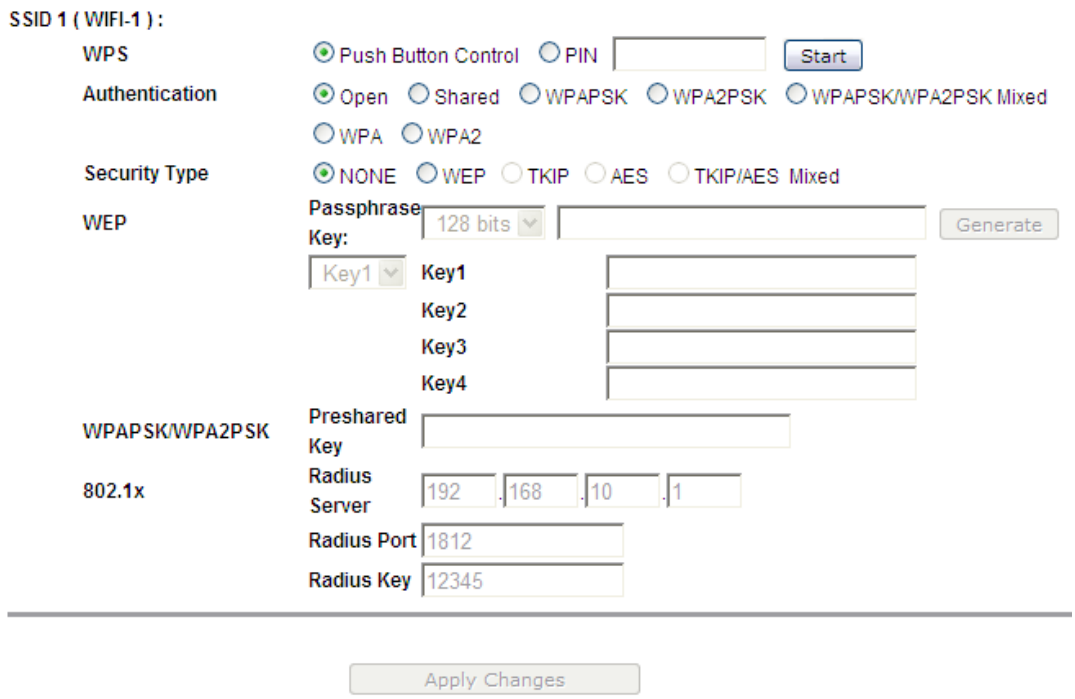


Table 6-2 describes the fields of the WiFi Security window.

Table 6-2 Field descriptions

Field	Description
WPS	Enable **Push Button Control** (the WPS push button is located on the front of the CellPipe 7130 RG) or enable **PIN** and enter your PIN number and click **Start**. The PIN number is located in the WiFi utility of your computer.
Authentication	Select one of the following encryption methods for the wireless network: • **Open** • **Shared** • **WPAPSK** • **WPA2PSK** • **WPAPSK/WPA2PSK Mixed** • **WPA** • **WPA2**

Field	Description
Security Type	Select one of the following for the security type: • **NONE** • **WEP** • **TKIP** • **AES** • **TKIP/AES Mixed**
WEP	
Passphrase Key	Select a level of encryption (**64 bits** or **128 bits**) and enter a passphrase key consisting of 8 to 63 alphanumeric characters and then click **Generate**.
Key1 to 4	Select **Key1** to **Key4** and enter a WEP key in the respective field. The WEP key must: • contain letters from A to F and numbers from 0 to 9 • contain 10 characters for 64 bit and 26 characters for 128 bit encryption
WPAPSK/WPA2PSK	
Preshared Key	Enter a preshared key consisting of 8 to 63 alphanumeric characters.
802.1x	
Radius Server	Enter the IP address of the RADIUS server.
Radius Port	Enter the port number of the RADIUS server.
Radius Key	Enter the key of the RADIUS server.
Apply Changes	Click to save your changes.

WiFi Access Filter

The WiFi Access Filter window enables you to block or permit access for wireless clients by MAC address.

Select **WiFi Access Filter** in the **WiFi Setup** menu to access the WiFi Access Filter window; see Figure 6-3.

Figure 6-3 WiFi Access Filter window

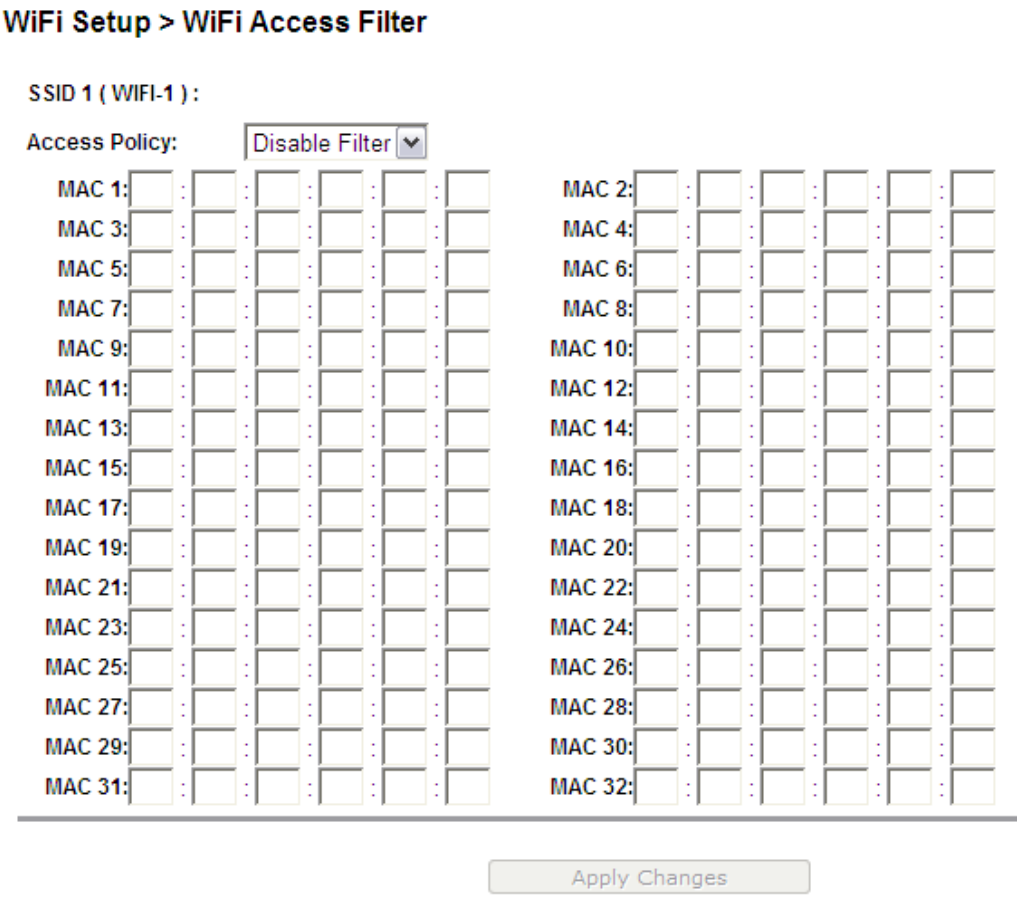


Table 6-3 describes the fields of the WiFi Access Filter window.

Table 6-3 Field descriptions

Field	Description
Access Policy	Select an access policy: • **Disable Filter** to turn off WiFi filtering. • **Allow** to permit access from the specified MAC address. • **Deny** to deny access from the specified MAC address.
MAC 1 to 32	Enter up to 32 MAC addresses to control access.
Apply Changes	Click to save your changes.

7 Firewall setup

Overview

Purpose

This chapter explains how to configure the firewall for the CellPipe 7130 RG.

Click **Firewall Setup** in the main menu to open the **Firewall Setup** menu.

Contents

This chapter covers the following topics:

Port Forwarding

The Port Forwarding window enables you to control the incoming requests from the Internet to pass through the port to your local computer.

Note: It is recommended that port forwarding be configured with the assistance of your ISP.

Select **Port Forwarding** in the **Firewall Setup** menu to open the Port Forwarding window; see Figure 7-1.

Figure 7-1 Port Forwarding window

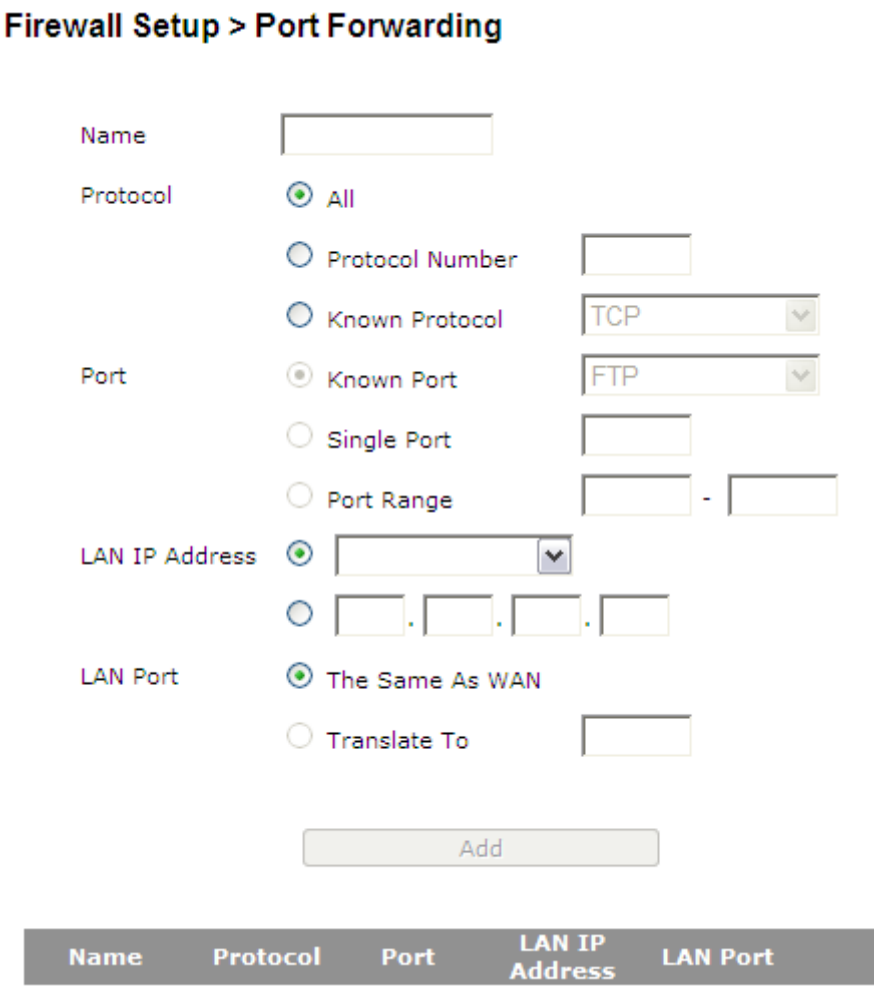


Table 7-1 describes the fields of the Port Forwarding window.

Table 7-1 Field descriptions

Field	Description
Name	Enter a name for the application you are hosting on your LAN computer; for example, Real Audio.

Protocol	Select the type of IP protocol(s) used by this application:
	• **ALL**
	• **Protocol Number** and then enter the protocol number
	• **Known Protocol** and then select a protocol:
	  • **TCP**
	  • **UDP**
	  • **TCP/UDP**
	  • **ICMP**

Field	Description

Port	Select or enter the TCP/UDP port for which the port forwarding route must be applied.
	• **Known Port** and then select a port:
	  • **FTP**
	  • **TFTP**
	  • **TELNET**
	  • **SSH**
	  • **HTTP**
	  • **HTTPS**
	  • **SMTP**
	  • **POP3**
	  • **DNS**
	  • **IMAP**
	• **Single Port** and then enter the port number
	• **Port Range** and then enter the port range

LAN IP Address	Select the first radio button to choose a pre-configured LAN host or select the second radio button to enter an IP address manually.
LAN Port	Select the first radio button to use the same port or port range as the WAN or select the second radio button and enter the LAN port manually.
Apply Changes	Click to save your changes.

Demilitarized Zone

The Demilitarized Zone window enables you to configure a single computer on the local side to be exposed to the Internet. All incoming packets will be forwarded to this computer.

> **Note:** Use the demilitarized zone setting only if the virtual server or port range forwarding options do not provide the level of access required for certain applications. It is recommended that you contact your ISP for assistance.

Select **Demilitarized Zone** in the **Firewall Setup** menu to access the Demilitarized Zone window; see Figure 7-2.

Figure 7-2 Demilitarized Zone window

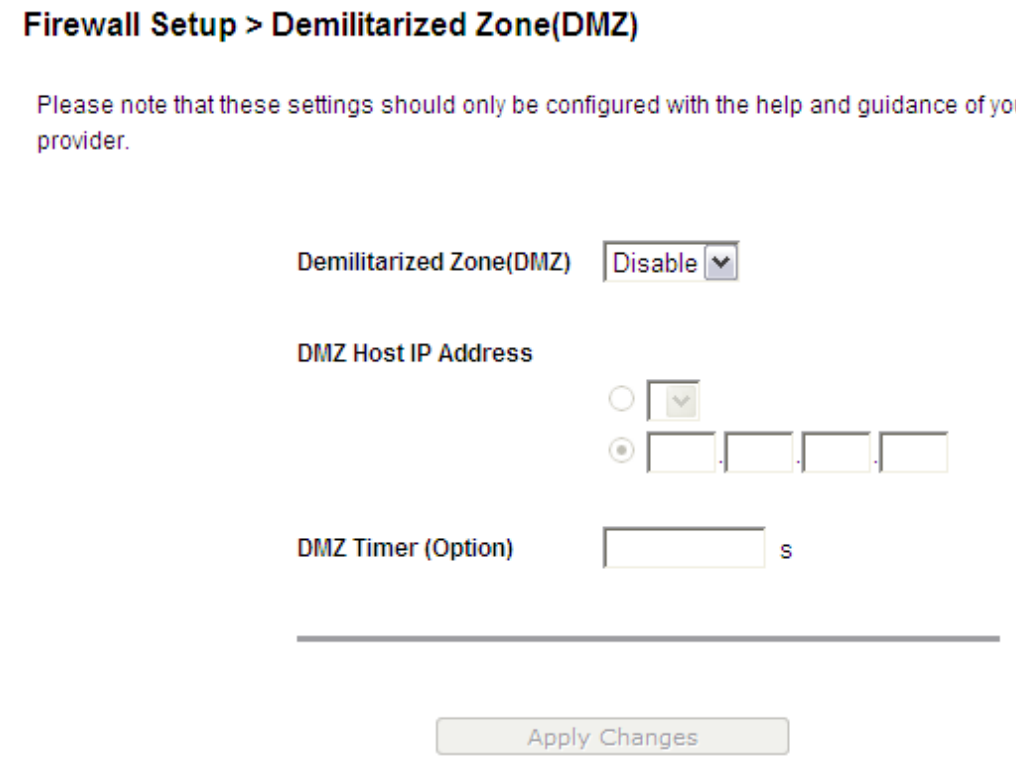


Table 7-2 describes the fields of the Demilitarized Zone window.

Table 7-2 Field descriptions

Field	Description
Demilitarized Zone(DMZ)	Select **Enable** to turn on the demilitarized zone function. Select **Disable** to turn it off.
DMZ Host IP Address	Select the first radio button and choose a pre-existing LAN host or select the second radio button to enter an IP address manually.
DMZ Timer (Option)	To improve security, specify the length of time (in seconds) during which the DMZ is active.
Apply Changes	Click to save your changes.

UPnP

UPnP is an open networking standard that allows peer-to-peer network connectivity between devices. It enables software or devices, such as video game consoles, to function properly using NAT.

Note: It is recommended that you contact your ISP for assistance.

Select **UPnP** in the **Firewall Setup** menu to access the UPnP window; see Figure 7-3.

Figure 7-3 UPnP window

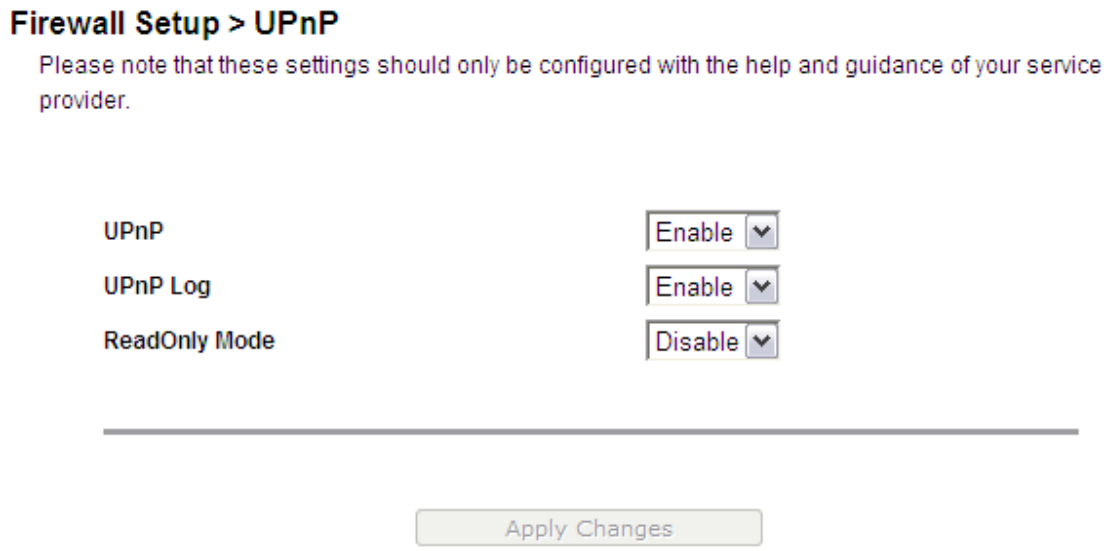


Table 7-3 describes the fields of the UPnP window.

Table 7-3 Field descriptions

Field	Description
UPnP	Select **Enable** to turn on the UPnP function. Select **Disable** to turn off the UPnP function.
UPnP Log	Select **Enable** to turn on logging activities. Select **Disable** to turn off the logging activities.
ReadOnly Mode	Select **Enable** to turn on the read-only mode. Select **Disable** to turn off the read-only mode. **Note:** In read-only mode, users are unable to change port forwarding settings or any other UPnP enabled application settings.
Apply Changes	Click to save your changes.

Layer 2 Filter

Select **Layer 2 Filter** in the **Firewall Setup** menu to access the Layer 2 Filter window; see Figure 7-4.

Figure 7-4 Layer 2 Filter window

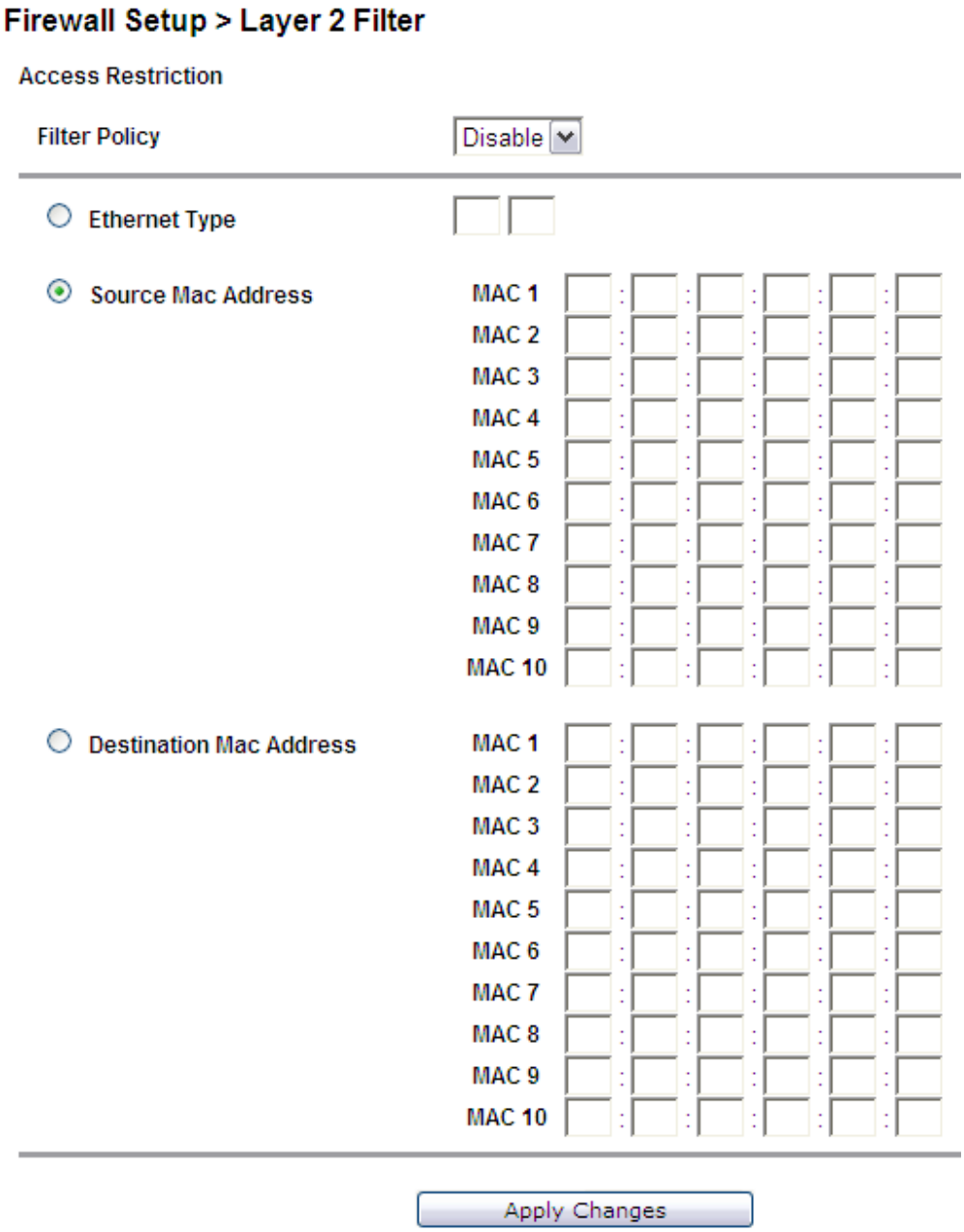


Table 7-4 describes the fields of the Layer 2 Filter window.

Table 7-4 Field descriptions

Field	Description
Filter Policy	Select the policy for filters: • **Allow** • **Deny** • **Disable**

Field	Description
Ethernet Type	Select to use Ethernet Type as the filtering algorithm and enter the applicable Ethernet Type code.
Source Mac Address 1 to 10	Select and then enter the source MAC address of the device.
Destination Mac Address 1 to 10	Select and then enter the destination MAC address of the device.
Apply Changes	Click to save your changes.

Layer 3 Filter

Select **Layer 3 Filter** in the **Firewall Setup** menu to access the Layer 3 Filter window; see Figure 7-5.

Figure 7-5 Layer 3 Filter window

Table 7-5 describes the fields of the Layer 3 Filter window.

Table 7-5 Field descriptions

Field	Description
Filter Name	Enter a name for the filtering rule.
IP Type	Select **Dest** (destination) or **Source** depending on the how the rule is going to be used.

Field	Description
IP Address	Enter the IP address of the host that you are blocking.
IP Netmask	Select the subnet mask of the host that you are blocking.
Protocol	Select the type of protocol(s) used by the application: • **TCP** • **UDP** • **Both**
Port Type	Select **Dest** (destination) or **Source** depending on the type of application.
Starting Port	Enter the start port of the ports used by the application.
Ending Port	Enter the end port of the ports used by the application.
Enable	Select **Enable** to apply the filter rule or **Disable** to turn off the filter rule.
DSCP Packet Filter Policy	Select **Disable** to disable the DSCP policy. Select **Deny** to deny packets that are accessing the Internet with the specified DSCP value in the IP header or select **Allow** to allow packets that are accessing the Internet with the specified DSCP value in the IP header.
DSCP Value	Enter a DSCP value between 0 and 63.
Apply Changes	Click to save your changes.

NAT Passthrough

The NAT Passthrough window allows you to enable or disable specific protocols from passing through the gateway.

Note: This should only be configured with the help of your ISP.

Select **NAT Passthrough** in the **Firewall Setup** menu to access the NAT Passthrough window; see Figure 7-6.

Figure 7-6 NAT Passthrough window

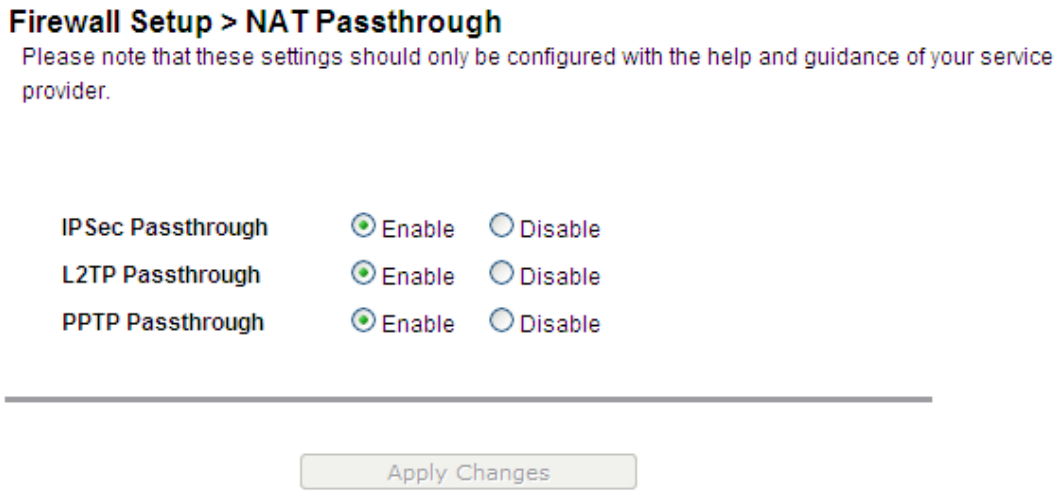


Table 7-6 describes the fields of the NAT Passthrough window.

Table 7-6 Field descriptions

Field	Description
IPSec Passthrough	Select **Enable** to allow IPSec passthrough. Select **Disable** to turn off the IPSec passthrough.
L2TP Passthrough	Select **Enable** to allow L2TP passthrough. Select **Disable** to turn off L2TP passthrough.
PPTP Passthrough	Select **Enable** to allow PPTP passthrough. Select **Disable** to turn off PPTP passthrough.
Apply Changes	Click to save your changes.

URL Blocking

The URL Blocking window enables you to block requests from your local computer to access specific websites.

Select **URL Blocking** in the **Firewall Setup** menu to access the URL Blocking window; see Figure 7-7.

Figure 7-7 URL Blocking window

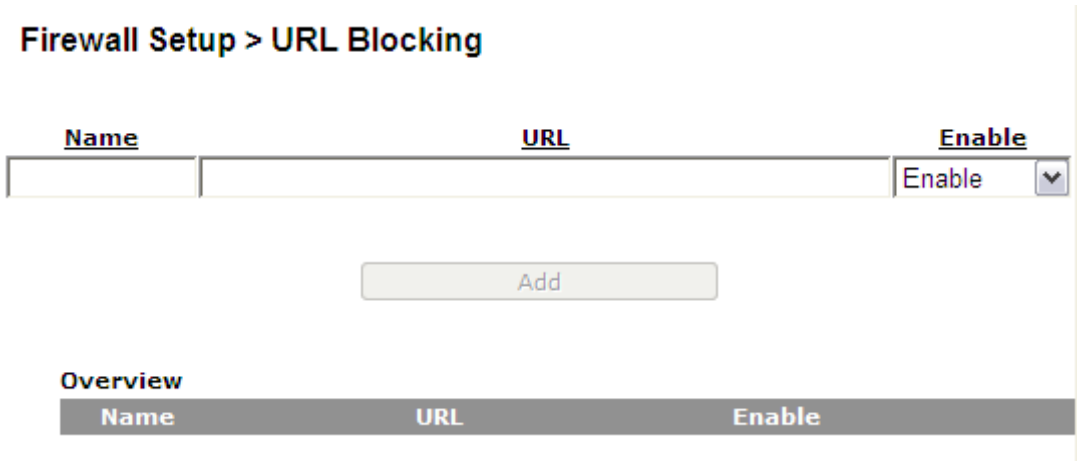


Table 7-7 describes the fields of the URL Blocking window.

Table 7-7 Field descriptions

Field	Description
Name	Enter a name for the URL filter.
URL	Enter a URL or a prefix keyword of the URL you are blocking. **Note:** If the keyword is too general, you might inadvertently block other websites.
Enable	Select **Enable** to apply the URL filter. Select **Disable** to turn off the URL filter.
Add	Click to add the URL blocking rule.
Edit	Click to edit the URL blocking rule.
Delete	Click to delete the URL blocking rule.

Content Screening

The Content Screening window enables you to configure keywords to screen website content. If the keywords appear in the website content and content screening is enabled, the firewall will block the user from accessing the website.

Note: Compressed and secured pages are not supported.

Select **Content Screening** in the **Firewall Setup** menu to access the Content Screening window; see Figure 7-8.

Figure 7-8 Content Screening window

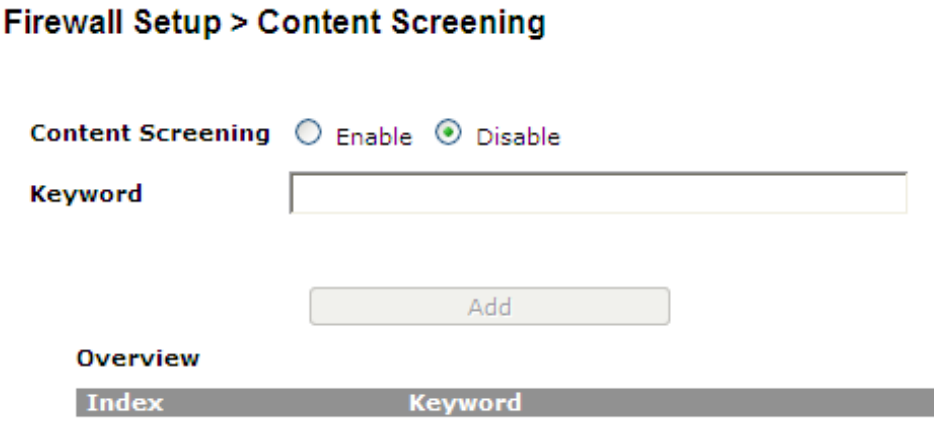


Table 7-8 describes the fields of the Content Screening window.

Table 7-8 Field descriptions

Field	Description
Content Screening	Select **Enable** to apply content screening and block websites that have keywords in their contents. Select **Disable** to disable content screening.
Keyword	Enter a keyword to be blocked. Enter only one keyword. If you want to screen multiple keywords, add them as separate rules. The maximum number of keywords allowed is 254. **Note:** If the keyword is too general, you might inadvertently block other websites.
Index	The index of rule. The index is created by system.
Add	Click to add the keyword to the content screening rules.
Edit	Click to edit the keyword to the content screening rules.
Delete	Click to delete the keyword to the content screening rules.

Parental Control

The Parental Control window enables you to set Internet connection limits on your computer based on the time and day of the week.

Select **Parental Control** in the **Firewall Setup** menu to access the Parental Control window; see Figure 7-9.

Figure 7-9 Parental Control window

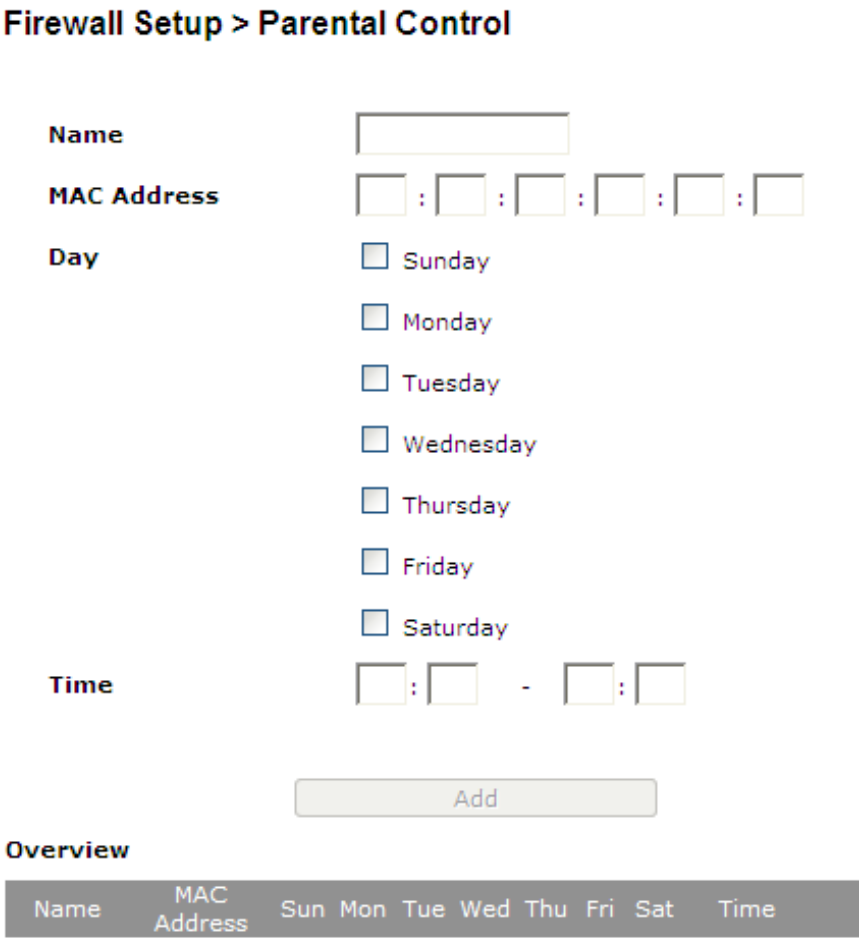


Table 7-9 describes the fields of the Parental Control window.

Table 7-9 Field descriptions

Field	Description
Name	Enter a name for the rule.
MAC Address	Enter the MAC address of the LAN device.
Day	Enable the day(s) of the week you want to limit the Internet connection of the client. This is optional.
Time	Enter a time period (in hours and minutes) that you want to limit the Internet connection of the client. This is optional.
Add	Click to add the rule.
Edit	Click to edit the rule.
Delete	Click to delete the rule.

8 Advanced setup

Overview

This chapter explains how to configure the advanced settings of the CellPipe 7130 RG such as the route settings, DNS settings, dynamic DNS, system log, IGMP proxy/snooping, and 802.1x.

Click **Advanced Setup** in the main menu to open the **Advanced Setup** menu.

Contents

This chapter covers the following topics:

Route Settings

The Route Settings window enables you to configure static and dynamic routes for routing packets from one network to another network.

Select **Route Settings** in the **Advanced Setup** menu to access the Route Settings window; see Figure 8-1.

Figure 8-1 Route Settings window

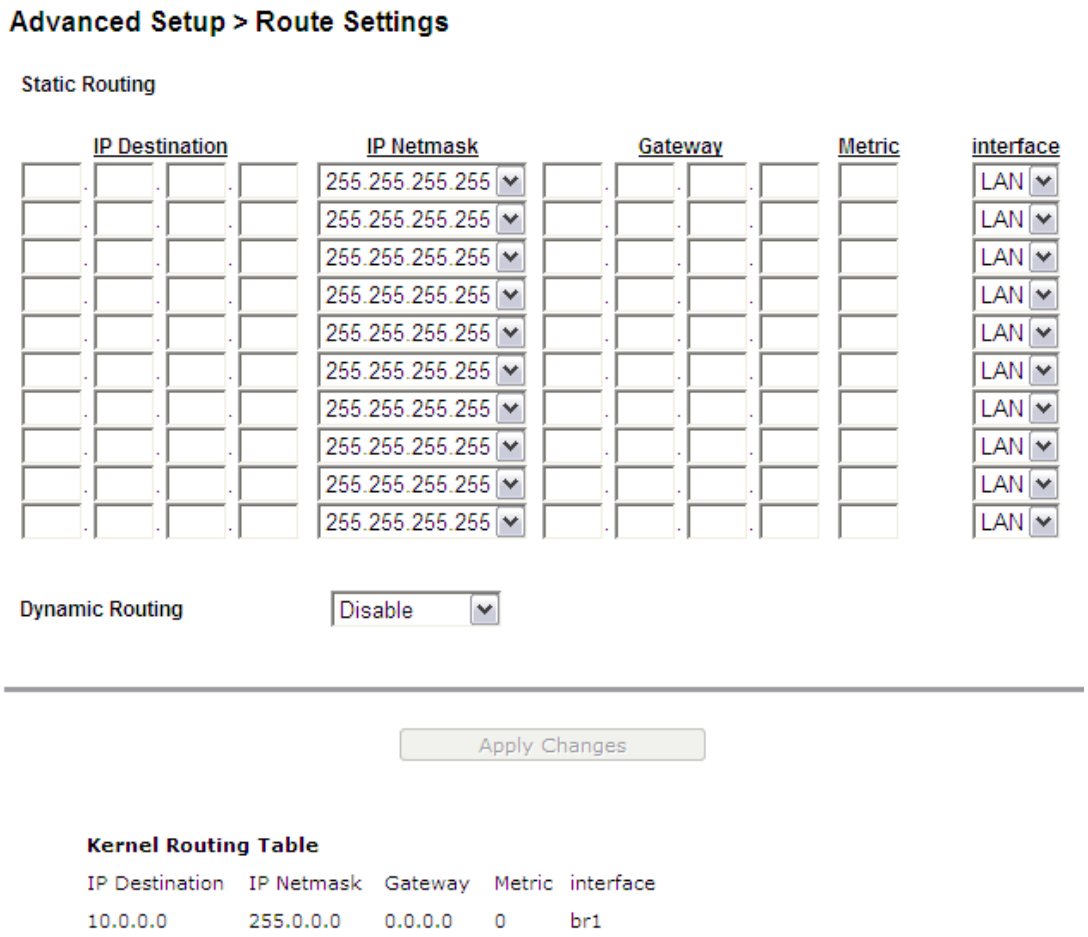


Table 8-1 describes the fields of the Route Settings window.

Table 8-1 Field descriptions

Field	Description
Static Routing	
IP Destination	Enter the IP address of the destination network.
IP Netmask	Select the subnet mask of the destination network.
Gateway	Enter the IP address of the gateway for the destination network.
Metric	In order to determine the best route, a value is used to specify the cost of the route (the metric value). Enter the metric value in the metric field. IP routing uses hop count as measurement of the metric.

Field	Description
Interface	Select **LAN** or **WAN(DHCP1)** interface. The packets sent to the addresses of the destination IP address are sent through this interface. However, for the WAN interface it will depend on the WAN configuration you choose and how it is defined.
Dynamic Routing	Select **Enable** to use dynamic routing instead of static. Dynamic routing enables the router to adapt to changes in the network and exchange rating tables with other routers. Select **Disable** to turn off dynamic routing.
Apply Changes	Click to save your changes.

DNS Settings

The DNS Settings window enables you to configure the domain name and IP address of the domain name.

Note: You can set up to 64 entries.

Select **DNS Settings** in the **Advanced Setup** menu to access the DNS Settings window; see Figure 8-2.

Figure 8-2 DNS Settings window

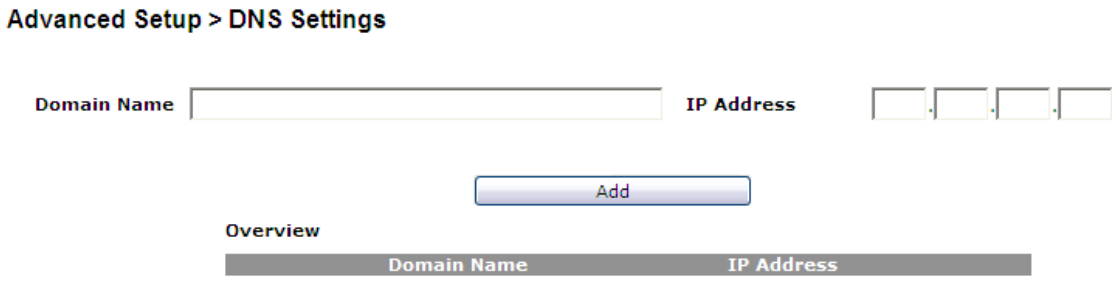


Table 8-2 describes the fields of the DNS Settings window.

Table 8-2 Field descriptions

Field	Description
Domain Name	Enter the domain name to which you want to connect.
IP Address	Enter the IP address of the Static DNS.

Field	Description
Add	Click to add the DNS settings and save your changes.

Dynamic DNS

The Dynamic DNS (DDNS) window enables you to configure your registered domain name with a dynamic IP address.

Note: Before you can use this feature, you need to register for a DDNS service at one of the supported DDNS service providers; see DynDNS.org or ChangeIP.com.

Click on **Dynamic DNS** in the **Advanced Setup** menu to access the Dynamic DNS (DDNS) window; see Figure 8-3.

Figure 8-3 Dynamic DNS window

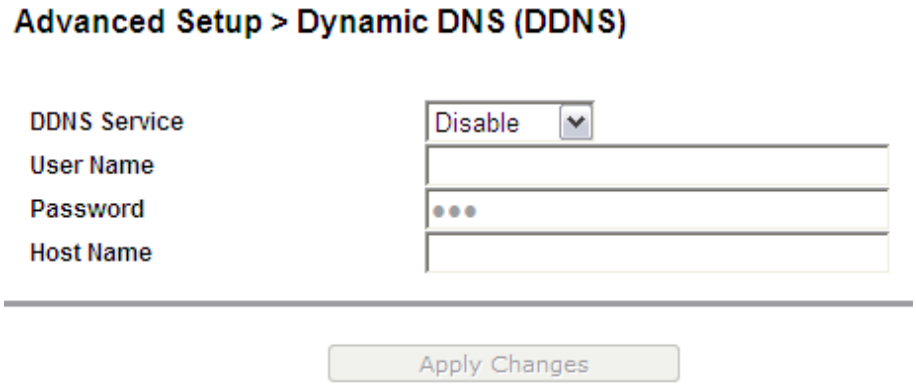


Table 8-3 describes the fields of the Dynamic DNS (DDNS) window.

Table 8-3 Field descriptions

Field	Description
DDNS Service	If you have registered a DDNS, select the DDNS service. Select **Disable** to turn off DDNS.
User Name	Enter the username of your DDNS account.
Password	Enter the password of your DDNS account.
Host Name	Enter the host name.
Apply Changes	Click to save your changes.

System Log

The System Log window enables you to view the system logs and to send them to a remote system log server.

Click on **System Log** in the **Advanced Setup** menu to access the system log window; see Figure 8-4.

Figure 8-4 System Log window

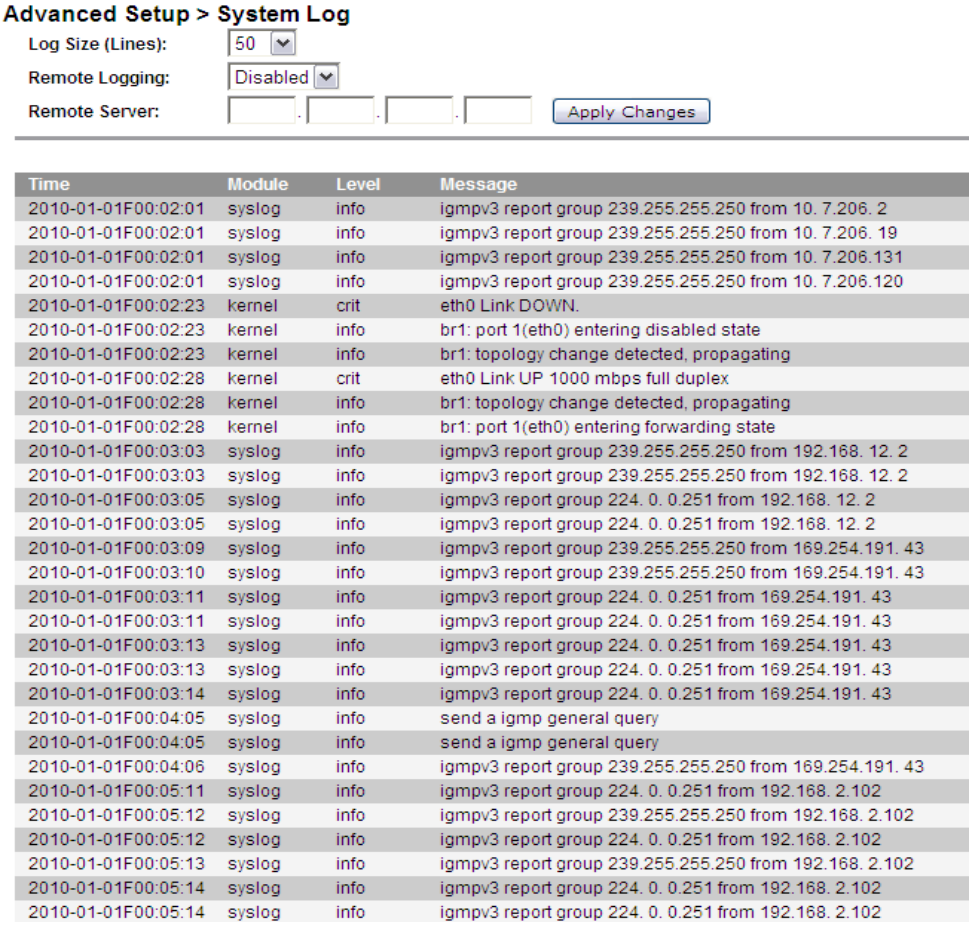


Table 8-4 describes the fields of the System Log window.

Table 8-4 Field descriptions

Field	Description
Log Size (Lines)	Select the number of lines to display in the log.
Remote Logging	Select **LAN** or **WAN** for the remote logging server. Select **Disable** to turn off remote logging.
Remote Server	Enter the IP address of the remote logging server.

Field	Description
Apply Changes	Click to save your changes and to view the log. If you are configuring remote logging, click **Apply Changes** after modifying the remote logging and remote server fields.
Time (read-only)	The time that the event occurred.
Module (read-only)	The type of module involved in the event.
Level (read-only)	The level of logging activity: • **EMERG** • **ALERT** • **CRIT** • **ERR** • **WARNING** • **NOTICE** • **INFO** • **DEBUG**
Message	The details of the event that occurred.

IGMP Proxy/Snooping

The IGMP Proxy/Snooping window enables you to setup LAN-side IGMP support that enables the LAN-side user to receive multicast traffic.

Click on **IGMP Proxy/Snooping** in the **Advanced Setup** menu to access the IGMP Proxy/Snooping window; see Figure 8-5.

Figure 8-5 IGMP Proxy/Snooping window

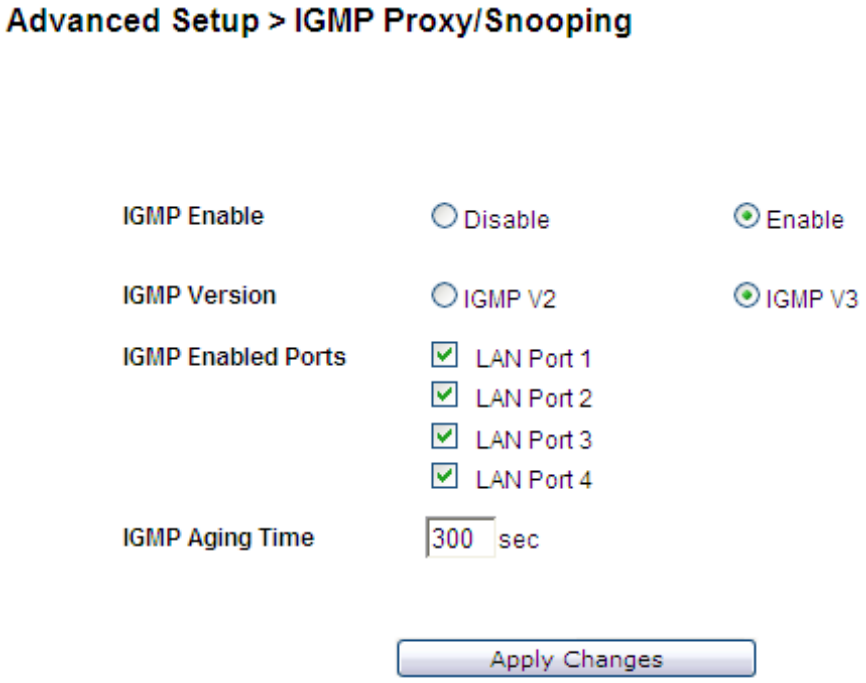


Table 8-5 describes the fields of the IGMP Proxy/Snooping window.

Table 8-5 Field descriptions

Field	Description
IGMP Enable	Select **Enable** to allow IGMP support. Select **Disable** to turn off IGMP support.
IGMP Version	Select the IGMP version to use.
IGMP Enabled Ports	Enable LAN Port 1 to 4 to enable IGMP support for each selected LAN port.
IGMP Aging Time	Enter the IGMP aging time in seconds.
Apply Changes	Click to save your changes.

802.1x Config

The 802.1x Config window enables you to setup the 802.1x configuration. 802.1x is an authentication mechanism for clients connecting to an IEEE 802 network such as Ethernet (access) networks and 802.11 (public) wireless LANs.

Click on **802.1x Config** in the **Advanced Setup** menu to access the 802.1x Config window; see Figure 8-6.

Figure 8-6 802.1 x Config window

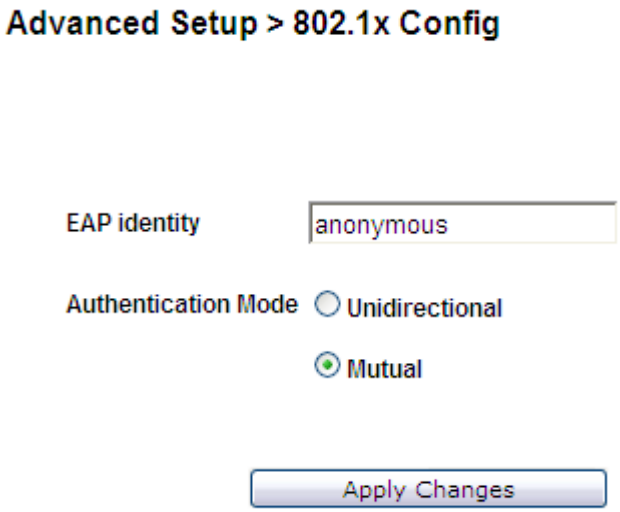


Table 8-6 describes the fields of the 802.1x Config window.

Table 8-6 Field descriptions

Field	Description
EAP identify	Enter the EAP identity.
Authentication Mode	Select **Unidirectional** or **Mutual** support for each authentication mode.
Apply Changes	Click to save your changes.

9 QoS PTM setup

Overview

This chapter explains how to configure the QoS settings via PTM. QoS is the ability to provide better service to selected applications and data flows.

Click **QoS PTM Setup** in the main menu to open the **QoS PTM Setup** menu.

Contents

This chapter covers the following topics:

QoS Overview

The QoS Overview window allows you to see all current QoS PTM settings.

Select **QoS Overview** in the **QoS PTM Setup** menu to access the QoS Overview window; see Figure 9-1.

Figure 9-1 QoS Overview window

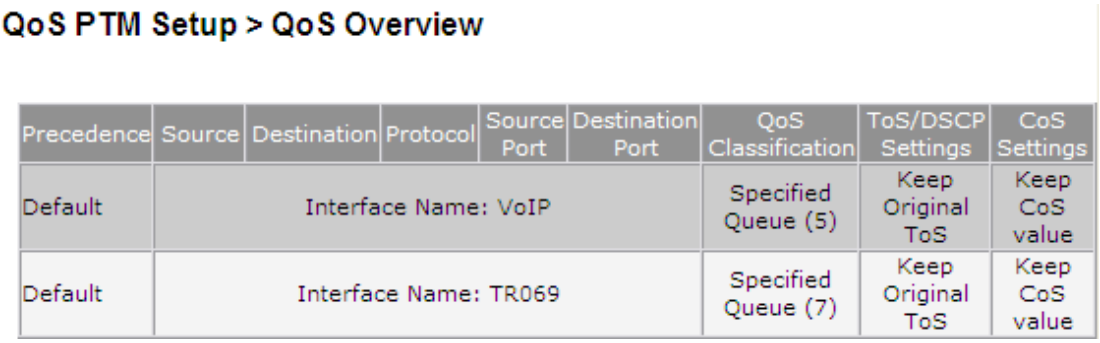


Table 9-1 describes the fields of the QoS Overview window.

Table 9-1 Field descriptions

Field	Description
Precedence (read-only)	Presents the priority of each QoS rule (Precedence 1 is the highest priority).
Source (read-only)	IP address of the source host.
Destination (read-only)	IP address of the destination host.
Protocol (read-only)	The protocol type for the QoS rule.
Source Port (read-only)	Port number of the source host.
Destination Port (read-only)	Port number of the destination host.
QoS Classification (read-only)	The classification of the QoS rule: • **Original ToS Tag**: the queue is assigned according to the ToS value of incoming traffic. • **Specified Queue**: incoming traffic is assigned to a specific queue (0 to 7).
ToS/DSCP Settings (read-only)	The ToS/DSCP marking setting for incoming traffic.
CoS Settings (read-only)	CoS setting for the QoS rule.

QoS Scheduler

The QoS Scheduler window allows you to enable and disable the scheduler protocol and determine the upstream bandwidth.

Select **QoS Scheduler** in the **QoS PTM Setup** menu to access the QoS Scheduler window; see Figure 9-2.

Figure 9-2 QoS Upstream Scheduler window

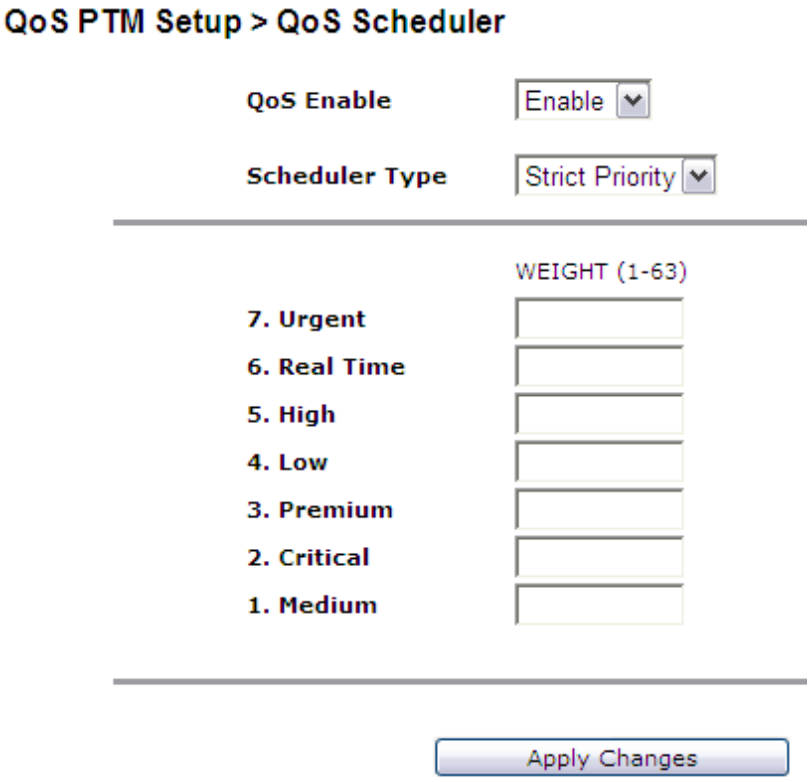


Table 9-2 describes the fields of the QoS Upstream Scheduler window.

Table 9-2 Field descriptions

Field	Description
QoS Enable	Select **Enable** to activate the QoS scheduler. Select **Disable** to turn off the QoS scheduler.
Scheduler Type	Select the QoS scheduler type: • **Strict Priority**: delivers high priority (7 is the highest) traffic first and then lower priority traffic when higher queues are empty. • **Min - Max Bandwidth**: specifies the minimum and maximum bandwidth for each queue.
Aggregate Rate Limiter	Enter an upstream bandwidth value from 100 to 200000 Kb/s for your WAN connection. The default value is 50000 Kb/s.
7. Urgent	Specify the minimum and maximum bandwidth for the urgent queue.
6. Real Time	Specify the minimum and maximum bandwidth for the real-time queue.
5. High	Specify the minimum and maximum bandwidth for the high queue.

Field	Description
4. Low	Specify the minimum and maximum bandwidth for the low queue.
3. Premium	Specify the minimum and maximum bandwidth for the premium queue.
2. Critical	Specify the minimum and maximum bandwidth for the critical queue.
1. Medium	Specify the minimum and maximum bandwidth for the medium queue.
Apply Changes	Click to save your changes.

QoS Policy

The QoS Policy window enables you to group upstream traffic into data flows according to the source address, destination address, source port, and destination port.

Select **QoS Policy** in the **QoS PTM Setup** menu to access the QoS Policy window; see Figure 9-3.

Figure 9-3 QoS Policy window

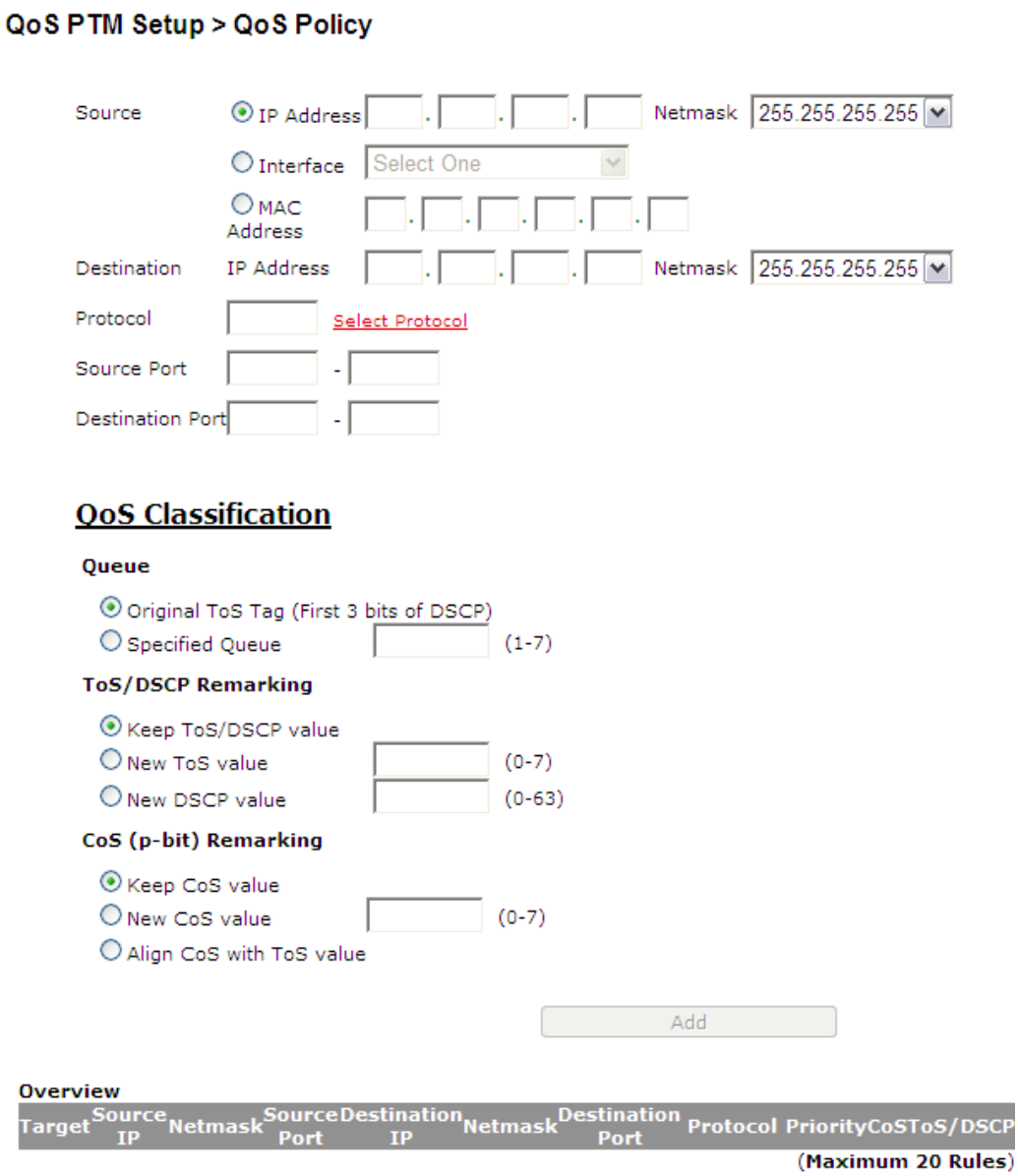


Table 9-3 describes the fields of the QoS Policy window.

Table 9-3 Field descriptions

Field	Description
Source	
IP Address	Select the radio button and enter the IP address of the source host.
Netmask	Select the subnet mask of the source host.
Interface	Select the radio button and select a connection to configure its QoS policy.
MAC Address	Select the radio button and enter the MAC address.
Destination	
IP Address	Enter the IP address of the destination host.
Netmask	Select the subnet mask of the destination host.
Protocol	Click **Select Protocol** to choose a protocol.
Source Port	Enter the range of source ports for this QoS policy.
Destination Port	Enter the range of destination ports for this QoS policy.
QoS Classification	
Queue	Select one of the following: • **Original ToS Tag** to assign the queue according to the incoming ToS value. • **Specified Queue** and enter a queue number (0 to 7) to assign to the incoming traffic.
ToS/DSCP Remarking	Select one of the following: • **Keep Original ToS/DSCP** to retain the original value. • **New ToS Value** and enter a queue number (0 to 7) to assign to the incoming traffic. • **New DSCP Value** and enter a DSCP value (0 to 63).
CoS (p-bit) Remarking	Select one of the following: • **Keep CoS Value** to retain the original value. • **New CoS Value** to set a new CoS value for incoming traffic. • **Align CoS with ToS value** to set CoS same as the ToS value for incoming traffic.
Add	Click to add the policy and save your changes.
Overview	
Target	Upstream or Downstream. Target 1 is the highest priority.

Field	Description
Source IP	IP address of the source host.
Netmask	Subnet mask of the source IP address.
Source Port	Port number of the source host.
Destination IP	IP address of the destination host.
Netmask	Subnet mask of the destination IP address.
Destination Port	Port number of the destination host.
Protocol	The protocol type for this QoS policy.
Priority	The priority queue (0 to 7) used by the traffic.
CoS	CoS value of the QoS policy.
ToS/DSCP	ToS/DSCP marking setting for incoming traffic.
Change Precedence	Select a QoS rule precedence number and then select where to move it: • **Up**: move this QoS rule to higher priority. • **Down**: move this QoS rule to lower priority. • **Delete**: remove this QoS rule. Click **Apply** to change the precedence.

QoS Phone

The QoS Phone window enables you to configure DSCP value and CoS value of SIP and RTP Sessions.

Select **QoS Phone** in the **QoS PTM Setup** menu to access the QoS Phone window; see Figure 9-4.

Figure 9-4 QoS Phone window

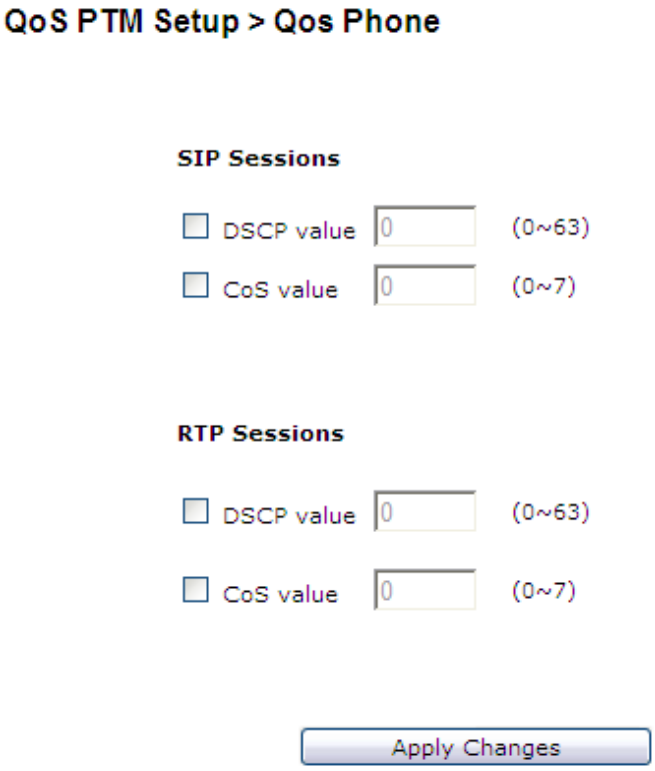


Table 9-4 describes the fields of the QoS Phone window.

Table 9-4 Field descriptions

Field	Description
SIP Sessions/RTP Sessions	
DSCP value	Check the check box to enter a DSCP value (0 to 63).
CoS value	Check the check box to enter a CoS value (0 to 7).
Apply Changes	Click to save your changes.

QoS ALG

The QoS ALG window enables you to configure SIP and RTP. SIP is used by VoIP and RTP is the protocol for transferring real-time data (such as interactive audio and video).

Select **QoS ALG** in the **QoS PTM Setup** menu to access the QoS ALG window; see Figure 9-5.

Figure 9-5 QoS ALG window

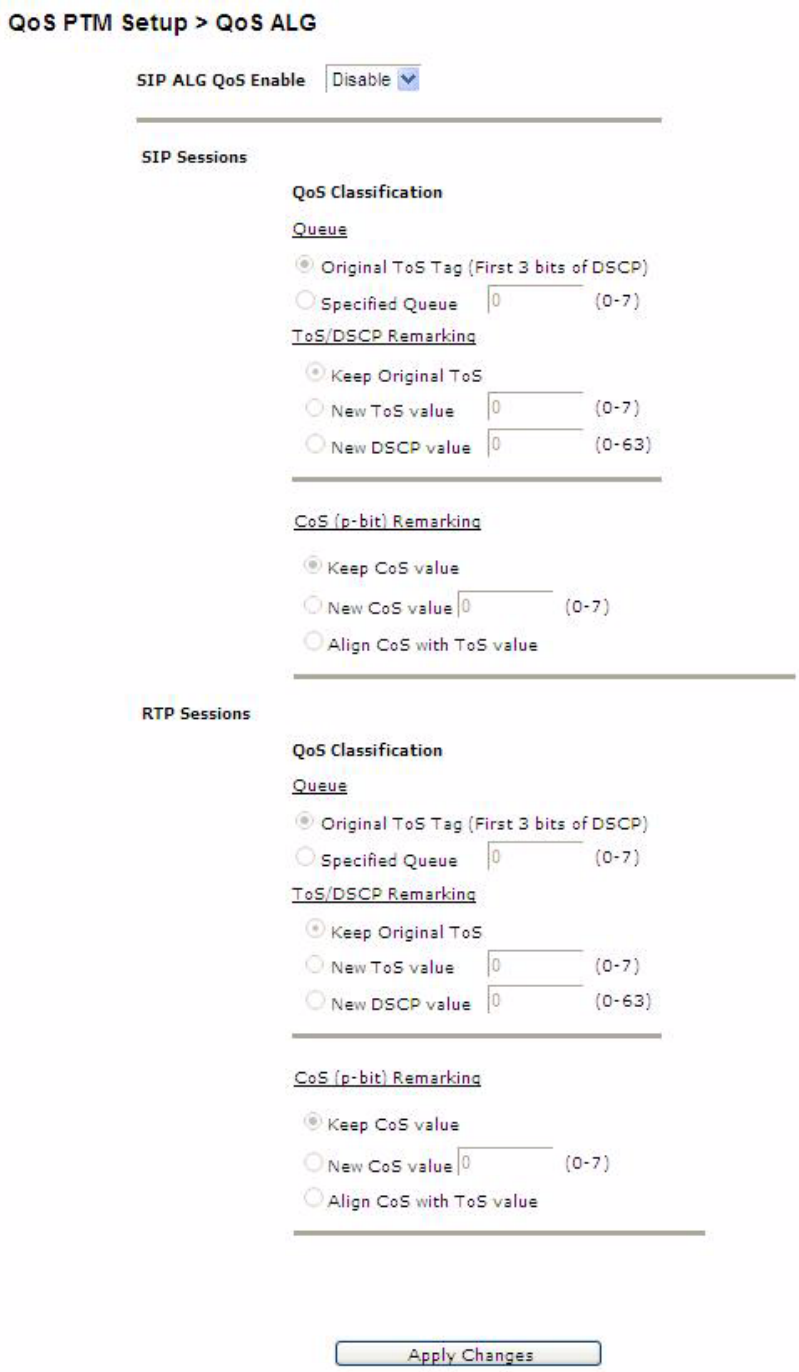


Table 9-5 describes the fields of the QoS ALG window.

Table 9-5 Field descriptions

Field	Description
SIP ALG QoS Enable	Select **Enable** to turn on the SIP ALG QoS. Select **Disable** to turn off the SIP ALG QoS.

Field	Description
SIP Sessions/RTP Sessions	
Queue	Select one of the following: • **Original ToS Tag** to assign the queue according to the incoming ToS value. • **Specified Queue** and enter a queue number (0 to 7) to assign to the incoming traffic.
ToS/DSCP Remarking	Select one of the following: • **Keep Original ToS/DSCP** to retain the original value. • **New ToS Value** and enter a queue number (0 to 7) to assign to the incoming traffic. • **New DSCP Value** and enter a DSCP value (0 to 63).
CoS (p-bit) Remarking	Select one of the following: • **Keep CoS Value** to retain the original value. • **New CoS Value** to set a new CoS value for incoming traffic. • **Align CoS with ToS value** to set CoS same as the ToS value for incoming traffic.
Apply Changes	Click to save your changes.

QoS Defaults

The QoS Defaults window enables you to configure the default QoS policy for each WAN connection.

Select **QoS Defaults** in the **QoS PTM Setup** menu to access the QoS Defaults window; see Figure 9-6.

Figure 9-6 QoS Defaults window

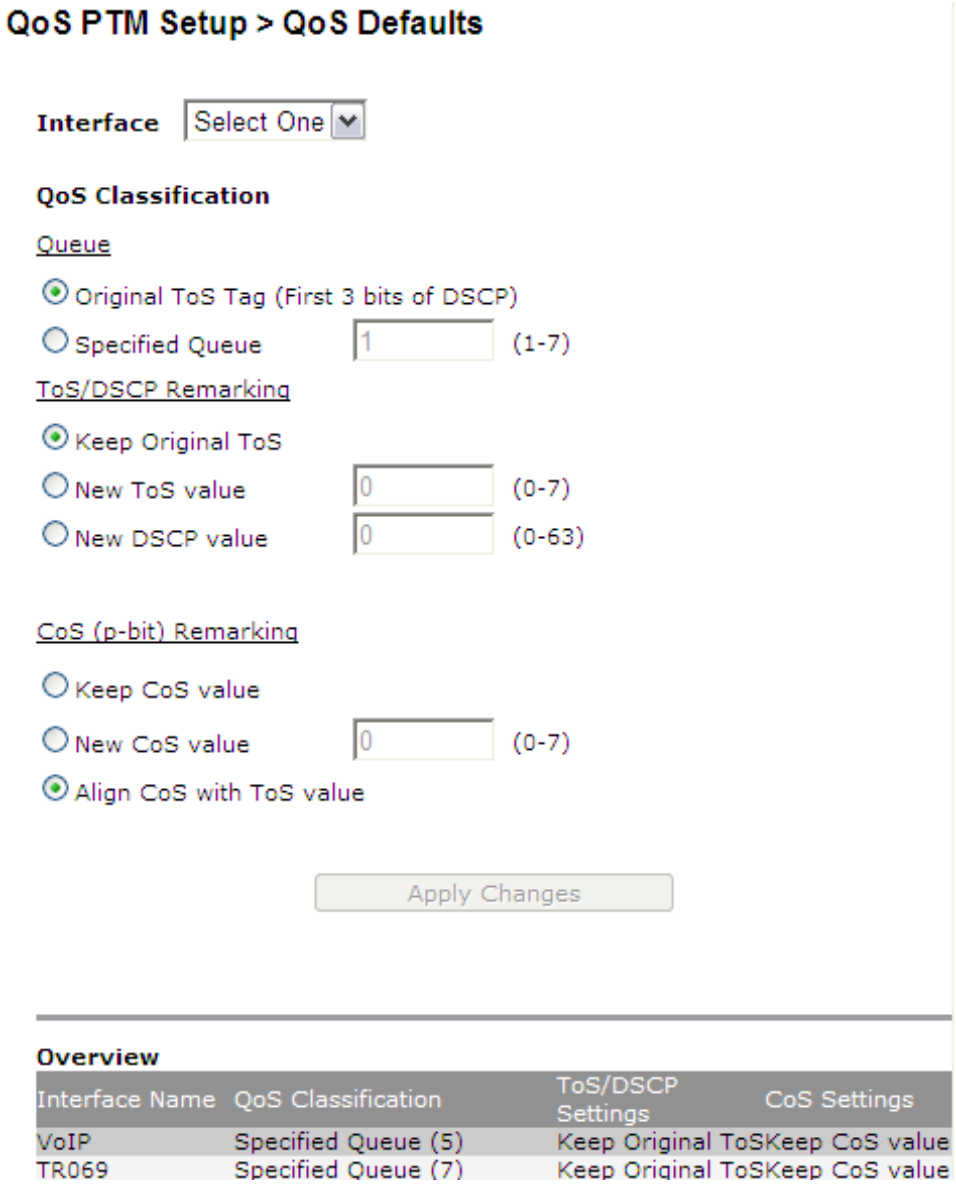


Table 9-6 describes the fields of the QoS Defaults window.

Table 9-6 Field descriptions

Field	Description
Interface	Select a WAN connection to configure its default QoS policy.
QoS Upstream Classification	
Queue	Select one of the following: • **Original ToS Tag** to assign the queue according to the incoming ToS value. • **Specified Queue** and enter a queue number (1 to 7) to assign to the incoming traffic.

Field	Description
ToS/DSCP Remarking	Select one of the following: • **Keep Original ToS/DSCP** to retain the original value. • **New ToS Value** and enter a queue number (0 to 7) to assign to the incoming traffic. • **New DSCP Value** and enter a DSCP value (0 to 63).
CoS (p-bit) Remarking	Select one of the following: • **Keep CoS Value** to retain the original value. • **New CoS Value** to set a new CoS value for incoming traffic. • **Align CoS with ToS value** to set CoS same as the ToS value for incoming traffic.
Overview	
Interface Name	The Interface name of WAN connection to configure its QoS policy.
QoS Upstream Classification	The classification of the QoS rule: • **Original ToS Tag**: the queue is assigned according to the ToS value of incoming traffic. • **Specified Queue**: incoming traffic is assigned to a specific queue (0 to 7).
ToS/DSCP Settings	The ToS/DSCP marking setting for incoming traffic.
CoS Settings	CoS setting for the QoS rule.

QoS MAC

The QoS MAC window enables you to configure a QoS policy for a specific device by MAC address when the gateway is operating in bridge mode.

Select **QoS MAC** in the **QoS PTM Setup** menu to access the QoS MAC window; see Figure 9-7.

Figure 9-7 QoS MAC window

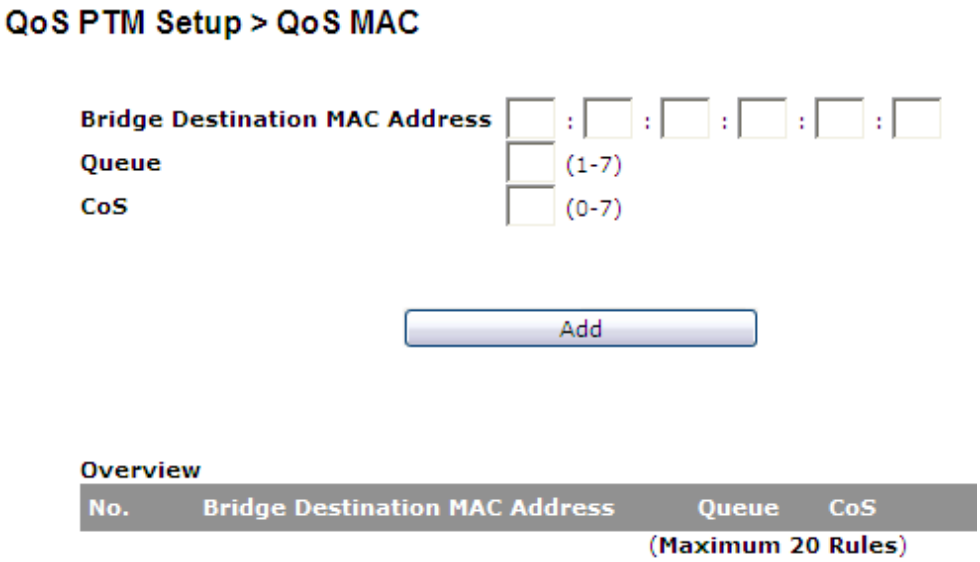


Table 9-7 describes the fields of the QoS MAC window.

Table 9-7 Field descriptions

Field	Description
Bridge Destination MAC Address	Specify the MAC address of QoS service user.
Queue	Specify which queue (1 to 7) will be assigned to this MAC address.
CoS	Specify the CoS value (0 to 7) that will be marked on packets coming from the MAC address.
Add	Click to add the rule.

10 Telephony

Overview

The CellPipe 7130 RG Telephony menu enables you to configure the settings for your VoIP account and view the calling log.

Click the **Telephony** drop-down menu to open the **Telephony** menu**.**

Contents

This chapter covers the following topics.

Account Setup

Your VoIP account setup can be configured here.

> **Note:** Some account information, such as the phone number and username, is provided by your VoIP service provider. Please have all the provided information handy when configuring your accounts.

Select **Account Setup** in the **Telephony** menu to access the Account Setup window; see Figure 10-1.

Figure 10-1 Account Setup window

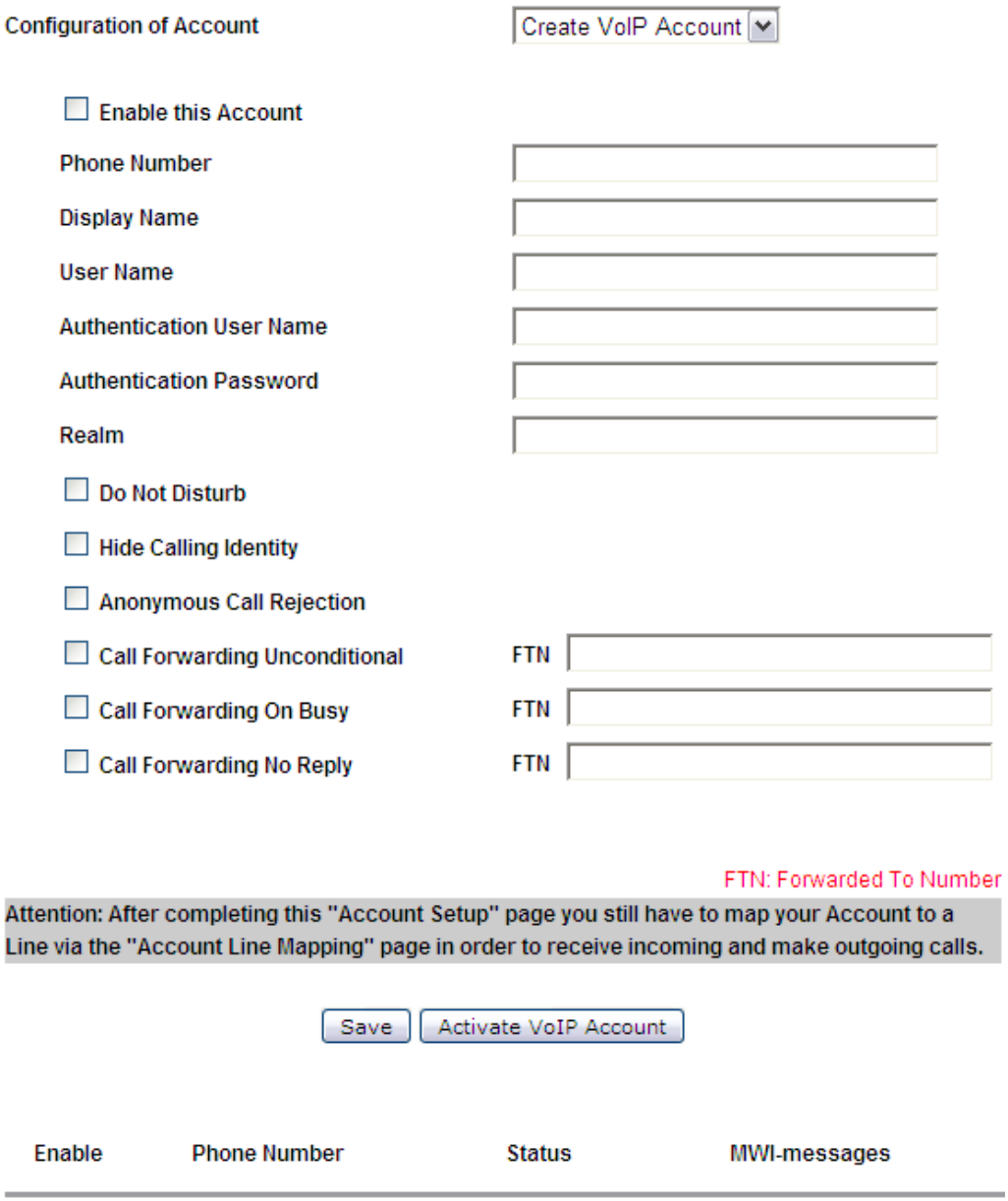


Table 10-1 describes the fields of the Account Setup window.

Table 10-1 Field descriptions

Field	Description
Configuration of Account	Select a VoIP account to configure or select **Create VoIP Account** to configure a new account.
Enable this Account	Check the check box to enable the account to register to the VoIP service provider.

Field	Description
Phone Number	Enter the phone number of the account.
Display Name	Enter the display name for the account.
User Name	The user part of the Address of Record SIP URI.
Authentication User Name	Enter the username of the account.
Authentication Password	Enter the password for the username.
Realm	Enter the realm for the account to authenticate.
Do Not Disturb	When the checkbox is "checked" the Do Not Disturb feature is activated. This will block all incoming phone calls to this number. The phone will not ring when this service is activated.
Hide Calling Identity	When the checkbox is "checked" the "Hide Calling identity" feature is activated. This will hide your identity when you make outgoing calls.
Anonymous Call Rejection	When the checkbox is "checked" the Anonymous Call Rejection" feature is activated. This will block an incoming call in case the remote party has activated the "Hide Calling Identity" feature for that call. So anynymous calls are rejected by the system when this service is activated.
Call Forwarding Unconditional	When the checkbox is "checked" the "Call Forwarding Unconditional" feature is activated. You must enter a phone number in the Forward To Number (FTN) field. The system will forward an incoming call to this FTN when this VoIP account is busy.
Call Forwarding On Busy	When the checkbox is "checked" the "Call Forwarding on Busy" feature is activated.You must enter a phone number in the Forward To Number (FTN) field. The system will forward an incoming call to this FTN.
Call Forwarding No Reply	When the checkbox is "checked" the "Call Forwarding No Reply" feature is activated. You must enter a phone number in the Forward To Number (FTN) field. The system will forward an incoming call to this FTN when this VoIP account is busy.
Save	Click to save your changes.
Activate VoIP Account	Click to register your account with your VoIP service provider.

Note: If you checked all these three features: Do Not Disturb, Anonymous Call Rejection and Call Forwarding Unconditional, The priorities are:

1. Do Not Disturb.

2. Anonymous Call Rejection.

3. Call Forwarding Unconditional.

For example, an incoming call will be rejected and the caller will receive a busy signal; the call will not be rejected if anonymous, nor forwarded to the specified number.

Service Settings

The Service Settings window enables you to configure advanced settings for the VoIP accounts such as call waiting and third party conference call.

Note: Changes made to the service settings apply to all VoIP accounts.

It is recommended that you contact your VoIP service provider for assistance with configuring the service settings. Depending on your account, some features might not be available.

Select **Service Settings** in the **Telephony** menu to access the Service Settings window; see Figure 10-2.

Figure 10-2 Service Settings window

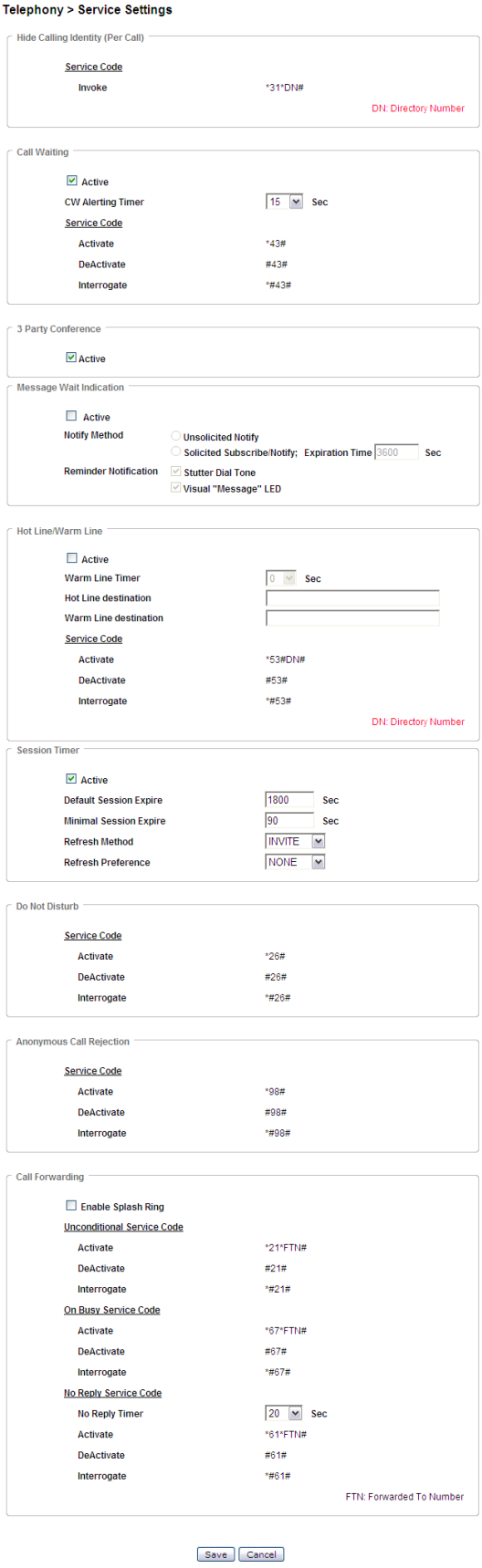


Table 10-2 describes the fields of the Service Settings window.

Table 10-2 Field descriptions

Field	Description
Hide Calling Identity (Per Call)	
Service Code	The activation code for hiding your account information when making a call.
Call Waiting	
Active	Enable **Active** to turn on call waiting.
CW Alerting Timer	Select a time interval for the call waiting alert.
Service Code	The service codes for activation, deactivation, and interrogation.
3 Party Conference	
Active	Enable **Active** to turn on conference call.
Message Wait Indication	
Active	Enable **Active** to turn on the message wait indicator when a message has been received.
Notify Method	Enable a method of notification for message wait indication: • **Unsolicited**: The CellPipe 7130 RG is able to receive unsolicited "message wait" NOTIFY messages. No SUBSCRIBE is used. • **Subscribe/Notify**: The CellPipe 7130 RG will initiate a SUBSCRIBE/NOTIFY dialogue in which "message wait" NOTIFY messages will be received. Enter the number of seconds that your VoIP service should provide. It is the expire time in seconds of your subscription to the voicemail service. The SIP user agent will refresh this subscription automatically before this timer runs out.
Reminder Notification	Enable one of the following as the message wait indication: • If **Stutter Dial Tone** is selected to indicate a new message has arrived, a stutter dial tone will be played when the phone is off the hook. • If **Visual "Message" LED** is selected to indicated a new message has arrived, the Message LED on the front panel of the CellPipe 7130 RG will start blinking.
Hot Line/Warm Line	

Field	Description
Active	Enable **Active** to use the hot line and warm line feature.
Warm Line Timer	Select a time period from the drop-down menu. Warm line will be activated after the timer has expired.
Hot Line destination	Enter a destination phone number for the hot line. When hot line is activated, picking up the phone will automatically place a call to the hot line destination.
Warm Line destination	Enter a destination phone number for the warm line. When warm line is activated, picking up the phone will automatically place a call to the warm line destination after the warm line timer has expired.
Service Code	The service codes for activation, deactivation, and interrogation.
Session Timer	
Active	Enable **Active** to turn on the session timer. When session timer is enabled, the CellPipe 7130 RG will periodically send a refresh message to refresh the session.
Default Session Expire	Enter the default number of seconds SIP session can remain idle before automatically disconnecting. Default value is 1800.
Minimal Session Expire	Enter the minimum number of seconds SIP session can remain idle before automatically disconnecting. Minimun value is 90.
Refresh Method	Select **Invite** or **Update** from the drop-down menu. This will be the type of message to send for refreshing session.
Refresh Preference	Select a refresher preference from the drop-down menu. Select **None** to let CellPipe 7130 RG decide. Select **UAC** to let caller refresh the session. Select **UAS** to let the receiver of the call refresh the session.
Don’t Disturb	
Service Code	The service codes for activation, deactivation, and interrogation of your do not disturb service.
Anonymous Call Rejection	

Field	Description
Service Code	The service codes for activation, deactivation, and interrogation of your anonymous call rejection service.
Call Forwarding	
Enable Splash Ring	Enable to receive a reminder when a incoming call is forwarded unconditionally.
Unconditional Service Code	The unconditional service codes for activation, deactivation, and interrogation of your call forwarding service.
On Busy Service Code	The on busy service codes for activation, deactivation, and interrogation of your call forwarding service.
No Reply Service Code	Select a time in seconds that the incoming call should wait before being forwarded. The default value is 20 seconds. The no reply service codes for activation, deactivation, and interrogation of your call forwarding service.
Save	Click to save your changes.
Cancel	Click to clear your settings.

SIP Server Settings

The Server Settings window enables you to configure the session initiated protocol (SIP) settings for the VoIP accounts.

> **Note:** It is recommended that you contact your VoIP service provider for assistance with configuring the server settings.

Select **SIP Server Settings** in the **Telephony** menu to access the Server Settings window; see Figure 10-3.

Figure 10-3 SIP Server Settings window

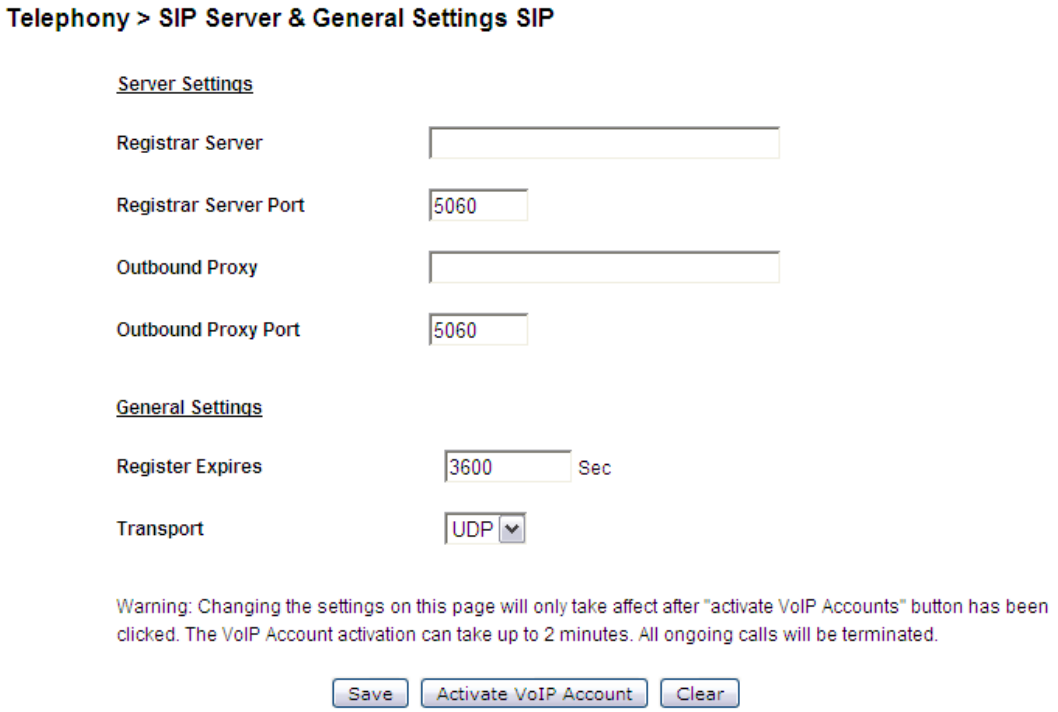


Table 10-3 describes the fields of the SIP Server Settings window.

Table 10-3 Field descriptions

Field	Description
Registrar Server	Enter the Fully Qualified Domain Name (FQDN) or IP address of the SIP registrar server of your VoIP provider.
Registrar Server Port	Enter the port number of the SIP registration server.
Outbound Proxy	Enter the Fully Qualified Domain Name (FQDN) or IP address of the Outbound Proxy server of your VoIP provider.
Outbound Proxy Port	Enter the port number of the outbound proxy server.
Register Expires	Enter the number of seconds that your SIP account is registered with the SIP registrar server before it is deleted. The default value is 3600 seconds.
Transport	Select the appropriate transport protocol for the user agent: • **UDP** • **TCP**
Save	Click to save your changes.
Activate VoIP Account	Click to register the account with your VoIP service provider.

Field	Description
Clear	Click to clear your settings.

RTP/Codecs settings

The RTP/Codecs settings window allows you to setup the codecs and ports for your voice traffic.

A codec (coder/decoder) codes analog voice signals into digital signals and decodes the digital signals back into analog voice signals. Select **RTP/Codecs Settings** in the **Telephony** menu to access the RTP/Codecs Settings window; see Figure 10-4.

Figure 10-4 RTP/Codecs Settings window

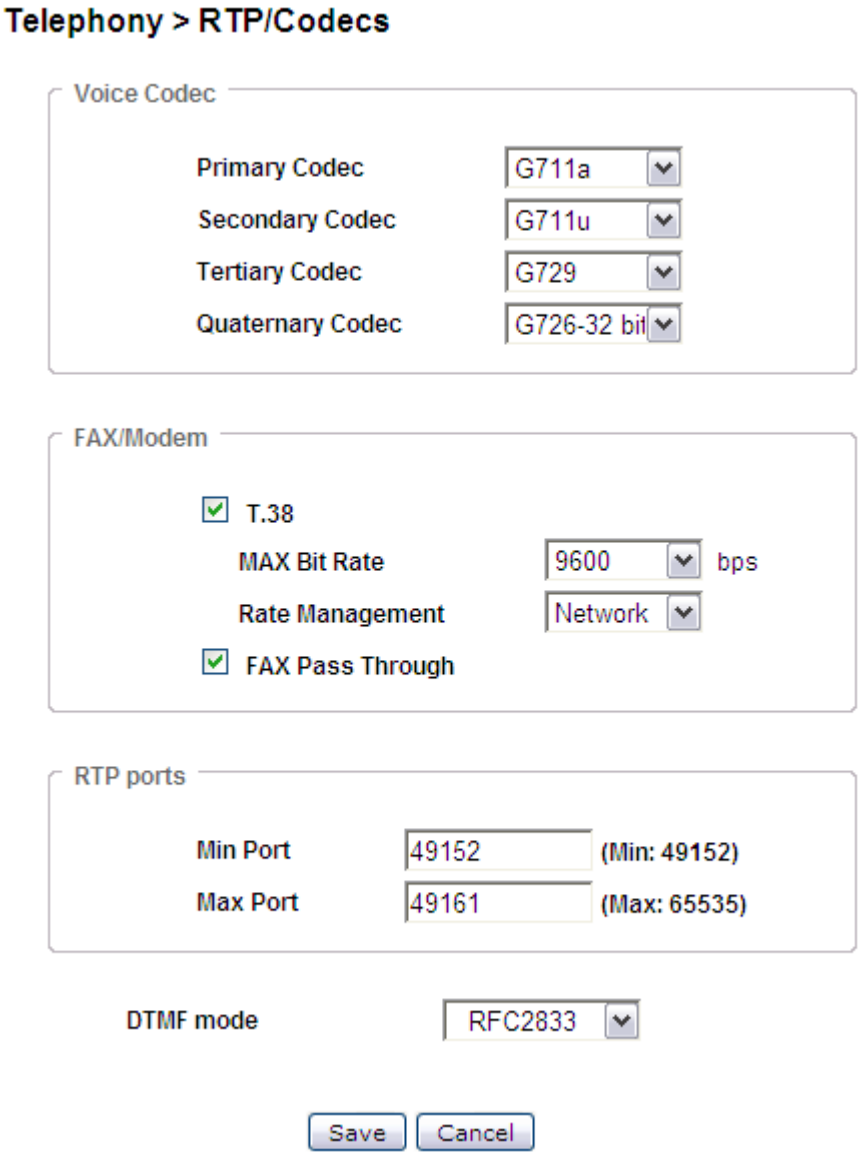


Table 10-4 describes the fields of the RTP/Codecs Settings window.

Table 10-4 Field descriptions

Field	Description
Voice Codec	
Primary Codec/Secondary Codec/Tertiary Codec/Quaternary Codec	Select the priorities of your codec.
Fax/Modem	
T.38	Enable to allow the device to send fax messages through IP networks.
MAX Bit Rate	Select the maximum bit rate in b/s for fax messages.

Field	Description
Rate Management	Select the data rate management: • Select **Network** data rate management to require that the training signal be transferred over the network. • Select **Local** data rate management to require that the training signal be generated locally. The default is **Network**.
Fax Pass Through	Enable to apply fax passthrough.
RTP Ports	
Min Port	Enter the minimum port of the RTP listening port range.
Max Port	Enter the maximum port of the RTP listening port range.
DTMF Mode	Select how the device handles the tones that your telephone makes when the phone buttons are pressed. • Select **RFC2833** to send the DTMF tones in RTP packets. • Select **SIP INFO** to send the DTMF tones in SIP messages. • Select **INBAND** to send the DTMF tones in the voice data stream. **Note:** Please consult your VoIP service provider for details.
Save	Click to save your changes.
Cancel	Click to clear your settings.

Account & Line Table

The Account & Line Table enables you to specify which VoIP accounts are associated with your phone ports/lines.

Select **Account & Line Table** in the **Telephony** menu to access the Account & Line Table window; see Figure 10-5.

Figure 10-5 Account and Line Table window

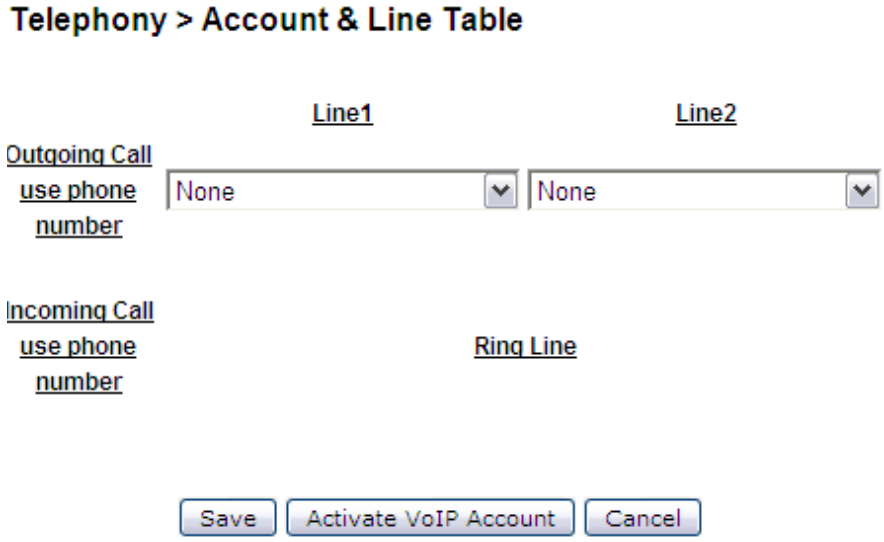


Table 10-5 describes the fields of the Account & Line Table window.

Table 10-5 Field descriptions

Field	Description
Outgoing Call use phone number	Select the VoIP account to be associated with Line1 and Line2. This VoIP account (phone number) will be used as the "Calling number" when initiating a call from the corresponding Line.
Incoming Call use phone number	Select which Line will ring when you receive an incoming call for a certain VoIP account (phone number). When you create a VoIP account, a phone number is added by the system in the "Incoming Call use phone number" list. When you delete a VoIP account, the corresponding phone number is removed from this list.
Save	Click to save your changes.
Activate VoIP Account	Click to register the account with your VoIP service provider.
Cancel	Click to clear your settings.

Call History

The Call History window displays the call statistics and call log of your VoIP accounts.

Select **Call History** in the **Telephony** menu to access the Call History window; see Figure 10-6.

Figure 10-6 Call History window

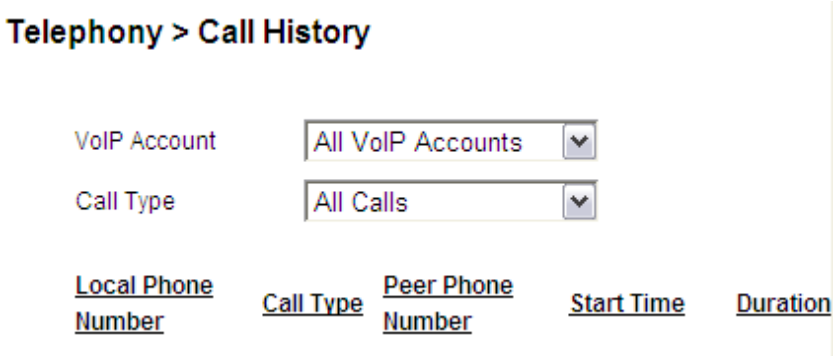


Table 10-6 describes the fields of the Call History window.

Table 10-6 Field descriptions

Field	Description
VoIP Account	Select the VoIP account(s) to display the selected account(s) statistics and logs.
Call type	Select the type of calls to display the specified type of calls statistics and logs.

Other Settings

The Other Settings window allows you to change the profile for various countries in order for that country's telephone to operate.

Select **Other Settings** in the **Telephony** menu to access the Other Settings window; see Figure 10-7.

Figure 10-7 Other Settings window

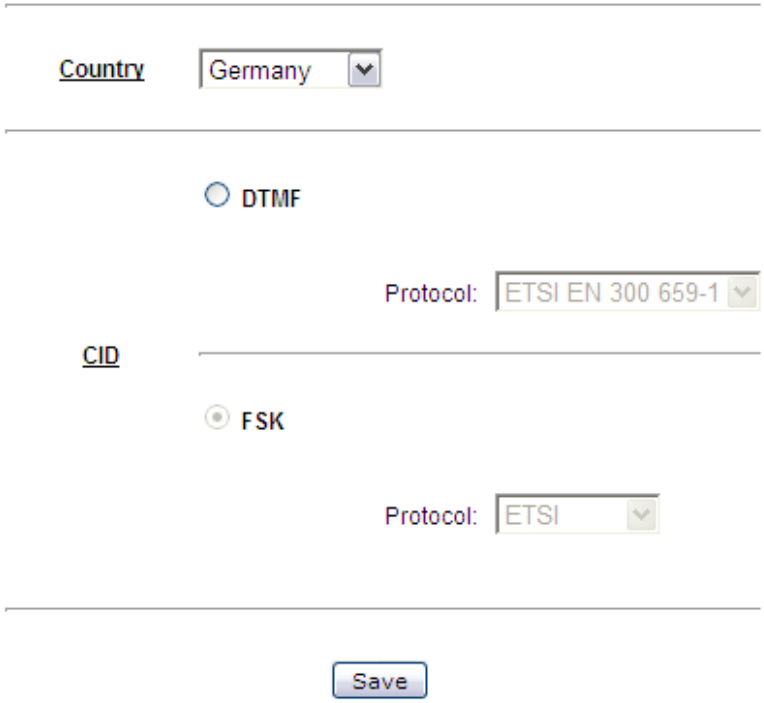


Table 10-7 describes the fields of the Other Settings window.

Table 10-7 Field descriptions

Field	Description
Country	Select a country from the list. It will change ring cadence, impedence and DC feed settings to meet that country's requirement. You must reboot the CellPipe 7130 RG for your changes to take effect.
DTMF	Only one protocol is available, ETSI EN 300 659-1
CID	Choose between two different types of CID to specify how the CID are transmitted to the phone. Each CID type has its own protocols.
FSK	Choose between ETSI or Telecordia.
Save	Click to save your changes.

11 Utilities

Overview

This chapter explains how to configure the utilities of the CellPipe 7130 RG.

Click **Utilities** in the main menu to open the **Utilities** menu.

Contents

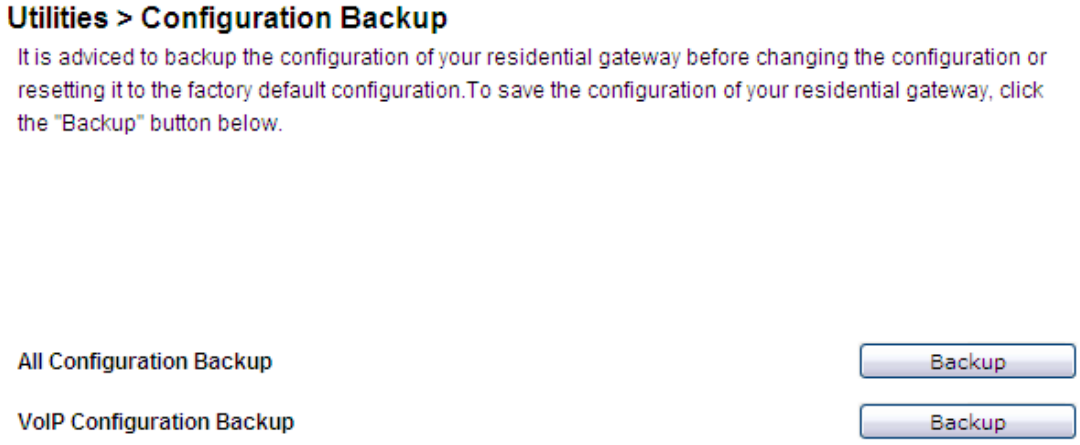
This chapter covers the following topics:

Configuration Backup

The Configuration Backup window enables you to backup your configuration of the CellPipe 7130 RG to a file and store it on your computer.

Select **Configuration Backup** in the **Utilities** menu to access the Configuration Backup window; see Figure 11-1.

Figure 11-1 Configuration Backup window



Click **Backup** to save your system configuration.

Configuration Restore

The Configuration Restore window enables you to restore a saved configuration of the CellPipe 7130 RG from a backup file.

CAUTION

Restoring a stored configuration will overwrite any existing configurations.

Select **Configuration Restore** in the **Utilities** menu to access the Configuration Restore window; see Figure 11-2.

Figure 11-2 Configuration Restore window

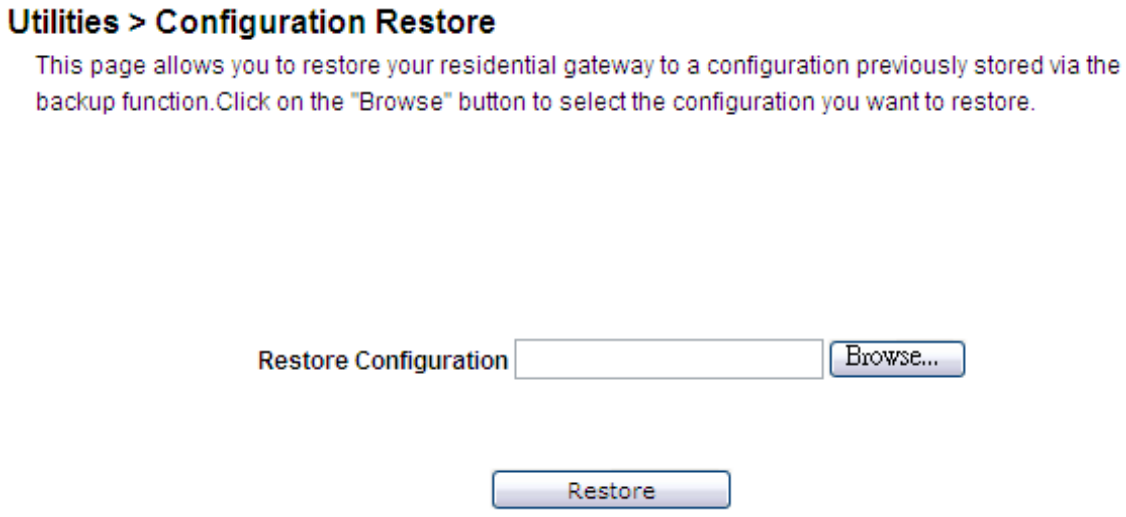


Table 11-1 describes the fields of the Configuration Restore window.

Table 11-1 Field descriptions

Field	Description
Restore Configuration	Click **Browse** and select a configuration backup file to restore.
Restore	Click to restore the configuration.

Firmware Upgrade

The Firmware Upgrade window enables you to update the firmware of the CellPipe 7130 RG.

Note: The new firmware file must be downloaded and saved to your computer or a storage device before uploading.

WARNING

Do not turn off the power or disturb the system during a firmware upgrade.

Select **Firmware Upgrade** in the **Utilities** menu to access the Firmware Upgrade window; see Figure 11-3.

Figure 11-3 Firmware Upgrade window

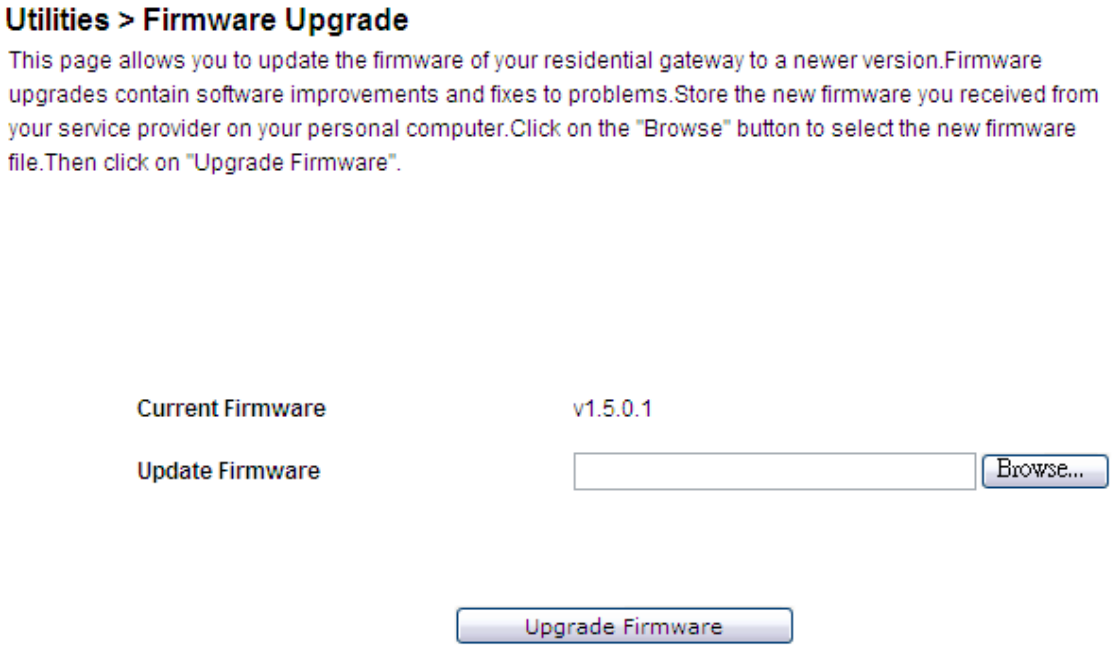


Table 11-2 describes the fields of the Firmware Upgrade window.

Table 11-2 Field descriptions

Field	Description
Current Firmware	The current firmware version.
Update Firmware	Click **Browse** to locate and select the firmware upgrade file to upload. New firmware is available from http://www.alcatel-lucent.com/wps/portal/support. **Note:** You must obtain the upgrade file before uploading.
Upgrade Firmware	Click to update the firmware.

System Settings

The System Settings window enables you to change the web administrator username and password and configure settings such as the time zone, NTP, and daylight savings.

Note: It is highly recommended that you change the default administrator username and password and the default Telnet username and password.

Select **System Settings** in the **Utilities** menu to access the System Settings window; see Figure 11-4.

Figure 11-4 System Settings window

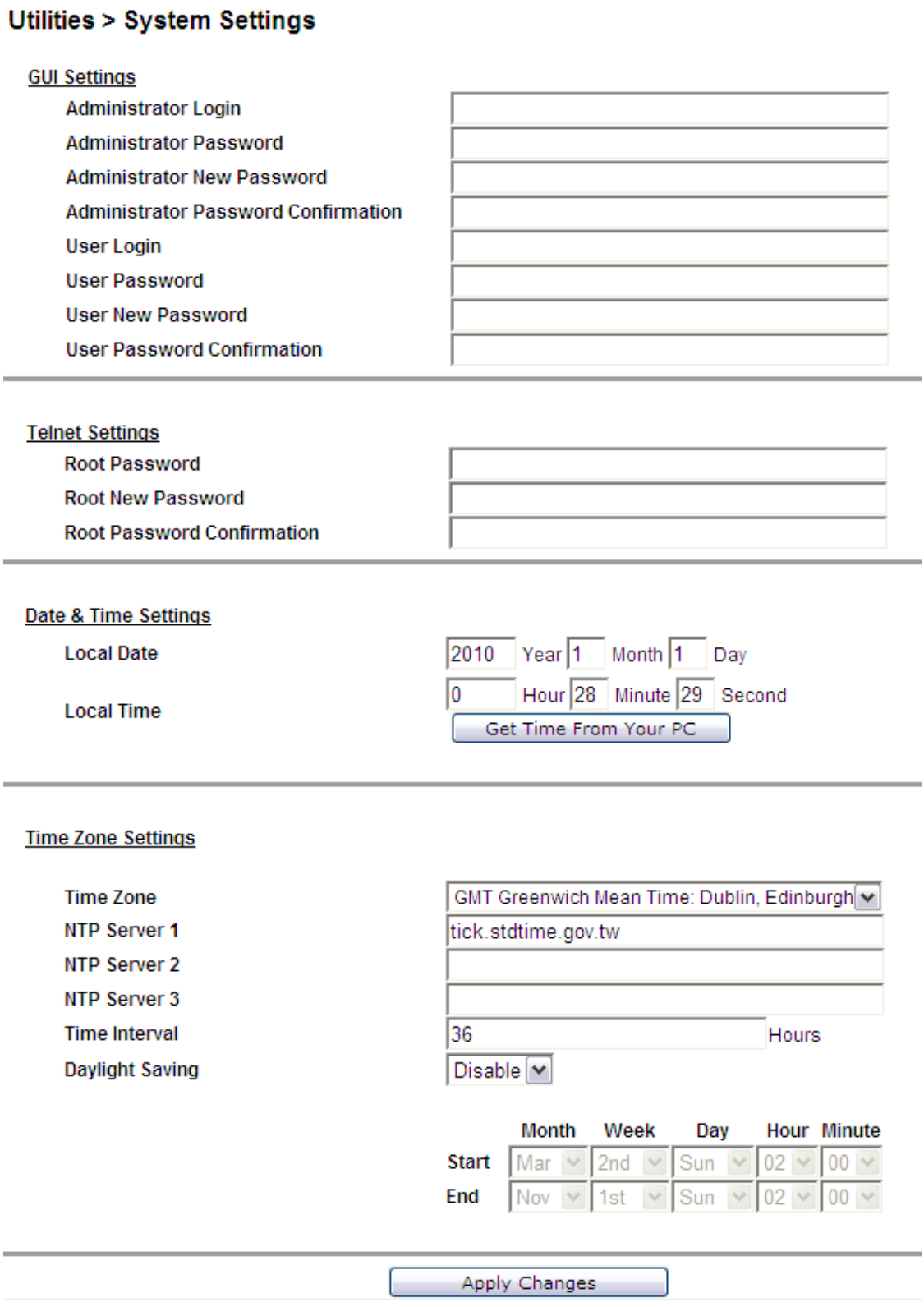


Table 11-3 describes the fields of the System Settings window.

Table 11-3 Field descriptions

Field	Description
GUI Settings	
Administrator Login	Enter a new administrator username.
Administrator Password	Enter the current administrator password. **Note:** If this is the first time the admin password is being changed, the default admin password is **admin**.
Administrator New Password	Enter a new administrator password.
Administrator Password Confirmation	Retype the new password to confirm.
User Login	Enter a new username.
User Password	Enter the current user password. **Note:** If this is the first time the user password is changed, the default user password is **user**.
User New Password	Enter a new user password.
User Password Confirmation	Retype the new password to confirm.
Telnet Settings	
Root Password	Enter the current Telnet root password. **Note:** If this is the first time the root password is changed, the default root password is **admin**.
Root New Password	Enter a new Telnet password.
Root Password Confirmation	Retype the new password to confirm.
Date & Time Settings	
Local Date	Displays the current date according to the time zone configuration.
Local Time	Displays the current time according to the time zone configuration.
Get Time From Your PC	Click to set the time according to your PC.
Time Zone Settings	
Time Zone	Select your time zone.
NTP Server 1 to 3	Enter the IP address or URL of the NTP server.
Time Interval	Enter an interval time in hours.
Daylight Saving	Select **Enable** to turn on daylight savings. Select **Disable** to turn off daylight savings.

Field	Description
Start/End	If you have enabled daylight savings, select the **Month**, **Week**, **Day**, **Hour**, and **Minute** for the daylight savings to start and end.
Apply Changes	Click to save your changes.

Management Access Control

The Management Access Control window enables you to control who can access the service provided by the gateway.

Note: It is recommended that you consult your ISP before configuring access.

Select **Management Access** in the **Utilities** menu to access the Management Access Control window; see Figure 11-5.

Figure 11-5 Management Access Control window

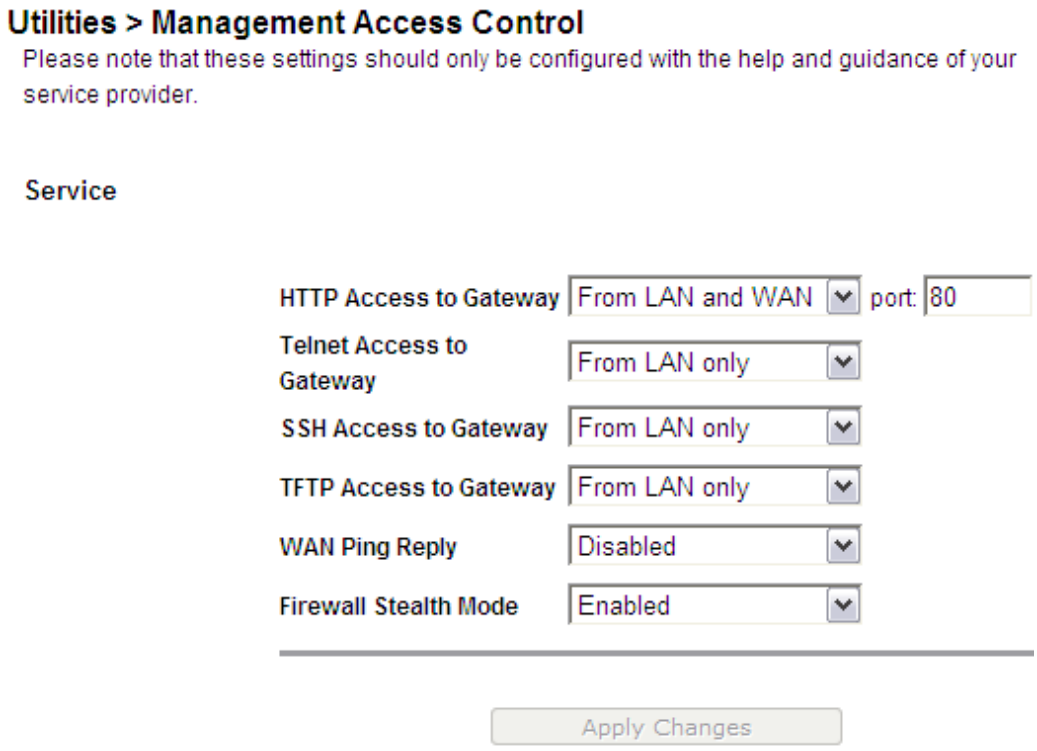


Table 11-4 describes the fields of the Management Access Control window.

Table 11-4 Field descriptions

Field	Description
HTTP Access to Gateway Telnet Access to Gateway SSH Access to Gateway TFTP Access to Gateway	Select one of the following settings: • **Disable** • **From LAN only** • **From WAN only** • **From LAN and WAN**
WAN Ping Reply	Select **Enable** to allow the WAN interface to respond to the echo request from the default WAN connection. Select **Disable** to deny the WAN interface from responding to the echo request from the default WAN connection.
Firewall Stealth Mode	Select **Enable** to allow firewall to drop all stealth or unknown traffic. Select **Disable** to accept all unknown traffic.
Apply Changes	Click to save your changes.

CWMP Management

The CWMP Management window enables you to configure remote access of the CellPipe 7130 RG.

Select **CWMP Management** in the **Utilities** menu to access the CWMP Management window; see Figure 11-6.

Figure 11-6 CWMP Management window

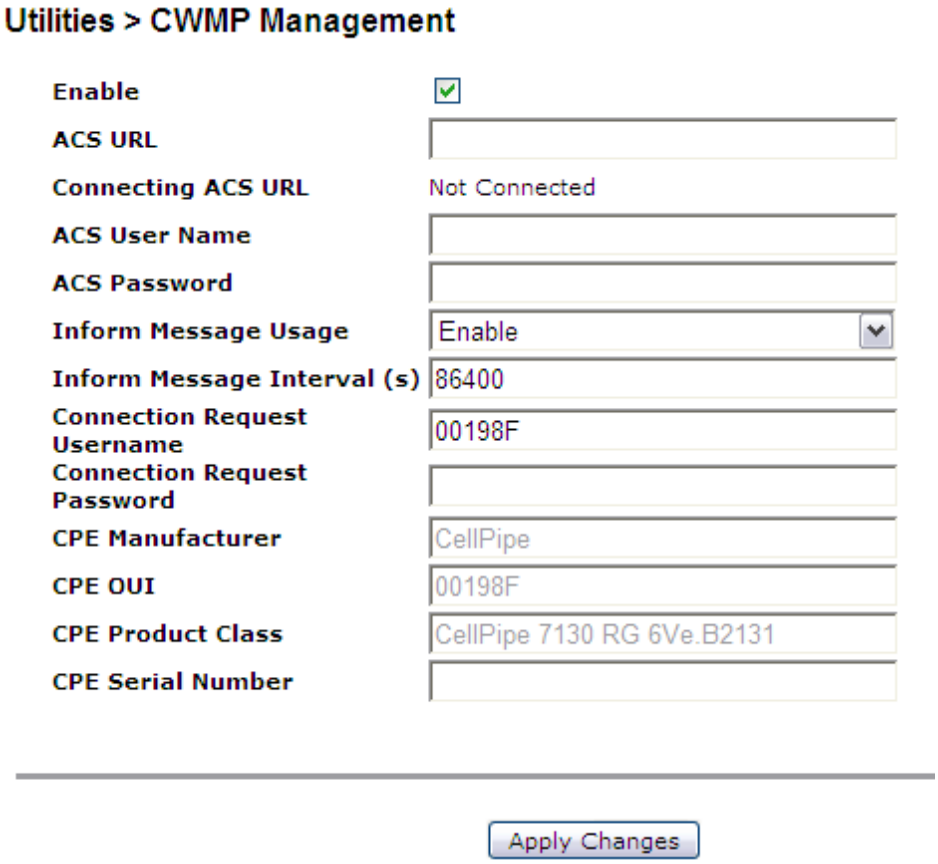


Table 11-5 describes the fields of the CWMP Management window.

Table 11-5 Field descriptions

Field	Description
Enable	Check this box to **Enable** CWMP management.
ACS URL	Enter the URL of the ACS.
ACS User Name	Enter the username of the ACS.
ACS Password	Enter the password for the ACS.
Inform Message Usage	Select **Enable** to have the device information sent to the ACS. Select **Disable** to not have the information sent to the ACS.
Inform Message Interval (s)	Enter an interval in seconds for sending inform messages.
Connection Request Username	Enter the username used to authenticate an ACS making a connection request to the device.
Connection Request Password	Enter the password for the connection request of the ACS to the device.

Field	Description
CPE Manufacturer (read-only)	The manufacturer of the device.
CPE OUI (read-only)	The OUI of the device.
CPE Product Class (read-only)	The model of the device.
CPE Serial Number (read-only)	The serial number of the device.
Apply Changes	Click to save your changes.

Connection Test

The Connection Test window enables you to test the connectivity with other network devices.

Select **Connection Test** in the **Utilities** menu to access the Connection Test window; see Figure 11-7.

Figure 11-7 Connection Test window

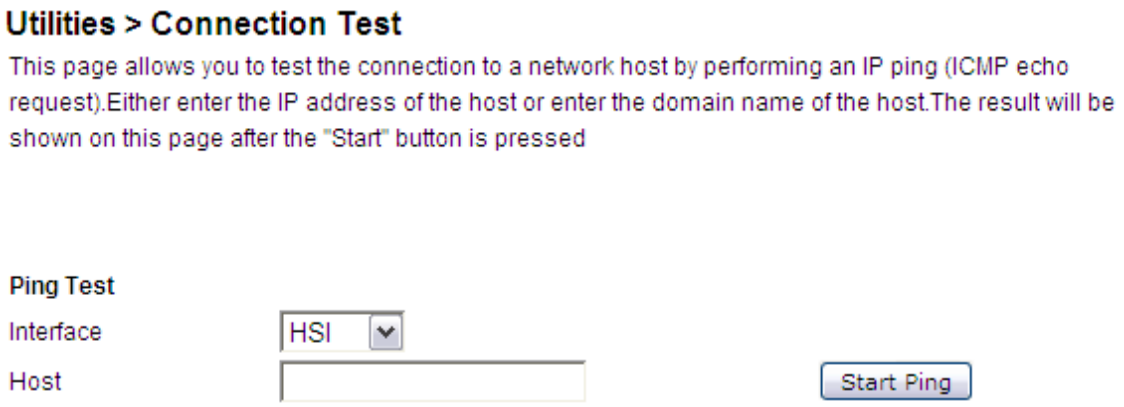


Table 11-6 describes the fields of the Connection Test window.

Table 11-6 Field descriptions

Field	Description
Interface	Select an interface to test if the connection is functioning.
Host	Enter a host IP address to test the connection.
Start	Click to test the connection.

802.1x CA Upload

The 802.1x CA upload window enables you to upload an 802.1x CA certificate. If you have configured a DHCP WAN connection with 802.1x enabled, then you can use this window to upload a CA that is used to authenticate you with your ISP to be granted DHCP service.

Select **802.1x CA Upload** in the **Utilities** menu to access the 802.1x CA Upload window; see Figure 11-8.

Figure 11-8 802.1x CA Upload window

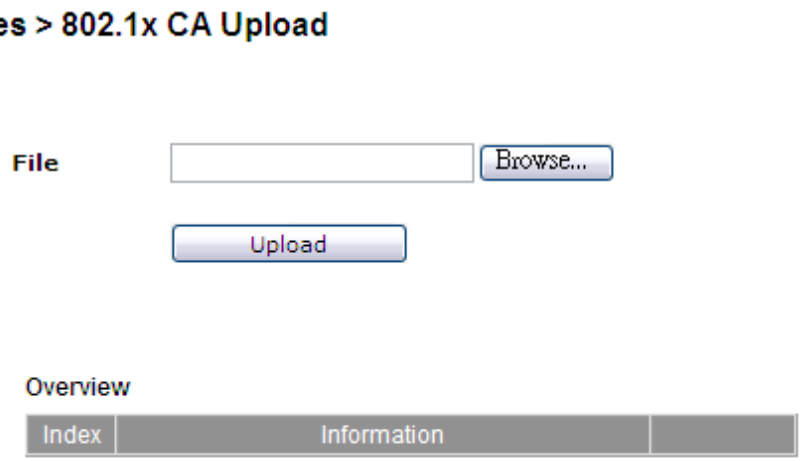


Table 11-7 describes the fields of the 802.1x CA Upload window.

Table 11-7 Field descriptions

Field	Description
File	Click **Browse** to select a CA certificate on your computer to upload.
Upload	Click to upload the selected CA certificate.
Index	The index number of the CA certificate. A maximum of eight CA certificates are supported.
Information	The information pertaining to the CA certificate.

Restore Factory Defaults

The Restore Factory Defaults window enables you to restore the default settings of the CellPipe 7130 RG.

CAUTION

Restoring the factory default settings will replace your current configuration.

Router IP or password changes will also be reset to the default.

Select **Restore Factory Defaults** in the **Utilities** menu to access the Restore Factory Defaults window; see Figure 11-9.

Figure 11-9 Restore Factory Defaults window

Click **Restore Defaults** to restore the CellPipe 7130 RG to the factory default settings.

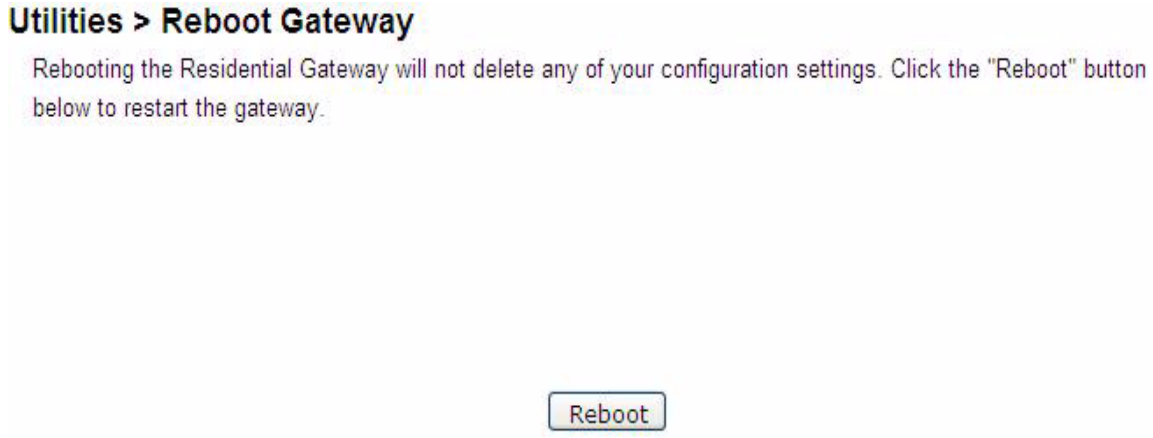
Reboot Gateway

The Reboot Gateway window enables you to reboot the CellPipe 7130 RG.

Note: Rebooting the gateway does not reset your settings.

Select **Reboot Gateway** in the **Utilities** menu to access the Reboot Gateway window; see Figure 11-10.

Figure 11-10 Reboot Gateway window



Click **Reboot** to restart the CellPipe 7130 RG.

RGAM Management

Please click on Utilities which unfolds the sub-menu. This will show the status of the RGAM. By clicking on the "Access to the RGAM Management interface", the RGAM interface pops up in a different window.

Select **RGAM Management** in the **Utilities** menu to access the RGAM Management window; see Figure 11-11.

Figure 11-11 RGAM Management window

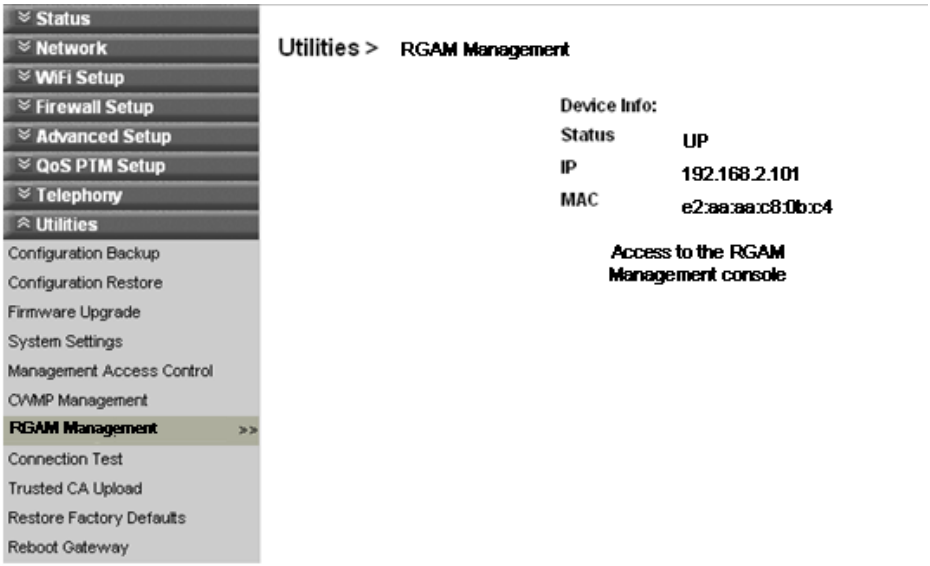


Table 11-8 describes the fields of the RGAM Management window.

Table 11-8 Field descriptions

Field	Description
Status	Gives the status if the RGAM is connected
IP	IP address which is assigned to the RGAM
MAC	MAC address which is used by the RGAM
	"Access to the RGAM management console" opens an new windows which is connected to the web console of the RGAM

A Troubleshooting

Overview

This section identifies common problems that can arise during the use of the CellPipe 7130 RG and offers solutions. Most issues are identified by the LEDs on the front panel of the CellPipe 7130 RG.

Troubleshooting Table

Symptom	Possible cause	Solution
Power LED does not come on after power is switched on.	Outlet, power cord, or power adapter might be defective.	• Check the outlet by plugging in another electronic device. • Call the customer service number or return the device to the vendor.
VDSL Link LED flashes slowly after connection is established then it quickly stats to flash slowly again.	The DSL port on the gateway or the cable might be defective.	• Switch the power off and then switch the power on. • Verify that the cable is connected properly to the VDSL wall line and the DSL connector on the CellPipe 7130 RG.
LAN LED does not come on after connection is established.	The LAN port on the CellPipe 7130 RG, the network interface on the computer, or a network cable may be defective or not connected.	• Verify that the power of CellPipe 7130 RG and computer are switched on. • Ensure that the cable is plugged into the CellPipe 7130 RG and the device. • Check the network adapter or the cable connections for defects.

Symptom	Possible cause	Solution
Message LED is flashing.	A firmware upgrade is in progress.	• Verify that a firmware upgrade is in progress. • Wait until the firmware upgrade is finished.
Intenet LED is off.	Your CellPipe 7130 RG is unable to connect to the Internet or CellPipe 7130 RG is not power on.	• Verify that your CellPipe 7130 RG has configured WAN connections properly. • Verify that the power is switched on.

B TCP/IP configuration

Overview

The following procedures provide TCP/IP configuration instructions for all supported operating systems.

Windows 7

1. Open **Network and Internet** from the Control Panel.
2. Open **Network and Sharing Center** from the **Network and Internet.**
3. Right-click **Local Area Connection** from **Network and Sharing Center**.
4. Under the **General** tab, select **Internet Protocol (TCP/IPv4)**, and click Properties.
5. Select the **Obtain an IP address automatically** radio button.
6. Select the **Obtain DNS server address automatically** radio button.
7. Click **OK** to save the settings.

END OF STEPS

Windows Vista

1. Open **Network and sharing Center** from the Control Panel.
2. Open **Manage network connections** from the **Network and sharing Center**.
3. Right-click **Ethernet connection** and select **Properties**.
4. Under the **General** tab, select **Internet Protocol (TCP/IPv4)**, and click **Properties**.
5. Select the **Obtain an IP address automatically** radio button.
6. Select the **Obtain DNS server address automatically** radio button.
7. Click **OK** to save the settings.

END OF STEPS

Windows XP

1. Open **Network Connections** from the Control Panel.
2. Right-click **Ethernet connection** and select **Properties**.

3. Under the **General** tab, select **Internet Protocol (TCP/IP)**, and click **Properties**. The Internet Protocol (TCP/IP) properties window appears.
4. Select the **Obtain an IP address automatically** radio button.
5. Select the **Obtain DNS server address automatically** radio button.
6. Click **OK** to save the settings.

END OF STEPS

Windows Me/2000/98/95

1. Open **Network and Dialing Connections** from the Control Panel.
2. Right click the **Ethernet connection** icon and select **Properties**.
3. Select **Internet Protocol (TCP/IP)** component, and click **Properties**. The Internet Protocol (TCP/IP) properties window appears.
4. Select the **Obtain an IP address automatically** radio button.
5. Select the **Obtain DNS server address automatically** radio button.
6. Click **OK** to save the settings.

END OF STEPS

Windows NT

1. Open **Network** from the Control Panel.
2. From the **Protocol** tab, select the **Internet Protocol (TCP/IP)** component, and click the **Properties** button.
3. From the **IP Address** tab, select the **Obtain an IP address automatically** radio button.
4. From the **DNS** tab, verify that no DNS server is defined in the **DNS Service Search Order** box and no suffix is defined in the **Domain Suffix Search Order** box.

END OF STEPS

Mac OS

1. Open **System Preferences** from the Panel.
2. Choose **Network** from **Internet & Network**.
3. Make sure the window is unlocked. If it is locked, click the lock to make changes and enter the password for authentication.
4. From the **TCP/IP** tab, choose the **Using DHCP** on **Configure IPv4** field.
5. Click on the **Apply Now** button to obtain an IP address from the DHCP server.

END OF STEPS

C Product conformance

Overview

This section lists the product conformance requirements for the EU and the FCC conformance requirements.

EU declaration of conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

- IEC 60950-1: 2006 + A11: 2009

  Safety of Information Technology Equipment
- EN50385 : (2002-08)
  Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to radio frequency electromagnetic fields (110MHz - 40 GHz) - General public
- EN 300 328 V1.7.1: (2006-10)
  Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
- EN 301 489-1 V1.8.1: (2008-04)
  Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
- EN 301 489-17 V2.1.1 (2009-05)
  Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment; Part 17: Specific conditions for Broadband Data Transmission Systems

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

cs Česky [Czech]	*[Jméno výrobce]* tímto prohlašuje, že tento *[typ zařízení]* je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
da Dansk [Danish]	Undertegnede *[fabrikantens navn]* erklærer herved, at følgende udstyr *[udstyrets typebetegnelse]* overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
de Deutsch [German]	Hiermit erklärt *[Name des Herstellers]*, dass sich das Gerät *[Gerätetyp]* in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
et Eesti [Estonian]	Käesolevaga kinnitab *[tootja nimi = name of manufacturer]* seadme *[seadme tüüp = type of equipment]* vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
en English	Hereby, *[name of manufacturer]*, declares that this *[type of equipment]* is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
es Español [Spanish]	Por medio de la presente *[nombre del fabricante]* declara que el *[clase de equipo]* cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
el Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ *[name of manufacturer]* ΔΗΛΩΝΕΙ ΟΤΙ *[type of equipment]* ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
fr Français [French]	Par la présente *[nom du fabricant]* déclare que l'appareil *[type d'appareil]* est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
it Italiano [Italian]	Con la presente *[nome del costruttore]* dichiara che questo *[tipo di apparecchio]* è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo *[name of manufacturer / izgatavotāja nosaukums]* deklarē, ka *[type of equipment / iekārtas tips]* atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo *[manufacturer name]* deklaruoja, kad šis *[equipment type]* atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
nl Nederlands [Dutch]	Hierbij verklaart *[naam van de fabrikant]* dat het toestel *[type van toestel]* in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
mt Malti [Maltese]	Hawnhekk, *[isem tal-manifattur]*, jiddikjara li dan *[il-mudel tal-prodott]* jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
hu Magyar [Hungarian]	Alulírott, *[gyártó neve]* nyilatkozom, hogy a *[... típus]* megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
pl Polski [Polish]	Niniejszym *[nazwa producenta]* oświadcza, że *[nazwa wyrobu]* jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
pt Português [Portuguese]	*[Nome do fabricante]* declara que este *[tipo de equipamento]* está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
sl Slovensko [Slovenian]	*[Ime proizvajalca]* izjavlja, da je ta *[tip opreme]* v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	*[Meno výrobcu]* týmto vyhlasuje, že *[typ zariadenia]* spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
fi Suomi [Finnish]	*[Valmistaja = manufacturer]* vakuuttaa täten että *[type of equipment = laitteen tyyppimerkintä]* tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
sv Svenska [Swedish]	Härmed intygar *[företag]* att denna *[utrustningstyp]* står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

FCC 15B statement

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

FCC Part 68 Statement

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the base unit of this equipment is a label that contains, among other information, a product identifier in the format US: GEMDL01BWVVDB101N. If requested, this number must be provided to the telephone company.

Applicable connector jack Universal Service Order Codes ("USOC") for the Equipment is RJ11C and RJ45.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US: GEMDL01BWVVDB101N. The digits represented by 01 are the REN without a decimal point (e.g., 03 is a REN of 0.3).

If this CellPipe 7130 RG 6Vz.A2131 causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this Alcatel-Lucent, for repair or warranty information, please contact 600-700 Mountain Avenue Murry Hill, NJ 07974 or Tel no.: 1-908-508-8080 If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this equipment does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

WHEN PROGRAMMING EMERGENCY NUMBERS AND(OR) MAKING TEST CALLS TO EMERGENCY NUMBERS:

1) Remain on the line and briefly explain to the dispatcher the reason for the call.

2) Perform such activities in the off-peak hours, such as early morning or late evenings.

Industry Canada statement

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

IMPORTANT NOTE:

Radiation Exposure Statement

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

NOTE IMPORTANTE: (Pour l'utilisation de dispositifs mobiles)
Déclaration d'exposition aux radiations:
Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Le module émetteur peut ne pas être coïmplanté avec un autre émetteur ou antenne,

IC TELECOM

"NOTICE: This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment."

"NOTICE: The Ringer Equivalence Number (REN) for this terminal equipment is 01. The REN assigned to each terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five."

« AVIS : Le présent matériel est conforme aux spécifications techniques d'Industrie Canadaapplicables au matériel terminal. Cette conformité est confirmée par le numérod'enregistrement. Le sigle IC, placé devant le numéro d'enregistrement, signifie quel'enregistrement s'est effectué conformément à une déclaration de conformité et indique queles spécifications techniques d'Industrie Canada ont été respectées. Il n'implique pasqu'Industrie Canada a approuvé le matériel. »

« AVIS : L'indice d'équivalence de la sonnerie (IES) du présent matériel est de 01. L'IESassigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent êtreraccordés à une interface téléphonique. La terminaison d'une interface peut consister en unecombinaison quelconque de dispositifs, à la seule condition que la somme d'indicesd'équivalence de la sonnerie de tous les dispositifs n'excède pas 5. »

"CAUTION: To reduce the risk of fire, use only No. 26 AWG or larger (e.g., 24 AWG) UL Listed or CSA Certified Telecommunication Line Cord"

"IMPORTANT SAFETY INSTRUCTIONS - When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

- Do not use this product near water for example, near a bathtub, washbowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone to report a gas leak in the vicinity of the leak.
- Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.

SAVE THESE INSTRUCTIONS"

Glossary

Numerics

10/100Base-T
The most widely used standard for Ethernet over twisted pair or copper-based computer networking. Runs at 10 Mb/s, 100 Mb/s, and 1000 Mb/s (1 Gb/s) respectively.

802.11b/g/n
A family of specifications for wireless local area networks (WLANs). They use the Ethernet protocol and CSMA/CA (carrier sense multiple access with collision avoidance) for path sharing.

802.1 Q/P
The standard that allows multiple bridged networks to transparently share the same physical network link without leakage of information between networks.

802.1x
An authentication standard for clients connecting to an IEEE 802 network such as Ethernet (access) networks and 802.11 (public) wireless LANs.

A

ACS
Auto-Configuration Server

ALG
Application-Level Gateway

AP
Access Point

API
Application Programming Interface

C

CDVT
Cell Delay Variation Tolerance

CHAP
Challenge-Handshake Authentication Protocol

Codec
A device or computer program capable of encoding and/or decoding a digital data stream or signal.

CoS
Class of Service

CPE
Customer Premises Equipment

CWMP
CPE WAN Management Protocol

D

DDNS
Dynamic Domain Name System

DHCP
Dynamic Host Configuration Protocol

DMZ
Demilitarized Zone

DNS
Domain Name System

DSCP
Differentiated Services Code Point

DSL
Digital Subscriber Line

DTIM
Delivery Traffic Indication Message

Dynamic Routing
The capability of a system, through which routes are characterised by their destination, to alter the path that the route takes through the system in response to a change in conditions.

E

Ethernet
A family of frame-based computer networking technologies for local area networks (LANs).

F

Firewall
An integrated collection of security measures designed to prevent unauthorized electronic access to a networked computer system.

FQDN
FullQualified Domain Name

FTN
Forward to Number

G

Gateway
A network node equipped for interfacing with another network that uses different protocols.

H

HTML
Hyper Text Markup Language

I

IGMP
Internet Group Management Protocol

IP
Internet Protocol

IPSec
Internet Protocol Security

ISP
Internet Service Provider

K

kb/s
Kilobit per second; a data rate unit.

L

L2TP
Layer 2 tunneling protocol; a tunneling protocol used to support virtual private networks (VPNs).

LAN
Local Area Network

M

MAC
Media Access Control

Mb
Megabit; a unit of information commonly used to express the rate data is transferred.

MTU
Maximum Transmission Unit

N

NAT
Network Address Translation

Netmask
The designated IP address routing prefix for a network of computers and devices.

NIC
Network Interface Controller

NTP
Network Time Protocol

O

OUI
Organizationally Unique Identifier

Outbound Proxy Server
The server responsible for handling calls made behind the NAT device by examining and translating the IP addresses.

P

PAP
Password Authentication Protocol

Ping
A computer network tool used to test whether a particular host is reachable across an IP network.

PPPoE
Point-to-Point Protocol over Ethernet

PPTP
Point-to-Point Tunneling Protocol

PSK
Pre-Shared Key

Q

QoS
Quality of Service

R

RJ-11
A physical interface often used for terminating telephone wires.

RJ-45
Most regularly used as an Ethernet connector. RJ-45 connectors are typically used to terminate twisted pair cable.

RTP
Real-time Transport Protocol; handles voice data transfer making VoIP call using SIP.

S

SSH
Secure Shell

SIP
Session Initiation Protocol; an application layer control protocol that handles the setting up, altering and tearing down of voice and multimedia sessions over the Internet.

SSID
Service Set Identifier

Subnet
See *Netmask*.

T

TCP
Transmission Control Protocol

Telnet
Telecommunications network; a network protocol used on the Internet or local area network (LAN) connections.

TFTP
Trivial File Transfer Protocol

ToS
Type of Service

U

UDP
User Datagram Protocol

UPnP
Universal Plug and Play

URL
Uniform Resource Locator

V

VCI
Virtual Channel Identifier

VDSL
Very High Bitrate Digital Subscriber Line

VLAN
Virtual Local Area Network

VoIP
Voice over Internet Protocol

VPI
Virtual Path Identifier

W

WAN
Wide Area Network

WDS
Wireless Distribution System

WEP
Wired Equivalent Privacy

WiFi
Wireless networking compatibility

WLAN
Wireless Local Area Network

WPA
WiFi Protected Access

WPS
WiFi Protected Setup