



# CellPipe® 7130 Residential Gateway

ADSL ROUTED GATEWAY WITH ETHERNET LAN INTERFACE 3Ae.A2010, 3Ae.A2011, 5Ae.A2010 | RELEASE 1.0 USER MANUAL

> 3FE-61830-AAAA-TCZZA EDITION 01 MAY 2008



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# Contents

About this document		vii
1	Product overview	1-1
	Overview	1-1
	Hardware introduction	
	Safety precautions	
	Prerequisites	
	Descriptions of LEDs and interfaces	
	CellPipe 7130 RG features	
2	Hardware installation	2-1
	To install the CellPipe 7130 RG	
3	Accessing the CellPipe 7130 RG configuration tool	3-1
	To access the CellPipe 7130 RG configuration tool	
4	Status	4-1
	System	
	LAN	
	WLAN	
	WAN	
	Port Mapping	
	Statistic	
	ARP Table	
5	Wizard	5-1
	To use the configuration wizard	
6	LAN	6-1
	LAN Settings	
	DHCP Settings	
7	WLAN	7-1
	Basic Settings	

#### Contents

	Security		
	Advance Settings		
	Access Control		
	WDS Settings		
8	WAN		8-1
	WAN Interface		
	ADSL Settings		
9	Advance		9-1
	DNS		
	Firewall		
	Virtual Server		
	Routing		
	IP QoS		
	Anti-dos		
	Port Mapping		
	Other		
10	Admin		10-1
	Remote Access		
	Commit/Reboot		
	Password		
	Backup/Restore		
	Upgrade Firmware		
	Time Zone		
	System Log		
	SNMP		
	TR069		
	ACL		
	Logout		
11	Diagnostic		11-1
	Ping		
	ATM Loopback		
iv		Alcatel-Lucent	3FE-61830-AAAA-TCZZA

Edition 01 May 2008

#### Contents

	ADSL	
	Diagnostic	11-6
Glossary		1

Glossary

# About this document

#### Purpose

This document provides the hardware and software setup, configuration, and administration information necessary to operate the ADSL routed residential gateway.

#### Reason for reissue

The following table shows the revision history of this document.

Revision	Date	Reason for reissue
Edition 01	May 2008	First release of this document.

#### Intended audience

This document is intended for users and administrators of the CellPipe 7130 RG 3Ae.A2010, 3Ae.A2011, and 5Ae.A2010.

#### Supported systems

The document supports the CellPipe 7130 ADSL routed residential gateway (CellPipe 7130 RG) family of routers, including the following models:

- 1-port Ethernet (3Ae.A2010)
- 4-port Ethernet (3Ae.A2011)
- 4-port Ethernet with wireless (5Ae.A2010)

#### How to use this document

This introduces the CellPipe 7130 RG hardware, connections, and setup. It also covers the Web configuration interface and provides parameter definitions for the fields on those screens.

#### **Conventions used**

Appearance	Description
Italicized text	<ul> <li>File and directory names.</li> <li>Emphasized information.</li> <li>Titles of publications.</li> <li>A value that the user supplies.</li> </ul>
graphical user interface text or key name	<ul> <li>Text that is displayed in a graphical user interface or in a hardware label.</li> <li>The name of a key on the keyboard.</li> </ul>
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.
<b>ل</b> م	Press the <b>Return</b> or <b>Enter</b> key on the keyboard.

This guide uses the following typographical conventions:

# 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 safety 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

2 З 1 CAUTION 4 Lifting Hazard 5)

Lifting this equipment by yourself can result in injury due to the size and weight of the equipment.

Always use three people or a lifting device to transport and position this equipment. [ABC123]

(6)

ltem	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 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	<ul> <li>When used with the personal injury symbol:</li> <li>Indicates a potentially hazardous situation (low risk) which, if not avoided, may result in personal injury.</li> <li>When used without the personal injury symbol:</li> <li>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.</li> </ul>

#### Signal words for hazard severity

#### **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.



# 1 Product overview

# Overview

#### Purpose

This chapter provides an introduction to the physical aspects of the CellPipe 7130 RG 3Ae.A2010, 3Ae.A2011, and 5Ae.A2010, including safety precautions and features.

All products are consolidated under the name CellPipe 7130 RG.

#### Contents

This chapter covers the following topics:

Hardware introduction	1-2
Safety precautions	1-2
Prerequisites	1-3
Descriptions of LEDs and interfaces	1-3
CellPipe 7130 RG features	1-6

# Hardware introduction

The CellPipe 7130 RG supports multiple line modes. Using the high-speed ADSL connection, the CellPipe 7130 RG provides users with broadband connectivity to the Internet or an intranet. It provides downlink speeds of up to 24 Mb/s and uplink speeds of up to 1 Mb/s.

The CellPipe 7130 RG 4-port wireless model provides wireless access to the Internet as a WLAN access point or WLAN router. It is compliant with IEEE 802.11b/g specifications, and complies with WEP, WPA, and WPA2 security specifications.

# Safety precautions

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

- Use volume labels to mark the type of power.
- Use the power adapter provided with the CellPipe 7130 RG.
- 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.
- Leave adequate space for heat dissipation to avoid any damage caused by overheating the CellPipe 7130 RG. Do not cover the ventilation holes.
- Do not put the CellPipe 7130 RG near a heat source. Avoid placing the CellPipe 7130 RG in direct sunlight.
- Do not put the CellPipe 7130 RG in damp or wet locations. Do not spill any liquid on the CellPipe 7130 RG.
- Do not connect the CellPipe 7130 RG to any PC or electronic product unless our customer engineers or your ISP instructs you to do so; incorrect connections may cause fires.
- Do not place the CellPipe 7130 RG on an unstable surface or support.

### Prerequisites

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

- Internet services subscription
- 10/100Base-T Ethernet NIC installed in your PC
- Optional: HUB or Switch (required to attach to several PCs through a single Ethernet interface on the CellPipe 7130 RG)
- Operating system: Windows 98SE, Windows 2000, Windows ME, Windows XP, Microsoft Vista, or Mac OS
- Internet Explorer V5.0, Netscape V4.0, or Mozilla Firefox 1.5 or higher

## Descriptions of LEDs and interfaces

Figure 1-1 Front panel (4-port wireless model)



Figure 1-2 Front panel (1-port and 4-port model))



LED	Color	Status	Descriptions	
Power	Green/Red	Off	No power	
		Green	CellPipe 7130 RG startup OK	
		Red	CellPipe 7130 RG starting up	
		Flashing Red	Firmware upgrade	
DSL (Link)	Green	Off	Initial self-test failed	
		Flashing	CellPipe 7130 RG is detecting itself	
		On	Initial self-test of the CellPipe 7130 RG is OK and the CellPipe 7130 RG is ready	
WLAN <sup>1</sup>	Green	Off	Inactive	
		Flashing	WLAN data is flowing	
		On	Active	
Data <sup>2</sup>	Green	Off	Internet connection failed	
		Flashing	Internet data is flowing	
		On	Internet connection is OK	

#### Table 1-1 Front panel LEDs

<sup>1</sup> 4-port wireless model only.

<sup>2</sup> 1- and 4-port models only.

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LED	Color	Status	Descriptions
Ethernet	Green	Off	No LAN link
		Flashing	LAN data flowing
		On	LAN link established and active

#### Figure 1-3 Rear panel (1-port model)



#### Table 1-2Rear panel (4-port model)



#### Figure 1-4 Rear panel (4-port wireless model)



ltems	Usage
Line	Line RJ-11 port, used to connect the CellPipe 7130 RG to your ADSL (telephone) line.
Reset	Reset the CellPipe 7130 RG to its factory default settings.
	Insert a small, blunt object (for example, a paper clip) into the hole while the CellPipe 7130 RG is powered on. Press and hold the Reset button for 5 s to reset the CellPipe 7130 RG.
Ethernet	Ethernet RJ-45 port(s), used to connect the CellPipe 7130 RG to your PC(s).
$\bigcirc$	Power on/ off
Power	Power connector, used to connect the CellPipe 7130 RG to your electrical outlet.

Table 1-3 Rear panel items

# CellPipe 7130 RG features

#### Table 1-4 Feature support by model

Feature supported	1-port Ethernet (3Ae.A2010)	4-port Ethernet (3Ae.A2011)	4-port wireless (5Ae.A2010)
Various line modes	1	1	1
External PPPoE dial-up access	1	1	1
Internal PPPoE/PPPoA dial-up access	1	~	1
Leased line mode	1	~	1
PPP IP extension	1	~	1
1483B/1483R/MER access	1	~	1

Feature supported	it 010)	it 011)	s 010)
	1-port Etherne (3Ae.A2	4-port Etherne (3Ae.A2	4-port wireles (5Ae.A2)
Multiple PVCs (eight at most) and these PVCs can be isolated from each other	1	1	1
Single PVC with multiple sessions	1	1	1
Multiple PVCs with multiple sessions	1	1	1
Binding of the ports and the PVCs	1	1	1
802.1Q and 802.1P protocols	1	1	1
DHCP server	1	1	1
NAT/NAPT	1	1	1
Static route	1	1	1
Firmware upgrade via Web, TFTP, FTP	1	1	1
Reset to factory default via hardware and software	1	1	1
DNS relay	1	1	1
Virtual server	1	1	1
DMZ functions	1	1	1
Two-level passwords and usernames	1	1	1
Web interface	1	1	1
Telnet CLI	1	1	1
System status display	1	1	1
PPP session PAP/CHAP	1	1	1
IP filter function	~	1	~
IP QoS function	1	1	1

Feature supported	1-port Ethernet (3Ae.A2010)	4-port Ethernet (3Ae.A2011)	4-port wireless (5Ae.A2010)
Remote access control	1	1	1
Line connection status test	1	1	1
Remote management (Telnet, HTTP)	1	1	1
Configuration file backup and restore function	1	1	1
Ethernet supported such as Crossover Detection & Auto- Correction and polarity correction	1	1	1
UPnP	1	1	1
SIP ALG	1	1	1
1 Ethernet port, 10/100Base-T Auto MDI/MDIX	1		
4 Ethernet ports, 10/100Base-T Auto MDI/MDIX		1	1
24 Mb/s downstream 1 Mb/s upstream	1	1	1

# 2 Hardware installation

# Overview

#### Purpose

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

#### Contents

This chapter covers the following topic:

To install the CellPipe 7130 RG

2-1

# To install the CellPipe 7130 RG

#### Supplies

- Twisted pair category 5 Ethernet cable
- POTS splitter (Optional)
- CellPipe 7130 RG
- RJ-11 telephone cables
- Power adapter

#### Before you begin

#### Caution

#### Potential for equipment or personal harm

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

#### Procedure

- **1** Connect the splitter, if necessary. The splitter has three RJ-11 ports:
  - LINE Connects to a telephone jack.
  - ROUTER Connects to the DSL jack of the CellPipe 7130 RG.
  - PHONE Connects to a telephone.
  - a. Connect the incoming telephone line to the LINE port of the splitter with a telephone cable; see Figure 2-1.
  - b. Connect the DSL port of the CellPipe 7130 RG and the ROUTER port of the splitter with a telephone cable.
  - c. Connect the telephone to the PHONE port of the splitter with a telephone cable.

Figure 2-1 shows how to connect of the CellPipe 7130 RG, splitter, and telephone.





- **2** Connect the Ethernet port of the CellPipe 7130 RG to the network card of the PC using a twisted pair category 5 Ethernet cable (MDI/MDIX).
- **3** Plug the power adapter into the wall outlet and connect the other end to the Power port of the CellPipe 7130 RG.

END OF STEPS

3

# Accessing the CellPipe 7130 RG configuration tool

## Overview

Purpose

The following detailed procedure is intended for first time users to assist with CellPipe 7130 RG configuration.

#### Contents

This chapter covers the following topics:

To access the CellPipe 7130 RG configuration tool

3-1

# To access the CellPipe 7130 RG 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 change 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.

#### Procedure

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

```
http://192.168.1.1 ↓
```

2 Enter your username and password. There are two default accounts: admin and user. The admin account has permission to configure the CellPipe 7130 RG settings and run system diagnostics. The user account can view the CellPipe 7130 RG status, but cannot alter the CellPipe 7130 RG settings. The admin password is admin. The user password is user.

Figure 3-1 Login screen

ter Net	work Passwo	rd	<u>?</u> ×
<b>?</b> >	Please type y	our user name and password.	
3	Site:	192.168.1.1	
	Realm		
	User Name	admin	
	Password	NXXXX	
	🗖 Save this	password in your password list	
		OK Ca	incel

The System Status window appears. If you logged in as admin you can see CellPipe 7130 RG menus for Status, Wizard, LAN, WLAN<sup>3</sup>, WAN, Advance, and Admin. If you logged in as user you can only see menus for Status and Admin. This window includes common router, bridge, and PPPoE settings. The System Status window is described in chapter 4.

<sup>&</sup>lt;sup>3</sup> Wireless model only.

Status	Status Vizard	LAN	WLAN	WAN	Advance	Admin
	System   LAN   WLAN   WAN   Port M	apping   Statis	tic ARP Table	9		
System Status	System Status	; rent status an	d some basic :	settings of th	e device.	
	System					
	Alias Name	S6307	MPw-II(7130 R0	5 5Ae.A2010)		
	Software Version	1.3.9				
	DSP Version	2.8.1	.3			
	DSL					
	DSL mode	T1.41	3 G.Dmt ADSL2	ADSL2+		
	DSL Status	ACTIV	ATING.			
	Upstream Speed	0 kbp	s ()			
	Downstream Speed	0 kbp	s ()			
	Upstream SNR	0.0dB	5			
	Downstream SNR	0.048				
	reconnection Counts	0				
	Uptime	2 min				
	Showtime					

Figure 3-2 System Status window (4-port wireless model shown)

Once you have logged in for the first time, you should change the login password. See "Password" in Chapter 10 for more information.

END OF STEPS

# 

# 4 Status

## Overview

#### Purpose

Select **Status** on the CellPipe 7130 RG menu bar to open the Status menu. This menu contains the following items:

- System
- LAN
- WLAN<sup>4</sup>
- WAN
- Port Mapping <sup>5</sup>
- Statistic
- ARP Table (ARP)

#### Contents

This chapter covers the following topics:

System	4-2
LAN	4-4

<sup>4</sup> 4-port wireless model only.

<sup>5</sup> 4-port and 4-port wireless models only.

WLAN	4-5
WAN	4-7
Port Mapping	4-8
Statistic	4-10
ARP Table	4-13

## System

Select **System** in the Status menu to open the System Status window. In this window you can view the current status and basic settings of the CellPipe 7130 RG.

Figure 4-1 System Status window (4-port wireless model shown)

Status	Status	Vizard	LAN	VLAN	VAN	Advance	Admi
	System   LAN   WI	LAN   WAN   Port :	Mapping   Stat:	istic ARP Table	e		
tem Status	Syste This pag	e <b>m Statu</b> e shows the cur	<b>S</b> crent status :	und some basic	settings of th	e device.	
	System						
	Alias N	ane	S630	7MPw-II(7130 R	G 5Ae.A2010)		
	Softwar	e Version	1.3.	9			
	DSP Ver	sion	2.8.	1.3			
	DSL						
	DSL mod	le	T1.4	13 G.Dmt ADSL2	ADSL2+		
	DSL Sta	tus	ACTI	VATING.			
	Upstrea	n Speed	0 kt	ps ()			
	Downstr	ean Speed	0 kt	ps ()			
	Upstrea	a SNR	0.00	B			
	Downstr	ean SNR	0.00	B			
	reconne	ction Counts	0				
	Uptime		2 mi	n			
	Ch and in						

The following table describes the fields of the System Status window.

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Field	Description
System	
Alias Name	The product name.
Software Version	The latest software version installed in the CellPipe 7130 RG.
DSP Version	The DSP version of the chipset.
DSL	
DSL mode	Indicates the configured ADSL Modulation type for the CellPipe 7130 RG.
DSL Status	Indicates the current status of the CellPipe 7130 RG.
Upstream Speed	Indicates the current upstream transfer speed.
Downstream Speed	Indicates the current downstream transfer speed.
Upstream SNR	Indicates the upstream signal-to-noise ratio.
Downstream SNR	Indicates the downstream signal-to-noise ratio.
Reconnection Counts	Indicates how many times the DSL link has reconnected.
Uptime	The length of time since the CellPipe 7130 RG was last rebooted.
Showtime	The length of time during which the CellPipe 7130 RG was trained and connected.

#### Table 4-1 Field descriptions

# LAN

Select LAN in the Status menu to open the Lan Status window.

To alter these settings, see LAN Settings in chapter 6.

#### Figure 4-2 Lan Status window

Status	Status	Vizard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	System   LA	N   WLAN   WA	N   Port M	apping   Stat	istic ARP	Table		
LAN Status	Lan :	<b>Status</b> e shows so	, me basic	status of La	m.			
		a: .:						-
	LAN CON	ifigurati	on	100,100				
	IP Add	ess TL		192.100				
	Subnet	Lask		200.200	. 255. 0			
	DHCP Se	erver		Disable				
	IAC Add	iress		00-e0-4	lc-86-70-01	1		
	DHCP C1	ient Tabl	Le					
	IP Adda	ess	TAC	Address		Time 1	Expired(s	s)
	None			-				

The following table describes the fields of the Lan Status window.

#### Table 4-2Field descriptions

Field	Description
LAN Configuration	
IP Address	The IP address of the CellPipe 7130 RG.
Subnet Mask	The subnet mask for the LAN IP addresses.
DHCP Server	If enabled, the CellPipe 7130 RG functions as a DHCP server for LAN clients
MAC Address	The MAC address of the CellPipe 7130 RG

WLAN	
------	--

Field	Description
DHCP Client Table	A listing of clients that received DHCP- assigned IP addresses from the CellPipe 7130 RG.

# WLAN

Select **WLAN<sup>6</sup>** in the Status menu to open the WLAN Status window. In this window you can view the parameters of the WLAN.

Figure 4-3	WLAN	Status	window
------------	------	--------	--------

Status	Status	Vizard	LAN	VLAN 1	TAN	Advance	Admin	Diagnostic		
	System   I	.an   WLAN   W	AN Port Mappi	.ng   Statisti	c ARP Ta	ble	_			
WLAN Status	WLAI	N Stat	<b>US</b> ome basic stat	us of wirele	ess lan.					
	Virel	ess Config	uration							
	Virel	ess		Enabled						
	band			802.11 b+g						
	Tode			AP						
	Broad	cast SSID		Enabled						
	root									
	Statu	s		Enabled						
	SSID			ads1-867001						
	Authe	ntication	Tode	Auto						
	Encry	Encrypt Node		None						
	vap0	vap0								
	Statu	Status			Disabled					
	vap1	vap1								
	Statu	s		Disabled						
	wap2									
	Statu	s		Disabled						
	wap 3									
	Statu	s		Disabled						
	Virel	ess Cli <u>e</u> nt	List							
		TAC Address Ix Packet		Rx Packet	Tx Rate (Tbps)	Power Savin	Exp g Ti	ired ne (s)		
	None									
	Curre	nt Acce <u>ss</u>	Control List	t	_	_	_			
	Lode	Disable								

The following table describes the fields of the WLAN Status window.

<sup>6</sup> 4-port wireless model only.

Field	Description				
Wireless Configuration					
Wireless	Indicates whether the wireless function is enabled.				
band	Indicates the wireless radio band standard used by the CellPipe 7130 RG. The 802.11 b standard supports a maximum data rate of 11 Mb/s. The 802.11 g standard supports a maximum data rate of 54 Mb/s.				
Mode	The wireless working mode, either <b>AP</b> or <b>AP+WDS</b> .				
Broadcast SSID	Indicates whether the CellPipe 7130 RG will broadcast its SSID (enabled).				
root					
Status	Indicates whether the SSID has been enabled.				
SSID	Indicates the SSID assigned to the CellPipe 7130 RG.				
Authentication Mode	Indicates the authentication mode used by the CellPipe 7130 RG.				
Encrypt Mode	Indicates the encryption mode used by the CellPipe 7130 RG.				
vap0					
Status	Indicates the status of virtual AP0.				
vap1					
Status	Indicates the status of virtual AP1.				
vap2					

#### Table 4-3 Field descriptions

Field	Description
Status	Indicates the status of virtual AP2.
vap3	
Status	Indicates the status of virtual AP3.
Wireless Client List	Lists the wireless devices that are connected to the CellPipe 7130 RG
Current Access Control List	Indicates the access control mode and MAC address list.

# WAN

Select **WAN** in the Status menu to open the WAN Status window. In this window you can view status of the WAN, Default Gateway, and DNS Servers.

To configure the WAN, see "WAN Interface" in chapter 8.

Figure 4-4 WAN Status window

Status	Status Vizard	LAN	¥1	LAN	WAN	Advance	Admin	Diagnostic
	System   LAN   WLAN   W	AN   Port ]	Mapping	Statistic	ARP Tabl	e		
WAN Status	WAN Statu This page shows s	<b>S</b> come basic	status	of Wan.				
	Interface	VPI/VCI	Encap	Protocol	IP Add	lress	Gateway	Status
	Internet_R_0_35	0/35	LLC	PPPoE				down Osec / Osec
	Default Gateway							
	DNS Servers							

The following table describes the fields of the WAN Status window.

Field	Description
Interface	The interface identifier.
VPI/VCI	The virtual path identifier and virtual channel identifier of the listed interface.
Encap	The encapsulation type used by the interface.
Protocol	The protocol connection type of the interface.
IP Address	The IP address of the interface.
Gateway	The gateway of the interface.
Status	The status of the interface.
Default Gateway	The default DSL gateway provided by your ISP.
DNS Servers	The default DSL DNS provided by your ISP.

Table 4-4 Field descriptions

# Port Mapping

Select **Port Mapping<sup>7</sup>** in the Status menu to open the Port Mapping window. In this window you can view the mapping relation and the status of port mapping.

<sup>&</sup>lt;sup>7</sup> 4-port and 4-port wireless models only

Status	Status 1	lizard	LAN	WLAN	WAN	Advance	Åd∎in	Diagr	nostio	
	System   LAN	WLAN   WAN	Port Mag	oping   Statis	tic ARP Ta	ible				
Port Mapping	Port This pag	<b>Mappi</b> ge shows th	<b>ng</b> Ne mapping	relation and	l the statu	us of port map	ping.			
	Status Tappin	:Disable g Relati	d on							
	Select			Inter	face	_		Priority		
	Default	t LAN4, LAN3	, LAN2, LAN	1, wlan0, vap0,	vap1, vap2,	vap3, Internet	_R_0_35	low		
	Group1									
	Group2							low		
	Group3							low		
	Group4							low		

Figure 4-5 Port Mapping window

The following table describes the fields of the Port Mapping status window.

Table 4-5 Field descriptions

Field	Description
Select	The selected port mapping rule list.
Interface	The default group lists the port information of the CellPipe 7130 RG. Groups 1 to 4 list the ports that have been mapped.
Priority	Indicates the priority of the port mapping rules. There are four priority levels: Low, Middle, High, or Highest.

# Statistic

Select **Statistic** in the Status menu to open the statistics menu in the left-hand panel, which contains:

- Traffic Statistic
- DSL Statistic

#### **Traffic Statistic**

Select **Traffic Statistic** in the left-hand panel to open the Statistics -- Port window. In this window you can view the statistics of each network port.

Figure 4-6 Statistics -- Port window (4-port wireless model shown)

Status	Status	Vizard	LAN	₩LA	R I	FAN	Advance	Admin
	System   I	LAN   WLAN   WAN	I Port Ma	apping   🖇	tatistic	ARP Tabl	e	
Traffic Statistic DSL Statistic	Statistics Port This page shows the statistics of each network port.							
	I	Interface	Rx pkt	Rx err	Rx drop	Tx pkt	Tx err	Tx drop
		eth0	2874	0	0	3267	0	0
		wlan0	1	0	0	11	0	0
	Inte	rnet_R_0_35	0	0	0	0	0	0
	Refr	esh						

The following table describes the fields of the Statistics -- Port status window.

#### Table 4-6 Field descriptions

Field	Description
Interface	The interface for which the statistics are provided.
Rx pkt	The number of received packets.
Rx err	The number of errored packets received.
Field	Description
---------	---
Rx drop	The number of received packets dropped.
Tx pkt	The number of sent packets.
Tx err	The number of errored sent packets.
Tx drop	The number of sent packets dropped.

### **DSL Statistic**

Select **DSL Statistic** in the left-hand panel to open the Statistics -- ADSL window. In this window you can view the ADSL line statistics, downstream rates, and upstream rates.

Figure 4-7 Statistics - ADSL window

Status	Status	▼izard	LAN	WLAN	WAN	Advance	Admin	Diagn
	System L#	N   WLAN   WAN	Port Ma	pping   Stati	stic ARF	'Table		
Fraffic Statistic	Stat	istics	A	DSL				
OSL Statistic	Adsl li	ne statistic.	s.					
	Tode							
	Latenc	v	-					
	Trelli	s Coding	Enabl	e				
	Status	-	ACTIV	ATING.				
	Power	Level	LO					
			20					
				Downstre	am	Unstr	eam	
	SNR Ta	rgin (dB)	0.0	Downbere		0.0		
	Attenu	ation (dB)	0.0			0.0		
	Output	Power (dB	0.0			25 5		
	Attain (Kbps)	able Rate	0			0		
	Rate (	Kbps)	0			0		
	K (num in D <b>M</b> T	ber of byte frame)	es					
	R (num b <del>y</del> tes word)	ber of chec in RS code	:k					
	S (RS size i	code word n DNT frame	e)					
	D (int depth)	erleaver						
	Delay	(msec)						
	FEC		0			0		
	CRC		0			0		
	Total	ES	0			0		
	Total	SES	0			0		

4-11

Status

The following table describes the fields of the Statistics -- ADSL status window.

Table 4-7 Field descriptions

Field	Description
Mode	One of: • ADSL • ADSL2 • ADSL2+
Latency	The latency mode, either Interleave or Fast mode.
Trellis Coding	Whether trellis coding mode has been enabled.
Status	Whether the DSL link is connected.
Power Level	The power management status.
SNR Margin	The signal-to-noise status.
Attenuation	The attenuation (dB).
Output Power	The power consumption of the DSL upstream.
Attainable Rate	The maximum DSL data transmission rate.
Rate	The real-time DSL data transmission rate.
K (number of bytes in DMT frame)	The number of bytes in the DMT frame.
R (number of check bytes in RS code word)	The length of the RS code word.
S (RS code word size in DMT frame)	The RS code length of the DMT frame.
D (interleaver depth)	The degree of the DSL status which his working in interleaved mode.
Delay	The data transmission delay upstream and

Field	Description
	downstream.
FEC	Forward error correction.
CEC	Cyclic redundancy check.
Total ES	Total errored seconds.
Total SES	Total severely errored seconds.
Total UAS	Total unavailable seconds.

## **ARP** Table

Select **ARP Table** in the Status menu to open the ARP Table window. In this window you can view the ARP table which shows a list of learned MAC addresses. This helps you to determine which MAC addresses have an IP address associated.

Figure 4-8 ARP Table window

Status	Statu <i>s</i>	₩izard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	System I	LAN   WLAN   W	AN   Port M	apping   Stati	stic ARP	Table		
ARP Table	ARP This t	Table	a list of	learned MAC :	addresses.			
	IP Ad	ldress		TAC	Address			
	192.10	68.1.22		00-	16-76-E1-6	57-74		1
	Refr	esh						

Status

The following table describes the fields of the ARP Table status window.

Table 4-8 Field descriptions

Field	Description
IP Address	The IP addresses added to the ARP routing table.
MAC Address	The MAC address associated with the IP address in the ARP routing table.

# 5 Wizard

## Overview

## Purpose

The CellPipe 7130 RG configuration wizard enables speedy and accurate configuration of the CellPipe 7130 RG and Internet connection. The following sections describe the configurable connection parameters. Each parameter has a default setting that is suitable for most situations; however, you may modify these to suit your network environment.

### Contents

This chapter covers the following topic:

To use the configuration wizard

5-1

## To use the configuration wizard

### When to use

This procedure describes how to use the configuration wizard to quickly set up the CellPipe 7130 RG with the minimum required configurations.

## Before you begin

When subscribing to a broadband service, you must know the method by which you are connected to the Internet; your WAN device can be Ethernet, DSL, or both. Technical

information regarding the properties of your Internet connection should be provided by your ISP. For example, your ISP should instruct you:

- whether you are connected to the Internet using a static or dynamic IP address
- which protocols, such as PPPoA or PPPoE, you must use to communicate over the Internet

Please collect the following information from your ISP:

VPI	
VCI	
Encapsulation: VC-MUX or LLC	
Protocol	
Standard	
Username/Password	
Password protocol	

### Procedure

1 Select **Wizard** in the CellPipe 7130 RG menu bar to open the Wizard menu. This menu is available only for the admin user.

## Caution

## Possible service interruption

Do not change the VPI/VCI values unless instructed to do so by your ISP.

**2** Select **Wizard** in the Wizard menu to open the Wizard window. In this window you can configure the VPI and VCI for your ATM PVC.

Be sure to use the VPI and VCI numbers assigned to you. The valid range for VPI is 0 to 255 and for VCI is 32 to 65535 (0 to 31 is reserved for local management of ATM traffic).

Wizard	Status	<b>▼</b> izard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	Wizard							
Wizard	Wiza	ard						
	This W DSL Ro	Vizard will outer.	. guide you	through the	steps nec	essary to co	nfigure yo	our
	Note: I	This PVC wi	ll instead	of the first	original	PVC.		
	ATT P	WC Confi	guration	1				
	The Vi: needed Do not	rtual Path for settin change VP:	Identifier ng up the A I and VCI r	r (VPI) and V ATM PVC. numbers unles	irtual Cha s your ISF	mnel Identif ) instructs y	'ier (VCI) 'ou otherw	are ise.
	VPI:	0 (0-	-255)					
	VCI:	35 (32	2-65535)					
							Nei	ĸt>

Figure 5-1 Wizard window

**3** Click **Next**. The Connection Type window appears. In this window you can select the WAN Connection Type and the Encapsulation Mode as provided to you by your ISP.

Figure 5-2 Connection Type window

Wizard	Status	<b>▼</b> izard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	Wizard							
Wizard	Conne	ction Ty	уре					
	Select PVC th	the type at your IS	of network P has inst:	protocol and ructed you to	d encapsula o use.	tion mode ov	er the ATN	τ
	WAN (	Connecti	on Type:	○PPP over	· ATM (PPPo	A)		
				○PPP over	• Ethernet	(PPPoE)		
				○1483 MEF	2			
				○1483 Rou	ited			
				⊙1483 Bri	dged			
	Encar	sulatio	n Tode:	LLC/SNAP 🔽	]			
						< Back	Next	>

The following table describes the fields of the Connection Type window. Choose the parameters that match the information provided by your ISP and click **Next**.

The method of encapsulation used by your

ISP, one of:

•

LLC/SNAP VC-Mux

Field	Description
WAN Connection Type	The WAN Connection Type, one of:
	• PPPoA
	• PPPoE
	• 1483 MER
	• 1483 Routed
	• 1483 Bridged

Table 5-1 Field descriptions

- a. If you selected PPPoA or PPPoE as the connection type, go to step 4.
- b. If you selected 1483 MER as the connection type, go to step 8.
- c. If you selected 1483 Routed as the connection type, go to step 10.
- d. If you selected 1483 Bridged as the connection type, go to step 11.

## PPPoA and PPPoE configuration

**Encapsulation Mode** 

**4** If you selected PPPoA or PPPoE for the WAN Connection Type, configure the following settings in the PPP configuration windows for the CellPipe 7130 RG type.

Wizard

Wizard	Status	<b>▼</b> izard	LAN	WAN	Advance	Admin	Diagnostic
	Wizard						
Wizard	WAN IP	Setting	5				
	Enter in	formation p	provided to ;	you by your	ISP to config	ure the W.	AN IP settings.
	⊙Obtai ○Use t WAN I	n an IP ad he followin P Address:	dress automa ng IP addres 0.0.0.0	tically s:			
	🗹 Enabl	e NAT					
					C	< Back	Next >

Figure 5-3 WAN IP Settings window

The following table describes the fields of the WAN IP Settings window.

Table 5-2Field descriptions

Field	Description
Obtain an IP address automatically	The dynamic IP is not fixed; your ISP assigns a different IP address each time you connect to the network.
Use the following IP address	Specify a fixed IP address that is provided by your ISP.
WAN IP address	The static IP address of the WAN interface provided by your ISP, in dotted decimal notation.
Enable NAT	Select the check box to enable the NAT functions of the CellPipe 7130 RG. NAT must be enabled if the CellPipe 7130 RG is functioning as a router.

**5** Click **Next**. The PPP Username and Password window appears. Set the field values according to the information provided by your ISP.



## Figure 5-4 PPP Username and Password window

The following table describes the fields of the PPP Username and Password window.

Figure 5-5 PPP Username and Password window

Field	Description
PPP Username	The username and password apply to
PPP Password	PPPoE and PPPoA encapsulation only.
	Ensure that you have entered the correct
	PPP username and password provided by
	your ISP.

Field	Description
PPP Connection Type	<ul> <li>The type of PPP connection, one of:</li> <li>Continuous (The connection is established automatically, regardless of the amount of traffic.)</li> </ul>
	• <b>Connect on Demand</b> (The connection is only opened when traffic must pass through an interface.)
	• Manual (Used to connect to a location once or occasionally – a user must log in to the CellPipe 7130 RG and force the connection open.)
	The Idle Time value enables you to specify the amount of time to wait (in seconds) before the connection is dropped due to inactivity.

**6** Click **Next**. The LAN Interface Setup window appears. Set the field values according to the needs of your local area network.

Wizard

.....

Wizard	Status	♥izard	LAN	WAN	Advance	Admin	Diagnostic
	Wizard						
Wizard	LAN Ir	nterface S	Setup				
	This pa LAN IP: LAN Net:	ge is used t mask:	to configure t 192.168.1. 255.255.25	the LAN inter 1 5.0	rface of your .	ADSL Router.	
	🗹 Enabi	le Secondary	7 IP				
	Seconda	ry LAN IP:		19	92.168.100.1		
	Seconda	ry LAN Netma	ask:	25	55.255.255.0		
	DHCP S Set and	<b>Server</b> configure t le DHCP Serv	the Dynamic Ho ver	ost Protocol	mode for your	device.	
	Start I	P:	192.168.1.	2			
	Eng IP:		192.168.1.	254			
	Max Lea:	se Time:	1 Day O not limite	Hour 0	Min (If all i	.s −1,Max Lea	ase Time is
					<	Back Nex	t >

Figure 5-6 LAN Interface Setup window

The following table describes the fields of the LAN Interface Setup window.

Table 5-3LAN Interface Setup window

Field	Description
LAN IP	The IP address of the CellPipe 7130 RG in dotted decimal notation; for example, 192.168.1.1(factory default).
LAN Netmask	The subnet mask of the LAN IP address; for example 255.255.255.0.
Enable Secondary IP	Select this check box to enable the secondary LAN IP address.

Wizard

Field	Description
Secondary LAN IP	The secondary IP address of the CellPipe 7130 RG in dotted decimal notation; for example, 192.168.100.1(factory default).
Secondary LAN Netmask	The subnet mask of the secondary LAN IP address; for example 255.255.255.0.
Enable DHCP Server	Select this check box to enable the DHCP server. The DHCP server assigns IP addresses on request to devices connected to the LAN.
Start IP	The first of the contiguous addresses in the IP address pool.
End IP	The last of the contiguous addresses in the IP address pool.
Max Lease Time	The maximum time period for which a connected computer will maintain a LAN IP address assigned by DHCP.

7 Click Next. The WAN Setup – Summary window appears. This window lists the WAN configuration settings specified in steps 2 to 6. Click Finish to save these settings and reboot, or click **Back** to make changes. You have finished using the configuration wizard.

Wizard	Status	Vizard	LAN	WAN	Advance	Admin	Diagnostic				
	Wizard										
₩izard	WAN Se Make su: WAN Se	etup - Sum re that the	<b>umary</b> settings be:	low match the	settings provi	ided by you	r ISP.				
	<b>VPI/VCI</b> 0 / 35										
	Connect Type PPPoE LLC/SNAP, connect forever										
	NAPT Enabled										
	TAN IP auto assigned										
	Reserv	ved Gateway	auto	assigned							
	DNS Se	rver	auto	assigned							
	LAN Co	onfigure:									
	LAN IP	, _	192.	168.1.1 / 255.	. 255. 255. 0						
	Second	lary IP	192.	168.100.1 / 29	55.255.255.0						
	DHCP S	erver	Enab	led							
	DHCP I	P Range	192.	168.1.2 $\sim$ 192	2.168.1.254						
	DHCP Lease Time 1day Ohour Omin										
	Click") to make < Bad	Finish" to s any modific ck Finis	ave these so ations. sh	ettings.Then s	system will reb	ooot Clic	k "Back"				

Figure 5-7 WAN Setup - Summary window

## 1483 MER configuration

**8** If you selected **1483 MER** as the WAN Connection Type in step 3, the WAN IP Settings window appears.

Wizard



Figure 5-8 WAN IP Settings window

The following table describes the fields of the WAN IP Settings window.

Table 5-4Field descriptions

Field	Description		
Obtain an IP address automatically	Instructs the CellPipe 7130 RG to obtain a WAN IP address automatically and enable DHCP client functions.		
Use the following IP address	When selected, this option instructs the CellPipe 7130 RG to use the WAN IP address provided in the WAN IP Address field.		
WAN IP Address	The static IP address of the WAN interface (provided by your ISP) in dotted decimal notation.		
WAN Subnet Mask	The subnet mask for the IP address of the WAN interface provided by your ISP; for example, 255.255.255.0.		

Field	Description
Default Gateway	The IP address of the default gateway to access the Internet.
Obtain DNS server addresses automatically	When selected, this option instructs the CellPipe 7130 RG to obtain the IP address of the DNS assigned by the uplink equipment such as BAS.
Use the following DNS server addresses	When selected, this option instructs the CellPipe 7130 RG to use the IP address of the DNS specified in the Primary DNS server and Secondary DNS server fields.
Primary DNS server	The IP address of the primary DNS provided by your ISP, in dotted decimal notation.
Secondary DNS server	The IP address of the secondary DNS provided by your ISP, in dotted decimal notation.
Enable NAT	Select the check box to enable the NAT functions of the CellPipe 7130 RG. NAT must be enabled if the CellPipe 7130 RG is functioning as a router.

9 Click Next. The WAN Setup Summary window appears. This window lists the WAN configuration settings specified in steps 2, 3, and 8. Click Finish to save these settings, or Back to make changes. You have finished using the configuration wizard.

## 1483 Routed configuration

**10** If you selected **1483 Routed** as the WAN Connection Type in step 3, the WAN IP Settings window appears.

Wizard

Wizard	Status	<b>▼</b> izard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	Wizard							
₩izard	WAN :	IP Settir	<b>igs</b> n provided	to vou by v	our ISP to	configure the	e WAN IP	settings.
	<u> </u>	one				0		Ū.
	⊙ 01	otain an IP	address a	utomatically	7			
	O U	se the foll	owing IP a	ddress:				
	W.	AN IP Addre	ss: 0.0.0	). 0				
	W.	AN Subnet M	ask: 255.2	255.255.0				
	()	otain DNS s	erver addr	esses automa	tically			
	Ŭ Ŭ	se the foll	owing DNS :	server addre	sses:			
	P s S s	rimary DNS erver: econdary DN erver:	0.0.0 S	). 0				
	🗹 Er	able NAT						
						< Back	Nex	t >

Figure 5-9 WAN IP Settings window

The following table describes the fields of the WAN IP Settings window.

### Table 5-5 Field descriptions

Field	Description			
None	Select <b>None</b> to use the IP Unnumbered function in 1483 Routed mode, which enables IP processing on an interface without assigning it an explicit IP.			
Obtain an IP address automatically	Instructs the CellPipe 7130 RG to obtain a WAN IP address automatically each time you connect to the network.			
Use the following IP address	When selected, this option instructs the CellPipe 7130 RG to use the WAN IP address provided in the WAN IP Address field.			

Field	Description
WAN IP Address	The static IP address of the WAN interface (provided by your ISP) in dotted decimal notation.
WAN Subnet Mask	The subnet mask for the IP address of the WAN interface provided by your ISP; for example, 255.255.255.0.
Obtain DNS server addresses automatically	When selected, this option instructs the CellPipe 7130 RG to obtain the IP address of the DNS assigned by the uplink equipment, such as BAS.
Use the following DNS server addresses	When selected, this option instructs the CellPipe 7130 RG to use the IP address of the DNS specified in the Primary DNS server and Secondary DNS server fields.
Primary DNS server	The IP address of the primary DNS provided by your ISP, in dotted decimal notation.
Secondary DNS server	The IP address of the secondary DNS provided by your ISP, in dotted decimal notation.
Enable NAT	Select the check box to enable the NAT functions of the CellPipe 7130 RG. NAT must be enabled if the CellPipe 7130 RG is functioning as a router.

## 1483 Bridged configuration

**11** The LAN Interface Setup window appears.

Wizard	Status	Vizard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	Wizard							
Wizard	LAN I	nterface S	etup					
	This pa	ge is used to	configure the	LAN interface o	f your ADSL ro	outer.		
	LAN IP:		192.168.1.1					
	Subnet	Mask:	255.255.255.0					
	Enab	le Secondary	IP					
	DHCP	Server						
	Set and	l configure tł	ne Dynamic Host	Protocol mode f	or your device	3.		
	🔽 Enab	le DHCP Serve	er					
	Start I	Р:	192.168.1.2					
	End IP:		192.168.1.254					
	Max Lea	se Time:	1 Day 0 1 not limited)	Hour 0 Min (	If all is -1,M	ax Lease Time is		
					< Back	Next >		

Figure 5-10 LAN Interface Setup window

The following table describes the fields of the LAN Interface Setup window.

Field	Description
LAN IP	The IP address of the CellPipe 7130 RG in dotted decimal notation; for example, 192.168.1.1(factory default).
Subnet Mask	The subnet mask of the LAN IP address; for example 255.255.255.0.
Enable Secondary IP	Select this check box to enable the secondary LAN IP address.
Enable DHCP Server	Select this check box to enable the DHCP server. The DHCP server assign IP addresses on request to devices connected to the LAN.
Start IP	The first of the contiguous addresses in the IP address pool.
End IP	The last of the contiguous addresses in the IP address pool.
Max Lease Time	The maximum time period for which a connected computer will maintain a LAN IP address assigned by DHCP.

Table 5-6 Field descriptions

**12** Click **Next**. The WAN Setup - Summary window appears.

Wizard

WI BUL U							 
	Wizard	a b					
zard	WAN Setup Make sure t WAN Setup	) - Summan hat the set ):	<b>ry</b> tings below m	atch the settin	gs provided by	your ISP.	
	VPI/VCI		0 / 35				
	Connect I	уре	1483 Brid	lged LLC/SNAP			
	LAN Confi LAN IP	guration	192.168.1	.1 / 255.255.25	5.0		
	Secondary	IP	0.0.0.0 /	0.0.0.0			
			Enabled				
	DHCP Serv	er					
	DHCP Serv DHCP IP R	ange	192.168.1	$.2 \sim 192.168.1$	. 254		

Figure 5-11 WAN Setup - Summary window

**13** Click **Finish** to save these settings or **Back** to make changes. You have finished using the configuration wizard.

END OF STEPS

# 6 LAN

## Overview

## Purpose

The LAN configuration windows are used to define the IP address of the CellPipe 7130 RG and to configure the DHCP server. Select LAN in the CellPipe 7130 RG menu bar to open the LAN menu, which contains LAN Settings and DHCP Settings. This menu is available only for the admin user.

### Contents

This chapter covers the following topics:

LAN Settings	6-1
DHCP Settings	6-3

## LAN Settings

On the LAN Interface Setup window you can configure the LAN IP address of the CellPipe 7130 RG. The default IP address is 192.168.1.1 and is acceptable for most network environments. This is the address at which the CellPipe 7130 RG can be reached in the local network. This address can be freely assigned from the block of available private addresses.

Select LAN Settings in the LAN menu to open the LAN Interface Setup window.

Figure 6-1 LAN Interface Setup window (4-port wireless model shown)

LAN	Status Vi	izard LAN	WLAN	WAN	Advance	Admin	Diagnostic
	LAN Settings	s DHCP Settings					
LAN Interface	LAN I	nterface	Setup				
	This page Here you	is used to conf: may change the se	igure the LAN etting for IF	f interface 'addresss,	of your ADSI subnet mask,	. Router. etc	
	Note: Ple immediate	ase <u>Commit/Reboot</u> ly.	if you want	to make t	his settings	effective	
	Interfac	e Name: br0					
	IP Addre	ss: 192.	168.1.1	]			
	Subnet 1	ask: 255.	255.255.0	]			
	Seco	ndary IP					
	IG <b>T</b> P Sno	oping: 💿 D	isabled 🔿	Enabled			
	Apply (	Changes					

The following table describes the fields of the LAN Interface Setup window.

Table 6-1Field descriptions

Field	Description
Interface Name	The preset name of the LAN interface you are configuring.
IP Address	The IP address of the LAN interface in dotted decimal notation. The default is 192.168.1.1. You can change this address as needed to an address that is reserved for private use. The range of private addresses is 192.168.1.1 to 192.168.255.254.
Subnet Mask	The subnet mask of the IP addresses in your LAN; for example, 255.255.255.0.
Secondary IP	Select the check box to enable the secondary LAN IP address. The primary and secondary LAN IP addresses must be different.

Field	Description
IGMP Snooping <sup>8</sup>	Select the Enabled radio button to have the CellPipe 7130 RG glean routing information from IGMP packets.
Apply Changes	Click to save your changes.

## **DHCP** Settings

DHCP allows network clients (computers) to obtain their TCP/IP configuration settings at start-up from a centralized DHCP server. A DHCP server can assign an IP address, IP default gateway, and DNS to DHCP clients. You can enable or disable the CellPipe 7130 RG as a DHCP server. The CellPipe 7130 RG can also act as a surrogate DHCP server (DHCP Proxy) whereby it relays the IP address assignment from another DHCP server to the network clients.

Select **DHCP Settings** in the LAN menu to open the DHCP Server Setup window. Depending on the DHCP function enabled, different fields are visible. The following figures show the three DHCP functions with their associated fields.

Figure 6-2 DHCP Server Setup window - Disable selected

LAN	Status	Vizard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	LAN Setti	ngs   DHCP	Settings					
DHCP Settings	DHCF	9 Serv	ver Set	Up				
	Enable lists - number: This p: Note: J immedi:	the DHCP the IP add s in the p age is als Please <u>Cor</u> ately.	Server if y dress pools bool to host so used to c mit/Reboot	ou are usin available t s on your n onfigure th if you want	ng this dev o hosts on network as ne DHCP ser to make t)	ice as a DHCI your LAN. Th they request ver ip addre: his settings	? server. he device Internet sses for 1 effective	This page distributes access. DHCP Relay. e
	LAN II ODisa	Address	s: 192.168.1 DHCP Proxy	.1 Subne	r <b>t Iask:</b> 2 erver	55.255.255.0 Apply C	hanges	

<sup>8</sup> 4-port wireless model only

LAN

## Figure 6-3 DHCP Server Setup window - DHCP Proxy selected

LAN	Status	<b>▼</b> izard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	LAN Setti	ings   DHCP	Settings					
DHCP Settings	DHCF	9 Serv	ver Set	up				
	Enable lists number This p	the DHCP the IP add s in the p age is als	Server if yo bress pools : bool to host: so used to co	ou are usin available t s on your n onfigure th	g this dev o hosts on etwork as e DHCP ser	ice as a DHCI your LAN. Th they request ver ip addre:	P server. ne device Internet sses for	This page distributes access. DHCP Relay.
	Note: immedi	Please <u>Com</u> ately.	umit/Reboot :	if you want	to make th	his settings	effectiv	e
	LAN II ODis	P Address	: 192.168.1 OHCP Proxy	.1 Subne	<b>t Task:</b> 2 erver	55.255.255.0		
	DHCP	Proxy:						
	DHCP : Addre:	Server ss:	172.19.31.	4				
						Apply C	hanges	

### Figure 6-4 DHCP Server Setup window - DHCP Server selected

LAN	Status Vizard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	LAN Settings DHCF	Settings					
DHCP Settings	DHCP Serv Enable the DHCP lists the IP ad	ver Set	<b>Up</b> ou are usin available t	g this dev o hosts on	ice as a DHC your LAN. T	P server. he device	This page distributes
	This page is al Note: Please <u>Co</u> immediately.	pool to nost so used to c mmit/Reboot	s on your n onfigure th if you want	etwork as e DHCP ser to make t	they request ver ip addre his settings	effectiv	access. DHCP Relay. 'e
	LAN IP Addres ODisable C	s: 192.168.1 DHCP Proxy	.1 Subne	<b>t Task:</b> 2 erver	55. 255. 255. 0		
	DHCP Server:						
	IP Pool Range:	192.168.1.2	- 192.16	58.1.254	Show Cl	ient	
	<b>T</b> ax Lease Time:	1 days	0 hours	0 minut	es (-1 indic:	ates an in	nfinite lease)
	Domain Name:	domain. name					
	Gateway Address:	192.168.1.1					
	MAC-Base As	signment	1		Apply C	hanges	

The following table describes the fields of the DHCP Server Setup window. Not all fields apply to each DHCP function.

Alcatel-Lucent

Field	Description
Disable	The CellPipe 7130 RG does not function as a DHCP server or proxy.
DHCP Proxy	If enabled, the CellPipe 7130 RG functions as a surrogate DHCP server and relays the DHCP requests and responses between the remote server and the client. Configure the DHCP Server Address.
DHCP Server Address	The IP address of the remote DHCP server.
DHCP Server	If enabled, the CellPipe 7130 RG assigns IP addresses, an IP default gateway, and DNS servers to computers that support the DHCP client; for example, Windows 95, Windows NT.
IP Pool Range	The first value and the last value of contiguous IP addresses for the IP address pool.
Show Client	Click to view the assigned IP address(es) of the clients; see Figure 6-5.
Max Lease Time	The time period during which the computers retain the IP addresses assigned to them without changing them.
Domain Name	If left blank, the CellPipe 7130 RG uses the domain name obtained by DHCP from the ISP. Although you must enter a System Name on each individual computer, the domain name can be assigned to the CellPipe 7130 RG via the DHCP server.
Gateway Address	The default IP gateway of the IP address pool.

Table 6-2 Field descriptions

Field	Description
MAC-Base Assignment	Click to assign LAN IP addresses to specific computers based on their MAC address; see Figure 6-6.
Apply Changes	Click to save your changes.

When you click the Show Client button, the Active DHCP Client Table window appears.

### Figure 6-5 Active DHCP Client Table window

tp://192.168.1.1	- Active DHCP Clien	: Table - Microsoft In	
Active DH	ICP Client Ta	ble	
This table shows expired for each	the assigned IP addres: DHCP leased client.	, MAC address and time	
770 4 1 1	Tif iddress	Tipe Empired(c)	
1P Address	Inc huuress	IIme Explicu(S)	
IF Address None			

The following table describes the fields in the Active DHCP Client Table window.

Table 6-3	Field descriptions
-----------	--------------------

Field	Description
IP Address	The IP address related to the MAC address.
MAC Address	The MAC address of the DHCP client (computer).
Time Expired(s)	The lease time. The time period during which computers retain their DHCP- assigned IP addresses.

When you click the **MAC-Base Assignment** button, the Static IP Assignment Table window appears. In this window, you can assign LAN IP address to a computer based on its MAC address.

Attp://192.168.1.1 - Static IP Assignment Table - Licrosoft Int...

 Static IP Assignment Table

 This page is used to configure the static IP base on MAC Address.

 You can assign/delete the static IP. The Host MAC Address, please

 input a string with hex number. Such as "00-d0-59-c6-12-43". The

 Assigned IP Address, please input a string with digit. Such as

 "192.168.1.100".

 Host MAC Address(xx-xx-xx-xx-xx): 00-00-00-00-00

 Assigned IP Address(xxx.xxx.xxx): 0.0.0

 Assign IP

 Modify Assigned IP

 Delete Assignment Table:

 Select
 Host MAC Address

Figure 6-6 Static IP Assignment Table window

The following table describes the fields of the Static IP Assignment Table window.

Table 6-4 Field descriptions

Field	Description
Host MAC Address	The MAC address of a computer on your LAN.
Assigned IP Address	The static IP address to assign to the computer from the private IP address pool.
Assign IP	Click to have this IP address /MAC association take effect. A row is added to the MAC-Base Assignment Table.
Modify Assigned IP	Select a row in MAC-Base Assignment Table; the Host MAC Address and Assigned IP Address fields are populated with this data. Update the MAC or IP address fields and click Modify Assigned IP to save the changes.

Field	Description
Delete Assigned IP	Select a row in MAC-Base Assignment Table and click <b>Delete Assigned IP</b> to delete this row.
Close	Click to close this window.
MAC-Base Assignment Table	Shows the assigned IP address associated the MAC address.

LAN

# 7 WLAN

## Overview

## Purpose

Note: This menu is only available for the CellPipe 7130 RG 5Ae.A2010.

This section introduces the wireless LAN and some basic WLAN configurations for the CellPipe 7130 RG (4-port wireless model). Wireless LANs can be as simple as two computers with wireless LAN cards communicating in a peer-to-peer network, or as complex as many computers with WLAN cards communicating through access points which bridge network traffic to a wired LAN.

Select **WLAN** on the CellPipe 7130 RG menu bar to open the WLAN sub-menu, which contains the following items:

- Basic Settings
- Security
- Advance Settings
- Access Control
- WDS Settings

This menu is available only for the admin user.

### Contents

This chapter covers the following topics:

**Basic Settings** 

7-2

Security	7-6
Advance Settings	7-10
Access Control	7-12
WDS Settings	7-14

## **Basic Settings**

Select **Basic Settings** in the WLAN sub-menu to open the Wireless Basic Settings window. This window is used to configure the parameters for wireless LAN clients that may connect to your access point.

Figure 7-1 Wireless Basic Settings window

WAN	Status Vizard	LAN VLAN	WAN	Advance	Admin	Diagnostic
	Basic Settings Securit	y Advance Setti	ngs   Access C	Control   WDS	Settings	
Basic Settings	₩ireless Ba	sic Setti	ings			
	This page is used to which may connect to Note: Please <u>Commit/</u> immediately.	configure the p your Access Po: <u>Reboot</u> if you wa	arameters fo: int. unt to make th	r wireless L his settings	AN clients effective	2
	Configure Wireless Network needs about 15 seconds, please wait					
	Band: 2.4 GHz (B+G)					
	Tode:	AP 🔽				
	(Root)SSID:	ds1-867001				
	Auth Type:	)Open System	O Shared Key	💿 Aut o		
	Virtual SSID:	Set VSSID:				
	SSID:	Enable ODis	able			
	Country/Area: U	ISA	~			
	Channel Number: A	.uto 🔽				
	Send Rate:	uto 🔽				
	Radio Power 1 (mW):	00% 🔽				
	Apply Changes					

Alcatel-Lucent

The following table describes the fields of the Wireless Basic Settings window.

Table 7-1 Field descriptions

Field	Description
Disable Wireless LAN Interface	The wireless LAN is turned on by default. Select the check box to disable the wireless LAN.
Band	The radio band used by the wireless transmissions.
Mode	<ul> <li>Choose between:</li> <li>AP</li> <li>AP+WDS</li> <li>To configure WDS, see WDS Settings.</li> </ul>
(Root) SSID	The SSID is a unique name to identify the CellPipe 7130 RG in the wireless LAN. Wireless devices (i.e. computers) that connect to the CellPipe 7130 RG must have the same SSID. Enter a descriptive name.
Auth Type	The authentication type the CellPipe 7130 RG uses when devices connect to the CellPipe 7130 RG; choose between Open, Shared Key, and Auto.
Virtual SSID	You can enable a maximum of four
Set VSSID	SSIDs. Click <b>Set VSSID</b> , the Virtual SSID window appears; see Figure 7-2.
SSID	You can enable or disable this SSID.
Country/Area	Select your geographical region.

Field	Description
Channel Number	A channel is the radio frequency used by an 802.11b/g wireless device. The channels that are available depend on your geographical area. If another access point is nearby, use a different channel to reduce signal interference. Interference occurs when the radio signal from a different access point overlaps with your signal, degrading performance. Select a channel number from the dron-down list
Send Rate	The rate of the data transmission.
	<ul> <li>Choose between:</li> <li>11Mb/s for 802 11b networks</li> </ul>
	<ul> <li>54 Mb/s for 802.11g networks</li> </ul>
	• Auto, to adjust automatically to the available data transmission rate of the current wireless network.
Radio Power (mW)	The radio transmission power consumption. The greater the power consumption, the farther the signal will reach.
Apply Changes	Click to save your changes.

When you click Set VSSID, the Virtual SSID Setting window appears.

🕘 http	o://192.168.	1.1 - Virtual S	SID Setting	- Licroso	
	Virtual	SSID Set	ting		
	Vap0	Enable			
	SSID	ads1-867002			
	Auth Type:	⊖Open System	⊖Shared Ke	ey 💿 Auto	
	Vap1	Enable			
	SSID	ads1-867003			
	Auth Type:	⊙Open System	○Shared Ke	ey 💿 Auto	
	Vap2	Enable			
	SSID	ads1-867004			
	Auth Type:	⊖Open System	⊖Shared Ke	ey 💿 Auto	
	Vap3	Enable			
	SSID	ads1-867005			
	Auth Type:	⊙Open System	○Shared Ke	ey 🧿 Auto	
	Apply Cha	inges Undo			
					~
ど 完毕				🌍 Internet	

Figure 7-2 Virtual SSID Setting window

The following table describes the fields of the Virtual SSID Setting window.

Table 7-2 Field descriptions

Field	Description
Vap0 to Vap3: Enable	Select the check box to enable this virtual SSID.
SSID	The SSID is a unique name to identify the virtual access point in the wireless LAN.
Auth Type	The authentication type the virtual access point uses when devices connect to it; choose among Open, Shared Key, and Auto.
Apply Changes	Click to save your changes.
Undo	Click to clear your changes to this window.

## Security

Click **Security** in the WLAN menu to open the Wireless Security Setup window. Wireless security is vital to protect wireless communications between wireless stations, access points, and the wired network.

	Basic Settings Security Advance Settings Access Control WDS Settings	
rity	Wireless Security Setup	
	This page allows you setup the wireless security. Turn on WEP or WPA b using Encryption Keys could prevent any unauthorized access to your wi network. Note: Please <u>Commit/Reboot</u> if you want to make this settings effective immediately.	y reless
	Configure Wireless Network needs about 15 seconds, please wait	
	SSID Type: <ul> <li>Root</li> </ul>	
	Encryption: None Set WEP Key	
	Use 802.1x Authentication	
	<b>UPA Authentication</b> (Enterprise (RADIUS) Personal (Pre-Shar <b>Lode:</b> Key)	ed
	Pre-Shared Key Format: Passphrase	
	Pre-Shared Key: 71913df7	
	Authentication RADIUS Server: Port 1812 IP Address 0.0.0.0	
	Password	

Figure 7-3 Wireless Security Setup window

The following table describes the fields of the Wireless Security Setup screen.

Table 7-3 Field descriptions

Field	Description
SSID Type	Select root if you are setting up security parameters for the Root SSID. If you set more than one SSID (virtual SSID), the type of the SSID is shown.
Field	Description
---------------------------	---
Encryption	<ul> <li>Choose between:</li> <li>None - No encryption</li> <li>WEP - Encrypts data frames before transmitting them over the wireless network.</li> <li>WPA (TKIP) - WPA is a subset of the IEEE 802.11i security specification draft. Key differences between WPA and WEP are user authentication and improved data encryption.</li> <li>WPA2 (AES) – WPA with an AES algorithm.</li> <li>WPA2 Mixed – allows WPA and WPA2 clients to be associated with the same SSID.</li> </ul>
Set WEP Key	This button becomes active when you select WEP as the Encryption type. Click to set up the WEP key; see Figure 7-4.
Use 802.1x Authentication	Select the check box to enable authentication security for the CellPipe 7130 RG. Choose <b>WEP-64bits</b> or <b>WEP-128bits</b> to specify the length of authentication key to use. Longer keys are more secure.
WPA Authentication Mode	Select <b>Enterprise</b> to obtain your authentication key from an authentication server. Select <b>Personal</b> to specify your own authentication key which must be shared with every LAN device that will access the CellPipe 7130 RG.

	WPA2 clients to be associated the same SSID.		
Set WEP Key	This button becomes active when y select WEP as the Encryption type Click to set up the WEP key; see Figure 7-4.		
Use 802.1x Authentication	Select the check box to enable authentication security for the Cell 7130 RG. Choose <b>WEP-64bits</b> or <b>WEP-128bits</b> to specify the lengt authentication key to use. Longer I are more secure.		
WPA Authentication Mode	Select <b>Enterprise</b> to obtain your authentication key from an authentication server.		
	Select <b>Personal</b> to specify your or authentication key which must be shared with every LAN device that access the CellPipe 7130 RG.		

Field	Description
Pre-Shared Key Format	<ul> <li>Choose one of the following as the format for your authentication key:</li> <li>Passphrase (e.g. the quick brown fox)</li> <li>Password (e.g. b1tj1194)</li> <li>Hexadecimal (e.g. 65E4 E556 83EF A6DE)</li> </ul>
Pre-Shared Key	A value for your authentication key is preset.
Authentication RADIUS Server	RADIUS is based on a client-server model that supports authentication, authorization, and accounting. The access point is the client and the server is the RADIUS server. RADIUS is a simple package exchange in which the CellPipe 7130 RG acts as a message relay between the wireless station and the network RADIUS server.
Port	The default port of the RADIUS server for authentication is 1812. Do not change this value unless your network administrator instructs you to do so.
IP Address	Enter the IP address of the RADIUS server.
Password	Enter a password as the key to be shared between the external authentication server and the access point; the key is not sent over the network. This key must be the same on the external authentication server and the CellPipe 7130 RG.
Apply Changes	Click to save your changes.

Wireless WEP	Key Setup
This page allows you se bit or 128-bit as the e format of input value.	etup the WEP key value. You could choose use 64- encryption key, and select ASCII or Hex as the
SSID TYPE:	⊙ Root
Key Length:	64-bit 💌
Key Format:	ASCII (5 characters) 🐱
Default Tx Key:	Key 1 🗸
Encryption Key 1:	3c671
Encryption Key 2:	3c672
Encryption Key 3:	3c673
Encryption Key 4:	3c674
Apply Changes	Close Undo

Figure 7-4 Wireless WEP Key Setup window

The following table describes the fields of the Wireless WEP Key Setup window.

Table 7-4	Field descriptions
-----------	--------------------

Field	Description
SSID Type	The SSID type of the CellPipe 7130 RG.
Key Length	Select <b>64-bit</b> or <b>128-bit</b> to use data encryption.
Key Format	If you chose <b>64-bit</b> as the Key Length, you can choose <b>ASCII (5 characters)</b> or <b>Hex (10 characters)</b> .
	If you chose <b>128-bit</b> as the Key Length, you can choose <b>ASCII (13 characters)</b> or <b>Hex (26 characters)</b> .
Default Tx Key	Specifies the default Encryption Key to be used.
Encryption Key 1 to 4	The Encryption keys are used to encrypt data. Both the CellPipe 7130 RG and the wireless clients must use the same encryption key for

Field	Description				
	data transmission.				
	If you chose <b>ASCII (5 characters)</b> as the Key Format, then enter any 5 ASCII characters.				
	If you chose <b>Hex (10 characters)</b> as the Key Format, then enter any 10 hexadecimal characters.				
	If you chose <b>ASCII (13 characters)</b> as the Key Format, then enter any 13 ASCII characters.				
	If you chose <b>Hex (26 characters)</b> as the Key Format, then enter any 26 hexadecimal characters.				
Apply Changes	Click to save your changes.				
Close	Click to close this window.				
Undo	Click to clear your changes to this window.				

# Advance Settings

Click **Advance Settings** in the WLAN menu to open the Wireless Advanced Settings window. These settings are only for technically advanced users who have a sufficient knowledge about wireless LANs. These settings should not be changed unless you are aware of the effect these changes may have on your access point.

WLAN

WAN	Status Vizard	LAN	VLAN	WAN	Advance	Admin	Diagnostic	
	Basic Settings Securi	ity   Advance	Setting	s Access (	Control   WDS	Settings		
Advance Settings	Wireless Advanced Settings These settings are only for more technically advanced users who have a sufficient knowledge about wireless LAN. These settings should not be changed unless you know what effect the changes will have on your							
	Access Foint. Note: Please <u>Commit/Reboot</u> if you want to make this settings effective immediately. Configure Wireless Network needs about 15 seconds, please wait							
	Fragment 2346 (256-2346)							
	<b>RTS Threshold:</b>	2347	(0-2	347)				
	Beacon Interval:	100	(20-	1024 ms)				
	Preamble Type:	OLong	O Sho:	rt 💿 Aut	0			
	Relay Interval:	○ Enable	💿 D :	isable				
	LAN/WLAN Interva	1: OEnable	💿 D:	isable				
	Apply Changes	]						

Figure 7-5 Wireless Advanced Settings window

The following table describes the fields of the Wireless Advanced Settings window.

Table 7-5	Field descriptions
-----------	--------------------

Field	Description		
Fragment Threshold	The maximum data fragment size that can be sent in the wireless network before the CellPipe 7130 RG will fragment the packet into smaller data frames.		
RTS Threshold	RTS is designed to prevent collisions due to a hidden node. An RTS threshold defines the biggest data frame size you can send before an RTS handshake occurs. The RTS Threshold value is between 0 and 2347. If the <b>RTS Threshold</b> value is greater than the <b>Fragment Threshold</b> value, then the RTS handshake will never occur as the data frames will be fragmented before they reach RTS size.		

Field	Description
Beacon Interval	The amount of time between beacon transmissions. A beacon is a packet broadcast by the access point to keep the network synchronized, and can identify the presence of an access point.
Preamble Type	Choose whether to use a long or short PLCP preamble to create the PPDU (PLCP protocol data unit). Auto is recommended.
Relay Interval	When enabled, connected clients can't communicate with each other within the local wireless network.
LAN/WLAN Interval	When enabled, connected clients can't communicate with each other within the local wireless network.
Apply Changes	Click to save your changes.

# Access Control

Click Access Control in the WLAN menu to open the Wireless Access Control window.

WAN	Status	<b>▼</b> izard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	Basic Set	tings   Secu	rity   Advar	nce Settina	gs   Access (	Control WDS	Settings	
Access Control	Wire	eless A	ccess	Conti	rol			
	Wirele: "Disab "Allow "Deny D	ss Access Co le"; Listed"; Listed";	ontrol Mode	•:				
	Note: 1 immedi:	Please <u>Commi</u> atelv.	it/Reboot i	if you want	t to make t	his settings	effective	•
	Config	ure Wireles:	s Network r	needs about	t 15 second	s, please wa	it	
	Select App	t <b>Access C</b> ly Changes	ontrol Io	de: Disab	ole 💌			
	Add Ad List:	cess Conti	rol		(	00-80-96-7	1-05-02)	
	Appl	y Changes	Rese	t	(64.	00-20-80-1	1-03-02/	
	Curren	t Access C	Control Li C Address	ist:	_	Select		
	Delete	e Del	ete All	Reset	)			

Figure 7-6 Wireless Access Control window

The following table describes the fields of the Wireless Access Control window.

Table 7-6Field descriptions

Field	Description
Select Access Control Mode	Choose among: • Disable
	• Allow Listed - permits access to the CellPipe 7130 RG, MAC addresses listed will be allowed to access the CellPipe 7130 RG.
	• <b>Deny Listed</b> - blocks access to the CellPipe 7130 RG, MAC addresses listed will be denied to access the CellPipe 7130 RG.
Apply Changes	Click to save your changes.

Field	Description
MAC Addr	The MAC address of the wireless clients that are allowed or denied access to the CellPipe 7130 RG.
Apply Changes	Click to add the MAC address to the ACL.
Reset	Click to clear the MAC address field.
Current Access Control List	The MAC addresses in this table are allowed or denied access to the CellPipe 7130 RG depending on the selected Access Control Mode.
Delete	Select a row in the Current Access Control List table and click to delete the row.
Delete All	Click to delete all rows in the Current Access Control List table.

# **WDS Settings**

Click WDS Settings in the WLAN menu to open the WDS Settings window.

Wireless Distribution System is commonly used in areas requiring multiple access points, where wiring is not possible or costly, and for providing backup paths between access points.

**Note:** You must select the **AP+WDS** option on the Wireless Basic Settings window; see Basic Settings, before you configure this window.

WAN	Status	Vizard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	Basic Set	tings   Secu	rity   Advar	nce Setting	s Access (	Control   WDS	Settings	
WDS Settings	WDS	Settin	ıgs					
	Wirele: other , in the commun Note: ] immedi Configu	ss Distribu APs, like t same chann icate with Please <u>Comm</u> ately. ure Wireles	tion System he Ethernet el and set in the tab <u>it/Reboot</u> : s Network :	n uses wird t does. To MAC addre: le and ther if you want needs about	eless media do this, y ss of other n enable th : to make t : 15 second	to communic ou must set APs which y we WDS. his settings hs, please was	ate with these APs ou want to effective it	
	E ADD VI	nable WDS )S AP:						
	HAC . Com	Addr		(ex:	00-E0-86	-71-05-02)		
	Appl	y Changes	Rese	t				
	Curren	t VDS AP I MAC Addre	List: ess	Cor	ment	Select		
	Delete	e Del	ete All					

Figure 7-7 WDS Settings window

The following table describes the fields of the WDS Settings window.

Table 7-7 Field descriptions

Field	Description
Enable WDS	Select the check box to enable the WDS function and set the WDS parameters.
MAC Addr	The MAC address of the access point.
Comment	A comment to describe the access point.
Apply Changes	Click to add the access point MAC address and comment to the Current WDS AP List.
Reset	Click to clear the MAC Addr and Comment fields.
Current WDS AP List	A listing of the access points added to the WDS.

Field	Description
Delete	Select a row in the Current WDS AP List table and click to delete the row.
Delete All	Click to delete all rows in the Current WDS AP List table.

3FE-61830-AAAA-TCZZA Edition 01 May 2008

# 8 WAN

# Overview

#### Purpose

Click **WAN** in the CellPipe 7130 RG menu bar to open the WAN menu, which contains **WAN Interface** and **ADSL Settings**. This menu is available only for the admin user.

#### Contents

This chapter covers the following topics:

WAN Interface	8-1
ADSL Settings	8-10

# WAN Interface

Click **WAN Interface** in the WAN menu to open the Channel Configuration window. In this window you can configure the parameters for the channel operation modes of the CellPipe 7130 RG.

#### WAN Status **V**izard LAN VLAN VAN Advance Admin Diagnostic |WAN Interface|ADSL Settings| **Channel Configuration** WAN Interface This page is used to configure the parameters for the channel operation modes of your ADSL Modem/Router. Note: Please Commit/Reboot if you want to make this settings effective immediately. Current ATH VC Table: Select Inf Mode VPI VCI Encap NAPT IP Addr Remote IP Droute Status Action User Name Internet\_R\_ 0\_35 PPPoE Enabl 0 35 LLC On huyibao 0n l e VPI: 0 VCI: Encapsulation: 💿 LLC 🛛 🔿 VC-Mux Channel Mode 1483 Bridged 🗸 Application Mode Internet 🗸 Admin Status: ③Enable ODisable Enable NAPT PPP Settings Login Name: Password: Connection Idle Time(min): Type: VAN IP Туре Fixed IP Use DHCP: Settings Local IP Remote IP Address: Address: Subnet **T**ask: Unnumbered: Default Route: Disable Enable Add Modify Delete Undo ATM Setting

#### Figure 8-1 Channel Configuration window

The following table describes the fields of the Channel Configuration window.

Table 8-1Field descriptions

Field	Description
Current ATM VC Table	This table lists the PVCs that have already been created. It shows the Interface name, Channel Mode, VPI/VCI, Encapsulation mode, NAPT status, local IP address, remote IP address, user name, default route, and status. The maximum number of entries in this table is eight.

Field	Description
	Click this button; the PPP Interface - Modify window appears. In this window you can modify the PVC parameters; however, the default settings are recommended.
VPI	The identifier for a virtual path between two points in an ATM network; a value between 0 and 255.
VCI	The identifier for a virtual channel between two points in an ATM network; a value between 32 and 65535 (1 to 31 are reserved for known protocols).
Encapsulation	Choose between LLC and VC-Mux.
Channel Mode	Choose among: <ul> <li>1483 Bridged</li> <li>1483 MER</li> <li>PPPoE</li> <li>PPPoA</li> <li>1483 Routed</li> </ul>
Application Mode	Choose Internet.
Admin Status	Enable or disable the PVC. When disabled, this PVC is unusable.
Enable NAPT	Select the check box to enable the NAPT functions of the CellPipe 7130 RG. NAPT must be enabled if the CellPipe 7130 RG is functioning as a router.
Login Name	The user name provided by your ISP.
Password	The password provided by your ISP.

WAN

Field	Description
Connection Type	<ul> <li>Choose among:</li> <li>Continuous (the connection is established automatically, regardless of the amount of traffic)</li> <li>Connect on Demand (the connection is only opened when traffic must pass through an interface)</li> </ul>
	• <b>Manual</b> (used to connect to a location once or occasionally – a user must log in to the CellPipe 7130 RG and force the connection open).
Idle Time(min)	If you selected <b>Connect on Demand</b> as the Connection Type, you must specify the idle time. If the CellPipe 7130 RG detects no traffic from the user for the amount of time specified, the CellPipe 7130 RG will automatically disconnect the PPPoE connection.
Туре	<ul> <li>Choose between:</li> <li>Fixed IP - enter the Local IP address, remote IP address, and subnet mask.</li> <li>Use DHCP - the CellPipe 7130 RG functions as a DHCP proxy; the WAN IP address is assigned by the remote DHCP server.</li> </ul>
Local IP Address	The IP of WAN interface provided by your ISP.
Remote IP Address	The gateway IP provided by your ISP.
Subnet Mask	The subnet mask of the Local IP Address.

Field	Description
Unnumbered	Select the check box to enable the unnumbered IP function. Using an unnumbered IP interface allows you to borrow an IP address already configured on one of the other interfaces of the CellPipe 7130 RG.
Default Route	<b>Enable</b> the default route function when you are configuring PPPoA, PPPoE, 1483 Routed and 1483 MER connections.
Add	Click to add the new PVC to the Current ATM VC Table.
Modify	Select a PVC in the Current ATM VC Table and modify the settings of this PVC. Click <b>Modify</b> to save your changes.
Delete	Select a PVC in the Current ATM VC Table and click to delete this PVC.
Undo	Click to clear the parameter fields.
ATM Setting	Click to configure the QoS mode of the ATM PVC; see Figure 8-3. The default settings are recommended.

If the PVC uses PPP as the channel mode, click  $\checkmark$  in the Current ATM VC Table; the PPP Interface – Modify window appears. In this window you can configure the parameters of the selected PPPoE PVC.

WAN	Status Wizard LAN	VLAN	WAN	Advance	Admin	Diagnostic
	WAN Interface ADSL Settings					
WAN Interface	PPP Interface -	Modif	fy			
	PPP Interface:	ppp0				
	Protocol:	PPPoE				
	ATT VCC:	8/81				
	Status:	ODis	able 💿 B	Inable		
	Login Name:	szsit1	32@163.gd			
	Password:	•••••	•••			
	Authentication Tethod	: Auto	1			
	Connection Type:	Contir	iuous	~		
	Idle Time(min):	0				
	Auto Disconnect Time:	0				
	₩arn Disconnect Delay	: 0				
	Default Route:	ODis	able 💿 B	lnable		
	IRU:	1492				
	IP Address	💿 Dyn	amic IP	⊖Static :	IP 0.0.	. 0. 0
	Bridge:	⊙Bri	dged Ether	net (Transp	arent Br	idging)
		⊖Bri	dged PPPoE	(implies B	ridged E	thernet)
		⊙Dis	able Bridg	e		
	AC-Name:					
	Service-Name:					
	802.1q:	⊙Dis	able OB	Inable		
		VLAN I	D(0-4095):	0		
	Apply Changes Return	n Undo				

Figure 8-2 PPP Interface - Modify window (4-port wireless model shown)

The following table describes the fields of the PPP Interface - Modify window.

Table 8-2 Field descriptions

Field	Description
PPP Interface	The preset identifier of the PPP Interface
Protocol	The protocol type used for this WAN connection.
ATM VCC	The ATM virtual circuit connection assigned for this PPP interface (VPI/VCI)
Status	The status of the PVC you are configuring.

Field	Description
Login Name	The login name provided by your ISP.
Password	The password provided by your ISP.
Authentication Method	Choose among: • PAP • CHAP • Auto
Connection Type	<ul><li>Choose among:</li><li>Continuous</li><li>Connect on Demand</li><li>Manual</li></ul>
Idle Time	If the CellPipe 7130 RG detects no traffic from the user for the amount of time specified, the CellPipe 7130 RG will automatically disconnect the PPPoE connection.
Auto Disconnect Time <sup>9</sup>	If set, the CellPipe 7130 RG disconnects automatically, even if data is being transmitted.
Warn Disconnect Delay <sup>9</sup>	If the Auto Disconnect Time is set, you can configure a warning period that will follow the disconnect time, after which the CellPipe 7130 RG disconnects.
Default Route	<b>Enable</b> the default route function when you are configuring PPPoA, PPPoE, 1483 Routed and 1483 MER connections.
MTU/MRU	The size of the largest packet or frame that can be transmitted.

<sup>9</sup> 4-port wireless model only.

Field	Description
IP Address	Choose a dynamic or static IP address for the WAN interface, as prescribed by your ISP.
Bridge	Choose among:
	• Bridged Ethernet
	Bridged PPPoE
	• Disable Bridge
AC-Name	The accessed equipment type.
Service-Name <sup>9</sup>	The service name.
802.1q <sup>9</sup>	Specifies whether VLAN tagging should be used.
VLAN ID <sup>9</sup>	The unique number assigned to this virtual LAN.
Apply Changes	Click to save your changes.
Return	Click to return to the Channel Configuration window.
Undo	Click to clear the values of the fields in this window

Click **ATM Setting** in the Channel Configuration window; the ATM Setting window appears. In this window you can configure the ATM parameters for the CellPipe 7130 RG, including the QoS type, PCR, CDVT, SCR, and MBS.

🗿 htt	p://19	2.168.1.	1 - ATE :	Settings	- Hicros	soft Inte	ernet Exp	lorer	
	ATM Setting								
	This I Router	page is us r.Here you	ed to con . can chan	figure th ge the se	e paramete tting of V	ers for th PI,QoS et	e ATM of g	your ADSL	
	Curre	nt ATE V(	Table:						
	索引	VPI	VCI	QoS	PCR	CDVT	SCR	<b>B</b> BS	
	0	8	81	UBR	6000	0			
	¥PI:		VCI:	Qo	S: UBR	*			
	PCR:		CDVT:		SCR:		IBS:		
	Apj	ply Change	s (	Jndo C	Close				

Figure 8-3 ATM Setting window

The following table describes the fields of the ATM Setting window.

#### Table 8-3 Field descriptions

Field	Description
VPI	The virtual path identifier of the ATM PVC.
VCI	The virtual channel identifier of the ATM PVC.
QoS	<ul> <li>The QoS category of the PVC; choose among:</li> <li>UBR</li> <li>CBR</li> <li>rt-VBR</li> <li>nrt-VBR</li> </ul>
PCR	The maximum rate at which cells can be transported along a connection in the ATM network.
CDVT	The amount of delay permitted between ATM cells (expressed in microseconds).

Field	Description
SCR	The maximum rate that traffic can pass over a PVC without the risk of cell loss.
MBS	The maximum number of cells that can be transmitted at the PCR.
Apply Changes	Click to save your changes.
Undo	Click to clear all fields.
Close	Click to close the window.

# **ADSL Settings**

Click **ADSL Interface** in the WAN menu to open the ADSL Settings window. In this window you can select the DSL modulation. In most network environments, the default settings are acceptable. The CellPipe 7130 RG supports the following modulations:

- G.Dmt
- G.Lite
- T1.413
- ADSL2
- ADSL2+
- AnnexL
- AnnexM

The CellPipe 7130 RG negotiates the modulation mode with the DSLAM.

WAN	Status Viz	ard	LAN	WLAN	VAN	Advance	Admin	Diagnostic
	WAN Interfac	ce   ADSI	L Setting	s				
ADSL Settings	ADSL S	etti	ings					
	ADSL Setti:	ngs.						
	ADSL Nodu	lation	1:					
			G	Lite				
			🗹 G	. Dmt				
			🗹 Т	1.413				
			💌 A	DSL2				
			💌 A	DSL2+				
	AnnexL Op	tion:						
			E	nable				
	Annex <b>I</b> Op	tion:						
			E	nable				
	ADSL Capa	bility	r:					
			🗹 E	nable Bits	wap			
			🗹 E	nable SRA				
	Apply Ch	nanges						

Figure 8-4 ADSL Settings window

The following table describes the fields of the ADSL Settings window.

#### Table 8-4 Field descriptions

Field	Description
ADSL Modulation	Choose among:
	• G.Lite – 1.5 Mb/s downstream, 512 Kb/s upstream
	• G.Dmt – 8 Mb/s downstream, 864 Kb/s upstream
	• T1.413 – max 15 Mb/s downstream, max 1.5 Mb/s upstream
	• ADSL – 1.5 to 9 Mb/s downstream, 16 to 640 Kb/s upstream
	• ADSL2+ – 24 Mb/s downstream

Field	Description
AnnexL Option	Select the check box to enable the AnnexL option if your WAN connection uses Annex L. Annex L extends the reach of the DSL service, up to 5.4 km (18,000 ft).
AnnexM Option	Select the check box to enable the AnnexM option if your WAN connection uses Annex M. Annex M increases the upload speeds of the connection.
ADSL Capability	Select the check boxes to enable Bitswap and SRA.
Apply Changes	Click to save your changes.

# 

# 9 Advance

## Overview

#### Purpose

Click **Advance** in the CellPipe 7130 RG menu bar to open the Advance menu. This menu contains:

- DNS
- Firewall
- Virtual Server
- Routing
- IP QOS
- Anti-dos
- Port Mapping
- Other

This menu is available only for the admin user.

#### Contents

This chapter covers the following topics:

DNS	9-2
Firewall	9-4

#### Advance

Virtual Server	9-11
Routing	9-14
IP QoS	9-17
Anti-dos	9-20
Port Mapping	9-22
Other	9-24

## DNS

A DNS provides an Internet service that translates easy-to-remember alphabetic domain names into IP addresses; the Internet however, is based on IP addresses. Every time a user uses a domain name to navigate to a website, a DNS must translate the name into the corresponding IP address; for example, the domain name www.example.com might translate to the IP address 198.105.232.4.

The DNS system is its own network. If one DNS cannot translate a particular domain name, it requests another DNS to provide the translation, and so on, until the correct IP address is returned.

Click **DNS** in the Advance menu to open the DNS configuration window.



The following table describes the fields of the DNS configuration window.

Table 9-1Field descriptions

Field	Description
Attain DNS Automatically	When selected, the CellPipe 7130 RG accepts the first received DNS assignment from one of the PPPoA-, PPPoE-, or MER-enabled PVC(s) during the connection establishment.
Set DNS Manually	When selected, enter the primary and optional secondary and tertiary DNS IP addresses.
DNS 1 through DNS 3	The primary, secondary, and tertiary DNS IP addresses.
Apply Changes	Click to save your changes.
Reset Selected	Click to clear these settings.

# Firewall

Click **Firewall** in the Advance menu to open the Firewall menu in the left-hand panel, which contains:

- IP/Port Filter
- MAC Filter
- URL Blocking

The firewall blocking functions and filters add security to your network by restricting traffic to and from your network according to prescribed criteria.

#### **IP/Port Filter**

Click **IP/Port Filter** in the left-hand panel to open the IP/Port Filtering window. Entries in this table are used to restrict certain types of data packets as they pass through the gateway based on the source and destination IP address and port.

Advance	Status	Vizard	LAN	WLAN	VAN	Advance	Admin	Diagnosti
	DNS Firewal	.1 Virtual Serve	er   Routing   II	9 QOS∣Anti-dos∣	Port Mapping	)ther		
IP/Port Filter MAC Filter URL Blocking	IP/I Entric packet Note: immed:	Port Filt es in this table ts through the G Please <u>Commit/R</u> iately.	e are used to ateway. Reboot to make	restrict certain	n types of data take effect			
	Default settings Outgoing Action O Deny O Allow Incoming Action O Deny Allow Apply Changes							
	Curren Direct De	t Filter Table: tion Protocol S lete Selected	rc IP Src Port	Dst IP Dst	Port Rule Action	Select		
	Rule A Direct Src IH 255.2 Dst IH Dst Pc Add	Action ⊙ Deny tion: Outgoing 2 Address: 0.0 55.255.255 S 2 Address: 0.0.0 ort: -	Allow     Protocol: .0.0 rc Port:	: TCP  Src Subnet N J Dst Subnet Mas	iask: k: 255.255.255	. 255		

Figure 9-2 IP/Port Filtering window

The following table describes the fields of the IP/Port Filtering window.

Table 9-2 Field descriptions

Field	Description
Outgoing Action	Deny or Allow all of the outgoing IP data traffic.
Incoming Action	Deny or Allow all of the incoming IP data traffic, but the response traffic from the local LAN-side PC is not included.
Apply Changes	Click to save your changes.

#### Advance

Field	Description
Delete Selected	Select a row in the Current Filter Table and click <b>Delete Selected</b> to delete that row.
Delete All	Click to delete all entries in the Current Filter Table.
Add Rule	Click to configure a new rule to add to the Current Filter Table; additional fields appear.
Rule Action	Choose <b>Deny</b> to exclude traffic from the identified IP address and port. Choose <b>Allow</b> to permit traffic from the identified IP address and port.
Direction	Choose whether the rule applies to incoming or outgoing traffic.
Protocol	The protocol of the incoming or outgoing traffic.
Src IP address	The source IP address for which traffic is allowed or denied.
Src Subnet Mask	The subnet mask of the source IP address for which traffic is allowed or denied.
Src Port	The port of the source IP address for which traffic is allowed or denied.
Dst IP Address	The destination IP address for which traffic is allowed or denied.
Dst Subnet Mask	The subnet mask of the destination IP address for which traffic is allowed or denied.
Dst Port	The port of the destination IP address for which traffic is allowed or denied.

Field	Description
Add	Click to add the rule to the table.

#### **MAC Filter**

Click **MAC Filter** in the left-hand panel to open the MAC Filtering window. Entries in the MAC Filtering table are used to restrict certain types of data packets as they pass through the gateway based on the source and destination MAC addresses.

Figure 9-3 MAC Filtering window

Advance	Status	Vizard	LAN	VLAN	VAN	Advance	Admin	Diagnostic
	DNS Firewal	l Virtual Serv	er   Routing   Il	P QOS∣Anti-dos	Port Mapping (	)ther		
IP/Port Filter MAC Filter URL Blocking	DNS Firewal	I Virtual Serv         Filterin         as in this table         of data packets         teway.         Please Commit/F         ately.         t Action         ng Deny         ng Deny         ly Changes         : Filter Table:         tion       Src         ete Selected	<ul> <li>a Routing   I</li> <li>a are used to s from your lo</li> <li>a from y</li></ul>	P QOS   Anti-dos restrict the tr cal network to these changes Dst MAC All	Port Mapping ( ansmission of co the Internet the take effect take effect	Pther   ertain rough		
	Action Direct	: ion:	<ul> <li>Deny</li> <li>Outgoing</li> </ul>	Allow				
	Src MA Dst MA	C Address: C Address:		(Such	as 00-11-22-33- as 00-12-23-34-	·44-55) ·45-56)		
	Add	Reset						

The following table describes the fields of the MAC Filtering window.

Table 9-3 Field descriptions

Field	Description
Outgoing Action	Deny or Allow all of the outgoing IP data traffic.
Incoming Action	Deny or Allow all of the incoming IP data traffic, but the response traffic from the local LAN-side PC is not included.
Apply Changes	Click to save your changes.
Delete Selected	Select a row in the Current Filter Table and click <b>Delete Selected</b> to delete that row.
Delete All	Click to delete all entries in the Current Filter Table.
Add Rule	Click to configure a new rule to the Current Filter Table; additional fields appear.
Action	Choose <b>Deny</b> to exclude traffic from the identified MAC address. Choose <b>Allow</b> to permit traffic from the identified MAC address.
Direction	Choose whether the rule applies to incoming or outgoing traffic.
Src MAC Address	The source MAC address for which traffic is allowed or denied.
Dst MAC Address	The destination MAC address for which traffic is allowed or denied.

#### **URL Blocking**

Click **URL Blocking** in the left-hand panel to open the URL Blocking Configuration window. This window enables you to create or remove a filter to block a keyword or fully-qualified domain name; for example, tw.yahoo.com.

Figure 9-4 URL Blocking Configuration window

Advance	Status	<b>▼</b> izard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	DNS Fire	wall   Virtua	l Server R	outing IP QC	S   Anti-dos	Port Mappin	g   Other	
IP/Port Filter MAC Filter URL Blocking	URL This p and f: keywor	Blocki page is used iltered keyw rd.	to configu	<b>nfigUra</b> ure the Block 70u can add/d	ed FQDN(Such elete FQDN a	n as tw.yahoo and filtered	.com)	
	Note: immed:	Please <u>Comm</u> iately.	<u>it/Reboot</u> i	if you want t	o make this	settings eff	ective	
	URL E App FQDN: Add	Blocking: Ily Changes WWW.XXX.XXX FQDN	x Delete FQDI	V	● Disabled	OEnabled		
	Selec	t	FQDN					
	Keywo Add Keywo Selec	rd: xxx Keyword rd Filterin	Delet ng Table: Keywor	e Keyword ) d	-			

The following table describes the fields of the URL Blocking window.

Table 9-4 Field descriptions

Field	Description
URL Blocking	Select <b>Enabled</b> to block access to the URLs and keywords specified in the URL Blocking Table and Keyword Filtering Table. Select <b>Disabled</b> to turn off URL blocking and keyword filtering.
Apply Changes	Click to save your changes.
FQDN	The fully-qualified domain name of the website to block.
Add FQDN	Click to add the fully-qualified domain name to the URL Blocking Table.
Delete FQDN	Select a row in the URL Blocking Table and click <b>Delete FQDN</b> to delete that row.
URL Blocking Table	A listing of the URL(s) to which access is blocked.
Keyword	The keyword to block.
Add Keyword	Click to add the keyword to the Keyword Filtering Table.
Delete Keyword	Select a row in the Keyword Filtering Table and click <b>Delete Keyword</b> to delete that row.
Keyword Filtering Table	A listing of the keyword(s) for which access is blocked.

## Virtual Server

Click **Virtual Server** in the Advance menu to open the Virtual Server menu in the lefthand panel, which contains **Services** and **DMZ Settings**.

#### Services

Click **Services** in the left-hand panel to open the Servise Settings window. This window is used to enable the servers in the local network.

Figure 9-5 Servise Settings window

Advance	Status	<b>V</b> izard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	DNS   Fir	ewall   Virtu	ual Server	Routing   I	P QOS   Ant	i-dos Port	Mapping	Other
Services DMZ Settings	Serv This p Note: 1 immedi	vise So age is used Please <u>Comm</u> ately.	etting to enable <u>it/Reboot</u> i	S the server: f you want	s in the l to make t	ocal networ	k. s effecti	ve
	Nane	Protocol	<b>VAN</b> Port	Server H	lost Port	Server Addres	: IP :s	Delete Add

Click Add to add a virtual server. The Virtual Server window appears.

Figure 9-6 Virtual Server window

	DNS Firewall Virtual Server	Routing IP	QOS   Anti-dos   Po	rt Mapping	Other	
Services DMZ Settings	Virtual Serve	<b>er</b> nfigure virtu	al server.			
	Server Type:					
	<ul> <li>Typical Services:</li> </ul>	AUTH	~			
	O Custom Services:					
	Protocol:	TCP/UDP	~			
	WAN Port:		(such as 80	or 80:100)		
	Server Host Port:		(such as 80)			
	Server IP Address:					
	Server if Address:					
	OK					

The following table describes the fields of the Virtual Server window.

Table 9-5 Field descriptions

Field	Description
Typical Services	Choose among:
	• AUTH
	• DNS
	• FTP
	• IPSEC
	• POP3
	• PPTP
	• SMTP
	• SSH
	• TELNET
	• TFTP
	• WEB
Custom Services	Name your own service; for example, Alex's FTP Server.
Protocol	Choose among:
	TCP/UDP
	ТСР
	UDP
WAN Port	The CellPipe 7130 RG port number for the server connection.
Server Host Port	The server port number for connecting to the CellPipe 7130 RG.
Server IP Address	The IP address of the virtual server.
ОК	Click to save your changes.

#### **DMZ Settings**

Click **DMZ Settings** in the left-hand panel to open the DMZ Settings window. A demilitarized zone is used to provide Internet services without sacrificing unauthorized access to its local private network. Typically, the DMZ host contains devices accessible to Internet traffic, such as Web servers, FTP servers, SMTP servers, and DNS servers.

Figure 9-7 DMZ Settings window

Advance	Status	Vizard	LAN	WLAN	VAN	Advance	Admin	Diagnostic
nutunot			1.0	1.8.1.1	TR AARLI .			
	DNS   Fir	ewall   Virt	ual Serve	r   Kouting	IP QOS Ant	1-dos   Port	Mapping	Other
Services DMZ Settings	DMZ	Setti	ngs					
	A Demi sacrif Typica traffi server Note: immedi	litarized : ficing unau uly, the DJ c, such as s and DNS : Please <u>Comu</u> ately.	Zone is us thorized a MZ host co Web (HTTF servers. mit/Reboot	sed to provi access to it ontains devi ) servers, i if you wan	de Internet s local pr ces access FIP serve t to make t	t services v ivate networ ible to Inte rs, SMTP (e- this setting	vithout ck. ernet -mail) gs effect:	ive
	DMZ Ho	nable DMZ st IP Addro	ess:		]			
	App	ly Changes	Re	eset				

The following table describes the fields of the DMZ Settings window.

Table 9-6 Field descriptions

Field	Description
Enable DMZ	Select the check box to enable the DMZ function.
DMZ Host IP Address	The IP address of the DMZ host.
Apply Changes	Click to save your changes.
Reset	Click to clear the values in the fields.

# Routing

Click **Routing** in the Advance menu to open the Routing menu in the left-hand panel, which contains **RIP** and **Static Route.** 

#### RIP

Click **RIP** in the left-hand panel to open the RIP Configuration window. Enable RIP to have the CellPipe 7130 RG communicate with other devices using RIP.

Advance	Status Vizard	LAN	VLAN VAN	Advance	Admin	Diagnostic
	DNS   Firewall   Virt	ual Server   🕅	outing   IP QOS   .	Anti-dos   Port	Mapping   (	Other
RIP Static Route	RIP Configuration Enable the RIP if you are using this device as a RIP-enabled router to communicate with others using the Routing Information Protocol. This page is used to select the interfaces on your device is that use RIP, and the version of the protocol used. RIP: © Disable © Enable Apply Changes					
	Interface: Receive Mode: Send Mode: Add Dele RIP Config Tabl Select Inte	br0 None V None e: erface	Entry Receive Mod	e Sen	d Mode	

Figure 9-8 RIP Configuration window

The following table describes the fields of the RIP Configuration window.

Table 9-7 Field descriptions

Field	Description
RIP	Select Enable to have the CellPipe 7130 RG communicate with other RIP- enabled devices.
Apply Changes	Click to save your changes.
Interface	The CellPipe 7130 RG interface that uses RIP.
### Routing

#### Advance

Field	Description
Receive Mode	<ul> <li>The interface type to accept RIP messages:</li> <li>None – Receive neither RIPv1 nor RIPv2 messages.</li> <li>Version 1 – Receive RIPv1 messages.</li> <li>Version 2 – Receive RIPv2 messages.</li> <li>Both – Receive RIPv1 and RIPv2 messages.</li> </ul>
Send Mode	<ul> <li>The working mode for sending RIP messages:</li> <li>None – Transmit neither RIPv1 nor RIPv2 messages.</li> <li>RIP1 – Broadcast RIP1 messages only.</li> <li>RIP2 – Multicast RIP2 messages only.</li> <li>RIP1COMPAT – Broadcast RIP2 messages.</li> </ul>
Add	Click to add the RIP interface to the RIP Config Table.
Delete Selected Entry	Select a row in the RIP Config Table and click <b>Delete Selected Entry</b> to delete that row.
RIP Config Table	A list of the CellPipe 7130 RG interfaces that have RIP enabled.

#### Static Route

Click **Static Route** in the left-hand panel to open the Routing Configuration window. This window enables you to add or delete static IP routes.

Figure 9-9 Routing Configuration window

Advance	Status Vizard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	DNS   Firewall   Virtu	al Server	Routing   IP	QOS   Anti-do	s   Port Mapp	ing   Other	1
RIP Static Route	Routing C This page is used add/delete IP rou	onfigU 1 to configu ttes.	ration	ing informat	ion. Here yo	nu can	
	Enable: Destination: Subnet Mask: Next Hop: Metric: Interface: Add Route Static Route Ta	Update	my Delete	Selected	Show R	outes	
	Select State	Destinati	ion Subnet	Mask Next	t Hop M	etric	Interface

The following table describes the fields of the Routing Configuration window.

Table 9-8 Field descriptions

Field	Description
Enable	Select the check box to use static IP routes.
Destination	Enter the IP address of the destination device in dotted decimal notation.
Subnet Mask	Enter the subnet mask of the destination device in dotted decimal notation.
Next Hop	Enter the IP address of the next hop in the IP route to the destination device.
Metric	The metric cost for the destination.

Field	Description
Interface	The interface number for the specified route.
Add Route	Click to add the new static route to the Static Route Table.
Update	Select a row in the Static Route Table to populate the configuration fields with that row's values. Make any necessary changes to those values and click <b>Update</b> to save those changes.
Delete Selected	Select a row in the Static Route Table and click <b>Delete Selected</b> to delete that row.
Show Routes	Click to view a list of destination routes commonly accessed by your network.
Static Route Table	A listing of the previously configured static IP routes.

# IP QoS

Many communication and multimedia applications require large, high-speed bandwidth to transfer data between the local network and the Internet. However, there is often only one Internet connection available with limited capacity. QoS divides this capacity between the different applications and prioritizes the transfer of data packets.

QoS for networks is an industry-wide set of standards and mechanisms for ensuring highquality performance for critical applications. By using QoS mechanisms, network administrators can use existing resources efficiently and ensure the required level of service without reactively expanding or over-provisioning their networks.

Traditionally, the concept of quality in networks meant that all network traffic was treated equally. The result was that all network traffic received the network's best effort,

with no guarantees for reliability, delay, variation in delay, or other performance characteristics. With best-effort delivery service, however, a single bandwidth-intensive application can result in poor or unacceptable performance for all applications. The QoS concept of quality is one in which the requirements of some applications and users are more critical than others, which means that some traffic needs preferential treatment.

Click **IP QOS** in the Advance menu to open the IP QoS window. Entries in this table are used to assign the precedence for each incoming packet based on physical LAN port, TCP/UDP port number, and source or destination IP address and subnet mask.

Advance	Status	₩izard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	DNS Firewal	l Virtual Serv	er   Routing   Il	P QOS∣Anti-dos	Port Mapping	Other		
IP QOS	IP (	<b>JoS</b>						
	Entrie incomi source Note: immedi	es in this table ng packet based /destination IF Please <u>Commit/F</u> ately.	e are used to d on physical 3 P address/subn <u>Reboot</u> to make	assign the prec LAN port, TCP/U et masks. these changes	edence for each DP port number, take effect	n and		
	IP QoS	: ODisabled	⊙ Enabled	Apply Change	25			
	IP QoS	Rules:						
	Traff Src S IP Po	ic Classifica rc Dst Dst Pr ort IP Port Pr	ntion Rules otocol Lan Port P	Tark riority IP Precd	IP ♥an IoS 802.1q	bled Select		
	Del	lete Selected	Delete	All Add	Rule			
	Specif	y Traffic Class	sification Rul	es				
	Source	IP: 0.0.0	0.0	Source Netm	ask: 255.2	55.255.0	]	
	Destin	ation IP:		Destination	Netmask:			
	Protoc	ol:	~	Destination Physical Po	rt:	~		
	Outbou V Qo IP IP 802	nd Priority p3 S Tag Precedence: ToS: 2.1p: ly Changes	(lowest) 💌	v v				

Figure 9-10 IP QoS window

The following table describes the fields of the IP QoS window.

Table 9-9 Field descriptions

Field	Description
IP QoS	Disable or Enable the IP QoS function
Delete Selected	Select a row in the IP QoS Rules table and click to delete this row.
Delete All	Click to delete all rows in the IP QoS Rules table.
Add Rule	Click to save your changes.
Source IP	The IP address of the source data packet.
Source Netmask	The subnet mask of the source IP address.
Destination IP	The IP address of the destination data packet.
Destination Netmask	The subnet mask of the destination IP address.
Source Port	The port number of the source data packet.
Destination Port	The port number of the destination data packet.
Protocol	<ul> <li>The protocol which will respond to the IP QoS rules. Choose among:</li> <li>TCP</li> <li>UDP</li> </ul>
	• ICMP
Physical Port	The LAN interface which responds to the IP QoS rules, includes four LAN interfaces, one AP interface, and four virtual AP interfaces.

#### Advance

Field	Description
Outbound Priority	The priority of the IP QoS rules, P0 is the highest priority and P3 is the lowest.
QoS Tag	Select the checkbox to enable QoS tagging.
IP Precedence	You can select from 0 to 7 define the priority in the ToS of the IP data packet.
IP ToS	Please choose the type of IP ToS for classifying the data package
	Choose among:
	Normal Service
	Minimize Cost
	Maximize Reliability
	Maximize Throughput
	Minimize Delay
802.1p	Choose from 1 to 7.
Apply Changes	Click to save your changes.

# Anti-dos

Click **Anti-dos** in the Advance menu to open the Anti-dos window. A DoS attack is a malicious attack designed to cripple the network by flooding it with useless traffic. In this window, you can configure the types of DoS attacks you wish to prevent.

Advance	Status	<b>Vizard</b>	LAN	WLAN	WAN	Advance	Admin	Diagnosti
	DNS Fire	wall   Virtua	1 Server	Routing   IP	QOS   Anti-do	s Port Mapp	ing   Other	1
Apti-dec	used t	o prevent DO	S attacks	that you cor	ufigure.			
AIICI UOS	Note: 3	Please <u>Commi</u>	t/Reboot i	f you want t	to make this	settings ef	fective im	mediately.
	E	nable Anti	-dos					
		Whole Sy	vstem Floo	od: SYN		100 pa	ckets/sec	
		Whole Sy	stem Floo	od: FIN		100 pa	ckets/sec	
		Whole Sy	stem Floo	od: ODP		100 pa	ckets/sec	
		Whole Sy	stem Floo	od: IC∎P		100 pa	ckets/sec	
		Per-Sour	ce IP Flo	ood: SYN		100 pa	ckets/sec	
		Per-Sour	ce IP Flo	ood: FIN		100 pa	ckets/sec	
		Per-Sour	ce IP Flo	ood: UDP		100 pa	ckets/sec	
		Per-Sour	ce IP Flo	ood: ICMP		100 pa	ckets/sec	
		TCP/UDP	PortScan			High 🖌 Se	nsitivity	·
		ICHP Smu	ırf					
		IP Land						
		IP Spoor	ron					
		PingOfDe	ath					
		TCP Scar	1					
		TCP Syn	lithData					
		UDP Bomb	•					
		UDP Echo	Chargen					
	Se	lect All	Cle	ear All				
		Enable S	Source IP	Blocking		300 Bloc	k Time(Se	c)
	App	ly Changes						

Figure 9-11 Anti-dos window

Click **Apply Changes** to save your configuration.

# Port Mapping

Click **Port Mapping**<sup>10</sup> in the Advance menu to open the Port Mapping window. In this window you can bind the WAN interface and the LAN interface to the same group.

### To configure a mapping group:

- **1** Select a group from the table.
- 2 Select an interface from the WAN Interface list and add it to the Grouped Interface list by clicking Add >.
- **3** Select an interface from the LAN Interface list and add it to the Grouped Interface list by clicking **Add** >.
- 4 Click Apply Changes button to save your configurations.

<sup>&</sup>lt;sup>10</sup> 4-port and 4-port wireless models only.

	Status	Vizard	LAN	WAN	Advance	Adm
	DNS Firewall	Virtual Server   1	Routing   IP QOS	Anti-dos Port Mag	ping   Other	
'ort Mapping	DNS Firewall Port To manin 1. Selec 2. Selec grouped mapping 3. Click Note: 1. A int 2. Pleas immediat © Disabl	Mapping wulate a mapping set t a group from the tt interfaces from interface list us of the ports. "Apply Changes" erface only below te Commit/Reboot set ely.	group: he table. m the WAN and L sing the arrow button to save ngs to one grou if you want to	AN interface list a buttons to manipula the changes. p. make this settings	nd add them to the and add them to the ate the required effective	
	LAN Int	erface <1	dd > Delete			
	Priorit	y Low Middl	e OHigh OHi Inte	ghest rface	Prior	ity
	Priorit Select Default	y Low Middl LAN4, LAN3, LAN2, B 8 81, Inter	e High Hi Inte LANI, Internet_E net B 0 100 Tot	ghest rface _8_35, Internet_B_0 ernet B 0 32, Intern	Prior _35, Internetlow	ity
	Priorit; Select Default Group1	<ul> <li>Low Middl</li> <li>LAN4, LAN3, LAN2, B_8_81, Inter</li> </ul>	e High Hi Inte LAN1, Internet_E net_B_0_100, Int	ghest rface _8_35, Internet_B_0, ernet_B_0_32, Intern	Prior _35, Internet_ low net_B_0_67 low	ity ,
	Priorit; Select Default Group1 Group2	<ul> <li>Low Middl</li> <li>LAN4, LAN3, LAN2, B_8_81, Inter</li> </ul>	e High Hi Inte LAN1, Internet_E net_B_0_100, Int	ghest rface _8_35, Internet_B_0, ernet_B_0_32, Intern	_35, Internet_ net_B_0_67 low low	ity , ,
	Priorit; Select Default Group1 Group2 Group3	y Low Middl Lan4, LAN3, LAN2, B_8_81, Inter	e High Hi Inte LAN1, Internet_E net_B_0_100, Int	ghest rface _8_35, Internet_B_0 ernet_B_0_32, Intern	Prior 35, Internet_ low net_B_0_67 low low low	ity , , ,

### Figure 9-12 Port Mapping window

Other

The following table describes the fields of the Port Mapping window.

Table 9-10 Field descriptions

Field	Description
Disable/Enable	When you enable the port mapping function you can configure the port mapping parameters.
WAN Interface	All of the available WAN interfaces.
LAN Interface	All of the available LAN interfaces.
Add	Select a WAN interface and a LAN interface and then click to bind them. The bound interfaces appear in the grouped interfaces list.
Delete	Select the grouped interface and then click to delete it.
Priority	Specify the priority of the port binding rules which have been listed in the four groups.
Apply Changes	Click to save your changes.

# Other

Click **Other** in the Advance menu to open the Other menu in the left-hand panel, which contains:

• IGMP Proxy

• UPNP

- Bridge
- IP PassThrough

#### **IGMP** Proxy

Click **IGMP Proxy** in the left-hand panel to open the IGMP Proxy Configuration window. IGMP proxy enables the CellPipe 7130 RG to issue IGMP host messages on behalf of hosts that the CellPipe 7130 RG discovered through standard IGMP interfaces. The CellPipe 7130 RG acts as a proxy for its hosts after you enable IGMP.

Figure 9-13 IGMP Proxy Configuration window

Advance	Status	Vizard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	DNS   Fire	wall   Virtual	. Server   F	louting   IP Q	OS   Anti-dos	Port Mappin	g Other	
IGMP Proxy UPNP Bridge IP PassThrough	IGMP phosts system follow . Enat route: . Enat hosts. Note: immedi IGMP Proxy	P Proxy proxy enables that the sys acts as a p ys: ole IGMP prox c running IGM ole IGMP on L Please <u>Commi</u> tately. Interface: ly Changes	Conf the systemediscov proxy for : :: :: :: :: :: :: :: :: :: :: :: :: :	igurati em to issue I vered through its hosts whe interface (up ace (downstre if you want t able ⊙Ena net_R_8_81 ♥	GMP host means a standard I( standard I( n you enable stream), which o o make this oble	ssages on beh MP interface e it by doing ich connects connects to i settings eff	alf of s. The to a ts ective	

The following table describes the fields of the IGMP Proxy Configuration window.

Table 9-10Field descriptions

Field	Description
IGMP Interface	Click to have the CellPipe 7130 RG function as an IGMP proxy.
Proxy Interface	Indicate the upstream or downstream interface that connects to an IGMP-enabled device.
Apply Changes	Click to save your changes.

### UPNP

Click **UPNP** in the left-hand panel to open the UPnP Configuration window. The system acts as a UPnP daemon after you enable UPnP.

Figure 9-14	UPnP Co	onfiguration	window
-------------	---------	--------------	--------

Advance	Status	<b>V</b> izard	LAN	WAN	Advance	Admin	Diagnostic
Advance IGMP Proxy <u>OPNP</u> Bridge IP PassThrough	Status DNS Firewa UPnP This pa you ena . Enabl . Selec Note: P immedia UPnP: VAN Inc	Vizard All Virtual S Config ge is used to ble it by doi e UPnP. t WAN interfa lease <u>Commit/</u> tely. terface:	LAN Server   Routin guration o configure UP ing the follow ace (uptream) <u>(Reboot</u> if you Obisable Internet_R_	TAN g   Anti-dos   0 nP. The system s: that will use want to make OEnable 8_81	Advance ther   m acts as a da UPnP. this settings	Admin emon when effective	Diagnostic
	Apply	7 Changes					

The following table describes the fields of the UPnP Configuration window.

Table 9-11 Field descriptions

Field	Description
UPnP	Click to have the CellPipe 7130 RG function as a UPnP daemon.
WAN Interface	Select an upstream WAN interface that will use UPnP.
Apply Changes	Click to save your changes.

### Bridge

Click **Bridge** in the left-hand panel to open the Bridge Configuration window. This window enables you to configure bridge settings and view information about the bridge and its attached ports.

Advance	Status	<b>▼izar</b> d	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	DNS   Fire	wall   Virtua	l Server R	outing   IP QO	S   Anti-dos	Port Mappin	g   Other	
IGMP Proxy UPNP Bridge IP PassThrough	Brid This p change attack Note: immedi	dge Cor page is used a the setting and ports. Please <u>Comm</u> lately.	to configu gs or view <u>it/Reboot</u> i	ation we the bridge some informat f you want to	e parameter: ion on the o make this	s. Here you c bridge and i settings eff	an ts ective	
	Aging 802.1 Tree:	Time: d Spanning	300 • Dis:	(se able OEnab	econds) ble			
	App	ly Changes	Undo	Show MACs				

Figure 9-15 Bridge Configuration window

The following table describes the fields of the Bridge Configuration window.

Table 9-12Field descriptions

Field	Description
Aging Time	If the host is idle for 5 min (default), its entry is deleted from the bridge table.
802.1d Spanning Tree	Enable spanning tree to provide path redundancy while preventing undesirable loops in your network.
Apply Changes	Click to save your changes.
Undo	Click to clear the configuration changes in these fields.
Show MACs	Click to show a listing of the learned MAC addresses for the bridge.

### **IP PassThrough**

Click **IP PassThrough** in the left-hand panel to open the IP PassThrough Configuration window. IP PassThrough is also known as ZIPB or IP Extension. With PPP IP extension, the public IP address is extended to the computer's LAN interface.

Advance	Status	<b>♥izard</b>	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	DNS   Fire	wall   Virtua	l Server	Routing   IP QC	)S   Anti-dos	Port Mappin	g   Other	
IGMP Proxy UPNP	IP I	PassThi	ough	Configu	ration			
Bridge IP PassThrough	Here 3 Note: immedi	you can conf Please <u>Comm</u> iately.	igure IP F <u>it/Reboot</u>	PassThrough. if you want t	o make this	settings eff	ective	
	IP PassT	hrough:	None seconds	VI LAN access	Lease Tin	ne: 600		
	Арр	ly Changes		W LAN ACCESS	j			

Figure 9-16 IP PassThrough Configuration window

The following table describes the fields of the IP PassThrough Configuration window.

Table 9-13 Field descriptions

Field	Description
IP PassThrough	Select the configured PVC upon which to enable the IP PassThrough connection.
Lease Time	The maximum time period for IP PassThrough.
Allow LAN access	Enables a PC within the local network to communicate with a PC which has already obtained the IP address from the WAN.
Apply Changes	Click to save your changes.

# 

# 10 Admin

### Overview

### Purpose

Click Admin in the CellPipe 7130 RG menu bar to open the Admin menu which contains:

- Remote Access
- Commit/Reboot
- Password
- Backup/Restore
- Upgrade Firmware
- Time Zone
- System Log
- SNMP
- TR069
- ACL
- Logout

#### Contents

This chapter covers the following topics:

Remote Access	10-2
Commit/Reboot	10-4
Password	10-5

**Remote Access** 

Backup/Restore	10-7
Upgrade Firmware	10-8
Time Zone	10-9
System Log	10-11
SNMP	10-12
TR069	10-13
ACL	10-16
Logout	10-18

### **Remote Access**

Click **Remote Access** in the Admin menu to open the Remote Access window. In this window you can enable or disable the management services that can be used by remote hosts. For example, if the Telnet service is enabled on port 23, the remote host can access the CellPipe 7130 RG by Telnet through port 23.

3FE-61830-AAAA-TCZZA Edition 01 May 2008



The following table describes the fields of the Remote Access window.

Table 10-1 Field descriptions

Field	Description
Interface	Select the interface to which these remote access configurations will apply.
TELNET	Select this check box to permit Telnet connections to the interface and specify the port.
FTP	Select this check box to permit FTP connections to the interface and specify the port.
TFTP	Select this check box to permit TFTP connections to the interface.
НТТР	Select this check box to permit HTTP connections to the interface and specify the port.

Field	Description
SNMP	Select this check box to permit SNMP connections to the interface.
ICMP	Select this check box to permit ICMP connections to the interface.
Apply Changes	Click to save your changes.

### Commit/Reboot

Click **Commit/Reboot** in the Admin menu to open the Commit/Reboot window. In this window you can reset the CellPipe 7130 RG to its default settings after a reboot or instruct the CellPipe 7130 RG to save the current settings and then reboot.

Figure 10-2 Commit/Reboot window



The following table describes the fields of the Commit/Reboot window.

Field	Description
reset to default settings	Select the check box to reset the CellPipe 7130 RG to its default settings after a reboot.
commit current settings	Select the check box to save the current settings and reboot the CellPipe 7130 RG.
Reboot	Click to reboot the CellPipe 7130 RG.

Table 10-2	Field descriptions
------------	--------------------

## Password

Click **Password** in the Admin menu to open the User/Password Management window. In this window you can change the password of the admin and user accounts. The default user name and password are:

- administrative user: admin/admin
- common user: user/user

Admin

Admin	Status	Vizard	LAN	WLAN	VAN	Advance	Admin	Diagnostic
	Remote Acce	ess Commit/Reb	oot  Passwor	d Backup/Resto	ore Upgrade F	'irmware Time Zo	one System	Log SNMP TR069 ACL
Password	Use This p Router The ne User admi Old 1 Nev 1 Conf Pass	page is used t r. ew password wi Name: n ♥ Password: Password: irmed word: ply Changes	ord Ma to set the a .11 be avail	nagement account to acce ability after	t ess the web s system reboo	verver of ADSL		

Figure 10-3 User/Password Management window

The following table describes the fields of the User/Password Management window.

Table 10-3 Field descriptions

Field	Description
User Name	Select the user name from the drop- down list box. Choose between <b>admin</b> and <b>user</b> .
Old Password	The old user password.
New Password	The new user password.
Confirmed Password	The new user password again.
Apply Changes	Click to save your changes.
Reset	Click to clear the entries in these fields.

# Backup/Restore

Click **Backup/Restore** in the Admin menu to open the Backup/Restore Settings window. In this window, you can back up the current CellPipe 7130 RG settings to a file or restore the settings from a previously saved file.

### Caution

### Possibility of data loss

Do not turn off the CellPipe 7130 RG or press the Reset button while the backup or restore procedure is in progress.

### Figure 10-4 Backup/Restore Settings window

Admin	Status	Vizard	LAN	VLAN	VAN	Advance	Admin	Diagnostic
	Remote Acce	ess Commit/Rebo	oot   Password	d Backup/Rest	ore Upgrade H	Firmware Time Z	one System	Log   SNMP   TR069   ACL
Backup/Restore	Bac This the s Save File:	kup/Rest page allows yo ettings from t Settings to	u to backup he file whi	ettings o current set ich was saved	tings to a fi previously.	le or restore		
	Load File:	Settings fro			Brow	vse Upload	)	

The following table describes the fields of the Backup/Restore Settings window.

Table 10-4 Field descriptions

Field	Description
Save Settings to File	Click <b>Save</b> and select the directory in which you wish to save the configuration file of the CellPipe 7130 RG.
Load Settings from File	Click <b>Browse</b> to select a previously saved configuration file.

Admin

Field	Description
	Click <b>Upload</b> to restore the CellPipe 7130 RG configuration from the selected file.

# Upgrade Firmware

Click **Upgrade Firmware** in the Admin menu to open the Upgrade Firmware window.

### Caution

### Possibility of data loss

Do not turn off the CellPipe 7130 RG or press the Reset button while the upgrade is in progress.

Figure 10-5	Upgrade F	irmware win	dow
-------------	-----------	-------------	-----

Admin	Status	Vizard	LAN	WLAN	VAN	Advance	Admin	Diagnostic		
	Remote Acce	ess Commit/Rel	ooot  Passwor	d Backup/Rest	ore Upgrade F	'irmware Time Z	one System	Log SNMP TR069 ACL		
Upgrade Firmware	Upg	rade Fi	rmware							
	Step	1: Get system	upgrade fi	le.						
	Step	2: Press "Bro	wse" to spe	cify system u	pgrade file.					
	Step 3: press "Upload" to upgrade the ADSL Router firmware to new version.									
	Note: Upload needs abort two minutes, do not power off the device during the upload because it may crash the system. The system will reboot after upload. This page allows you upgrade the ADSL Router firmware to new version.									
	current software version:1.3.9									
	Sele: File:	ct .		Brows	;e					
	Uplo	ad Reset								

The following table describes the fields of the Upgrade Firmware window.

Table 10-5 Field descriptions

Field	Description
Select File	Click <b>Browse</b> to select the Firmware file.
Upload	Click <b>Upload</b> to begin upgrading the Firmware with the selected file.
Reset	Click to clear the value in the <b>Select</b> <b>File</b> field.

# Time Zone

Click **Time Zone** in the Admin menu to open the System Time Zone Modification window. In this window, you can set the system time manually or opt to obtain the system time from a time server.



Figure 10-6

Admin Status LAN **VLAN** YAN **Vizard** Advance Admin Diagnostic |Remote Access|Commit/Reboot|Password|Backup/Restore|Upgrade Firmware|Time Zone|System Log|SNNP|TR069|ACL System Time Zone Modification Time Zone Set the system time. Configure Method: If you configure time manually, press button "Time Synchronize", it will update date and time automatically, besides, you can preconcert the date and time, press button "Time Synchronize" again, the automatica update will stop. Note: Manual settings will be invalidation as soon as the modem power off.
 Please <u>Commit/Reboot</u> if you want to make this settings effective immediately. Synchronized 2007-10-31 22:06:20 Instant Time: System Time: 1970-1-1 3:37:51 Refresh Time Mode: 💿 Time Server 🔿 Manual Enable SNTP Client Update SNTP Server: 💿 203.117.180.36 - Asia 0 (manual setting) Time (GMT+08:00) Beijing, Chongqing, Hong Kong, Urumqi ~ Apply changes

System Time Zone Modification window

The following table describes the fields of the System Time Zone Modification window.

#### Table 10-6 Field descriptions

Field	Description
Refresh	Click to refresh the displayed system time.
Time Mode	Select <b>Time Server</b> to obtain the system time from a time server. Select <b>Manual</b> to configure the system time manually.
Enable SNTP Client Update	Select the check box to use the SNTP server.

Field	Description
SNTP Server	Choose the SNTP Server. You can either choose one from the drop-down list or enter one manually.
Time Zone	Select the Time Zone for your geographical area.
Apply Changes	Click to save your changes.

# System Log

Click **System Log** in the Admin menu to open the System Log window. The system log records CellPipe 7130 RG events for later reference and can be useful for troubleshooting problems.

Figure 10-7 System Log window

Admin	Status	<b>V</b> izard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	Remote Acc	ess Commit/Reb	oot Passwoi	rd Backup/Rest	tore Upgrade H	Firmware Time Z	one System	Log SNMP TR069 ACL
System Log	Syster Note: Syster App	tem Log n log can reco Please <u>Commit</u> , <b>E Log</b> Obisa ply Changes	rd the syst <u>/Reboot</u> if able OEn	tem event for you want to p nable	user to see.	tings effective	immediate	ly.

The following table describes the fields of the System Log window.

Table 10-7 Field descriptions

Field	Description
System Log	Enable or disable the System Log function.
Apply Changes	Click to save your changes.
Refresh	Click to clear the system log.

### **SNMP**

Click **SNMP** in the Admin menu to open the SNMP Configuration window.

Figure 10-8 SNMP Configuration window

Admin	Status	Vizard	LAN	WLAN	VAN	Advance	Admin	Diagnostic
	Remote Acce	ss Commit/Reb	oot   Passwo:	rd Backup/Rest	ore Upgrade H	Firmware Time Zo	one System	Log   SNMP   TRO69   ACL
SNMP	SNM This p	P Confi;	<b>gurati</b>	on	otocol.		_	
	Trap Commu (read Commu (writ	IP Address nity name -only) nity name e-only)	192.16 public	38. 1. 254				
	App	ly Changes	Reset					

The following table describes the fields of the SNMP Configuration window.

### Table 10-8 Field descriptions

Field	Description
Trap IP Address	The IP address of the trap host. The trap information is sent to this host.

Field	Description
Community name (read-only)	Used to read the information of the CellPipe 7130 RG via SNMP.
Community name (write-only)	Used to configure the information of the CellPipe 7130 RG via SNMP.
Apply Changes	Click to save your changes.
Reset	Click to clear the values in these fields.

### TR069

The CPE WAN Management Protocol (TR-069) is the protocol used on the ACS southbound interface between the CellPipe 7130 RG and an ACS. This protocol may be used to manage other types of CPE, including standalone routers and LAN-side client devices. An ACS can automatically configure your equipment based on configurations stored in the ACS.

Click **TR069** in the Admin menu to open the TR069 Configuration window. In this window, you can configure the TR-069 CPE.

dmin	Status Vizar	d	LAN	WAN	Advance	Admin	
	Remote Access Commit/Reboot	Password   Backu	1p/Restore   Upgrad	le Firmware   Time	Zone   System Log   SNMP   TR	:069   ACL	
	TD_060 Config	unation					
9	IK-009 Colling	uration					
	This page is used to con	figure the TR-	069 CPE. Here you	may change the s	etting for		
	the ACS's parameters. Note: Please Commit/Rebo	ot if you want	to make this set	tings effective i	mmediately.		
	ACS						
	URL:	http://					
	User Name:	User Name: username					
	Password:	password					
	Periodic Inform	ODisabled	Enabled				
	Periodic Inform	000	0				
	Interval (s):	1000					
	Connection Request						
	User Name:						
	Beerende						
	rassoru:						
	Debug						
	ACS Certificates CPE:	• • No • •	es				
	Show Message:	Disabled	OEnabled				
	CPE Sends GetRPC:	Oisabled	OEnabled				
	Skip <b>E</b> Reboot:	Oisabled	OEnabled				
	Delay:	ODisabled	⊙ Enabled				
	Auto-Execution:	ODisabled	Enabled				
	CT Inform Extension:	ODisabled	⊙ Enabled				
	Apply Changes	Indo					
	Certificate						
		client		pply			
	Password:	orrent		<u>**-</u>			
			Br	owse Upload	1		
	CPE Certificate:				_		
	Ch Cartificator		Br	owse Upload	1		

Figure 10-9 TR069 Configuration window (4-port wireless model)

The following table describes the fields of the TR069 window.

Table 10-9 Field descriptions

Field	Description
URL	The URL of the auto-configuration server to connect to.
User Name	The user name needed to log in to the ACS.
Password	The password needed to log in to the ACS.

-----

Field	Description
Periodic Inform Enable	Select this check box to periodically connect to the ACS to check for configuration updates.
Periodic Inform Interval	Specify the amount of time between connections to ACS.
User Name	The username to connect the CellPipe 7130 RG to the ACS.
Password	The password to connect the CellPipe 7130 RG to the ACS.
ACS Certificates CPE	Specifies whether to check the ACS certification of your CellPipe 7130 RG.
Show Message	Select this check box to have the CellPipe 7130 RG display ACS SOAP messages on the serial console.
CPE Sends GetRPC	Select this check box to have the CPE contact the ACS to obtain configuration updates.
Skip MReboot	Specifies whether to send an MReboot event code in the inform message.
Delay	Specifies whether to start the TR-069 program after a short delay.
Auto-Execution	Specifies whether to automatically start the TR-069 after the CellPipe 7130 RG powers up.
CT Inform Extension	Specifies whether to support China Telecom extension inform type.
Apply Changes	Click to save your changes.
Undo	Click to reset the fields to their default values.
CPE Certificate Password	The certificate password of the CellPipe

#### Admin

Field	Description
	7130 RG.
Apply	Click to save your changes.
CPE Certificate	Click to browse for and upload the certificate for the CellPipe 7130 RG.
CA Certificate	Click to browse for and upload the CA certificate for the CellPipe 7130 RG.

## ACL

Click **ACL** in the Admin menu to open the ACL Configuration screen. In this window you can configure the IP address to include in the Access Control List. If ACL is enabled, only the IP addresses in the ACL can access the CellPipe 7130 RG.

### Caution

### Possible loss of connectivity

Ensure that your IP address is added to the ACL List table before the ACL takes effect, otherwise you may lose the ability to connect to the CellPipe 7130 RG.

Figure 10-10 ACL Configuration window

Admin	Status	<b>▼</b> izard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	Remote Acce	ss Commit/Rel	boot  Passwo	rd Backup/Rest	ore Upgrade H	Firmware Time 2	lone System	Log   SNMP   TR069   ACL
ACL	ACL Configuration Access Control List Configuration. If enable ACL, then only the effective IP in ACL can access ADSL Modem. Step 1: If you want to enable ACL, please choose "Enable" then press "Apply Changes": Step 2:Config Access Control List: Step 3:Press"take effect"enable the configuration. Note: If you choose "Enable" in ACL Capability, please make sure that your host IP is in ACL before it takes effect. ACL Capability: Obisable OEnable							
	Enab. Inter IP Ad Add ACL L Select	le: rface: ddress: modify ist: of ceffect	LAI 192 Delete	N 💌 2. 168. 1. 22 In	terface	IP	Address	-

The following table describes the fields of the ACL Configuration window.

Table 10-10 Field descriptions

Field	Description
ACL Capability	Select Enable or Disable to use (or stop using) an access control list for the CellPipe 7130 RG.
Apply Changes	Click to save your changes.
Enable	Select the check box to enable the ACL function.
Interface	Choose the interface type to add to the ACL.
IP Address	Enter the IP Address that will have access to the CellPipe 7130 RG.

Field	Description
Add	Click to add the IP address to the ACL.
Modify	Select a row in the ACL List and click to modify the current parameters for that row.
Delete	Select a row in the ACL List and click to delete that row.
ACL List	A list of the IP addresses that can access the CellPipe 7130 RG.
take effect	Click to save your changes.

# Logout

Click **Logout**<sup>11</sup> in the Admin menu to open the Logout window. To log out of the CellPipe 7130 RG, click the **Logout** button.

### Figure 10-11 Logout window

Admin	Status	Vizard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
	Remote Access	Commit/Reboot	Password   Ba	ckup/Restore   Upg	rade Firmware	Time Zone Syste	em Log   SNMP	TR069   ACL   Logout
Logout	Logot This page Logout	<b>1t</b> = is used to lo	gout from add	sl gateway.				

<sup>&</sup>lt;sup>11</sup> 4-port wireless model (CellPipe 7130 RG 5Ae.A2010) only.



# 11 Diagnostic

### Overview

### Purpose

Click **Diagnostic** in the CellPipe 7130 RG menu bar to open the Diagnostic menu, which contains:

- Ping
- ATM Loopback
- ADSL
- Diagnostic

### Contents

This chapter covers the following topics:

Ping	11-2
ATM Loopback	11-2
ADSL	11-4
Diagnostic	11-6

# Ping

Click **Ping** in the Diagnostic menu to open the Ping Diagnostic window. Ping is useful to determine if an IP address is reachable.

### Figure 11-1 Ping Diagnostic window

Diagnosti	C Status	<b>▼</b> izard	LAN	WLAN	WAN	Advance	Admin	Diagnostic
Ping   ATM Loopback   ADSL   Diagnostic								
Ping	<b>Ping Diagnostic</b> This page is used to send ICMP ECHO_REQUEST packets to network host. The diagnostic result will then be displayed.							
	Host	Address :	0.0.0	.0				
	Go !							

The following table describes the fields of the Ping Diagnostic window.

Table 11-1 Field descriptions

Field	Description			
Host Address	Enter the IP Address to ping.			
Go!	Click to ping the host address.			

# ATM Loopback

Click **ATM Loopback** in the Admin menu to open the OAM Fault Management – Connectivity Verification window. In this window you can use the VCC loopback function to check the connectivity of a VCC.



Figure 11-2 OAM Fault Management - Connectivity Verification window

The following table describes the fields of the OAM Fault Management - Connectivity Verification window.

Table 11-2 **Field descriptions** 

Field	Description
Select PVC	Choose the PVC to test.
Flow Type	Choose a segment test, or an end-to- end test.
Loopback Location ID	The loopback location identifier.
Go!	Click to begin the test.

# ADSL

Click **ADSL** in the Diagnostic menu to open the Diagnostics – ADSL window.

Figure 11-3 Diagnostics - ADSL window

Diagnostic	Status Viz	ard LA	N V	LAN	WAN	Advance	Admin	Diagnostic
	Ping   ATM Loopbac	k   ADSL   Diagr	nostic					
ADSL	Diagno ADSL Tone D	stics	- ADSL					
	Go!ADSL Diag	nostics su	ccessful !					
		Downstre	an Up	stream				
	Hlin Scale	;	39401		36902			
	Loop Atter	uation(dB)	0.0		1.9			
	Signal Att	enuation(dB	) 0.0		0.7			
	SWR Margin	1 (dB)	10.1		6.0			
	Attainable Rate(Kbps)		27104	27104 1168				
	Output Power(dBm)		7.8 5.1		5.1			
	Ione	H. Real	H. Image	SNR	QLN	Hlog		
	Number				150.5			
	0	0.011	0.011	0.0	-150.5	-35.7		
	1	0.000	0.000	0.0	-118.5	-71.6		
	2	0.000	0.000	0.0	-119.0	-11.0		
	4	0.002	0.000	0.0	-118 5	-36.9		
	5	0.018	0.050	0.0	-119.0	-25.4		
	6	0.149	0.042	0.0	-118.0	-16.2		
	7	0.302	0.203	29.0	-116.0	-8.8		
	8	0.126	0.666	35.0	-109.5	-3.4		
	9	0.554	0.801	40.0	-110.5	0.2		
	10	1.126	0.089	42.5	-106.5	1.1		
	11	0.681	0.955	45.5	-107.0	1.4		
	12	0.578	1.001	47.5	-107.5	1.2		
	13	1.102	0.186	49.0	-106.5	1.0		
	14	0.126	-1.078	49.5	-106.5	0.7		
	15	0.985	0.384	49.5	-107.5	0.5		
	16	0.581	0.849	50.0	-108.0	0.2		
	17	0 685	0 730	50.0	-111.0	0.0		

The following table describes the fields of the Diagnostics -- ADSL window.
Field	Description
Go!	Click to begin the ADSL tone diagnostics. After a few minutes, the results of the diagnostic test populate the window.
Hlin Scale	Hlin Scale of upstream and downstream.
Loop Attenuation (dB)	Loop Attenuation of upstream and downstream.
Signal Attenuation (dB)	Signal attenuation of upstream and downstream.
SNR Margin (dB)	Signal-to-noise margin.
Attainable Rate (Kbps)	Maximum data transfer rate.
Output Power (dBm)	Output power consumption.
Tone Number	The number of the signal sampling.
H.Real	H.Real
H.Image	H.Image
SNR	Signal-to-noise ratio
QLN	QLN
Hlog	Hlog

Table 11-3 Field descriptions

# Diagnostic

Click **Diagnostic** in the Diagnostic menu to open the Diagnostic Test window. This window is used to test your DSL connection.

Figure 11-4 Diagnostic Test window



The following table describes the fields of the Diagnostic Test window.

#### Table 11-4 Field descriptions

Field	Description
Select the Internet Connection	Identify the DSL interface to test.
Run Diagnostic Test	Click to begin the test of the DSL connection.

#### Symbols

?

A wild card character used to represent any character.

#### Numerics

#### 10/100Base-T

There are several standards for Ethernet over twisted pair or copper-based computer networking physical connectivity methods. The currently most widely used of these are 10Base-T, 100Base-TX, and 1000Base-T (Gigabit Ethernet), running at 10 Mb/s, 100 Mb/s, and 1000 Mb/s (1 Gb/s) respectively.

#### 1483 B/R/MER

1483 Bridge/Router/MAC Encapsulation Routed

#### 5E-XC

Applications that provide the capacity and converged networking capabilities that existing networks need to implement Accelerate Voice over IP solutions to rapidly deliver next-generation services that enterprises and consumers want.

#### 802.1 Q/P

IEEE 802.1Q (also known as VLAN Tagging) was a project in the IEEE 802 standards process to develop a mechanism to allow multiple bridged networks to transparently share the same physical network link without leakage of information between networks (i.e. trunking). IEEE 802.1Q is also the name of the standard that resulted from this process, and in common usage it is the name of the encapsulation protocol used to implement this mechanism over Ethernet networks.

IEEE 802.1P is a standard that provides traffic class expediting and dynamic multicast filtering. Essentially, it provides a mechanism for implementing Quality of Service (QoS) at the MAC level.

#### A

#### ACS

Auto-Configuration Server

#### ADSL

Asymmetric Digital Subscriber Line

3FE-61830-AAAA-TCZZA Edition 01 May 2008

#### ADSL2

Asymmetric Digital Subscriber Line version 2

#### ADSL2+

Asymmetric Digital Subscriber Line version 2+

#### AES

Advanced Encryption Standard

AES provides three cipher key strengths: 128-, 192- or 256-bit encryption.

#### API

Application Programming Interface

#### ARP

Address Resolution Protocol

# В

#### BAS

Broadband Access Server

#### С

#### Category 5

Commonly known as Cat 5, category 5 is a twisted pair cable type designed for high signal integrity. Many such cables are unshielded but some are shielded. Category 5 has been superseded by the Category 5e specification. This type of cable is often used in structured cabling for computer networks such as Ethernet, and is also used to carry many other signals such as basic voice services, token ring, and ATM (at up to 155 Mb/s, over short distances).

#### CDVT

Cell Delay Variation Tolerance

#### **CEC** Corrigible Error Correction

**CLI** Command Line Interface

#### DHCP

D

E

Dynamic Host Configuration Protocol

#### DMT

Discrete multitone

**DMZ** Demilitarized Zone

#### DNS

Domain Name Server

#### DoS

Denial of Service

#### ES

Errored seconds

#### Ethernet

Ethernet is a family of frame-based computer networking technologies for local area networks (LANs). The name comes from the physical concept of the ether. It defines a number of wiring and signaling standards for the physical layer, through means of network access at the Media Access Control (MAC)/Data Link Layer, and a common addressing format.

#### FEC

Forward error correction

#### FTP

File Transfer Protocol

#### Η

F

#### HTTP

Hypertext transfer protocol

L

#### IEEE

Institute of Electrical and Electronics Engineers

#### **IGMP** snooping

A switch with IGMP snooping enabled screens all IGMP packets between hosts that are connected to the switch and multicast routers in the network. When the switch detects an IGMP report from a host for a given multicast group, it adds the host's port number to the multicast list for that group. Similarly, if it detects an IGMP Leave request, it removes the host.

#### IP

Internet Protocol

#### ISP

Internet Service Provider

### L

LAN Local Area Network

# LED

Light Emitting Diode

#### LLC

Logic Link Control

#### LLC/SNAP

Logical Link Control /Subnetwork Access Protocol

### Μ

#### MAC

Media Access Control

Every Ethernet device has a unique MAC address. The MAC address is assigned at the factory and consists of six pairs of hexadecimal character, for example, 00-A0-C5-00-02-12.

#### MBS

Maximum burst size



**MDI** Definition

### MDIX

Definition

#### MER

MAC Encapsulation Routing

#### Ν

#### NAT/NAPT

Network Address Translation/Network Address Port Translation

#### NIC

Network Interface Card

# Ρ

#### PAP/CHAP

Password Authentication Protocol/Challenge Handshake Authentication Protocol

#### PC

Personal Computer

#### PCR

Peak cell rate

#### Port Mapping

Port Mapping is an advanced WinRoute feature that allows servers to be hosted securely behind NAT. Internet servers listen on well-known ports for uninitiated connections. In other words, the server does not know in advance from where a connection may come. Examples of well known ports include HTTP (TCP port 80), SMTP (TCP port 25), and Telnet (TCP port 23). If these types of well-known services should be available to the Internet, then port mapping must be used to allow NAT to make exceptions for these services by redirecting these inbound connections to the appropriate local server.

#### POTS

Plain Old Telephone System

**PPP** Point-to-point protocol

**PPPoA** Point-to-Point Protocol over ATM

**PPPoE** Point-to-Point Protocol over Ethernet

**PVC** Permanent Virtual Circuit

# Q

Quality of Service

QoS

R

#### **Residential Gateway**

A residential gateway (or home gateway), is a hardware device connecting a home network with a wide area network or the Internet. The residential gateway provides network address translation, allowing all the computers in a small network to share one IP address and Internet connection. The residential gateway may sit between the modem and the internal network, or a DSL or cable modem may be integrated into the residential gateway. A residential gateway often combines the functions of an IP router, firewall, multi-port Ethernet switch and Wi-Fi access point. Residential gateways that include routing capabilities are converged devices and sometimes referred to as home routers or broadband routers with "broadband" in this case referring not to the router function but the Internet access function. Residential gateways are standardized by the Home Gateway Initiative (HGI).

#### RJ-11

RJ11 is a physical interface often used for terminating telephone wires. It is probably the most familiar of the registered jacks, being used for single line POTS telephone jacks in most homes and offices in North America and many other countries

#### RJ-45

The RJ-45 connector is commonly used for network cabling and for telephony applications. It's also used for serial connections in special cases.

**RPC** Remote procedure call

#### RTS

Request to Send

#### S

#### SCR

Sustained cell rate

SES

Severely errored seconds

#### SIP ALG

Session Initiation Protocol Application Layer Gateway

#### **SNAP**

Subnetwork Access Protocol

#### SNR

Signal-to-noise ratio

#### **Static Route**

Static routing describes a system that does not implement adaptive routing. In these systems, routes through a data network are described by fixed paths (statically). These routes are usually entered into the router by the system administrator.

#### Т

#### Telnet

A network protocol used on the Internet or local area network connections. It was developed in 1969 beginning with RFC 15 and standardized as IETF STD 8, one of the first Internet standards.

#### TFTP

Trivial File Transfer Protocol (TFTP) is a very simple file transfer protocol, with the functionality of a very basic form of FTP; it was first defined in 1980. Since it is so simple, it is easy to implement using a very small amount of memory — an important consideration at that time. TFTP was therefore useful for booting computers such as routers which did not have any data storage devices. It is still used to transfer small files between hosts on a network, such as when a remote X-Window System terminal or any other thin client boots from a network host or server

#### Twisted pair

Twisted pair cabling is a form of wiring in which two conductors are wound together for the purposes of canceling out electromagnetic interference (EMI) from external sources; for instance, electromagnetic radiation from unshielded twisted pair (UTP) cables, and crosstalk between neighboring pairs

### U

### UAS

Unavailable seconds

**UPnP** Universal Plug and Play

URL

Universal Resource Locator

## ۷

VC-Mux

Virtual Circuit Multiplexing

VPI

Virtual Path Identifier

### W

WDS Wireless Distribution System

**WEP** Wireless Encryption Protocol

WLAN Wireless Local Area Network

WPA Wi-Fi Protected Access

#### WPA2

Wi-Fi Protected Access 2

# Customer documentation and product support



# Customer documentation

http://www.alcatel-lucent.com/osds

Product manuals and documentation updates are available through the Alcatel-Lucent Support Documentation and Software Download service at alcatel-lucent.com. If you are a new user and require access to this service, please contact your Alcatel-Lucent sales representative.



Technical support http://www.alcatel-lucent.com/support



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