

# **ZyXEL Prestige 1.3 Release Note/Manual Supplement**

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**Date: May 12, 1997**

This release note describes the enhancements in ZyXEL Prestige since the last manual printing. The bug fix section describes bug fixes for version 1.3.

Please read through the following 'New Feature' section to see what features may apply to your application, and go to 'Enhancement Details' section for more details on how to setup each feature.

Prestige technical discussion, and announcements are assisted through the use of a mailing list. The mailing list is handled by ZyXEL USA. You can be added to this list through two methods:

1. ZyXEL's web page: <http://www.zyxel.com/html/tech/router/tech-pmail.html> has a form for the automatic addition to this list.
2. Email Request: Send an email to [Majordomo@zyxel.com](mailto:Majordomo@zyxel.com) with NO subject, and the following text in the body "subscribe prestige-users <your email>". For example:  
subscribe prestige-users support@zyxel.com

To send an email to the list that will be distributed to all members, use the address of [prestige-users@zyxel.com](mailto:prestige-users@zyxel.com). Rules for the list are all discussions must be Prestige related, they must be in English, and three consecutive bounced mails will result in being dropped from the list.

## ***New Features:***

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### **DHCP support**

Added DHCP server function. Prestige can assign IP address settings including local IP address, subnet mask, default Gateway, as well as primary and secondary DNS server for LAN workstation that supports DHCP client function, such as Windows 95 or NT. Prestige will automatically assign these options to a DHCP client during power up sequence.

### **RADIUS support**

This feature allow you to use a RADIUS server to authenticate incoming dial-in users to Prestige.

### **Proxy ARP**

Allows a LAN's workstations to talk with Prestige's dial-in users without adding a static route at each workstation.

### **Multiple Single User Account (SUA)**

Prestige can use SUA/NAT (Network Address Translation) for all remote nodes, not just to ISP. You can access the Internet and your corporation's network at the same time with SUA and dynamic IP address assignment. This feature also provides a way to store a backup configuration for an Internet account.

**BACP new/old ID support**

New Bandwidth Allocation Control Protocol RFC draft changed the protocol ID. This feature can work with systems that use either new or old protocol ID. This is internal to the system, and does not need to be activated.

**Turn on/off BACP option**

Some system can't reject the BACP option during LCP and cause PPP negotiation failure. Now you can turn the BACP on or off. The default is on, since most vendors know how to reject the BACP option. Furthermore, most vendors will provide BACP in the future.

**Add MP verification of bundle for outgoing calls**

For outgoing calls, when Prestige attempts either an initial Multilink connection or BOD triggers the 2nd outcall, the Prestige will check if the remote device recognizes both channels to be from one device or not. If the far end failed to join the bundle, Prestige will drop the 2nd call and have the traffic continues in the first channel. A notification will be made in the error log for 'Remote can't join MP bundle'.

**Support X.75/V.120 connection for DSS1 and 1TR6 switch types**

For DSS1 and 1TR6 systems, Menu 4 and Menu 11 can select X.75 or V.120 in Telco option. This is supported on 2864I only.

**ISDN link layer enhancement for US switch types**

This feature will automatically recover from the link lost/re-establish situation without a need for a system reset.

**ISDN support for U interface in Korea DSS1 switch**

Supports Korean switch type in U-interface mode.

**3 more sets of phone number for one remote node**

This feature provides one particular remote node to have 4 sets of phone number for outbound calling. Each set can have two phone numbers. When Prestige calls a busy phone number, it will try the next set of phone numbers. This feature also allows you to configure a backup Internet account if you have the same name and password to a different ISP.

**Country code setup**

This feature can reset the country code for ISDN firmware.

**Add '#' in configuring phone numbers**

Some area in Northern America needs to dial # for local CO calls. This enhancement allows you to enter a # before the phone number in Menu 4 and Menu 11.

**Display of disabled remote node or dial-in user**

In Menu 11 and Menu 14, if the remote node or user is disabled, Prestige will show a '-' sign before the name of the node/user.

**Disable POTS outcall feature**

You can block the outcall usage for the POTS (A/B adapter) port. Supported on P100/P128 only.

**Outgoing Password length increased**

Outgoing password now accepts up to 31 characters. User name maximum is 24 characters.

**CCP support**

Support for outgoing and incoming STAC compression for both Remote Node in Menu 11, and Dial-In User in Menu 13.

**CLID authentication enhancement**

CLID can put in '?' in place of one digit for accepting any number.

**Call control features added**

Two forms of controlling incoming/outgoing calls can be used. Budget Management allows the setting of a budget for the specific configuration. Blacklist blocks outcalls to problematic numbers.

**Outgoing authentication protocol**

Remote node can specify the outgoing authentication protocol (PAP or CHAP) in Menu 11.

**Modem emulation mode support**

Menu 24 option 10 provides the user with the capability to go to Modem emulation mode. This allows for the temporary use of the Prestige 2864I as a standard modem for connecting to BBS systems, etc. This option is only available on the P2864I and only through the RS232 connection.

**New CI command for setting CLID callback time**

CLID callback starting time can be set through a CI command.

**Incoming Call Bumping support for North America**

Incoming Call Bumping is now supported for North American ISDN lines with ACO enabled by the telco. When a multilink PPP connection is in progress, and an incoming Voice call is detected by the Prestige, it will automatically disconnect the corresponding B-channel from the data call, and ring the phone port specified in Menu 2 for that number. On the P2864I, if the phone number being called is specified as Modem the Prestige will not perform call bumping and the calling person will get a busy tone.

**LLC support for DSS1**

A new CI command to turn on the Lower Layer Compatibility support.

***Supported Platforms:***

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ZyXEL Prestige 1.3 supports the following router series:

Prestige 1xx series - Prestige 100, Prestige 128  
Prestige 2864I

## ***Feature Support***

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Table 1 lists the available feature sets for each model Prestige:

Feature:	Prestige 100	Prestige 128	Prestige 2864I
IP Routing	x	x	x
IPX Routing		x	x
Transparent Bridging		x	x
MP/BACP(old/new)	x	x	x
Hi/fn LZS (STAC)- CCP	x	x	x
DHCP Server	x	x	x
RADIUS Client		x	x
Proxy ARP	x	x	x
X.75/V.120 DSSI/1TR6			x
Multi-SUA (unlimited)	x	x	x
SNMP		x	x
V.34/Modem Emulation			x
Disable A/B outcall	x	x	

## ***Enhancement Details***

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### **DHCP support**

Added DHCP server function. Prestige can assign IP address settings including local IP address, subnet mask, default Gateway, as well as primary and secondary DNS server for LAN workstation that supports DHCP client function, such as Windows 95 or NT. Prestige will automatically assign these options to a DHCP client during power up sequence.

To configure DHCP in Prestige 128/2864I:

#### Menu 3.2 - DHCP and TCP/IP Ethernet Setup

##### DHCP Setup:

DHCP= Server  
Client IP Pool Starting Address= 192.168.0.1  
Size of Client IP Pool= 20  
Primary DNS Server=  
Secondary DNS Server=

##### TCP/IP Setup:

IP Address= 192.168.0.1  
IP Subnet Mask= 255.255.255.0  
RIP Direction= None

To Configure DHCP in Prestige 100:

Menu 3 - Ethernet Setup

Ethernet Interface= 10BaseT

Input Filter Sets=

Output Filter Sets=

DHCP Setup:

DHCP= Server

Client IP Pool Starting Address= 192.168.0.1

Size of Client IP Pool= 10

Primary DNS Server= 192.168.10.1

Secondary DNS Server= 0.0.0.0

TCP/IP Setup:

IP Address= 192.168.0.1

IP Subnet Mask= 255.255.255.0

RIP Direction= None

If the IP has not been configured yet, then selecting 'Server' in DHCP field will give the user the following default values:

1. Use of reserved IP address, 192.168.0.1/24, for IP pool.
2. The client size is set to 20. One for Prestige itself, and 19 addresses to be available to DHCP client.
3. You can configure the Primary/Secondary DNS server IP addresses from the IP address that your ISP provides to you.
4. Prestige itself will be the first IP address in the pool, which is 192.168.0.1. This address will also be used for the default gateway.

When a DHCP client boots up, Prestige will assign:

1. 192.168.0.2 and the subnet mask(the next available IP address in the pool) to be the client's IP address.
2. Prestige's IP address will also be assigned as default gateway of the client.
3. DNS servers address will also be assigned to the client.

## **RADIUS support**

This feature allow you to use an RADIUS server to authenticate incoming calls to Prestige. Prestige will search local user in Menu 14 first, and if the user is not found and RADIUS is on, then Prestige will send the user information to RADIUS server for Authentication.

RADIUS is configured in Menu 23.2:

Menu 23.2 - System Security - External Server

Authentication Server:

Active= No

Type= RADIUS

Server Address= ?

Port #= 1645

Key= ?

Description of options:

Active= Yes to turn on this feature

Server Address= Enter the RADIUS Server's IP address

Port #= Use default value 1645

Key = A password that Prestige is going to be authenticated by the RADIUS server

**RADIUS Server - Where and How to Get the Software**

The RADIUS-related software and documentation can be found at <http://www.livingston.com/Tech/FTP/pub/le-radius.shtml> if you use a web browser or <ftp://www.livingston.com/pub/le/radius/> if you use FTP. Download the latest released version of radiusd and follow the documentation to install on your system.

**ZyXEL Extensions - What do I need to add in the server**

ZyXEL adds 2 extensions to the RADIUS dictionary for callback control.

# ZyXEL proprietary attributes

ATTRIBUTE	Zyxel-Callback-Option	192 integer	
VALUE	Zyxel-Callback-Option	None	0
VALUE	Zyxel-Callback-Option	Optional	1
VALUE	Zyxel-Callback-Option	Mandatory	2

# Callback phone number source

ATTRIBUTE	Zyxel-Callback-Phone-Source	193 integer	
VALUE	Zyxel-Callback-Phone-Source	Preconfigured	0
VALUE	Zyxel-Callback-Phone-Source	User	1

The default RADIUS installation directory is /etc/raddb. Use any text editor to add the above lines to the file "dictionary".

**Radius Client - How do I add the Prestige as a RADIUS client**

Add Prestige's IP address and the key to the file "client" under /etc/raddb.

```
# Client Name      Key
#-----
192.168.0.1      1234
```

Assuming that Prestige's IP address is 192.168.0.1 and the key in Menu 23.2 is configured as 1234.

### **Simple User Records - How do I add a user entry**

As mentioned above, RADIUS is only for the purpose of extending the Prestige dial-in user database. Prestige supports the "Zyxel-Callback-option", "Zyxel-Callback-Phone-Source" extensions and the built-in "Dialback-No" attributes; all other attributes are ignored. The following is an example of a regular user record in file "users".

```
joeuser Password = "joespassword"
```

The line will contain the user name and the password only, if callback is not enabled for this user.

### **User Records for CLID Authentication - How to use CLID in RADIUS**

To use RADIUS for CLID authentication, create a user record in file "users", whose user name (the first field) is the telephone number and the password (second field) is a constant "Zyxel-CLID" (case-sensitive). The regular user name is put in "User-Name" field. The following is an example of a CLID user record:

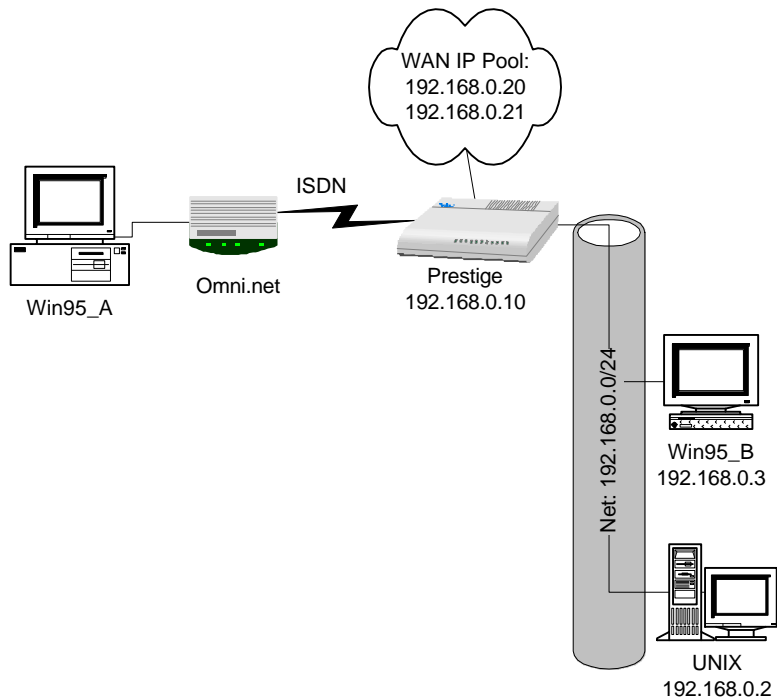
```
5551212      Password = "Zyxel-CLID"  
              User-Name = "joeuser",  
              Zyxel-Callback-Option = Mandatory,  
              Zyxel-Callback-Phone-Source = Preconfigured  
              Dialback-No = "5551212"
```

Please note that if CLID is turned off in the Prestige, you need to have a separate user record for "joeuser" so the regular user name/password mechanism still works.

### **Proxy ARP**

Allows a LAN's workstations to talk with Prestige's dial-in users without adding a static route at each workstation.

Please refer to the following network example. A Windows 95 (Win95\_A) dials into Prestige to access cooperate network.



With Proxy ARP you don't have to configure a static route in Win95\_B/NT or in the UNIX workstation for them to talk to Win95\_A. Prestige will reply to the ARP request on behalf of Win95\_A and then route the IP packets between Win95\_A and NT or UNIX stations.

### **Multiple Single User Account (SUA)**

Prestige can use SUA/NAT (Network Address Translation) for all remote nodes, not just to ISP. You can access the Internet and your corporation's network at the same time with SUA and dynamic IP address assignment. This feature also provides a way to store a backup configuration for an Internet account.



Below is an example of one ISP and one remote node of corporate network using SUA.

#### Menu 11.3 - Remote Node Network Layer Options

##### IP Options:

Rem IP Addr: 192.168.10.65  
Rem Subnet Mask= 255.255.255.0  
My WAN Addr= 0.0.0.0  
Single User Account= Yes  
~~~~~  
Server IP Addr= 0.0.0.0  
Metric= 2  
Private= No  
RIP= Both

##### IPX Options:

Dial-On-Query= N/A  
Rem LAN Net #= N/A  
My WAN Net #= N/A  
Hop Count= N/A  
  
Tick Count= N/A  
W/D Spoofing(min)= N/A  
SAP/RIP Timeout(min)= N/A

##### Bridge Options:

Dial-On-Broadcast= N/A  
Ethernet Addr Timeout(min)= N/A

Note: IPX and Bridge Options are not available on P100.

Once you set the 'Single User Account' to Yes, then in Menu 11 you will see:

#### Menu 11 - Remote Node Setup

1. Office (SUA)
2. Internet (ISP, SUA)
3. \_\_\_\_\_
4. \_\_\_\_\_

In the above example, you have to make sure, when you dial into remote node 'Office', that the router is able to assign an IP address for you to do SUA IP address translation with dynamic IP. Otherwise, you will need to specify an IP address in 'My WAN Addr' in Menu 11.3.

This feature can also be used for backup configuration of multiple ISP accounts. Configure your main ISP connection in Menu 4 as before. Once you have configured your primary Internet account, create a Remote node in Menu 11 for the backup Internet account. Configure Menu 11.1, setting 'Active' to No, and give your login name, password, and phone number(s). When you reach the IP address, enter 1.1.1.1 and go into 'Edit IP/IPX/Bridge' on P128/P2864I or 'Edit IP' on P100 (Menu 11.3), change the netmask to '0.0.0.0' and RIP to 'None', and save your configuration.

Your Menu 11.1 should look like the following for P128 or P2864l:

|                                 |                          |
|---------------------------------|--------------------------|
| Menu 11.1 - Remote Node Profile |                          |
| Rem Node Name= Backup           | Route= IP                |
| Active= No                      | Bridge= No               |
| ~~~~~                           |                          |
| Call Direction= Outgoing        |                          |
| Incoming:                       | Edit PPP Options= No     |
| Rem Login=                      | Rem IP Addr= 1.1.1.1     |
| Rem Password= *****             | Edit IP/IPX/Bridge= No   |
| Rem CLID= N/A                   | Telco Option:            |
| Call Back= N/A                  | Transfer Type= 64K       |
|                                 | Allocated Budget(min)= 0 |
| Outgoing:                       | Period(hr)= 0            |
| My Login= test                  | Session Options:         |
| My Password= *****              | Input Filter Sets=       |
| Authen= CHAP/PAP                | Output Filter Sets=      |
| Pri Phone #= 5551212            | Call Filter Sets=        |
| Sec Phone #=                    | Idle Timeout(sec)= 300   |

Your Menu 11.1 should look like the following for P100:

|                                 |                          |
|---------------------------------|--------------------------|
| Menu 11.1 - Remote Node Profile |                          |
| Rem Node Name= Backup           | Edit PPP Options= No     |
| Active= No                      | Rem IP Addr= 1.1.1.1     |
| ~~~~~                           |                          |
| Call Direction= Outgoing        | Edit IP= No              |
| Incoming:                       | Telco Option:            |
| Rem Login=                      | Transfer Type= 64K       |
| Rem Password= *****             | Allocated Budget(min)= 0 |
| Rem CLID=                       | Period(hr)= 0            |
| Call Back= N/A                  |                          |
| Outgoing:                       | Session Options:         |
| My Login= test                  | Input Filter Sets=       |
| My Password= *****              | Output Filter Sets=      |
| Authen= CHAP/PAP                | Call Filter Sets=        |
| Pri Phone #= 5551212            | Idle Timeout(sec)= 300   |
| Sec Phone #=                    |                          |

Your Menu11.3 should look like:

|                                               |                                 |
|-----------------------------------------------|---------------------------------|
| Menu 11.3 - Remote Node Network Layer Options |                                 |
| IP Options:                                   | IPX Options:                    |
| Rem IP Addr: 1.1.1.1                          | Dial-On-Query= N/A              |
| Rem Subnet Mask= 0.0.0.0                      | Rem LAN Net #= N/A              |
| ~~~~~                                         |                                 |
| My WAN Addr= 0.0.0.0                          | My WAN Net #= N/A               |
| Single User Account= Yes                      | Hop Count= N/A                  |
| Server IP Addr= 0.0.0.0                       | Tick Count= N/A                 |
| Metric= 2                                     | W/D Spoofing(min)= N/A          |
| Private= No                                   | SAP/RIP Timeout(min)= N/A       |
| RIP= None                                     |                                 |
|                                               | Bridge Options:                 |
|                                               | Dial-On-Broadcast= N/A          |
|                                               | Ethernet Addr Timeout(min)= N/A |

Note: IPX and Bridge Options are not available on P100.

Whenever you can't connect to the main ISP, go to Menu 11. First, disable the remote node for your main ISP, then enable your backup remote node. You can then connect to the Internet through the backup remote node.

### **BACP new/old ID support**

New Bandwidth Allocation Control Protocol RFC draft changed the protocol ID. This feature can work with systems that use either new or old protocol ID. This is internal to the system, and does not need to be activated.

### **Turn on/off BACP option**

Some system can't reject the BACP option during LCP and cause PPP negotiation failure. Now you can turn the BACP on or off. The default is on, since most vendors know how to reject the BACP option. Furthermore, most vendors will provide BACP in the future.

To turn the BACP on or off by 'ppp lcp bacp on|off' in Menu 24.8.

### **ISDN link layer enhancement for US switch types**

This feature will automatically recover from the link lost/re-establish situation without a need for a system reset.

### **Add MP outgoing calls checking for bundle**

For outgoing calls, when Prestige attempts either an initial Multilink connection or BOD triggers the 2nd outcall the Prestige will check if the remote device recognizes both channels to be from one device or not. If the far end failed to join the bundle, Prestige will drop the 2nd call and have the traffic continues in the first channel. A notification will be made in the error log for 'Remote can't join MP bundle'.

### **Support X.75/V.120 connection for DSS1 and 1TR6 switch types**

For DSS1 and 1TR6 systems, Menu 4 and Menu 11 can select X.75 or V.120 in Telco option. You can also do Multiple link for these protocols if far end supports MLP.

### **ISDN support for U interface in Korea DSS1 switch**

Supports Korean switch type in U-interface mode.

### **3 more sets of phone number for one remote node**

This feature provides one particular remote node to have 4 sets of phone number for outbound calling. Each set can have two phone numbers. When Prestige calls a busy phone number, it will try the next set of phone numbers.

This feature also allows you to configure a backup Internet account if you have the same name and password to a different ISP.

This feature is configured through Menu 24.8 (CI mode):

To set or disable the remote node for extra phone numbers:

```
Prestige> sys extra node #
```

where # is 1 to 4 for the remote node number in Menu 11, or 0 to disable this feature.

Adding or modifying phone numbers

```
Prestige> sys extra add <set 1-3> <1st phone #> [2nd phone #]
```

The phone numbers has to be 19 characters or less. You can use the format xxxxxx/yyy like in menu 11. Note, the second phone number is optional.

Remove a set of phone numbers

```
Prestige> sys extra remove <set 1 - 3>
```

Display list of extra out call phone numbers

```
Prestige> sys extra disp
```

### **Country code setup**

This feature can set the country code for ISDN firmware.

Command:

```
sys countrycode <code>
```

### **Add '#' in configuring phone numbers**

Some area in Northern America needs to dial # for local CO calls. This enhancement allows you to enter a # before the phone number in Menu 4 and Menu 11.

### **Display of a disabled remote node or dial-in user**

In Menu 11 and Menu 14, if the remote node or user is disabled, Prestige will show a '-' sign before the name of the node/user.

For example the node Office is disabled in the example below:

|                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------|
| <p>Menu 11 - Remote Node Setup</p> <p>1. -Office (SUA)<br/>2. Internet (ISP, SUA)<br/>3. _____<br/>4. _____</p> |
|-----------------------------------------------------------------------------------------------------------------|

### **Disable POTS outcall feature**

You can block the outcall usage for the POTS (A/B adapter) port.

Commands:

'isdn pots channel <chan> <0|1>'

0: to disable

1: to enable

'isdn pots display' to display current setting

### **CCP support**

Support for outgoing and incoming STAC compression for both Remote Node in Menu 11, and Dial-In User in Menu 13.

For Remote Node outgoing and incoming Menu 11.2 'Remote Node PPP Option' can be used to adjust the CCP options.turn on STAC Compression.

#### Menu 11.2 - Remote Node PPP Options

Encapsulation= Standard PPP  
Compression= No

##### Multiple Link Options:

BOD Calculation= Transmit or Receive  
Base Trans Rate(Kbps)= 64  
Max Trans Rate(Kbps)= 64  
Target Utility(Kbps)= 32-48  
Add Persist(sec)= 5  
Subtract Persist(sec)= 5

#### Description of Options:

Encapsulation: For most devices including other ZyXEL's and Ascend use 'Standard PPP'. For Cisco devices use 'CISCO PPP', since Cisco compression is different from other CCP implementations.

Compression: Toggle to enable or disable compression. Default is 'No' for disabled.

For Dial-in Users Compression is enabled through Menu 13. Adjust the 'Compression' setting under 'PPP Options' to enable or disable Compression for all Dial-in Users. The default is 'Yes' for enabled.

#### Menu 13 - Default Dial-in Setup

Telco Options:  
CLID Authen= None

##### PPP Options:

Recv Authen= CHAP/PAP  
Compression= Yes  
Mutual Authen= No  
PAP Login= N/A  
PAP Password= N/A  
Multiple Link Options:  
Max Trans Rate(Kbps)= 128

Callback Budget Management:  
Allocated Budget(min)= 0  
Period(hr)= 0

##### IP Address Supplied By:

Dial-in User= Yes  
IP Pool= No  
IP Start Addr= N/A  
IP Count(1,2)= N/A

##### IPX Net Num Supplied By:

IPX Pool= No  
IPX Start Net Num= N/A  
IPX Count(2,16)= N/A

##### Session Options:

Input Filter Sets=  
Output Filter Sets=  
Idle Timeout= 300

#### CLID authentication enhancement

CLID can put in '?' in place of one digit for accepting any number.

This option allows someone dialing from a block of numbers to be accepted for any of the group. For example:

Calling Numbers:

5551210-5551215

Set the CLID authentication setting to '555121?'

Any number from the Calling range will be accepted.

### Call control feature added

Two forms of controlling incoming/outgoing calls can be used. Budget Management allows the setting of a budget for the specific configuration. Blacklist blocks outcalls to problematic numbers.

### Budget Management

Each remote node can set a 'buget' outcall time for a configurable time interval.

#### Menu 11.1 - Remote Node Profile

|                          |                          |
|--------------------------|--------------------------|
| Rem Node Name= Internet  | Route= IP                |
| Active= No               | Bridge= No               |
| ~~~~~                    |                          |
| Call Direction= Outgoing |                          |
| Incoming:                | Edit PPP Options= No     |
| Rem Login=               | Rem IP Addr= 0.0.0.0     |
| Rem Password= *****      | Edit IP/IPX/Bridge= No   |
| Rem CLID= N/A            | Telco Option:            |
| Call Back= N/A           | Transfer Type= 64K       |
| Outgoing:                | Allocated Budget(min)= 0 |
| My Login= test           | Period(hr)= 0            |
| My Password= *****       | Session Options:         |
| Authen= CHAP/PAP         | Input Filter Sets=       |
| Pri Phone #= 5551212     | Output Filter Sets=      |
| Sec Phone #=             | Call Filter Sets=        |
|                          | Idle Timeout(sec)= 300   |

All dial-in users share one budget for callback time. The value can be set through Menu 13.

#### Menu 13 - Default Dial-in Setup

|                             |                          |
|-----------------------------|--------------------------|
| Telco Options:              | IP Address Supplied By:  |
| CLID Authen= None           | Dial-in User= Yes        |
|                             | IP Pool= No              |
| PPP Options:                | IP Start Addr= N/A       |
| Recv Authen= CHAP/PAP       | IP Count(1,2)= N/A       |
| Compression= Yes            |                          |
| Mutual Authen= No           | IPX Net Num Supplied By: |
| PAP Login= N/A              | IPX Pool= No             |
| PAP Password= N/A           | IPX Start Net Num= N/A   |
| Multiple Link Options:      | IPX Count(2,16)= N/A     |
| Max Trans Rate(Kbps)= 128   |                          |
| Callback Budget Management: | Session Options:         |
| Allocated Budget(min)= 0    | Input Filter Sets=       |
| Period(hr)= 0               | Output Filter Sets=      |
|                             | Idle Timeout= 300        |

Descriptions for settings:

Allocated Budget(min): Sets the allotted number of minutes for this budget.

Period(hr): Sets the Period of hours to which the budget applies. After this period the budget usage will be cleared.

To disable a budget set the 'Allocated Budget' and the 'Period(hr)' to '0'. This is the default setting.

Menu 24 Option 9 Selection 3 displays the current status and allows the reset for each budget.

#### Menu 24.9.3 - Budget Management

|    | Remote Node  | Connection Time/Total Budget | Elapsed Time/Total Period |
|----|--------------|------------------------------|---------------------------|
| 1. | Internet     | 0:00/0:30                    | 0:00/5:00                 |
| 2. | -----        | ---                          | ---                       |
| 3. | -----        | ---                          | ---                       |
| 4. | -----        | ---                          | ---                       |
| 5. | Dial-in User | 0:00/0:45                    | 0:00/10:00                |

Reset Node (0 to update screen):



## Black list

Black list blocks problematic numbers for excessive calling. There are two parameters used to control this through Menu 24 Option 9 Selection 1:

### Menu 24.9.1 - Call Control Parameters

Dialer Timeout:

Digital Call(sec)= 30

Analog Call(sec)= 60

Retry Counter= 10

Retry Interval(sec)= 30

Description of Settings:

Retry Counter: How many times the outcall will be attempted before a failure is assumed.

Retry Timer: The elapsed time between call attempts.

To disable Blacklist settings, set the 'Retry Counter' to '0'. This is the default setting.

Once a phone number outcall exceeds the 'Retry Counter', it will be put into the Black list. Once a number is in the Black list outcalls to this number will be blocked until the system admin manually clears the number from the Black list in Menu 24 Option 9 Selection 2.

### Menu 24.9.2 - Blacklist

Phone Number

1. 5551212
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14

Remove Selection(1-14):

## Outgoing authentication protocol

Remote node can specify the outgoing authentication protocol (PAP or CHAP) in Menu 11. Under section 'Outgoing' set the 'Authen' option to the required authentication. Available options are 'CHAP/PAP' for either, 'CHAP' only, and 'PAP' only.

|                                 |                          |
|---------------------------------|--------------------------|
| Menu 11.1 - Remote Node Profile |                          |
| Rem Node Name= Internet         | Route= IP                |
| Active= No                      | Bridge= No               |
| ~~~~~                           |                          |
| Call Direction= Outgoing        |                          |
| Incoming:                       | Edit PPP Options= No     |
| Rem Login=                      | Rem IP Addr= 0.0.0.0     |
| Rem Password= *****             | Edit IP/IPX/Bridge= No   |
| Rem CLID= N/A                   | Telco Option:            |
| Call Back= N/A                  | Transfer Type= 64K       |
|                                 | Allocated Budget(min)= 0 |
| Outgoing:                       | Period(hr)= 0            |
| My Login= test                  | Session Options:         |
| My Password= *****              | Input Filter Sets=       |
| Authen= CHAP/PAP                | Output Filter Sets=      |
| Pri Phone #= 5551212            | Call Filter Sets=        |
| Sec Phone #=                    | Idle Timeout(sec)= 300   |

## Modem emulation mode support

Menu 24 option 10 provides the user with the capability to go to Modem emulation mode. This allows for the temporary use of the Prestige 2864I as a standard modem for connecting to BBS systems, etc. This option is only available on the P2864I and only through the RS232 connection.

Note: This emulation mode provides restricted modem functions. After entering this mode stay in your terminal emulation software and make your modem outcall. Use 'atdm<number>' to dial out as modem, and use '+++ ' and 'ath' to drop the line. All modem commands are the same as the Elite 2864. To end the modem emulation mode, enter '+++++' to restart the system.

## New CI command for setting CLID callback time

CLID callback starting time can be set through Command Interface mode. After the Prestige uses CLID to authenticate an incoming call, it will delay the preset number of seconds before starting call back. The default is 5 seconds.

Command:  
dial timeout callback <seconds>

## LLC support for DSS1

A new CI command to turn on the Lower Layer Compatibility support.

Command:  
'isdn llc <0|1>'  
0: off  
1: on

## ***Bug fixes***

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All Models:

1. Prestige's generic filtering capabilities would filter out only the following types of packets: ARP, RARP, IP, IPX, and AARP.
2. SNMP support for the ZyXEL private enterprise MIB did not work for the remote user table.
3. IPX static route input checking failed.
4. No Error log for ISDN link off for US switch types.
5. Country code 250 wrong key pad signaling for DSS1.
6. In CI, "sys log" category for ping and Telnet showed ERROR instead of INFO.
7. After using "atgd2,passcode" to login to RAS, menu 23.1 could not change the password without entering the old password.
8. U-interface Prestige did not support Korean switch type.
9. SUA did not work with incoming PASSIVE ftp application, such as Netscape ftp.
10. System was unreliable with heavy use of A/B adapter (POTS) port.
11. Prestige did not include the route in RIP if the remote node WAN IP 'Private' was set to 'yes' in Menu11.3.
12. Prestige did not reply with MP NULL packets when receive a MP NULL packet. Some systems will disconnect the call if they do not receive MP NULL packet response for a period of time.

P100/P128 Only

1. System failed when saving Menu 2 setup when a B channel is connected.
2. System crashed when issue 'isdn drv ring 12' CI command.
3. Memory leak after loopback test.

P2864I Only:

1. ISDN X.75/V.120 connection for DSS1 and 1TR6 firmware would reset itself under heavy traffic.
2. Back to back modem incoming calls would cause the system not to answer any call.

## ***To Upgrade Prestige***

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Get the files from ZyXEL anonymous FTP server (<ftp.zyxel.com>). Upgrade your Prestige by following the instructions for your model:

### **P100**

Versions:

|                    |                     |
|--------------------|---------------------|
| RAS S/W Version -  | V1.3(C01)   5/12/97 |
| ISDN F/W Version - | DSS1: V 0.56        |
|                    | 1TR6: V 0.56        |
|                    | USA : V 0.56        |

RAS and ISDN firmware files:  
p100a.bin ( for Northern America )  
p100e.bin ( for DSS1 )  
p100g.bin ( for 1TR6 )

Commands:

ATBAx: Where x = baud rate  
options available are:  
1= 38.4K  
2= 19.2K  
3= 9.6K  
4= 57.6K  
5= 115.2K

ATUR: Upload Firmware file via XMODEM

Romfile: romfile.zip ( romfile0 )

ATUR3: Upload Romfile and clear all settings

Note: You don't need to upload this file if you are upgrading from  
release 1.2(c.01) unless you want to reset all configuration to factory  
default.

**P128**

Versions:

RAS S/W Version - V1.3(B01) | 5/12/97  
ISDN F/W Version - DSS1: V 0.56  
1TR6: V 0.56  
USA : V 0.56

RAS and ISDN firmware files:  
p128a.bin ( for Northern America )  
p128e.bin ( for DSS1 )  
p128g.bin ( for 1TR6 )

Commands:

ATBAx: Where x = baud rate  
options available are:  
1= 38.4K  
2= 19.2K  
3= 9.6K  
4= 57.6K  
5= 115.2K

ATUR: Upload Firmware file via XMODEM

Romfile: romfile.zip ( romfile0 )

ATUR3: Upload Romfile and clear all settings

Note: You don't need to upload this file if you are upgrading from  
release 1.2(b.01) unless you want to reset all configuration to factory  
default.

**P2864I**

Versions:

RAS S/W Version - V1.3(A01) | 05/12/97

ISDN F/W Version - DSS1: V 4.12q  
1TR6: V 4.12q  
USA : V 4.12q

Files needed to be uploaded to Prestige 2864I:

RAS: p2r12\_1.zip ( ras.3-b )

Note: Beta hardware users please refer to Appendix A for special note.

ISDN firmware: p2864ia.zip ( p2864ia4.12q - for Northern America )

p2864ie.zip ( p2864ie4.12q - for DSS1 )

p2864ig.zip ( p2864ig4.12q - for 1TR6 )

Commands:

ATBAx: Where x = baud rate

options available are:

1= 38.4K

2= 19.2K

3= 9.6K

ATUR: Upload RAS file via XMODEM

ATIS: Connect to ISDN Modem for firmware Upload

ATUPX: Upload ISDN firmware via XMODEM

Romfile: romfile.zip ( romfile0 )

ATUR3: Upload Romfile and clear all settings

Note: You don't need to upload this file if you are upgrading from release 1.2(a.01) unless you want to reset all configuration to factory default.

## ***Appendix A. Upload procedure for Beta hardware***

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File: p2r12\_2.zip ( ras.3-6 ras.b-c For Beta hardware )

Commands: atux3,6 for ras.3-6

atux11,13 for ras.b-c ( note: not atux11,12 )

Note: if any beta system cannot use atux3,6 command, please try atur to load ras.3-b (same as production units), if this still fails, then send your bootmodule version and your MAC address to support@zyxel.com.

File: romfile.zip ( romfile0 )

Upgrade from 0.01f: This file must be loaded and then reconfigure the Prestige.

Upgrade from 1.10 or up: Don't have to reload this file.

Commands: atux1,2 for boot module 26 to 29 atur3 for boot module 30A or above.