ZyXEL Prestige P100 2.41(C.00)C00
Release Note/Manual Supplement

Date: June 15, 2000

This Release Note/Manual Supplement contains information about the features, and bug fixes.

Supported Platforms

V2.41(C.00) supports Prestige model: P100.

***Note**: Since the default configuration for ZyNOS 2.41 is not compatible with the one for the previous ZyNOS firmware, so if your P100 is upgraded from the previous ZyNOS versions, please also update the default configuration file for ZyNOS 2.41.

New Features:

CLID callback support for dial-in users

Dial-in user is capable for callback in Version 2.41.

Outgoing data call bumping support

Prestige will drop a channel in an MP bundle if there is a packet to other remote node.

DHCP relay

Prestige could be a middle role between DHCP server and DHCP client.

More DHCP users

The maximum IP address managed by DHCP server is 253.

NetMeeting support for SUA/NAT

NetMeeting is supported for both incoming and outgoing call.

Minimum toll period support

Prestige will try to use all the toll period at most with minimum toll period.

Time and Date Setting

Three time protocols Daytime (RFC-867), Time (RFC-868) and NTP (RFC-1305) are supported.

Call Scheduling

Prestige can allow the user to schedule a dial-up connection in specified time.

NAT(Network Address Translation)

Prestige supports four types NAT for IP packets: One to One, Many to One (current SUA), Many to Many Overload, and Many to Many No Overload.

Others

1. The ICMP discovery protocol is turned off by default ROM file, and if users want to turn on this protocol to let users' workstation (including PC) to recognize the P100 as one of default route, then users should follow the procedure below.
    - ➢ Go to CI command mode (menu 24.8 or menu 24.4.22)
    - ➢ sys edit autoexec.net
    - ➢ Continue pressing n until finding the string as "ip icmp discovery enif0 off"

➤ Press d to delete.

➤ Press x to save. It will work at next boot up.

2. In order to make ICQ 99a to receive file behind SUA, you should do the following procedure.

➤ open ICQ preference in ICQ icon.

➤ open connections slot.

➤ In "internet connect type" select "I am using a permanent internet connection(LAN)"

➤ choose "I am behind a firewall or proxy"

➤ enter firewall settings. Modify firewall time out to 80 seconds.

3. If you run NetMeeting program behind SUA to connect an outside user, the outside user will see two identical users in screen.

4. Add CI command : PPP LCP ACFC ON/OFF.

5. Support ISDN embedded protocol analyzer (EPA).

➤ "isdn fw analyzer on" turn on EPA.

➤ "isdn fw analyzer off" turn off EPA

➤ "isdn fw analyzer dump" dump EPA raw data, it need another program to analyze it.

Enhancement Details

◆ **CLID callback support for dial-in users**

Functional Description

CLID is an authentication method to identify dial-in user. CLID callback is used for toll saving on ISDN because the call is disconnected immediately without picking up the phone. In previous version, only remote node is capable for CLID callback because there is no outgoing information for dial-in users. In 2.40, the CLID outgoing information will be set in Menu 13, and dial-in user is capable for callback.

SMT Changes

In Menu 13, login and password is not only for mutual authentication but also for outgoing callback.

```
                    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= Yes
        O/G Login= p100                   Session Options:
        O/G Password= ********               Edit Filter Sets= No
        Multiple Link Options:
           Max Trans Rate(Kbps)= 128

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


                  Press ENTER to Confirm or ESC to Cancel:
```

New CI command

No new CI command.

◆ Outgoing data call bumping support

Functional Description

Call bumping is a feature which Prestige will manage a MP bundle dynamically for different traffic. That means Prestige will drop a channel in a bundle when necessary, and reconnect it when possible. The current implementation works for POTS call only. For data packet, Prestige won't drop a channel for it if all channels are occupied. With outgoing data call bumping, Prestige will drop a channel in an MP bundle if there is a packet to other remote node.

SMT Changes

No changes.

New CI command

No new CI command.

◆ DHCP relay

Functional Description

DHCP stands for Dynamic Host Configuration Protocol. It includes three types of roles, DHCP server, DHCP relay and DHCP client. DHCP server is a server who manages the IP addresses to DHCP clients. DHCP relay is a middle role between server and client. Whenever DHCP client request an IP address, DHCP relay will forward the request to a DHCP server and forward the response to the DHCP client from the DHCP server. We have supported DHCP server in 1.40. And DHCP relay will be supported in 2.40.

SMT Changes

New option will be added in 3.2 for DHCP relay.

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

        DHCP= Relay
        Configuration:
            Client IP Pool Starting Address= N/A
            Size of Client IP Pool= N/A
            Primary DNS Server= N/A
            Secondary DNS Server= N/A
            Relay Server Address= 0.0.0.0

        TCP/IP Setup:
            IP Address= 192.168.4.1
            IP Subnet Mask= 255.255.255.0
            RIP Direction= Both
                Version= RIP-2B


                Press ENTER to Confirm or ESC to Cancel:
Press Space Bar to Toggle.
```

New CI command

ip	dhcp	iface name	mode	server/relay/none	set DHCP mode for server/relay/none
			relay	server <ipaddr>	set DHCP relay server address

◆ **More DHCP users**

Functional Description

The current IP addresses managed by DHCP server is 32 at maximum.   In 2.40, the maximum will be increased to 253 at least.

SMT Changes

No changes.

New CI command

No new CI command.

◆ **NetMeeting support for SUA**

Functional Description

In current version, NetMeeting does not work while SUA is enable.   In 2.40, NetMeeting will be supported for both incoming and outgoing call.   For outgoing call, there is no special setting.   For incoming call, port 1503 and 1720 is required to set for server.

SMT Changes

No changes.

New CI command

No new CI command.

◆ Minimum Toll Period external specification

Functional Description

Phone call is charged by time in most places. It is always rounded up at the charging period. For example, Prestige may be idled out and drop the call at 10 seconds in a 3 minutes toll period. That call is still charged for 3 minutes. That means the left 2 minutes and 50 seconds is wasted. With minimum toll period, Prestige will try to use all the toll period at most. In above case, Prestige will try to extend the idle timeout to the nearest 3 minutes. If there is any packet during the extended 2 minutes and 50 seconds, the idle timeout will be cleared and the second call is eliminated. Since the session time calculation by Prestige is not necessary synchronized with Telecom, Prestige will drop the channel 5 seconds shorter than the edge of toll period. Therefore, the minimum toll period won't work if the toll period is less than 5 seconds.

SMT Changes

```
                     Menu 11.1 - Remote Node Profile

    Rem Node Name= ?                    Edit PPP Options= No
    Active= Yes                         Rem IP Addr= ?
    Call Direction= Both                Edit IP= No

    Incoming:                           Telco Option:
       Rem Login= ?                        Transfer Type= 64K
       Rem Password= ?                      Allocated Budget(min)=
       Rem CLID=                             Period(hr)=
       Call Back= No                       Nailed-Up Connection= N/A
    Outgoing:                            Toll Period(sec)= 0
       My Login=                         Session Options:
       My Password= ********                Edit Filter Sets= No
       Authen= CHAP/PAP                     Idle Timeout(sec)= 100
       Pri Phone #= ?
       Sec Phone #=

                  Press ENTER to Confirm or ESC to Cancel:
```

New CI command

No new CI command.

◆ Time and Date Setting

Functional Description

During boot procedure, Prestige will try to connect to a time server somewhere in Internet to calibrate its system clock. In menu 24.10, Prestige administrator can choose which time protocol is preferred, where is the time server (i.e. its IP address) and the time zone of where Prestige is. The Prestige supports three time protocols, which are "Daytime (RFC-867)", "Time (RFC-868)" and "NTP (RFC-1305)". The former two protocols employ TCP protocol, and the last one use UDP protocol. Valid date value is from January 1, 1990 to February 5, 2036. The "Time Zone" field is referred to the time zone of where Prestige is located. It is NOT to the time server's location.

SPECIAL NOTE: Daytime server offers reference time referred to server's own local time, but not Greenwich Mean Time (GMT). So, the "Time Zone" field DOES NOT apply to this time service. The other two kinds of time service offer GMT reference time.

SMT design

```
            Menu 24.10 - System Maintenance - Time and Date Setting


        Use Time Server when Bootup= None/Daytime/ Time/NTP
        Time Server IP Address= 202.132.154.169

        Current Time:                         14 : 00 : 47
        New Time (hh:mm:ss):                  14 : 00 : 47

        Current Date:                         1999 - 12 - 21
        New Date (yyyy-mm-dd):                1999 - 12 - 21

        Time Zone= GMT+0800

                Press ENTER to Confirm or ESC to Cancel:
```

New CI command

sys	adjtime	calibrate system clock with time server

◆ Call Scheduling

Functional Description

Prestige can allow the user to schedule a dial-up connection in specified time. It can let the ISP or the remote nodes in menu 11 to connect or to be dropped down automatically. User may configure a remote node with multiple schedules on a specified day or weekdays. Just like what the scheduled recording function in a video recorder, you can schedule a remote node to connect in a specified date and time.

SMT design

Menu 26 'Schedule Setup' is added in Main Menu.

```
            Copyright (c) 1994 – 2000 ZyXEL Communications Corp.

                          Prestige 100 Main Menu

    Getting Started                   Advanced Management
      1. General Setup                  21. Filter Set Configuration
      2. ISDN Setup
      3. Ethernet Setup                 23. System Password
      4. Internet Access Setup          24. System Maintenance

    Advanced Applications             26. Schedule Setup
      11. Remote Node Setup
      12. Static Routing Setup
      13. Default Dial-in Setup
      14. Dial-in User Setup
      15. NAT Setup                     99. Exit

                    Enter Menu Selection Number:
```

There are twelve individual schedule sets in Menu 26.

```
                    Menu 26 - Schedule Setup

    Schedule                        Schedule
    Set #     Name                  Set #     Name
    ------    -----------------     ------    -----------------
      1       hinet                   7       _____
      2       _____        8       _____
      3       _____        9       _____
      4       _____       10       _____
      5       _____       11       _____
      6       _____       12       _____

              Enter Schedule Set Number to Configure= 1

              Edit Name= hinet

              Press ENTER to Confirm or ESC to Cancel:
```

● Select a schedule number first.

● Give it a name and enter menu 26.1.

  (P.S. If clear the 'Name' field to blank, Prestige will delete this schedule.)

Menu 26.1 is the schedule configuration

```
                        Menu 26.1 Schedule Set Setup

             Active= Yes/No
             Start Date(yyyy-mm-dd)= 1990 - 1 - 1
             How Often= Once/Weekly
             Once:
                Date(yyyy-mm-dd)= 1990 - 1 - 1
             Weekdays:
                Sunday= Yes/No or N/A
                Monday= Yes/No or N/A
                Tuesday= Yes/No or N/A
                Wednesday= Yes/No or N/A
                Thursday= Yes/No or N/A
                Friday= Yes/No or N/A
                Saturday= Yes/No or N/A
             Start Time(hh:mm)= 12 : 00
             Duration(hh:mm)= 16 : 00
             Action= Forced On/Forced Down/Disable Dial-on-demand
                        /Enable Dial-on-demand

                     Press ENTER to Confirm or ESC to Cancel:
```

- Active: schedule will be run or not.

- Start Date: valid from this day; doesn't mean the first running day.

- How Often: selecting 'Once', and the schedule will be executed only on the 'Once''Date'. If selecting 'Weekly', it will run on selected weekdays during each week.

- Start Time: hour and minute for start this schedule

- Duration: how long will this schedule continue?

- Action

  - Forced On: during the period, the remote node will always keep online (idle timeout will be disabled).

  - Forced Down: during the period, this remote node will always keep down, If this remote node is already connected, then it will be dropped. Demanded dial or trigger call from LAN will be ignored.

  - Enable Dial-on-demand: Enable Dial-on-demand: during the period, this remote node will allow to connect. D.O.D. is default to a remote node without schedules. This scheduled action can be used to override the other actions, like 'Forced Down'.

- Disable Dial-on-demand: during the period, this remote node will deny any demand dial. If there are any connection online, will not drop it. After that connection is dropped manually or by idle timeout, remote node can't be triggered up then.

● When out of duration, scheduler will do nothing to this remote node. If a remote node with schedule 'Forced On' is over, it will return to normal operation 'dial-on-demand', not opposite 'Forced Down'.

You can assign 1~4 schedule sets to a remote node in menu 11.1

```
                    Menu 11.1 - Remote Node Profile

  Rem Node Name= Hinet              Edit PPP Options= No
  Active= Yes                       Rem IP Addr= 192.168.50.22
  Call Direction= Outgoing          Edit IP= No

  Incoming:                         Telco Option:
     Rem Login= N/A                    Transfer Type= 64K
     Rem Password= N/A                 Allocated Budget(min)=
     Rem CLID= N/A                     Period(hr)=
     Call Back= N/A                    Schedules= 1,3,2,11
  Outgoing:                            Nailed-Up Connection= No
     My Login= abcd                    Toll Period(sec)= 0
     My Password= ****              Session Options:
     Authen= CHAP/PAP                  Edit Filter Sets= No
     Pri Phone #= 4125678           Idle Timeout(sec)= 100
     Sec Phone #=

                 Press ENTER to Confirm or ESC to Cancel:
```

New CI command

No new CI command.

◆ NAT(Network Address Translation)

Functional Description

NAT only applies to IP packets. NAT will change a packet's IP address and port number to allow networks which do not have legal Internal address to access the Internet. NAT has four types: One to One, Many to One, Many to Many Overload, and Many to Many No Overload. The current SUA is considered NAT type Many to One. Multiple NAT entries can be set up to handle different IP address ranges on the LAN.

NAT types Many to One and Many to Many Overload use Port Address Translation (PAT). PAT utilizes port number and IGA(Internal Global Address: The outside IP address) to determine the ILA(Internal Local Address: The inside IP address). Each IGA can be shared by multiple ILAs.

Each remote node can be assigned one NAT set. When NAT is turned on, the rules in this set will be applied to all traffic through this remote node. One IP address per remote node can be designated as

the SUA Server IP address. Packets received by the SUA Server can be redirected to an inside server as defined by the user.

SMT design

The menu 15 is changed from "SUA Server Setup" to "NAT Setup".

```
                Copyright (c) 1994 - 2000 ZyXEL Communications Corp.

                            Prestige 100 Main Menu

    Getting Started                      Advanced Management
       1. General Setup                     21. Filter Set Configuration
       2. ISDN Setup
       3. Ethernet Setup                    23. System Password
       4. Internet Access Setup             24. System Maintenance

    Advanced Applications                   26. Schedule Setup
       11. Remote Node Setup
       12. Static Routing Setup
       13. Default Dial-in Setup
       14. Dial-in User Setup
       15. NAT Setup                        99. Exit

                        Enter Menu Selection Number:
```

```
                            Menu 15 - NAT Setup

                            1. Address Mapping Sets
                            2. NAT Server Sets

                        Enter Menu Selection Number:
```

```
                        Menu 15.1 - Address Mapping Sets

                        1. hinet
                        2.
                        3.
                        4.
                        5.
                        6.
                        7.
                        8.
                      255. SUA (Read Only)

                        Enter Set Number to Edit:
```

```
                    Menu 15.1.1 - Address Mapping Rules

   Set Name= hinet

 Idx   Local Start IP    Local End IP      Global Start IP   Global End IP      Type
 ---   --------------    --------------    --------------    --------------    ------
  1.   0.0.0.0           255.255.255.255   0.0.0.0                              M-1
  2.   Server Set= 1                       0.0.0.0                              Server
  3.
  4.
  5.
  6.
  7.
  8.
  9.
 10.

                     Action= Edit            , Select Rule= 0

                     Press ENTER to Confirm or ESC to Cancel:
```

Note:

1. 4 actions are "Edit", "Insert Before", "Delete", and "Save Set"; the default is "Edit". "**Edit**" means to edit the selected rule. "**Insert Before**" means to insert a rule before the select rule and all the rules after the selected rule will be drawn back one rule. "**Delete**" means to delete the selected rule and all the rules after the selected one will advance one rule. "**Save Set**" means to save the whole set and when users choose the action as that, "**Select Rule**" item will be disabled.

2. The system processes the rules by turn.

```
                    Menu 15.1.1.1 - hinet - Rule 1

                    Type: Many-to-One

                    Local IP:
                       Start= 0.0.0.0
                       End   = 255.255.255.255

                    Global IP:
                       Start= 0.0.0.0
                       End   = N/A

                    Server Mapping Set= N/A

                    Press ENTER to Confirm or ESC to Cancel:
```

```
                    Menu 15.1.1.2 - hinet - Rule 2

         Type: Server

         Local IP:
            Start= N/A
            End    = N/A

         Global IP:
            Start= 0.0.0.0
            End    = N/A


         Server Mapping Set= 1

         Press ENTER to Confirm or ESC to Cancel:
```

Note:

1.   Total 5 types, "One-to-One", "Many-to-One", "Many-to-Many Overload", "Many-to-Many No Overload" and "Server".

2.   Whichever Local IP or Global IP, the end address must be after the start address.

3.   If the rule is for all local IP, put start address as 0.0.0.0 and end address as 255.255.255.255.

4.   If dynamic IP, put the value of Global Start IP as 0.0.0.0.

5.   The server mapping set is mapped in menu 15.2.

```
                    Menu 15.2 - NAT Server Sets

                1. Server Set 1
                2. Server Set 2
                3. Server Set 3
                4. Server Set 4
                5. Server Set 5
                6. Server Set 6
                7. Server Set 7
                8. Server Set 8
                9. Server Set 9
               10. Server Set 10

                    Enter Set Number to Edit:
```

```
                Menu 15.2.1 - Multiple Server Configuration

          Port #              IP   Address
          ------            ---------------
        1. Default           0.0.0.0
        2. 0                 0.0.0.0
        3. 0                 0.0.0.0
        4. 0                 0.0.0.0
        5. 0                 0.0.0.0
        6. 0                 0.0.0.0
        7. 0                 0.0.0.0
        8. 0                 0.0.0.0
        9. 0                 0.0.0.0
       10. 0                 0.0.0.0
       11. 0                 0.0.0.0
       12. 0                 0.0.0.0


            Press ENTER to Confirm or ESC to Cancel:
```

Remote node setting is in menu 11.3 and menu 4

```
            Menu 11.3 - Remote Node Network Layer Options

        Rem IP Addr: 0.0.0.0
        Rem Subnet Mask= 0.0.0.0
        My WAN Addr= 0.0.0.0

        NAT= Full Feature
          Address Mapping Set= 1

        Metric= 2
        Private= No
        RIP Direction= Both
           Version= RIP-2B

        Press ENTER to Confirm or ESC to Cancel:
```

```
                    Menu 4 - Internet Access Setup

              ISP's Name= hinet
              Pri Phone #= 4125678
              Sec Phone #=
              My Login= icchung
              My Password= ********
              My WAN IP Addr= 0.0.0.0

              NAT= [None/SUA Only/Full Feature]
                 Address Mapping Set= 1

              Telco Options:
                 Transfer Type= 64K

              Multilink= Off
              Idle Timeout= 300

              Press ENTER to Confirm or ESC to Cancel:
```

Note: To leave "My WAN IP Addr" as 0.0.0.0 means dynamic IP.

New CI command

ip	nat	iamt		Display NAT system information.
		iface	\<iface name\>	Show the NAT status of an interface.
		lookup	\<set #\>	List all the active rules in a set.
		new-lookup	\<set #\>	List all the new rules which are not yet used due to conflicts with old rules.
		reset	\<iface name\>	This deletes all the entries inside the session table and IAMT table but not the lookup table.
		server		Display server table.
		update		Updates the runtime NAT data to what is in ROM.

- **Examples**

Case 1 (ISP case, internet access only)
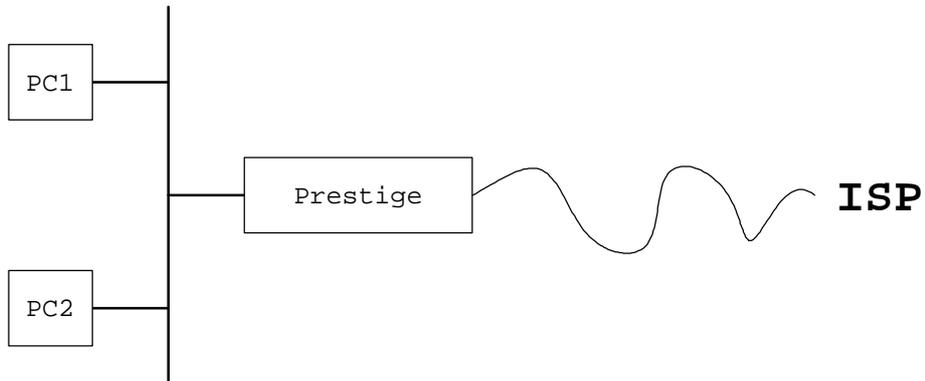
In ISP case with internet access only, we need one rule that all ILAs share one dynamic IGA assigned by ISP for outgoing packet.

Enter to menu 15.1 and choose a set to create an address mapping set named ISP (the first set is used in this case).

```
                      Menu 15.1 - Address Mapping Sets

              1.
              2.
              3.
              4.
              5.
              6.
              7.
              8.
            255. SUA (Read Only)

                      Enter Set Number to Edit:
```

In menu 15.1.1, give the set a name (ISP in this case), then toggle action to edit and select rule 1 to edit.

```
                    Menu 15.1.1 - Address Mapping Rules

   Set Name= ISP

Idx   Local Start IP    Local End IP      Global Start IP  Global End IP    Type
---   --------------    --------------    --------------   --------------   ------
  1.
  2.
  3.
  4.
  5.
  6.
  7.
  8.
  9.
 10.

                    Action= Edit            , Select Rule= 0

                    Press ENTER to Confirm or ESC to Cancel:
```

Toggle type to many-to-one because more than one machines share 1 IP in the most ISP case, enter local start IP as 0.0.0.0 and local end IP as 255.255.255.255 to mean this rule is used by all machines in local LAN, and enter global IP as 0.0.0.0 to mean the IGA is a dynamic IP.

```
                    Menu 15.1.1.1 - ISP - Rule 1

                    Type: Many-to-One

                    Local IP:
                       Start= 0.0.0.0
                       End   = 255.255.255.255

                    Global IP:
                       Start= 0.0.0.0
                       End   = N/A

                    Server Mapping Set= N/A

                    Press ENTER to Confirm or ESC to Cancel:
```

After doing that, the user will watch the menu 15.1.1 as following:

```
                  Menu 15.1.1 - Address Mapping Rules

   Set Name= ISP

 Idx   Local Start IP   Local End IP     Global Start IP  Global End IP     Type
 ---   ---------------  ---------------  ---------------  ---------------   ------
  1.   0.0.0.0          255.255.255.255  0.0.0.0                            M-1
  2.
  3.
  4.
  5.
  6.
  7.
  8.
  9.
 10.

                  Action= Edit             , Select Rule= 0

                  Press ENTER to Confirm or ESC to Cancel:
```

Toggle action to Save Set to save all the set.

```
                     Menu 15.1 - Address Mapping Sets

                        1. ISP
                        2.
                        3.
                        4.
                        5.
                        6.
                        7.
                        8.
                      255. SUA (Read Only)

                        Enter Set Number to Edit:
```

Edit menu 4 as following,

```
                    Menu 4 - Internet Access Setup

           ISP's Name= ISP
           Pri Phone #= 4125678
           Sec Phone #=
           My Login= icchung
           My Password= ********
           My WAN IP Addr= 0.0.0.0

           NAT= [None/SUA Only/Full Feature]
              Address Mapping Set= 1

           Telco Options:
              Transfer Type= 64K

           Multilink= Off
           Idle Timeout= 300

           Press ENTER to Confirm or ESC to Cancel:
```

Case 2 (ISP case, with internal server)
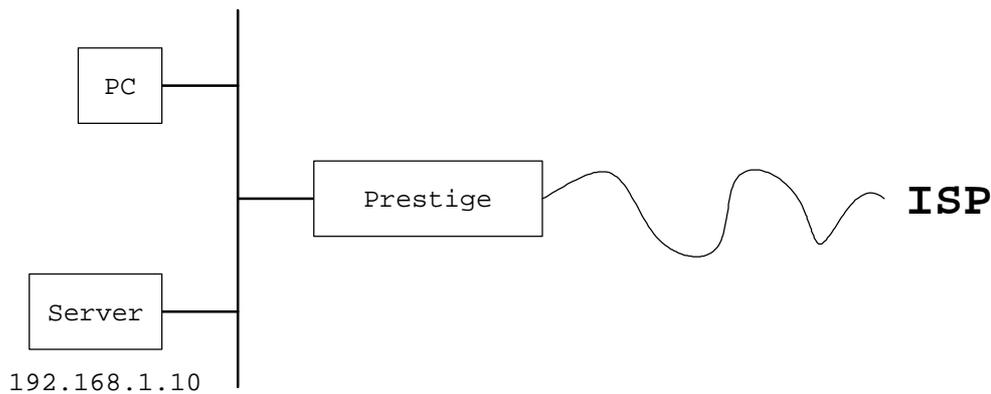
In ISP case, we need to add one extra rule in menu 15.1.1 as one server rule for incoming packet. Firstly, go to menu 15.2, and select a NAT server set to edit (set 1 in this case), and then edit the default value as 192.168.1.10 shown as below.

```
                    Menu 15.2 - NAT Server Sets

              1. Server Set 1
              2. Server Set 2
              3. Server Set 3
              4. Server Set 4
              5. Server Set 5
              6. Server Set 6
              7. Server Set 7
              8. Server Set 8
              9. Server Set 9
             10. Server Set 10


                    Enter Set Number to Edit:
```

```
              Menu 15.2.1 - Multiple Server Configuration

             Port #        IP   Address
             ------        ---------------
          1. Default       192.168.1.10
          2. 0             0.0.0.0
          3. 0             0.0.0.0
          4. 0             0.0.0.0
          5. 0             0.0.0.0
          6. 0             0.0.0.0
          7. 0             0.0.0.0
          8. 0             0.0.0.0
          9. 0             0.0.0.0
         10. 0             0.0.0.0
         11. 0             0.0.0.0
         12. 0             0.0.0.0

              Press ENTER to Confirm or ESC to Cancel:
```

Secondly, go to menu 15.1.1.2 (rule 1 is used for outgoing packet), and then toggle type to Server, and insert global IP as 0.0.0.0 (dynamic IP) and server mapping set as 1.

```
                    Menu 15.1.1.2 - ISP - Rule 2

             Type: Server

             Local IP:
                Start= N/A
                End   = N/A

             Global IP:
                Start= 0.0.0.0
                End   = N/A

             Server Mapping Set= 1

             Press ENTER to Confirm or ESC to Cancel:
```

Then the user can watch the menu 15.1.1 as following,

```
                      Menu 15.1.1 - Address Mapping Rules

     Set Name= ISP

  Idx   Local Start IP    Local End IP      Global Start IP   Global End IP    Type
  ---   --------------    --------------    --------------    --------------   ------
   1.   0.0.0.0           255.255.255.255   0.0.0.0                            M-1
   2.   Server Set= 1                       0.0.0.0                            Server
   3.
   4.
   5.
   6.
   7.
   8.
   9.
  10.

                      Action= Edit              , Select Rule= 0

                      Press ENTER to Confirm or ESC to Cancel:
```

Toggle action to Save Set to save all the set.

```
                      Menu 4 - Internet Access Setup

                  ISP's Name= ISP
                  Pri Phone #= 4125678
                  Sec Phone #=
                  My Login= icchung
                  My Password= ********
                  My WAN IP Addr= 0.0.0.0

                  NAT= Full Feature
                     Address Mapping Set= 1

                  Telco Options:
                     Transfer Type= 64K

                  Multilink= Off
                  Idle Timeout= 300

                  Press ENTER to Confirm or ESC to Cancel:
```

Case 3 (General case, with 3 IGAs)

```
 _____
| Internal Server    |
| 192.168.1.20       |
|_____|
                                                                              |
 _____                                                         |
| Workstation        |                                                        |
| 192.168.1.x        |                                                        |
|_____|                                                        |
                        _____                      _____  |
                       |              |   ~~~~~~~~~~~~~~~~  | Router         | |
 _____  |   P100IH     |  (                 | 202.132.155.100| | LAN
| Server1            | |_____|   ~~~~~~~~~~~~~~~~  |_____| |
| 192.168.1.10       |                                                        |
|_____|  My WAN IP = 202.132.154.100                           |
                        IGAs = 202.132.50.1                                   |
                               202.132.50.2                                   |
 _____          202.132.50.3                                   |
| Server2            |  Mapping Rules:                                        |
| 192.168.1.11       |  1. Server1 <-> 202.132.50.1 1-1                       |
|_____|  2. Server2 <-> 202.132.50.2 1-1                       |
                        3. Others -> 202.132.50.3 M-1 Ov
                        4. 202.132.50.3 -> Internal Server
```
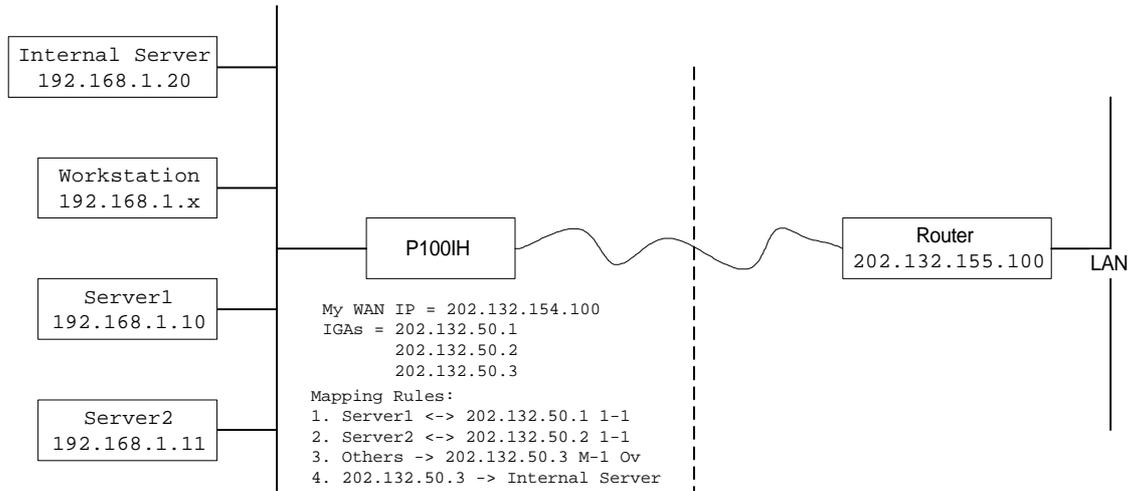
In this example, user has to configure 4 rules, 2 for one-to-one mapping (one-to-one for both incoming packets and outgoing packets), one for outgoing packets, and the other for incoming packets. The address mapping set has to be configured as following (use set 1 in this case).

```
+-------------------------------------------------------------------------------+
|                                                                               |
|                  Menu 15.1.1 - Address Mapping Rules                          |
|                                                                               |
|    Set Name= test                                                             |
|                                                                               |
|  Idx   Local Start IP   Local End IP      Global Start IP  Global End IP  Type|
|  ---   --------------   --------------    --------------   -------------- ----- |
|  1.    192.168.1.10                       202.132.50.1                    1-1  |
|  2.    192.168.1.11                       202.132.50.2                    1-1  |
|  3.    0.0.0.0          255.255.255.255   202.132.50.3                    M-1  |
|  4.    Server Set= 1                      202.132.50.3                    Server|
|  5.                                                                           |
|  6.                                                                           |
|  7.                                                                           |
|  8.                                                                           |
|  9.                                                                           |
|  10.                                                                          |
|                                                                               |
|                                                                               |
|                    Action= Edit            , Select Rule= 0                   |
|                                                                               |
|                    Press ENTER to Confirm or ESC to Cancel:                   |
|                                                                               |
+-------------------------------------------------------------------------------+
```

Another, the server set 1 has to be set as following.

```
           Menu 15.2.1 – Multiple Server Configuration

             Port #        IP   Address
             ------        ---------------
           1. Default       192.168.1.20
           2. 0               0.0.0.0
           3. 0               0.0.0.0
           4. 0               0.0.0.0
           5. 0               0.0.0.0
           6. 0               0.0.0.0
           7. 0               0.0.0.0
           8. 0               0.0.0.0
           9. 0               0.0.0.0
          10. 0               0.0.0.0
          11. 0               0.0.0.0
          12. 0               0.0.0.0


           Press ENTER to Confirm or ESC to Cancel:
```

In this case, menu 11.3 has to be configured as following,

```
        Menu 11.3 - Remote Node Network Layer Options

           Rem IP Addr: 202.132.155.100
           Rem Subnet Mask= 255.255.255.0
           My WAN Addr= 202.132.154.100

           NAT= Full Feature
             Address Mapping Set= 1

           Metric= 2
           Private= No
           RIP Direction= Both
              Version= RIP-2B


           Press ENTER to Confirm or ESC to Cancel:
```

Bug fixes:

ZyXEL Prestige P100 2.41(C.00)b01 :

1. Fix DHCP client leasing time problem with Linux.
2. If remote router does not send ACCM option in LCP phase, Prestige will have problem to handle correct control and char mapping.
3. If both MSN of POTS ports are the same or none, both phones should answer the incoming analog call.

ZyXEL Prestige P100 2.41(C.00)b02 :

1. The Date/Time setting problem in SMT menu 24.10/menu 26.

ZyXEL Prestige P100 2.41(C.00) :

1. The AUI interface can't be selected in SMT menu 3.1.
2. Add protection for user from uploading V2.41 or later version to P100 with DRAM size 512KB.

Known Bugs:

1. For DSS-1 version, Prestige may stop placing outgoing data calls after Call Waiting/Call Hold/ Call Retrieve scenario if both of POTS ports are assigned the identical phone number. When it happens, the B-channel status shown on Menu 24.1 is wrong.
2. Prestige performance will be degraded if there exists a telnet session in Menu 24.1 via LAN at the same time.
3. When ISDN line is unpluged, there may be some garbage characters displayed after system initialization.
4. If the DRAM of P100 is 512KB size, there could be not enough memory to allocate for Prestige to perform full function.