Q:	**Making the Dial Plan**

A: **What is a Dial Plan?**

When you pick up a telephone and dial a number, the VoIP gateway will translate this number into a destination IP address. The list of phone numbers in reference to their final destinations is called Dial Plan. Take for example, you can set the phone number "30" to your branch office and "40" to your customer's office. To set up the dial plan. From the Web management's Main menu, click on "*VoIP->DialPlan*". You will see the following menu
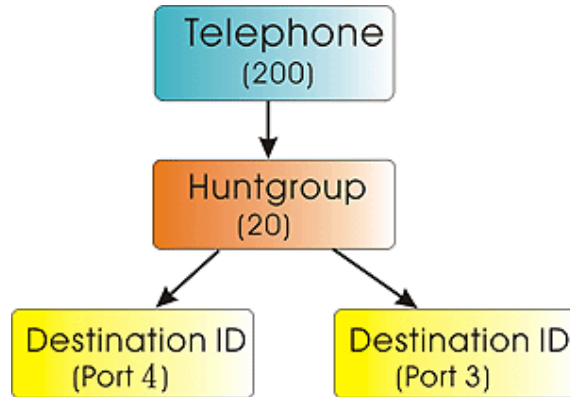
Dial-Plan Menu

- Phone/Hunt Group/Destination Settings
- Common Parameter Settings
- Clear All Dial Plan Settings
- Restore All Dial Plan Settings
- Store Settings To Non-Volatile Storage

Help

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VOIP Configuration Menu

Options available in this page include:

1. Dial Plan: The Dial Plan menu allows you to setup to dial plan for gateway.
2. H.323: The H.323 configuration menu allows you to setup and show the H.323 parameters.
3. Telephony Ports: The Telephony Ports menu allows you to setup and show each telephony paremeters.

What is the Phone, Hunt Group, and Destination ID?

Instead of just simply define Phone number to Destination. The VoIP gateway add one more level called Hunt group to make "dialing one number and try multiple destinations" possible. The gateway will try the next destination if it is busy, until it connects. This is very useful if you try to reach the same groups of people in different gateways. The structure of the dial plan is: **Phone number -> Hunt Group -> Destination ID.** Each hunt group can have more than one destinations. After you setup your dial-plan, please remember to "Store

Settings to Non-Volatile Storage".

- **Phone number:** Phone number is the number you dial that will associate with a remote IP address. When you actually dial a number, it is composed of the ***<phone number>+<remote gateway's dial plan number>***. Take for example, if the number "30" is your branch office. To dial into your branch office's port#3, you should dial "***30203***". The "30" is your local phone setting for the branch office. The "203" is your destination gateway's dialplan for port#3. The phone settings has some parameters below:

  - Telephone number: The telephone number for dialing.
  - Hunt Group ID: The hunt group number that the telephone number is pointing to
  - Min Digit: The minimum digit dialed before your gateway starts to call. For example, if you setup "30" for branch office. You can put "2" in this field.
  - Max Digit: The maximum number of digit your gateway will wait before start calling. For example, if you setup "30" for branch office and the brach office have default dialplan "201~204" for port 1 to port 4. Then you should put "5" in this field because you will always dial "30+<3 digit port number>" to your remote gateway. ***But please make sure that the Max Digit should be the same across the dial-plan phone settings,*** otherwise, the router will stop to listen to the remaining digits if the dialing exceed just one phone number's maximum digit settings. ***Please note that the Max digit should always exceed the maximum length of your possible dial number.*** Otherwise, your call will start before you even finish input the digits.
  - Strip Length: When sending to remote gateway, the number of digits to clip off the telephone number you dial. Take for example, if you dial "30203" to your branch office's port 3. You don't want to send the entire "30203" to your branch office's gateway, otherwise, it will not recognize phone dialed. Therefore, you should set the Strip Length to "***2***". So only "203" is sent to remote gateway. ***As a rule of thumb, you should set the strip length to the number of digits in telephone number.***
- **Hunt Group:** Hunt group allows a phone number to have multiple destinations. If one phone number only goes to one destination. Simply assign the same number for Hunt Group and Destination ID, this will make the association easier to remember. To add more than one destination for a hunt group. After enter the first destination ID, click on "More destinations for the Same Hunt Group" then enter more. Do not press "complete" until you have entered all the destination ID.

  - In the example below. The "Phone Number 200" points to "Huntgroup 20". The Huntgroup 20 has 2 destinations, Port 3 and Port 4 (Destination ID can be local port or remote IP address). Therefore, when you dial 200, the gateway will automatically select the port that is not busy.

- **Destination ID:** Destination ID is the where you assign the final destination of a phone number. There are 3 types of destination you can setup

  - Remote Destination IP: If your final destination is a remote gateway with fixed IP address. You should add this type to assign the IP address of the remote Gateway or IP phone.

  - Remote Host Name: If your remote gateway use Dynamic DNS, you should add this type to put domain name (e.g. myname.dyndns.org) as your final destination.

  - Local Destination Channel: If your final destination is your local port. You should add the destination channel. The destination channel number is one less than the port number. Take for example, Port 1 has destination channel number 0, Port 2 has destination channel number 1...etc.