

# **User Manual**

**G201N4**

**Version 1.3**



## Revision Record

| Version | Date       | Author       | Firmware Version    | Applicability   |
|---------|------------|--------------|---------------------|---|
| V1.0    | 2013-07-22 | Chen Jianjun | V1.0                | The initial version(lack of the panel pictures).      |
| V1.1    | 2014-01-02 | Maylin       | V3.05(201312311327) | The second edition, update based on the new firmware. |
| V1.2    | 2014-06-08 | Sean Liu     |                     | Add G201NW/G201N Specification.                       |
| V1.3    | 2014-6-26  | Sean Liu     |                     | Add Declaration of Conformity                         |

# Declaration of Conformity

## Part 15 FCC Rules

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

## Class B Digital Device or Peripheral

Note: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

## *Table of Contents*

|  |    |
|--|----|
| 1.Preamble .....                                   | 1  |
| 1.1 Package Contents .....                         | 1  |
| 2.Indicators and Connectors.....                   | 1  |
| 2.1 LED Indicators .....                           | 1  |
| 2.2 Hardware Installation .....                    | 2  |
| 2.3 G201N4/G201NW/G201N .....                      | 3  |
| 3. IVR(Interactive Voice Response).....            | 4  |
| 3.1 The method of configuring a home gateway ..... | 4  |
| 3.2 Start IVR .....                                | 4  |
| 3.3 IVR description .....                          | 4  |
| 3.4 Notice .....                                   | 6  |
| 4. G201N4 webpage settings .....                   | 8  |
| 4.1 Login WEB page.....                            | 8  |
| 4.1.1 URL format .....                             | 8  |
| 4.1.2 About Passwords .....                        | 8  |
| 4.2 WEB Page .....                                 | 9  |
| 5 .Configure from web .....                        | 10 |
| 5.1 Status.....                                    | 10 |
| 5.1.1 System Information .....                     | 10 |
| 5.1.2 System Log .....                             | 11 |
| 5.2 Network.....                                   | 12 |
| 5.2.1 WAN.....                                     | 12 |
| 5.2.2 LAN .....                                    | 17 |
| 5.2.3 VPN.....                                     | 18 |
| 5.2.4 MAC Clone .....                              | 19 |
| 5.2.5 DMZ.....                                     | 19 |
| 5.2.6 DDNS.....                                    | 20 |
| 5.2.7 Advance.....                                 | 20 |
| 5.2.8 Port Setting.....                            | 21 |
| 5.2.9 Multi WAN.....                               | 21 |
| 5.3 Wireless.....                                  | 22 |
| 5.3.1 Basic.....                                   | 22 |
| 5.3.2 Wireless Security Setting .....              | 24 |
| 5.3.3 Wi-Fi MultiMedia .....                       | 27 |
| 5.3.4 Wi-Fi Protected Setup (WPS) .....            | 27 |
| 5.3.5 Wireless Client .....                        | 29 |
| 5.3.6 Advance Wireless.....                        | 29 |
| 5.4 SIP Account.....                               | 31 |
| 5.4.1 Line 1 .....                                 | 31 |
| 5.4.2 SIP setting .....                            | 35 |
| 5.4.3 QoS .....                                    | 36 |

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|                                 |    |
|---------------------------------|----|
| 5.5 Phone.....                  | 36 |
| 5.5.1 Preferences .....         | 37 |
| 5.5.2 Dial Plan.....            | 40 |
| 5.5.3Phonebook.....             | 42 |
| 5.5.4 Call Log.....             | 43 |
| 5.6 Diagnosis.....              | 45 |
| 5.7 Administration.....         | 45 |
| 5.7.1 Management.....           | 46 |
| 5.7.2 Firmware Upgrade .....    | 49 |
| 5.7.3 Provision .....           | 49 |
| 5.7.4 SNMP.....                 | 51 |
| 5.7.5 TR069.....                | 52 |
| 6 Functions.....                | 53 |
| 6.1 Making Calls.....           | 53 |
| 6.2 Call Waiting .....          | 53 |
| 6.3 Call Hold.....              | 53 |
| 6.4 Call Transferring .....     | 53 |
| 6.4.1 Blind Transfer .....      | 53 |
| 6.4.2 Attended Transfer.....    | 54 |
| 6.5 3-way conference call ..... | 54 |
| 6.6 Call Forwarding .....       | 54 |
| 6.7 Direct IP calls.....        | 54 |
| 6.8 Speed dialing.....          | 55 |
| 6.9 Hotline.....                | 55 |
| 6.10 Daylight Saving Time ..... | 55 |
| 6.11 Upgrade Firmware.....      | 56 |
| 6.12 Password Control .....     | 56 |
| 6.13 Web Access .....           | 56 |
| 6.14 System log.....            | 57 |

# 1.Preamble

Thank you for choosing G201N4 VOIP home gateway products. G201N4 home gateway is a highly integrated access device, and it is a kind of high-end multi-in-one gateway product which based on IEEE802.11n standard. This product is for individual users, SOHO (Small Office or Home Office) and small enterprises to provide high-performance access. It provides a wide range of management functions, can provide dhcp, dmz host, virtual servers, firewalls etc. management; also it is able to set up the internal LAN, allowing multiple computers to share a single broadband line and ISP account; its specific firewall feature, can filter bad sites; also it supports disabling SSID broadcast mode, user can prevent AP broadcast the SSID, which can solve the leaks caused by SSID broadcast; G201N4 supports 64/ 28 WEP wireless dhome gateway encryption to ensure the security of dhome gateway transmission in a wireless network; it supports DHCP servers and dynamic/static routing; and it supports access control, the network administrator can control all the computer in the LAN access to the Internet through a router; supports virtual server and dmz host to meet specific application needs; it supports remote management and system logs, which brings large convenience for the network administrator to realize network management and real-time monitoring; and G201N4 also supports UpNp, voice and video transmission, online audio and video transmission, online games and other rich features.

## 1.1 Package Contents

One G201N4 package contains:

- ◆ One G201N4 VoIP home gateway
- ◆ One power adapter
- ◆ One Ethernet cable
- ◆ One telephone line

If the above device or accessory is damaged or lost, please contact with your reseller for replacement.

## 2.Indicators and Connectors

Before you use the high speed home gateway G201N4, please get acquainted with the LED indicators and connectors first.

### 2.1 LED Indicators

- (1) The positive side panel



(2) The rear panel



(3) The left side panel



## 2.2 Hardware Installation

Before starting to configure the router, you have to connect your devices correctly.

Step 1. Connect Line port to land line jack with a RJ-11 cable.

Step 2. Connect the WAN port to a modem or switch or router or Internet with an Ethernet cable.

Step 3. Connect one port of 4 LAN ports to your computer with a RJ-45 cable. This device allows

you to connect 4 PCs directly.

Step 4. Connect one end of the power cord to the power port of this device. Connect the other end to the wall outlet of electricity.

Step 5. Check the Power and WAN, LAN LEDs to assure network connections.

**Warning: Please do not attempt to use other different power adapter or cut off power supply during configuration or updating the G201N4 VoIP home gateway. Using other power adapter may damage G201N4 and will void the manufacturer warranty.**

**Warning: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.**

**This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.**

**If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:**

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

## 2.3 G201N4/G201NW/G201N

The below table lists the hardware difference of G201NX.

|               | WAN Port       | LAN Port       | VoIP Port  | USB Port | Wireless |
|---------------|----------------|----------------|------------|----------|----------|
| <b>G201N4</b> | 1 10/100M RJ45 | 4 10/100M RJ45 | 1 FXS RJ11 | 1        | Yes      |
| <b>G201NW</b> | 1 10/100M RJ45 | No             | 1 FXS RJ11 | 1        | Yes      |
| <b>G201N</b>  | 1 10/100M RJ45 | No             | 1 FXS RJ11 | 1        | No       |



### 3. IVR(Interactive Voice Response)

#### 3.1 The method of configuring a home gateway

G201N4 can be configured three ways, as follows:

- (1)Use IVR
- (2)Use Web
- (3)Use Provision

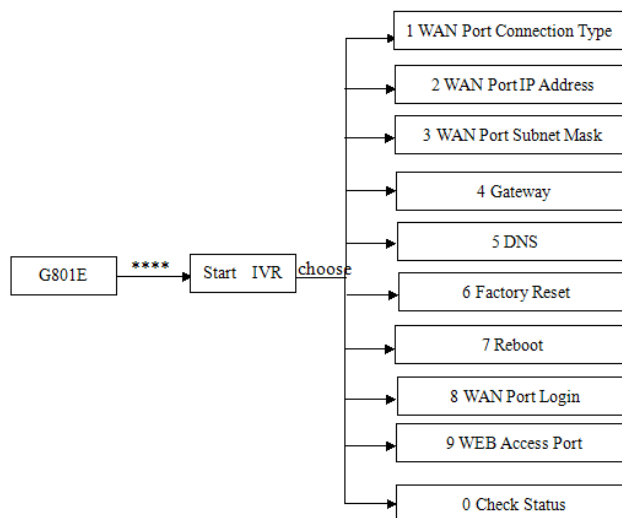
#### 3.2 Start IVR

Customer can use the IVR function by referring to the following steps:

- (1) Connect analog phone to G201N4’s phone port, and connect the device well, off-hook and press the "\*\*\*\*" key to start the IVR, then the user will hear a voice prompt device "**Please enter your option, one WAN Port .....**".
- (2) Depending on the options, press any number among 0-9, the device will broadcast the corresponding contents, numbers 0-9 represent specific contents, see the chart below.
- (3) Each time after set successfully, the device will again play "**Please enter your option, one WAN Port .....**".

#### 3.3 IVR description

The chart below lists the IVR requirements and detailed descriptions:



| Operation Code | Contents  |
|----------------|---|
| 1              | <p>1) Pick up the phone and press "****#" key to start the IVR;</p> <p>2) Select "1", then the device will broadcast the current <b>WAN port connection type</b>;</p> <p>3) To change the WAN port network connection type, users hear "Please enter password" and enter the correct password, and end with "#";</p> <p>◆ The IVR password is the same as the one of WEB login, the user simply press the corresponding key, and the matching table is the <b>3.4 Notice</b>.</p> <p>◆ For example: WEB page login password is "admin", the IVR password is "admin" too, the user enters "23646" and then can start to set the WAN port network connection type.</p> <p>4) If you enter the correct password, the device broadcast "<b>operation successful</b>";</p> <p>5) To select the new WAN port network connection type, 1 represents the DHCP, 2 for the Static IP, please input number ends with"#".</p> <p>6) When the device broadcast "<b>operation successful</b>", this means that the user has successfully set up the connection type of WAN port, The equipment will broadcast "<b>Please enter your option, one WAN Port .....</b>" again.</p> <p>◆<b>Note:</b> add '#to assume after input password and select new WAN port connection type.</p> <p>◆If you want to quit the setup, please press the "* *" button.</p> |
| 2              | <p>1) Pick up the phone and press the "* * * *" key to start the IVR;</p> <p>2) Press "2", and then device will broadcast the current <b>WAN Port IP Address</b>;</p> <p>3) Enter the new IP address for the WAN port, and ends with a "#";</p> <p>◆ Please use "*" to replace ". ", for example, the user can enter 192 * 168 * 20*168 to set up the new IP address 192.168.20.168 for WAN port.</p> <p>◆ When enter the new IP address please ends with a "#".</p> <p>4) If user has set up correctly, the device will broadcast "<b>operation successful</b>".</p> <p><b>Note:</b> if user need to exit the setup, please press the "* *" button.</p>  |
| 3              | <p>1)Pick up the phone and press the "* * * *" key to start the IVR;</p> <p>2) Select "3", the equipment will broadcast the <b>WAN port subnet mask</b>;</p> <p>3) Enter the new WAN port subnet mask, and ends with a "#";</p> <p>◆ Please use "*" to replace ". ", for example, the user can enter 255 * 255 * 255 * 0 to set up the new subnet mask for the WAN port 255.255.255.0.</p> <p>◆When set the new subnet mask, please end with "#".</p> <p>4) If the user has set up new subnet mask correctly, the device will broadcast "<b>operation successful</b>".</p> <p><b>Note:</b> if user need to exit the setup, please press the "* *" button.</p>   |
| 4              | <p>1) Pick up the phone and press the "* * * *" key to start the IVR;</p> <p>2) Select "4", the equipment will broadcast the gateway;</p> <p>3) Input the new gateway address and end with char '#';</p> <p>◆Please use "*"to replace". ", for example, the user can enter 192 * 168 * 20*1 to set the new address of gateway to 192.168.20.1.</p> <p>◆When enter the new gateway address please ends with"#".</p> <p>4) If the user has set up correctly, the device will broadcast "<b>operation successful</b>".</p> <p><b>Note:</b> if user need to exit the setup, please press the "* *" button.</p>  |
|                | <p>1) Pick up the phone and press the "* * * *" key to start the IVR;</p> <p>2) Select "5", the equipment will broadcast the current <b>DNS</b>;</p>  |

|   |  |
|---|--|
| 5 | <p>3) Enter the new DNS address and ends with a "#";</p> <p>◆Please use "*" to replace ". ", for example, the user can enter 192 * 168 * 20*1 to set up the new DNS to be 192.168.20.1.</p> <p>◆When enter the new DNS please ends with a "#"</p> <p>4) If the user set up correctly, the device will broadcast "<b>operation successful</b>".</p> <p><b>Note:</b> if users need to exit the setup, please press the "* *" button.</p>   |
| 6 | <p>1) Hook off and press "*****" key to start the IVR;</p> <p>2) Select "6", the device will broadcast "Factory reset";</p> <p>3) User hears the machine report "<b>Please enter password</b>", the method of inputting password is the same as operation 1;</p> <p>◆If user need to quit, press the "*" key.</p> <p>4) If the user enters the correct password, the device will broadcast "<b>operation successful</b>", then the device settings are restored to factory condition;</p> <p>5) Press "7" to reboot the device to make the changes take effect.</p>  |
| 7 | <p>1) Hook off and press "*****" key to start the IVR;</p> <p>2) Select the "7", the device will broadcast "Reboot ";</p> <p>3) User hears the device report "<b>Please enter password</b>", the method of inputting password is the same as operation 1;</p> <p>4) If the user inputs the correct password, the device will automatically restart.</p> <p>◆ To exit, press the "*" key.</p>   |
| 8 | <p>1) Pick up the phone and press "*****" key to start the IVR;</p> <p>2) Select "8", the device will broadcast "WAN Port Login";</p> <p>3) User hears the machine report "<b>Please enter password</b>", the method of inputting password is the same as operation 1;</p> <p>◆ To exit, press the "*" key.</p> <p>4) If the user enters the correct password, the device will broadcast "<b>Operation successful</b>"</p> <p>5) Equipment broadcasts "<b>1enable 2disable</b>", choose 1 or 2, and end with "#";</p> <p>6) If the settings are correct, the device will broadcast "Operation successful".</p>                                 |
| 9 | <p>1) Pick up the phone and press "*****" key to start the IVR;</p> <p>2) Select the "9", the device will broadcast "<b>WEB Access Port</b>";</p> <p>3)User hears the machine report "<b>Please enter password</b>", the method of inputting password is the same as operation 1;</p> <p>4) If the user enters the correct password, the device will broadcast "<b>Operation successful</b>";</p> <p>5) The equipment broadcasts the current "<b>WEB Access Port</b>";</p> <p>6) Enter the new <b>WEB access port</b> number, and end with "#";</p> <p>7) After set successfully, the device will broadcast "<b>Operation successful</b>".</p> |
| 0 | <p>1)Pick up the phone and press "*****" key to start the IVR;</p> <p>2) Select "0", the device will broadcast the current "<b>Firmware version</b>".</p>  |

### 3.4 Notice

- ◆ In the voice menu, press "\*" (star) to return to the up level menu.

- ◆ After configure some functions, please restart the phone to make the change to take effect.
  
- ◆ Each time you enter the IP address or subnet mask, please use the "\*" to replace ".", and end with "#", for example, if you want to set the IP address to be 192.168.1.11, enter 192 \* 168 \* 1 \* 11 #.
  
- ◆ You can enter the password by phone keypad, the matching table between number and letters as follows:
  - ◆ User to enter A, B, C, a, b, c, press the number "2";
  
  - ◆ To enter D, E, F, d, e, f, press the number "3";
  
  - ◆ To enter G, H, I, g, h, i, press the number "4";
  
  - ◆ TO enter J, K, L, j, k, l, press the number "5";
  
  - ◆ To enter M, N, O, m, n, o, press the number "6";
  
  - ◆ To enter P, Q, R, S, p, q, r, s, please press the number "7";
  
  - ◆ To enter T, U, V, t, u, v, press the number "8";
  
  - ◆ To enter W, X, Y, Z, w, x, y, z, press the number "9";
  
- ◆ Each time you finish entering the IP address or subnet mask, enter "#" indicates the end of input;
  
- ◆ When the WAN port network address type is set to static IP mode, user needs to set the IP address, subnet mask and default gateway; If set the device to work in DHCP mode, please make sure that DHCP Server is available in your exiting broadband connection to which WAN port of G201N4 is connected.

## 4. G201N4 webpage settings

### 4.1 Login WEB page

G201N4 has an embedded Web server that will respond to HTTP get/post requests. User can use a Web browser like Microsoft's IE to login and then configure G201N4.

#### 4.1.1 URL format

Login web page URL format: http://WAN port IP address, for example, if your home gateway's WAN port IP address is 192.168.20.199, please enter in the address bar, enter the appropriate address, and then the page will go to the device's login page, as shown below:

The image shows a screenshot of the G201N4 login page. At the top, there is a blue horizontal bar. Below it, the page is mostly black. In the lower section, there are two input fields: one for 'Username' and one for 'Password'. To the right of the 'Password' field is a 'Login' button. A horizontal line is drawn below the login form.

User can also login from device's LAN port, the default IP address of LAN port is 192.168.1.1.

**Note: The user can get the WAN port IP address using IVR.**

#### 4.1.2 About Passwords

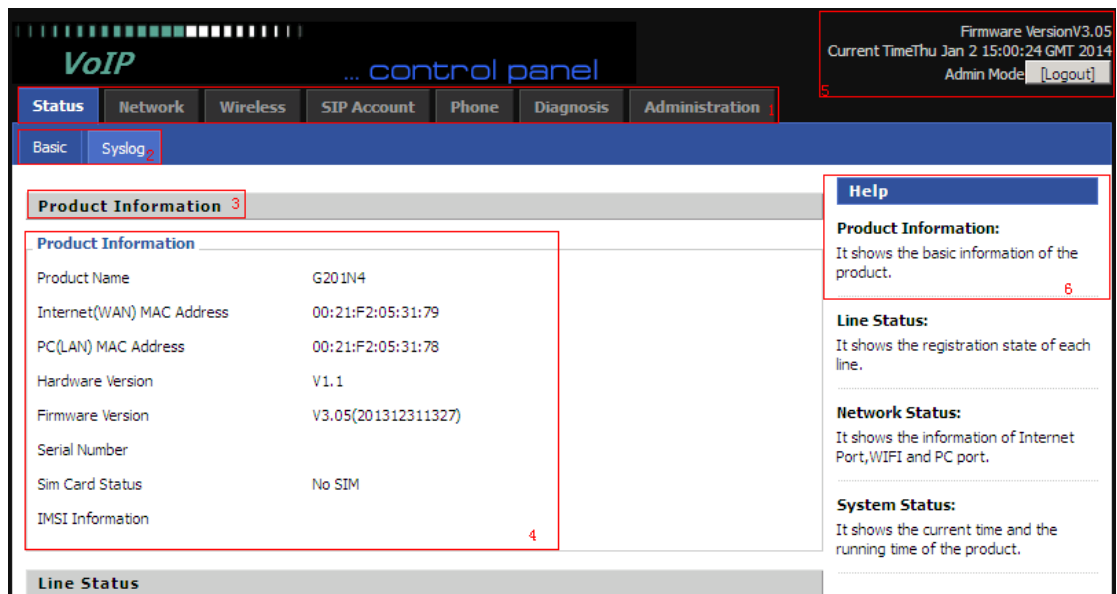
G201N4 has two login levels, namely administrator level and general user level, different standards have different passwords.

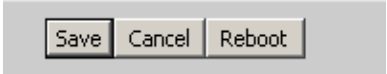


General level user can browse and configure some parameters; and administrator level user can configure all other parameters.

G201N4's default administrator level username and password: admin/admin

G201N4's default general user login username and password: user/user

## 4.2 WEB Page



| Number  | Name   | Description   |
|---|--|---|
| 1   | Navigation bar   | Click navigation bar, many sub-navigation bar will appear in the place 2.   |
| 2   | Sub-navigation bar   | Click sub-navigation bar to enter to configuration webpage  |
| 3   | Configuration title  | The configuration title   |
| 4   | Configuration bars   | The configuration bars  |
| 5   | Device Information   | Display the firmware version, DSP version, Current Time, and login mode.<br>Press <b>Logout</b> button to logout. |
| 6   | Help   | Display the main information of configuration; user can get help from it directly.                                |
|  |  |   |
|  | Every time making some changes, user should press the button to confirm and save the changes.<br><br>After pressing the button, the red notice <i>Please REBOOT to make the changes effective!</i> will appear to notice user to reboot. |   |
|  | To cancel the changes  |   |

|                                       |                           |
|---------------------------------------|---------------------------|
| <input type="button" value="Reboot"/> | Press it to reboot G201N4 |
|---------------------------------------|---------------------------|

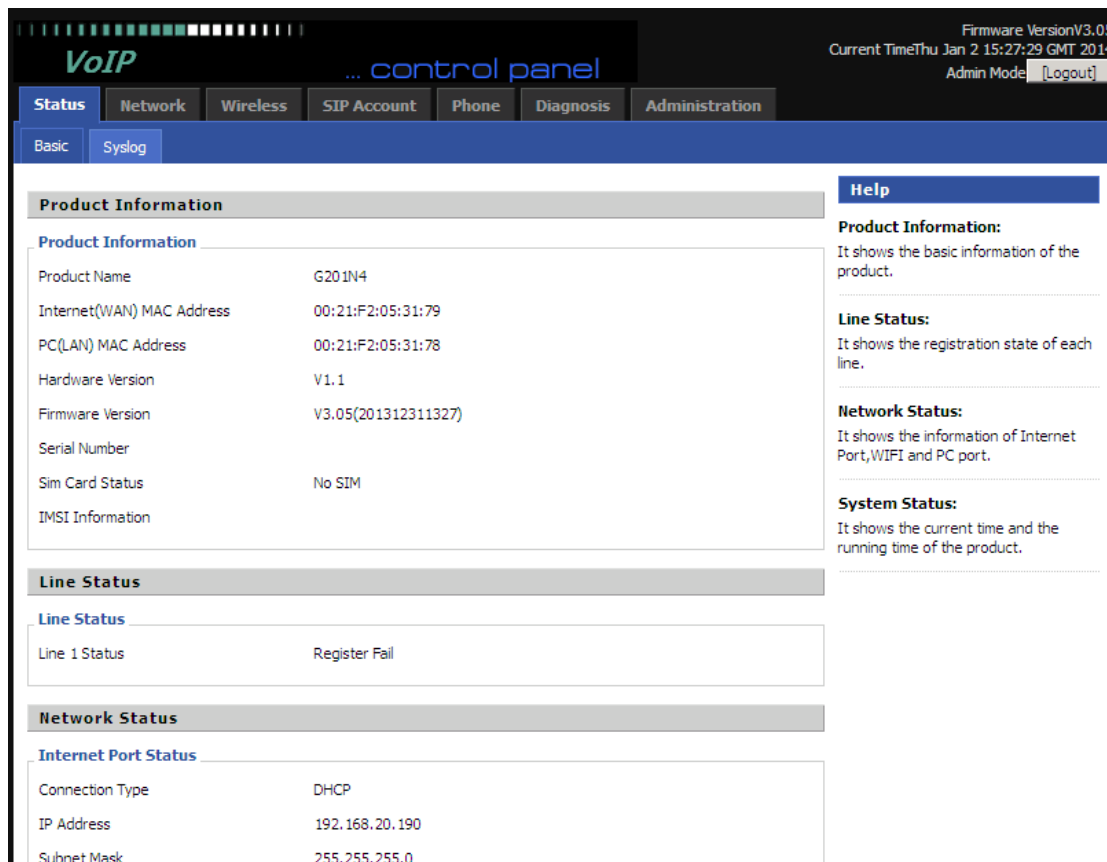
## 5 .Configure from web

### 5.1 Status

On this page, users can view the G201N4 system information and system log information. It is the first page which user will see firstly after login to WEB.

#### 5.1.1 System Information

On this page, user can view the product information of G201N4, SIP account status, network status and system status.



The screenshot shows the 'VoIP ... control panel' interface. At the top right, it displays 'Firmware Version V3.05', 'Current Time Thu Jan 2 15:27:29 GMT 2014', and 'Admin Mode [Logout]'. The main navigation bar includes 'Status', 'Network', 'Wireless', 'SIP Account', 'Phone', 'Diagnosis', and 'Administration'. Under 'Status', there are sub-tabs for 'Basic' and 'Syslog'. The 'Basic' tab is active, showing three sections: 'Product Information', 'Line Status', and 'Network Status'. A 'Help' sidebar is also visible on the right.

| Product Information       |                     |
|---------------------------|---------------------|
| Product Name              | G201N4              |
| Internet(WAN) MAC Address | 00:21:F2:05:31:79   |
| PC(LAN) MAC Address       | 00:21:F2:05:31:78   |
| Hardware Version          | V1.1                |
| Firmware Version          | V3.05(201312311327) |
| Serial Number             |                     |
| Sim Card Status           | No SIM              |
| IMSI Information          |                     |

| Line Status   |               |
|---------------|---------------|
| Line 1 Status | Register Fail |

| Network Status       |                |
|----------------------|----------------|
| Internet Port Status |                |
| Connection Type      | DHCP           |
| IP Address           | 192.168.20.190 |
| Subnet Mask          | 255.255.255.0  |



|                 |                |
|-----------------|----------------|
| Default Gateway | 192.168.20.1   |
| Primary DNS     | 202.96.134.133 |
| Secondary DNS   | 8.8.8.8        |

**VPN Status**

|                    |         |
|--------------------|---------|
| VPN Type           | Disable |
| Initial Service IP |         |
| Virtual IP Address |         |

**LAN Port Status**

|             |               |
|-------------|---------------|
| IP Address  | 192.168.1.1   |
| Subnet Mask | 255.255.255.0 |
| LAN1        | Link Down     |
| LAN2        | Link Down     |
| LAN3        | Link Down     |
| LAN4        | Link Down     |

**System Status**

**System Status**

|              |                             |
|--------------|-----------------------------|
| Current Time | Thu Jan 2 15:27:29 GMT 2014 |
| Elapsed Time | 55 mins                     |

## 5.1.2 System Log

In this configuration page, the user can view the system log, G201N4 system recordings contain important configuration information.

On this page, users can click the corresponding button to refresh, remove and save the relevant system information.



Status
Network
Wireless
SIP Account
Phone
Diagnosis
Administration

Basic
Syslog

**Help**  
**Syslog:**  
 It shows the log of system

Refresh
Clear
Save

```

<Sat Jan 1 08:00:35 2000> goahead: webs: Listening for HTTP requests at address
<Sat Jan 1 08:00:36 2000> snmpd[2971]: start
<Sat Jan 1 08:00:37 2000> looptask[3043]: start
<Sat Jan 1 08:00:41 2000> ipphone[3144]: ***system booting***
<Sat Jan 1 08:00:42 2000> ipphone[3143]: MiscellaneousTask: start work param_co
<Sat Jan 1 08:00:42 2000> ipphone[3144]: SW:142(120106174008)
<Sat Jan 1 08:00:43 2000> ipphone[3213]: UISignalControl[30][9000][30][9000][9
<Sat Jan 1 08:00:48 2000> ipphone[3051]: TZ change to GMT-8.
<Sat Jan 1 08:01:09 2000> looptask[3043]: Wired Link Status Changed
<Sat Jan 1 08:01:16 2000> udhcpc[2064]: Received SIGTERM
<Sat Jan 1 08:01:16 2000> udhcpc[4020]: udhcpc (v1.12.1) started
<Sat Jan 1 08:01:17 2000> udhcpd[2300]: Received a SIGTERM
<Sat Jan 1 08:01:18 2000> udhcpc[4020]: Sending select for 192.168.10.3...
<Sat Jan 1 08:01:18 2000> udhcpc[4020]: Lease of 192.168.10.3 obtained, lease t
<Sat Jan 1 08:01:19 2000> udhcpd[540]: udhcpd (v1.12.1) started
<Sat Jan 1 08:01:20 2000> ipphone[3051]: Wan If eth2.1 ip Change :0.0.0.0 -> 19
<Sat Jan 1 08:01:20 2000> ipphone[3144]: Local SIP Addr:192.168.10.3
<Sat Jan 1 08:01:20 2000> ipphone[3144]: Start Init Sip Stack...
<Sat Jan 1 08:01:21 2000> ipphone[3144]: 0 Resolve Sip OutboundProxy(cmcczj).
<Sat Jan 1 08:01:21 2000> ipphone[3144]: Do not need to resolve the domain
<Sat Jan 1 08:01:21 2000> ipphone[3144]: Resolve Outbound Proxy Address...
<Sat Jan 1 08:01:21 2000> ipphone[3144]: Resolve Alter OutBound Address...
<Sat Jan 1 08:01:21 2000> ipphone[3144]: SIP all register client init
<Sat Jan 1 08:01:21 2000> ipphone[3144]: 0 Set Outboundaddr [120.193.1.4].
<Sat Jan 1 08:01:21 2000> ipphone[3144]: SIP0(Enable) Contact:192.168.10.3:50
<Sat Jan 1 08:01:21 2000> ipphone[3144]: 1 Set Outboundaddr [].
<Sat Jan 1 08:01:21 2000> ipphone[3144]: SIP1(Disable) Contact:192.168.10.3:50
<Sat Jan 1 08:01:21 2000> ipphone[3144]: 2 Set Outboundaddr [].
                    
```

## 5.2 Network

### 5.2.1 WAN

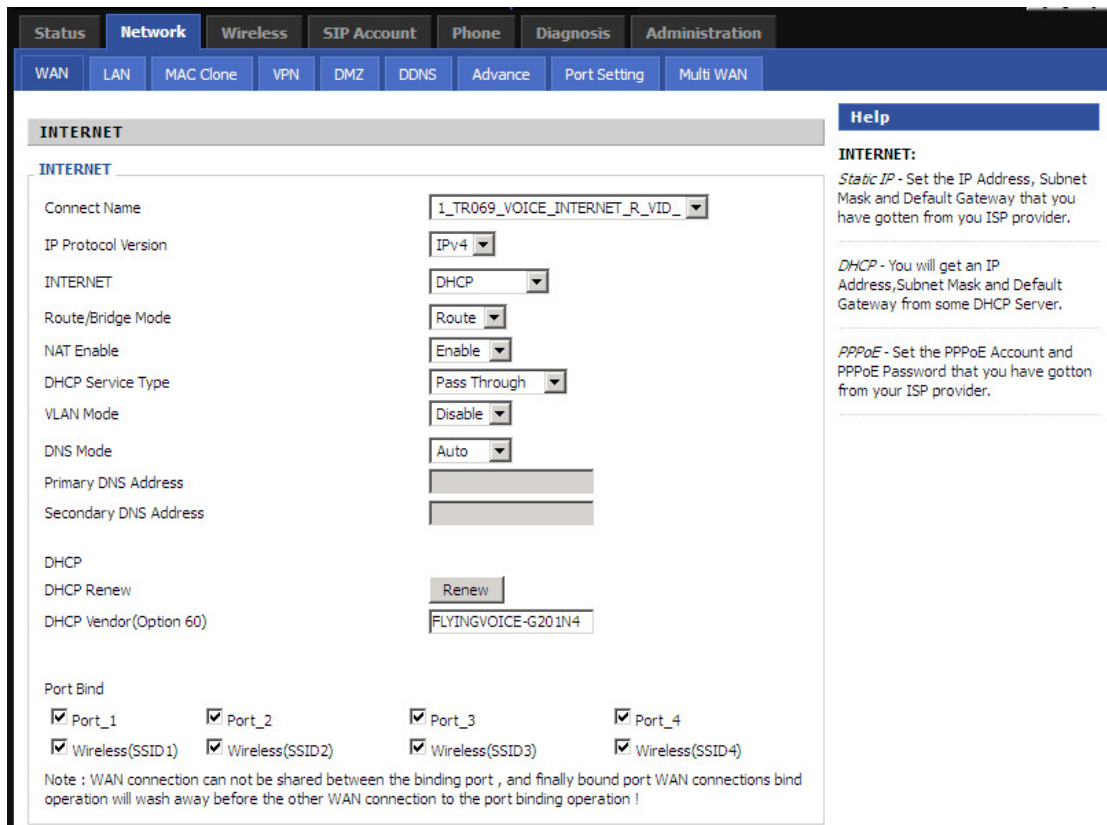
#### 1) Static:

In static mode, user should fill in the values of IP Address, Subnet Mask, Default Gateway, Primary DNS and Second DNS.

|  |  |
|--|--|
| <p>Status <b>Network</b> Wireless SIP Account Phone Diagnosis Administration</p> <p>WAN LAN MAC Clone VPN DMZ DDNS Advance Port Setting Multi WAN</p>  |  |
| <p><b>INTERNET</b></p> <p><b>INTERNET</b></p> <p>Connect Name: 1_TR069_VOICE_INTERNET_R_VID_</p> <p>IP Protocol Version: IPv4</p> <p>INTERNET: Static</p> <p>Route/Bridge Mode: Route</p> <p>NAT Enable: Enable</p> <p>DHCP Service Type: Pass Through</p> <p>VLAN Mode: Disable</p> <p>Static</p> <p>IP Address: <input type="text"/></p> <p>Subnet Mask: <input type="text"/></p> <p>Default Gateway: <input type="text"/></p> <p>DNS Mode: Manual</p> <p>Primary DNS Address: <input type="text"/></p> <p>Secondary DNS Address: <input type="text"/></p> <p>Port Bind</p> <p><input checked="" type="checkbox"/> Port_1    <input checked="" type="checkbox"/> Port_2    <input checked="" type="checkbox"/> Port_3    <input checked="" type="checkbox"/> Port_4</p> <p><input checked="" type="checkbox"/> Wireless(SSID1)    <input checked="" type="checkbox"/> Wireless(SSID2)    <input checked="" type="checkbox"/> Wireless(SSID3)    <input checked="" type="checkbox"/> Wireless(SSID4)</p> <p>Note : WAN connection can not be shared between the binding port , and finally bound port WAN connections bind operation will wash away before the other WAN connection to the port binding operation !</p> |  |
| <p><b>Help</b></p> <p><b>INTERNET:</b></p> <p><i>Static IP</i> - Set the IP Address, Subnet Mask and Default Gateway that you have gotten from you ISP provider.</p> <p><i>DHCP</i> - You will get an IP Address,Subnet Mask and Default Gateway from some DHCP Server.</p> <p><i>PPPoE</i> - Set the PPPoE Account and PPPoE Password that you have gotten from your ISP provider.</p>  |  |

| Field Name                   | Description   |
|------------------------------|---|
| <b>Connect Name</b>          | Use keywords to indicate WAN port service model (the parameters are defined in Network--> multi-WAN page) |
| <b>IP Protocol Version</b>   | Temporarily only one IPv4 option  |
| <b>Internet</b>              | Choose Static IP.   |
| <b>Route/Bridge Mode</b>     | Set network working mode, options are route and bridge.   |
| <b>NAT Enable</b>            | This requires multi-WAN port Page settings, please refer to <b>5.2.7</b>                                  |
| <b>DHCP Service Type</b>     | Options are "pass through" "Snooping" and "the native service"  |
| <b>VLAN Mode</b>             | This requires multi-WAN port Page settings, please refer to <b>5.2.7</b>                                  |
| <b>IP Address</b>            | The IP address of Internet port   |
| <b>Subnet Mask</b>           | The subnet mask of Internet port.   |
| <b>Default Gateway</b>       | The default gateway of Internet port.   |
| <b>DNS Mode</b>              | In Static mode, user need set the DNS manually.   |
| <b>Primary DNS Address</b>   | The primary DNS of Internet port.   |
| <b>Secondary DNS Address</b> | The secondary DNS of Internet port.   |
| <b>Port Bind</b>             | Port bind is used for binding the service for different LAN ports and SSIDs.                              |

## 2) DHCP Mode



The screenshot displays the 'INTERNET' configuration page. The 'INTERNET' section is active, showing settings for IP Protocol Version (IPv4), Internet mode (DHCP), Route/Bridge Mode (Route), NAT Enable (Enable), DHCP Service Type (Pass Through), VLAN Mode (Disable), DNS Mode (Auto), Primary DNS Address, Secondary DNS Address, DHCP Renew (Renew button), and DHCP Vendor (Option 60) set to FLYINGVOICE-G201N4. The Port Bind section includes checkboxes for Port\_1 through Port\_4 and Wireless (SSID1) through Wireless (SSID4), all of which are checked. A note at the bottom states: 'Note : WAN connection can not be shared between the binding port , and finally bound port WAN connections bind operation will wash away before the other WAN connection to the port binding operation !'

| Field Name                   | Description   |
|------------------------------|---|
| <b>Connect Name</b>          | Use keywords to indicate WAN1-WAN5 port service model(the parameters are defined in Network--> multi-WAN page)  |
| <b>IP Protocol Version</b>   | Temporarily only one IPv4 option  |
| <b>Internet</b>              | Choose DHCP   |
| <b>Route/Bridge Mode</b>     | Set network working mode, options are route and bridge.   |
| <b>NAT Enable</b>            | This requires multi-WAN port Page settings, please refer to <b>5.2.7</b>  |
| <b>VLAN Mode</b>             | This requires multi-WAN port Page settings, please refer to <b>5.2.7</b>  |
| <b>DNS Mode</b>              | From the automatic mode is selected and specify two DNS type.<br>♦ DNS type to Automatic, the home gateway from the DHCP server automatically obtain the preferred DNS and alternate DNS.<br>♦ DNS type is specified, the user should manually configure the preferred DNS and alternate DNS. |
| <b>Primary DNS Address</b>   | The primary DNS of Internet port.   |
| <b>Secondary DNS Address</b> | The secondary DNS of Internet port.   |
| <b>DHCP Renew</b>            | Refresh DHCP IP   |
| <b>DHCP Vendor(Option60)</b> | Specify DHCP Vendor field<br>Display the vendor and product name  |

|                  |  |
|------------------|--|
| <b>Port Bind</b> | Port bind is used for binding the service for different LAN ports and SSIDs. |
|------------------|--|

3) PPPOE Mode

**INTERNET**

Connect Name: 1\_TR069\_VOICE\_INTERNET\_R\_VID\_

IP Protocol Version: IPv4

INTERNET: PPPoE

Route/Bridge Mode: Route

NAT Enable: Enable

DHCP Service Type: Pass Through

VLAN Mode: Disable

DNS Mode: Auto

Primary DNS Address: [Empty]

Secondary DNS Address: [Empty]

PPPoE Account: [Empty]

PPPoE Password: [Empty]

Confirm Password: [Empty]

Service Name: [Empty]  
Leave empty to autodetect

Operation Mode: Keep Alive

Keep Alive Redial Period(0-3600s): 5

Port Bind

Port\_1       Port\_2       Port\_3       Port\_4

Wireless(SSID1)     Wireless(SSID2)     Wireless(SSID3)     Wireless(SSID4)

Note : WAN connection can not be shared between the binding port , and finally bound port WAN connections bind operation will wash away before the other WAN connection to the port binding operation !

| Field Name                 | Description   |
|----------------------------|---|
| <b>Connect Name</b>        | Use keywords to indicate the WAN1~WAN5 service mode (set relevant parameters in the WAN port settings page) |
| <b>IP Protocol Version</b> | Currently, only one IPv4 option   |
| <b>INTERNET</b>            | Choose PPPoE.   |
| <b>PPPoE Account</b>       | Assign a valid user name provided by the ISP  |
| <b>PPPoE Password</b>      | Assign a valid password provided by the ISP   |
| <b>Confirm Password</b>    | Enter your PPPoE password again   |
| <b>Operation Mode</b>      | Select the mode of operation, options are Keep Alive, On Demand and   |

|   |   |
|---|---|
|   | <p>Manual:</p> <ul style="list-style-type: none"> <li>◆ When the mode is Keep Alive, user need to set the 'keep alive redial period' values range from 0 to 3600s, the default setting is 5 minutes;</li> <li>◆ When the mode is On Demand, user need to set the 'on demand idle time' value in the range of 0-60 minutes, the default setting is 5 minutes;</li> <li>◆ When the mode is Manual, no need to do other settings.</li> </ul> |
| <b>Keep Alive Redial Period</b>   | Set the interval to send Keep Alive   |
| <p>Operation Mode <span style="float: right;">On Demand ▾</span></p> <p>On Demand Idle Time(0-60m) <span style="float: right;">5</span></p> |   |
| <b>On Demand Idle Time</b>  | Set On demand transmission time interval  |
| <b>Port Bind</b>  | Port bind is used for binding the service for different LAN ports and SSIDs.  |

4) Bridge Mode

**INTERNET**

**INTERNET**

Connect Name 1\_TR069\_VOICE\_INTERNET\_R\_VID\_ ▾

IP Protocol Version IPv4 ▾

INTERNET Bridge ▾

Route/Bridge Mode Route ▾

**VLAN Mode** Disable ▾

Port Bind

Port\_1     
  Port\_2     
  Port\_3     
  Port\_4  
 Wireless(SSID1)   
  Wireless(SSID2)   
  Wireless(SSID3)   
  Wireless(SSID4)

Note : WAN connection can not be shared between the binding port , and finally bound port WAN connections bind operation will wash away before the other WAN connection to the port binding operation !

| Field Name                 | Description   |
|----------------------------|---|
| <b>Connect Name</b>        | Use keywords to indicate the WAN1~WAN5 service mode (set relevant parameters in the WAN port settings page)                   |
| <b>IP Protocol Version</b> | Currently, G201N4 only supports IPv4 mode.  |
| <b>INTERNET</b>            | Bridge: If user make the option be Bridge mode, the PC which is connected to G201N4's LAN port use PPPoE to connect Internet. |
| <b>Port Bind</b>           | Port bind is used for binding the service for different LAN ports and SSIDs.  |

## 5.2.2 LAN

Status Network Wireless SIP Account Phone Diagnosis Administration

WAN LAN MAC Clone VPN DMZ DDNS Advance Port Setting Multi WAN

**PC Port(LAN)**

**PC Port(LAN)**

IP Address

Local Subnet Mask

Local DHCP Server

DHCP Start Address

DHCP End Address

DNS Mode

Primary DNS

Secondary DNS

Client Lease Time(0-86400s)

DHCP Static Allotment

| NO. | MAC                                       | IP Address                                |
|-----|---|---|
| 1   | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> |
| 2   | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> |
| 3   | <input style="width: 100%;" type="text"/> | <input style="width: 100%;" type="text"/> |

DNS Proxy

| Field Name                | Description   |
|---------------------------|---|
| <b>IP Address</b>         | Enter the IP address of the router on the local area network, all the IP addresses of the computers which are in the router's LAN must be in the same network segment with this address, and the default gateway of the computers must be this IP address. (The default is 192.168.1.1) |
| <b>Local Subnet Mask</b>  | Enter the subnet mask to determine the size of the network (default is 255.255.255.0/24)  |
| <b>Local DHCP Server</b>  | If or not enable Local DHCP Server  |
| <b>DHCP Start Address</b> | Enter a valid IP address as a starting IP address of the DHCP server, and if the router's LAN IP address is 192.168.1.1, starting IP address can be 192.168.1.2 or greater, but should be less than the ending IP address.  |
| <b>DHCP End Address</b>   | Enter a valid IP address as an end IP address of the DHCP server.   |

|                          |  |
|--------------------------|--|
| <b>DNS Mode</b>          | Select DNS mode, options are Auto and Manual:<br>♦ When DNS mode is Auto, the device under LAN port will automatically obtains the preferred DNS and alternate DNS.<br>♦ When DNS mode is Manual, the user should manually configure the preferred DNS and alternate DNS |
| <b>Primary DNS</b>       | Enter the preferred DNS address.   |
| <b>Secondary DNS</b>     | Enter the secondary DNS address.   |
| <b>Client Lease Time</b> | This option defines how long the address will be assigned to the computer within the network. In that period, the server does not assign the IP address to the other computer.   |
| <b>DNS Proxy</b>         | Enable or disable; If enabled, the device will forward the DNS request of LAN-side network to the WAN side network   |

### 5.2.3 VPN

A VPN is a kind of technology which establish a private network based on the public network. VPN network connection between any two nodes does not require the end to end physical connection as the traditional private network; it is structured on the network platform provided by the public network services, the user dhome gateway are transmitted in the logical link. Through VPN technology, users can establish connection between any two devices which are connected to public network and transmit dhome gateway.

**VPN Settings**

**Administration**

VPN Enable

Initial Service IP

User Name

Password

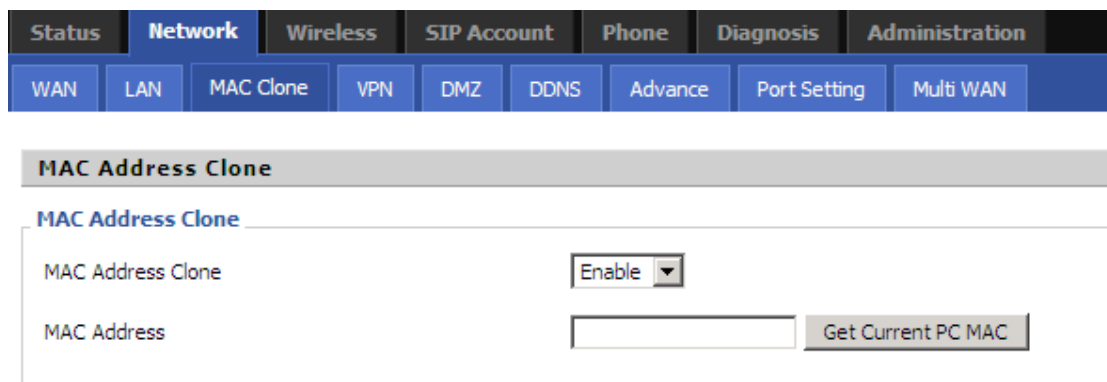
| Field Name                | Description  |
|---------------------------|--|
| <b>VPN Enable</b>         | If or not enable VPN.If enable, you can select PPTP and L2TP mode VPN. |
| <b>Initial Service IP</b> | Fill in the VPN server IP address                                      |
| <b>User Name</b>          | Fill in the authentication username                                    |
| <b>Password</b>           | Fill in the authentication password                                    |

## 5.2.4 MAC Clone

MAC address is the hardware address of the network device. Sometimes the network provider may set the network device's MAC bound to the network accounts. So when the user uses a new home gateway may not pass vendor certifications. In this case, the user can use the MAC clone function to clone your computer's physical address to the device's Internet port.

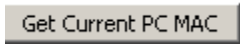



MAC address is the important parameter of the network device, the user should ensure that the MAC is correct, or the device cannot be used normally.

If you accidentally make the MAC address wrong, the user can login the web via LAN port. And then cloning the right MAC or resume the default settings.



The screenshot shows the router's web interface with the 'Network' tab selected. Under 'Network', the 'MAC Clone' sub-tab is active. The 'MAC Address Clone' section contains a dropdown menu set to 'Enable' and a text input field for the MAC address. A 'Get Current PC MAC' button is located to the right of the input field.

### Enabling MAC address cloning

1. Press the button  gets PC's MAC address
2. Press the button  to save your changes if users don't want to use a MAC clone, press the button  to cancel the changes
3. Press the button  to make the changes effective.

## 5.2.5 DMZ

Set the DMZ host in the local area network, the host will be fully exposed to the wide area network; unrestricted two-way communication can be achieved. Adding clients to the DMZ may bring local network insecurity, usually we do not recommend using this.

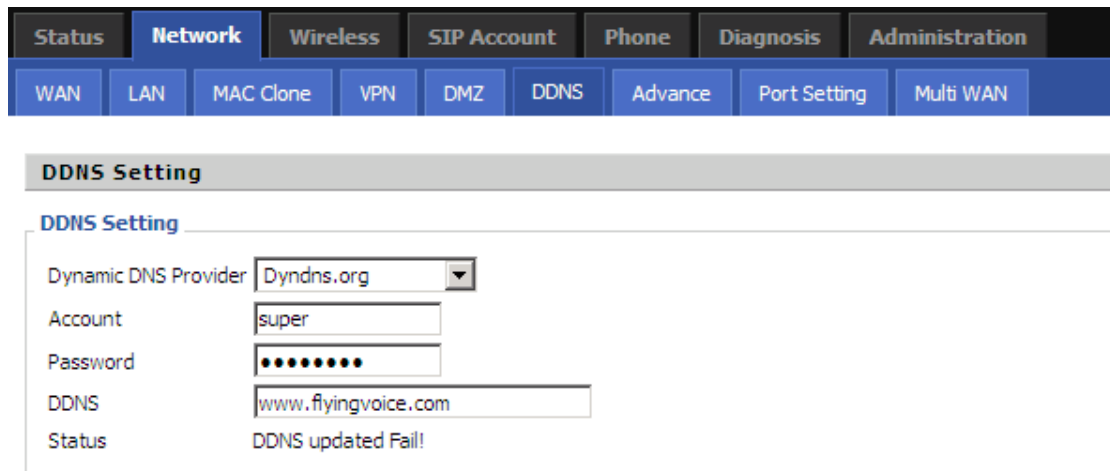


The screenshot shows the 'DMZ Setting' configuration page. It features a dropdown menu for 'DMZ Enable' set to 'Enable' and an empty text input field for 'DMZ Host IP Address'.



| Field Name          | Description                           |
|---------------------|---------------------------------------|
| DMZ Enable          | If or not enable DMZ                  |
| DMZ Host IP Address | Used to enter the DMZ host IP address |

## 5.2.6 DDNS



**DDNS Setting**

DDNS Setting

Dynamic DNS Provider: Dyndns.org

Account: super

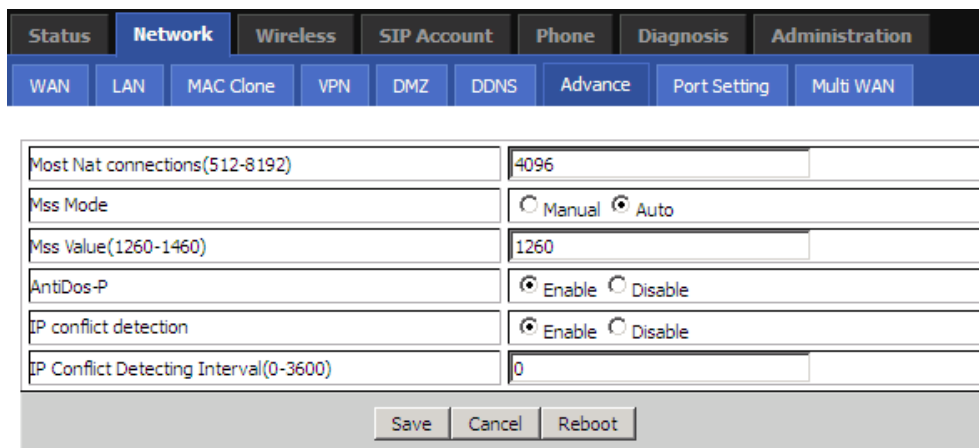
Password: ●●●●●●

DDNS: www.flyingvoice.com

Status: DDNS updated Fail!

| Field Name           | Description  |
|----------------------|--|
| Dynamic DNS Provider | DDNS is enabled and select a DDNS service provider |
| Account              | Enter the DDNS service account                     |
| Password             | Enter the DDNS service account password            |
| DDNS                 | Enter the DDNS domain name or IP address           |
| Status               | See if DDNS is successfully upgraded               |

## 5.2.7 Advance



Most Nat connections(512-8192): 4096

Mss Mode:  Manual  Auto

Mss Value(1260-1460): 1260

AntiDos-P:  Enable  Disable

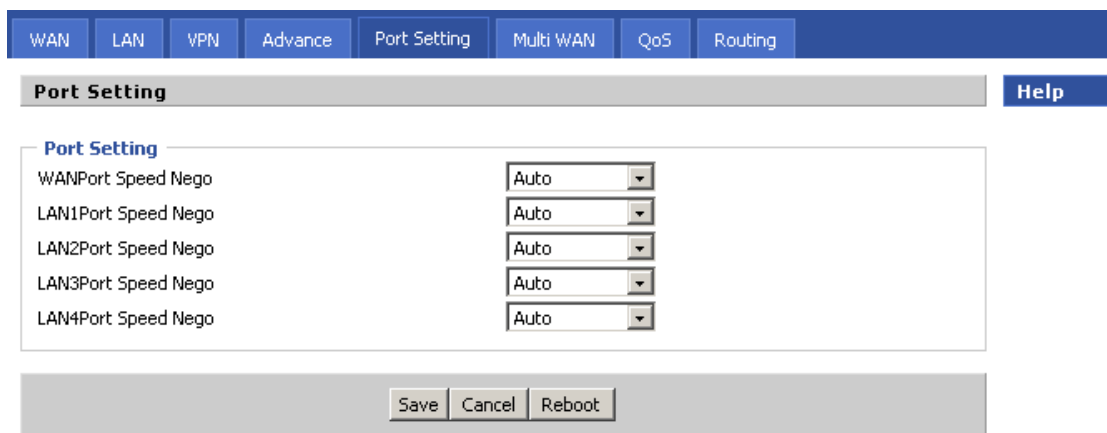
IP conflict detection:  Enable  Disable

IP Conflict Detecting Interval(0-3600): 0

Save Cancel Reboot

| Field Name                            | Description   |
|---------------------------------------|---|
| <b>Most Nat connections</b>           | The largest value which the G201N4 can provide                          |
| <b>Mss Mode</b>                       | Choose Mss Mode from Manual and Auto                                    |
| <b>Mss Value</b>                      | Set the value of TCP  |
| <b>AntiDos-p</b>                      | You can choose to enable or prohibit                                    |
| <b>IP conflict detection</b>          | Select enable if enabled, phone IP conflict will have tips or prohibit; |
| <b>IP conflict Detecting Interval</b> | Detect IP address conflicts of the time interval                        |

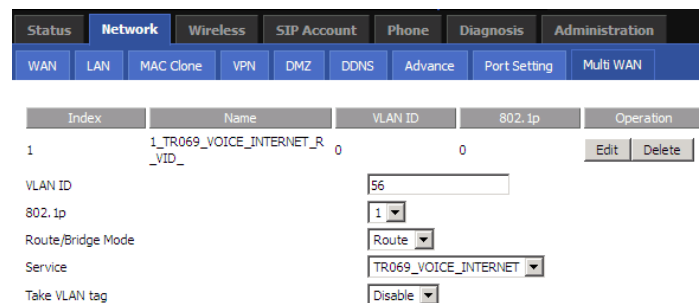
## 5.2.8 Port Setting



| Field Name                      | Description   |
|---------------------------------|---|
| <b>WAN Port Speed Nego</b>      | Auto-negotiation, options are Auto, 100M full, 100M half-duplex, 10M half and full, select port speed negotiation supported by methods. |
| <b>LAN1-LAN4Port Speed Nego</b> | Auto-negotiation, options are Auto, 100M full, 100M half, 10M half and 10M full, select port speed negotiation methods.                 |

## 5.2.9 Multi WAN

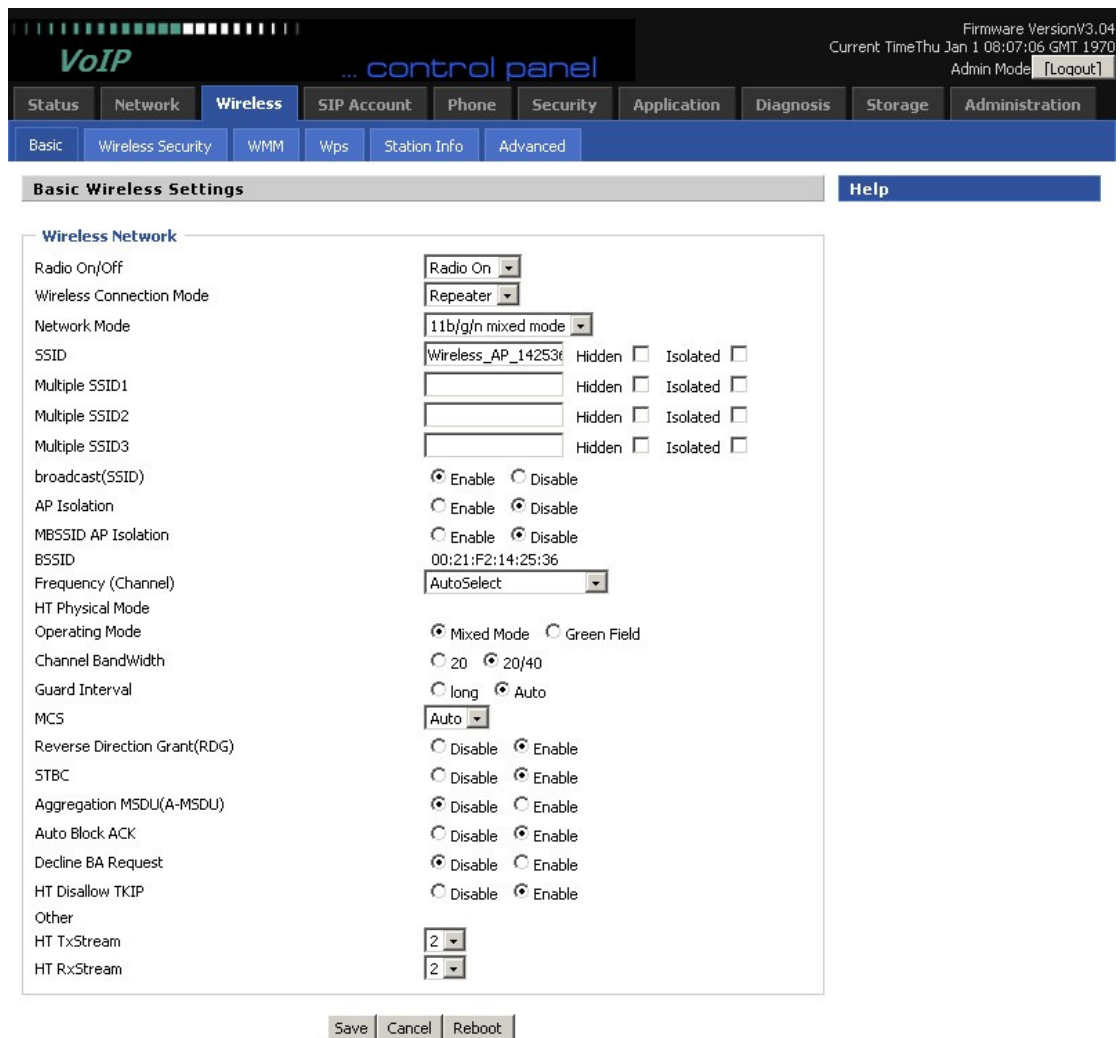
G201N4 support multi WAN function, user can set different vlans on WAN port.



| Field Name               | Description  |
|--------------------------|--|
| <b>VLAN ID</b>           | Configure VLAN ID  |
| <b>Route/Bridge Mode</b> | Select Route mode or Bridge mode.  |
| <b>Service</b>           | There are these options VOICE, TR069, INTERNET, TR069-INTERNET, TR069-VOICE, and VOICE-INTERNET, and TR069-INTERNET-VOICE, and Other |
| <b>Take VLAN tag</b>     | Whether or not carry VLAN tag  |

## 5.3 Wireless

### 5.3.1 Basic



The screenshot shows the 'Basic Wireless Settings' page in the VoIP control panel. The page title is 'Basic Wireless Settings' and it includes a 'Help' button. The 'Wireless Network' section contains the following settings:

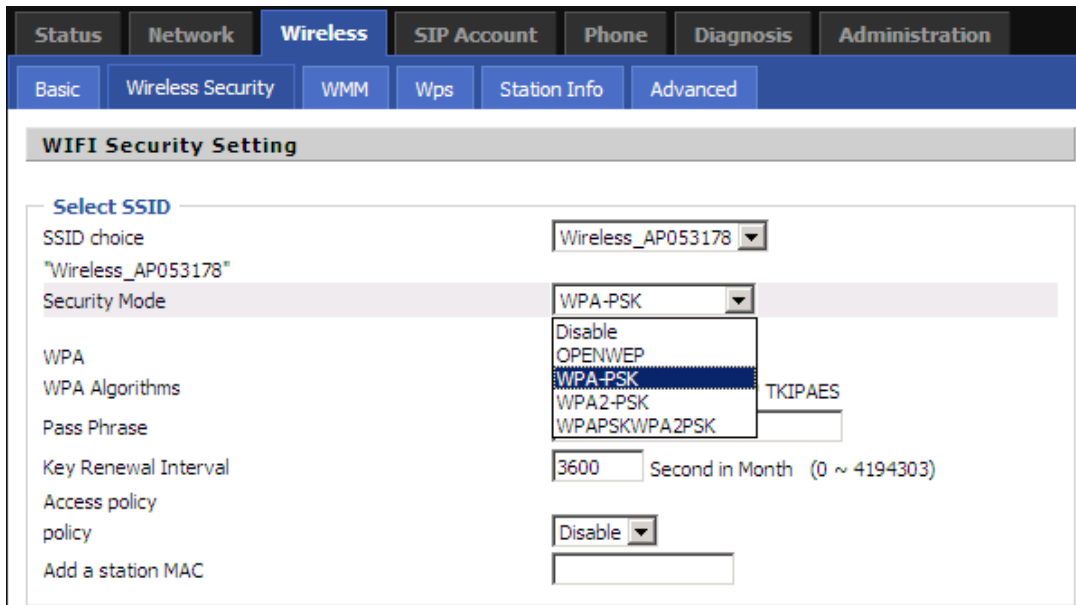
- Radio On/Off: Radio On
- Wireless Connection Mode: Repeater
- Network Mode: 11b/g/n mixed mode
- SSID: Wireless\_AP\_142536 (Hidden, Isolated)
- Multiple SSID1: (Hidden, Isolated)
- Multiple SSID2: (Hidden, Isolated)
- Multiple SSID3: (Hidden, Isolated)
- broadcast(SSID): Enable
- AP Isolation: Disable
- MBSSID AP Isolation: Disable
- BSSID: 00:21:F2:14:25:36
- Frequency (Channel): AutoSelect
- HT Physical Mode: Mixed Mode
- Operating Mode: Mixed Mode
- Channel BandWidth: 20/40
- Guard Interval: Auto
- MCS: Auto
- Reverse Direction Grant(RDG): Enable
- STBC: Enable
- Aggregation MSDU(A-MSDU): Disable
- Auto Block ACK: Enable
- Decline BA Request: Disable
- HT Disallow TKIP: Enable
- Other: 2
- HT TxStream: 2
- HT RxStream: 2

Buttons at the bottom: Save, Cancel, Reboot.

| Field Name                      | Description   |
|---------------------------------|---|
| <b>Radio on/off</b>             | Click the button to enable or disable wireless.   |
| <b>Wireless connection mode</b> | According to the wireless client type, select one of these modes. Default is 11b/g/n mixed mode |

|  |  |
|--|--|
| <b>SSID</b>                                | It is the basic identity of wireless LAN. SSID can be any alphanumeric or a combination of special characters. It will appear in the wireless network access list.   |
| <b>Multiple SSID1~SSID3</b>                | G201N4 supports multiple SSIDs.  |
| <b>Hidden</b>                              | After the item is checked, the SSID is no longer displayed in the search for the Wi-Fi wireless network connection list  |
| <b>Broadcast(SSID)</b>                     | After initial State opening, the device broadcasts the SSID of the router to wireless network  |
| <b>AP Isolation</b>                        | If AP isolation is enabled, the clients of the AP cannot access each other.  |
| <b>MBSSID AP Isolation</b>                 | AP isolation among the devices which are not belong to this AP and along to, when the option is enabled, the devices which do not belong to this AP cannot access the devices which are within the AP.   |
| <b>BSSID</b>                               | A group of wireless stations and a WLAN access point (AP) consists of a basic access device (BSS), each computer in the BSS must be configured with the same BSSID, that is, the wireless AP logo.   |
| <b>Frequency (Channel)</b>                 | You can select Auto Select and channel 1/2/3/4/5/6/7/8/9/10/11.  |
| <b>HT Physical Mode<br/>Operating Mode</b> | <ol style="list-style-type: none"> <li>1. Mixed Mode: In this mode, the previous wireless card can recognize and connect to the Pre-N AP, but the throughput will be affected</li> <li>2. Green Field: high throughput can be achieved, but it will affect backward compatibility, and security of the system</li> </ol> |
| <b>Channel Bandwidth</b>                   | Select channel bandwidth, default is 20MHz and 20/40MHz.   |
| <b>Guard Interval</b>                      | The default is automatic, in order to achieve good BER performance, you must set the appropriate guard interval  |
| <b>MCS</b>                                 | Position control signal, options are 0 to 32, the default is automatic   |
| <b>Reverse Direction (RDG)</b>             | You can choose to enable or disable this privilege   |

### 5.3.2 Wireless Security Setting

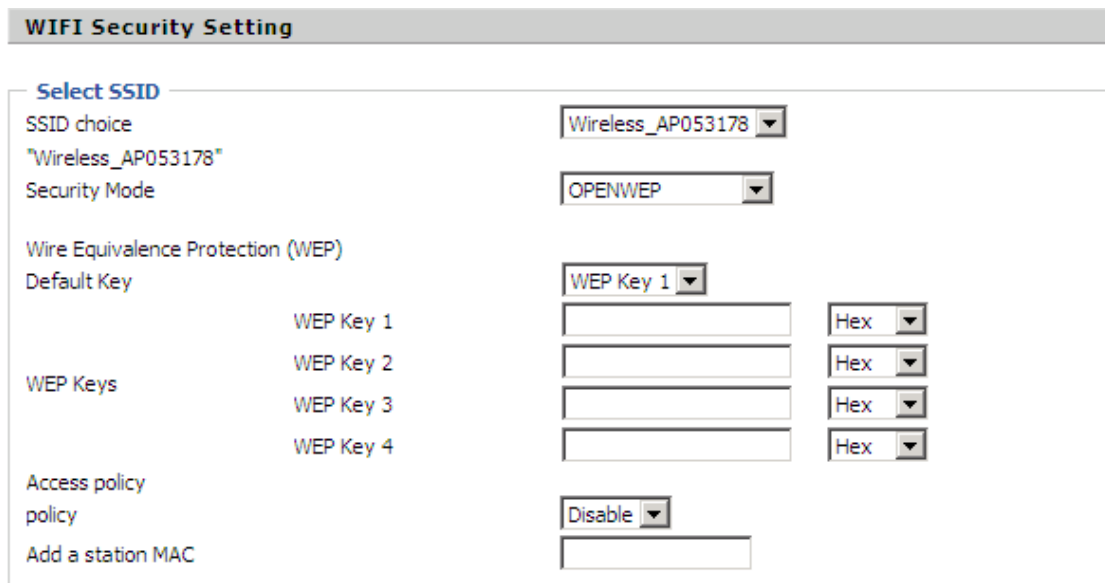


The screenshot shows the 'WIFI Security Setting' page. The 'Security Mode' dropdown menu is open, showing options: Disable, OPENWEP, WPA-PSK (selected), WPA2-PSK, and WPAPSK/WPA2PSK. Other settings include SSID choice 'Wireless\_AP053178', WPA Algorithms 'TKIP/AES', Pass Phrase, Key Renewal Interval '3600 Second in Month (0 ~ 4194303)', Access policy 'Disable', and an empty 'Add a station MAC' field.

|                      |  |
|----------------------|--|
| <b>SSID choice</b>   | Select a SSID from SSID, multi SSID1, multi SSID2, multi-SSID3.  |
| <b>Security Mode</b> | Select an appropriate encryption mode to increase the security and privacy features of wireless dhome gateway. |

Select a different encryption mode, the web interface will be different, user can configure the corresponding parameters under the mode you select. Here are some common encryption method:

- 1) OPENWEP: A handshake way of WEP encryption, encryption via the WEP key:



The screenshot shows the 'WIFI Security Setting' page with 'OPENWEP' selected in the 'Security Mode' dropdown. It features a 'Wire Equivalence Protection (WEP)' section with a 'Default Key' dropdown set to 'WEP Key 1'. Below are four 'WEP Keys' (WEP Key 1 to 4), each with a text input field and a 'Hex' dropdown menu. Other settings include SSID choice 'Wireless\_AP053178', Access policy 'Disable', and an empty 'Add a station MAC' field.

WEP represents Wired Equivalent Privacy, which is a basic encryption method.

|                      |   |
|----------------------|---|
| <b>Security Mode</b> | This is used to select one of the 4 WEP keys, key settings on the clients should be the same with this when connecting.                 |
| <b>WEP Keys</b>      | Set the WEP key. A-64 key need 10 Hex characters or 5 ASCII characters; choose A-128 key need 26 Hex characters or 13 ASCII characters. |

2) WPA-PSK, the router will use WPA way which is based on the shared key-based mode:

**WIFI Security Setting**

**Select SSID**

SSID choice

"Wireless\_AP053178"

Security Mode

WPA

WPA Algorithms  TKIP  AES  TKIPAES

Pass Phrase

Key Renewal Interval  Second in Month (0 ~ 4194303)

Access policy

policy

Add a station MAC

|                             |   |
|-----------------------------|---|
| <b>WPA Algorithms</b>       | This item is used to select the encryption of wireless dhome gateway algorithms, options are TKIP, AES and TKIPAES. |
| <b>Pass Phrase</b>          | Setting up WPA-PSK security password.   |
| <b>Key Renewal Interval</b> | Set the key scheduled update cycle, default is 3600s.   |

3) WPA2-PSK, the router will be based on shared key WPA2 modes:

**WIFI Security Setting**

**Select SSID**

SSID choice

"Wireless\_AP053178"

Security Mode

WPA

WPA Algorithms  TKIP  AES  TKIPAES

Pass Phrase

Key Renewal Interval  Second in Month (0 ~ 4194303)

Access policy

policy

Add a station MAC

|                             |   |
|-----------------------------|---|
| <b>WPA Algorithms</b>       | This item is used to select the security algorithm for encryption of wireless dhome gateway, options are TKIP, AES, TKIPAES three |
| <b>Pass phrase</b>          | Setting up WPA2-PSK security password   |
| <b>Key Renewal Interval</b> | Set the key scheduled update cycle, default is 3600s  |

4) WPAPSKWPA2PSK manner is consistent with WPA2PSK settings

"Wireless\_AP\_142536"  
 Security Mode WPAPSKWPA2PSK

WPA  
 WPA Algorithms  TKIP  AES  TKIPAES

Pass Phrase 1234567

Key Renewal Interval 3600 Second in Month (0 ~ 4194303)

WPA-PSK/WPA2-PSK WPA/WPA2 security type is actually a simplified version, which is based on the WPA shared key mode, higher security setting is also relatively simple, suitable for ordinary home users and small businesses.

|                             |  |
|-----------------------------|--|
| <b>WPA Algorithms</b>       | The dhome gateway is used to select the wireless security encryption algorithm options are TKIP, AES, TKIP / AES. 11N mode does not support TKIP algorithms. |
| <b>Pass Phrase</b>          | Set WPA-PSK/WPA2-PSK security code   |
| <b>Key Renewal Interval</b> | Set the key scheduled update cycle, default is 3600s   |

Wireless Access Policy:

Access policy  
 policy Reject

Add a station MAC

Save
Cancel
Reboot

| Field Name               | Description  |
|--------------------------|--|
| <b>Access policy</b>     | Wireless access control is used to allow or prohibit the specified client to access to your wireless network based on the MAC address.                       |
| <b>Policy</b>            | Prohibition: disable wireless access control policy; allow: only allow the clients in the list to access, rejected: block the clients in the list to access. |
| <b>Add a station MAC</b> | Enter the MAC address of the clients which you want to allow or  |

|  |          |
|--|----------|
|  | prohibit |
| <p>Example: Prohibit the device whose wireless network card MAC address is 00:1F: D0: 62: BA: FF's to access the wireless network, and allow other computers to access the network.</p> <p>Implementation: As shown, the Policy is Reject, add 00:1F: D0: 62: BA: FF to the MAC, click Save and reboot the device settings to take effect.</p> |          |

### 5.3.3 Wi-Fi MultiMedia

WMM (Wi-Fi MultiMedia) is the QoS certificate of Wi-Fi Alliance (WFA). This provides you to configure the parameters of wireless multimedia; WMM allows wireless communication to define a priority according to the dhome gateway type. To make WMM effective, the wireless clients must also support WMM.

| WMM Parameters of Access Point |                                |                                 |                                   |                                 |                          |                          |
|--------------------------------|--------------------------------|---------------------------------|-----------------------------------|---------------------------------|--------------------------|--------------------------|
|                                | Aifsn                          | CWMin                           | CWMax                             | Txop                            | ACM                      | AckPolicy                |
| <b>AC_BE</b>                   | <input type="text" value="3"/> | <input type="text" value="15"/> | <input type="text" value="63"/>   | <input type="text" value="0"/>  | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>AC_BK</b>                   | <input type="text" value="7"/> | <input type="text" value="15"/> | <input type="text" value="1023"/> | <input type="text" value="0"/>  | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>AC_VI</b>                   | <input type="text" value="1"/> | <input type="text" value="7"/>  | <input type="text" value="15"/>   | <input type="text" value="94"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>AC_VO</b>                   | <input type="text" value="1"/> | <input type="text" value="3"/>  | <input type="text" value="7"/>    | <input type="text" value="47"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| WMM Parameters of Station |                                |                                 |                                   |                                 |                          |
|---------------------------|--------------------------------|---------------------------------|-----------------------------------|---------------------------------|--------------------------|
|                           | Aifsn                          | CWMin                           | CWMax                             | Txop                            | ACM                      |
| <b>AC_BE</b>              | <input type="text" value="3"/> | <input type="text" value="15"/> | <input type="text" value="1023"/> | <input type="text" value="0"/>  | <input type="checkbox"/> |
| <b>AC_BK</b>              | <input type="text" value="7"/> | <input type="text" value="15"/> | <input type="text" value="1023"/> | <input type="text" value="0"/>  | <input type="checkbox"/> |
| <b>AC_VI</b>              | <input type="text" value="2"/> | <input type="text" value="7"/>  | <input type="text" value="15"/>   | <input type="text" value="94"/> | <input type="checkbox"/> |
| <b>AC_VO</b>              | <input type="text" value="2"/> | <input type="text" value="3"/>  | <input type="text" value="7"/>    | <input type="text" value="47"/> | <input type="checkbox"/> |

### 5.3.4 Wi-Fi Protected Setup (WPS)

WPS is the newest Wi-Fi security settings(Wi-Fi Protected Setup), which is launched by Wi-Fi Alliance, this standard is mainly introduced to solve the problems that the steps of encrypting and authenticating the wireless network are too complicated, and these problems has long been there. By using the WPS button on G201N4, we can freely enjoy quick encrypting the wireless network dhome gateway, protecting illegal users from invading. On one hand, this can ensure the security of wireless networks, on the other hand, we can encrypt much easier.



**WPS Setting**

---

**WPS Config**

WPS  ▾

---

**WPS Summary**

|                       |                   |
|-----------------------|-------------------|
| WPS Current Status    | Idle              |
| WPS Configured        | Yes               |
| WPS SSID              | Wireless_AP053178 |
| WPS Auth Mode         | WPA-PSK           |
| WPS Encryp Type       | AES               |
| WPS Default Key Index | 2                 |
| WPS Key(ASCII)        | 12345678          |
| AP PIN                | 03403440          |

---

**WPS Progress**

WPS Mode  PIN  PBC

PIN

---

**WPS Status**

WSC:Idle

| Field Name         | Description   |
|--------------------|---|
| <b>WPS Setting</b> | If or not enable WPS function   |
| <b>WPS Summary</b> | Display the current status of WPS, including current state, SSSID name, authentication methods, encryption type and the PIN code of this AP.  |
| <b>Generate</b>    | Generate a new PIN code   |
| <b>Reset OOB</b>   | G201N4 uses default security policy to allow other non-WPS users to access and apply.   |
| <b>WPS Mode</b>    | <p><b>PIN:</b> Enter the PIN code of the wireless device which accesses to this LAN in the following option, and press apply. Then G201N4 begins to send signals, turn on the PIN accessing method on the clients, and then it can access the wireless AP automatically.</p> <p><b>PBC:</b> There are two ways to start PCB mode, user can press the PCB button directly on the device, or select PCB mode on the software and apply. Users can activate WPS connection in WPS mode through these</p> |

|                   |   |
|-------------------|---|
|                   | two methods, only when the clients choose PCB access, the clients can connect the AP automatically.   |
| <b>WPS Status</b> | <p>WPS shows status in three ways:</p> <p>WSC: Idle</p> <p>WSC: Start WSC Process(begin to send messages)</p> <p>WSC: Success; this means clients have accessed the AP successfully, WPS connects well.</p> |

### 5.3.5 Wireless Client

This page shows user the clients' information which connects to the AP.

#### Wireless Network

|             |     |     |        |     |    |     |      |
|-------------|-----|-----|--------|-----|----|-----|------|
| MAC Address | Aid | PSM | MimoPS | MCS | BW | SGI | STBC |
|-------------|-----|-----|--------|-----|----|-----|------|

### 5.3.6 Advance Wireless

#### Advanced Wireless

|                                |  |
|--------------------------------|--|
| BG Protection Mode             | Auto   |
| Beacon Interval                | 100 ms (range 20 - 999, default 100)   |
| Data Beacon Rate (DTIM)        | 3 ms (range 1 - 255, default 3)  |
| Fragment Threshold             | 2346 (range 256 - 2346, default 2346)  |
| RTS Threshold                  | 2347 (range 1 - 2347, default 2347)  |
| TX Power                       | 100 (range 1 - 100, default 100)   |
| Short Preamble                 | <input checked="" type="radio"/> Enable <input type="radio"/> Disable                  |
| Short Slot                     | <input checked="" type="radio"/> Enable <input type="radio"/> Disable                  |
| Tx Burst                       | <input checked="" type="radio"/> Enable <input type="radio"/> Disable                  |
| Pkt_Aggregate                  | <input checked="" type="radio"/> Enable <input type="radio"/> Disable                  |
| IEEE 802.11H Support           | <input type="radio"/> Enable <input checked="" type="radio"/> Disable (only in A band) |
| Country Code                   | US (United States)   |
| Wi-Fi Multimedia               |  |
| WMM Capable                    | <input checked="" type="radio"/> Enable <input type="radio"/> Disable                  |
| APSD Capable                   | <input type="radio"/> Enable <input checked="" type="radio"/> Disable                  |
| WMM Parameters                 | WMM Configuration  |
| Multicast-to-Unicast Converter |  |
| Multicast-to-Unicast           | <input type="radio"/> Enable <input checked="" type="radio"/> Disable                  |

Save Cancel Reboot

| Field Name                             | Description   |
|--|---|
| <b>BG Protection Mode</b>              | Select G protection mode, options are on, off and automatic.  |
| <b>Beacon Interval</b>                 | The interval of sending a wireless beacon frame, within this range, it will send a beacon frame for the information of the surrounding radio network.   |
| <b>Dhome gateway Beacon Rate(DTIM)</b> | Specify the interval of transmitting the indication message, it is a kind of cut down operation, and it is used for informing the next client which is going to receive broadcast multi-cast. |
| <b>Fragment Threshold</b>              | Specify the fragment threshold for the packet, when the length of the packet exceeds this value, the packet will be divided into multiple packets.  |
| <b>RTS Threshold</b>                   | Specify the packet RTS threshold, when the packet exceeds this value, the router will send RTS to the destination site consultation   |
| <b>TX Power</b>                        | Define the transmission power of the current AP, the greater it is, the stronger the signal is.   |
| <b>Short Preamble</b>                  | Default is enable, G201N4 system is not compatible with traditional IEEE802.11, the operation rate can be 1,2Mbps   |
| <b>Short Slot</b>                      | If or not enable short slot, default is enable, it is helpful in improving the transmission rate of wireless communication.   |
| <b>Tx Burst</b>                        | One of the features of MAC layer, it is used to improve the fairness for transmitting TCP.  |
| <b>Pkt_Aggregate</b>                   | It is a mechanism that is used to enhance the LAN, in order to ensure that the dhome gateway packets are sent to the destination correctly.   |
| <b>IEEE802.11H support</b>             | If or not enable IEEE802.11H Support, default is disable.   |
| <b>Country Code</b>                    | Select country code, options are CN, US, JP, FR, TW, IE, HK and NONE.   |
| <b>Wi-Fi Multimedia(WMM)</b>           |   |
| <b>WMM Capable</b>                     | If or not enable WMM. WMM take effects when it is enabled.  |
| <b>APSD Capable</b>                    | After enable this, it may affect wireless performance, but can play a role in energy-saving power   |
| <b>WMM Parameters</b>                  | Press <input type="button" value="WMM Configuration"/> , the webpage will jump to the configuration page of Wi-Fi multimedia.   |
| <b>Multicast-to-Unicast Converter</b>  |   |
| <b>Multicast-to-Unicast</b>            | If or not enable Multicast-to-Unicast, by default, it is disabled, you can enable it.   |

## 5.4 SIP Account

### 5.4.1 Line 1

In this webpage, user can configure the information on Line 1, including the following 4 parts: Basic, Audio Configuration, Supplementary Service Subscription and Advanced.

1) Basic

Set the basic information provided by your VOIP Service Provider, such as Phone Number, Account, password, SIP Proxy and so on.

| Basic                         |   |                      |   |
|-------------------------------|---|----------------------|---|
| <b>Basic Setup</b>            |   |                      |   |
| Line Enable                   | <input type="text" value="Enable"/>       | Peer To Peer         | <input type="text" value="Disable"/>    |
| <b>Proxy and Registration</b> |   |                      |   |
| Proxy Server                  | <input type="text" value="192.168.20.1"/> | Proxy Port           | <input type="text" value="5060"/>       |
| Outbound Server               | <input type="text"/>                      | Outbound Port        | <input type="text" value="5060"/>       |
| Backup Outbound Server        | <input type="text"/>                      | Backup Outbound Port | <input type="text" value="5060"/>       |
| <b>Subscriber Information</b> |   |                      |   |
| Display Name                  | <input type="text" value="Flyingvoice1"/> | Phone Number         | <input type="text" value="502"/>        |
| Account                       | <input type="text" value="502"/>          | Password             | <input type="password" value="••••••"/> |

| Field Name                    | Description   |
|-------------------------------|---|
| <b>Line Enable</b>            | If or not enable the line.  |
| <b>Peer To Peer</b>           | If or not enable PEER to PEER.<br>If enable, SIP-1 will not send register request to SIP server; but in Status/ SIP Account Status webpage, Status is Registered; lines 1 can dial out, but the external line number cannot dialed line1. |
| <b>Proxy Server</b>           | The IP address or the domain of SIP Server  |
| <b>Outbound Server</b>        | The IP address or the domain of Outbound Server   |
| <b>Backup Outbound Server</b> | The IP address or the domain of Backup Outbound Server  |
| <b>Proxy port</b>             | SIP Service port, default is 5060   |
| <b>Outbound Port</b>          | Outbound Proxy's Service port, default is 5060  |
| <b>Backup Outbound Port</b>   | Backup Outbound Proxy's Service port, default is 5060   |

|                     |  |
|---------------------|--|
| <b>Display Name</b> | The number will be displayed on LCD          |
| <b>Phone Number</b> | Enter telephone number provided by SIP Proxy |
| <b>Account</b>      | Enter SIP account provided by SIP Proxy      |
| <b>Password</b>     | Enter SIP password provided by SIP Proxy     |

2) Audio Configuration

**Audio Configuration**

**Codec Setup**

|                        |                                     |                       |                                       |
|------------------------|-------------------------------------|-----------------------|---------------------------------------|
| Audio Codec Type 1     | <input type="text" value="G.711U"/> | Audio Codec Type 2    | <input type="text" value="G.711A"/>   |
| Audio Codec Type 3     | <input type="text" value="G.729"/>  | Audio Codec Type 4    | <input type="text" value="G.722"/>    |
| Audio Codec Type 5     | <input type="text" value="G.723"/>  | G.723 Coding Speed    | <input type="text" value="5.3k bps"/> |
| Packet Cycle(ms)       | <input type="text" value="20ms"/>   | Silence Supp          | <input type="text" value="Disable"/>  |
| Echo Cancel            | <input type="text" value="Enable"/> | Auto Gain Control     | <input type="text" value="Enable"/>   |
| T.38 Enable            | <input type="text" value="Enable"/> | T.38 Redundancy       | <input type="text" value="Disable"/>  |
| T.38 CNG Detect Enable | <input type="text" value="Enable"/> | gcmd attribute Enable | <input type="text" value="Disable"/>  |

| Field Name                    | Description  |
|-------------------------------|--|
| <b>Audio Codec Type1</b>      | Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723 |
| <b>Audio Codec Type2</b>      | Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723 |
| <b>Audio Codec Type3</b>      | Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723 |
| <b>Audio Codec Type4</b>      | Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723 |
| <b>Audio Codec Type5</b>      | Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723 |
| <b>G.723 Coding Speed</b>     | Choose the speed of G.723 from 5.3kbps and 6.3kbps                   |
| <b>Packet Cycle</b>           | The RTP packet cycle time, default is 20ms                           |
| <b>Silence Supp</b>           | If or not enable silence   |
| <b>Echo Cancel</b>            | If or not enable echo cancel, default is enable                      |
| <b>Auto Gain Control</b>      | If or not enable auto gain.  |
| <b>T.38 Enable</b>            | If or not enable T.38  |
| <b>T.38 Redundancy</b>        | If or not enable T.38 Redundancy                                     |
| <b>T.38 CNG Detect Enable</b> | If or not enable T.38 CNG Detect                                     |
| <b>gmd attribute Enable</b>   | If or not enable gmd attribute.                                      |

3) Supplementary Service Subscription

**Supplementary Service Subscription**

**Supplementary Services**

|                      |         |                       |        |
|----------------------|---------|-----------------------|--------|
| Call Waiting         | Enable  | Hot Line              |        |
| MWI Enable           | Enable  | Voice Mailbox Numbers |        |
| MWI Subscribe Enable | Disable | VMWI Serv             | Enable |
| DND                  | Disable |                       |        |

**Speed Dial**

|              |              |              |              |
|--------------|--------------|--------------|--------------|
| Speed Dial 2 | 075526099365 | Speed Dial 3 | 075526099129 |
| Speed Dial 4 | 075586129677 | Speed Dial 5 |              |
| Speed Dial 6 |              | Speed Dial 7 |              |
| Speed Dial 8 |              | Speed Dial 9 |              |

| Field Name                   | Description   |
|------------------------------|---|
| <b>Call Waiting</b>          | If or not enable Call Waiting   |
| <b>Hot Line</b>              | Fill in the hotline number.<br>Pickup handset or press handsfree/headset button, the device will dial out the hotline number automatically.                                       |
| <b>MWI Enable</b>            | If or not enable MWI (message waiting indicate). If the user needs to user voice mail, please enable this feature.  |
| <b>Voice Mailbox Numbers</b> | Fill in the voice mailbox phone number, Asterisk platform, for example, its default voice mail is *97   |
| <b>VMWI Serv</b>             | If or not enable VMWI service.  |
| <b>DND</b>                   | If or not enable DND (do not disturb).<br>If enable, any phone call cannot arrive at the device; default is disable.  |
| <b>Speed Dial</b>            | Enter the speed dial phone numbers.<br>Dial *74 to active speed dial function.<br>Then press the speed dial numbers, for example, press 2, phone will dial 075526099365 directly. |

4) Advanced

**Advanced**
**Advanced Setup**

|                               |                                    |                                |         |
|-------------------------------|------------------------------------|--------------------------------|---------|
| Domain Name Type              | Enable                             | Carry Port Information         | Disable |
| Signal Port                   | 5060                               | DTMF Type                      | RFC2833 |
| RFC2833 Payload(>=96)         | 101                                | Register Refresh Interval(sec) | 3600    |
| RTP Port                      | 0<br><small>=0 auto select</small> | Cancel Message Enable          | Disable |
| Session Refresh Time(sec)     | 0                                  | Refresher                      | UAC     |
| Prack Enable                  | Disable                            | SIP OPTIONS Enable             | Disable |
| Primary SER Detect Interval   | 0                                  | Max Detect Fail Count          | 3       |
| Keep-alive Interval(10-60s)   | 15                                 | Anonymous Call                 | Disable |
| Anonymous Call Block          | Disable                            | Proxy DNS Type                 | A Type  |
| Use OB Proxy In Dialog        | Disable                            | Reg Subscribe Enable           | Disable |
| Dial Prefix                   |                                    | User Type                      | IP      |
| Hold Method                   | ReINVITE                           | Request-URI User Check         | Disable |
| Only Recv Request From Server | Disable                            | Server Address                 |         |
| SIP Received Detection        | Disable                            |                                |         |

| Field Name                       | Description   |
|----------------------------------|---|
| <b>Domain Name Type</b>          | If or not use domain name in the SIP URI.   |
| <b>Carry Port Information</b>    | If or not carry port information in the SIP URI.  |
| <b>Signal Port</b>               | The local port of SIP protocol, default is 5060.  |
| <b>DTMF Type</b>                 | Choose the DTMF type from Inbound, RFC2833 and SIP INFO.  |
| <b>RFC2833 Payload(&gt;=96)</b>  | User can use the default setting.   |
| <b>Register Refresh Interval</b> | The interval between two normal Register messages. You can use the default setting.   |
| <b>RTP Port</b>                  | Set the port to send RTP.<br>The device will select one idle port for RTP if you set "0"; otherwise use the value which user sets.  |
| <b>Cancel Message Enable</b>     | When you set enable, an unregistered message will be sent before registration, while you set disable, unregistered message will not be sent before registration. You should set the option for different Proxy. |
| <b>Session Refresh Time(sec)</b> | Time interval between two sessions, you can use the default settings.   |
| <b>Refresher</b>                 | Choose refresher from UAC and UAS.  |
| <b>Prack Enable</b>              | If or not enable prack.   |

|                                      |  |
|--------------------------------------|--|
| <b>SIP OPTIONS Enable</b>            | When you set enable, the device will send SIP-OPTION to the server, instead of sending periodic Hello message. The sending interval is Keep-alive interval.          |
| <b>Primary SER Detect Interval</b>   | Test interval of the primary server, the default value is 0, it represents disable.  |
| <b>Max Detect Fail Count</b>         | Interval of detection of the primary server fail; the default value is 3, it means that if detect 3 times fail; the device will no longer detect the primary server. |
| <b>Keep-alive Interval(10-60s)</b>   | The interval that the device will send an empty packet to proxy.   |
| <b>Anonymous Call</b>                | If or not enable anonymous call.   |
| <b>Anonymous Call Block</b>          | If or not enable anonymous call block.   |
| <b>Proxy DNS Type</b>                | Set the DNS server type, choose from A type and DNS SRV.   |
| <b>Use OB Proxy In Dialog</b>        | If or not use OB Proxy In Dialog.  |
| <b>Reg Subscribe Enable</b>          | If enable, subscribing will be sent after registration message, if not enable, do not send subscription.   |
| <b>Dial Prefix</b>                   | The number will be added before your telephone number when making calls.   |
| <b>User Type</b>                     | Choose the User Type from IP and Phone.  |
| <b>Hold Method</b>                   | Choose the Hold Method from ReINVITE and INFO.   |
| <b>Request-URI User Check</b>        | If or not enable the user request URI check.   |
| <b>Only Recv request from server</b> | If or not enable the only receive request from server.   |
| <b>Server Address</b>                | The IP address of SIP server.  |
| <b>SIP Received Detection</b>        | If or not enable SIP Received Detection, if enable, use it to confirm the public network address of the device.  |

## 5.4.2 SIP setting

1)SIP Parameters:



| SIP Parameters          |  |                        |                                       |
|-------------------------|--|------------------------|---------------------------------------|
| <b>SIP Parameters</b>   |  |                        |                                       |
| SIP T1                  | <input type="text" value="500"/> MS    | Max Forward            | <input type="text" value="70"/>       |
| SIP Reg User Agent Name | <input type="text"/>                   | Max Auth               | <input type="text" value="2"/>        |
| Mark All AVT Packets    | <input type="button" value="Enable"/>  | RFC 2543 Call Hold     | <input type="button" value="Enable"/> |
| SRTP                    | <input type="button" value="Disable"/> | SRTP Prefer Encryption | <input type="button" value="AES_CM"/> |
| Service Type            | <input type="button" value="Common"/>  |                        |                                       |

2) NAT Traversal

|                           |  |                     |                                   |
|---------------------------|--|---------------------|-----------------------------------|
| <b>NAT Traversal</b>      |  |                     |                                   |
| NAT Traversal             | <input type="button" value="Disable"/> | STUN Server Address | <input type="text"/>              |
| NAT Refresh Interval(sec) | <input type="text" value="60"/>        | STUN Server Port    | <input type="text" value="3478"/> |

| Field Name           | Description  |
|----------------------|--|
| NAT Traversal        | 1. If or not enable NAT Traversal<br>2. G201N4 supports STUN Traversal; If you want to traverse NAT/Firewall, select the STUN. |
| STUN Server Address  | Add the correct STUN service provider IP address.  |
| NAT Refresh Interval | Set NAT Refresh Interval, default is 60s.  |
| STUN Server Port     | Set STUN Server Port, default is 5060.   |

### 5.4.3 QoS

Qos services can improve the quality of voice applications

| Line 1              | SIP Settings                   | VoIP QoS |
|---------------------|--------------------------------|----------|
| <b>QoS Settings</b> |                                |          |
| <b>Layer 3 QoS</b>  |                                |          |
| SIP QoS(0-63)       | <input type="text" value="0"/> |          |
| RTP QoS(0-63)       | <input type="text" value="0"/> |          |

| Field Name  | Description  |
|-------------|--|
| SIP/RTP QoS | The default value is 0,you can set a range of values is 0~63 |

## 5.5 Phone

This page user can set preferences for home gateways, and call logs.

|             |           |           |             |              |           |                |
|-------------|-----------|-----------|-------------|--------------|-----------|----------------|
| Status      | Network   | Wireless  | SIP Account | <b>Phone</b> | Diagnosis | Administration |
| Preferences | Dial Plan | Phonebook | Call Log    |              |           |                |

### 5.5.1 Preferences

#### 1) Volume Settings

**Volume Settings**

|                    |                                |                |                                |
|--------------------|--------------------------------|----------------|--------------------------------|
| Handset Input Gain | <input type="text" value="5"/> | Handset Volume | <input type="text" value="5"/> |
|--------------------|--------------------------------|----------------|--------------------------------|

| Field Name                | Description                                |
|---------------------------|--|
| <b>Handset Input Gain</b> | Adjust the handset input gain from 0 to 7. |
| <b>Handset Volume</b>     | Adjust the output gain from 0 to 7.        |

#### 2) Regional

**Regional**

|                         |                                       |                           |                                  |
|-------------------------|---------------------------------------|---------------------------|----------------------------------|
| Tone Type               | <input type="text" value="USA"/>      |                           |                                  |
| Dial Tone               | <input type="text"/>                  |                           |                                  |
| Busy Tone               | <input type="text"/>                  |                           |                                  |
| Off Hook Warning Tone   | <input type="text"/>                  |                           |                                  |
| Ring Back Tone          | <input type="text"/>                  |                           |                                  |
| Call Waiting Tone       | <input type="text"/>                  |                           |                                  |
| Min Jitter Delay(ms)    | <input type="text" value="0"/>        | Max Jitter Delay(ms)      | <input type="text" value="80"/>  |
| Ringing Time(sec)       | <input type="text" value="60"/>       |                           |                                  |
| Regional Ring Waveform  | <input type="text" value="Sinusoid"/> | Regional Ring Voltage     | <input type="text" value="70"/>  |
| Regional Ring Frequency | <input type="text" value="25"/>       | VMWI Ring Splash Len(sec) | <input type="text" value="0.5"/> |
| Flash Time Max(sec)     | <input type="text" value="0.9"/>      | Flash Time Min(sec)       | <input type="text" value="0.1"/> |

| Field Name                   | Description   |
|------------------------------|---|
| <b>Tone Type</b>             | Choose tone type form China, US, Hong Kong and so on. |
| <b>Dial Tone</b>             | Dial Tone   |
| <b>Busy Tone</b>             | Busy Tone   |
| <b>Off Hook Warning Tone</b> | Off Hook warning tone                                 |
| <b>Ring Back Tone</b>        | Ring back tone  |
| <b>Call Waiting Tone</b>     | Call waiting tone                                     |

|                                  |   |
|----------------------------------|---|
| <b>Min Jitter Delay</b>          | The Min value of home gateway's jitter delay, home gateway is an adaptive jitter mechanism. |
| <b>Max Jitter Delay</b>          | The Max value of home gateway's jitter delay, home gateway is an adaptive jitter mechanism. |
| <b>Ringling Time</b>             | How long G201N4 will ring when there is an incoming call.                                   |
| <b>Regional Ring Waveform</b>    | Select regional ring waveform, options are Sinusoid and Trapezoid, the default Sinusoid.    |
| <b>Regional Ring Voltage</b>     | Set ringing voltage, the default value is 70  |
| <b>Regional Ring Frequency</b>   | Set ring frequency, the default value is 25   |
| <b>VMWI Ring Splash Len(sec)</b> | Set the VMWI ring splash length, default is 0.5s.   |
| <b>Flash Time Max(sec)</b>       | Set the Max value of the device's flash time, the default value is 0.9                      |
| <b>Flash Time Min(sec)</b>       | Set the Min value of the device's flash time, the default value is 0.1                      |

### 3) Features and Call Forward

**Features**

|                   |         |              |         |
|-------------------|---------|--------------|---------|
| All Forward       | Disable | Busy Forward | Disable |
| No Answer Forward | Disable |              |         |

**Call Forward**

|                   |  |                   |    |
|-------------------|--|-------------------|----|
| All Forward       |  | Busy Forward      |    |
| No Answer Forward |  | No Answer Timeout | 20 |

**Feature Code**

|                       |         |                     |      |
|-----------------------|---------|---------------------|------|
| Hold Key Code         | *77     | Conference Key Code | *88  |
| Transfer Key Code     | *98     | IVR Key Code        | **** |
| R Key Enable          | Disable | R Key Cancel Code   | R1   |
| R Key Hold Code       | R2      | R Key Transfer Code | R4   |
| R Key Conference Code | R3      |                     |      |

| Page/parameter      | Description              |   |
|---------------------|--------------------------|---|
| <b>Features</b>     | <b>All Forward</b>       | If or not enable forward all calls  |
|                     | <b>Busy Forward</b>      | If or not enable busy forward.  |
|                     | <b>No Answer Forward</b> | If or not enable no answer forward.   |
| <b>Call Forward</b> | <b>All Forward</b>       | Set the target phone number for all forward.<br>The device will forward all calls to the phone number immediately when there is an incoming call. |
|                     | <b>Busy Forward</b>      | The phone number which the calls will be forwarded to   |

|                     |                              |   |
|---------------------|------------------------------|---|
|                     |                              | when line is busy.  |
|                     | <b>No Answer Forward</b>     | The phone number which the call will be forwarded to when there's no answer.          |
|                     | <b>No Answer Timeout</b>     | The seconds to delay forwarding calls, if there is no answer at your phone.           |
| <b>Feature Code</b> | <b>Hold key code</b>         | Call hold signatures, default is *77.   |
|                     | <b>Conference key code</b>   | Signature of the tripartite session, default is *88.                                  |
|                     | <b>Transfer key code</b>     | Call forwarding signatures ,default is *98.   |
|                     | <b>IVR key code</b>          | Signatures of the voice menu, default is ****.  |
|                     | <b>R key enable</b>          | If or not enable R key way call features.   |
|                     | <b>R key cancel code</b>     | Set the R key cancel code, option are ranged from R1 to R9, default value is R1.      |
|                     | <b>R key hold code</b>       | Set the R key hold code, options are ranged from R1 to R9, default value is R2.       |
|                     | <b>R key transfer code</b>   | Set the R key transfer code, options are ranged from R1 to R9, default value is R4.   |
|                     | <b>R key conference code</b> | Set the R key conference code, options are ranged from R1 to R9, default value is R3. |
|                     | <b>Speed Dial Code</b>       | Speed dial code, default is *74.  |

4) Miscellaneous

**Miscellaneous**

|                    |  |                      |   |
|--------------------|--|----------------------|---|
| Codec Loop Current | <input type="text" value="26"/>        | Impedance Matching   | <input type="text" value="US PBX,Korea,Taiwan(600)"/> |
| CID Service        | <input type="button" value="Enable"/>  | CWCID Service        | <input type="button" value="Disable"/>                |
| Dial Time Out(IDT) | <input type="text" value="5"/>         | Call Immediately Key | <input type="button" value="#"/>                      |
| ICMP Ping          | <input type="button" value="Disable"/> | Escaped char enable  | <input type="button" value="Disable"/>                |

| Field Name                  | Description  |
|-----------------------------|--|
| <b>Codec Loop Current</b>   | Set off-hook loop current, default is 26   |
| <b>Impedance Matching</b>   | Set impedance matching, default is US PBX,Korea,Taiwan(600).   |
| <b>CID service</b>          | If or not enable displaying caller ID; If enable, caller ID is displayed when there is an incoming call or it won't be displayed. Default is enable. |
| <b>CWCID Service</b>        | If or not enable CWCID. If enable, the device will display the waiting call's caller ID, or it won't display. Default is disable.                    |
| <b>Dial Time Out</b>        | How long G201N4 will sound dial out tone when G201N4 dials a number.   |
| <b>Call Immediately Key</b> | Choose call immediately key form * or #.   |

|                            |   |
|----------------------------|---|
| <b>ICMP Ping</b>           | <p>If or not enable ICMP Ping.</p> <p>If enable this option, home gateway will ping the SIP Server every interval time, otherwise, It will send “hello” empty packet to the SIP Server.</p> |
| <b>Escaped char enable</b> | <p>Open special character translation function; if enable, when you press the # key, it will be translated to 23%, when disable, it is just #</p>   |

## 5.5.2 Dial Plan

### 1) Parameters and Settings

**General**

Dial Plan

| No. | Line  | Digit Map          | Action   | Move Up | Move Down | <input type="checkbox"/> |
|-----|-------|--------------------|----------|---------|-----------|--------------------------|
| 1   | Line1 | *.0[3-9]xxxxxxxx5x | Dial Out | ▲       | ▼         | <input type="checkbox"/> |
| 2   | Line1 | *.0[3-9]xx[019]x.5 | Dial Out | ▲       | ▼         | <input type="checkbox"/> |
| 3   | Line1 | *.02xxxxxxxx       | Dial Out | ▲       | ▼         | <input type="checkbox"/> |
| 4   | Line1 | *.02x[019]x.5      | Dial Out | ▲       | ▼         | <input type="checkbox"/> |
| 5   | Line1 | *.010xxxxxxxx      | Dial Out | ▲       | ▼         | <input type="checkbox"/> |
| 6   | Line1 | *.010[019]x.5      | Dial Out | ▲       | ▼         | <input type="checkbox"/> |
| 7   | Line1 | *.00xx5x.5         | Dial Out | ▲       | ▼         | <input type="checkbox"/> |

Line

Digit Map

Action

| Field Name       | Description   |
|------------------|---|
| <b>Dial Plan</b> | If or not enable dial plan.   |
| <b>Line</b>      | Set the line.   |
| <b>Digit Map</b> | Fill in the sequence used to match input number<br>The syntactic, please refer to the following Dial Plan Syntactic |
| <b>Action</b>    | Choose the dial plan mode from Deny and Dial Out.   |

|                  |   |
|------------------|---|
|                  | Deny means G201N4 will reject the matched number, while Dial Out means G201N4 will dial out the matched number. |
| <b>Move Up</b>   | Press it to move up.  |
| <b>Move Down</b> | Press it to move down.  |

2) Adding one dial plan:

Step 1. Enable Dial Plan

Step 2. Click **Add** button, and the configuration table

Step 3. Fill in the value of parameters.

Step 4. Press **OK** button to end configuration.

Step 5. Press **Save** button to save changes

3) Dial Plan Syntactic

| No. | String                  | Description   |
|-----|-------------------------|---|
| 1   | 0 1 2 3 4 5 6 7 8 9 * # | Legal characters  |
| 2   | x                       | Lowercase letter x stands for one legal character   |
| 3   | [sequence]              | To match one character form sequence.<br>For example:<br><ul style="list-style-type: none"> <li>[0-9]: match one digit form 0 to 9</li> <li>[23-5*]: match one character from 2 or 3 or 4 or 5 or *</li> </ul>  |
| 4   | x.                      | Match to $x^0, x^1, x^2, x^3, \dots, x^n$<br>For example:<br>"01." : can match "0", "01", "011", "0111", ....., "01111..."  |
| 5   | <dialled:substituted>   | Replace dialled with substituted.<br>For example:<br><8:1650>123456 : input is "85551212", output is "16505551212"  |
| 6   | x,y                     | Make outside dial tone after dialing "x", stop until dialing character "y"<br>For example:<br>"9,1xxxxxxxxx": the device reports dial tone after inputting "9", stops tone until inputting "1"<br>"9,8,010x": make outside dial tone after inputting "9", stop tone until inputting "0" |
| 7   | T                       | Set the delayed time.<br>For example:<br>"<9:111>T2": The device will dial out the matched number "111" after 2 seconds.  |

### 5.5.3 Phonebook

In this page, user can upload or download phonebook or blacklist file, and can add or delete or edit phonebook and blacklist one by one.

#### 1) Upload & Download phonebook

**Phonebook Upload & Download**

---

**Phonebook Upload & Download**

Local File

Click  to select the phonebook file and click  to upload it to G201N4;

Click  to save the phonebook file to your local computer.

#### 2) Upload & Download Blacklist

**Blacklist Upload & Download**

---

**Blacklist Upload & Download**

Local File

Click  to select the blacklist file and click  to upload it to G201N4; Click

to save the blacklist file to your local computer.

#### 3) Phonebook

| Phonebook |          |        |             |                                     |
|-----------|----------|--------|-------------|-------------------------------------|
| Index     | Name     | Number | Ring        | <input type="checkbox"/>            |
| 1         | Operator | 500    | Bell Type 1 | <input type="checkbox"/>            |
| 2         | Sales    | 510    | Bell Type 2 | <input type="checkbox"/>            |
| 3         | Support  | 520    | Bell Type 3 | <input type="checkbox"/>            |
| 4         | R&D      | 530    | Bell Type 4 | <input checked="" type="checkbox"/> |

Select one contact, click Edit to edit it, click Delete to delete, and click Move to blacklist to move the contact to blacklist.

|   |  |
|---|--|
| Name  | <input type="text" value="Lily"/>        |
| Number  | <input type="text" value="18625947562"/> |
| Ring  | <input type="text" value="Bell Type 4"/> |
| <input type="button" value="OK"/> <input type="button" value="Cancel"/> |  |

Click Add, user can add one new contact, as the upon picture, enter the contact name and phone number, and select one ring tone, there are ten kinds of different ring tones to choose, click OK to confirm and click Cancel to cancel.

#### 4)Blacklist

| Blacklist |       |        |                          |
|-----------|-------|--------|--------------------------|
| Index     | Name  | Number | <input type="checkbox"/> |
| 1         | Rob   | 12345  | <input type="checkbox"/> |
| 2         | Henry | 123456 | <input type="checkbox"/> |

Select one contact and click edit to change the information, click delete to delete the contact, click Move to phonebook to move the contact to phonebook.

Click Add to add one blacklist, enter the name and phone number, click OK to confirm and click cancel to cancel.

|   |                                     |
|---|-------------------------------------|
| Name  | <input type="text" value="Ded"/>    |
| Number  | <input type="text" value="123589"/> |
| <input type="button" value="OK"/> <input type="button" value="Cancel"/> |                                     |

### 5.5.4 Call Log

To view the call log information such as redial list (incoming call), answered call and missed cal

#### 1) Redial List



| Redial List |        |             |          |                          |
|-------------|--------|-------------|----------|--------------------------|
| Index       | NUMBER | Start Time  | Duration | <input type="checkbox"/> |
| 1           | 123    | 10/28 10:30 | 00:00:07 | <input type="checkbox"/> |
| 2           | 010123 | 10/28 12:02 | 00:00:01 | <input type="checkbox"/> |
| 3           | 010123 | 10/28 16:16 | 00:00:00 | <input type="checkbox"/> |
| 4           | 010123 | 10/28 16:16 | 00:00:00 | <input type="checkbox"/> |
| 5           | 123    | 10/28 16:20 | 00:00:13 | <input type="checkbox"/> |
| 6           | 123    | 10/28 16:21 | 00:00:34 | <input type="checkbox"/> |
| 7           | 123    | 10/29 10:50 | 00:00:10 | <input type="checkbox"/> |
| 8           | 123    | 10/29 14:36 | 00:00:01 | <input type="checkbox"/> |
| 9           | 123    | 10/29 15:05 | 00:00:23 | <input type="checkbox"/> |
| 10          | 123    | 10/29 15:06 | 00:00:05 | <input type="checkbox"/> |
| 11          | 123    | 10/29 15:07 | 00:00:01 | <input type="checkbox"/> |

2) Answered Calls

| Answered Calls |        |             |          |                          |
|----------------|--------|-------------|----------|--------------------------|
| Index          | NUMBER | Start Time  | Duration | <input type="checkbox"/> |
| 1              | 22222  | 10/21 09:56 | 00:00:40 | <input type="checkbox"/> |
| 2              | 110    | 10/21 18:14 | 00:00:03 | <input type="checkbox"/> |
| 3              | 110    | 10/21 18:15 | 00:00:07 | <input type="checkbox"/> |
| 4              | sipp   | 10/23 13:40 | 00:00:06 | <input type="checkbox"/> |
| 5              | sipp   | 10/24 18:05 | 00:00:05 | <input type="checkbox"/> |
| 6              | sipp   | 10/24 18:05 | 00:00:05 | <input type="checkbox"/> |
| 7              | sipp   | 10/25 15:38 | 00:00:03 | <input type="checkbox"/> |
| 8              | sipp   | 10/25 15:42 | 00:00:06 | <input type="checkbox"/> |
| 9              | sipp   | 10/25 15:55 | 00:00:10 | <input type="checkbox"/> |
| 10             | sipp   | 10/25 16:03 | 00:00:02 | <input type="checkbox"/> |
| 11             | sipp   | 10/25 16:17 | 00:00:02 | <input type="checkbox"/> |

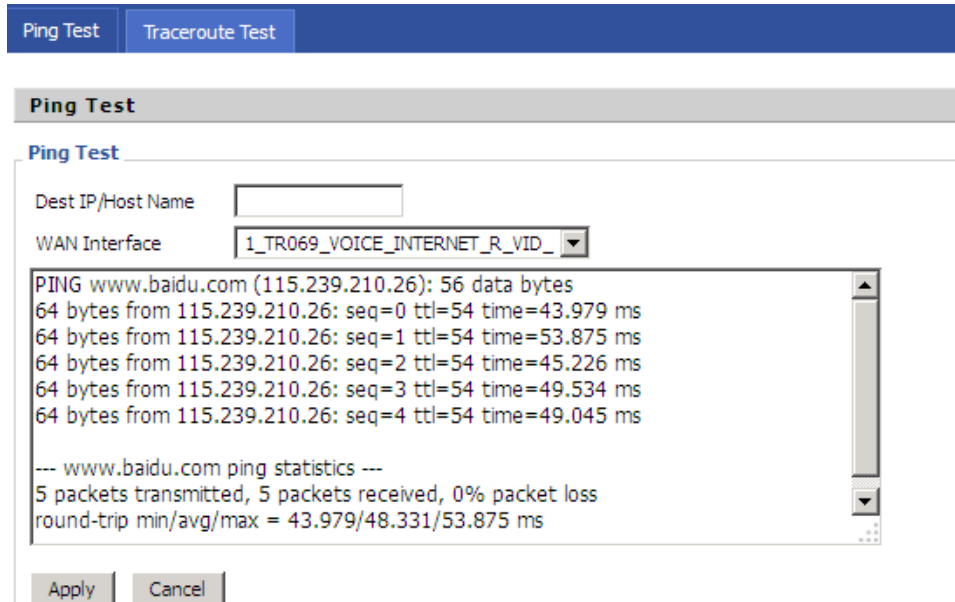
3) Missed Call

| Missed Calls |        |             |          |                          |
|--------------|--------|-------------|----------|--------------------------|
| Index        | NUMBER | Start Time  | Duration | <input type="checkbox"/> |
| 1            | 110    | 10/21 09:50 | 00:00:03 | <input type="checkbox"/> |
| 2            | 555    | 10/22 12:04 | 00:00:03 | <input type="checkbox"/> |

## 5.6 Diagnosis

In this page, user can do ping test and traceroute test to diagnose the device's connection status.

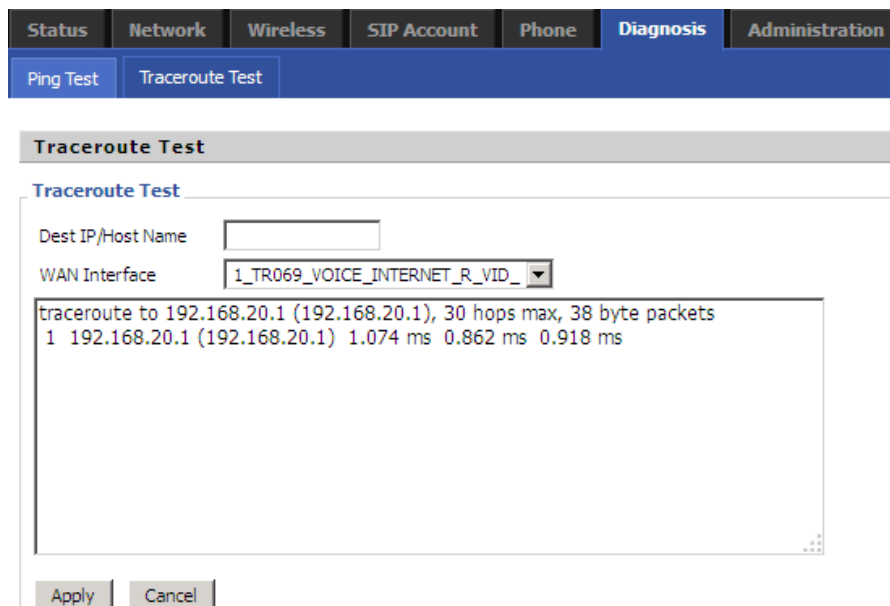
### 1) Ping Test



The screenshot shows a web management console with a navigation bar containing 'Ping Test' and 'Traceroute Test'. The 'Ping Test' tab is active. Below the navigation bar, there is a 'Ping Test' section with a title bar. It contains a form with two input fields: 'Dest IP/Host Name' and 'WAN Interface'. The 'WAN Interface' dropdown menu is set to '1\_TR069\_VOICE\_INTERNET\_R\_VID\_'. Below the form is a text area displaying the results of a ping test to www.baidu.com (115.239.210.26). The results show 5 data bytes, 5 packets transmitted, and 5 packets received with 0% packet loss. The round-trip times are 43.979 ms, 53.875 ms, 45.226 ms, 49.534 ms, and 49.045 ms. At the bottom of the form are 'Apply' and 'Cancel' buttons.

Enter the destination IP or host name, and then click Apply, device will perform ping test.

### 2) Traceroute Test



The screenshot shows a web management console with a navigation bar containing 'Status', 'Network', 'Wireless', 'SIP Account', 'Phone', 'Diagnosis', and 'Administration'. The 'Diagnosis' tab is active, and within it, the 'Traceroute Test' sub-tab is selected. Below the navigation bar, there is a 'Traceroute Test' section with a title bar. It contains a form with two input fields: 'Dest IP/Host Name' and 'WAN Interface'. The 'WAN Interface' dropdown menu is set to '1\_TR069\_VOICE\_INTERNET\_R\_VID\_'. Below the form is a text area displaying the results of a traceroute test to 192.168.20.1 (192.168.20.1). The results show 30 hops max and 38 byte packets. The first hop is 192.168.20.1 (192.168.20.1) with 1.074 ms, 0.862 ms, and 0.918 ms. At the bottom of the form are 'Apply' and 'Cancel' buttons.

Enter the destination IP or host name, and then click Apply, device will perform traceroute test.

## 5.7 Administration

Use can manage the device in these webpage; you can configure the Time/Date, password, web access, system log and associated configuration TR069

### 5.7.1 Management

You can configure the value of Time/Date, password, web access, and system log and so on.

1) Save config file

**Save Config File**

**Config File Upload && Download**

Local File

| Field Name                             | Description   |
|--|---|
| <b>Config file upload and download</b> | Upload: click on browse, select file in the local, press the upload button to begin uploading files |
|  | Download: click to download, and then select contains the path to download the configuration file   |

2) Administrator settings

**Administrator Settings**

**Password Reset**

User Type

New User Name

New Password

Confirm Password

**Language**

Language

**Web Access**

Remote Web Login

Web Port

Web Idle Timeout(0 - 60m)

Allowed Remote IP(IP1,IP2,...)

**Telnet Access**

Remote Telnet

Telnet Port

| Field Name           | Description  |
|----------------------|--|
| <b>User type</b>     | Choose the user type from admin user and normal user and basic user. |
| <b>New User Name</b> | You can modify the user name, set up a new user name                 |

|                                       |  |
|---------------------------------------|--|
| <b>New Password</b>                   | Input the new password   |
| <b>Confirm Password</b>               | Input the new password again   |
| <b>Language</b>                       | Select the language for the web, the device support Chinese, English, and Spanish and so on.               |
| <b>Remote Web Login</b>               | If or not enable remote Web login  |
| <b>Web Port</b>                       | Set the port value which is used to login from Internet port and PC port, default is 80.                   |
| <b>Web Idle timeout</b>               | Set the Web Idle timeout time. The webpage can be logged out after Web Idle Timeout without any operation. |
| <b>Allowed Remote IP(IP1,IP2,...)</b> | Set the IP which can login the device remotely.  |
| <b>Remote Telnet</b>                  | If or not enable remote telnet login   |
| <b>Telnet Port</b>                    | Set the port value which is used to telnet the device.   |

3) NTP settings

**NTP Settings**

NTP Enable

Current Time

NTP Settings

Primary NTP Server

Secondary NTP Server

NTP synchronization(1 - 1440m)

| Field Name                  | Description  |
|-----------------------------|--|
| <b>NTP Enable</b>           | If or not enable NTP   |
| <b>Current Time</b>         | Display current time   |
| <b>NTP Settings</b>         | Setting the Time Zone  |
| <b>Primary NTP Server</b>   | Primary NTP server's IP address or domain name   |
| <b>Secondary NTP Server</b> | Options for NTP server's IP address or domain name   |
| <b>NTP synchronization</b>  | NTP synchronization cycle, cycle time can be 1 to 1440 minutes in any one, the default setting is 60 minutes |

4) Daylight Time

**Daylight Saving Time**

|                                 |                |
|---------------------------------|----------------|
| Daylight Saving Time            | Enable         |
| Offset                          | 60 Min.        |
| Start Month                     | April          |
| Start Day of Week               | Sunday         |
| Start Day of Week Last in Month | First in Month |
| Start Hour of Day               | 2              |
| Stop Month                      | October        |
| Stop Day of Week                | Sunday         |
| Stop Day of Week Last in Month  | Last in Month  |
| Stop Hour of Day                | 2              |

Set the summer time steps:

Step 1. Enable Daylight Saving Time.

Step 2. Set value of offset, like the upon picture

Step 3: Set starting Month/Week/Day/Hour in **Start Month/Start Day of Week Last in Month/Start Day of Week/Start Hour of Day**, analogously set stopping Month/Week/Day/Hour in **Stop Month/Stop Day of Week Last in Month/Stop Day of Week/Stop Hour of Day**.

Step 4. Press **Saving** button to save and press **Reboot** button to active changes.

5) System Log Setting

**Syslog Setting**

|                      |                |
|----------------------|----------------|
| Syslog Enable        | Enable         |
| Syslog Level         | INFO           |
| Remote Syslog Enable | Enable         |
| Remote Syslog Server | 192.168.10.101 |

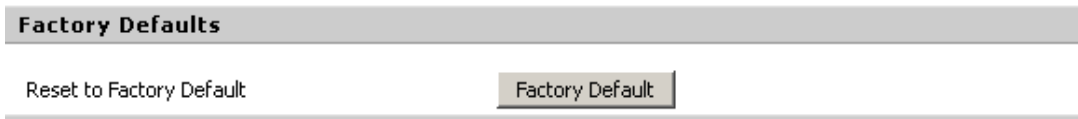
| Field Name                  | Description   |
|-----------------------------|---|
| <b>Syslog Enable</b>        | If or not enable syslog function  |
| <b>Syslog Level</b>         | Select the system log, there is INFO and Debug two grades, the Debug INFO can provide more information. |
| <b>Remote Syslog Enable</b> | If or not enable remote syslog function.  |
| <b>Remote Syslog server</b> | Add a remote server IP address.   |

6) Packet Trace



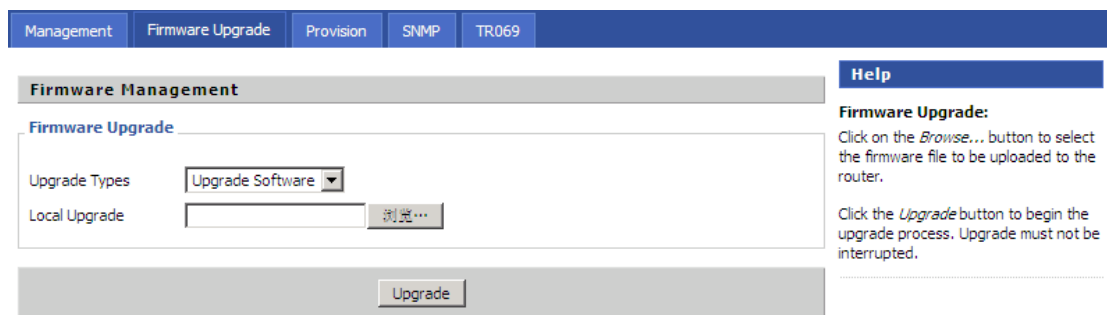
Users can use the packet trace feature intercepts the packets that were sent. Click the Start button, start dhome gateway tracking and keep refreshing the page until the message trace shows to stop, click the Save button to save captured packets.

### 7) Factory settings



Click Factory Default to restore the residential gateway to factory settings.

## 5.7.2 Firmware Upgrade



Press  to select the firmware file and press  to upgrade the firmware.

## 5.7.3 Provision

Provisioning allows G201N4 auto-upgrading and auto-configuring, and Flyingvoice devices support TFTP, HTTP and HTTPS three ways.

- ◆ Before testing or using TFTP, user should have tftp server and upgrading file and configuring file.
- ◆ Before testing or using HTTP, user should have http server and upgrading file and configuring file.
- ◆ Before testing or using HTTPS, user should have https server and upgrading file and configuring file and CA Certificate file(should same as https server's) and Client Certificate file and Private key file(HTTPS provision will be supported soon)

User can uploading CA Certificate file and Client Certificate file and Private Key file in Security page.

Notice: Please refer to documentation **Provision\_User Manual\_en\_v1.5.pdf** to use this function.

|            |                  |           |      |       |
|------------|------------------|-----------|------|-------|
| Management | Firmware Upgrade | Provision | SNMP | TR069 |
|------------|------------------|-----------|------|-------|

**Provision**

**Configuration Profile**

Provision Enable

Resync On Reset

Resync Random Delay(sec)

Resync Periodic(sec)

Resync Error Retry Delay(sec)

Forced Resync Delay(sec)

Resync After Upgrade

Resync From SIP

Option 66

Config File Name

Profile Rule

**Help**

**Provision:**  
Provision allows a device automatically resync to a specific configuration file on a TFTP server or a web server which use HTTP or HTTPS

**Firmware Upgrade**

Upgrade Enable

Upgrade Error Retry Delay(sec)

Upgrade Rule

| Field Name                           | Description   |
|--------------------------------------|---|
| <b>Provision Enable</b>              | If or not enable provision.   |
| <b>Resync on Reset</b>               | If or not enable resync after DIV378 restart  |
| <b>Resync Random Delay(sec)</b>      | Set the maximum delay for request the synchronization file, default is 40.  |
| <b>Resync Periodic(sec)</b>          | If the last resync was failure, G201N4 will retry resync after the “Resync Error Retry Delay” time, default is 3600s.   |
| <b>Resync Error Retry Delay(rec)</b> | Set the periodic time for resync, default is 3600s.   |
| <b>Forced Resync Delay(sec)</b>      | If it’s time to resync, but G201N4 is busy now, in this case, G201N4 will wait for a period time, the longest is “Forced Resync Delay”, default is 14400s, when the time over, G201N4 will forced to resync.                        |
| <b>Resync After Upgrade</b>          | If or not enable firmware upgrade after resync, by default it is enabled.   |
| <b>Resync From SIP</b>               | If or not enable resync from SIP.   |
| <b>Option 66</b>                     | It is used for In-house provision mode only. When use TFTP with option 66 to realize provisioning, user must input right configuration file name in IP542N's webpage. When disable <b>Option 66</b> , this parameter has no effect. |
| <b>Config File Name</b>              | It is used for In-house provision mode only. When use TFTP with option 66 to realize provisioning, user must input right configuration file name in IP542N's webpage. When disable <b>Option 66</b> , this parameter has no effect. |
| <b>Profile Rule</b>                  | URL of profile provision file<br>Note that the specified file path is relative to the TFTP server’s virtual root directory.   |

**Firmware Upgrade**

|                                |        |
|--------------------------------|--------|
| Upgrade Enable                 | Enable |
| Upgrade Error Retry Delay(sec) | 3600   |
| Upgrade Rule                   |        |

| Field Name                            | Description  |
|---------------------------------------|--|
| <b>Upgrade Enable</b>                 | If or not enable firmware upgrade via provision.   |
| <b>Upgrade Error Retry Delay(sec)</b> | If the last upgrade fails, G201N4 will try upgrading again after "Upgrade Error Retry Delay" period, default is 3600s. |
| <b>Upgrade Rule</b>                   | URL of upgrade file  |

## 5.7.4 SNMP

Management Firmware Upgrade Provision **SNMP** TR069

**SNMP Configuration**

SNMP Service: Disable

Trap Server Address:

Read Community Name: public

Write Community Name: private

Trap Community: trap

Trap period interval(sec): 300

**Help**

**SNMP Configuration:**  
Allow the device to be managed by the Manager which is set in the SNMP Manager IP.

| Field Name                       | Description  |
|----------------------------------|--|
| <b>SNMP Enable</b>               | If or not enable SNMP.   |
| <b>Trap Server Address</b>       | Enter the trap server address.   |
| <b>Read Community Name</b>       | String, as an express password between management progress and agent progress. |
| <b>Write Community Name</b>      | String, as an express password between management progress and agent progress. |
| <b>Trap Community</b>            | The community field in trap.   |
| <b>Trap period interval(sec)</b> | The interval of sending trap.  |



## 5.7.5 TR069

|            |                  |           |             |       |          |             |           |         |                |
|------------|------------------|-----------|-------------|-------|----------|-------------|-----------|---------|----------------|
| Status     | Network          | Wireless  | SIP Account | Phone | Security | Application | Diagnosis | Storage | Administration |
| Management | Firmware Upgrade | Provision | SNMP        | TR069 |          |             |           |         |                |

**TR069 Configuration**

**ACS**

TR069 Enable

CWMP

ACS URL

User Name

Password

Periodic Inform Enable

Periodic Inform Interval

**Connect Request**

User Name

Password

SSL Key

**Help**

**TR069 Configuration:**  
 Allow the device to be managed by the ACS server which is set in the ACS URL.

| Field Name                      | Description  |
|---------------------------------|--|
| <b>TR069 Enable</b>             | If or not enable TR069   |
| <b>CWMP</b>                     | If or not enable CWMP  |
| <b>ACS URL</b>                  | ACS URL address  |
| <b>User Name</b>                | ACS username   |
| <b>Password</b>                 | ACS password   |
| <b>Periodic Inform Enable</b>   | If or not enable the function of periodic inform, default is enable    |
| <b>Periodic Inform Interval</b> | Periodic notification interval, the unit is seconds, default is 43200s |
| <b>User Name</b>                | The username used to connect the TR069 server to the DUT.              |
| <b>Password</b>                 | The password used to connect the TR069 server to the DUT.              |
| <b>SSL Key</b>                  | Fill SSL key   |

## 6 Functions

### 6.1 Making Calls

- ◆Dial the number directly and wait for 5 seconds (default No Key Entry Timeout).
- ◆Dial the number with ending char #, G201N4 will dial out immediately
- ◆Dial the phone number which matches one dial rule, G201N4 will dial out immediately, no need to press # or wait for 5 seconds.

### 6.2 Call Waiting

Step 1.Enable waiting feature in SIP-->Line1-->supplementary Service->Call Waiting (default is Enable)

Step 2.While in conversation, user will hear a special stutter tone if there is another incoming call.

Step3.User then can press “\*77” (or Flash button)to put the current call party on hold automatically and switch to the other call. Pressing “\*77”(or Flash button) toggles between two active calls.

### 6.3 Call Hold

Step 1.While in conversation, pressing the “\*77”(or Flash button), will put the remote end on hold.

Step 2.Pressing the “\*77”(or Flash button) again, will release the previously Hold state and resume the bi-directional media.

### 6.4 Call Transferring

G201N4 supports blind transfer and attended transfer.

#### 6.4.1 Blind Transfer

Assuming that call party A and party B are in conversation, A wants to Blind Transfer B to C

Step 1.Party A dials \*98, A will hear dialing tone

Step 2.Dial party C's number, and press # (or wait for 5 seconds) to call C, then C will ring, A will be disconnected.

Step 3.If C answer the call, B and C can go on talking.

## 6.4.2 Attended Transfer

Assuming that call party A and B are in conversation. A wants to Attend Transfer B to C:

Step 1. Party A dials \*77 to hold B, A will hear dialing tone

Step 2. Dial party C's number, and press # (or wait for 5 seconds) to call C, then A will hear ringing tone.

Step 3. If C answer the call, A will talk with C firstly

Step 4. If C wants to talk with B, A press "\*98" to transfer, and then C will talk with B. If C does not talk with C successfully, A will talk with B again.

## 6.5 3-way conference call

Assuming that call party A and B are in conversation. A wants to add C to the conference:

Step 1. Party A dials \*77 to hold B, A will hear dialing tone

Step 2. Dial party C's number, and press # (or wait for 5 seconds) to call C, then A will hear ringing tone.

Step 3. If C answer the call, A will talk with C firstly

Step 4. If C receive the conference, A press "\*88" to add C to the conference, and then A, B and C are in conference.

## 6.6 Call Forwarding

Step 1. Open Phone→Preferences→Call Forward, enable the one call forward mode and fill forwarded number

Step 2: G201N4 will forward incoming call to the forwarded number according to the settings of Call Forward and call status

## 6.7 Direct IP calls

Direct IP calling allows two phones, that is, an home gateway with an analog phone and another VoIP Device, to talk to each other without a SIP proxy. VoIP calls can be made between two phones if:

Both home gateway and the other VoIP device (i.e. another home gateway or other SIP products) have public IP addresses, or

Both home gateway and the other VoIP device (i.e. another home gateway or other SIP products) are on the same LAN using private or public IP addresses, or

Both home gateway and the other VoIP device (i.e. another home gateway or other SIP products) can be connected through a router using public or private IP addresses

To make a direct IP call,

Step 1: Picking up the analog phone or turning on the speaker phone on the analog phone

Step 2: Input the IP address directly with ending char #. E.g. call 192.168.20.34, dial

## 6.8 Speed dialing

Notice: The current firmware does not support speed dial, will be added in new branch firmware.

Step 1.Set phone number(E.g.3333) in SIP Account→Line 1→Speed Dial, and then save the changes

Step 2.Dial\*74 to active speed dial function

Step 3.Then dial 2 to call 3333, and G201N4 will dial out immediately.

**Speed Dial**

|              |                                   |              |                      |
|--------------|-----------------------------------|--------------|----------------------|
| Speed Dial 2 | <input type="text" value="3333"/> | Speed Dial 3 | <input type="text"/> |
| Speed Dial 4 | <input type="text"/>              | Speed Dial 5 | <input type="text"/> |
| Speed Dial 6 | <input type="text"/>              | Speed Dial 7 | <input type="text"/> |
| Speed Dial 8 | <input type="text"/>              | Speed Dial 9 | <input type="text"/> |

## 6.9 Hotline

Step 1.Set hotline in SIP Account→Line 1→Supplementary Service Subscription, you can refer to the following picture. And then save the changes.

**Supplementary Service Subscription**

**Supplementary Services**

|              |                                     |          |                                  |
|--------------|-------------------------------------|----------|----------------------------------|
| Call Waiting | <input type="text" value="Enable"/> | Hot Line | <input type="text" value="511"/> |
|--------------|-------------------------------------|----------|----------------------------------|

Step 2.Picking up handset or press speaker button, G201N4 will ring hotline immediately.

If you want to delay some seconds after pick up the handset, please add delay time. For example, G201N4 will call 511 after user picks up the handset for 4 seconds.

**Supplementary Service Subscription**

**Supplementary Services**

|              |                                     |          |                                    |
|--------------|-------------------------------------|----------|------------------------------------|
| Call Waiting | <input type="text" value="Enable"/> | Hot Line | <input type="text" value="511T4"/> |
|--------------|-------------------------------------|----------|------------------------------------|

## 6.10 Daylight Saving Time

Daylight Saving Time (or summer time as it is called in many countries) is a way of getting more light out of the day by advancing clocks by some hour during the summer. During Daylight Saving Time, the sun appears to rise one hour later in the morning, when people are usually asleep anyway, and sets one hour later in the evening, seeming to stretch the day longer.

Step 1.Open Administration/Management webpage.

Step 2.Enable parameter Daylight Saving Time in Time/Date.

Step 3.Set offset: “-60” means advancing 60min, “60” means delaying 60min.

Step 4.Set starting Month/Week/Day/Hour in Start Month/Start Day of Week Last in Month/Start Day of Week/Start Hour of Day, analogously set stopping Month/Week/Day/Hour in Stop Month/Stop Day of Week Last in Month/Stop Day of Week/Stop Hour of Day.

Step 5.Press Saving button to save and press reboot button to active changes.

## 6.11 Upgrade Firmware

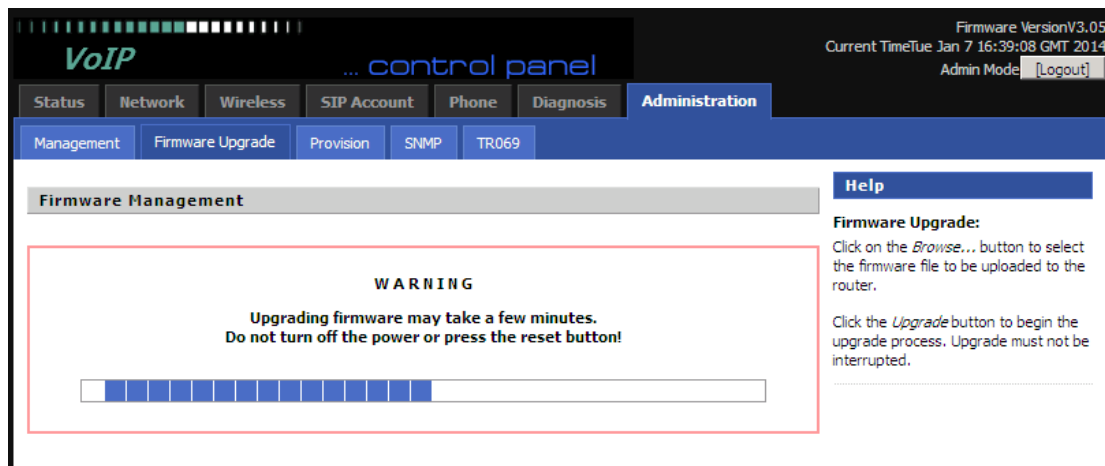
Function is to upgrade firmware in local.

Step 1.Open Administration/Firmware Upgrade webpage

Step 2.Press  to browse a firmware file

Step 3.Press  to start upgrading

Step 4.When upgrading, there will be prompt like below



## 6.12 Password Control

Function is to reset password.

Step 1.Open Administration/Management webpage

Step 2.Choose password type

Step 3.Input current password (Original Password, default is “admin” for admin level and user for user level),

Step 4.Input new password in New Password and Password Confirm.

Step 5.Press Save Settings button to save and then press Reboot button to make changes effective.

## 6.13 Web Access

User can use the two parameters in Web Access to control WAN web login or login port.

WAN Interface Login is to disable/enable user access to web via WAN port;

Web Login Port is to set login port.

## 6.14 System log

User can view system log in local or in remote.

In local:

Step 1.Open Administration/Management page, System Log Setting column.

Step 2.Choose log level from INFO and Debug, in INFO level, G201N4 records INFO log, and in Debug level, G201N4 records all debug information.

Step 3.Press Save button to save and then press Reboot button to make changes effective.

In remote:

Step 1.Open Administration/Management page, System Log Setting column.

Step 2.Fill system server IP Address or domain name into Syslog Server.

Step 3.Choose log level from INFO and Debug, in INFO level, G201N4 records INFO log, and in Debug level, G201N4 records all debug information.

Step 4.Press Save button to save and then press Reboot button to make changes effective.