

MUC1004/2008/2016

IP PBX

Installation guide

Version V1.0

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1. Preparation before installation

Please make sure the following devices are available before installation:

Contents of box

Upon receiving MUC series PBX gift box, please open the package and check if all the items are supplied as Packing List (see Table1-1).If there is any problem, please contact your provider.

Item	Unit	QTY	Description
MUC1004/2008/2016	PC	1	MUC1004/2008/2016 main box
AC adapter	PC	1	Input of 100-240V AC power, Output DC12V/1A(Only for MUC1004); Input of 100-240V AC power, Output DC12V/3A(for MUC2008/2016);
Power cord	PC	1	For the input of 100-240V AC power(only for MUC2008/2016)
Phone line	PC	2	
Network cable	PC	1	
Antenna			For wireless module (optional, according to the number of GSM/UMTS module)

Table1-1 Packing List

2. Hardware specifications

2.1 overview

Figure 2-1 Front view of MUC1004



Figure 2-2 Front view of MUC2008



Figure 2-3 Front view of MUC2016



Table 2-1 Description of Front view

Index	Indicators	Description
1	RUN	On: Starting Off: Abnormal Blinking every 0.5s: Normal status
2	PWR	On: Power on Off: Power off
3	WAN,LAN	Green LED: indicates the Internet interface is in Link. Yellow LED: ON is indicates 100MBps Ethernet port.
4	1~4,(5~8), (9~16)	Red LED stands for FXO port Orange LED indicates presence of a BRI port.

		<p>Green LED stands for FXS port</p> <p>Red LED blinks: FXO port isn't connected to PSTN line.</p> <p>Alternately blinks Red and Green: FXO port has an incoming call.</p> <p>Alternately blinks Red and Green fast: FXO port is in a call.</p> <p>Alternately blinks Green and Red: FXS port is ringing.</p> <p>Alternately blinks Green and Red fast: FXS port is in a call.</p>
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Figure 2-4 Rear view of MUC1004



Figure 2-5 Rear view of MUC2008



Figure 2-6 Rear view of MUC2016



Table 2-2 Description of Rear view

Index	Interface	Description
1	RST	Reset button to restore default IP and password or restore factory setting. Hold RST button 8 seconds, RUN LED being ON during this time
2	DC 12V	Power connector of DC power. Input: DC12V 3A/DC12 1A(MUC1004 only)
3	USB	For the storage of call recording files
4	WAN,LAN	MUC2008 provides two 10/100 adaptive RJ45 Ethernet ports, marked as LAN and WAN. -LAN port :LAN port is for the connection to Local Area Network -WAN port : WAN port is the network port for the connection to internet. It supports "DHCP server", "PPPoE/dynamic DNS", and "static IP"for IP address assignment.
5	1~4,(5~8), (9~16)	FXO port (red light): For the connection of PSTN lines or FXS port of traditional PBX.MU2008 users could make or receive calls via FXO port. FXS port (green light): For the connection of analog phones. BRI port (orange port): For the connection of ISDN BRI lines. MU2008 users could make or receive calls via BRI port. Note: The sequence number of the port corresponds to that of the indicator lights in the front panel.

2.2 Specifications and Operating Environment

	Description
Size	185*152*45mm(MUC1004);220*197*45mm(MUC2008); 323*197*45mm(MUC2016)
Power supply	MUC1004: AC100~240V,50/60Hz Input, DC 12V/1A Output MUC2008/2016: AC100~240V,50/60Hz Input, DC 12V/3.3A Output
Operation	0~50°C
Storage	-20~80°C
Operation	10%~90%

3. MUC Series IP-PBX Installation

To avoid unexpected accident , personal injury or device damage , please read the following instruction before installing the device.

3.1 Placement Instructions

- Ambient temperature: to avoid overheating, please do not run the device in the place where the ambient temperature is above 50°C.
- Ventilation: please make sure that the device has good ventilation around
- Anti-jamming: there may be some sources of interference that might affect the normal running of MUC series device. It is highly recommend that the device:
 - Should be placed away from high-power radio, radar transmitters and high frequency, and high-current devices.
 - Is using independent power junction box and effective anti-grid interference measures have been taken.
- Mechanical load: Please make sure that the device is placed steadily to avoid any accident that might cause damage. If places on the desktop, Please ensure it is horizontally placed.

3.2 Installation Instructions

After placing the device in a suitable place, please connect the power adapter and all other cables following the instructions below.

We use the MUC2008 device as an installation case as follows:

3.2.1 Connection of Ethernet Ports

All the MUC series IP-PBX provide two standard 10/100M adaptive RJ45 Ethernet port, LAN port and WAN port.

- WAN Port Connection

Connection one end of the network cable to the WAN port of MUC series device, and the other end to Ethernet port of a hub, switch or ADSL modem.

- LAN Port Connection

Connection one end of the network cable to the LAN port of MUC series device, and the other end to any port of LAN switch/router.

- NOTE: if the LAN port is connected to a PC directly, please use cross-over cable.



Figure 3-1 Network cable connection

3.2.2 Connection of FXO/GSM/UMTS/BRI Ports

The MUC series device support various outside lines (FXO, GSM, UMTS, and BRI).

1. connection of FXO ports

The FXO port could be connected to the PSTN line or the FXS port of a traditional PBX with a phone line.

For instance, if the port 1 and port 2 are FXO port, the connection could be like as below:



Figure 3-2 PSTN connection

The other end of phone line connects to PSTN line or a FXS of traditional PBX.

2. Connection of GSM/UMTS port

If port7 and port8 are GSM/UMTS ports, the steps of connection are as below:

Step1: Open the Upper case of MU2008

Step2: Insert the SIM card:

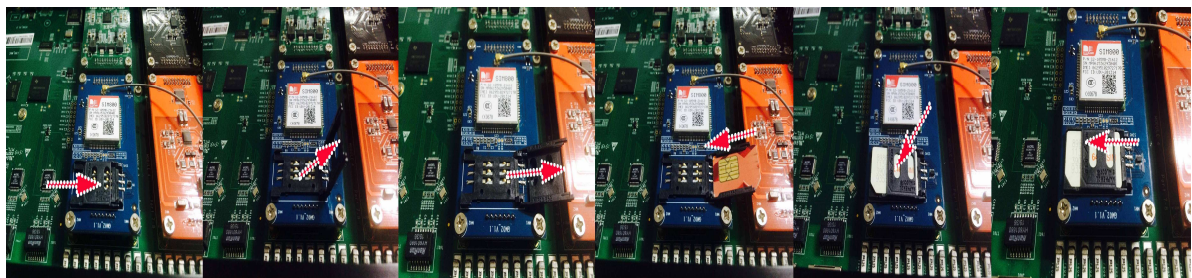


Figure 3-3 Inserting the SIM Card

Step3: Connect the antenna



Figure 3-4 Install the Antenna

3. Connection of BRI port

The BRI port could be connected to the BRI line or the BRI port of a traditional PBX with a BRI RJ45-RJ11 cable.

3.2.3 Connection of FXS Ports

The FXS port could be connected to an analog phone or a fax with a phone line.

For instance, if the port 1 and port 2 are FXS port, the connection could be like as below:



Figure 3-5 FXS Connection

The other end of the phone line connects to an analog phone.

3.2.4 Power Connection

After make sure the device has installed completed, connect the power cord. The MUC series adapt 12VDC Power adapter, make sure AC power supply grounded well to ensure the reliability and stability.

- Notes: incorrect power connection may damage power adapter and device.

3.2.5 Overall Flow Chart



Figure 3-5 Overall Flow chat

There are some typical application of the MUC series IP-PBX.

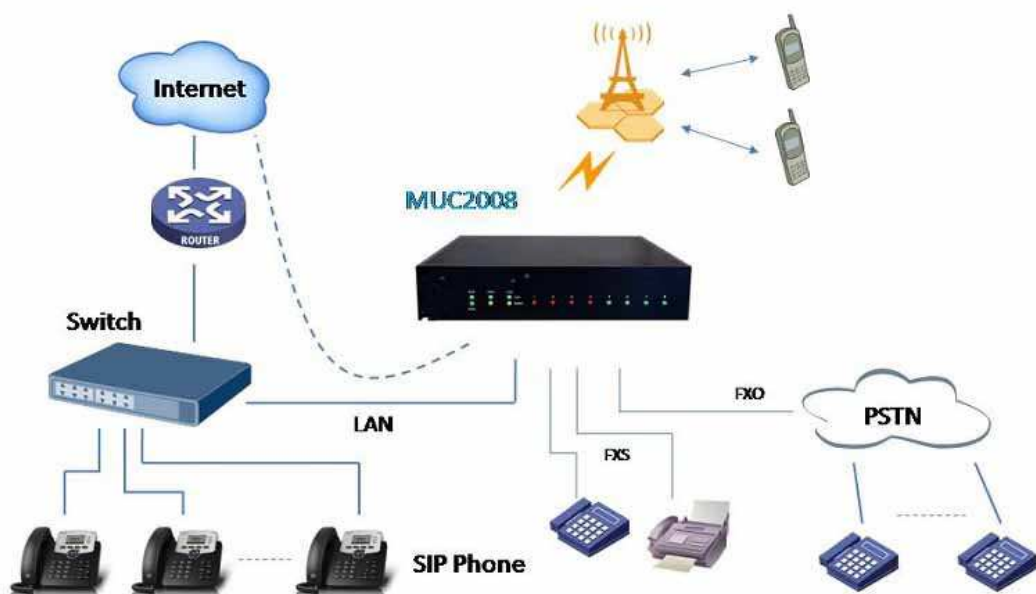


Figure 3-6 Application1

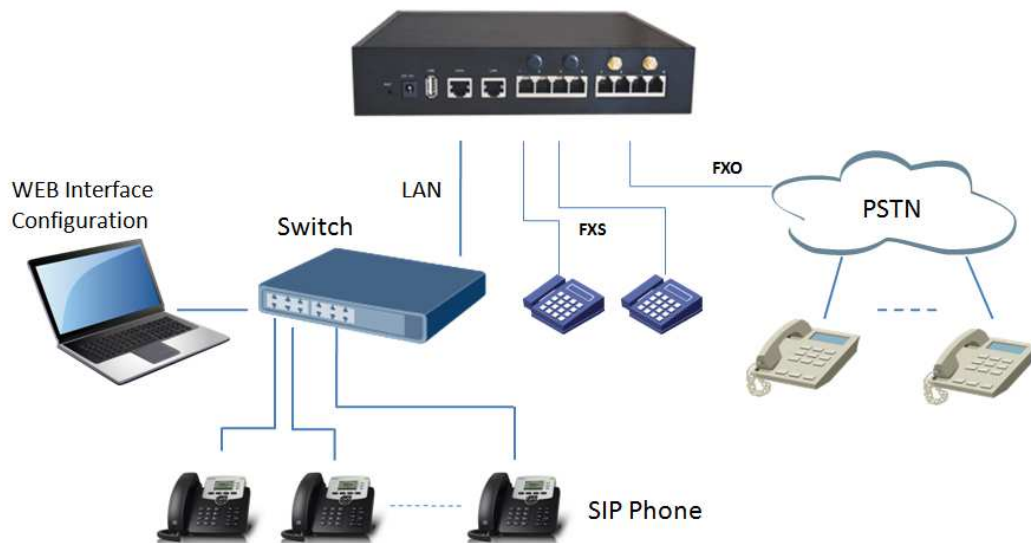


Figure 3-7 Application2

Also, the MUC series can cooperate with the MWG series (VOIP GSM/UMTS Gateway) for more flexible and powerful wireless application.

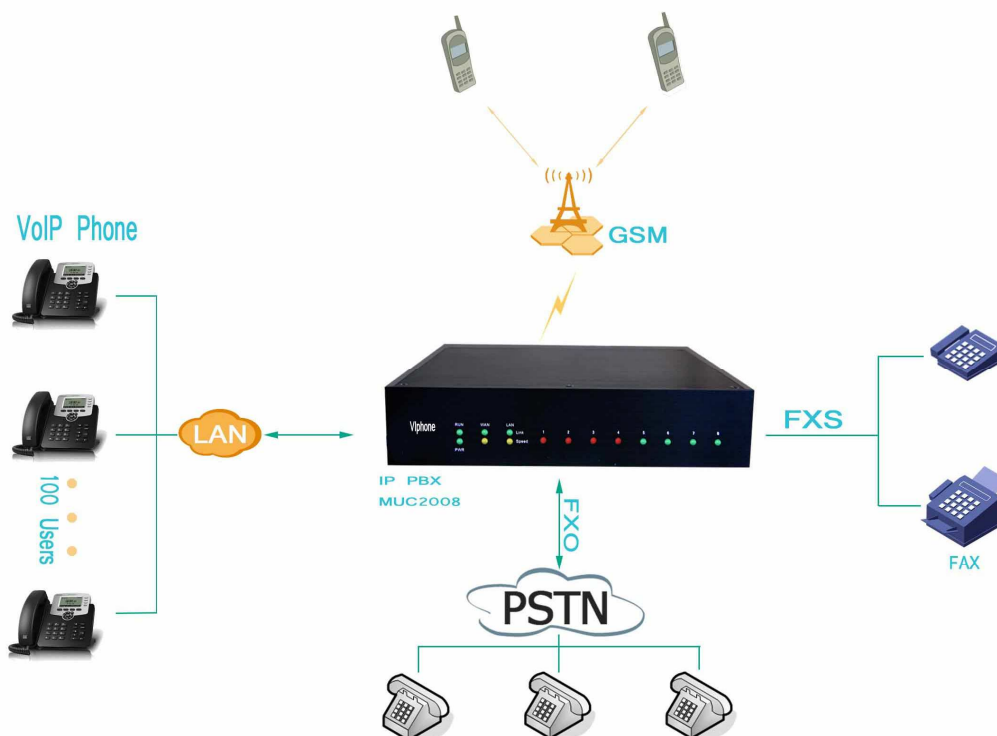


Figure 3-8 Application3

4. MUC series Basic Configurations

4.1 Factory Defaults

The MUC series device provide web-based configuration interface for administrator and account user. The administrator can manage the device by log in the web interface.

The factory default IP address:

LAN: 192.168.6.200

Access path:http://[IP address]

User name: admin

Password: password

Default SIP UDP port: 5060

There are 6 extensions set up by default. The extension numbers are "100"- "105" and the password is generated randomly.

4.2 Web Interface Configuration

The MUC series PBX contains an embedded web server to set parameters by using the HTTP protocol. We are strongly recommend to access device with Google Chrome or Firefox Browser. Enter IP address of MUC2008 in IE/Google Chrome/Firefox Browser. The default IP of LAN port is 192.168.6.200. Enter username and password and then click "Login" in configuration interface. The default username and password are "admin/admin" and the GUI shows as below:

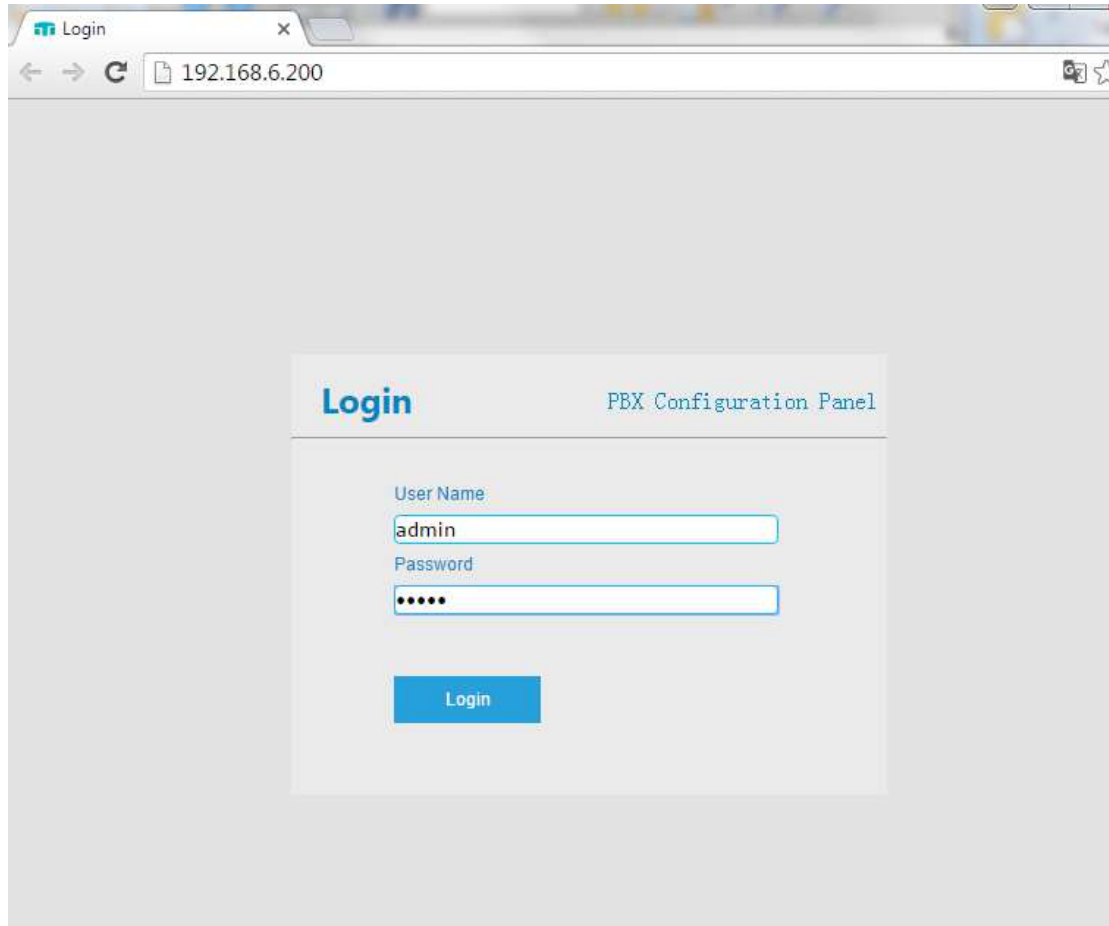


Figure 4-1 Web login interface

- **NOTE:** please check if the IP address that assigned to the network port (LAN or WAN) is in the same segment with the PC's IP address.

Via the web configuration interface, the admin can set all the system configuration, including Network Configuration、Trunks、PBX Basic、PBX inbound call control、PBX Advanced settings、Voice Management、System Preferences、Phone Provisioning、Reports and System Tools.

Go through navigation tree, user can check, view, modify, and set the device configuration on the right of configuration interface.



Figure 4-2 Web Management System

It is strongly recommended, change the default password to a new password for system security .Click "System Preferences"->"Password" on the web.

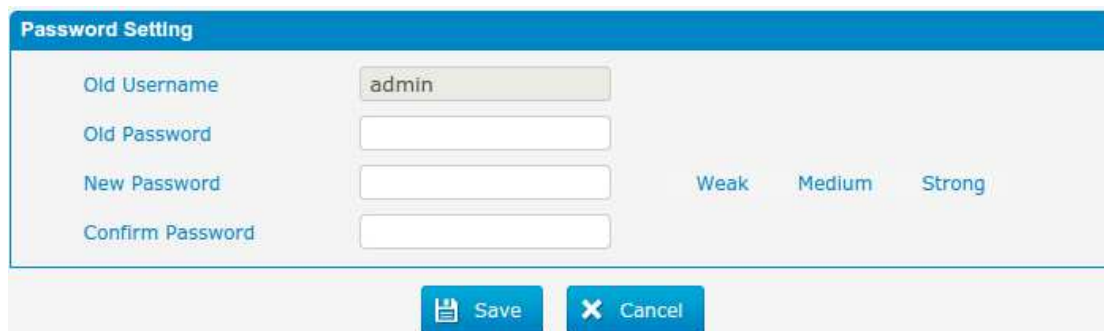


Figure 4-3 Password Setting

4.3 Network Settings

After logging in the web configuration interface, generally the first step is to configure the IP address. We also suggest the user to change the IP of LAN port. If the WAN port is connected to the Internet, its IP address need to be configured.

● WAN settings

Click "Network Configuration"->"WAN Configuration" on the navigation tree.

There are three options to configuration, DHCP 、 Static IP Address or PPPoE, user can choose any one according to practical situation. For instance, use can Choose"DHCP", show as below:

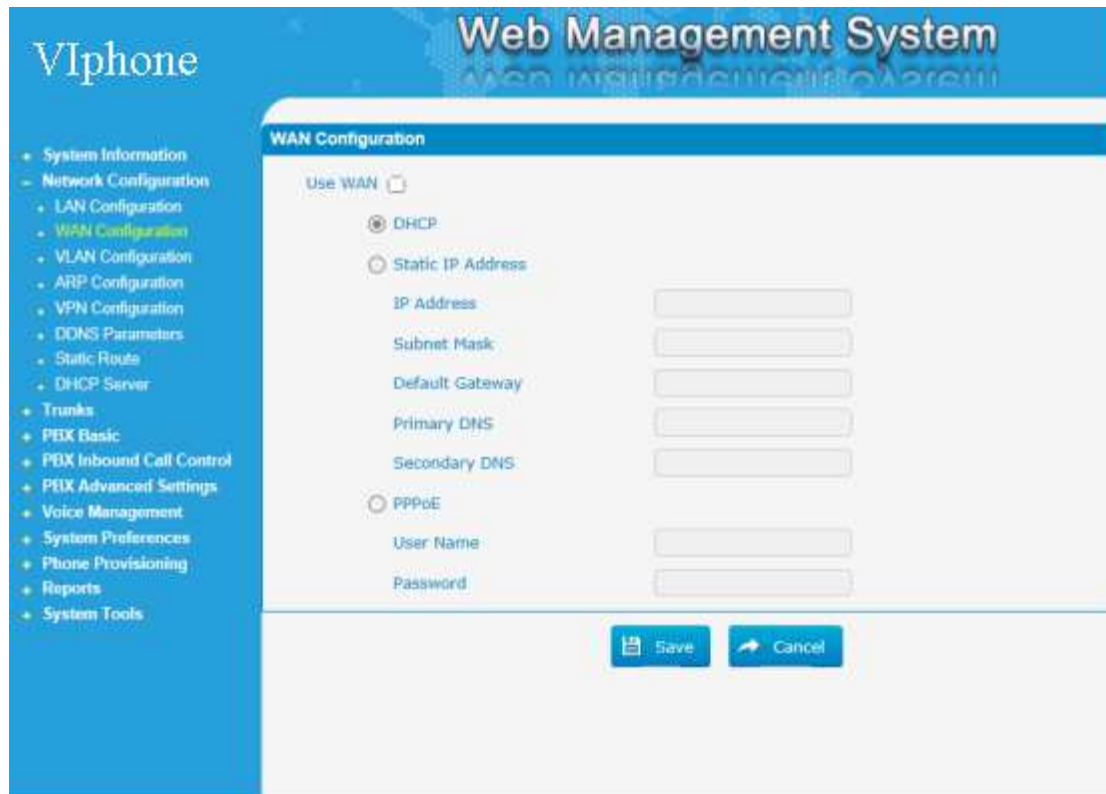


Figure 4-4 WAN Setting

● LAN settings

Click "Network Configuration"->"LAN Configuration" on the navigation tree.

LAN port is used for the interoperability of MUC2008.If LAN port is connected to the company's LAN, please configure the correct IP address and corresponding subnet mask.

For instance, we choose the "static IP Address" and change the IP to "192.168.1.118"



Figure 4-5 LAN Setting

- Note: After setting the IP address of LAN port or WAN port, you need to Click "Save "and reboot the device to make the new setting taking effect.

4.4 Reset to Factory Defaults

If you forget the new IP address or the password of admin, or in other case you want to restore the factory defaults. Please press the "RST" button located in the back panel with and hold 8 seconds with a paper clip or a pencil tip.

5.Conclusion

This Installation Guide only explains the installation and basic setting, for more detail about functionality and setting, please refer to the relative documents as below:

"MUC1004_Datasheet_V1.0"

"MUC1004 Administrator_guide_V1.0"

"MUC2008_Datasheet_V1.0"

"MUC2008 Administrator_guide_V1.0"

"MUC2016_Datasheet_V1.0"

"MUC2016 Administrator_guide_V1.0"