

# MicroPBX

## *Installation Manual*



**allo.com**

1-877-YES-ALLO | [WWW.ALLO.COM](http://WWW.ALLO.COM)

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## Box Contents

1. MicroPBX Unit
2. 1GB Flash Card (installed)
3. 256MB RAM (installed)
4. Power Adapter
5. Power Cable
6. RJ45 Ethernet Cable



## 1. Installation

- Step 1: Plug one end of the RJ45 Ethernet cable into your Switch / Router
- Step 2: Plug the other end of the RJ45 Ethernet cable into the LAN1 port of the MicroPBX
- Step 3: Plug the Power Cable into the Power Adapter. Plug the Power Cable into an available power outlet
- Step 4: Plug the Power Adapter into the "DC-IN" port of the MicroPBX
- Step 5: Turn on the Power Switch at the back of the MicroPBX
- Step 6: Configure your MicroPBX according to the instructions below

## 2. VoIP Configuration

### 2.1 Getting the IP Address

There are three (3) ways of getting the IP address of your MicroPBX:

1. Plug a screen to the MicroPBX, turn it on and when it finishes loading, it will display the IP address.
2. Getting the IP provisioned to the MicroPBX by checking the DHCP Server Logs on the network.
3. Connect a laptop with a Crossover cable to the LAN2 port of the MicroPBX and access the MicroPBX GUI by going to IP address: <http://10.0.0.1> ; Log into the interface with admin / admin and go to the Status page. The WAN IP address will be located under Networking Status > IP Address. Unplug the laptop / pc.

Now that you have the WAN IP address, you must log into the web panel. Open your browser and point it to [http://\[WANIPADDRESS\]](http://[WANIPADDRESS]).

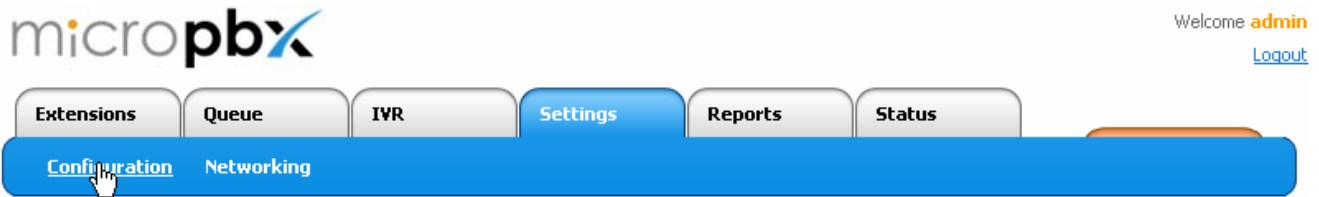
### MicroPBX



On the login screen, the default username and password is "admin". Press the LOGIN button to enter the MicroPBX web panel.

## 2.2 Configuring VoIP SIP Credentials

Navigation: **Settings > Configuration**: This is where you setup your SIP Credentials.



**If you are using ALLO.COM as your VoIP provider:**

- Under the VoIP Network configuration section, make sure the "Connect to ALLO.COM" option is checked. Input your ALLO.COM VoIP username and password.

### VoIP Network configuration

Connect to ALLO.COM  ?

Proxy address

Proxy port

Username

Password

Realm

Timeout

NAT

**If you are using a 3<sup>rd</sup> party VoIP provider:**

- Under the VoIP Network configuration submenu, ensure that "Connect to ALLO.COM" is unchecked, and fill in Proxy Address, Proxy Port, Username, Password and Realm information given to you by your VoIP provider.

### VoIP Network configuration

Connect to ALLO.COM  ?

Proxy address

Proxy port

Username

Password

Realm

Timeout

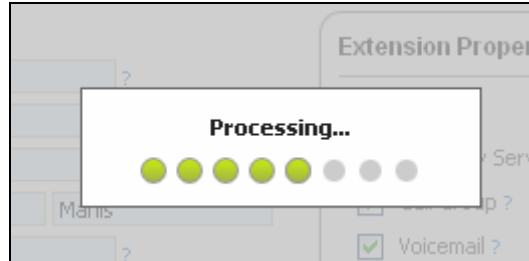
NAT

Hit the Update button to apply the changes. An orange “**Apply changes**” button will appear at the top-right hand corner, if it wasn’t there already. Press this button.

Welcome **admin**  
[Logout](#)

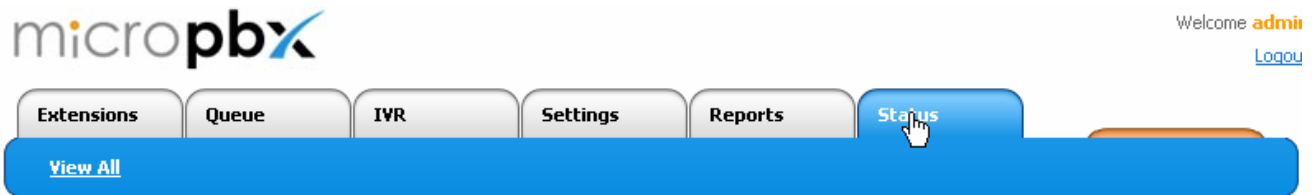


The page will then display a progress screen:

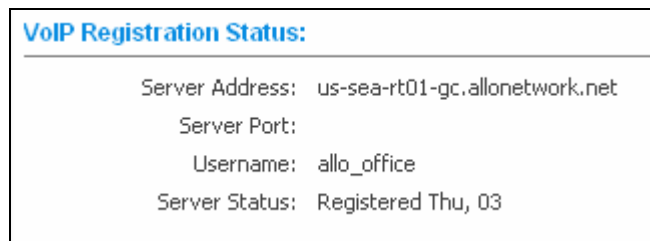


### 2.3 Checking Registration

To ensure successful registration, you must click the “**Status**” button on the top menu.



Under “**VoIP Registration Status**” you will see the server status. If it displays “**Registered**” then it is successfully configured. If it displays anything else, redo step 2.2.



## 3. Setting Up Features

### 3.1 Extensions

#### 3.1.1 What is an Extension?

Extensions are the core of the MicroPBX.

This is pretty straight forward. An extension is a number mapped to a person. So basically, every employee that is connected to the MicroPBX should have their own extension number, so that he/she can be reached, and be able to place calls.

#### List of Current Extensions:

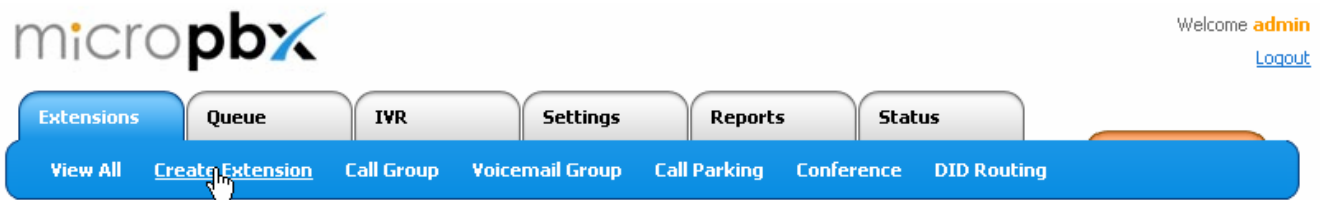
Ext.#	Username	Description	Directory	Call Group	Voicemail	Queue	Roaming	Edit	Delete
201	horashadow	Horacio	✓	✓	✓	✓			
202	test	Test User							
222	valentin	Valentin	✓	✓	✓	✓			
224	jenny	Jenny	✓	✓	✓	✓			
225	elyssa	ElyssaManis	✓	✓	✓	✓			
226	bernard	Bernard	✓	✓	✓	✓			
227	fabiola	Fabiola	✓	✓	✓	✓			

An Extension can be part of other features, such as: Call Groups, Queues, Voicemail Groups, etc. Also, the extension can have a voicemail of its own.

With Allo.com's MicroPBX, you can create up to 30 extensions.

#### 3.1.2 Configuring an Extension

Navigation: [Extensions](#) > [Create Extension](#): This is where you setup your extensions.



#### General Information

1. Extension #: Unique identifier (eg: 201)
2. Password: the password for the extension (eg: 201)
3. Description: a short description of the extension
4. First & Last Name: the first and last name of the person to be used as Caller ID
5. Login Username: the username for the person to access their web panel
6. Login Password: the password for the person to access their web panel

General Information	
Extension # *	<input type="text"/>
Password *	<input type="password"/>
Retype Password *	<input type="password"/>
Description *	<input type="text"/>
First & Last Name *	<input type="text"/> <input type="text"/>
Login Username *	<input type="text"/>
Login Password *	<input type="password"/>
Retype Password *	<input type="password"/>

## Extension Properties

1. Queue: makes the extension available when creating a Queue
2. Directory Service: makes the extension available in the Directory Service
3. Call Group: makes the extension available when creating a Call Group
4. Voicemail Group: makes the extension available when creating a Voicemail Group
5. Roam Extension: Enables the extension to be accessible from anywhere in the world using the ALLO.COM network just as if it were on the local LAN. Use only when required.

**Extension Properties**

---

Queue ?

Directory Service ?

Call Group ?

Voicemail ?

Roam Extension ?

## Voicemail Alert

1. e-mail: the email address of the user of the extension
2. Notify: enable this if you wish to be notified by email when a new voicemail is received
3. Attach Voicemail: enable this if you wish to receive the voicemail in WAV format as an email attachment. Notify has to be enabled.

**Voicemail Alert** [What is this?](#)

---

e-mail \*

Notify me by e-mail when I receive a Voicemail

Include the Voicemail as an attachment

## ATA Provisioning

The MicroPBX can auto configure an ALLO.COM ATA.

1. MAC: enter the WAN MAC address of the ALLO.COM ATA
  - a. Phone1: configures Phone1 port with the current extension
  - b. Phone2: configures Phone2 port with the current extension
  - c. Line & Bridge: allows the MicroPBX to dial out using this ATA's PSTN line

**ATA Provisioning** [What is this?](#)

---

MAC  Phone 1  Bridge

## Voicemail PIN Number

The PIN number to retrieve voicemail messages for this extension.

**Voicemail PIN Number** [What is this?](#)

---

PIN #\*

## Call Forwarding

Forwards an incoming call to this extension to any phone number. It can be PSTN, cellular, National or International number.

**Call Forwarding** [What is this?](#)

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Phone #

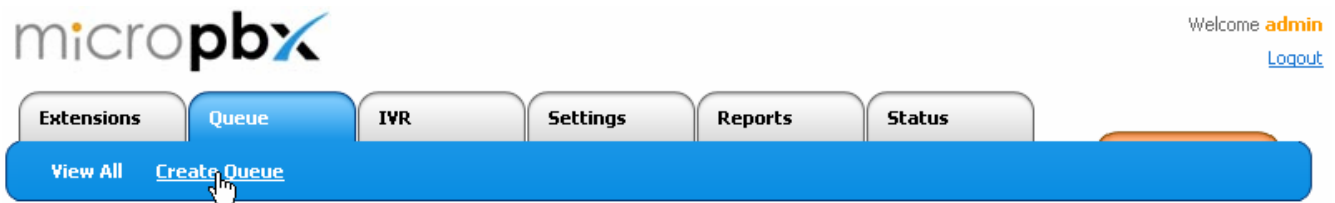
## 3.2 Queue

### 3.2.1 What is a Queue?

A Queue is a series of calls waiting on hold to be answered. Calls are answered according to their order of arrival, first in first out. A Queue is composed of one or many extensions.

### 3.2.2 Configuring a Queue

Navigation: [Queue](#) > [Create Queue](#): This is where you setup your Queues.



## Queue Details

1. Queue Name: the name of the Queue
2. Queue Type:
  - a. Ring All: rings all available extensions
  - b. Round Robin: takes turns ringing each available extension
  - c. Least Recent: rings the extension which was least recently called by this queue
  - d. Fewest Calls: rings the extension with fewest complete calls from this queue
  - e. Random: rings a random extension
  - f. Round Robin Memory: performs a Round Robin remembering where we left off with the last ring pass
3. Max Queue Length: the maximum number of callers waiting in queue for an available representative.

**Queue details**

---

Queue Name \*

Queue Type  ?

Max Queue Length  ?

## Announce Options

1. Announce Hold Time: announces an estimated hold time to the caller in queue
2. Announce Frequency: how often a caller is announced of his/her position in queue
3. Wrap-Up Time: after a call is finished, the time it takes an extension to become available again

### Announcement Options

---

Announcement Hold Time  Yes  No ?

Announce Frequency  ?

Wrap-up Time  ?

## List of Available Members

The list of available members that could be part of this queue

### List of Available Members ?

---

Horacio Arevalo

Valentin Piersic

Jenny Bohorquez

## Members

1. Priority: the frequency a member is sought out to answer the incoming call

### Members

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Ext.#	Username	Priority ?	Delete
-------	----------	------------	--------

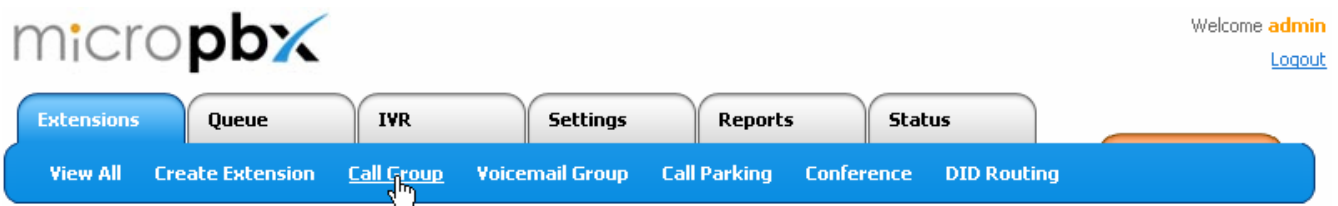
## 3.3 Call Group

### 3.3.1 What is a Call Group?

A Call Group is a pre-programmed group of call recipients (extensions) that ring at the same time.

### 3.3.2 Configuring a Call Group

Navigation: [Extensions](#) > [Call Group](#): This is where you setup your Call Groups



### Create a New Call Group

1. Call Group Name: the name of the Call Group
2. Available Members: the list of available extensions that could be part of this Call Group
3. Members in Group: the list of extensions that belong to this Call Group

**Create a New Call Group**

Group Name \*

**Members in Group ?** **Available Members ?**

← →

- 201 - Horacio Arevalo
- 222 - Valentin Piersic
- 224 - Jenny Bohorquez
- 225 - Elyssa Manis
- 226 - Bernard Tchao

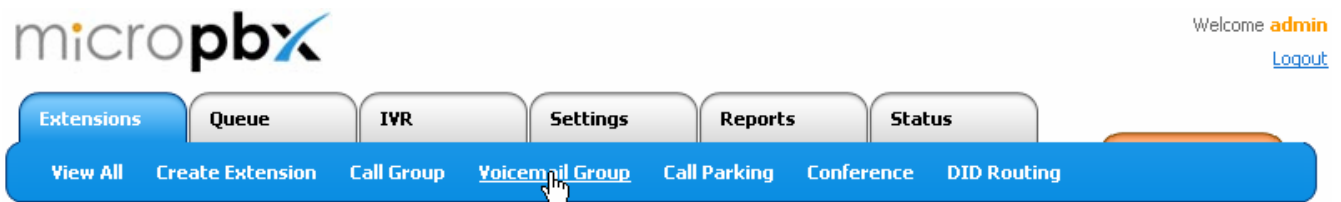
## 3.4 Voicemail Group

### 3.4.1 What is a Voicemail Group?

A Voicemail Group is a pre-programmed group of voicemail recipients. All the members of this group will receive the same voicemail message.

### 3.4.2 Configuring a Voicemail Group

Navigation: [Extensions > Voicemail Group](#): This is where you setup your Voicemail Groups



## Create a New Voicemail Group

1. Voicemail Group Name: the name of the Voicemail Group
2. Available Members: the list of available extensions that could be part of this Voicemail Group
3. Members in Group: the list of extensions that belong to this Voicemail Group

**Create a New Voicemail Group**

Group name \*

**Members in Group ?** **Available Members ?**

← →

- 201 - Horacio Arevalo
- 222 - Valentin Piersic
- 224 - Jenny Bohorquez
- 225 - Elyssa Manis
- 226 - Bernard Tchao

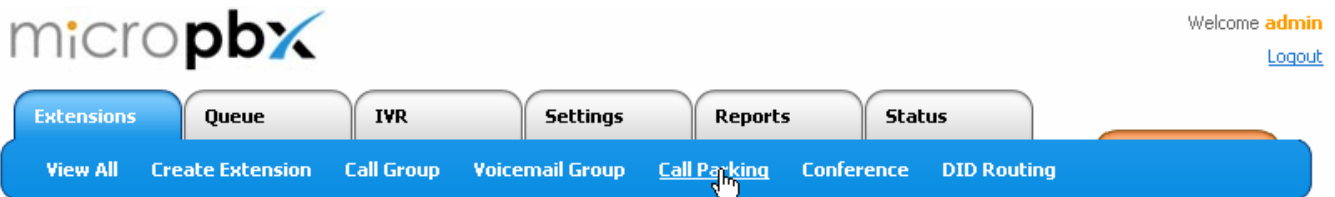
## 3.5 Call Parking

### 3.5.1 What is Call Parking?

Call Parking is an advanced version of On Hold.

### 3.5.2 Configuring Call Parking

Navigation: [Extensions](#) > [Call Parking](#): This is where you setup your Call Parking



## Change Call Parking Settings

1. Range: The amount of placeholders dedicated to park calls.

**Change Call Parking Settings**

Range  ?

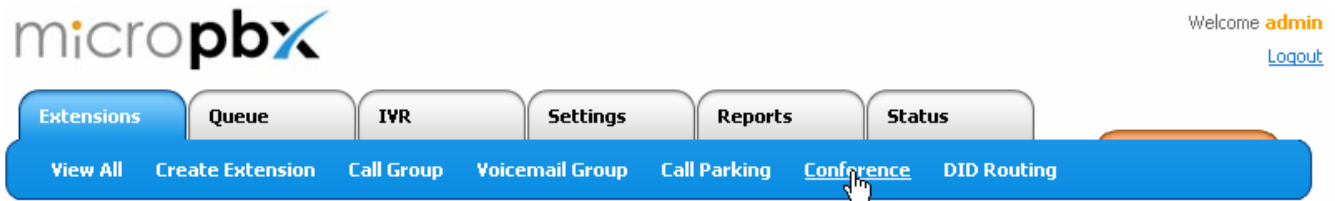
## 3.6 Conference

### 3.6.1 What is a Conference?

A Conference is a virtual space where meetings can be held with unlimited participants. It is managed by a virtual operator.

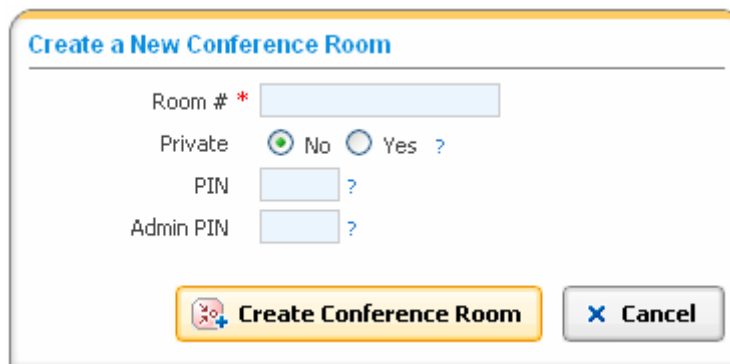
### 3.6.2 Configuring a Conference

Navigation: [Extensions](#) > [Conference](#): This is where you setup your Conference rooms



#### Create a New Conference Room

1. Room Number: the number of the room
2. Private: if enabled, the conference is password protected
3. PIN: a numeric password used to enter a private conference
4. Admin PIN: a numeric password to administer a private conference

The image shows a dialog box titled 'Create a New Conference Room'. It contains the following fields:

- 'Room #' with an asterisk and a text input field.
- 'Private' with two radio buttons: 'No' (selected) and 'Yes'.
- 'PIN' with a text input field and a question mark.
- 'Admin PIN' with a text input field and a question mark.

At the bottom, there are two buttons: 'Create Conference Room' (with a plus icon) and 'Cancel' (with an X icon).

## 3.7 DID Routing

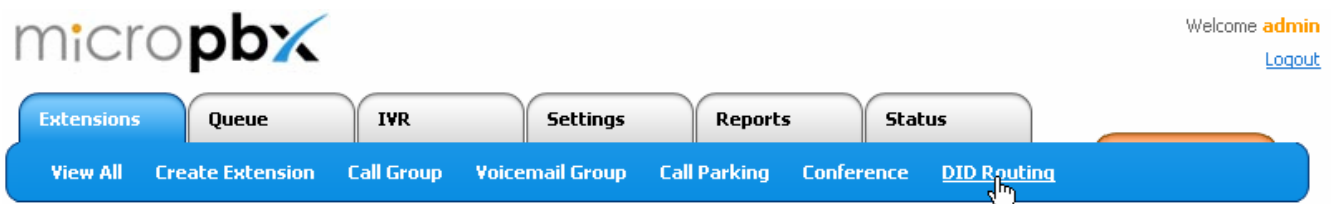
### 3.7.1 What is a DID?

A DID is an incoming phone number.

DID Routing is a feature that enables incoming calls to be routed directly to selected stations without attendant assistance.

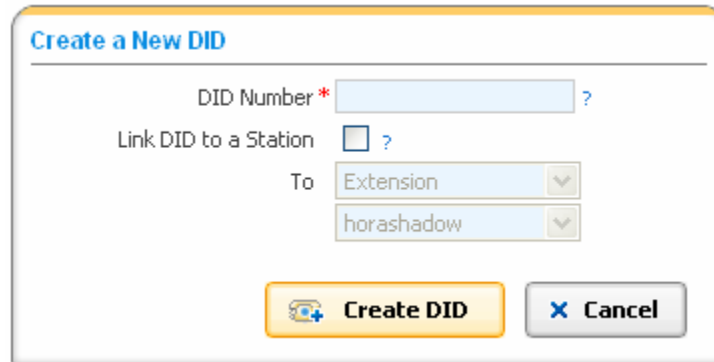
### 3.7.2 Configuring DID Routing

Navigation: [Extensions](#) > [DID Routing](#): This is where you setup your DID Routing



## Create a New DID

1. DID Number: a virtual number associated with your VoIP service
2. Link DID to a Station: when enabled, all incoming calls through this DID are going to be redirected to the selected station



The dialog box titled "Create a New DID" contains the following fields and controls:

- DID Number \* [text input] ?
- Link DID to a Station  ?
- To [Extension] [dropdown]
- [horashadow] [dropdown]
- [Create DID] button
- [Cancel] button

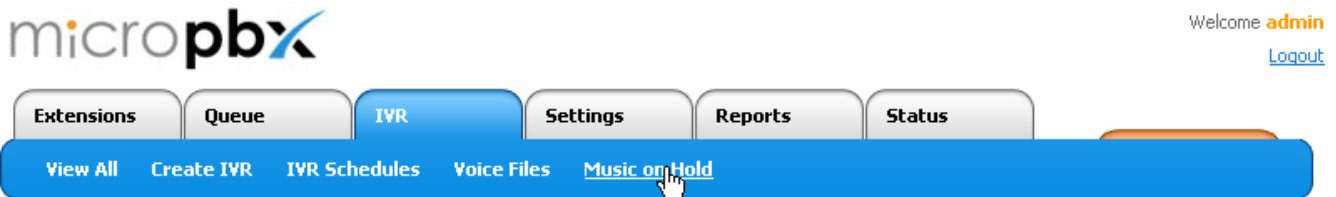
## 3.8 Music on Hold

### 3.8.1 What is Music on Hold?

Music on Hold is the pre-recorded music which fills the silence that would be heard by telephone callers that have been placed on hold.

### 3.8.2 Configuring Music on Hold

Navigation: [IVR > Music on Hold](#): This is where you setup Music on Hold

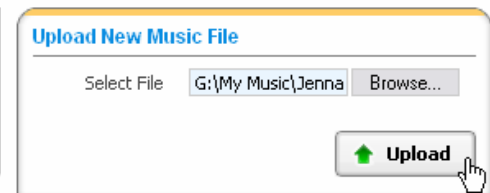


## Upload New Music File

1. Select File: by pressing the "Browse" button, you can navigate your local PC to locate an audio file in mp3 format.

### Music on hold files:

File Name	Size	Play	Delete
Almadraba - If you could see my eyes	7376640 Kb		
<b>Total memory usage for music files:</b>		<b>7203.75 Mb</b>	



The dialog box titled "Upload New Music File" contains the following fields and controls:

- Select File [G:\My Music\Jenna] [Browse...]
- [Upload] button

## 3.9 Voicemail Operator

### **3.9.1 What is a Voicemail Operator?**

A Voicemail Operator is an interactive wizard which guides you to fetch your voicemail. The default number to dial is 800.

### **3.9.2 Configuring a Voicemail Operator**

Navigation: [Settings > Configuration > Prefixes and Directory Service > Voicemail Operator](#): This is where you setup your Voicemail Operator

**Prefixes and Directory Service**

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Dial out	<input type="text" value="9"/>	?
Dial Bridge	<input type="text" value="8"/>	?
Blind transfer	# <input type="text" value="2"/>	?
Attended transfer	# <input type="text" value="3"/>	?
VoiceMail Operator	<input type="text" value="800"/>	?
Conference Operator	<input type="text" value="700"/>	?
Directory Service	<input type="checkbox"/>	?

## 3.10 Conference Operator

### **3.10.1 What is a Conference Operator?**

A Conference Operator is an interactive wizard which guides you to join a conference. The default number to dial is 700.

### **3.10.2 Configure a Conference Operator**

Navigation: [Settings > Configuration > Prefixes and Directory Service > Conference Operator](#): This is where you setup your Conference Operator

## 3.11 Directory Service

### **3.11.1 What is Directory Service?**

Directory Service is an interactive wizard which guides you to reach the correct extension by inputting the first three letters of the last name.

### **3.11.2 Configuring Directory Service**

Navigation: [Settings > Configuration > Prefixes and Directory Service > Directory Service](#): This is where you enable or disable your Directory Service. When enabled, it appears as an option in the Creation of IVR screen.

## **3.12 Blind Transfer**

### **3.12.1 What is Blind Transfer?**

Blind Transfer is when a call is transferred to an extension without announcing the transfer to the recipient. To use this feature in a conversation, press #[Prefix] – the default prefix is #2.

### **3.12.2 Configuring Blind Transfer**

Navigation: [Settings > Configuration > Prefixes and Directory Service > Blind Transfer](#): This is where you configure Blind Transfer.

## **3.13 Attended Transfer**

### **3.13.1 What is Attended Transfer?**

Attended Transfer is when a call is transferred to an extension while announcing the transfer to the recipient. To use this feature in a conversation, press #[Prefix] – the default prefix is #3.

### **3.13.2 Configuring Attended Transfer**

Navigation: [Settings > Configuration > Prefixes and Directory Service > Attended Transfer](#): This is where you configure Attended Transfer.

## **3.14 Dial Out**

### **3.14.1 What is Dial Out?**

Dial Out is the prefix to dial when making an outgoing call using VoIP. The default prefix is 9.

### **3.14.2 Configuring Dial Out**

Navigation: [Settings > Configuration > Prefixes and Directory Service > Dial Out](#): This is where you configure Dial Out.

## **3.15 Dial Bridge**

### **3.15.1 What is Dial Bridge?**

Dial Bridge is the prefix to dial when making an outgoing call using the ATA's PSTN port specified in an Extension. The default prefix is 8.

### **3.15.2 Configuring Dial Bridge**

Navigation: [Settings > Configuration > Prefixes and Directory Service > Dial Bridge](#): This is where you configure Dial Bridge.

## 4. Setting Up the Interactive Voice Response (IVR)

### 4.1 Voice Files

#### 4.1.1 What are Voice Files?

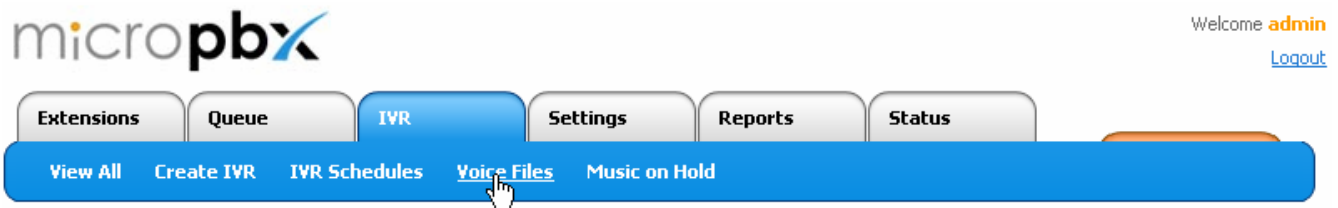
Voice Files are the pre-recorded audio files that are going to be played during the IVR playback. These files can be recorded with any audio recording software, or by hiring a Voice Talent.

**Example:**

*“Welcome to ACME Corp! If you know your party’s extension, please dial it now.  
Press 1 for Customer Service  
Press 2 for Billing  
Press 3 for Shipping”*

#### 4.1.2 Configuring Voice Files







Navigation: [IVR](#) > [Voice Files](#): This is where you setup your Voice Files



#### Upload New Voice File

1. Select File: by pressing the “Browse” button, you can navigate your local PC to locate a pre-recorded voice file in WAV format.
2. Description: a small description of the file

#### Voice files:

File Name	Description	Size	Play	Delete
allo_office_IVR_01	welcome01	3863204 Kb		
Night	Night file	1905164 Kb		
welcome	welcome	4092524 Kb		
<b>Total memory usage for voice files:</b>		<b>9629.78 Mb</b>		

#### Upload New Voice File

Select File \*

Description \*

## 4.2 Create IVR

### 4.2.1 What is an IVR?

An IVR is a pre-recorded interactive operator defined by a sequence of actions that provides a customer with a better call experience. An IVR can be 'chained' with other IVR's creating a multi-level IVR system.

#### Example:

*"Welcome to ACME Corp! If you know your party's extension, please dial it now.  
Press 1 for Customer Service  
Press 2 for Billing  
Press 3 for Shipping"*

Customer presses 1 for Customer Service, triggering a new IVR:

#### Example:

*"Press 1 for Residential Service  
Press 2 for Business Service"*

IVR's can be sent to any other feature, such as: Extensions, Queues, Call Groups, Voicemail Groups, Conference Operator, etc.

### 4.2.2 Configuring an IVR

#### General Information

1. Name: the name of the IVR

General information	
Name	Morning_IVR

#### Sequences > Add Sequence:

1. Step: the order in which the sequences are going to be triggered
2. Type: the type of sequence
  - a. Answer The Call: answers the call
  - b. Playback With Keypress: plays an audio file reacting to the keypress of the caller
  - c. Playback Without Keypress: plays an audio file without reacting to the keypress of the caller
  - d. Wait: waits a certain amount of seconds
  - e. Hang Up The Call: hangs up the call
  - f. Loop This IVR: start this IVR from step 1
  - g. Dial an Extension: automatically dials an extension specified
  - h. Allow Caller to Dial an Extension: allows a caller to dial an extension while the IVR is being played
  - i. Launch Directory Service: a virtual operator that helps the caller reach the correct extension by spelling out the last name

**Sequences:**

**Add Sequence ?**

step: 1 type: Playback without keypress

No.	Action	Delete
	Answer the call	
	Playback with keypress	
	Playback without keypress	
	Wait	
	Hang Up the call	
	Loop this ivr	
	Dial an extension	
	Allow caller to dial an extension	

## Keypress Options > Add Keypress:

1. Number: the number to be pressed
2. Go To: the type of station to be connected to. Only the available features are visible

**Keypress Options:**

**Add New Keypress ?**

Nr: 0  Go to: Extension

Extension  
IVR  
Conference Operator  
Voice Mail Operator

**Press** **Delete**

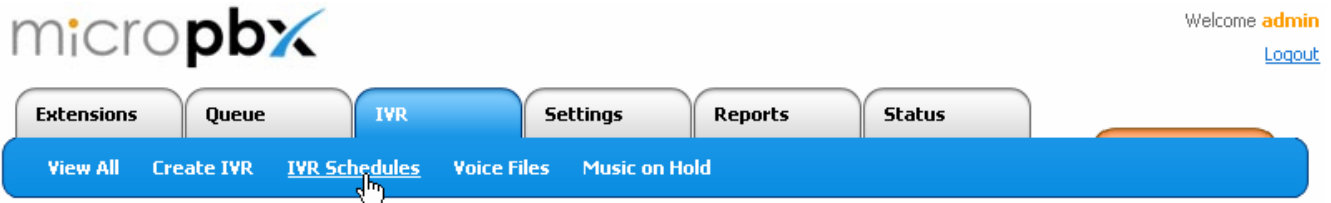
## 4.3 IVR Schedules

### 4.3.1 What is an IVR Schedule?

An IVR Schedule allows an IVR to be played at a specific time. You can create multiple schedules, and play different IVR's based on specific times.

### 4.3.2 Configuring IVR Schedules

Navigation: [IVR > IVR Schedules](#): This is where you setup your IVR Schedules



## Create a Schedule

1. Name: the name of the schedule
2. Description: a short description of the schedule
3. IVR Menu: the IVR menu to be triggered
4. Day Range: the days to play the IVR Schedule
5. Time Range: the hours within the Day Range to play the IVR Schedule

### Current schedules: what is this?

Name	Description	Days	Hours	Edit	Delete
Welcome	working hours	Mon to Fri	09:00 to 17:00		
Night	Non working morning	Mon to Fri	00:00 to 09:00		
Night	Non working night	Mon to Fri	17:00 to 23:55		
Night	Non working Weekends	Sat to Sun	00:00 to 23:55		

### Create a schedule:

**information:**

Name\*

Description\*

IVR Menu

**Day Range**

From  To

**Time Range**

From:  :

To:  :

**Create Schedule**

## 4.4 Time Configuration

### 4.4.1 What is Time Configuration?

Time Configuration is the local time settings of the MicroPBX. It is used to trigger different IVR Schedules.

### 4.4.2 Configuring Time Configuration

Navigation: [Settings](#) > [Configuration](#) > [Time Configuration](#): this is where you setup your Time Configuration

**Time configuration**

Date  Year (yyyy)

Month (MM)

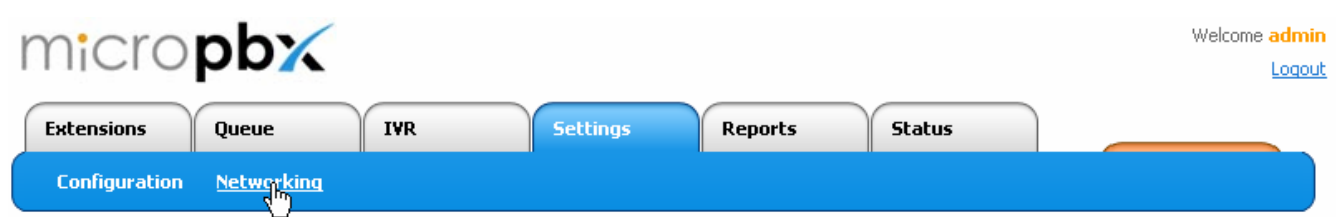
Day (dd)

Time  :

## 5. Networking

Networking occurs anytime you connect two or more computers together so that they can share resources.

Navigation: [Settings > Networking](#): This is where you setup your Networking Configuration



### 5.1 WAN Configuration

#### 5.1.1 What is WAN Configuration?

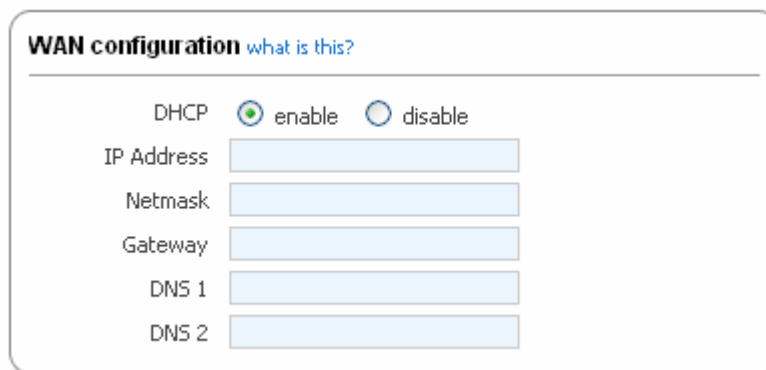
WAN Configuration is the Internet settings of your MicroPBX.

#### 5.1.2 Configuring WAN Settings

Navigation: [Settings > Networking > WAN Configuration](#): This is where you setup your WAN Configuration

#### WAN Configuration

1. DHCP: when enabled and a DHCP server is available, the MicroPBX will auto configure itself. If DHCP is not available, select Disable, and fill in the Network Configuration
2. IP Address: the IP address corresponding to your LAN configuration\*
3. Netmask: the Netmask corresponding to your LAN configuration\*
4. Gateway: the IP address corresponding to your Gateway\*
5. DNS 1: the IP address corresponding to a DNS server\*
6. DNS 2: the IP address corresponding to a DNS server\*

The image shows a screenshot of the 'WAN configuration' form. The title is 'WAN configuration' with a link 'what is this?'. Below the title are several fields: 'DHCP' with radio buttons for 'enable' (selected) and 'disable'; 'IP Address' with a text input field; 'Netmask' with a text input field; 'Gateway' with a text input field; 'DNS 1' with a text input field; and 'DNS 2' with a text input field.

\*Contact your Network Administrator for this information

## 5.2 LAN Configuration

### 5.2.1 What is LAN Configuration?

Use this setting in the event that you want to use the MicroPBX as your network router.

### 5.2.2 LAN Configuration

Navigation: [Settings > Networking > LAN Configuration](#): This is where you setup your LAN Configuration

#### LAN Configuration

1. IP Address: the IP address corresponding to your LAN configuration\*
2. Netmask: the Netmask corresponding to your LAN configuration\*
3. DHCP IP Start: the first IP in the lease range\*
4. DHCP Leases: the number of leases allowed\*

**LAN configuration** [what is this?](#)

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IP Address

Netmask

DHCP IP start

DHCP leases

\*Contact your Network Administrator for this information

## 5.3 Host Configuration

### 5.3.1 What is Host Configuration?

Host Configuration is used to manage your MicroPBX's Host Name and Domain Name.

### 5.2 Host Configuration

Navigation: [Settings > Networking > Host Configuration](#): This is where you setup your Host Configuration

#### Host Configuration

1. Host Name: the name of the device inside the network
2. Domain Name: the workgroup name

**HOST configuration** [what is this?](#)

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Host name

Domain name

## 6. Glossary of Terms

### ALLO.COM

Allo.com is a VoIP provider and the developer of the MicroPBX. Visit <http://www.allo.com> for more information.

### ATA

Analog Telephone Adapter: Used to connect a standard telephone to a high-speed modem to facilitate VoIP and/or fax calls over the Internet.

### CHANNEL

A transmission path between two points. It is usually the smallest subdivision of a transmission system by means of which a single type of communications service is provided.

### DHCP

Short for Dynamic Host Configuration Protocol, a protocol for assigning dynamic IP addresses to devices on a network. With dynamic addressing, a device can have a different IP address every time it connects to the network. DHCP also supports a mix of static and dynamic IP addresses.

### DID

Direct Inward Dial. A specially configured phone line from the telephone company that allows for dialing inside a company directly without having to go through an attendant. A DID line cannot be used for outdial operation since there is no dialtone offered. However, it can be configured so an outside caller can reach an inside extension with a 7-digit number through the phone company's central office.

### DNS

The Domain Name System is the system that translates Internet domain names into IP numbers. A "DNS Server" is a server that performs this kind of translation.

### GATEWAY

A network point that acts as an entrance to another network.

### IP ADDRESS

Every machine that is on a network (a local network, or the network of the Internet) has a unique IP number [four sets of numbers divided by period with up to three numbers in each set. (ie 192.168.0.100)] - If a machine does not have an IP address it cannot be on a network.

### IVR

Interactive Voice Response: A system to automatically manage incoming calls, IVR can link phone callers (voice and/or touchtone) with a computer database. It can accept a question, access the company's database and provide a caller with the information they are seeking. It can also take information from the caller, convert it to data and input that data to the database.

### LAN

Local Area Network: A LAN is a group of computers and associated devices that share a common communications line or wireless link and typically share the resources of a single processor or server within a small geographic area (for example, within an office building).

### NETMASK

Used by the TCP/IP protocol to decide how the network is broken up into sub-networks (ex: 255.255.255.0).

### PBX

Private Branch Exchange: An in-house telephone switching system that interconnects telephone extensions to each other, as well as to the outside telephone network.

### PROXY

A server that receives requests intended for another server and that acts on the behalf of the client behalf (as the client proxy) to obtain the requested service. A proxy server is often used when the client and the server are incompatible for direct connection. For example, the client is unable to meet the security authentication requirements of the server but should be permitted some

### SIP

Session Initiation Protocol: An application-layer control protocol, a Signaling protocol for Internet Telephony. SIP can establish sessions for features such as audio/videoconferencing, interactive gaming, and call forwarding to be deployed over IP networks thus enabling service providers to integrate basic IP telephony services with Web, e-mail, and chat services. In addition to user authentication, redirect and registration services, SIP Server supports traditional telephony features such as personal mobility, time-of-day routing and call forwarding based on the geographical location of the person being called.

### PSTN

Public Switched Telephone Network: This is defined as the regular telephone network services.

### VOIP

Voice over Internet Protocol. The technology used to transmit voice conversations over a data network using the Internet Protocol. Such data network may be the Internet or a corporate Intranet.

### WAN

Stands for Wide Area Network. A computer network that spans a relatively large geographical area. Typically, a WAN consists of two or more local-area networks (LANs).