

master



ioBroker.asterisk / docs / SIP_FRITZBOX.md

Thorsten Stueben Update ✓



0 contributors



Executable File | 182 lines (137 sloc) | 8.08 KB

ioBroker Asterisk VoIP Adapter

Install / Basic setting

You have to install asterisk for voip calls and ffmpeg to transcode mp3 audiofiles to GSM audiofiles on your ioBroker hardware. For creating text messages to audio messages the online text to speach tool from Google will be used.

You can install asterisk and ffmpeg on Linux (Raspberry), Windows and Apple Macs Computer. If you want to install asterisk in a docker container in bridge modus, you have to expose the UDP ports 5038,5060 and the UDP Ports 7078 to 7097.

You shall install asterisk and ffmpeg on the same hardware as ioBroker! The reason is that the audio files are stored locally and accessible from ioBroker and asterisk.

If you want still using separated server for ioBroker and Asterisk you can use the ssh support. You still install ffmpeg or sox on the ioBroker server. Asterisk and a ssh server on the asterisk server. You find the detailed installation [here](#) .

if you use Linux (Raspberry for example) and ioBroker and asterisk runs on the same server, you have to install ffmpeg and asterisk like this:

Linux Packages / ioBroker & asterisk running on same server with ffmpeg

```
sudo apt-get install ffmpeg
sudo apt-get install asterisk
```

Linux Packages / ioBroker & asterisk running on same server with SOX

If you have problems with transcoding with ffmpeg you can choose sox as transcoder. For that, you have to install following packages and choose sox in the adapter configuration.

```
sudo apt-get install lame
sudo apt-get install sox
sudo apt-get install libsox-fmt-mp3
sudo apt-get install asterisk
```

Install & Configuration of Asterisk with the Fritzbox by using SIP

First you have to open the Fritzbox configuration and add a new LAN/WLAN telephone device. In my example, the FritzBox has the IP address 192.168.1.1 and the user name is *12345689* und the password is *mypassword* . The telephone number for outgoing and incoming calls is *03047114711*.

FRITZ!Box 7490 Live TV FRITZ!NAS MyFRITZ!

Telefoniegerät am Anschluss "LAN/WLAN" ?

IP-Telefon Anmeldeinformationen

Die Rufnummer, die Sie unter "Ausgehende Anrufe" angeben, bestimmt die Standard-Verbindungsart und die abgehende Rufnummer des IP-Telefons.

Name

Ausgehende Anrufe

Dieses Telefon darf ausgehende Anrufe ins In- und Ausland tätigen. [Ändern](#)

Ankommende Anrufe

auf alle Rufnummern reagieren

nur auf folgende Rufnummern reagieren

6
 6
 6
 6
 6
 6

(Rufnummer für ausgehende Gespräche)

If you do not want, that ioBroker answer the phone, please leave "nur auf folgende Rufnummern reagieren" empty. Important, the Fritzbox username (Benutzername) musst only consist of numbers. Example: 12345689, 00004711 or 47110815 !!

FRITZ!Box 7490 Live TV FRITZ!NAS MyFRITZ!

Telefoniegerät am Anschluss "LAN/WLAN" ?

IP-Telefon Anmeldeinformationen

Verwenden Sie die folgenden Anmeldeinformationen, um Ihr IP-Telefon an der FRITZ!Box anzumelden.

Registrierung oder

Benutzername

Kennwort

Anmeldung aus dem Internet erlauben
 Bitte stellen Sie bei Aktivierung dieser Option sicher, dass ein sicheres Kennwort für das IP-Telefon vergeben ist, da über die Anmeldung Gespräche aufgebaut und Kosten verursacht werden können.

First you have to configure the connection from ioBroker to the Asterisk server on "Asterisk Settings" tab. This configuration is independent if you use as SIP Provider your Fritzbox, Telekom, Sipgate or an other vendor. Normaly the username is **manager** . You can choose any password you want. But manager username and manager password in ioBroker must be the same as in the manager.conf later.

The screenshot shows the 'Adapter configuration: asterisk.0' window with the 'ASTERISK SETTINGS' tab selected. The interface includes a sidebar with navigation options like Overview, Adapters, Instances, Objects, Enums, Log, Scripts, and Hosts. The main configuration area contains the following fields:

- Audio language: english
- Please choose transcoder: ffmpeg
- IP/Hostname of Asterisk Server: 192.168.1.2
- Port: 5038
- Username (Manager): manager
- Password (Manager): [masked]
- Path for temporary audio files: /opt/iobroker/asterisk
- Checkbox: Create Asterisk config files (once) [unchecked]

At the bottom, there are buttons for 'SAVE', 'SAVE AND CLOSE', and 'CANCEL'.

If you are done with the configuration of "Asterisk Settings" you switch to the "SIP Settings" tab. Choose **sip** as Service. Now you have to enter following:

1. IP/Hostname of SIP Server : your IP address of your Fritzbox (in our example 192.18.1.1)
2. Username of SIP Server: insert your Benutzernamen on Anmelde Daten of your Fritzbox Telefoniegerät (in our example 123456789)
3. Password of SIP Server: insert your Kennwort on Anmelde Daten of your Fritzbox Telefoniegerät

The screenshot shows the 'Adapter configuration: asterisk.0' window with the 'SIP SETTINGS' tab selected. The interface includes the same sidebar as the previous screenshot. The main configuration area contains the following fields:

- Service: sip
- IP/Hostname of SIP server: 192.168.1.1
- Username of SIP Server: 123456789
- Password of SIP Server: [masked]

At the bottom, there are buttons for 'SAVE', 'SAVE AND CLOSE', and 'CANCEL'.

Leave the "SSH" tab empty if asterisk and iobroker runs on the same machine (server). If you want to use ssh look here: Configuration [ssh/scp](#) (ioBroker and asterisk runs on different server).

Automatic creating asterisk configuration files

Now you go on the "Asterisk Settings" tab and activate the checkbox "create asterisk config files (once)". Save and start the Asterisk instance. copy following files from your /tmp/ to the /etc/asterisk/ directory. Please take a look first which user rights the files have before copying in /etc/asterisk . Maybe you have to adjust the user rights afterwards.

```
sudo mv /tmp/extensions.ael /etc/asterisk/extensions.ael
sudo mv /tmp/manager.conf /etc/asterisk/manager.conf
sudo mv /tmp/sip_fritzbox.conf /etc/asterisk/sip.conf
sudo mv /tmp/rtp.conf /etc/asterisk/rtp.conf
```

```
# Example if userrights of files have owner asterisk and group asterisk
sudo chown asterisk:asterisk /etc/asterisk/extensions.ael
sudo chown asterisk:asterisk /etc/asterisk/manager.conf
sudo chown asterisk:asterisk /etc/asterisk/sip.conf
sudo chown asterisk:asterisk /etc/asterisk/rtp.conf
```

Now start asterisk again. For example with /etc/init.d/asterisk restart and restart the Asterisk iobroker instance. Everything shall work now and you are done with the configuration. Please delete all config files in the /tmp/ directory, because your password is provide in the files.

Manual creating asterisk configuration files

Instead of creating the config files automatically, you can do it by your own. Now you have to edit the follwoing asterisk configuration files. Delete the old staff in this 4 files! Do not change the user authority and user rights of the files.

/etc/asterisk/manager.conf

```
[general] ; Do not change
enabled = yes ; Do not change
port = 5038 ; Do not change
bindaddr = 0.0.0.0 ; Do not change

[manager] ; Do not change
secret = managerpassword ; Change Manager password
permit = 0.0.0.0/0.0.0.0 ; Change to your subnet a
read = all ; Do not change
write = all ; Do not change
```

You have to change in `/etc/asterisk/manager.conf` the values *secret*, *permit* (your subnet + subnet mask).

`/etc/asterisk/rtp.conf`

```
[general]
rtpstart=30000
rtpend=30100
```

You have to change in `/etc/asterisk/rtp.conf` nothing. Copy only this file.

`/etc/asterisk/sip.conf`

```
[general] ; Do not change
port = 5060 ; Do not change
bindaddr = 0.0.0.0 ; Do not change
context = default ; Do not change
subscribecontext = default ; Do not change
```

register => 12345689:mypassword@192.168.1.1/1000 ; Username, Password and IP addr

```
[123456789] ; Change to username of Fritzbox WLAN/LAN
type = friend ; Do not change
username = 123456789 ; Change to username of Fritzbox WLAN/LAN
host = 192.168.1.1 ; Change hostname / IP address of Fritzbc
secret = mypassword ; Change password of Fritzbox WLAN/LAN te
fromdomain = 192.168.1.1 ; Change hostname / IP address of Fritzbc
fromuser = 123456789 ; Change username of Fritzbox WLAN/LAN te
```

You have to change in `/etc/asterisk/sip.conf` the *host* (IP Adress of Fritzbox or VoIP Provider), the *secret*, *username*, *fromuser* with the username configured in the Fritzbox or VoIP Provider. Change the *callerid* with your phone number configured in the Fritzbox. Important, the Fritzbox username (Benutzername) must only consist of number. Example: 12345689, 00004711 or 47110815 !!

`/etc/asterisk/extensions.ael`

```
context default {
    1000 => {
        Goto(ael-antwort,s,1);
    }
}

context ael-ansage {
    _ . => {
        Answer();
        Wait(1);
    }
}
```

```

        Read(dtmf,${file}&beep,0,s,${repeat},1);
        if ("${dtmf}" != "") {
            SayDigits("${dtmf}");
        }
        Hangup();
    }

    h => {
        if ("${del}" = "delete") {
            NoOp(/bin/rm ${file}.*);
            System(/bin/rm ${file}.*);
        }
    }
}

context ael-antwort {
    s => {
        Answer();
        Wait(1);
        Set(repeat=5);
        Read(dtmf,/tmp/asterisk_dtmf&beep,0,s,${repeat},1);
        if ("${dtmf}" != "") {
            SayDigits("${dtmf}");
        }
        Hangup();
    }

    _ . => {
        Goto(ael-antwort,s,1);
    }
}
}

```

Copy the content above into the `/etc/asterisk/extensions.ael` and do not change anything! If you change something here, your ioBroker dial command will not work.

For starting the asterisk server type `/etc/init.d/asterisk start` Now you have to connect ioBroker with the asterisk server. If the ioBroker and the asterisk server use as IP adress 192.168.1.2 you have to configure this IP and the port, username and password from the `/etc/asterisk/manager.conf` and the unsername of your sip.conf (for example 123456789). You have enter a path for temporary audio files. This path must be accessible and authorized for Asterisk and ioBroker.