

FreePBX: customизация диалплана на коленке

Обо мне:



- Образование - высшее, техническое
- Инженер провайдера связи
- Инженер коллцентра
- Разработка и внедрение Asterisk

Преимущества FreePBX

- **Open Source** Открытый Исходный Код
- **Web-based** Интуитивно понятный интерфейс
- **Secure** Управление фаерволом и пользователями
- **Flexible** Поддержка разнообразного оборудования
- **Multi-Language** Языковой барьер убран.

Что если хочется большего

- **Class of Service**
 - CRM Link
 - Web CallBack
 - Boss/Secretary
 - Двухфакторная аутентификация
 - И многое другое
- **Платные модули**
 - Персональные модули
 - ARI/AMI интеграции
 - Custom конфиги

Начинаем погружение в диалплан

```
[ Context 'vm-callme' created by 'pbx_config' ]
'#' =>      1. Playback(vm-goodbye) [extensions_additional.conf:1382]
           2. Hangup() [extensions_additional.conf:1383]
'*' =>      1. Gosub(macro-get-vmcontext,s,1(${MBOX})) [extensions_additional.conf:1385]
           2. VoiceMailMain(${MBOX}@${VMCONTEXT},s) [extensions_additional.conf:1386]
'5' =>      1. Goto(s,repeat) [extensions_additional.conf:1380]
'h' =>      1. Hangup() [extensions_additional.conf:1394]
'i' =>      1. Playback(pm-invalid-option) [extensions_additional.conf:1388]
           2. Goto(s,repeat) [extensions_additional.conf:1389]
's' =>      1. Answer() [extensions_additional.conf:1375]
           2. Wait(1) [extensions_additional.conf:1376]
    [repeat] 3. Background(${MSG}&silence/2&vm-repeat&vm-starmain) [extensions_additional.conf:1377]
           4. WaitExten(15,) [extensions_additional.conf:1378]
't' =>      1. Playback(vm-goodbye) [extensions_additional.conf:1391]
           2. Hangup() [extensions_additional.conf:1392]
Include =>   'vm-callme-custom' [pbx_config]
```

Босс/секретарь

- Вызов на номер 100(Boss) переводится на 101(Secretary)
- Вызов с номера 101(Secretary) на 100(Boss) будет проходить
- В нерабочее время звонки вызовы будут поступать на 100(Boss)*

Босс/секретарь простейшее решение

/etc/asterisk/extensions_custom.conf

[from-internal-special]

include => from-internal

exten => 100,1,Set(CALLERID(name)=toBoss-\${CALLERID(name)})

same => n,Goto(from-internal,101,1)

Extension: 199

< Voicemail Find Me/Follow Me Advanced P

Context ?

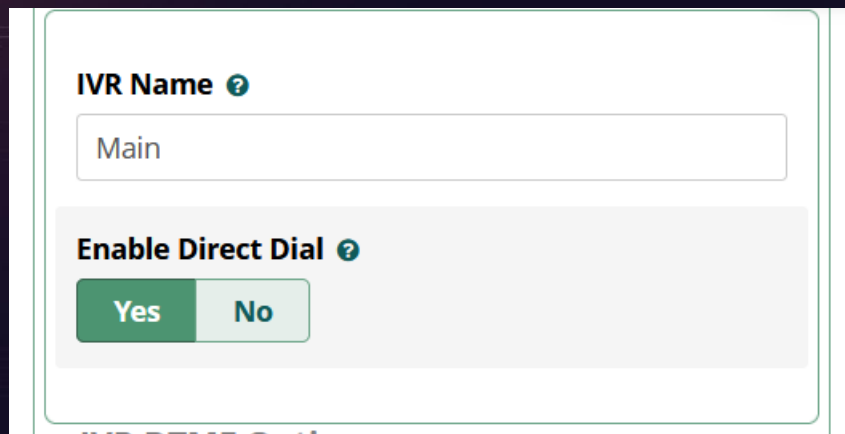
from-internal-special

Asterisk context this device will send calls to. Only change this is you know what you are doing. [context]

Полезные команды:

- `core set verbose 9`
- `dialplan show 100@from-internal-special`
- `channel originate LOCAL/100@from-internal application Wait 3`
- `database show`

Казалось бы работает! Но...



The screenshot shows a web-based configuration interface for an Asterisk IVR. It features a section titled "IVR Name" with a text input field containing the word "Main". Below this is a section titled "Enable Direct Dial" with two radio buttons: "Yes" (which is selected and highlighted in green) and "No".

```
/etc/asterisk/extensions_custom.conf
```

```
[from-did-direct]
```

```
exten => 100,1,Set(CALLERID(name)=IVR-Boss)
```

```
same => n,Goto(from-did-direct,101,1)
```

Добавим магии чисел

/etc/asterisk/extensions_custom.conf

[set-aon]

exten => *61,1,Set(AON=770001)

exten => *62/100,1,Set(AON=770002)

exten => _*6[0-8],1,Set(AON=770000)

same => n,Set(DB(AMPUSER/\${CALLERID(num)}/outboundcid)=\${AON})

same => n,Hangup

[from-internal]

include => set-aon

Применение настроек FreePBX сбросят временную установку Outbound CID.

Давайте заканчивать

```
[ Context 'vm-callme' created by 'pbx_config' ]
'#' =>      1. Playback(vm-goodbye) [extensions_additional.conf:1382]
           2. Hangup() [extensions_additional.conf:1383]
'*' =>      1. Gosub(macro-get-vmcontext,s,1(${MBOX})) [extensions_additional.conf:1385]
           2. VoiceMailMain(${MBOX}@${VMCONTEXT},s) [extensions_additional.conf:1386]
'5' =>      1. Goto(s,repeat) [extensions_additional.conf:1380]
'h' =>      1. Hangup() [extensions_additional.conf:1394]
'i' =>      1. Playback(pm-invalid-option) [extensions_additional.conf:1388]
           2. Goto(s,repeat) [extensions_additional.conf:1389]
's' =>      1. Answer() [extensions_additional.conf:1375]
           2. Wait(1) [extensions_additional.conf:1376]
    [repeat] 3. Background(${MSG}&silence/2&vm-repeat&vm-starmain) [extensions_additional.conf:1377]
           4. WaitExten(15,) [extensions_additional.conf:1378]
't' =>      1. Playback(vm-goodbye) [extensions_additional.conf:1391]
           2. Hangup() [extensions_additional.conf:1392]
Include =>   'vm-callme-custom' [pbx_config]
```

Л - логика

/etc/asterisk/extensions_custom.conf

[vm-callme-custom]

exten => t,1,Goto(s,repeat)

[vm-callme]

exten => _t,1,Goto(s,repeat)

exten => t,1,Goto(s,repeat)

Порядок сортировки диалплана:

Exten	Явные расширения
Pattern	Расширения с шаблоном
Include	Включения
Switch	Переключатели

!Включения всегда обрабатываются в глубину

```
freepbx*CLI> dialplan show t@vm-callme
[ Context 'vm-callme' created by 'pbx_config' ]
  't' =>
    1. Playback(vm-goodbye) [extensions_additional.conf:1471]
    2. Hangup() [extensions_additional.conf:1472]
  '_t' =>
    1. Goto(s,repeat) [extensions_vmcallme.conf:26]
[ Included context 'vm-callme-custom' created by 'pbx_config' ]
  't' =>
    1. Goto(s,repeat) [extensions_vmcallme.conf:28]
```

Теперь все станет понятно!

extensions_additional.conf

pbx.c:7159 add_priority: Unable to register extension 't' priority 1 in 'vm-callme', already in use

pbx_config.c:1891 pbx_load_config: Unable to register extension at line 3 of /etc/asterisk/custom_conf/extensions_vmcallme.conf

pbx_config.c:1870 pbx_load_config: The use of '!' for an extension is strongly discouraged and can have unexpected behavior.

```
;  
; This include file is put first to allow the auto-generated dialplan in FreePBX  
; to be overwritten if necessary. Overriding auto-generated dialplan should be done  
; with extreme caution. In almost all cases any custom dialplan SHOULD be put in  
; extensions_custom.conf which will not hurt a FreePBX generated dialplan. In some  
; very rare and custom situations users may have a need to override what FreePBX  
; automatically generates. If so anything in this file will do that. If you come up  
; with situations where you need to modify the existing dialplan or macros, put it  
; here.  
;  
#include extensions_override_freepbx.conf  
#include extensions_additional.conf  
#include extensions_custom.conf  
;-----;
```

Теперь все станет понятно?

`/etc/asterisk/extensions_override_freepbx.conf`

`[vm-callme]`

`exten => t,1,Goto(s,repeat)`

```
freepbx*CLI> dialplan show t@vm-callme
[ Context 'vm-callme' created by 'pbx_config' ]
't' =>          1. Goto(s,repeat)
          2. Hangup()
```

```
[extensions_override_freepbx.conf:2]
[extensions_additional.conf:1472]
```

Спасибо за внимание!

Буду рад ответить на все ваши вопросы сейчас
или свяжитесь со мной в будущем:



Курамшин Ильдар

КЦ CallTraffic

tg://greymag1

Использовались сайты:

<https://asterisk-pbx.ru>

<https://community.freepbx.org>

<https://sangomakb.atlassian.net/wiki>

<https://docs.asterisk.org>

