Mizu VoIP Server – Callback configuration

Callback overview

The callback is a method of making low-cost international calls via the switch, this way call charges will be considerably lower. Callback can be initiated from any VoIP client or webphone (already built-in in our softphone and web enduser interface, but with the help of the http api, you can add it also to third party software or website).

User is requested to enter it's phone number, then a call is made to the voip server when the server will authenticate the user with the following methods:
-username/password if the callback have been made from web or via http api
-sip digest authentication if the call was made for a softphone
-PIN code if the call was made to IVR
-ANI authentication (recognize a number) for subsequent requests to the IVR (if the user was already authenticated by PIN or his A number is already known)

After the authentication the server will call back the user and the IVR will require to enter the destination number.

Prepaid calling card:
User will can access number which will start the calling-card IVR on the voip server.

The voip server will authenticate the users in the following ways:
-sip digest authentication if the call was made for a softphone OR
-request PIN code OR
-ANI authentication (recognize a number) for subsequent requests to the IVR (if the user was already authenticated by PIN or his A number is already known)

After the authentication, the user is requested to enter the destination number.

Before you begin the configuration, please acquire at least one DID number from a DID provider, and also tell your DID provider to send the DTMF as RFC2833 or INFO method (these are the supported methods by the server, in-band is not supported).
- a Traffic Sender user needs to be created for the DID provider, where you add the provider's IP addresses
- create a new campaign for callback in MManage- > Call Center -> Campaigns
- assign an IVR Script to this campaign (the script should contain at least: user authentication, credit check, and call forward)

- create a new enduser, setting the DID number as the username, then go to Functions page:
    - assign the campaign ID to this enduser
    - set for Callback access -> 1: act based on anumberhandling
- go to MManage -> Other -> Configurations -> search for setting "defcallbackivr", where you also need to set the campaign ID
- after all these steps are completed, reload the configurations: go to MManage -> Server Console -> connect to console -> type "reload" -> hit enter and wait for response (response should be "OK")

Service access numbers

You can setup your calling card or callback business by using access numbers and assigning them to one of the existing or newly created IVR's. You should be able to request DID numbers from your existing VoIP carrier or by contacting other companies e.g. www.didx.net. In this case you will have to add it as a Traffic Sender user usually with IP based authentication (fill the AuthIP box with the provider IP or domain name)

After you have terminated with the traffic sender configuration, you can add the access numbers like usual endusers. Type the phone number in the "username" field or you can also use the "SIP number" field for the same reason. Then switch to the "Functions" tab and set the "Campaign ID" and the "Callback access" (if the DID number will be used as a callback access number); optionally you can enable A number authentication (PIN less dialing). The campaign id means the ID field from the tb_ccampaigns table (You can see them by opening the "Campaigns" form).

For more complex authentication and billing options please consult the admin guide.

Call-Back services

Callback services can be implemented by entering the number to call on the website or by CID or ANI callback.

To define access numbers set tb_user.iscallback to the required ivr (campaignid) and tb_user.anumberlookup to 1.

The calls will be authenticated based on "ivrauthentication" global config value (0=no,1=A number or pincode, 2=only A number, 3=only pin code, 4=A number and pincode)

When using only A number authentication be aware of fraud possibilities.

Callback will be initiated from "callbackcallernumber" A number or from the user who received the call if "callbackcallernumber" is not specified.

The callback will automatically start the IVR specified in the "iscallback" field or in "ivrid" field of the access number.

Callback services details

Callback services can be implemented by various methods:

- From the enduser webportal
    - By entering the number to call on the website
    - On the ensuser webportal you can find callback and p2p page (they are almost identical)
- By CID or ANI callback
    - Setup a callback number (enduser) and assign the callback IVR script to it.Assuming that our callback number is C:
        - A call C
        - C will drop the call
        - C will call back the A number and will ask to enter the B number (this is done with the IVR. You should already have a "callback" ivr script template there)
        - Once A is ready with the number input, C will call the B number
        - Once C and B is connected, C will goes out of the path and will interconnect A with B
- By inbound SMS

- o By a special SMS message
- By API
  - o Using the server HTTP API, the callback functionality can be easily integrated in any application or website

To define access numbers set tb_user.iscallback to the required ivr (campaignid) and tb_user.anumberlookup to 1.

The calls will be authenticated based on "ivrauthentication" global config value and/or "iscallback" user field. When using only A number authentication be aware of frauding possibilities.

Callback will be initiated from "callbackcallernumber" A number or from the user who received the call if "callbackcallernumber" is not specified.

The callback will automatically start the IVR specified in the "iscallback" field or in "ivrid" field of the access number.

Ivrauthentication is deprecated. Use the anumberhandling global configuration: 0=disabled,1=only add, 2 = only accept, 3=add and accept (default)

iscallback

- ➢ 1=act based on anumberhandling (default - connect to the ivr if not authenticated as enduser, otherwise callback immediately)
- ➢ 2=connect to the ivr if not authenticated as enduser, otherwise callback immediately
- ➢ 3=connect to the ivr if authenticated as enduser, otherwise callback immediately
- ➢ 4=drop the call if not authenticated as enduser, otherwise callback immediately
- ➢ 5=drop the call if authenticated as enduser, otherwise callback immediately
- ➢ 6= callback immediately always
- ➢ 7=always ivr
- ➢ other=ivr id to use (otherwise will check the "ivrid" field)

Example 1: if you want to call only authenticated users (no expense for failed authentication on callback):

- ➢ ivrauthentication: 1
- ➢ iscallback: 1

Example 2: if you have a free to call number or you can afford the callback payment to unauthenticated users then you can use the following settings:

- ➢ ivrauthentication: 1
- ➢ iscallback: 8

Example 3: no free callback and no trust in A number authentication

- ➢ ivrauthentication: 3
- ➢ iscallback: 2

Note: if you would like to allow calls to IVR or to callback numbers from not authenticated parties, then set the "freeivraccess" and "freeaccessuserid" configuration options accordingly.

Technical details

1. call initated from console, db check or iscallback user
2. mainlogic process asyncCallback and initiate call
3. client endpoint changed to server ep on connect
4. ivr starts requiring pin if needed and the target number
5. ivr callforward with 2 leg billing

More details:

- [Admin Guide](#)
- [IVR Guide](#)