Brekeke PBX

Version 2

Audio File Plug-in

Developer's Guide

Brekeke Software, Inc.

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Brekeke PBX Version 2 Audio File Plug-in Developer's Guide
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1. Introduction

This plug-in interface provides ways to process the audio files created by the call recording or voicemail features of Brekeke PBX. You need to use Java programming language to create your own plug-in.

For the Brekeke PBX versions 2.4 or later, the following plug-ins are included in the product. For this environment, you don't need to develop plug-in when uploading to http server or moving files.

2. Requirement

Creating a plug-in requires:

- JDK 6 or later
- Brekeke PBX v2.1 or later

3. Steps to Create a Plug-in

1. Add the ondopbx.jar file to your classpath:
   <Brekeke PBX install_dir>/webapps/pbx/WEB-INF/lib/ondopbx.jar

2. Create a JAVA class and implement the interface:
com.brekeke.pbx.media.plugin.RecordingPlugin.

4. Interface

4.1. Interface: RecordingPlugin、RecordingPlugin_mt

Package name: com.brekeke.pbx.media.plugin

With Brekeke PBX Multi-Tenant Edition, "RecordingPlugin_mt" will be used.

4.1.1. Method: eventRecorded

This me**thod is calle**d when recording finishes and an audio file is created. An instance of the class will be created every time a message file is created.

Parameters:

tenant	Tenant name (available only for Interface:RecordingPlugin_mt)
user	User
uprop	Properties related to the user
file	File created
prop	Properties of the file
type	Type

TYPE_VOICEMAIL(0)	Voicemail
TYPE_CONVERSATION_RECORDING(1)	Recorded call
TYPE_NAME (2)	Name
TYPE_GREETING1 (3)	Personal Greeting
TYPE_GREETING2 (4)	Alternative Greeting

✓ Following types (TYPE_NAME, TYPE_GREETING1 and TYPE_GREETING2) are available on the versions v2.3 or later.

Return:

To delete the file, return false. To save the file, return true.

5. Sample

The following is a sample program which will upload the recorded calls to a FTP server. Nothing will be performed when voicemails are created.

(Please refer to other resources regarding the detailed codes for FTP)

```java
package yourpackage;

import java.io.*;
import java.util.*;

import com.brekeke.pbx.media.plugin.RecordingPlugin_mt;

public class YourRecordingPlugin implements RecordingPlugin {

    public boolean eventRecorded( String tenant, String user, Properties userProp, File file,
                        Properties prop, int type) {

            if( type == TYPE_CONVERSATION_RECORDING ){
                    SampleFTPUploader.uploadToFtpServer( file );
                    return false;
            }else{

                    return true;
            }
    }
}
```

6. How to Install

6.1.   Put your class into a classpath

Place your compiled class file in exact directory structure of package name under the directory:

<Brekeke PBX install_directory> /webapps/pbx/WEB-INF/classes

For example:

class name = YourClass, package name = com.yourdomain

Place "YourClass.class: under the directory:

<Brekeke PBX install_directory> /webapps/pbx/WEB-INF/classes/com/yourdomain

or compress your class file into a jar file and place the jar file into

<Brekeke PBX install directory>/webapps/pbx/WEB-INF/lib

6.2.   Set your class name in the property file

6.2.1.   Use your class for all PBX users

From Brekeke PBX Admintool > Option > Advanced, add the below property

com.brekeke.pbx.Setting.RECORDING_PLUGIN

After restarting the Brekeke PBX, this change will take effect.

Example:

  com.brekeke.pbx.Setting.RECORDING_PLUGIN = yourpackage.YourRecordingPlugin

6.2.2.   Use your class for a specific user

Open the file

<Brekeke PBX install directory>/webapps/pbx/WEB-INF/work/pbx/users/***/user.properties

using some text editor. Set the property media.recording.plugin with your class name including

the package name. Save the file. In this case, restarting Brekeke PBX is not necessary.

Example:

  media.recording.plugin = yourpackage.YourRecordingPlugin

7. Plug-ins

7.1.   Class: RecordingFileHttpUploader

Package name: com.brekeke.pbx.plugin.recording

After every recording, Brekeke PBX send recorded file with POST requests to HTTP server. The file is sent in multipart/form-data format. Recorded data is in u-Law format. This class is available for the version 2.4 of Brekeke PBX or later.

There are several properties that will be sent with POST requests when recording file is uploaded.

Properties that will be POST:

tenant	Tenant name
rid	Call's ID
tid	ID that identify SIP UA and a specific call
to	User that records calls
from	Number of the Callee
fileid	file name (no extension displayed)

7.1.1.   Settings

Add the following parameters (Java Properties format) at [Options] > [Advanced].

com.brekeke.pbx.Setting.RECORDING_PLUGIN

For this parameter, specify "com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader"

com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader.URL

Specify URL of HTTP server where recording file will be uploaded.

com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader.PARAMS

When adding parameter, set parameter in the format "a=b&c=d"

com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader.VOICEMAIL

Set "true" here when you are uploading recorded voicemail message files (default value=true)

com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader.CALL_RECORDING

Set "true" here when you are uploading recorded files using call recording feature (default value=true)

com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader.OTHER_TYPE

> Set "true" here when you are uploading recorded files created for personalized greetings or name (default value=false)

com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader.KEEP_COPY

> Set "true" here when you want to leave the recording files after uploading to the HTTP server (default value=false)

7.2. Class: RecordingFileMove

Package name: com.brekeke.pbx.plugin.recording

After every recording, Brekeke PBX move recorded files to a specified location. Recorded data is in u-Law format. When moving the files to a different machine, you'd need to assign the folder at the different machine as a network drive of the server Brekeke PBX is installed on. (With Linux OS, you'd need to mount an NFS file system. The recorded files will be moved one by one, Brekeke PBX will not move multiple files at once. This class is available for the version 2.4 of Brekeke PBX or later.

7.2.1. Settings

Add the following parameters (java property format) at [Options] > [Advanced].

com.brekeke.pbx.Setting.RECORDING_PLUGIN

> For this parameter, specify "com.brekeke.pbx.plugin.recording.RecordingFileMove"

com.brekeke.pbx.plugin.recording.RecordingFileMove.DEST_PATH

> Specify file path where recorded files are moved to. Replace path name that is enclosed by "#".

Properties that can be replaced:

tenant	Tenant name
rid	Call's ID
tid	ID that identify SIP UA and a specific call
to	User that records calls
from	Number of the Callee
fileid	file name (no extension displayed)
index	When idex is set at parameters, Brekeke PBX update file names by adding number from 1 and add up.

Ex. c:/root/#tenant#/#to#/#rid#_#index#.ul

With this example setting, by setting "#index#" the files recorded in one call have unique name. As a result, Brekeke PBX will move each recorded files to specified location.

com.brekeke.pbx.plugin.recording. RecordingFileMove.VOICEMAIL

Set "true" here when you are moving saved voice message files. (default valu=ture)

com.brekeke.pbx.plugin.recording. RecordingFileMove.CALL_RECORDING

Set "true" here when you are moving recorded files using call recording feature (default value=true)

com.brekeke.pbx.plugin.recording. RecordingFileMove.OTHER_TYPE

Set "true" here when you are moving recorded files created for personalized greetings or name (default value=false)

com.brekeke.pbx.plugin.recording. RecordingFileMove.MAX_INDEX

The maximum value for index (default value=10)