

Brekeke Recording File Server

Version 2.7

Administrator's Guide

Brekeke Software, Inc.

Version

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1. Introduction

Brekeke Recording File Server(Brekeke RFS) is a call recording and management software that integrates and works together with Brekeke PBX.

Brekeke RFS provides the following features:

Store recording files	Stored recording files which uploaded from Brekeke PBX. These files are put on the filesystem of RFS. You can configure the retention period of data. Allows you to configure the patterns to specify the target users at an administration screen of PBX.
Searching recording files	Administrator can search and download the recording files by using conditions at RFS admin tool.
Integration with external applications	RFS provides the integration interface and it make possible that external applications can hear and download recording files.
CIM Integrated mode	By registering to Brekeke CIM, RFS provides the easy settings for integration with Brekeke Contact Center Suite applications.

2. Installation

2.1. System & Software Requirements

Followings are the pre-installation requirements for Brekeke RFS:

OS	Microsoft Windows 7 or later, Red Hat Linux
Java	Java SE 7 or later (Java by Oracle Recommended)
Memory	2 GB minimum
Apache Tomcat	Version 7.0 or later
Brekeke PBX	Version 3.0.7.0 or later
Database	MySQL 5.5 or later

2.2. Installation

2.2.1. Installing Brekeke PBX

Install Brekeke PBX following the Brekeke PBX Administrator's Guide(Basic). Brekeke RFS and Brekeke PBS can be installed on a separate machine or on the same machine.

2.2.2. Installing Java SE

Install JDK or JRE.

✓ *When Brekeke RFS and Brekeke PBX are installed on the same machine, this step is not necessary.*

2.2.3. Installing Tomcat

- 1) Access Apache Tomcat website(<http://tomcat.apache.org/index.html>) and download the appropriate version of Tomcat for your environment.
 - 2) Set the environment variable JAVA_HOME to the path where you installed JDK or JRE.
 - 3) Install downloaded Apache Tomcat
- ✓ *We recommend adding liveDeploy="false" to <Tom Cat Install Destination directory>/conf/server.xml file to avoid causing unnecessary errors.*

```
<Host name="localhost" appBase="webapps"
      unpackWARs="true" autoDeploy="false" liveDeploy="false"
      xmlValidation="false" xmlNamespaceAware="false">
```

2.2.4. Installing Database

Install database. Please refer to the instruction manual provided by the manufacture for instruction on how to install the database.

2.2.5. Installing Brekeke RFS

Place rfs.war file to “webapps” directory found in the Tomcat Install directory.

2.2.6. Starting Tomcat

- 1) Start Tomcat.
- 2) Open a web browser and specify the URL <http://localhost:8080> (If you chose a port number other than the default “8080”, specify the appropriate port number in the URL.)
- 3) Tomcat has been started successfully if the Apache Jakarta Project page is displayed.

2.2.7. Confirming the access to Brekeke RFS

- 1) Open a web browser and point to <http://localhost:8080/rfs/> and verify you can access to Brekeke RFS Admin page (If you chose a port number other than the default “8080”, specify the appropriate port number in the URL).
- 2) In order to perform the initial system configuration, [Database] page will be displayed.

2.3. Initialization

2.3.1. Activate License

- 1) Paste the Product ID to the text box..
- 2) Press [Activate] button. Then complete the activation procedure according to the instruction of the screen.
- 3) When activation is completed, move to the RFS initial configuration screen automatically.

2.3.2. Initializing Database for configurations

- 1) Clicking the [Initialize Database] button will transfer you to the [Initialize Database] page.
- 2) Initialize the database settings from [Initialize Database] page. (Please refer to “Settings” section)
- 3) When the initialization is completed, you will proceed to [Database] page.
- 4) Using [Save] button to save the settings.
- 5) It will prompt you, “Database settings have been modified. You will be logged off. Would you like to continue?” and you will be able to access [CIM] [License] page.
- 6) Log in the Brekeke RFS. (In initial setting, you can login with user=”sa”, password=”sa”)

2.3.3. Registering in Brekeke CIM (For configuring Brekeke RFS in a CIM Integration mode)

- 1) At the [CIM] page, Fill in the URL of Brekeke CIM.
(ex. <http://192.168.0.1:8080/cim/>)

✓ *In the case you do not do registering to CIM, RFS works as stand alone mode.*

2.3.4. Configuring in Brekeke PBX

- 1) Add the following properties to Brekeke PBX [PBX Admin] > [Options] > [Advanced] and restart the Brekeke PBX.

```
com.brekeke.pbx.Setting.RECORDING_PLUGIN=com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader
com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader.URL=http://<rec-file-server-ip-address>:<port>/rfs/gate
com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader.VOICEMAIL=false
```

2.3.5. Configuring in Brekeke PBX (Integrate with multiple Brekeke RFSs)

It is also possible to assign the Brekeke RFS to each tenant specified in Brekeke PBX by running multiple RFSs.

- 1) Add the following properties to Brekeke PBX [PBX Admin] > [Options] > [Advanced] and restart the Brekeke PBX.

```
com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader.NOTE_TENANT_MAP=<note name>
```

- 2) Create a note using the note name specified in the properties and specify the Brekeke RFS that will be integrated to each tenant ID, each separated by comma as follows:

```
<tenant-id>,http://<rec-file-server-ip-address>:<port>/rfs/gate
```

3. Main Menu

3.1. Recording Files

3.1.1. Recording Files List

Displays a list of recorded call information. The list can be filtered by the recorded date range, tenant name, Call ID, Agent ID. Additionally, you can specify the sort order by the number of rows being displayed and by each field.

3.1.2. Bulk Delete

Perform the bulk deletion of recorded calls prior to the specified date.

3.2. System Information

3.2.1. System Information

Displays the detailed information of the drive running Brekeke RFS.

Field	Description
Total Files	The total number of recording files in Brekeke RFS.
Total File Size	The total file size of the recording files
Partition Total Size	The total size of partition running Brekeke RFS.
Partition Free Size	The free partition size of the partition running Brekeke RFS.
Partition Used Size	The used size of the partition running Brekeke RFS.

3.3. Logs

3.3.1. Error Logs

Displays a list of error logs. You can filter the logs by the specified date using the [Search] button.

Field	Description
Event Time	The date and time when error occurred.
Error Code	Type of error
Memo	Display error details by clicking on the field

3.4. Settings

3.4.1. System Options

Configure the system options Brekeke RFS.

Field	Description
Superuser	Specify the user ID to login to Brekeke RFS. (Default: sa)
Superuser password	Specify the password to login to Brekeke RFS. (Default: sa)
Days to Keep Recording files(day)	Specify the value in days for how long to keep the recording files. (Default: 90)
Auto Deletion Start Time(ms)	The validation is performed daily for recording files that are passed the retention period and this setting specifies the time in mili seconds when to perform the validation. For example, when "10800000" is specified, the system validates if the retention period has reached at 2:00. (Default: 7200000)
URI Expires in(ms)	The URI used for playing or downloading recording files will have the expiration time due to the security reason. This setting specifies the duration that allows the access to the recorded calls since the link has been created in mili seconds. For example, when "10800000" is specified, the link is valid for 3 hours. (Default:10800000)

3.4.2. Database

Configure database connection settings for Brekeke RFS. Clicking the [Initialize Database] button takes you to the database initialization page.

If database was initialized on the Database Initialization page, each field has already been configured to the appropriate values automatically.

✓ Because RFS database is connected by other applications such as CA or CRM, if these applications are not located in the same server where rfs is installed, the loop back address can not be used as URL.

Also you need to set the user that can be connected from external server.

Field	Description
Driver Class	Specify the class name of the JDBC driver being used.
URL	Specify the URL of database being connected from JDBC.
User	Specify a user name being used by JDBC connection
Password	Specify password being used by JDBC connection

3.4.3. Initializing Database

Initialize database. Clicking on the [Initialize] button will create and initialize the database. [Cancel] button will take you back to the Database page.

Field	Description
Database Server	
IP Address	Specify the IP Address of the database server
Port	Specify the port number of the database server (default: 3306)
Database	
Database Name	Specify a database name that is being created/initialized.
User Name	Specify the User ID that is being created to access to the database.
User Password	Specify password for the user being created.
Database Administrator	
Administrator User	Specify the ID of database administrator for the database.
Administrator Password	Specify the password of database administrator for the database.

3.4.4. CIM

Perform the registration to Brekeke CIM to be integrated. Brekeke RFS runs in the CIM Integration mode immediately after the registration has been done in this screen.

Field	Description
Registration to CIM	
CIM URL	Specify the URL for the CIM being integrated in the following format: http://<address>:<port>/cim

3.4.5. Security

Configure the security options such as the access control for Brekeke RFS.

Field	Description
IP Settings for Users	
IP Settings for Applications	
Default	Configure the default setting for users and applications to access to Brekeke RFS. When [Allowed] is set, all the ip addresses are allowed to access RFS except those who are accessing from the forbidden IP addresses. If [Forbidden] is set, all the IP addresses except those who are accessing from the allowed IP addresses are forbidden to access to RFS.
ForbiddenIP/AllowedIP	Specify forbidden and allowed IP Addresses.

3.4.6. Advanced Options

Configure advanced settings for the operation of Brekeke RFS such as settings for integrating with third-party applications or features that cannot be configured in the System Options.

4. Maintenance

4.1. Configuration of uploading audio files.

You can change the timeout duration that PBX uploads recording files to RFS.

Set the following properties at the Advanced Option of PBX

The unit of values are millisecond. Restart of pbx is needed.

```
com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader.CONNECT_TIMEOUT=5000
com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader.READ_TIMEOUT=20000
```

In the case recording files that have been uploaded to RFS should be stored in PBX, You need to add the following properties at the Advanced Option of PBX. Restart of pbx is needed.

```
com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader.KEEP_COPY=true
```

4.2. Restoring Recording Files after a defect is found

Brekeke PBX's work/pbx/error_recfile folder has the backup of recording files and they can be restored by the command line after Brekeke RFS restart.

4.2.1. Linux:

```
cd <pbx-installation-directory>/webapps/pbx

java -classpath ../WEB-INF/lib/ondosip.jar:../WEB-INF/lib/ondopbx.jar:../WEB-
INF/lib/ondoutil.jar:../WEB-INF/lib/log4j.jar
com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader ../WEB-INF/work/pbx/error_recfile
```

4.2.2. Windows:

```
cd <pbx-installation-directory>\webapps\pbx

java -classpath ../WEB-INF/lib/ondosip.jar;../WEB-INF/lib/ondopbx.jar;../WEB-
INF/lib/ondoutil.jar;../WEB-INF/lib/log4j.jar
com.brekeke.pbx.plugin.recording.RecordingFileHttpUploader ../WEB-INF/work/pbx/error_recfile
```

4.3. Version Updates

Follow the steps below to update Brekeke RFS to a newer version.

- 1) Login to Brekeke RFS and move to the [Maintenance] ->[Update Software]
- 2) Choose the war file, and press the Update button.
- 3) To enable the update, Restart the application server.

4.4. Uninstallation

Stop Tomcat and remove the installed war file (e.g., rfs.war) and the directory with same name without the extension from webapps directory. For uninstalling Brekeke PBX, Tomcat, Java SE and database, please follow the uninstall instructions provided from each vendor.