Recording files delivered to FTP

Recording file formats and file names

If you want to store the call recording files locally instead of storing them in the Puzzel Administration Portal's Media Archive, Puzzel can deliver the call recording files to Puzzel's FTP server, so that you can fetch new files here e.g. every hour or every night, and store them on your own server. We stronlgly recommend using SFTP (SSH2) to fetch the recording files.

The max storage time for recording files on Puzzel's FTP server is 7 days, but please make sure you fetch the files as early as possible.

The recording files are by default in **mono**.

Puzzel can deliver recording files to FTP in the following formats:

- **MP3** (9-19 kbps)

- **WAV** (PCM 128 kpbs)

- **WMA** (16 kbps) *

* WMA format is from September 2022 no longer offered as an option for customers requesting call recording files delivered to FTP, but for customers already receiving files on WMA format we will continue to deliver. It's likely that we later will communicate an end-of-life date for WMA.

The original recording file from the phone system is on format wav A-law 64 kbps format before being converted to one of the above listed formats.

Puzzel can configure that recordings are done in **stereo**, for an additional price.

Stereo recording

If recordings are configured to be in stereo, the caller will be in the left channel and the agent and any consulted party (if included in the recording file) will be in the right channel.

The original recording file from the phone system when stereo is configured is wav A-law 128 kbps (=2 x 64) before being converted and delivered.

For stereo recording we recommend WAV. A **WAV** (PCM) **stereo file** will have Codec id=1 **Bit rate = 256 kb/s**, sampling rate = 8000 Hz and bit depth = 16 bits.

Each call recording file's metadata can be delivered in a separate XML file.

Only WMA recording files contain metadata (callers number, access number etc) about the recording in the File property details (the Comment field).

The **file name** for recording files delivered to FTP server will be:

sessionID_Number.Format

...where sessionID is the internal id in Puzzels platform, Number is the recording number within the session, and Format is WMA, MP3 or WAV.

The sessionID can also be found in the Raw data (detailed call records) for the call, and sessionID can be sent as a parameter in a web request (Xml Http Client) to populate your CRM system when the agent answers or ends the call.

Recording metadata XML file

When recording files are delivered to FTP, Puzzel can deliver each recording files metadata in a separate XML file. The metadata is the basic information related to a call recording. The metadata file will have the same file name as the corresponding recording file, but with extension .XML.

The recording metadata XML file contains four parts:

- **Session** information: sessionID, start time, access number, etc

- **Request** information: remoteAddress (=callers phone number), queue_key, queue description, etc

- **User** information: The agents userID and firstname/lastname etc

- **Recording** information: Recording start/stop/duration, and Forced on queue/agent

In [Puzzel Raw data](#), you can find much more detailed information about a call than what is present in the recording files metadata.

About the caller's number

The callers phone number is usually received by Puzzel as *Calling Party Number*, and this number is in the recording metadata shown as **RemoteAddress**. In Raw data, this will be the Initiation events *Source*. If a caller (A) called to a number (B) that is <u>forwarded</u> to a Puzzel access number (C), the callers number (A) might be received by Puzzel as *Additional Calling Party Number* (*additional_source* in Rawdata) or *Redirecting Number* (*redirect_source* in Raw data), and the number the caller called to (B) might be received as *Calling Party Number.* If this is the case, the called number (B) is shown as RemoteAddress in the recording metadata (and as *Source* in Raw data).

In the Puzzel Admin Portals Archive, you can search for calls and recordings. If you search for a call where the *Callers number* is xxx, the Archive searches for calls with xxx as *Calling Party Number, Additional Calling Party Number* or *Redirecting Number.*

Call recording metadata example:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<recordingDetails version="1.0">
 <sessionInformation>
  <sessionId>002b93e0-fe71-4d16-af34-d91a31214d8c</sessionId>
  <sessionStart>2016-11-02T16:50:55.003+01:00</sessionStart>
  <serviceId>10298</serviceId>
  <serviceNumber>21494324</serviceNumber>
  <serviceDescription>My Services</serviceDescription>
  <accessPoint>21492970</accessPoint>
  <countryCode>NO</countryCode>
   <fileName>002b93e0-fe71-4d16-af34-d91a31214d8c_1.mp3</fileName>
 </sessionInformation>
 <requestInformation>
  <requestId>467224</requestId>
  <remoteAddress>21498175</remoteAddress>
  <queueKey>Q_PHONE_SALES</queueKey>
  <queueDescription>Phone Sales</queueDescription>
  <vip>0</vip>
 </requestInformation>
 <userInformation>
  <userId>17064</userId>
  <firstName>Kristian</firstName>
  <lastName>Halvorsen</lastName>
  <userName>kristian</userName>
 </userInformation>
 <recordingInformation>
  <recordingIndex>1</recordingIndex>
  <recordingStart>2016-11-02T16:51:00.69+01:00</recordingStart>
  <recordingStop>2016-11-02T16:51:03.307+01:00</recordingStop>
  <ownerType>user</ownerType>
  <ownerTypeId>1</ownerTypeId>
  <ownerId>17064</ownerId>
```

```
  <forcedOnQueue>false</forcedOnQueue>
  <forcedOnUser>true</forcedOnUser>
  <recordingSeconds>3</recordingSeconds>
 </recordingInformation>
</recordingDetails>
```