

Cloud Encoding

You can use software encoder like rocketBroadcaster PRO or hardware encoder like sound4 to provide MP3 and/or FLAC stream.

rocketBroadcaster PRO : <https://www.rocketbroadcaster.com/pro>

Sound 4 : <http://www.sound4.com/>

MP3 is a lossy format, which means that sound information is lost during compression to reduce the size. In general, cymbals, guitars, and reverb effects are most affected by MP3 compression, and may have annoying distortion. The bandwidth used is defined by the encoder up to 320kbps.

FLAC (Free Lossless Audio Codec) is a free lossless audio compression codec. Unlike codecs such as AAC, MP3 or Vorbis, it does not remove any information from the audio stream. This maximum quality results in a higher quantity of information, which while being quite variable is on average close to 1.4Mbit/s

What is the difference between Fraunhofer FDK AAC and Fraunhofer PRO ?

Fraunhofer FDK AAC is an open-source software library for encoding and decoding Advanced Audio Coding (AAC) format audio, developed by Fraunhofer IIS. We have adapted this library to be compatible with DAB+ broadcasting.

Fraunhofer PRO is a software library, dedicated to DAB+ broadcasting and which is used by hardware encoders manufactured by AVT.

The audio quality of the Fraunhofer PRO software library will provide more detail and less artifacts.

We use Fraunhofer FDK AAC for the basic and backup DAB+ encoding, and we use Fraunhofer PRO for the Cloud encoding.

How the audio contribution work :

The customer sends his main audio contribution in a FLAC stream (1,4 Mbit/s) for the cloud encoding, and a MP3 stream (320 kbps) for the backup.

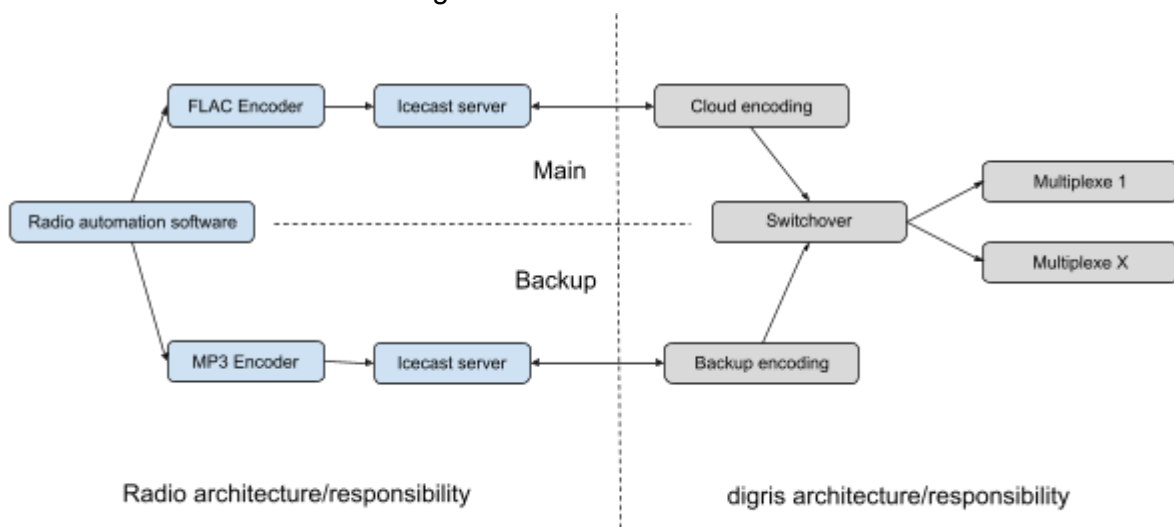
In case of problems on the main contribution (FLAC) an automatic switchover is performed on the backup contribution.

Main → Backup changeover time:

- After 2 sec where no data is received
- After 60 sec when the audio level remains below -40dB

Backup → Main changeover time:

- After 10 sec of data received correctly
- After 30 sec of audio level greater than -40 dB



How to set metadatas :

Metadata can be text and images:

- Text = DLS
- Image = SLS (JPEG 320x240 pixels, 20kB max.)

The client has several ways to send metadata. (Please tell us which method you want to use)

Via FTP

The client sends by FTP a text file, containing the DLS to be displayed on the receivers. This file should be called 'dls.txt'

For images (SLS), 2 directories are available:

- / carousel: The client drops files there which will be displayed in a loop and in an alphanumeric order.
- / live: The client places the files there at regular intervals, they are automatically taken into account and immediately deleted.

Via API

The client uses the API to send the text and images.

The API is described here: <https://mc-ch.digris.net/help>

Via polling

The customer makes available on his website a valid JSON or XML file containing the information to be recovered. Digris will retrieve this file at regular intervals to extract the data.

What data should I provide to digris?

Main audio contribution	
FLAC stream URL	

Backup audio contribution	
MP3 stream URL	

Metadatas method		
Method :		
Additional informations :		
FTP	API	Polling
We provide you login and password	We provide you api key and token	Please provide URL, file type (JSON or XML), list of fields we need to parse