# DRAFT

# Guidelines for Broadcaster Supplied Metadata and Content for Broadcast Radio Services

Version 0.2 - 20th October 2016

## Comments

This is the second version of this document, updated to reflect comments received so far.

In this version, we have changed the wording to make it clearer that this document is intended to help manufacturers know how they can use metadata and content in a way that broadcasters will tacitly agree to.

Comments are welcomed from all stakeholders:

- Discussion group: https://groups.google.com/forum/#!forum/radiodns-developers
- Email the project office: feedback@radiodns.org

# Introduction

Broadcasters and manufacturers have a mutual interest in improving the broadcast radio listening experience. RadioDNS offers a technical means to accomplish this.

These guidelines seek to establish a consensus on use of metadata and content distributed using the RadioDNS standards to reassure manufacturers of broadcast radio devices that by complying to these guidelines, broadcasters will generally approve of the use of their metadata and content in the ways described in this document. This document also aims to reassure broadcasters that their metadata and content will be used in a way they find acceptable and fitting to the device or situation.

The main scenario these guidelines aim to cover is that of a radio broadcast device with an IP-connection where the manufacturer wants to enrich free to air broadcasts with additional metadata and content provided by the broadcasters. This is beneficial for both Broadcasters and Manufacturers: it makes the broadcast more attractive for users/listeners.

This document does not affect other uses of metadata and content - it neither prohibits nor allows them.

The use cases below exemplify the “typical” and the “non-typical” scenarios.

## Example 1 - Typical scenario

A radio device has an FM mode, a DAB mode and an IP Radio mode.

These guidelines propose that the majority of broadcasters would tacitly agree to their metadata and content being used on the FM and DAB mode, and a majority would tacitly agree to their metadata and content being used when the same device is in IP radio mode. If the device combines all three systems behind one user interface, the guidelines propose that broadcasters would see this use as being acceptable.

## Example 2 - Non-typical scenario

A website acquires metadata and content from various broadcasters using the RadioDNS standards and aggregates it into a single portal.

These guidelines do not describe this last use case, so the tacit approval of broadcasters should not be assumed. It’s safer to contact them directly for agreement.

## Overview of Guidelines

1. Metadata and content should be used to improve the radio experience for a listener using a broadcast radio device
2. Metadata and content should be presented to end-users accurately, as intended, and not modified;
3. Broadcast and streaming should be used correctly
4. Personalised metadata and content should not be prevented from reaching users
5. Broadcasters and manufacturers should follow the Implementation Guidelines

# Guidelines

## 1. Metadata and content should be used to improve the radio experience for a listener using a broadcast radio device

Broadcasters

- If you are offering to explicitly licence your metadata and content:
    - you should explain your licensing terms in the header of your SI.xml document with a link to a web page which confirms that the licence is compatible with these guidelines and, if necessary, explains how to apply for a licence and/or a client identification code.
    - you should offer a licence to use your metadata and content on a fair, reasonable, non-discriminatory and zero-cost basis, and that licence must be compatible with these Fair Use Principles.
    - If you are offering extended metadata and content, you should provide a client identification code on fair, reasonable and non-discriminatory terms (See proposed TS 102 818 section 10.5)

Manufacturers

- Only use metadata and content to improve the functionality, look and feel of broadcast radio. You can do this on the device directly or on a device (such as a smartphone) paired with the broadcast radio device.
- Don't resell or provide the metadata or content to anyone other than end-users.
- If you want to, you may request a licence from the Broadcaster on fair, reasonable, non-discriminatory and zero cost basis.
- If you agree terms, the Broadcaster should give you a client identification code to get access to extended metadata and content (see proposed TS 102 818 section 10.5).

## 2. Metadata and Content should be accurately presented to end-users

Broadcasters

- Metadata and content will be authored according the technical specification, accurate and high quality.
- Use the mechanisms specified in the technical standards to set caching times for content, and set these times according to the guidelines.
- Minimise the bandwidth and data volume required to transfer the metadata and content, and stay within the guidelines.

Manufacturers

- Don't display, use or store content beyond the cache time specified by the broadcaster.
- It's OK for the device to provide previews of content in a truncated form, as long as there is an obvious way for the end user to access the original version.
- Use an appropriate system to show a user that the previously available metadata or content has been removed due to expiry, rather than system failure (but don't show the expired content).

## 3. Broadcast and streaming should be used correctly.

Broadcasters

- Provide time offset information for bearers, and minimise the overall delay across all bearers
- If you are providing streaming URLs, don't include pre-roll audio, or time-stretch/crunch the streams, and in terms of audio levels and sound try to approach the quality of broadcast.
- You can use the Client Identification ID (proposed TS 102 818 s10.5) to provide streaming URLs which meet these criteria only to known and trusted manufacturers, so you don't compromise your public streaming URLs (if you have any).

Manufacturers

- Be respectful of the fact that streaming radio can lead to costs for Broadcasters and users:
    - Respect the broadcaster's preference for order of bearer use.
    - If you lose a broadcast signal, try all the broadcast linking options (FM AF, PI code matching, Hard Links, Soft Links etc.) before using streaming audio.
    - Don't switch a user to streaming without their knowledge/consent (e.g. limited data allowance).
    - Minimise the time spent connected to the stream, as it costs broadcasters money in bandwidth and music royalty payments.
- It should be easy for the user to see if they are using broadcast or streaming to receive radio, so they understand why reception problems are happening
- Don't disclose the URLs provided for streaming audio.

## 4. Don't prevent personalised metadata and content from reaching users

Broadcasters

- If you want your listeners to be able to log-in or use RadioTAG, implement the Cross Platform Authentication standard.
- Provide accurate, relevant and useful information in response to all tag requests.
- You may refuse to respond to a specific user if you consider their use to be excessive.

Manufacturers

- Don't aggregate audio streams or requests for visual content, because it stops personalised content being sent to end-users.
- If you want your users to be able to log-in to their radio station, implement the Cross Platform Authentication standard.
- Only send RadioTAG requests that have originated from an end-user, and don't aggregate tag requests or responses from individual end-users.

## 5. Implementation Guidelines

These implementation guidelines exist mainly to protect users from excessive IP data use (which might cost them money), or to prevent users seeing metadata or content that's incorrect because it's out of date. The caching mechanisms are described in the relevant standards (TS 102 818, TS 101 499).

Broadcasters

- Metadata defined in the SPI SI document should normally be set cacheable for 336 hours (14 days)
- Metadata defined in the SPI PI document should normally be set cacheable for 4 hours for the current day document, and 1 day for all other PI documents.
- If provided, PI documents should be available for the current day and the following two days.
- Each service in an SI file will have the following elements defined; medium name; description; logos at five resolutions; all bearers, and at least one genre.
- Visuals should normally be cacheable for 24 hours
- Visuals should not exceed 50kByte for a single image below 640,000 pixels (e.g. 800 x 800 pixels), or 150kBytes for images at or above 640,000 pixels.
- The total data required for visuals per individual user should not exceed 1.5MBytes per hour for visuals under 640,000 pixels, or 4.5MBytes per hour for visuals at or above 640,000 pixels.
- The total time difference between bearers shouldn't be more than 20 seconds.

Manufacturers

- Never override the cache times set by the broadcaster, but you can ignore the content if the cache times are set lower than the guidelines, and you can delete content if the cache is full.

# About Rights and Licensing

RadioDNS defines open technical standards for broadcasters to distribute metadata and content. The use of these standards by itself does not constitute a licence and broadcasters retain all rights in metadata and content that they provide.. Anyone using a broadcaster's assets (metadata or content) should obtain their permission.

However, broadcasters, offering a free to air service,  generally want to provide metadata and content for free and without explicit licensing, on the understanding that it is going to be properly used.

Processing formal licence requests is cumbersome, expensive, and mostly unnecessary. Whilst nothing in this document confers rights to use broadcaster metadata and content, this document doesn't require either party to offer or request licences.

A broadcaster could offer their metadata and content in a variety of ways:

- Explicit declaration of metadata and content as Creative Commons through a licence statement in the metadata (SI.xml) document
  This is unlikely as most broadcasters don't have these rights to confer.
- No explicit licensing, but no rights conferred
  This is the most likely default situation.
- Explicit but simple licensing requirement
  This could be a statement in the metadata (SI.xml document) requiring inferred agreement to the linked licence terms.
- Individual manufacturer licensing required to access enhanced metadata and content.
  The broadcaster may indicate in their metadata (SI.xml document) that enhanced metadata and content is available for people who agree to specific terms, and that the broadcaster will provide a client identification key on a per manufacturer basis.

We recommend that for broadcasters who do want to offer licences, they should offer a licence that is compatible with these Guidelines, and make this clear in the SI.xml document. For instance with a statement such as "This metadata and content is available under a licence which is compatible with the RadioDNS Guidelines for use of Metadata and Content for Broadcast Radio Services vX.XX".