HOWTO - Create Station Logos, Descriptions and Other Metadata in an XSI XML file using the RadioDNS XSI Tool

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Summary

Meta-data is the information that describes your radio station(s). It includes things like your logos, a description of your radio station(s), the musical genres, frequency information, streaming audio URLs social media presences and so on.

You describe all of these things in a file called the XSI (eXtended Service Information). This is a single XML file which has elements to hold all of this information.

A RadioDNS Hybrid Radio compliant device which can use this meta-data will find your XSI file, download it, and use to improve how your station is shown to listeners.

This HOWTO describes how to construct an XSI file. There is a separate HOWTO on how to make your XSI file accessible to RadioDNS Hybrid Radio compliant devices.

If you're a device manufacturer, and you want to know how to find and show logos from radio stations, have a look at our HOWTO Find and Show Station Logos, Descriptions and Other Metadata

Building your XSI file

There are three ways you can build an XSI file, or have one built for you.

1. You can use our XSI Management Tool (http://xsi.radiodns.org)
2. You can contact a third party service supplier
3. You can construct one yourself, using the Hybrid Radio Service and Programme Information standard (TS 102 818) as your reference

This HOWTO guide explains how to use the XSI Management Tool at http://xsi.radiodns.org to construct your XSI file.

Making your XSI file accessible to RadioDNS Hybrid Radio Devices

Once you've created your XSI file, you'll need to make it accessible to RadioDNS Hybrid Radio Devices. Read the HOWTO - Make an XSI file accessible to RadioDNS Hybrid Radio Devices.

Using the XSI Management Tool

The XSI Management Tool allows you to input the common meta-data described in an XSI file.

Note:

> The tool doesn't support all the possible meta-data types, and if you need to include one of the types not supported by the tool, you may need to use a third party supplier or edit the file yourself using the Hybrid Radio Service and Programme Information standard as your guide.

Important!

> **You will lose all the meta-data you have inputted into the tool when you close the browser window, so you must always Export the XSI file before finishing.** Exporting allows you to save the XSI file (even if it is incomplete) on your local computer.

Step 1 - Start

There are two ways of starting to use the tool.

1. Start from new, with a blank XSI definition.
2. Import an existing XSI file. This can be one saved from a previous session, or one provided to you by a third party.

Step 2 - Create a Service Provider

The Service Provider is the organisation/company that is providing this XSI file. You should provide some basic information on the Service Provider. If you don't want to describe a Service Provider, you can use the Skip button at the bottom of the page.

Most RadioDNS Hybrid Radio devices don't normally show this information to users, but it's important to identify the publisher of the XSI file.

Names - you can have up to 3 names, each of a different length (8, 16 and 128 characters). You should enter something that a listener would recognise as the Service Provider. It can be a brand name, it does not need to be an official company name.

Descriptions - you can have short and long descriptions for the Service Provider.

Links - this allows you to enter in links to different relevant resources on the Internet. For instance, you can create a link to your Wikipedia page by providing the URL 'http://en.wikipedia.org/wiki/My_Radio_Station'. The MIME type for a webpage should be set to 'text/html'. The Description explains what the link refers to.

Logos - you can supply URL for your logos, which must be in PNG or JPG/JPEG format.

> **Important!**
>
> You must either provide NO logos, or at least the 5 standard logo sizes in the pre-filled form (32px x 32px, 112px x 32px, 128px x 128px, 320px x 240px, 600px x 600px).
>
> You don't upload the logos to us. The logos must be hosted on your existing webserver, and you put the URL to the logo into this form. For instance, 'http://owdo.thisisglobal.com/2.0/id/25/logo/32x32.png'

Locations - one or more entries to describe the geographical area that the Service Provider covers. You can choose to provide nothing, a country, a single point (as a latitude/longitude) or a polygon (multiple latitude/longtitudes describing an area). This can be used when searching or offering listeners 'locally' relevant services.

Now click Create Service Provider to move to the next step

Step 3 - Add New Service

A Service defines all the information about a radio station. You must have at least one Service in your XSI file, but you can have more than one Service.

The **Names, Descriptions, Links, Logos** and **Locations** information are the same as for a Service Provider (Step 2), but apply to the Service.

The Service also required important additional meta-data.

Bearers - describe how your radio station can be received, both via broadcast and also over IP streaming. It's this list of bearers that allows a RadioDNS Hybrid Radio compliant device to switch automatically to the best way of receiving your station, so it's important to input them accurately. You can have one or more bearers for each Service.

For each bearer, first you choose its type (FM, DAB, HD, IP). Then you input the specific information for each platform.

Cost: This tells the device which bearer to prefer. Devices always try and use the lowest cost bearer which is available.

Country: This is the country of origination of the Service.

RDS ECC: The ECC code that you transmit in your RDS signal. If you do not transmit an RDS ECC code, you should use the one allocated to your country. You can check which RDS ECC code is allocated to your country by looking at Tables 3-7 of [TS 101 756](). Enter the ECC as three characters, each in the range 0-9 or a-f. (e.g. `ce1`)

RDS PI: The PI code that you transmit in your RDS signal. You MUST transmit an RDS PI code in order to use RadioDNS Hybrid Radio your radio station. Enter the PI as 4 characters, each should in the range 0-9 or a-f. (e.g. `c471`)

Frequency: The frequency that your radio station transmits on, in MHz. (e.g. 95.8). If your radio station has multiple frequencies, you should create a bearer record for each one. If you have many FM frequencies, you may create a bearer where the frequency is '*'. The '*' means 'try all frequencies", which is slower than specifying them each individually. You MUST have a corresponding registration in RadioDNS which uses the '*' character in the Frequency parameter.

DAB ECC: The ECC code transmitted by your DAB multiplex (in FIG0/9). Enter the ECC as three characters, each in the range 0-9 or a-f. (e.g. `ce1`)

DAB EId: The EId (Ensemble Identifier) transmitted by your DAB multiplex (in FIG0/0). Enter the EId as four characters, each in the range 0-9 or a-f. (e.g. `c181`).

DAB SId: The SId (Service Identifier) assigned to your Service on your DAB multiplex (in FIG0/2). Enter the EId as four characters or eight characters, each in the range 0-9 or a-f. (e.g. `c471 / e1cf1234`).

HD CC: The Country Code transmitted in your HD signal.

HD SId: The FCC Facility Identifier transmitted in your HD signal.

IP URL: The fully qualified URL of your audio stream. (e.g. http://media-ice.musicradio.com/Capital)

IP MIME: The MIME type of your audio stream. This is important so that devices know if they support your stream type or not. Your streaming provider can tell you what MIME type to use for each stream. (e.g. `audio/aacp`).

IP Bitrate: The bitrate of your stream, in kilobits per second. (e.g. `128` = 128kbps, `1024` = 1MBps).

Offset: This information helps a device realign different audio sources which might have different delays between them, so that the listener doesn't notice a big jump in audio when switching between bearers. The bearer with least transmission delay must given an offset of 0, and all the other bearers given positive offsets relative to that. The bearer parameter is optional. It is specified in milliseconds. (e.g. If your Digital Radio transmission is delayed 2 seconds relative to your FM transmission, you should make the Offset on your FM bearer '`0`', and your offset on your Digital Radio bearers '`2000`'). This value is a hint only, and it is not possible to change it dynamically. Not all devices support this offset information.

RadioDNS Parameters: This helps IP-connected devices find more of your RadioDNS Hybrid Radio services. You should always provide it, and you must support the Service Identifier value in your RadioDNS Hybrid Radio applications.

> **FQDN** - the Fully Qualified Domain Name that your RadioDNS Registration uses.

Service Identifier - a unique Identifier that your allocate to this Service.

> **Note:**
>
> If you haven't yet registered your station with RadioDNS, you should look at our HOWTO here to understand what your FQDN and Service Identifier can be.

Click Add Service to finish adding this Service.

Step 4 - Services Review

You can new review the Services that are currently defined in this XSI. If you want to edit one, click on its name, or you can add another service. If you've finished adding Services. you can move on to export the XSI.

If you want to edit or review the Service Provider information, click on the '2. Service Provider' step at the top right of the page.

> **Important!**
>
> **You will lose all the meta-data you have inputted into the tool when you close the browser window, so you must always Export the XSI file before finishing.** Exporting allows you to save the XSI file (even if it is incomplete) on your local computer.

Step 5 - Export XSI

This page confirms that your XSI is ready for export, and the number of Service Provider and Services in the document.

When you click Download XSI File, you browser will either prompt you for a location to save the XSI.xml file, or will download it automatically to your Downloads folder. Remember where you've saved it, as you'll need to move it to your webserver to make it accessible, or upload it to this tool again if you want to edit it.

You have now completed creating your XSI file, and can quit the tool.