RadioEPG XSI File Generator

Request for Development Proposals

Nick Piggott, 5th November 2013

The RadioDNS Project would like to pay a software developer to produce a tool for the RadioDNS website that can be used to create/amend RadioEPG XSI files. The tool should use standard web technologies (such as PHP) and have a clear User Interface (using contemporary web markup techniques).

This document has been written by Ben Poor (Team Leader of RadioEPG) to give you an idea of what we want the tool to do. If you have any specific questions, please do get in contact with him. (ben.poor@thisisglobal.com)

Please contact us (feedback@radiodns.org) by 26th November 2013 if you want to put forward a plan/cost for producing this tool.

Introduction

The RadioEPG application forms part of the RadioDNS project, and enables a service provider to surface Service and Programme metadata in a standardised format. The core part of the specification [1] is the **Extended Service Information (XSI)** file, which defines all service-related information, including the different ways in which devices can start listening to that service (bearers).

Once a service provider has defined even a basic XSI file, this will allow compatible devices to acquire a much richer level of information than available over traditional broadcast means. It may also enable the device to perform **Service Following**, i.e. switching between IP and Broadcast when listening to a service dependant on the reception conditions.

Goal

The RadioEPG XSI Generation Tool should be an easy, quick way to generate an XSI file for a set of services through a page on the RadioDNS website.

It should allow a user to both generate from scratch, a new XSI, and also parse in an existing XSI in order to

prepopulate services and their fields.

Requirements

Functional

Manage Services	Add, Amend, Remove Services from a list
Set XSI Originator	Hardcoded to **RadioDNS XSI Generation Tool**

Define Service metadata	For each service, the ability to define/amend/undefine:
	
	● Names (short, medium, long), in a variety of lengths and different languages
	● Descriptions (short, long), in a variety of lengths and different languages.
	● Links to external sites/references:
	   ○ Homepage
	   ○ Facebook
	   ○ Twitter
	   ○ TuneIn
	   ○ Wikipedia
	● Logo URLs in set sizes
	● Additional Logo URLs
	● Geo-Location information (country list, points, polygons)
	● Bearer details, from a predefined platform list for:
	   ○ FM
	   ○ DAB
	   ○ HD
	   ○ IP
	This should allow entry of each broadcast parameter, specific to the selected platform.
	● RadioDNS Lookup parameters

Define Service Provider metadata	For the XSI document, the ability to define/amend/undefine the follow metadata on the Service Provider:
	
	● Names (short, medium, long), in a variety of lengths and different languages
	● Descriptions (short, long), in a variety of lengths and different languages.
	● Links to external sites/references:
	   ○ Homepage
	   ○ Facebook
	   ○ Twitter
	   ○ TuneIn
	   ○ Wikipedia
	● Logo URLs in set sizes
	● Additional Logo URLs
	● Geo-Location information (country list, points, polygons)

Generate XSI	Generate a valid XSI document from the defined metadata.

	This should perform some simple validation on the entered metadata to ensure that the XSI is compliant, including: ● Field length restrictions ● Uniqueness of any values (e.g. RadioDNS Lookup Parameters for each service).
Parse and Ingest XSI	Allow a user to upload an existing XSI (from a file or URL) which will be ingested and used to prepopulate existing fields. This will allow a user to 'amend' an existing file, and to then generate a new one based on the amended fields.

Non-functional

Logo preview	Preview for any logos defined.
Tooltips	Helpful tooltips against any fields with a short explanation of the context of the field, and any notable restrictions/guidance.
Stateless	No state will be preserved between user sessions, and the user will be expected to export the XSI once complete. State may be kept within a user session, in order to facilitate the interface.
HOWTO	Clear information on how to: ● Make the XSI file available through a station's existing website ● Add tags to the station's existing website to make the XSI file more discoverable ● Register the station's domain in RadioDNS (as an FQDN) ● Request (from the station's DNS provider) or set up an SRV record for RadioEPG

References
[1] RadioEPG Technical Specification v1.1