RadioDNS
18th General Assembly

20th February 2024 @ 14:00 UTC

Welcome

Nick Piggott
Project Director, RadioDNS

Agenda

Members' Business
RadioDNS in 2023
Member Presentation - Radioplayer
RadioDNS in 2024
Member Presentation

Voting

No elections, so it's simple voting
As long as more members **agree** than **disagree**, the vote is carried
We'll ask you **say** or **chat** your vote

Members' Business

Ben Poor
Digital Radio Project Manager, EBU
Secretary, RadioDNS

Voting

Approve the 17th GA minutes
Approve the 2023 Financial Statement
Approve the 2023 Steering Board decisions
Approve the 2024 Plan

Simple majority to pass

Minutes of the 17th General Assembly

Online at
https://radiodns.org/organisation/general-assembly/ga-feb-23/

Do you approve the 17th General Assembly Minutes?

VOTE

2023 Financial Statement

TYRRELL PROCTER
Chartered Accountants
Business Advisors
Beaufort House, 113 Parson Street, Bristol, BS3 5QH

Prepared by an independent accountant

We are exempt from a full audit

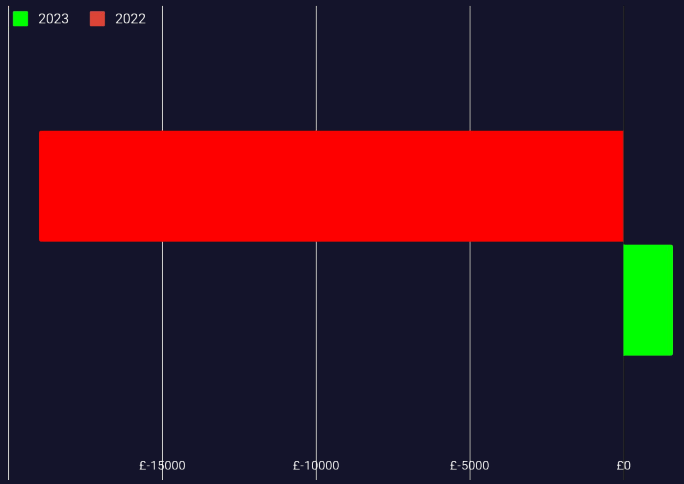
2023 Financial Strategy

Maintain our surplus at around £70k

- Continue development of FQDN list
- Update our prototype / demo device(s)
- Renew our trademarks
- Maintain "In Person" events and education

2023 Financials

	2023	*2022*
Income	**136 319**	*103 000*
Costs	**134 708**	*122 002*
Surplus / (Deficit)	**1 611**	*(19 002)*



All Figures are in GBP

EUR 1.17 USD 1.26 AUD 1.93 NOK 13.25 CHF 1.11 KRW 1,679

(17th February 2024)

2023 v 2022 – Year on Year Changes

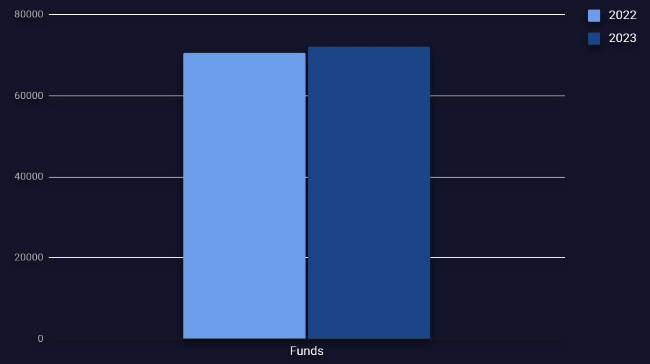
Membership Income change	↑36 161	**Income Increase**	**↑36 161**
Legal (Trademarks)	↑18,936	Project Office Costs	↑2,459
Marketing & Education	↑16,942	Technical Projects	↓30,427
Other	↑2,387	**Expenditure Increase**	**↑15 548**
	Change in Deficit/Surplus 2022 v 2023		**↑20,613**

We had to renew our trademarks in the USA

We gained £20,613 more in 2023 than we did in 2022

Balance Sheet

Opening Balance 2022	**70 527**
Surplus 2023	**1 611**
Closing Balance 2023	**72 138**



RadioDNS Limited is registered as a not-for-profit organisation, so does not pay tax on its normal activities, but cannot distribute its surplus to members.

In the event of RadioDNS being wound up, its assets must be transferred to an organisation pursuing the same aims as RadioDNS.

2023 Financial Statement

Do you approve the 2023 Financial Statement?

VOTE

The Steering Board

Representing the Members

Steering Board

Securing the members' interests
Legally responsible for RadioDNS
Oversight of the Project Director / Office
They represent you

Steering Board Meetings

Review progress and proposals from the Project Office and Technical Group

Approve strategy and check that activities are delivering to that strategy

4-5 meetings a year (virtual & in-person)

2023/4 Steering Board Members

	Ben Poor (Secretary) EBU	**Neil Bingham** Frontier Smart Techn.
Laurence Harrison Radioplayer	**David Layer** NAB	**Maximilian Knop** Konsole Labs
Badri Munipalla NPR	**Michael Reichert** ARD	**Jamie Sampson** iHeartRadio
Nacho Seirul-Lo Salas NXP Semiconductor	**Dave Walters** BBC	**Christian Winter** CARIAD

2023 Steering Board Resignations

Bob Heads Frontier Smart Techn.
John Vermeer iHeartRadio

2023 Steering Board

The Steering Board met 5 times in 2023

SB55	7th February
SB56	18th April
SB57	11th July
SB58	2nd November
SB59	12th December

https://radiodns.org/organisation/steering-board/steering-board-2023/steering-board-meetings-2023

Reviewing 2023

Nick Piggott
Project Director, RadioDNS

RadioDNS exists to accelerate the growth and decrease the cost and complexity of implementing hybrid radio for everyone

RadioDNS HYBRID RADIO

›››

standardise the structure and flow of metadata for the radio industry globally

›››

RadioDNS HYBRID RADIO

RadioDNS – Secondary Effects

Standardisation

We have to standardise metadata structure and flow to achieve our **primary** goal
But a **secondary effect** is that we assist the structure and flow of radio (and audio) metadata for everyone using it

Broadcasters - produce once to reach **all** devices
Manufacturers - not just hybrid radio, but **any** radio enabled device

"FQDN List"

Supporting **all** kinds of radio devices - broadcast & IP

"FQDN List"

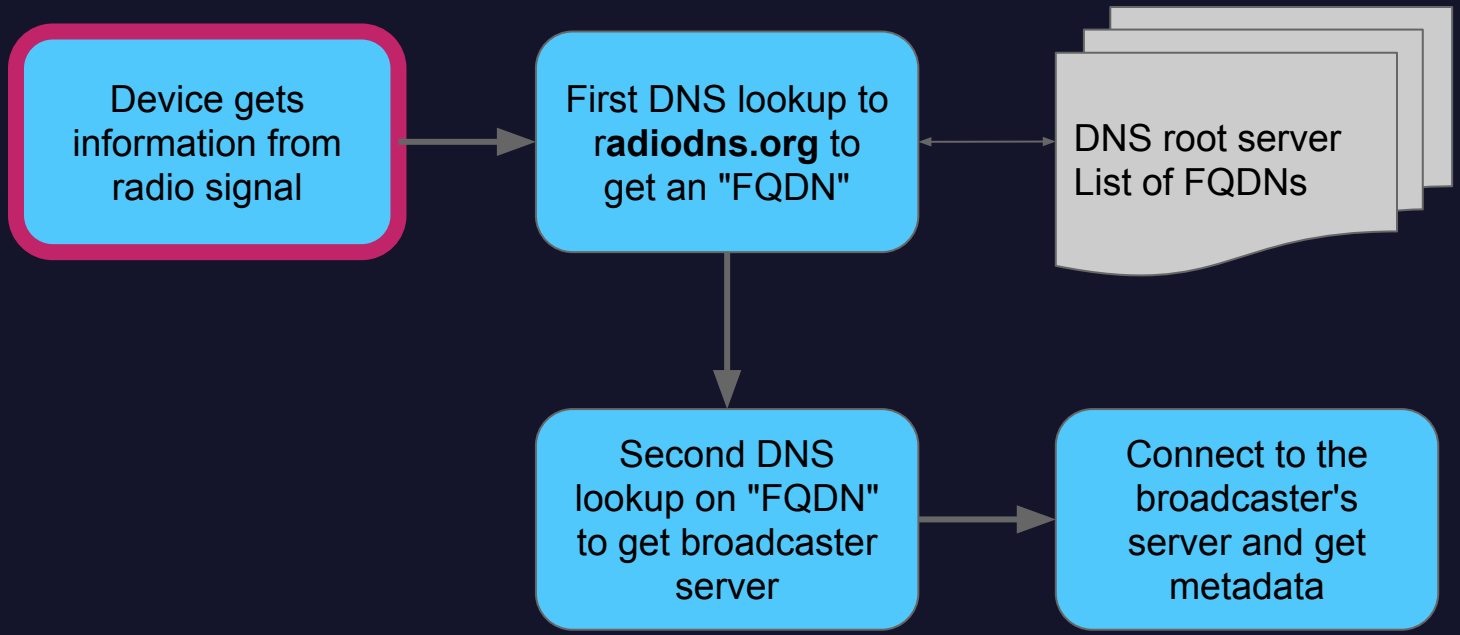
A **strategic** development for RadioDNS

Recap of what it is
Update on where we are

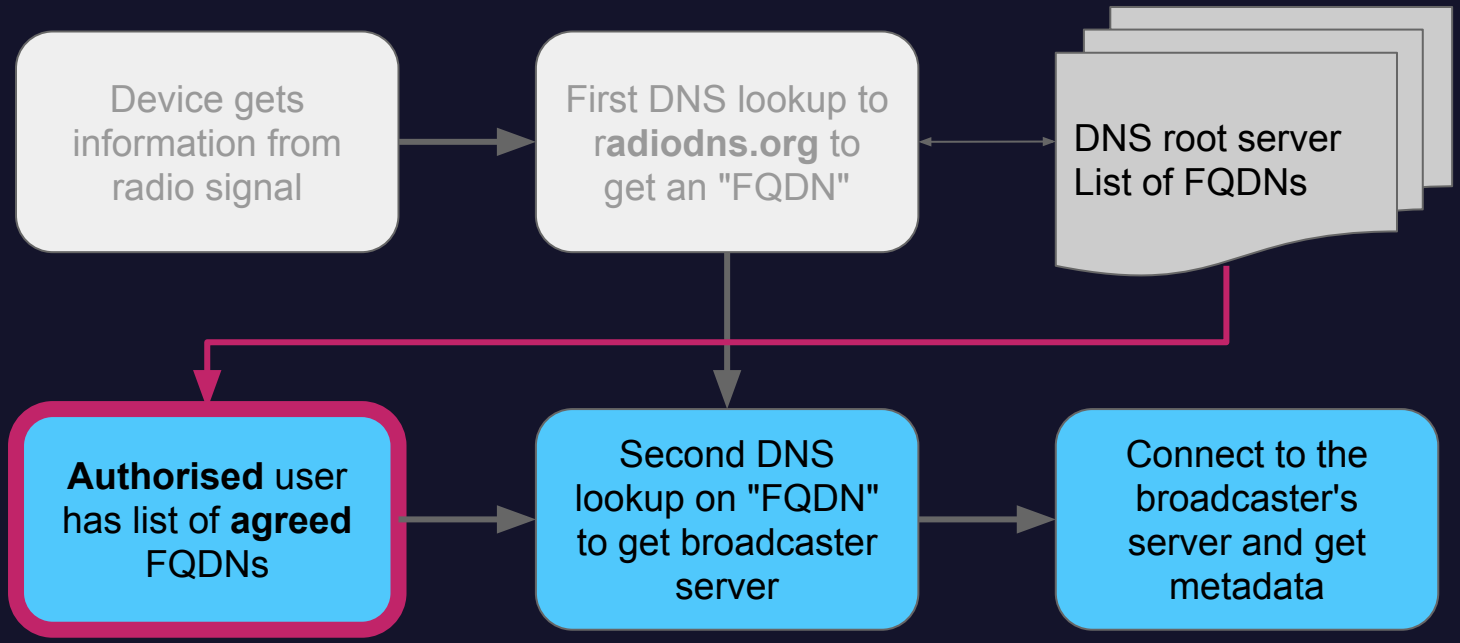
What is the "FQDN List"?

A list of all the servers that are providing metadata / content using our standards
No need to receive a broadcast signal
Enables IP-only devices to access metadata / content consistently

Original Process

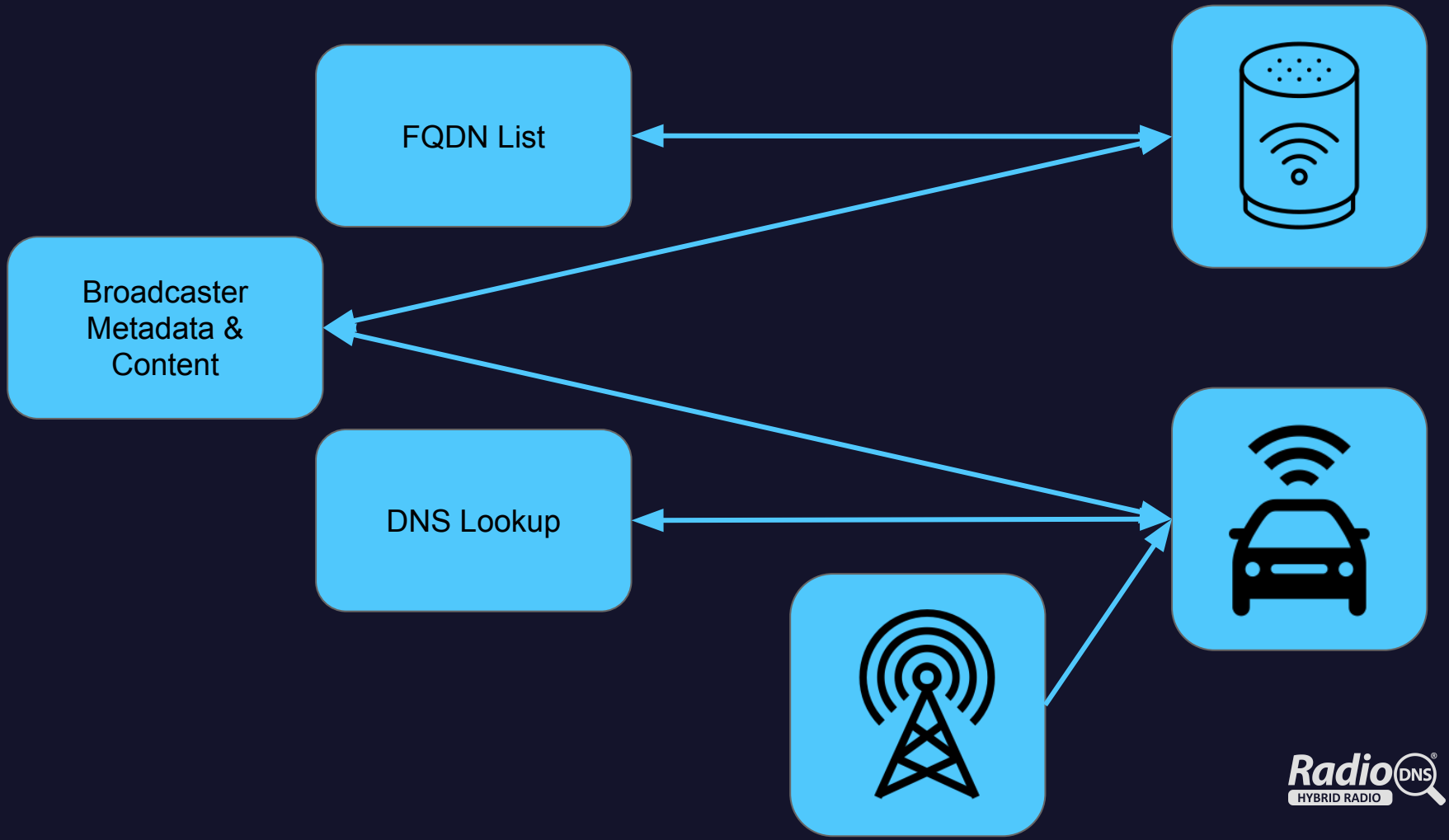


Additional Process – with "FQDN List"



Potential "FQDN List" users

Smart speakers
Smart TVs
Voice assistants
Streaming apps


FQDN List
Broadcaster Metadata & Content
DNS Lookup
RadioDNS
HYBRID RADIO

Controls

Broadcasters retain control

A broadcaster can elect to be excluded from the FQDN list
RadioDNS Members can choose to be selectively excluded from specific users
Access to the list is restricted to potential users approved by the Members

Update on Progress

"It's not a big job, should only take a day or so, it's just a bit of paint and some filler"

Photo: (CC) Miss Natalie D on Flickr

Building up to FQDN

Two significant changes for us

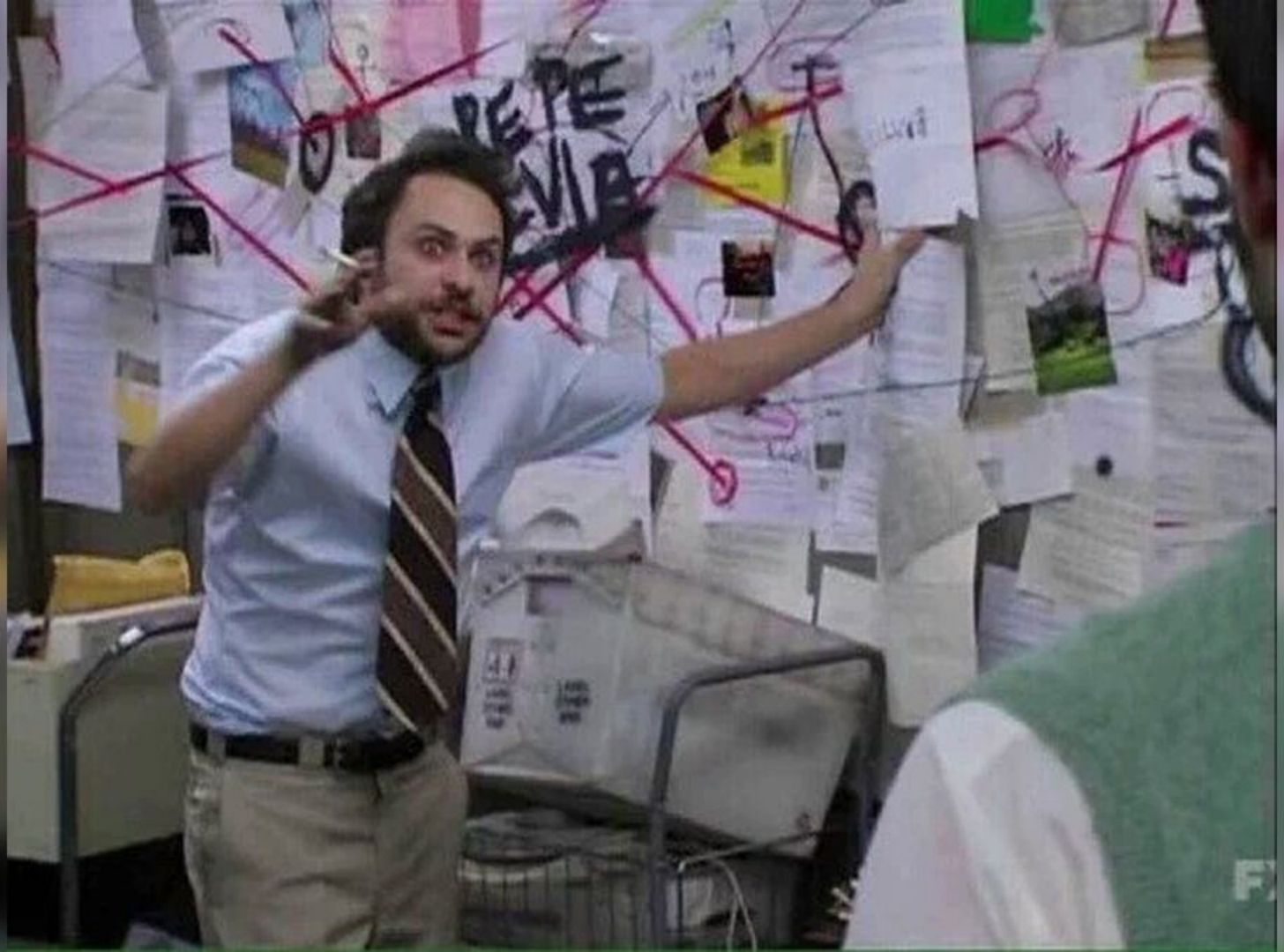
Technology to manage FQDN list generation
Legal agreement for access to FQDN

Relationships – It's Complicated

Broadcasters & Service Providers

We've had to assign every single DNS entry a "broadcaster" and a "service provider" (sometimes, they're the same thing).

Now we can more accurately manage which broadcasters appear in FQDN lists for different users



FQDN – Next Steps

Tech is nearly ready

Legal agreements are in draft

We'll circulate these for people's views before we offer them to users

Education

Innovation

Operations

RadioDNS HYBRID RADIO

Education in 2023

Nick Piggott
Project Director, RadioDNS
Rosie Kendrick
Project Coordinator, RadioDNS

Events 2023

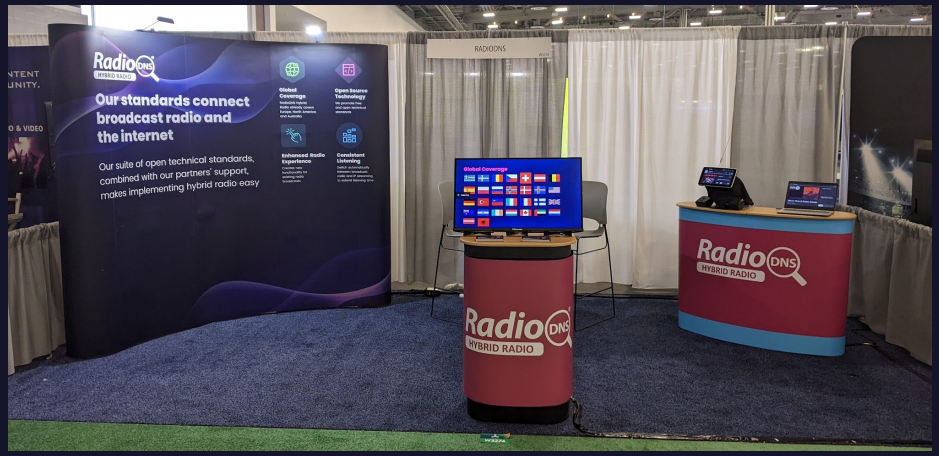
RadioDays Europe
Prague
March

Europe's largest radio show.
Positive engagement with senior people from organisations like NRK, SR (Swedish Radio) and the BBC

Events 2023

NAB Show
Las Vegas
April

Nick spoke at a panel session organised by NABA at the BEIT conference on Metadata and Hybrid Radio: "Broadcasters and Hybrid Radio - It's All About the Metadata"



Thanks to our member NAB for the free booth space.

Events 2023

Autotech: Detroit
Detroit
June

We had a position in the "Startup Zone", and Nick moderated two panels (the videos are our YouTube and Socials)

Events 2023

WorldDAB Automotive
Paris
June

Nick spoke alongside Gregor Pötzsch (CARIAD) regarding radio in cars user experience and driver distraction

Events 2023

Radiodays Asia
Kuala Lumpur
September

Nick spoke with Yann Legerson (Radioplayer) as part of the Automotive session

Events 2023

Autotech: Europe
Berlin
November

Exhibits presence and Nick hosted two sessions on User Experience design for vehicles

Other Events 2023

CES
January
Meetings

ABU DBS
March
Presentation & Workshop

IBC Amsterdam
September
Meetings

ARD x EBU x CARIAD Automotive Workshop
November
Developing On-Demand Prototype concept

NAB Show New York
October
Presentation of FQDN list project

Automotive Workshops

What are today's issues?

A workshop looking at solutions to problems affecting the experience of radio in cars today?
What solutions can we provide now?
No new technical standards or requirements, just getting things to work properly for listeners/drivers.

Automotive Workshops

May 2023

Online

November 2023

In person in Berlin, adjacent to Autotech:Berlin conference

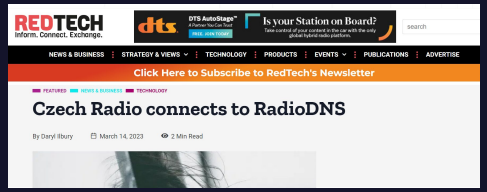
Press Coverage

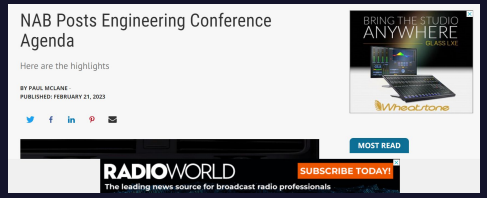
Czech Radio connects to RadioDNS

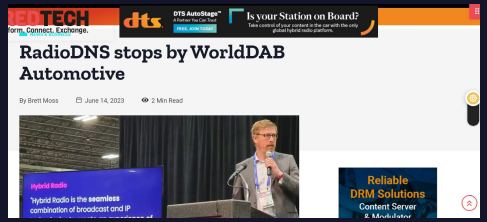
NAB posts engineering conference agenda

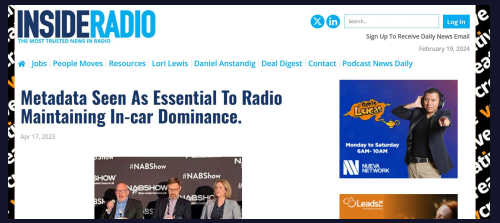
RadioDNS stops by WorldDAB Automotive

Metadata seen as essential to radio maintaining in-car dominance



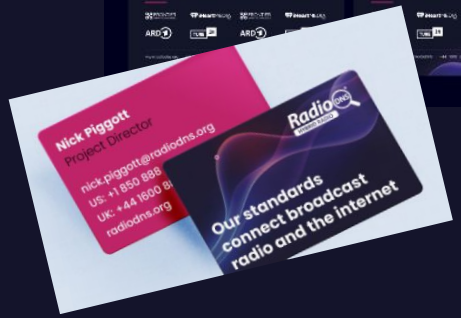






Marketing

Physical and digital marketing assets



Member Communications

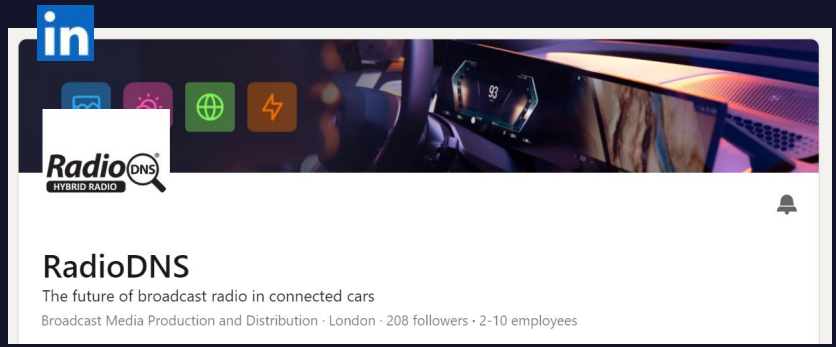
Topical Emails to Members

We use email to send you **important** information
Please check your Spam folders and add feedback@radiodns.org to your allowed senders list

Social Media

LinkedIn

https://www.linkedin.com/company/radiodns



YouTube

https://www.youtube.com/@RadioDNS

X

@RadioDNS

Mastodon

@radiodns@mastodon.social

Instagram

radiodnshybridradio

Innovation

Ben Poor
Technical Group Chair, RadioDNS

Technical Group

Open to Members only

Oversees our Technical Standards

- Maintenance
- Enhancement
- Innovation

Members must commit to our IPR Policy

RadioDNS IPR Policy

IPR contributed to our standards must be available on Free, Reasonable, Non-Discriminatory, Zero Cost basis (FRNDZ)

IPR Policy is at
https://radiodns.org/organisation/statutory-and-historical-documents/

Technical Group

The Technical Group met 6 times in 2023

TG22	17th January
TG23	21st March
TG24	2nd May
TG25	28th June
TG26	18th September
TG27	18th December

Teams in 2023

On-Demand Audio
Targeted Audio into Broadcast
Tagging and Analytics
Listener Login
Hybrid Radio Lookup

OnDemand Audio

Recommendations for OnDemand Audio

If you like this (linear) radio show, you might like this audio too

Utilises the existing PI / GI files system

Is it possible to launch a broadcaster app to listen to on-demand audio?

Targeted Audio into Broadcast

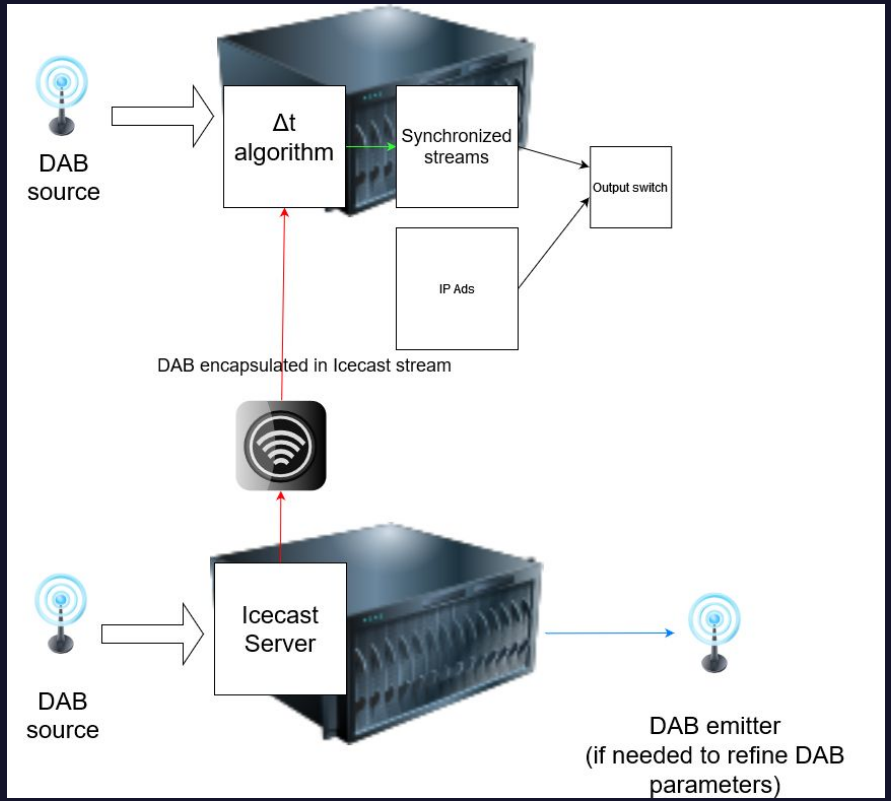
How to **seamlessly** replace broadcast audio with audio delivered over IP

Targeting based on location (or listener)?

Paper prototype devised, needs a real prototype to be built

Targeted Audio into Broadcast

Aligning audio from broadcast with audio over IP



Targeted Audio into Broadcast

RTBF Belgium allocated development resource, and completed a POC

Development ongoing

Tagging and Analytics

A combined standard is ready for prototyping during 2024

Need to understand incentives to implement in vehicles

Listener Login

An updated standard is ready for prototyping during 2024

Need to understand incentives to implement in vehicles

Hybrid Radio Lookup

Some changes to handle "edge cases" we're beginning to see

Standards Updates in 2023

Update to TS 102 818 "Service and Programme Information" to v.3.5.1

Explains how to describe the **languages** of a radio service

Standards Updates in 2023

Update to TS 101 499 "Hybrid Radio Slideshow" to v.3.2.1

Explains how to push text, images and **metadata** in real-time

Operations

Andy Buckingham
Systems Administrator, RadioDNS

Operations

DNS Servers
Testing Tools
Internal Management Systems
Open Source Software Releases

DNS Servers

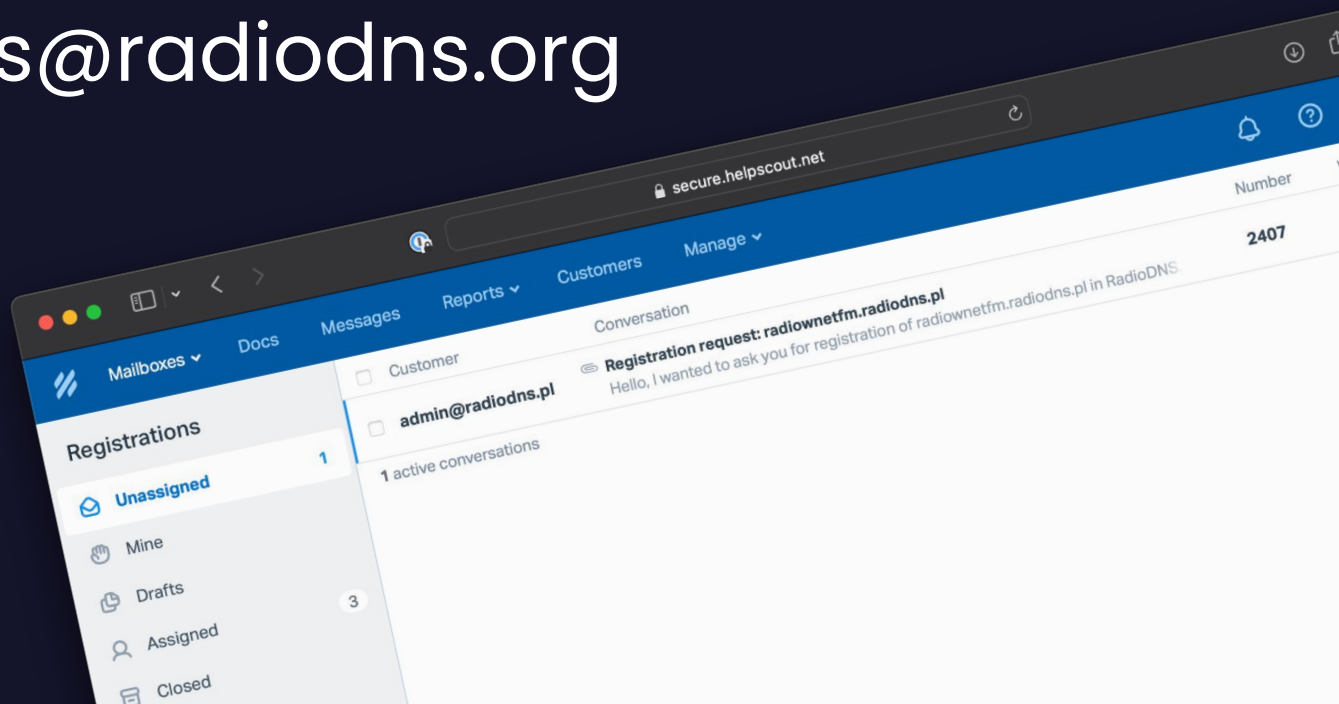
Multiple locations globally
Any failure of one location has insignificant disruption
Easy to scale according to growing demand

DNS Servers

We operate the **radiodns.org** TLD
Lookups are handled by local DNS servers
Target: 100% uptime for end devices
Target: 1 working day turnaround for confirmed DNS record additions/changes

How We Manage DNS Requests

From **request** to **zone entry**
registrations@radiodns.org

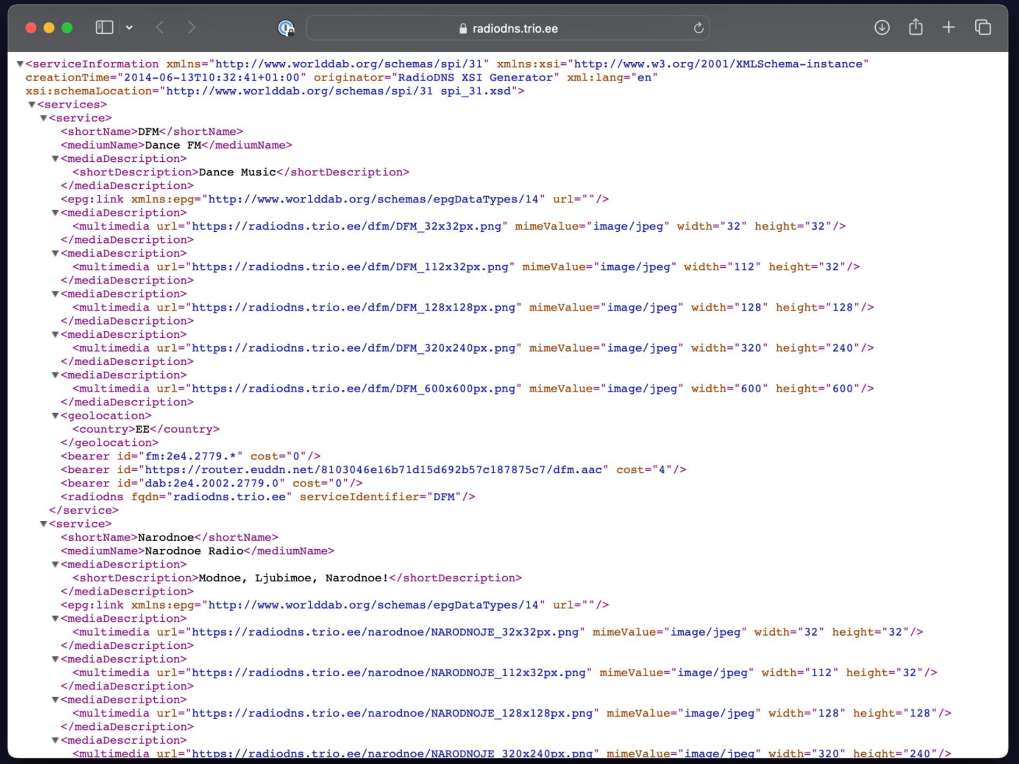


Registration Request Types

```
*.2323.e4.fm IN CNAME radiodns.trio.ee.
*.2321.e4.fm IN CNAME radiodns.trio.ee.
*.2478.e4.fm IN CNAME radiodns.trio.ee.
*.2779.e4.fm IN CNAME radiodns.trio.ee.
*.2322.e4.fm IN CNAME radiodns.trio.ee.
*.2228.e4.fm IN CNAME radiodns.trio.ee.

*.2323.2002.e4.dab IN CNAME radiodns.trio.ee.
*.2321.2002.e4.dab IN CNAME radiodns.trio.ee.
*.2478.2002.e4.dab IN CNAME radiodns.trio.ee.
*.2779.2002.e4.dab IN CNAME radiodns.trio.ee.
*.2322.2002.e4.dab IN CNAME radiodns.trio.ee.
*.2228.2002.e4.dab IN CNAME radiodns.trio.ee.
*.2D42.2002.e4.dab IN CNAME radiodns.trio.ee.
*.2F3C.2002.e4.dab IN CNAME radiodns.trio.ee.

*.2321.2010.e4.dab IN CNAME radiodns.trio.ee.
*.2322.2010.e4.dab IN CNAME radiodns.trio.ee.
*.2323.2010.e4.dab IN CNAME radiodns.trio.ee.
*.2228.2010.e4.dab IN CNAME radiodns.trio.ee.
*.2E88.2010.e4.dab IN CNAME radiodns.trio.ee.
*.2C83.2010.e4.dab IN CNAME radiodns.trio.ee.
*.2724.2010.e4.dab IN CNAME radiodns.trio.ee.
*.2F3C.2010.e4.dab IN CNAME radiodns.trio.ee.
*.2394.2010.e4.dab IN CNAME radiodns.trio.ee.
```



SI.xml “Diff”ing

```
<bearer id="fm:2e4.2779.*" cost="0"/>
<bearer id="https://router.euddn.net/8103046e16b71d15d692b57c187875c7/dfm.aac" cost="4"/>
<bearer id="dab:2e4.2002.2779.0" cost="0"/>
<radiodns fqdn="radiodns.trio.ee" serviceIdentifier="DFM"/>
```

```
abuckingham@ns1:/var/lib/bind$ zone-si-diff epg.aiir.net > /dev/null
conflict 0.ccc3.c19f.ce1.dab The Voice FM North Devon [][Radioplayer UK] c826.radioplayer.org rdns.aiir.net
removing 0.c1d7.c1c5.ce1.dab Regency Radio BRIGHTON [][Aiir] - orphaned entry
conflict 10010.ce3f.ca1.fm BayFM - Corner Brook, Newfoundland [][Radioplayer Canada] c124.radioplayer.org rdns.aiir.net
conflict 10420.c482.ce1.fm 3FM Isle Of Man [][Radioplayer UK] c826.radioplayer.org rdns.aiir.net
conflict 10500.c482.ce1.fm 3FM Isle Of Man [][Radioplayer UK] c826.radioplayer.org rdns.aiir.net
conflict 10620.c482.ce1.fm 3FM Isle Of Man [][Radioplayer UK] c826.radioplayer.org rdns.aiir.net
conflict 10660.c482.ce1.fm 3FM Isle Of Man [][Radioplayer UK] c826.radioplayer.org rdns.aiir.net
conflict 09680.cc84.ce1.fm Erewash Sound [Erewash Sound CIC][Radioplayer UK] c826.radioplayer.org rdns.aiir.net
conflict 10350.cc84.ce1.fm Erewash Sound [Erewash Sound CIC][Radioplayer UK] c826.radioplayer.org rdns.aiir.net
conflict 10610.cd9c.ce1.fm The Voice FM North Devon [][Radioplayer UK] c826.radioplayer.org rdns.aiir.net
conflict 10780.cd9c.ce1.fm The Voice FM North Devon [][Radioplayer UK] c826.radioplayer.org rdns.aiir.net
conflict 09560.cf83.ce1.fm seahaven fm [][Radioplayer UK] c826.radioplayer.org rdns.aiir.net
conflict 09630.cf83.ce1.fm seahaven fm [][Radioplayer UK] c826.radioplayer.org rdns.aiir.net
conflict 10760.cf96.ce1.fm Vibe 107.6 - Radio Made in Watford [][Radioplayer UK] c826.radioplayer.org rdns.aiir.net
conflict 10270.3851.3a0.fm KPGZ 102.7 KEARNEY [][REC Networks] rdns.mylpfm.com rdns.aiir.net
conflict 0.c48c.c1b5.ce1.dab Greatest Hits Radio (Oxfordshire) planetradio.co.uk rdns.aiir.net
```

Registration “Gotchas”

Invalid SI.xml
No SI.xml created, not hosted online, or not at the correct path on the server
Missing or invalid SRV records on an authoritative domain
Not a streaming directory

Automated Notifications

Don't forget to tell us if **bearers** change

Some Service Providers automate checks on their SI files and notify us automatically if <bearer> elements change.

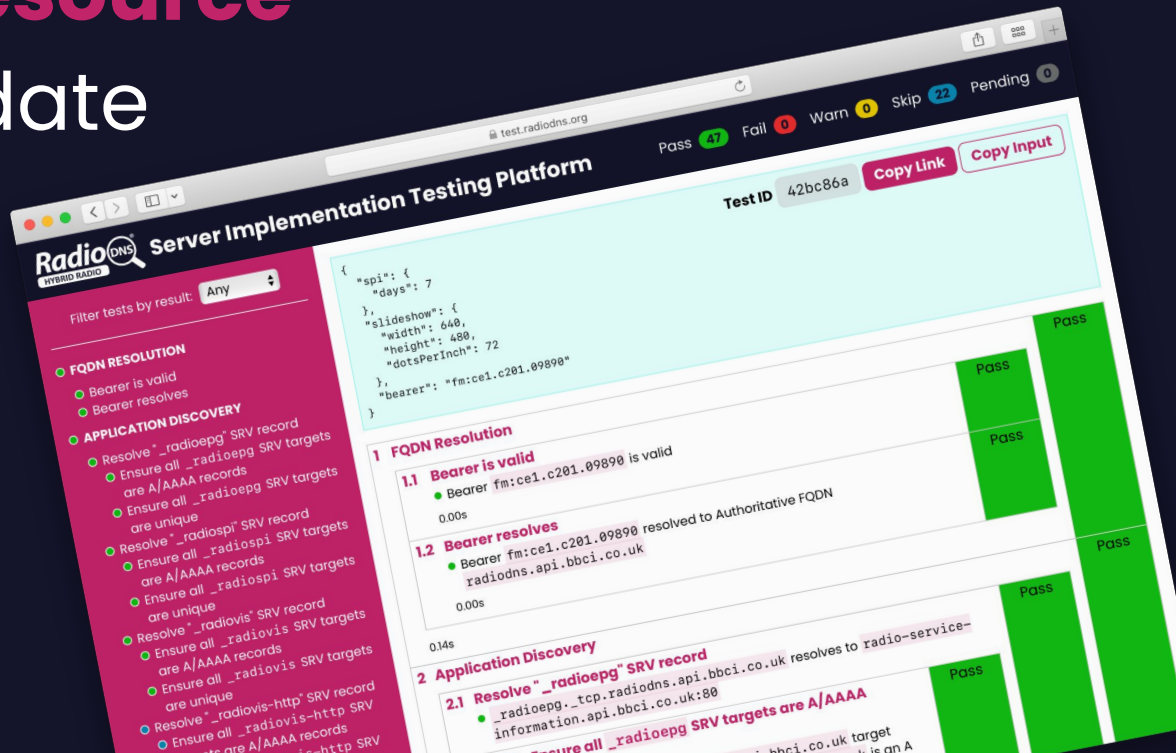
This is a great approach

- **we recommend it**

Server Implementation Testing Platform

Member only resource

Check and validate your RadioDNS setup

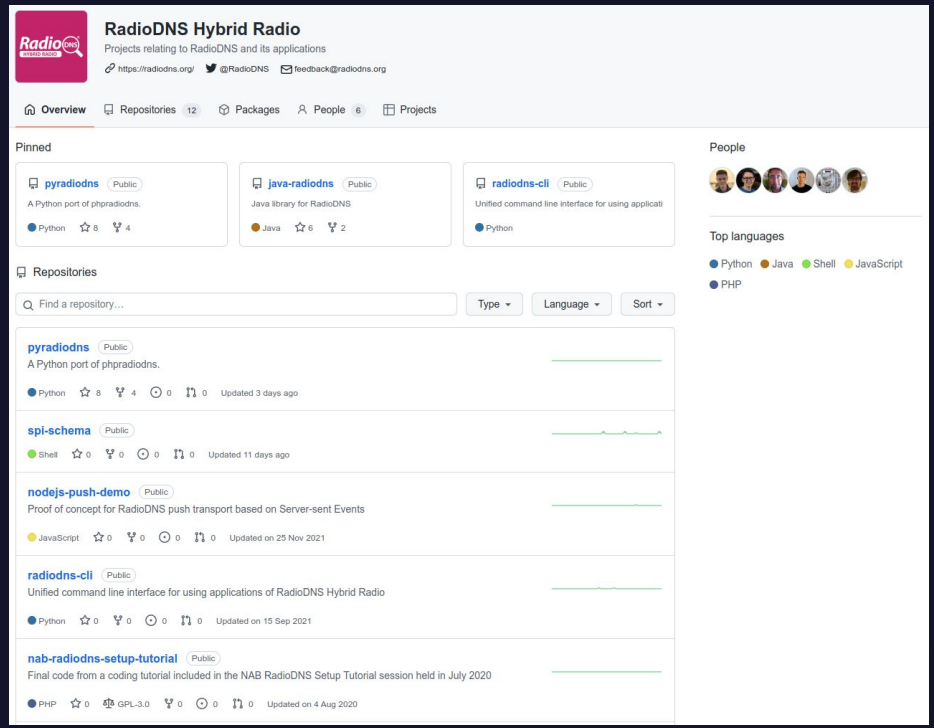


Open Source Software Resources

We create and maintain a library of open source software for RadioDNS

https://github.com/radiodns

Lots of useful libraries and utilities



Trademarks & Certification

Safeguarding our reputation

Trademarks

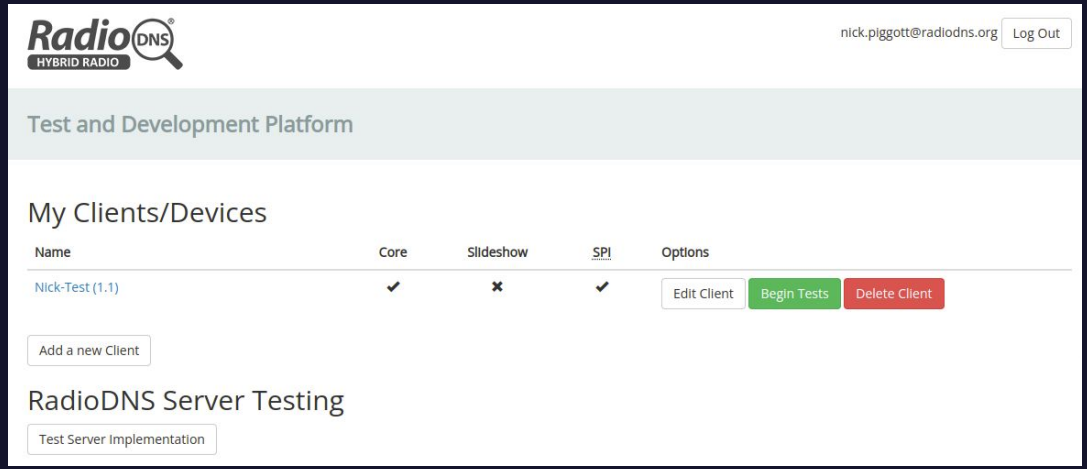
RadioDNS™ is a registered trademark

Both the logo and "RadioDNS Hybrid Radio" are trademarked
Prevents anyone claiming to implement our standards when they aren't
Protects businesses and consumers
Creates an asset for RadioDNS' members
We had to renew our trademarks in the USA this year
It's expensive, but worthwhile (£30k every 5 years)
Quite time consuming

Certification

Allowing use of the trademarks

We have a certification process to allow people to claim RadioDNS compliance and request to use the trademark



2023 in Numbers

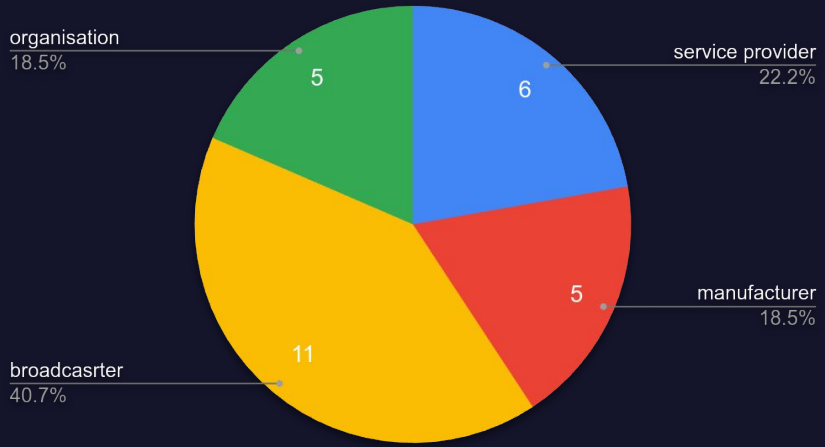
Nick Piggott
Project Director

Membership

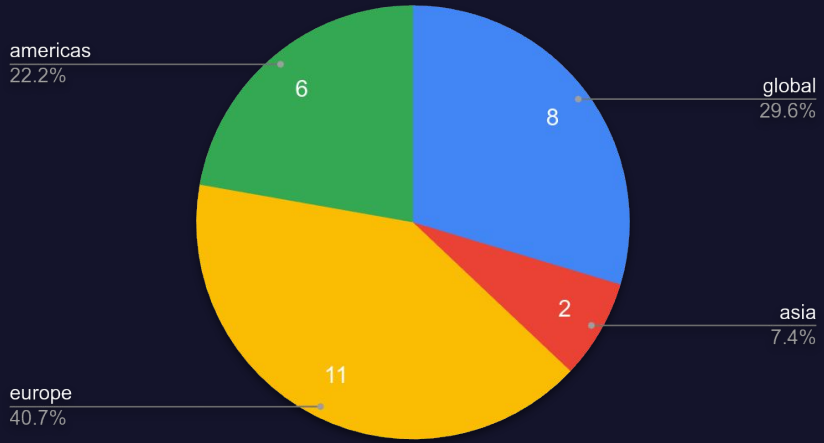
Members at start 2022	**30**
Members resigned	3
Members removed	0
Members joined	0
Members at start 2023	**27**

Membership Analysis

Members by Activity



Members by Continent



DNS Performance

TARGET
100% uptime for end devices

TARGET
Verified DNS changes completed within 1 working day

Countries

NEW Portugal

NEW Estonia

NEW Greece

Daily Root DNS Queries

>2.6m

Individual devices do not query the root server. This number represents traffic from the global network of DNS servers which themselves handle DNS queries directly.

Daily Root DNS Queries

>3.1m

Individual devices do not query the root server. This number represents traffic from the global network of DNS servers which themselves handle DNS queries directly.

2023 Steering Board Decisions

Appointed Neil Bingham (Frontier Smart Tech)
Appointed Jamie Sampson (iHeartMedia)
Sent TS 102 818 to update at ETSI
Removed Audacy as a member
Renewed Project Director Contract
Approved the 2024 Plan

2023 Steering Board Decisions

Do you approve the decisions of the Steering Board in 2023?

VOTE

RadioDNS in 2023

Questions and Discussion

Member Presentation

Radioplayer - Implementing Client ID

Radioplayer

Client ID

RadioDNS GA

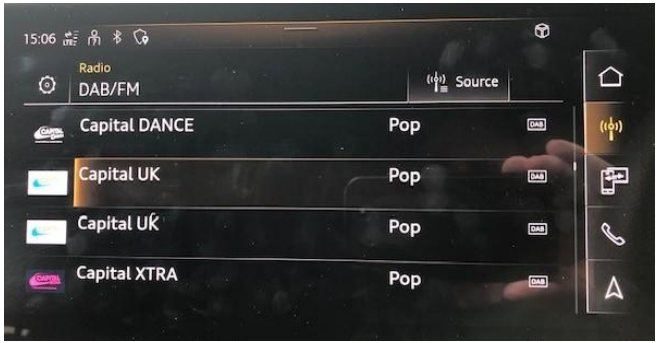
February 2024

Background

- Radioplayer is a long-standing member and supporter of RadioDNS
- We have been a Board member for 3 years and a Tech group member for 6 years
- When broadcasters join Radioplayer we offer to publish their data on RadioDNS as a service provider
- We were the first organisation to test and have available ClientID capability when it was introduced
- We implemented Client ID for all our stations who use us as a service provider in October 2023

Radioplayer is a long-term supporter of RadioDNS standards

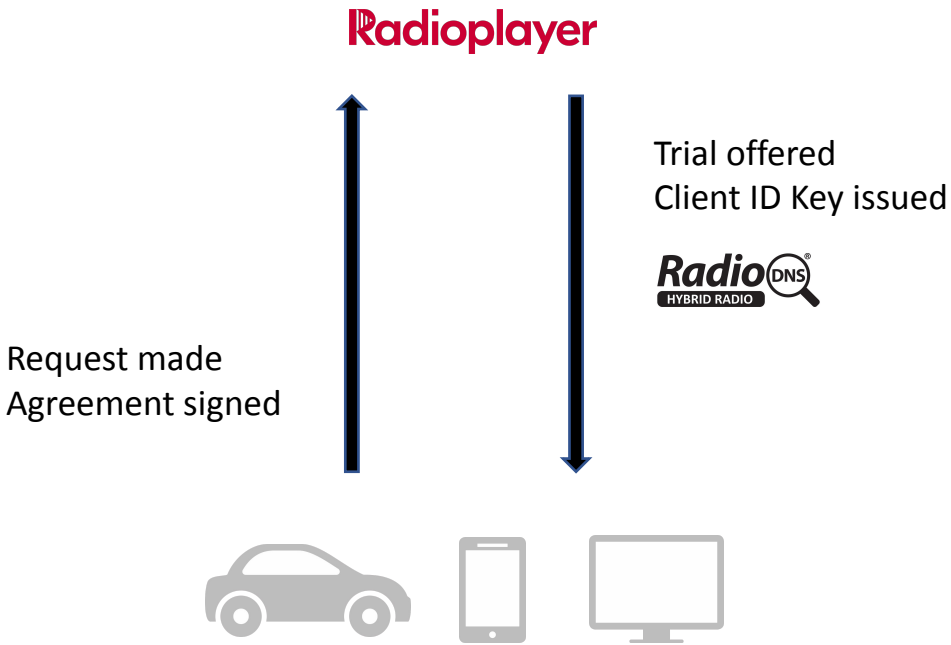
Rationale



- Stations have for many years been asking us how their data is being used and by whom. With one exception we did not know
- Recently many stations have been tightening the security around their data to ensure greater control
- The recent RadioDNS consultation on streams for IP-only devices prompted wider discussion among our countries/broadcasters about data availability in the open
- This led to a decision to implement ClientID to ensure greater control and knowledge of how/where broadcaster data is being used

Broadcasters want to know who is using their data and how

Process



- Following initial discussion and consultation, we communicated with all countries/broadcasters to ensure they knew the timings and process
- We let partners know – those who had already told us they were using RDNS
- We let RadioDNS know – in case they were contacted
- We put up information on our support website

The process is now the same as with all partners

How it's gone and learnings

- Some partners are implementing ClientID
- We have had 3 organisations contact us and we are in the process of managing next steps
- We could have done more to provide feedback and communicate to the wider industry, maybe with RadioDNS help
- It is good to know who is using broadcasters data
- RadioDNS is a very important standard. We will continue to offer RadioDNS support for broadcasters and supply data over RadioDNS

Communication is key

Short Break

Take Ten Minutes

RadioDNS in 2024

Nick Piggott
Project Director, RadioDNS

Education

Innovation

Operations

RadioDNS HYBRID RADIO

Education in 2024

Nick Piggott
Project Director, RadioDNS
Rosie Kendrick
Project Coordinator, RadioDNS

"What Is RadioDNS?"

Improving People's Understanding

Too many people think that RadioDNS is a company offering a service

We need to emphasise that we create **standards**, not services

"Why Hybrid Radio?"

Righting the imbalance of interest

There is more **push** from broadcasters to implement hybrid than there is **pull** from manufacturers

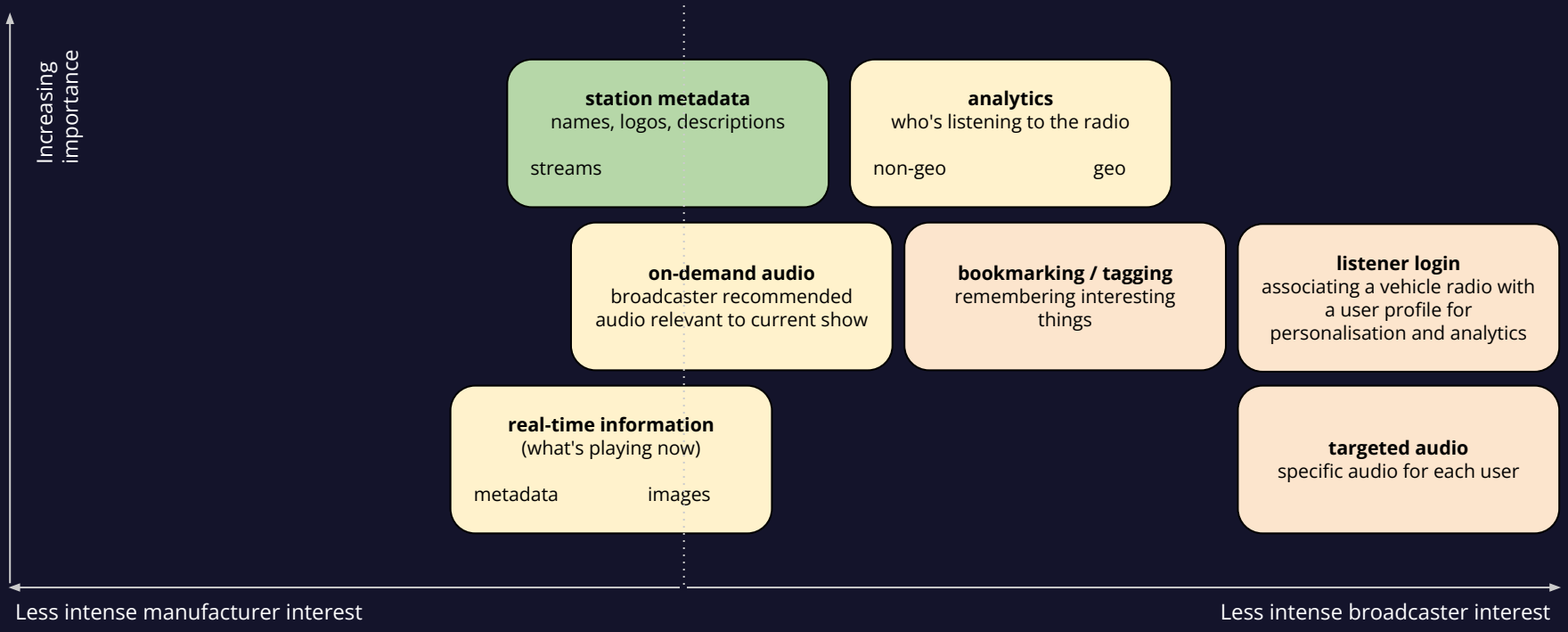
The incentives aren't correctly aligned

We need to find the common ground and grow it

Everyone* wanted to fix **logos** - but what comes next isn't as clear

** Most sensible people*

Map of Interests



Education

Events

Conferences, Seminars and Workshops

Online

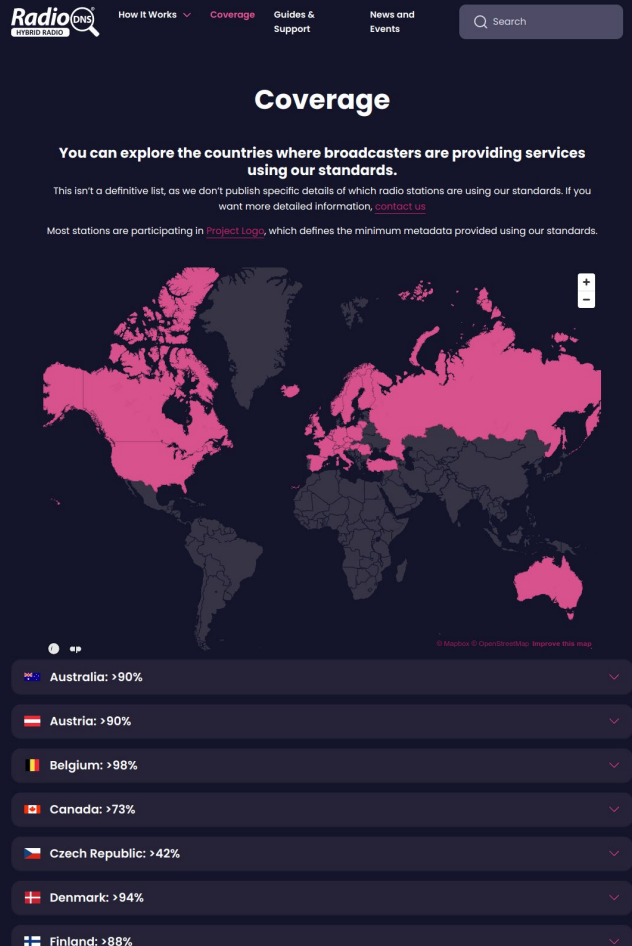
Website, LinkedIn, YouTube

Press

Country Coverage

A key resource for stakeholders

Looking at a better representation of our coverage in 2024



Automotive Workshops

"Consistency"

Our strategic direction for the workshops is to achieve better consistency of experience / implementation by manufacturers and broadcasters
Reduce "ad hoc workarounds" and misunderstandings

In person meetings in **March** & **November**
Online follow ups in **May** & **January**

Automotive Workshops

Next Workshop - 20th March

In person event in Munich, Germany

Register to attend at
https://radiodns.org/campaigns/automotive-workshops/

Attendee numbers are limited

Events in 2024

CES
Las Vegas
Meetings

RadioDays Europe
Munich
March 2024

NAB Show
Las Vegas
April 2024

Autotech Detroit
Detroit
June 2024

NAB Show Steering Board Meeting

16th April - In-person Steering Board

Members welcome to join from 9am (PDT)

Other Events in 2024

ABU - Digital Broadcast Symposium
March 2024

WorldDAB General Assembly
November 2024

CES
January 2025

Communications in 2024

LinkedIn

Website

Press

Communications in 2024

Automotive Workshops & Events
FDQN List
New and updates to standards
Promoting member activities

Demonstrating RadioDNS

Updating our demonstration capabilities

Car Radio Demonstrator

Working with Konsole Labs, we developed a demonstrator on generic "android head unit" hardware

Works on FM and/or DAB

KONSOLE LABS

Car Radio Demonstrator

Touch Screen interface

Supports

- Station Names & Logos
- FM/DAB/IP Switching
- Visuals and Text
- Service Information
- Programme Information

Updating the Demo

New head unit

All the existing functionality
Can be mirrored via HDMI to a large screen
Integrated 4G connectivity
Prototype linking to broadcaster apps
We're building a unit for **IEEE-BTS** to use at the NAB Show

Innovation in 2024

Ben Poor
Technical Group Chair, RadioDNS

Working Teams 2024

On-Demand Audio
Geo/Lookup Method Review
Analytics and Tagging
Listener Login
Targeted Audio into Broadcast

On-Demand Audio

Standards and Prototypes

Discussed at the ARD x EBU x CARIAD workshops in Köln in November
We have quite well defined use cases
Prototypes will expose corner cases to define
We're going to prototype with some broadcasters and demo on our head unit
Can we move seamlessly between built-in radio and broadcaster provided IP applications?

OnDemand Audio

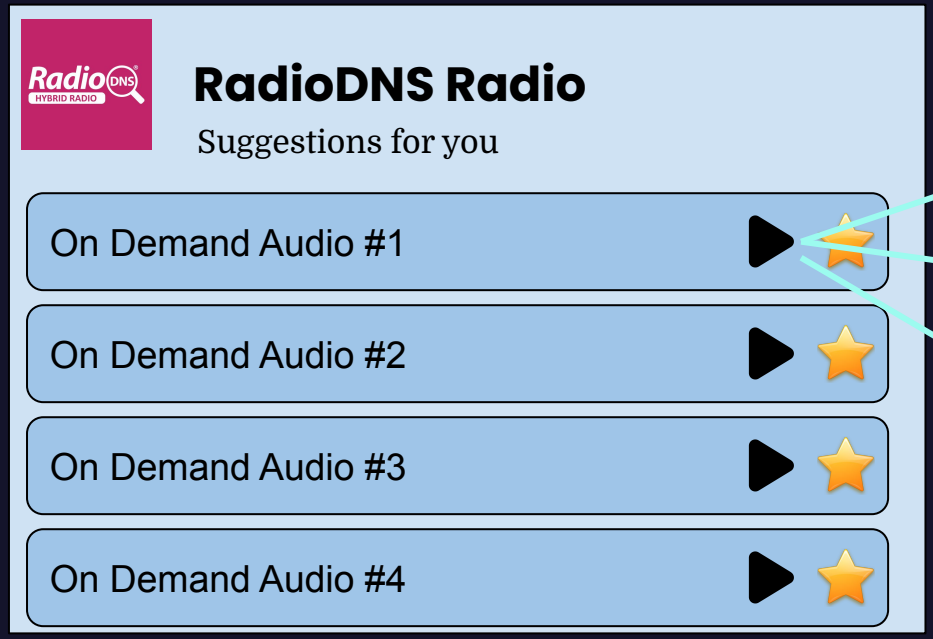
Rewind
This icon is shown if `on-demand` is present and presentationTime = startTime

Listen Again
This icon is shown if `on-demand` is present

Recomendations
This icon is shown if `link` are present

These are wireframes, not the real designs

OnDemand Audio



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These are wireframes, not the real designs

Geo/Lookup Update

Updating for the real world

We've identified some situations where RDS is inconsistent
We need to update our standard and guidance on what to do in those situations

- Countries: Austria, Mexico
- Stations: Foreign broadcasters using "home" identifiers

Update to TS 103 270 is likely to include some sort of "geo"

Analytics and Tagging

Incentive Alignment

How do we make it appealing to implement analytics and tagging for both broadcasters and manufacturers?

The tech is largely solved.

Listener Login

Use Cases

Do the use cases still make sense?

Do broadcasters want native "login" or just shell out to their own apps?

Organising the Tech Group

More admin support

The tech group is our most active group
We need to provide more admin support to accelerate work
We're looking for a tech-aware administrator / support role for the TG
They'll also handle simple tech support issues

Changelogs

Tracking changes to standards

We're going to start providing changelogs for our standards documents, so you can see what has changed between versions
Rearrange the website so each standard has a page with changelog and document versions

Diversity

Bring more people to the TG

Encourage all members to invite more colleagues to TG meetings
It's a good place to introduce people to RadioDNS and radio
A diversity of skills, work-experiences and life-experiences would be great
Not everyone uses radio like we use radio

Tech Group Chair

Could you chair the tech group?

Ben has indicated that he's happy to hand over the Tech Group to another member

Talk to Ben and I if you're interested; deep technology is not essential

Operations in 2024

Nick Piggott
Project Director, RadioDNS
Andy Buckingham
Systems Administrator, RadioDNS

Operations

DNS Servers
FQDN List
Testing Tools
Open Source Software Resources

DNS Servers

Maintain 100% uptime to end devices
Maintain 1 working day registration turnaround
Encourage Service Providers to automate notifications to us

Implementing FQDN List

Legal
&
Technical

FQDN List – Legal

Standard Agreement

Based on and extending from our Standard Terms

Signed between RadioDNS and each user, to control

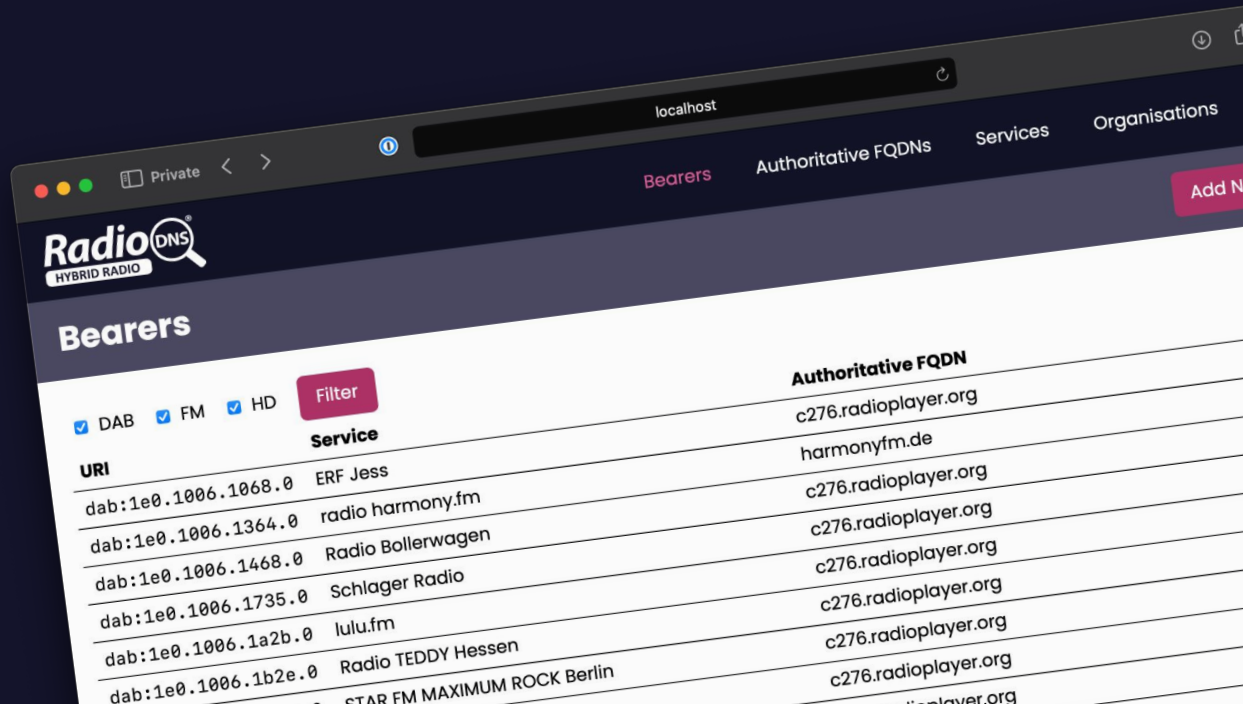
- What they can use the FQDN list for
- How they can access it

Members will be notified when a user asks to get access to the FQDN list and can choose to opt-out

We need to check all existing registrants

FQDN List – Technical

We built a new system...



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RadioDNS CRM

Organisations
    Broadcasters, Service Providers, Consumers
Contacts
Services
Bearers
Legal Agreements, Rules and Restrictions
Outputting to the RadioDNS zone
Securing and outputting an FQDN list per relationship

FQDN List –Timescale

First list publish - this summer

We have to contact all existing registrants / SPs before then
We have to set up agreements with prospective users
We have to migrate the DNS zone into the new system

Development

We're looking for developer(s)

Andy is returning to the sysadmin role, so we need some dev effort

We develop demos, tools, prototypes, systems

The key skills

- node.js
- Amazon AWS inc Lambda
- RadioDNS standards understanding

2024 Budget

What we're investing in

2024 Budget

Income			
Membership	£130 000	HbbTV Income	£1 000
		Total	**£131 000**
Expenditure			
Project Office	£65 040	DNS Servers	£4 800
Tech Development	£39 800	Legal	£14 000
Education	£36 800		
		Total	**£164 950**
		Deficit	**(£33 950)**
		Retained Funds	**£41 502**

RadioDNS in 2024

Questions and Discussion

2024 Plan

Do you approve the 2024 Plan?
Do you approve the 2024 Budget?

VOTE

Diversity and Sustainability

Improving how we work and develop

Sustainability

Working efficiently

We carried out a sustainability report in 2021
We're looking at how to balance sustainable working practices with efficient operation and growth of RadioDNS
Travel is a big challenge; effective for education, but carbon intensive
We use energy efficient / renewable energy for cloud computing
We bank with a B Corporation (ethical) bank

Diversity

Reflecting the diversity of radio listeners

The Steering Board has discussed how we can make RadioDNS more diverse and representative

A wider set of skills, work- and life-experiences would help us understand challenges, opportunities and expectations better

New perspectives create innovation

Diversity

You can help us

The **Members** decide the composition of the Steering Board and the Technical Group

We'll be communicating during 2024 how we think you could help us improve diversity

The next Steering Board elections are in February 2025

Education

Innovation

Operations

RadioDNS HYBRID RADIO

Any Other Business

Summary

2024 is the year that our standards become more valuable

We have momentum and interest to provide standards for a connected world

RadioDNS exists to accelerate the growth and decrease the cost and complexity of implementing hybrid radio for everyone

RadioDNS HYBRID RADIO

RadioDNS
18th General Assembly

Thank You For Attending

RadioDNS HYBRID RADIO