



Radio.Cloud

it's just smart.

[simple. mobile. agile. radio.
technology.]

Presented to Broadcasters Clinic
by Jim Hammond & Shawn Gilbert

October 11, 2022



The First Cloud-Based Automation System Certified as an Amazon Web Services Partner





Traditional Playout Pain Points

Expensive initial hardware & software costs

Repetitive manual updates to software

System interconnection between locations

Minimal localization must be done manually

More features requires more complex hardware

Radio.Cloud Solutions

Sustainability, Minimal hardware, SaaS

Automatic updates through the cloud

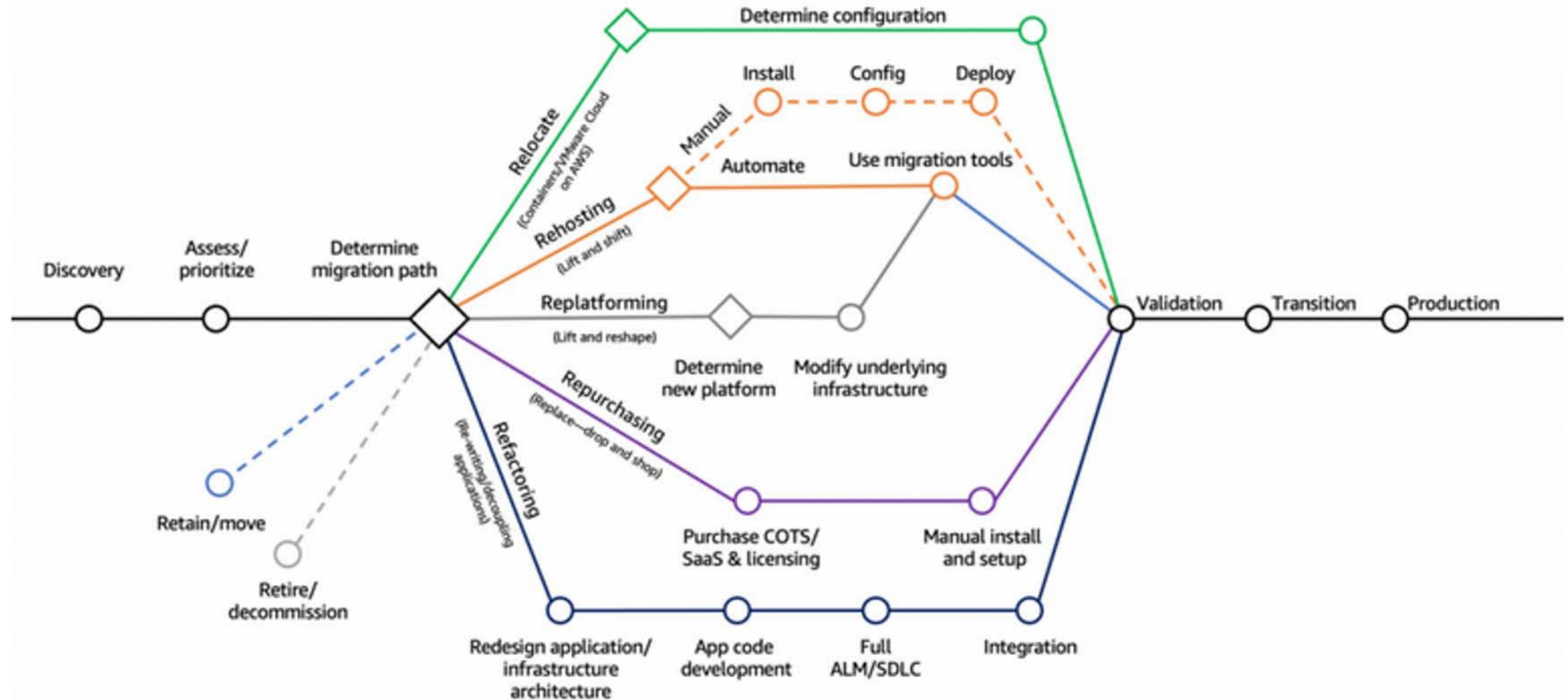
Locations connected through the cloud

Ultra-localization is done automatically

Heavy lifting of complex features done in cloud

Cloud-Native, Containers, and Virtual Machines

Migration Methods



Cloud-Native

- We run a full database and outsource many tasks to Amazon Simple Storage Service (S3)
- With S3 we have a backup of millions of audio files and get continual backups every five minutes
- Able to run microservices on the platform
- Attractive for its easy scalability and cost savings/optimization

Cloud-Native

- Lift-and-shift containers can run many applications/functions, but don't always harness the full power of the cloud
- Cloud-native containers are scalable and can be turned on and off when you need a certain application
- AWS Lambda: event-driven, serverless computing (available & secure)
- Examples are audio transcoding, playlist creation, saving a broadcast clock, and communication for speech to text

Why the Cloud?

- Security: Applying to highest international standards provided by AWS
- Safety: Guaranteed stability and quick backup recovery
- Durability: The ongoing existence of your data
- Availability: The ability to access your data (system uptime)
- Reliability: The probability that a system works as intended

Cloud-Native Formula

Cloud Infrastructure

+

Microservices

+

Containers

+

Continuous Delivery

+

Ongoing Development

=

**
The ability to run
maximum applications
on
minimum servers

**As defined by Cloud Native Computing Foundation (CNCF)

What is Radio.Cloud?

The first to market, 100% cloud-native automation, content management, and production platform. On-air for over 4 years with 160+ affiliates.

We can interface with existing automation systems. This lets stations with large capital expenses to gradually phase out legacy systems, allowing for hybrid operation at startup.

We support both live and network programming and revolutionize the way stations can effortlessly localize content.

Radio.Cloud Workflow



Voice Tracking 

ID	Artist	Title	From	To	Creation	Last Broadcast
86608	VT60103	PA1 Import (prod 06/02/22 14:48:10)	YTrack for 06/06/22 18:30		2022-06-02 13:47:53	2022-06-02 13:48:11
86605	VT60100	PA1 Import (prod 06/02/22 14:47:36)	YTrack for 06/06/22 18:22		2022-06-02 13:47:03	2022-06-02 13:47:25
86604	VT60099	PA1 Import (prod 06/02/22 14:46:58)	YTrack for 06/06/22 18:03		2022-06-02 13:46:41	2022-06-02 13:46:58
86603	VT60098	PA1 Import (prod 06/02/22 14:46:37)	YTrack for 06/06/22 17:31		2022-06-02 13:46:16	2022-06-02 13:46:38
86602	VT60097	PA1 Import (prod 06/02/22 14:46:17)	YTrack for 06/06/22 17:22		2022-06-02 13:45:49	2022-06-02 13:46:13
86601	VT60096	PA1 Import (prod 06/02/22 14:45:45)	YTrack for 06/06/22 17:03		2022-06-02 13:45:18	2022-06-02 13:45:44
86649	VT60094	PA1 Import (prod 06/02/22 14:44:54)	YTrack for 06/06/22 16:30		2022-06-02 13:44:32	2022-06-02 13:44:55
86647	VT60092	PA1 Import (prod 06/02/22 14:44:14)	YTrack for 06/06/22 16:23		2022-06-02 13:43:54	2022-06-02 13:44:14
86646	VT60091	PA1 Import (prod 06/02/22 14:43:30)	YTrack for 06/06/22 16:03		2022-06-02 13:43:26	2022-06-02 13:43:51

Content Management

Ingest 

Logs 

Start Time	Artist	Title
19:00:00	Follow Music Import Playlist	KCCL - THROWBACK_SAT_SWEEP_030
19:00:09	Paula Abdul	Forever Your Girl
19:04:13	temp_J	Full Open Tag Mood 2 KCCL Version A
19:04:13	PA1 Import (prod 05/10/22 14:14:46)	YTrack for 05/08/22 19:04 HR19V701 RAMP
19:04:13	New Kids On The Block	Hangin' Tough
19:07:40	Follow Music Import Playlist	
19:07:45	Poison	Nothing But A Good Time
19:11:37	temp_J	Generic Backlist KCCL Version 01
19:11:30	PA1 Import (prod 05/10/22 14:01:31)	YTrack for 05/08/22 19:11 HR19V702 RAMP
19:12:04	Follow Music Import Playlist	THROWBACK Signature Sound 00
19:12:06	temp_J	Close Tag Mood 2 KCCL Version C

Playlist & Live-Assist Platform



Playout 

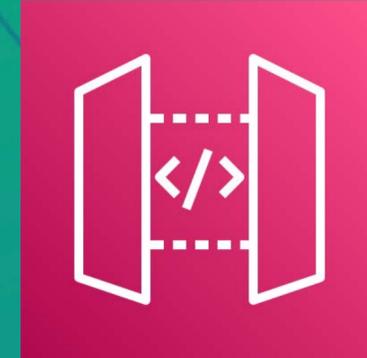
Radio.Cloud - AWS Services



AWS
Lambda



Amazon
Transcribe



Amazon
API Gateway



Amazon
S3



AWS
Managed Services



Amazon
ElastiCache

10 Radio.Cloud Highlights

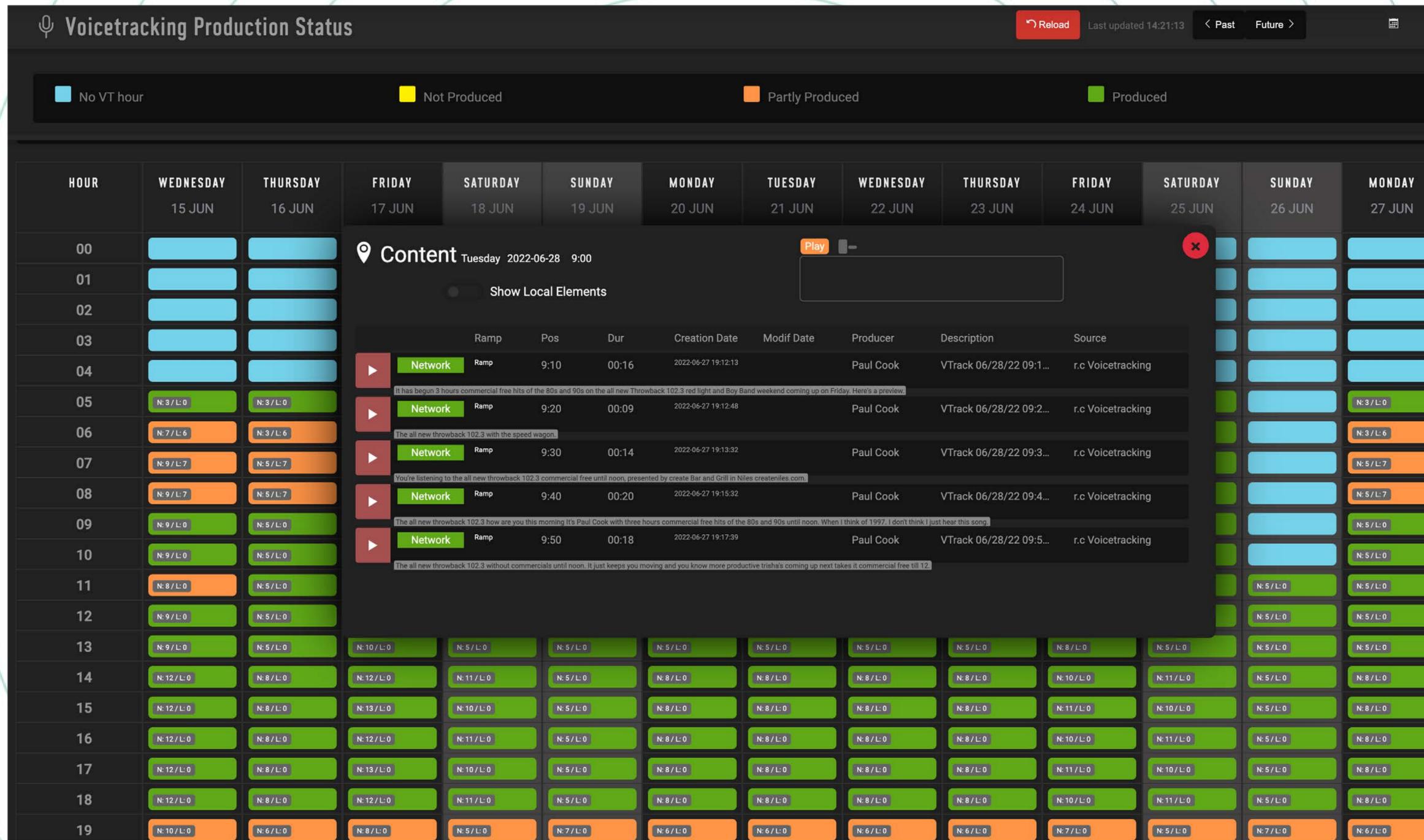
The screenshot displays the Radio.Cloud web-based voicetracking interface. At the top, the navigation bar includes the Radio.Cloud logo and menu items: Dashboard, Audio Browser, Broadcast Clock, Voicetracking, Playlists, Emergency, Admin, Galaxy 2022, Amberg Wei..., and Logout. The main header shows the current production: "VT Production for Local Element Galaxy 2022 Amberg Weiden - Friday" with a timestamp of "Mod 03.12.2021 01:23" and a "mic is active" indicator.

The interface is divided into several sections:

- Last Productions:** A list of recent production entries with play buttons and timestamps.
- Local Content:** A calendar view for "2021-12-03" showing a grid of hours (00-23). Below the calendar, a list of content items is displayed, including "Beitrag", "Blitzer", "BLR RegioNews Ramasuri", "Guide", "Mod", "Verkehr", and "Wetter", each with associated time slots.
- Audio Player:** A central control panel featuring a microphone icon, a volume slider, and a waveform display. The waveform shows a signal level of 100% and a time range from 0 to 2:30. Below the waveform, there are playback controls (stop, play, pause, volume) and a "music beds" section.
- File Upload:** A section at the bottom with an upload icon and the text "ALTERNATIVE: FILE UPLOAD (MAX 100MB) DRAG & DROP HERE OR CLICK".

Web-Based Voicetracking Module

10 Radio.Cloud Highlights



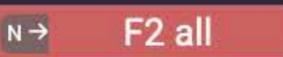
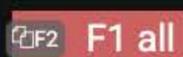
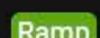
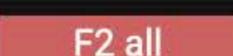
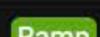
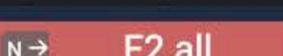
Voicetracking Status Tracker & Details



Share content between stations to work smarter, not harder

 **Content** Friday 2022-07-29 0:00 **Play** 

 Edit Show Local Elements

	F1	F2	F3	Ramp	Pos	Dur	Creation Date	Producer
					1	00:25	2022-07-28 14:51:22	Steffi
<p>In those minutes, a day has dawned that our kids have probably been waiting for all school year. The last day of school before the Bavarian summer holidays, yes, and they are urgently needed ag</p>								
					2	01:03	2022-07-28 14:51:22	Steffi
<p>This Friday is only a few minutes old, but I would like to congratulate you on your birthday today on July 29th. Christian Tramitz turns 67. We know him as Ranger Captain Cork and in dozens of ot</p>								
					3	00:36	2022-07-28 14:51:22	Steffi
<p>Hui, da Schau an Queen and Adam Lambert now also have opera arias in their program. At a show in Bologna they covered the opera Nessun dorma. It became world-famous thanks to the opera</p>								
					3	00:19	2022-07-28 14:51:22	Steffi
<p>Today, on Friday, only the last day of school has to be completed, then it's off to the summer holidays. Yes, and if you are leaving right away, have a nice holiday, good preparation, yes, we are trav</p>								
					4	01:21	2022-07-28 14:51:22	Steffi
<p>A very special cult ends today, Friday. So the series, what Lindenstrasse was for us in Germany, that was for the Australians and especially the English, the TV series Neighbors today from 10:00 p</p>								

Custom local
voicetracks

 **Content** Friday 2022-07-29 0:00 Play

 Edit Show Local Elements

	F1	F2	F3	Ramp	Pos	Dur	Creation Date	Producer
	 F1 all	 F2 all			1	00:25	2022-07-28 14:51:22	Steffi
<p>In those minutes, a day has dawned that our kids have probably been waiting for all school year. The last day of school before the Bavarian summer holidays, yes, and they are urgently needed ag</p>								
	 F1 all	 F2 all			2	01:03	2022-07-28 14:51:22	Steffi
<p>This Friday is only a few minutes old, but I would like to congratulate you on your birthday today on July 29th. Christian Tramitz turns 67. We know him as Ranger Captain Cork and in dozens of ot</p>								
	 F1 all				3	00:36	2022-07-28 14:51:22	Steffi
<p>Hui, da Schau an Queen and Adam Lambert how also have opera arias in their program. At a show in Bologna they covered the opera Nessun dorma. It became world-famous thanks to the opera</p>								
		 F2 all			3	00:19	2022-07-28 14:51:22	Steffi
<p>Today, on Friday, only the last day of school has to be completed, then it's off to the summer holidays. Yes, and if you are leaving right away, have a nice holiday, good preparation, yes, we are trav</p>								
	 F1 all	 F2 all			4	01:21	2022-07-28 14:51:22	Steffi
<p>A very special cult ends today, Friday. So the series, what Lindenstrasse was for us in Germany, that was for the Australians and especially the English, the TV series Neighbors today from 10:00 p</p>								

Shared network voicetracks

10 Radio.Cloud Highlights

The screenshot displays the Radio.Cloud live-assist interface. At the top, it shows the station logo (radio.cloud 101.5 K-HITS), a waveform, and a date-time selector set to 2022-06-28:14. Mode buttons include Manual, Studio Stand By, Practice Mode, and a red PGM1 button. A level meter is visible on the right with a time of 14:32:21 on TUE 28 JUN.

The main interface is divided into several sections:

- Playlist:** A vertical list of tracks on the left, including songs like "Jessie's Girl" by Rick Springfield, "West End Girls" by Pet Shop Boys, and "Ice Ice Baby" by Vanilla Ice.
- Player Controls:** A central area with columns for PLAYER 1, PLAYER 2, PLAYER 3, and ANDREW. Each column shows a track name, a progress bar, a CD icon, and a vertical level meter. Below each meter are MUT and PFL buttons.
- Microphones:** Columns for MIC 2, MIC 3, and MIC 4, each with a microphone icon and a level meter.
- PHONE:** A column for phone calls with a phone icon and a level meter.
- Right Panel:** A vertical stack of buttons, each labeled "00 / 00 Drag here". One button is highlighted in green and labeled "Invite button" with a red arrow pointing to it.

Cloud-Based Live-Assist Interface



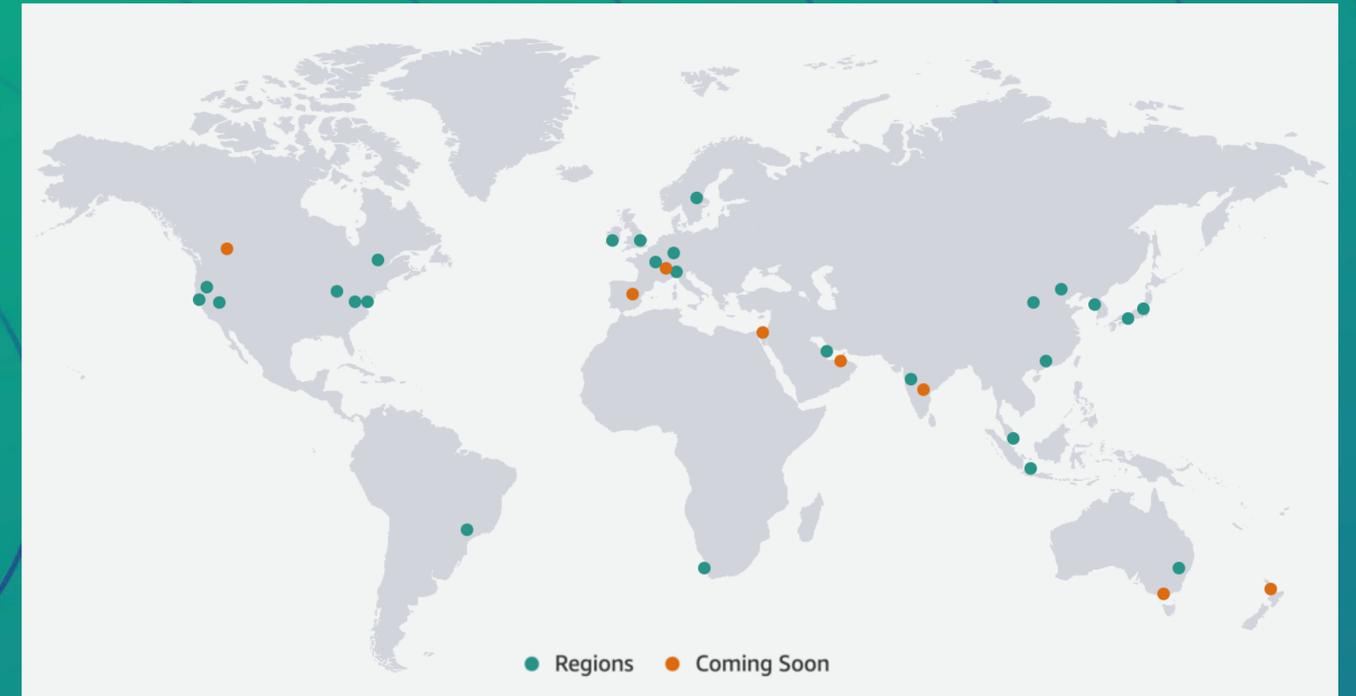
The screenshot shows a radio broadcast control interface for 101.5 K-HITS. At the top, there are mode buttons: Manual, Studio Stand By, Practice Mode, and PGM1 (highlighted in red). A digital display shows the time 14:32:21 on TUE 28 JUN. The interface is divided into several sections:

- Tracklist (Left):** A vertical list of songs and segments, including Rick Springfield's 'Jessie's Girl', Pet Shop Boys' 'West End Girls', and Vanilla Ice's 'Ice Ice Baby'.
- PLAYER 1-3 (Center):** Three columns for different audio sources. Each has a timer, a CD icon, a vertical level meter, and MUT/PFL buttons. The 'ANDREW:' section features a video feed of a man, highlighted with a red box and a red arrow.
- MIC 2-4 (Center-Right):** Three columns for microphone inputs, each with a microphone icon, a level meter, and MUT/PFL buttons.
- PHONE (Right):** A column for phone calls with a phone icon, a level meter, and MUT/PFL buttons.

Ability to see co-hosts & guests on video

What about Latency?

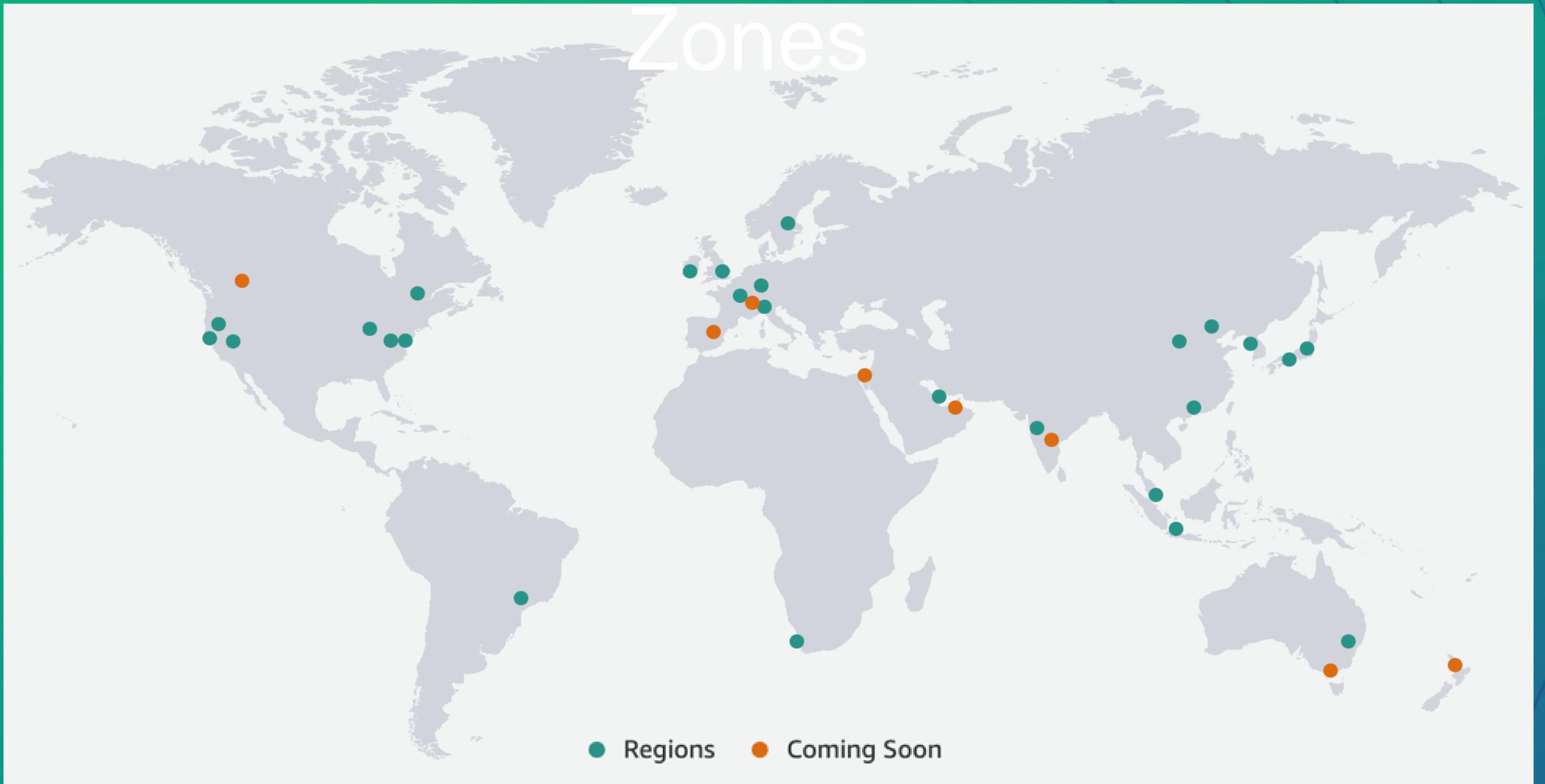
- AI supported automation system – latency not an issue
- New Live Cloud Studio – latency is our main focus and we currently run four mediaservers (East US, West US, Singapore, Germany)
- WebRTC + Opus + local mediaservers providing latency < 100...150 ms – delay for audio element or remote DJs not audible.
- Announcer microphone audio won't be routed through cloud infrastructure (limit 10 ms)



AWS Regions & Availability Zones

AWS Regions & Availability

Zones



10 Radio.Cloud Highlights

The screenshot displays the 'Audio Browser' interface. At the top, there are navigation buttons: 'Upload', 'Show Deleted', 'Delete', and 'Edit'. Below this is a search and filter section with a dropdown menu set to '- All -', an 'ID' field, a search input containing 'Prince', and a 'Title' field. To the right, there are 'Duration' filters for 'From' and 'To', and 'Search' and 'Reset' buttons. The main area is a table of tracks with columns for 'Edit', 'GEMA', 'Select', 'A-ID', 'L-ID', 'Cat', 'Title', 'Comment', 'Creation', 'Modification', 'Last Broadcast', 'F Dur', 'Dur', 'Ramp', 'MB', 'Metadata', 'Filler', and 'Deca'. A dropdown menu is open over the 'Prince' search input, listing 'DJ Jazzy Jeff & The Fresh Prince', 'Prince', 'Princess Bride', and 'Sheena Easton feat. Prince'. The table lists 10 tracks, all with a 'VTrack' category and 'RAMP' comment.

Edit	GEMA	Select	A-ID	L-ID	Cat	Title	Comment	Creation	Modification	Last Broadcast	F Dur	Dur	Ramp	MB	Metadata	Filler	Deca
		<input type="checkbox"/>	211411882		102	DJ Jazzy Jeff & The Fresh Prince							<input type="checkbox"/>				
		<input type="checkbox"/>	211410750		102	Prince							<input type="checkbox"/>				
		<input type="checkbox"/>	211410580		102	Princess Bride	08/01/22 18:20 RAMP	2022-08-01 10:12:07	2022-08-01 10:12:07	-	00:22.344	00:22.344	<input checked="" type="checkbox"/>				
		<input type="checkbox"/>	211410750		102	Sheena Easton feat. Prince	08/01/22 18:10 RAMP	2022-08-01 10:11:27	2022-08-01 10:11:27	-	00:21.264	00:21.264	<input checked="" type="checkbox"/>				
		<input type="checkbox"/>	211410580		102	VTrack	08/01/22 17:50 RAMP	2022-08-01 10:10:42	2022-08-01 10:10:42	-	00:09.384	00:09.384	<input checked="" type="checkbox"/>				
		<input type="checkbox"/>	21149746-		102	VTrack	08/01/22 17:40 RAMP	2022-08-01 10:10:18	2022-08-01 10:10:18	-	00:36.144	00:36.144	<input checked="" type="checkbox"/>				
		<input type="checkbox"/>	21148318-		102	VTrack	08/01/22 17:30 RAMP	2022-08-01 10:09:10	2022-08-01 10:09:10	-	00:31.344	00:31.344	<input checked="" type="checkbox"/>				
		<input type="checkbox"/>	21147940-		102	VTrack	08/01/22 17:20 RAMP	2022-08-01 10:08:16	2022-08-01 10:08:16	-	00:12.336	00:12.336	<input checked="" type="checkbox"/>				
		<input type="checkbox"/>	21147118-		102	VTrack	08/01/22 17:10 RAMP	2022-08-01 10:07:45	2022-08-01 10:07:45	-	00:18.624	00:18.624	<input checked="" type="checkbox"/>				
		<input type="checkbox"/>	21145672-		102	VTrack	08/01/22 16:50 RAMP	2022-08-01 10:06:59	2022-08-01 10:06:59	-	00:15.864	00:15.864	<input checked="" type="checkbox"/>				
		<input type="checkbox"/>	21144612-		102	VTrack	08/01/22 16:40 RAMP	2022-08-01 10:05:49	2022-08-01 10:05:49	-	00:39.504	00:39.504	<input checked="" type="checkbox"/>				
		<input type="checkbox"/>	21143377-		102	VTrack	08/01/22 16:30 RAMP	2022-08-01 10:04:34	2022-08-01 10:04:34	-	00:22.896	00:22.896	<input checked="" type="checkbox"/>				
		<input type="checkbox"/>	21142623-		102	VTrack	08/01/22 16:20 RAMP	2022-08-01 10:03:04	2022-08-01 10:03:04	-	00:12.864	00:12.864	<input checked="" type="checkbox"/>				

Content Management via Audio Browser
technology.



- ✓ - All -
- 27 Voice 18175
- 40 MU2 2121
- 41 JIN 165
- 42 SWP 219
- 43 PRO 212
- 44 SW8 55
- 45 SW2 1071
- 47 MU3 290
- 49 COM 6
- 52 BED 47
- 56 MU4 661
- 57 SW4 199
- 102 VoiceTrack r.c Network 14855
- 108 Jingles Wx Checks 95
- 111 retro show 13
- 113 TNR Promo RetroPopReunion 64
- 180 AdLarge Spots 54
- 201 publicaffairs 2
- 26 Command 0
- 38 Notes 0
- 46 MU8 0
- 48 AFL 0

Audio Browser

Upload Show Deleted Delete Edit

ID Prince Title Duration From To Search Reset

Edit	GEMA	Select	A-ID	L-ID	Cat	Title	Comment	Creation	Modification	Last Broadcast	F Dur	Dur	Ramp	MB	Metadata	Filler	Deca
		<input type="checkbox"/>	211411882		102	DJ Jazzy Jeff & The Fresh Prince		08/01/22 18:20 RAMP		2022-08-01 10:12:07	2022-08-01 10:12:07	-	00:22.344	00:22.344	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	211410750		102	Prince		08/01/22 18:10 RAMP		2022-08-01 10:11:27	2022-08-01 10:11:27	-	00:21.264	00:21.264	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	211410580		102	Princess Bride		08/01/22 17:50 RAMP		2022-08-01 10:10:42	2022-08-01 10:10:42	-	00:09.384	00:09.384	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	21149746-		102	Sheena Easton feat. Prince		08/01/22 17:40 RAMP		2022-08-01 10:10:18	2022-08-01 10:10:18	-	00:36.144	00:36.144	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	21148318-		102	VTrack		08/01/22 17:30 RAMP		2022-08-01 10:09:10	2022-08-01 10:09:10	-	00:31.344	00:31.344	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	21147940-		102	VTrack		08/01/22 17:20 RAMP		2022-08-01 10:08:16	2022-08-01 10:08:16	-	00:12.336	00:12.336	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	21147118-		102	VTrack		08/01/22 17:10 RAMP		2022-08-01 10:07:45	2022-08-01 10:07:45	-	00:18.624	00:18.624	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	21145672-		102	VTrack		08/01/22 16:50 RAMP		2022-08-01 10:06:59	2022-08-01 10:06:59	-	00:15.864	00:15.864	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	21144612-		102	VTrack		08/01/22 16:40 RAMP		2022-08-01 10:05:49	2022-08-01 10:05:49	-	00:39.504	00:39.504	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	21143377-		102	VTrack		08/01/22 16:30 RAMP		2022-08-01 10:04:34	2022-08-01 10:04:34	-	00:22.896	00:22.896	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	21142623-		102	VTrack		08/01/22 16:20 RAMP		2022-08-01 10:03:04	2022-08-01 10:03:04	-	00:12.864	00:12.864	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Store your audio in as many categories as you'd like





Audio Browser

Upload Show Deleted **Delete** **Edit**

- All - **ID** **Prince** **Title** **Duration** **From** **To** **Search** **Reset**

Edit	GEMA	Select	A-ID	L-ID	Cat	Title	Comment	Creation	Modification	Last Broadcast	F Dur	Dur	Ramp	MB	Metadata	Filler	Deca
		<input type="checkbox"/>	211411882		102	DJ Jazzy Jeff & The Fresh Prince											
		<input type="checkbox"/>	211410750		102	Prince											
		<input type="checkbox"/>	211410580		102	Princess Bride	08/01/22 18:20 RAMP	2022-08-01 10:12:07	2022-08-01 10:12:07	-	00:22.344	00:22.344	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	211410750		102	Sheena Easton feat. Prince	08/01/22 18:10 RAMP	2022-08-01 10:11:27	2022-08-01 10:11:27	-	00:21.264	00:21.264	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	211410580		102	VTrack	08/01/22 17:50 RAMP	2022-08-01 10:10:42	2022-08-01 10:10:42	-	00:09.384	00:09.384	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	21149746-		102	VTrack	08/01/22 17:40 RAMP	2022-08-01 10:10:18	2022-08-01 10:10:18	-	00:36.144	00:36.144	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	21148318-		102	VTrack	08/01/22 17:30 RAMP	2022-08-01 10:09:10	2022-08-01 10:09:10	-	00:31.344	00:31.344	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	21147940-		102	VTrack	08/01/22 17:20 RAMP	2022-08-01 10:08:16	2022-08-01 10:08:16	-	00:12.336	00:12.336	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	21147118-		102	VTrack	08/01/22 17:10 RAMP	2022-08-01 10:07:45	2022-08-01 10:07:45	-	00:18.624	00:18.624	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	21145672-		102	VTrack	08/01/22 16:50 RAMP	2022-08-01 10:06:59	2022-08-01 10:06:59	-	00:15.864	00:15.864	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	21144612-		102	VTrack	08/01/22 16:40 RAMP	2022-08-01 10:05:49	2022-08-01 10:05:49	-	00:39.504	00:39.504	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	21143377-		102	VTrack	08/01/22 16:30 RAMP	2022-08-01 10:04:34	2022-08-01 10:04:34	-	00:22.896	00:22.896	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	21142623-		102	VTrack	08/01/22 16:20 RAMP	2022-08-01 10:03:04	2022-08-01 10:03:04	-	00:12.864	00:12.864	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Upload audio directly into your browser
technology.



10 Radio.Cloud Highlights

Audio Editor
Master length: 03:29.331
Length: 03:29.331

Prince
Raspberry Beret
A-ID: 478
L-ID: 6467
Match with artist
Mood: General **3** Start End

Category: 40 MU2 2121
Create date: 2022-02-02 11:27:17
Modify date: 2022-02-02 11:27:17
Modify user:
Released Year
Decade: 80ies
Comment: -
ISRC: -
Local: -
Producer: -

Waveform visualization with markers for Intro and Outro CutOut.

00:00 00:15 00:30 00:45 01:00 01:15 01:30 01:45 02:00 02:15 02:30 02:45 03:00 03:15

Play button, Aux, 00:00.000, 100% volume, 100% zoom, Jump 50 ms

General | Timing

Cut In	←	→	⌘	Set	🔊	Test	🗑️	Delete	
Fade In	←	→	⌘	Set	🔊	Test	🗑️	Delete	
Intro	A	← 00:23.621	→	⌘	Set	🔊	Test	🗑️	Delete
Hook In	-	←	→	⌘	Set	🔊	Test	🗑️	Delete
Hook Out	-	←	→	⌘	Set	🔊	Test	🗑️	Delete
Outro	A	← 03:18.892	→	⌘	Set	🔊	Test	🗑️	Delete
Ducking 1	←	→	⌘	Set	🔊	Test	🗑️	Delete	
Ducking 2	←	→	⌘	Set	🔊	Test	🗑️	Delete	

Save Cancel

General | Timing

Alternative Cut In 1

Cut In alt 1	←	→	⌘	Set	🔊	Test	🗑️	Delete
Fade In alt 1	←	→	⌘	Set	🔊	Test	🗑️	Delete

Alternative Cut In 2

Cut In alt 2	←	→	⌘	Set	🔊	Test	🗑️	Delete
Fade In alt 2	←	→	⌘	Set	🔊	Test	🗑️	Delete

Alternative Mix 1

Fade Out alt 1	←	→	⌘	Set	🔊	Test	🗑️	Delete
Mix alt 1	←	→	⌘	Set	🔊	Test	🗑️	Delete
Cut Out alt 1	←	→	⌘	Set	🔊	Test	🗑️	Delete

Alternative Mix 2

Fade Out alt 2	←	→	⌘	Set	🔊	Test	🗑️	Delete
Mix alt 2	←	→	⌘	Set	🔊	Test	🗑️	Delete
Cut Out alt 2	←	→	⌘	Set	🔊	Test	🗑️	Delete

Set Multiple Mixpoints with the Audio Editor

10 Radio.Cloud Highlights

local Broadcast Clock Editor

Back without saving

Title
You can use title like 'Broadcast Clock Morning' or 'Weekend'.

Save As

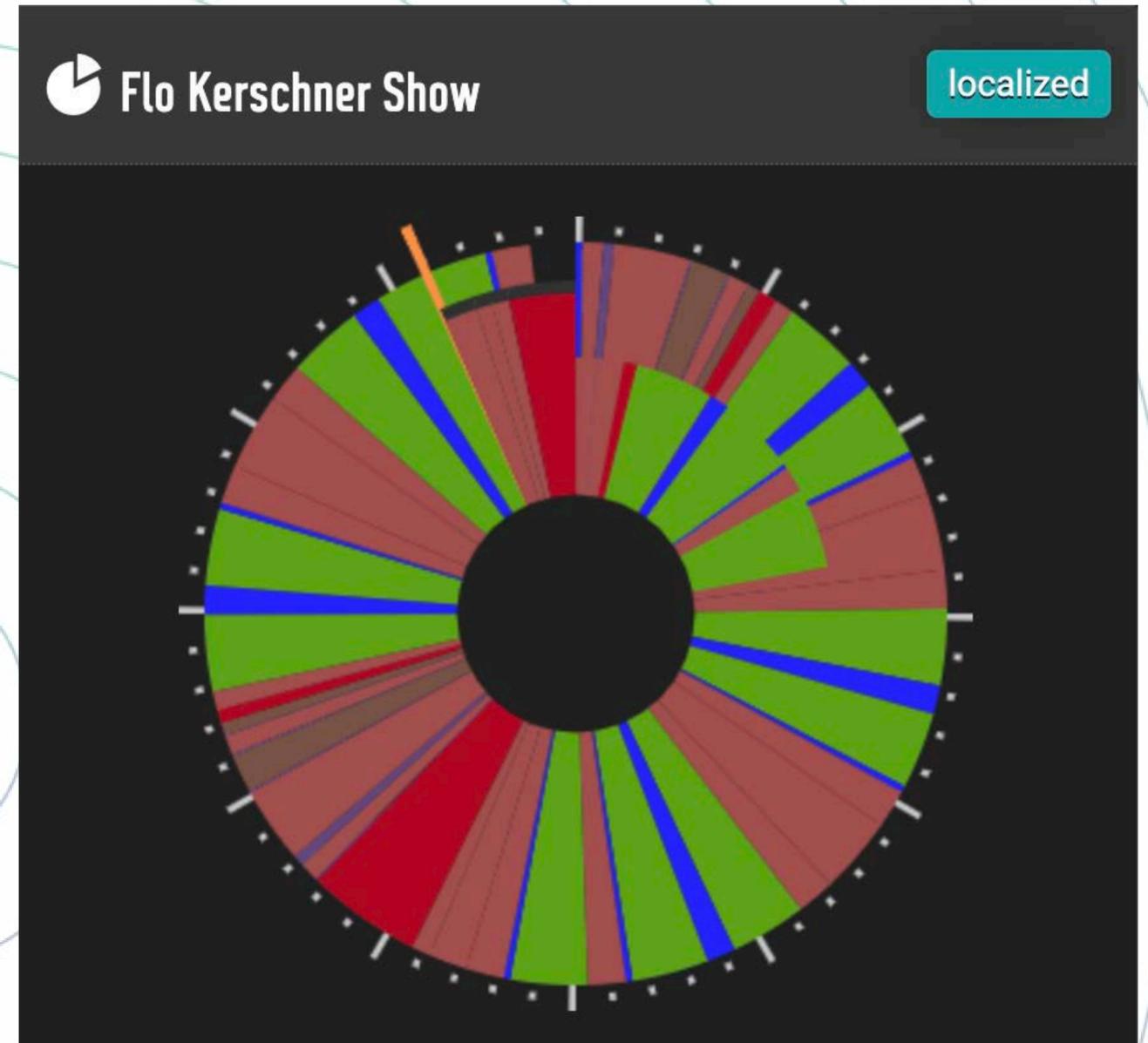
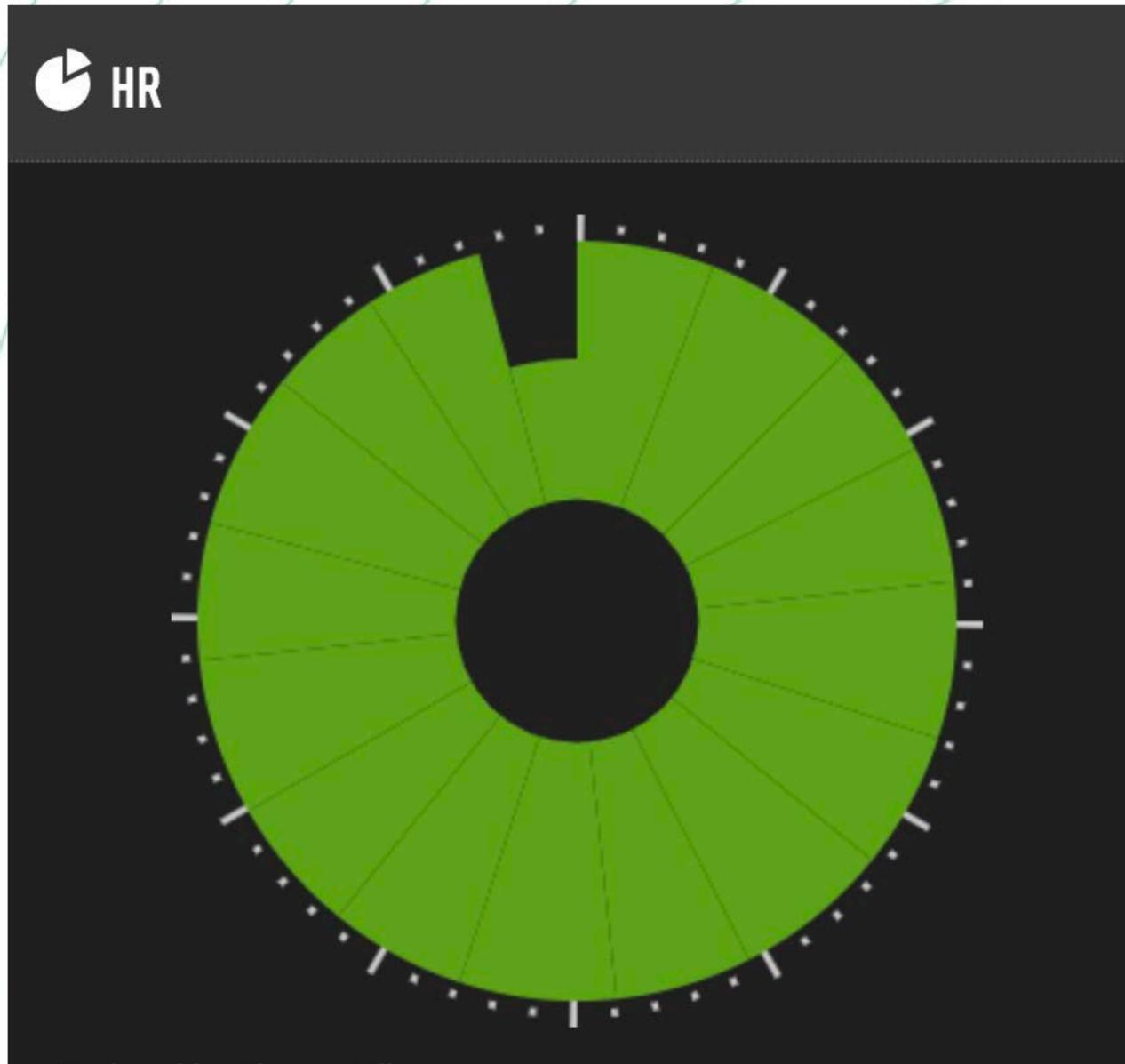
Types
Drag&drop a category element to the area in the middle.

- Jingle
- Voice
- Music
- Hook
- Commercial Break
- Local Content
- Time Event
- Live Break

Background Color
#101010

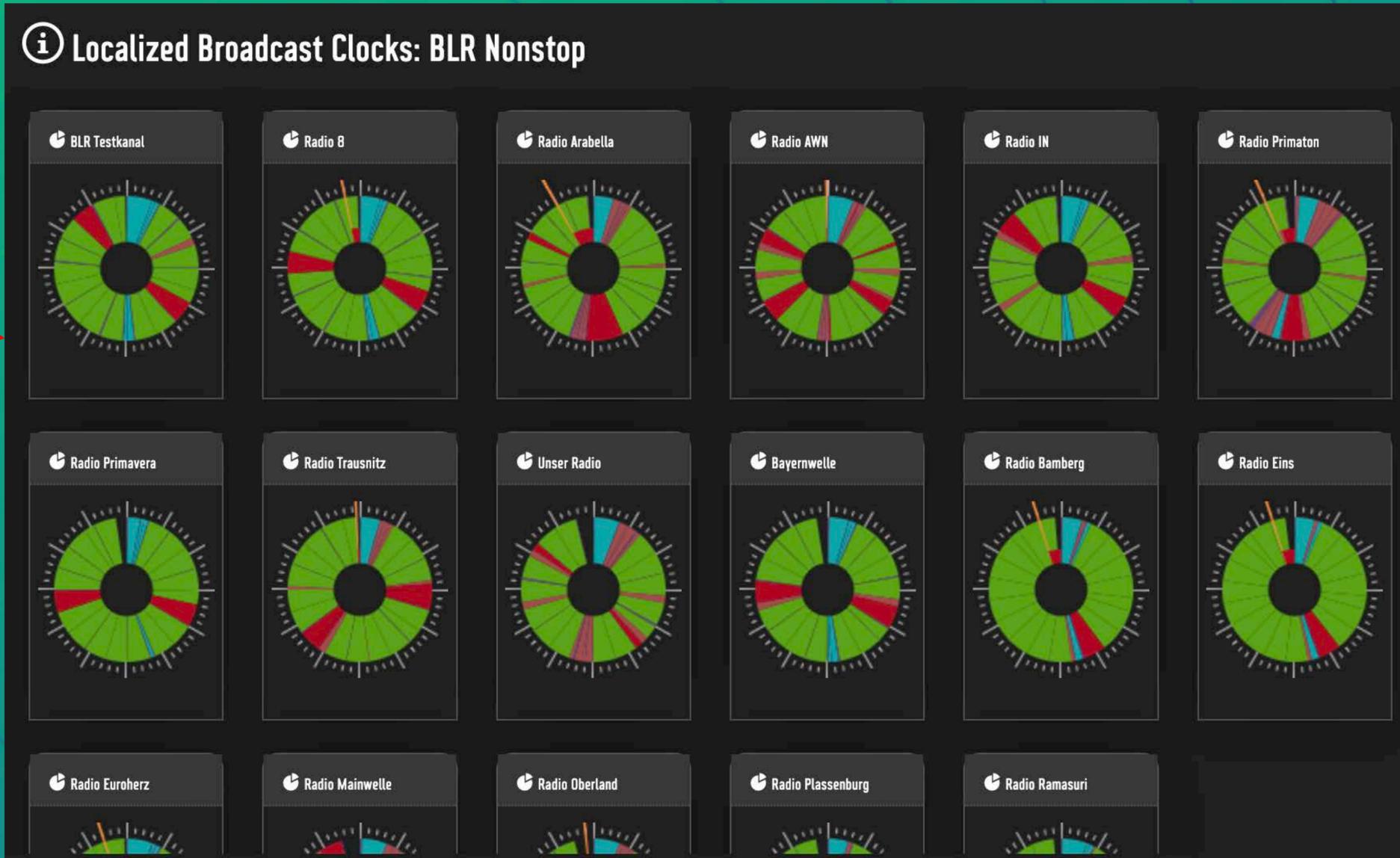
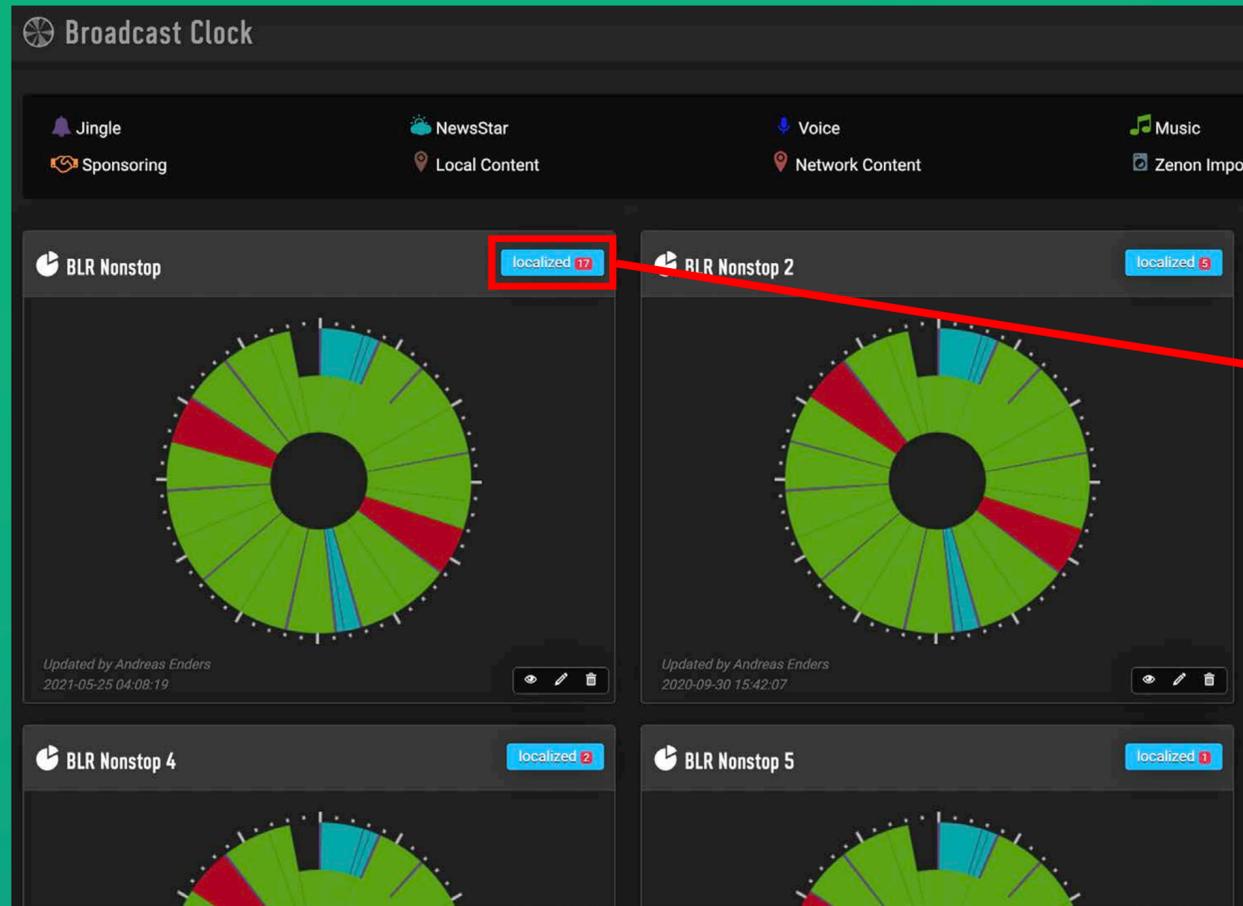
Time	Item	Duration	Item Count
00:00	Jingle	02:00	04
00:30	Music	15:00	05
03:30	Local Content	06:00	02
04:00	Music	00:00	00
07:00	Music	00:00	00
10:00	Commercial Break	03:00	01
13:00	Jingle	00:00	00
13:30	Music	00:00	00
16:30	Local Content	00:00	00
19:30	Music	00:00	00
22:30	Jingle	00:00	00
23:00	Local Content	00:00	00
Total		26:00 Duration	12 Items

Drag & Drop Functionality to Build Clocks



Clocks can be as simple or complex as you'd like

10 Radio.Cloud Highlights



Networking and Localization of Clocks

Network vs Local Playlists

The image displays a side-by-side comparison of two music playlists. The left panel, titled 'Network', shows a sequence of items including 'Follow Music Import Playlist', 'Title 1', 'Mod HR20VT01', 'Title 2', and so on, up to 'Title 13'. The right panel, titled 'WSKY Columbus', shows a similar sequence but with specific modifications. Two items are highlighted with red boxes and a red arrow pointing to a speaker icon at the bottom right: 'Mod tony, J Full Open Tag [Mood_]' and 'Mod tony, J Close Tag [Mood_]'. Other items in the 'WSKY Columbus' playlist include 'Title 1', 'Mod HR20VT01', 'Title 2', 'Follow Music Import Playlist', 'Title 3', 'WDRY - eric Backseil', 'Follow Music Import Playlist', 'Mod HR20VT02', 'Follow Music Import Playlist', 'Mod tony, J Close Tag [Mood_2]', 'Live Book', 'Follow Music Import Playlist', 'Mod HR20VT03', 'Mod tony, J Close Tag [Mood_]', 'Title 4', 'Mod Localizer HH20', 'Title 5', 'Follow Music Import Playlist', 'Title 6', 'Mod tony, J Short Open Tag [Mood_]', 'Mod HR20VT05', 'Title 7', 'Follow Music Import Playlist', 'Title 8', 'Mod tony, J Short Open Tag [Mood_]', 'Mod HR20VT06', and 'Title 9'.

Network & rule-based local playlists



10 Radio.Cloud Highlights

The screenshot shows the 'Local Playlist' interface for Saturday, 2022-07-30. The playlist contains 19 items. Three segments are highlighted with red boxes and arrows pointing to transcription windows:

- Segment 1:** A text overlay at 19:04:57: "The all new throwback 102.3 the greatest hits of the 80s and 90s."
- Segment 2:** A text overlay at 19:05:01: "Throwback Nation radio class of 96 reunion. Just getting started and it is time to win the Sands 2022. This is an amazing lineup. Cluding Loverboy Culture Club Belinda Carlisle all going to be in Cancun Planet Hollywood Resort coming up in October. You want to be there Text the word palm to 877-909-1989. That's Palm PA LM within the next 24 hours. Message and data rates apply and good luck."
- Segment 3:** A text overlay at 19:11:28: "It's another class reunion weekend and welcome I'm Tony Lorino as Throwback Nation Radio is just getting started for the class of 1996. Tonight there are so many different parts of this song that are so sing along table but the one that stands out for me. A tip to tip for me, he might give it away. OK, let's refresh your memory for the class of 1996 and one of the best from sublime coming next."

Transcription

The all new throwback 102.3 the greatest hits of the 80s and 90s.

Close

Transcription

Throwback Nation radio class of 96 reunion. Just getting started and it is time to win the Sands 2022. This is an amazing lineup. Cluding Loverboy Culture Club Belinda Carlisle all going to be in Cancun Planet Hollywood Resort coming up in October. You want to be there Text the word palm to 877-909-1989. That's Palm PA LM within the next 24 hours. Message and data rates apply and good luck.

Close

Transcription

It's another class reunion weekend and welcome I'm Tony Lorino as Throwback Nation Radio is just getting started for the class of 1996. Tonight there are so many different parts of this song that are so sing along table but the one that stands out for me. A tip to tip for me, he might give it away. OK, let's refresh your memory for the class of 1996 and one of the best from sublime coming next.

Close

Amazon Transcribe on Playlist

10 Radio.Cloud Highlights

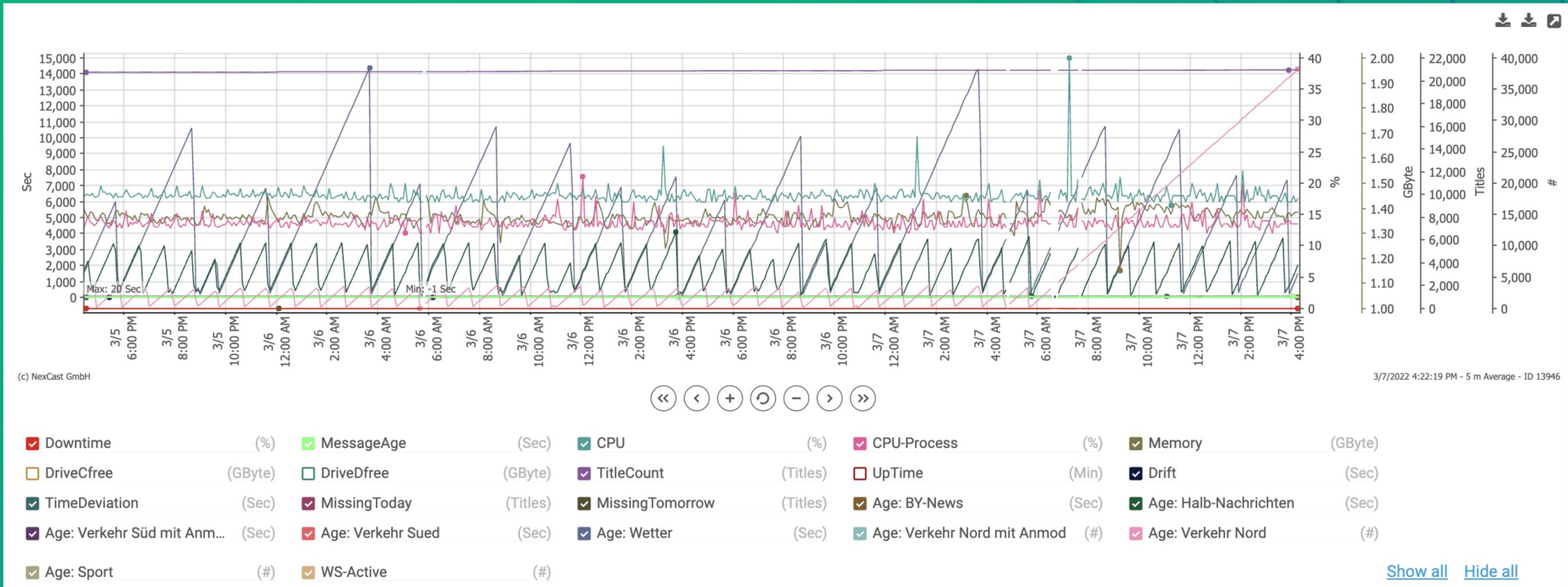
Dashboard | 28-06-2022

Location	Playout Status	Metadata Now Playing	Ad Playlists days ahead	Spots		Playlists				Missing Audio Playout		Missing Audio on Playlist		Playlist Drift	Last Update
				Today	Tomorrow	Today	Tomorrow	Day After Tomorrow	+3 Days	Today	Tomorrow	Today	Tomorrow		
 Network: BLR Mantel															
★ANS	✓MAIN	PLAYER 1: ▶ MUC-00130091.mp2	2	314	358	OK	VE	VE	VE	0	0	0	0	1	28-06-2022 20:42:18
★ASC	✓MAIN	PLAYER 1: ▶ MUC-00129440.mp2	2	537	509	OK	VE	VE	VE	0	0	0	0	0	28-06-2022 20:42:12
★BAM	✓MAIN	PLAYER 1: ▶ MUC-00129440.mp2	2	295	310	OK	OK	OK	VE	0	0	0	0	2	28-06-2022 20:42:16
★BAY	✓MAIN	PLAYER 2: ▶ BAY-00002822.mp2	2	266	262	OK	VE	VE	VE	0	0	0	0	0	28-06-2022 20:42:12
★COB	✓MAIN	PLAYER 1: ▶ MUC-00129440.mp2	2	320	330	OK	OK	OK	VE	0	0	0	0	1	28-06-2022 20:42:40
★FRE	✓MAIN	PLAYER 1: ▶ MUC-00129440.mp2	2	284	281	OK	VE	VE	VE	0	0	0	0	0	28-06-2022 20:42:40
★GAP	✓MAIN	PLAYER 2: ▶ MUC-00129440.mp2	2	363	310	OK	VE	VE	VE	0	0	0	0	0	28-06-2022 20:42:31
★HOF	✓MAIN	PLAYER 1: ▶ MUC-00129440.mp2	2	215	218	OK	VE	VE	VE	0	0	0	0	0	28-06-2022 20:42:09
★ING	✓MAIN	PLAYER 1: ▶ MUC-00130091.mp2	2	323	315	OK	VE	VE	VE	0	0	0	0	0	28-06-2022 20:42:09
★KUL	✓MAIN	PLAYER 1: ▶ BAY-00002822.mp2	2	234	227	OK	VE	VE	VE	0	0	0	0	0	28-06-2022 20:42:29
★LAN	✓MAIN	PLAYER 3: ▶ MUC-00130091.mp2	2	217	241	OK	VE	VE	VE	0	0	0	0	0	28-06-2022 20:42:40
★MUP	✓MAIN	PLAYER 3: ▶ MUC-00130091.mp2	2	398	439	OK	VE	VE	VE	0	0	0	0	-2	28-06-2022 20:42:27
★NOT	✓MAIN	PLAYER 3: ▶ MUC-00130091.mp2	2	26	25	OK	VE	VE	VE	0	0	0	0	0	28-06-2022 20:42:39
★SCH	✓MAIN	PLAYER 2: ▶ MUC-00129440.mp2	2	340	299	OK	VE	VE	VE	0	0	0	0	0	28-06-2022 20:42:24
★STR	✓MAIN	PLAYER 3: ▶ MUC-00130091.mp2	2	287	271	OK	VE	VE	VE	0	0	0	0	1	28-06-2022 20:42:22
★WEI	✓MAIN	PLAYER 3: ▶ wei-00000955.mp2	2	417	424	LCM	VE	VE	VE	0	0	0	0	0	28-06-2022 20:42:27

Dashboard for Monitoring



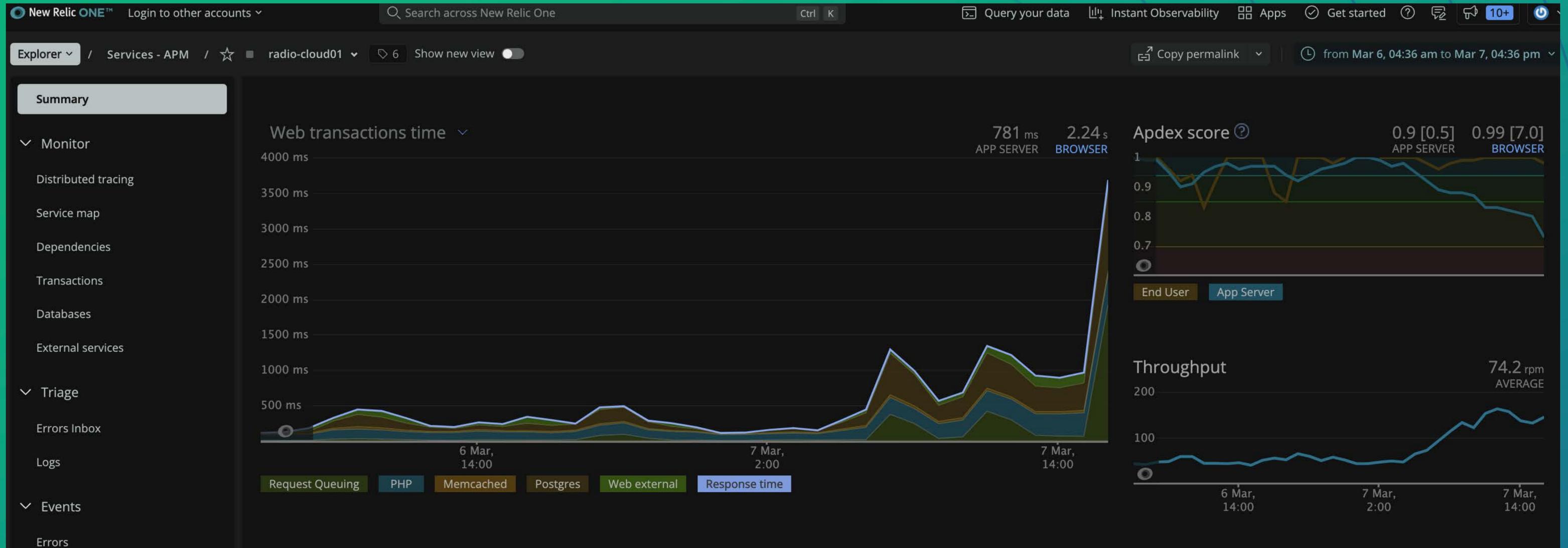
Pro-Active Monitoring



PRTG Monitoring System pulls new data every 30 seconds for metrics like CPU, Memory, Storage, Temperature, Age of Content, & Downtime



Monitoring



Multiple monitoring systems (New Relic in New York & PRTG in Germany), plus a Geo Load Balancer to distribute requests

Monitoring

The screenshot shows a monitoring dashboard with a top navigation bar containing the following items: Home, Devices, Libraries, Sensors, Alarms, Maps, Reports, Logs, Tickets, and Setup. A secondary bar displays status metrics: New Alarms 1, New Log Entries 1244, 3 critical alerts, 20 warnings, 16 warnings, 1736 OK, 107 pending, and 77 unknown. The main content area is titled 'Sensors With Alarms' and contains a table with the following data:

Sensor	Probe Group Device	Status	Last Value	Message	Graph	Priority	Fav.	Perf. Impact	
!! Table Size r.c Database	AMS Probe Webhook ci1prt01core (Local Probe) Health Monitoring	Down	12,916 MB	1,674 MB (sessions) is abov...	playlist_elem 12,916 MB	★★★★★			<input type="checkbox"/>
!! 8 ANS-B1-BLR-V-BCN...	AMS Probe Secondary ci1prt03probe (192.168.220.21) Playout Local Client » BLR BayCloudNet Mai...	Down	0 Sec	4 Sec (TimeDeviation) is ab...	Drift 0 Sec	★★★★☆			<input type="checkbox"/>
!! r.c Networks Music Pl...	AMS Probe Webhook ci1prt01core (Local Probe) Health Monitoring	Down	8 days	0 days (OWL 2) is below the ...	BLR 1 8 days	★★★★☆			<input type="checkbox"/>

Navigation: << < 1 to 3 of 3 > >>

Nearly 2000 sensors monitor entire operation from cloud infrastructure to Edge Gateways on-site

10 Radio.Cloud Highlights

2022-06-28
Version 12 Compare
Music: 2795s (92%) Other: 244s (8%)

54°F
2022-06-28 07:59:05

Render

▶▶▶	07:01:57	00:17	🔔	Follow Music Import Playlist	T1023 5-8a TOH :00	↔
▶▶▶	07:02:14	03:33	🎵	Blind Melon	RAMP: 20s 📄 🐦 🗣️ 90ies 148	✍️ No Rain
▶▶▶	07:05:48	00:00	📍	VTrack	🔔 06/28/22 07:10 RAMP	↔
The all new throwback 102.3 you know we have endured some crazy weather in Michiana and now we are reaping the wonderful benefits of all of that 83 and sunny today. Did I say the word pleasant?						
▶▶▶	07:05:48	03:16	🎵	Men At Work	RAMP: 17s 🐦	✍️ Who Can It Be Now?
▶▶▶	07:09:05	00:03	🔔	Follow Music Import Playlist	T1023 Listener Test 18 :09	↔
▶▶▶	07:09:08	04:30	🎵	Bryan Adams	RAMP: 21s 📄 🐦 🗣️ 80ies 96	✍️ Cuts Like A Knife
▶▶▶	07:13:39	00:02	🔔	Follow Music Import Playlist	THROWBACK NEWS SOUNDER :00	↔
▶▶▶	07:13:42	01:16	📍	News	🔔 06/28/22 06.00 - 08.59	↔
Good morning Bob Montgomery on the WSBT 22 news room 46 people are dead. Another 16 hospitalized in what's being called one of the deadliest cases of migrant smuggling ever on the southern border, a city worker in San Antonio, TX, heard cries of help coming from the back of a semi on air conditioned trailer on a nearly 100 degree day yesterday, found people inside. Three peo						
▶▶▶	07:14:58	00:04	🕒	Time Check	✍️ 07:15 - paul_cook	↔
▶▶▶	07:15:03	00:01	🔔	Follow Music Import Playlist	THROWBACK Signature Sound :00	↔
▶▶▶	07:15:04	00:01	🔔	Follow Music Import Playlist	T1023 102.3	↔
▶▶▶	07:15:06	04:19	🔗	Live Break 04:00 +19	Commercial Break - AudioVault Automation	↔
▶▶▶	07:19:25	00:04	🔔	Follow Music Import Playlist	THROWBACK WEATHER JINGLE :00	↔
▶▶▶	07:19:29	00:20	📍	Weather	🔔 06/28/22 06.00 - 08.59	↔
Mostly sunny skies. Today we do get a little bit warmer. This afternoon, we'll top out right around 84 degrees. Partly cloudy to clear skies overnight. Tonight we'll drop down to 62 and then the heat really starts to build as we head into tomorrow afternoon. Highs partly sunny and a high of 87. I'm WSBT 22, meteorologist Kerry Peugeot.						

Bryan Adams

Wikipedia

Bryan Guy Adams FRPS (born November 5, 1959) is a Canadian guitarist, singer, songwriter, composer, and photographer. Sources state Adams has sold either more than 75 million or more than 100 million records and singles worldwide, making him one of the best-selling music artists of all time. Adams was the most played artist on Canadian radio in the 2010s and has had 25 top-15 singles in Canada and a dozen or more in each of the US, UK, and Australia.

Adams joined his first band at age 15, and at age 20 his eponymous debut album was released. He rose to fame in North America with the 1983 top ten album *Cuts Like a Knife*, featuring its title track and the ballad "Straight From the Heart", his first US top ten hit. His 1984 Canadian and US number one album, *Reckless*, made him a global star with tracks like "Run to You" and "Summer of '69", both top ten hits in the US and Canada, and the power ballad "Heaven", a US number one hit. His 1987 album *Into the Fire*, with its US and Canadian top ten song, "Heat of the Night", rose to number two in Canada and the top ten in the US and several other countries.

In 1991, Adams released "Everything I Do I Do It for You", which went to number one in at least 19 countries, including for 16 and 18 straight weeks in the UK, and Europe overall, both records. It is one of the best-selling singles of all time, having sold more than 15 million copies worldwide. The song was included on Adams' *Waking Up the Neighbours* (1991), a worldwide number one album that sold 16 million copies, including being certified diamond in Canada. Another major hit off the album was the Canadian number one and US number two hit "Can't Stop This Thing We Started", which also went top ten in several other countries. Beginning in 1993, Adams' hits were mostly ballads, including the worldwide number one or two hits "Please Forgive Me" (1993); "All for Love" (1993); and "I've Never Really Loved a Woman" (1995), the latter two topping the U.S. *Billboard* Hot 100. Adams' 1993 greatest hits compilation album, *So Far So Good*, topped the charts in numerous countries, was certified 5X platinum in the US and 11X platinum in Australia, selling 13 million copies worldwide.

In 1996, Adams' *18 til I Die* was a top five album in many countries, but only reached number 31 in the US. He did duets with Barbra Streisand ("Finally Found Someone" (1996), his last US top ten hit) and Melanie C ("When You're Gone" (1998), an international top five hit). In the 1990s, Adams had six European Radio Airplay number one songs for 82 weeks, the fourth and third most, respectively, and three number one songs on the European Sales Chart for 29 weeks total, the most weeks of any artist. Since 1999, Adams released eight albums, three reaching number one in Canada, and the last three reaching the top three in the UK, Germany and elsewhere in Europe.

In 2008, Adams was ranked 38th on the list of all-time top artists on the *Billboard* Hot 100. Adams has won 20 Juno Awards and a Grammy Award for Best Song Written for a Motion Picture or Television amongst 15 Grammy nominations, and has been nominated for five Golden Globe Awards and three Academy Awards for his songwriting for films. Adams has been inducted into the Hollywood Walk of Fame, Canada's Walk of Fame, the Canadian Broadcast Hall of Fame, the Canadian Music Hall of Fame and the Canadian Songwriters Hall of Fame. On May 1, 2010, Adams received the Governor General's Performing Arts Award for his 30 years of contributions to the arts.

Continue reading at Wikipedia...

Facebook

Bryan Adams

BRYAN ADAMS SO HAPPY IT HURTS OUT NOW

Bryan Adams

WIN 2 TICKETS TO SEE BRYAN ADAMS ON HIS SO HAPPY IT HURTS TOUR IN ONE OF THE FOLLOWING CITIES:

SEP 10, 2022 BILL CENTRE, MONTREAL, QC
OCT 7, 2022 CANADIAN TIRE CENTRE, OTTAWA, ON
OCT 8, 2022 LEVY'S CENTRE, WINDSOR, ON
OCT 10, 2022 HORNBY'S GARDENS, LONDON, ON
OCT 17, 2022 SIOBHAN ARNA, SIOBHAN, ON
NOV 2, 2022 CANADA LIFE CENTRE, WINNIPEG, MB
NOV 4, 2022 BRADY CENTRE, REGINA, SK
NOV 5, 2022 SASKTEL CENTRE, SASKATOON, SK
NOV 6, 2022 ROGERS PLACE, EDMONTON, AB
NOV 9, 2022 SCOTIABANK GARDEN, CALGARY, AB
NOV 10, 2022 ROGERS ARENA, VANCOUVER, BC

Twitter

Tweets by @bryanadams

Bryan Adams @bryanadams

Tickets for the show at the @ENMAXCentre in Lethbridge, AB Nov. 8, are on sale now! Get yours now! bit.ly/3x2J5nq #SoHappyItHurts #concerts

Jun 3, 2022

Embed View on Twitter

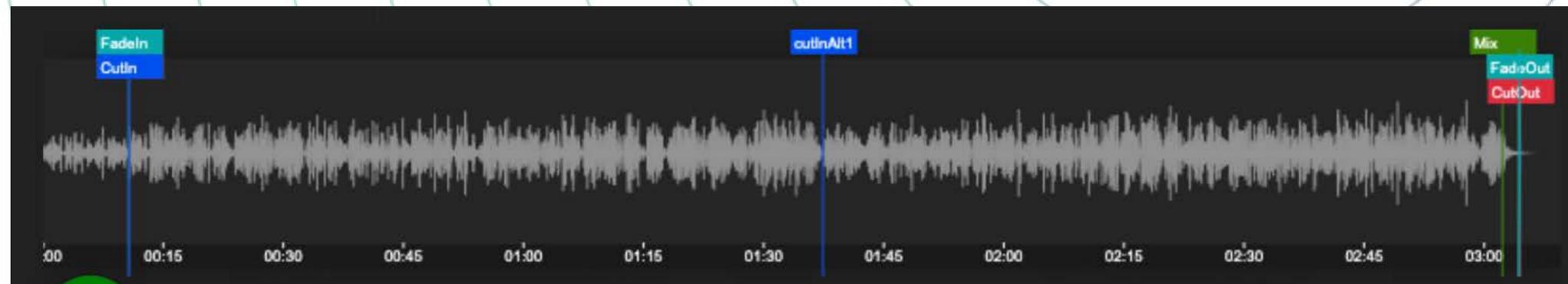
Instagram

Social Media API on Playlist

Microservice S

Radio.Cloud runs its own Microservices

- Audio Transcoding: Broadcast vs Preview files
- Audio Analyzing: Cut In, Cut Out, EOM, Normalizing
- Playlist Generator Engine
- WebSocket Signaling Server
- Live Studio: Media Server or Cloud Payout



The screenshot shows a social media dashboard for Dua Lipa, featuring:

- Wikipedia**: A snippet of her biography, including her birth date (1995-08-22) and her debut album "Dua Lipa" (2017).
- Facebook**: A post for her album "Future Nostalgia: The Moonlight Edition" with 17,856,422 followers.
- Twitter**: A tweet from @DUALIPA replying to another tweet from @DUALIPA.
- Instagram**: A post from dualipa with 80.2M followers, showing a video of her performing.

Success Stories

Throwback 102.3 (WYET-FM/South Bend, IN)

- Increase in listenership & local sales

BLR in Germany

- Save money on satellite, share content and localized nearly 20 channels across Bavaria
- 100+ affiliates in USA within a year



Summary

The first 100% cloud-native content management, production and automated platform for radio

Globally reliable, flexible, scalable & secure

Leveraging the power of AWS for cloud computing



2022 NAB Show



Product of the Year

Questions



jim@radio.cloud
shawn@radio.cloud
844.444.0000