EBU
Marco DE GIORGI

Technical Developments
For EURORADIO

Project : XTRADIO

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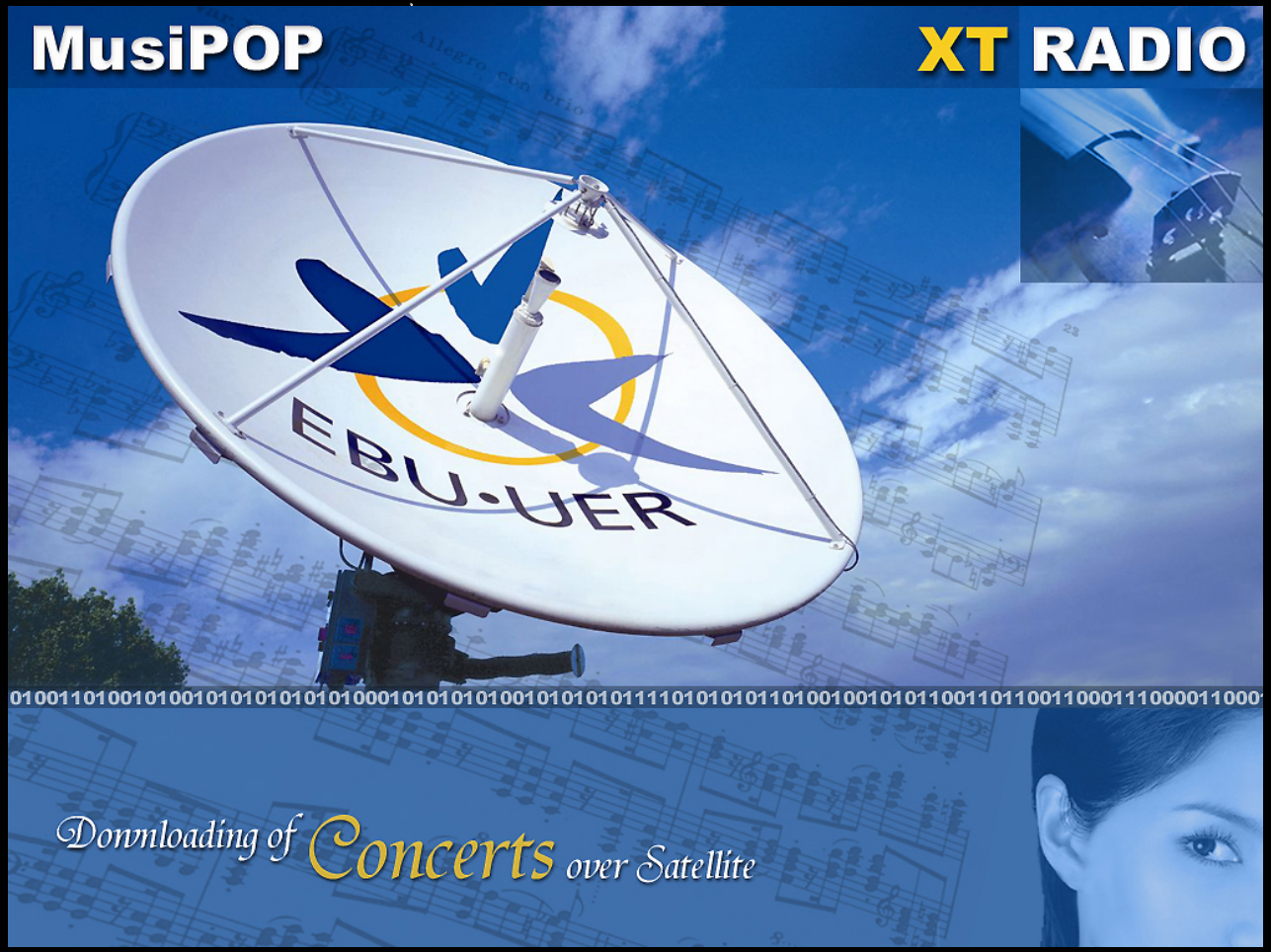


OPERATIONAL NEEDS

- Get ride of old expensive workflow
- Centralize the sharing mechanism
- Offer additional services
- Avoid extra workload
- Break the ice, make things move

MEMBERS NEEDS

- Interface with existing environment
- Reduce administrative tasks
- Enhance content availability

DELIVERY QUALITY

- Ensure service availability
  - in Geneva
  - at each location
- Offer a single point of assistance with a global view on the project.

CONTENT QUALITY MANAGMENT

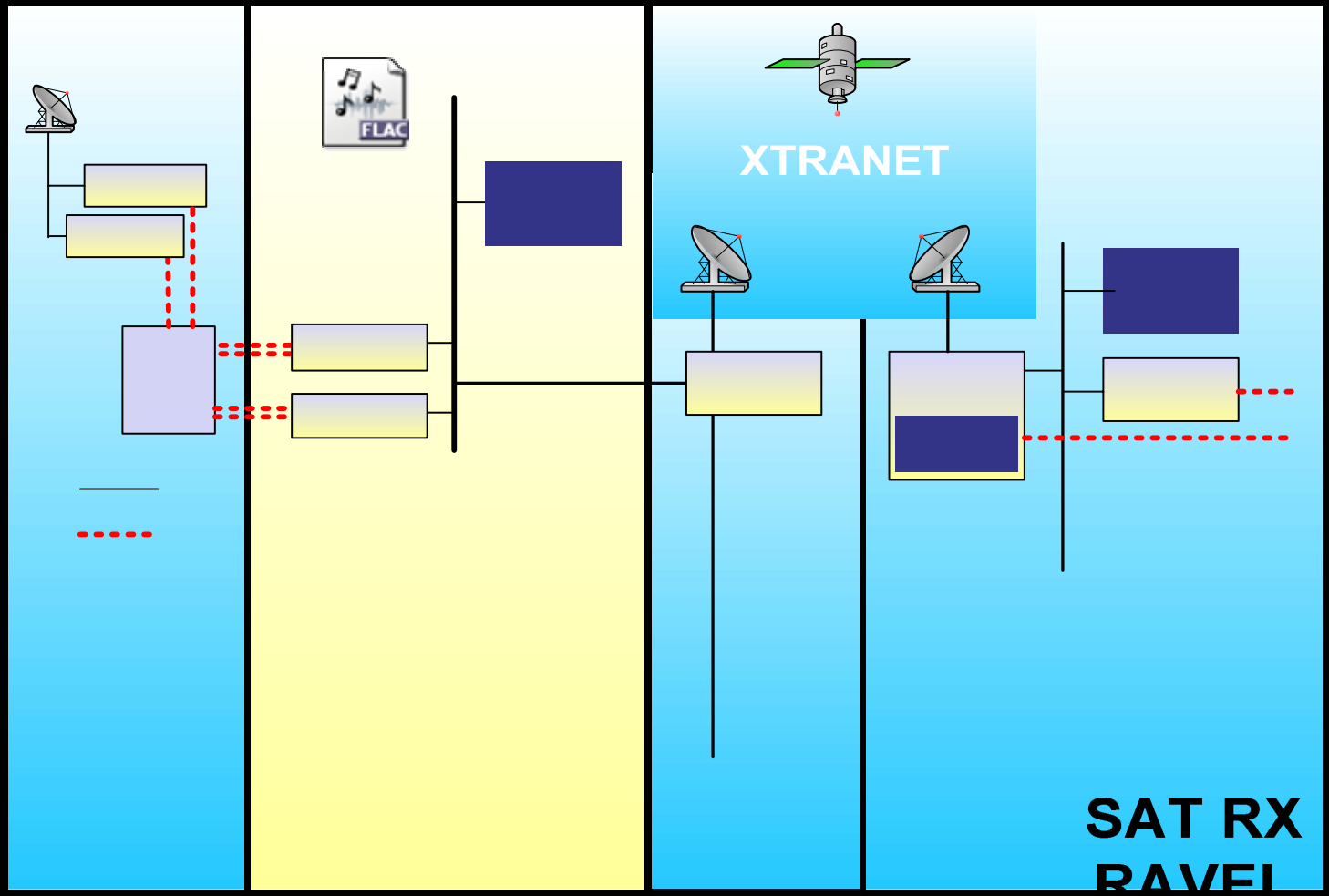
- Move from passive recommendations to quality validation.
- Offer a centralized

PROJECT EVOLUTION

Zenon Media is offering good quality level of maintenance and debugging service to the Members (email, phone helpdesk, server remote access).

Maintenance

- Prepared
- Back office friendly
- EBU Monitored



RECORD & ARCHIVE & SHARE

XTRADIO

- Record & Flac
- 3 TB archive
- Sat Data 3 Mb/s
- Members MusiPOP
- Radio Automations

MET → EBU

E1 FIBER

ISDN LINES

10 Mb/s

IP FIBER

ARD → EBU

REC + FLAC + REAL

FTP SERVER

100 GB

XTRADIO NAS

FILE PLAYER

KENCAST

MUSREAL

ISDN LINES

2.7 MB/s

100% daytime

10 MB/s

Night time

RECORD & RIP & UPLOAD

ARCHIVE

SHARE

RECORD & ARCHIVE & SHARE

The XTRADIO HUB is the converging point of the Euroradio file contribution system. Files are send once by the members to in Geneva (via satellite, on CD or via FTP) and broadcast once to all members (via satellite) or transferred to affiliates (via internet).

XTRADIO HUB

- Record from Sat
- Rip from CD
- Get from internet
- Archive 3 years
- Share over satellite

PRIORITIES :

1. Eurovision NEWS files
2. Emergencies
3. Concerts from Ravel & Verdi
4. Requested concerts

SHARING EBU RESSOURCES

XTRANET

- Fast NEWS delivery
- Non blocking mngt
- Union served first
- On demand service

= Sat Receiver
+ Mini Files Server

- Input
  Satellite card
- Storage
  1000 concerts /
  400 GB
- Output
  web, ftp, samba

LOCAL POP SERVER SOLUTION

MusiPOP

- Fast NEWS delivery
- Non blocking mngt
- Union served first
- On demand service

🕑 & €
savers

1. FTP
2. DATA CD/DVD
Burning & shipping
3. AUDIO CD
Ripping Errors
4. SATELLITE
Transmission Errors
5. DAT
tape drops / players

☹☠💣✖
makers

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Preferred new way for differed offers : send the files over the internet to EBU.
Add MUS metadata, broadcast it to all MusiPOP (can be done in one hour).

File Transfer

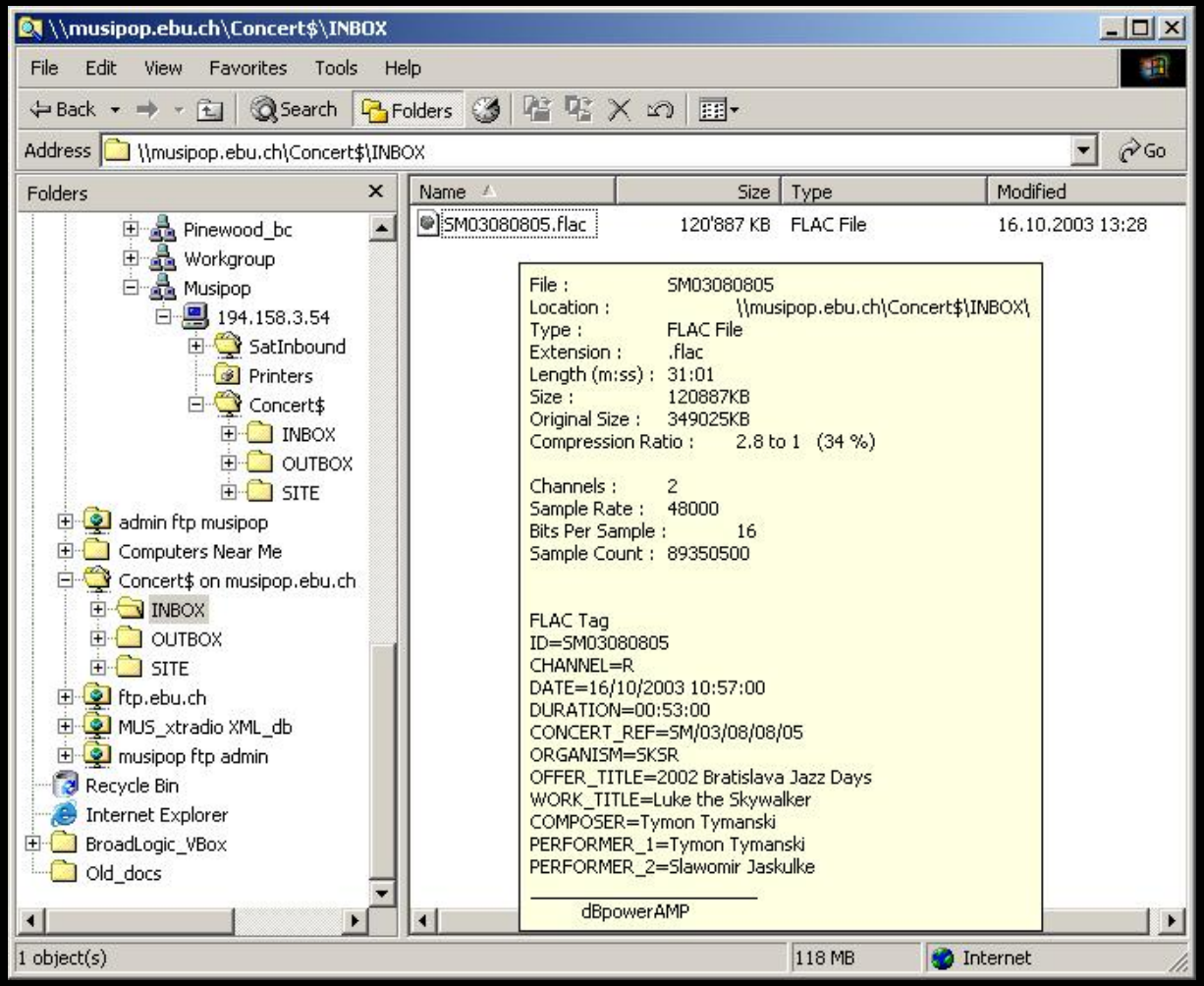
- Less waist of time
- Lower costs
- Faster deliveries
- Minor risk of errors

- Information about the content is send encapsulated in the audio file.

Associated Metadata

XML in FLAC

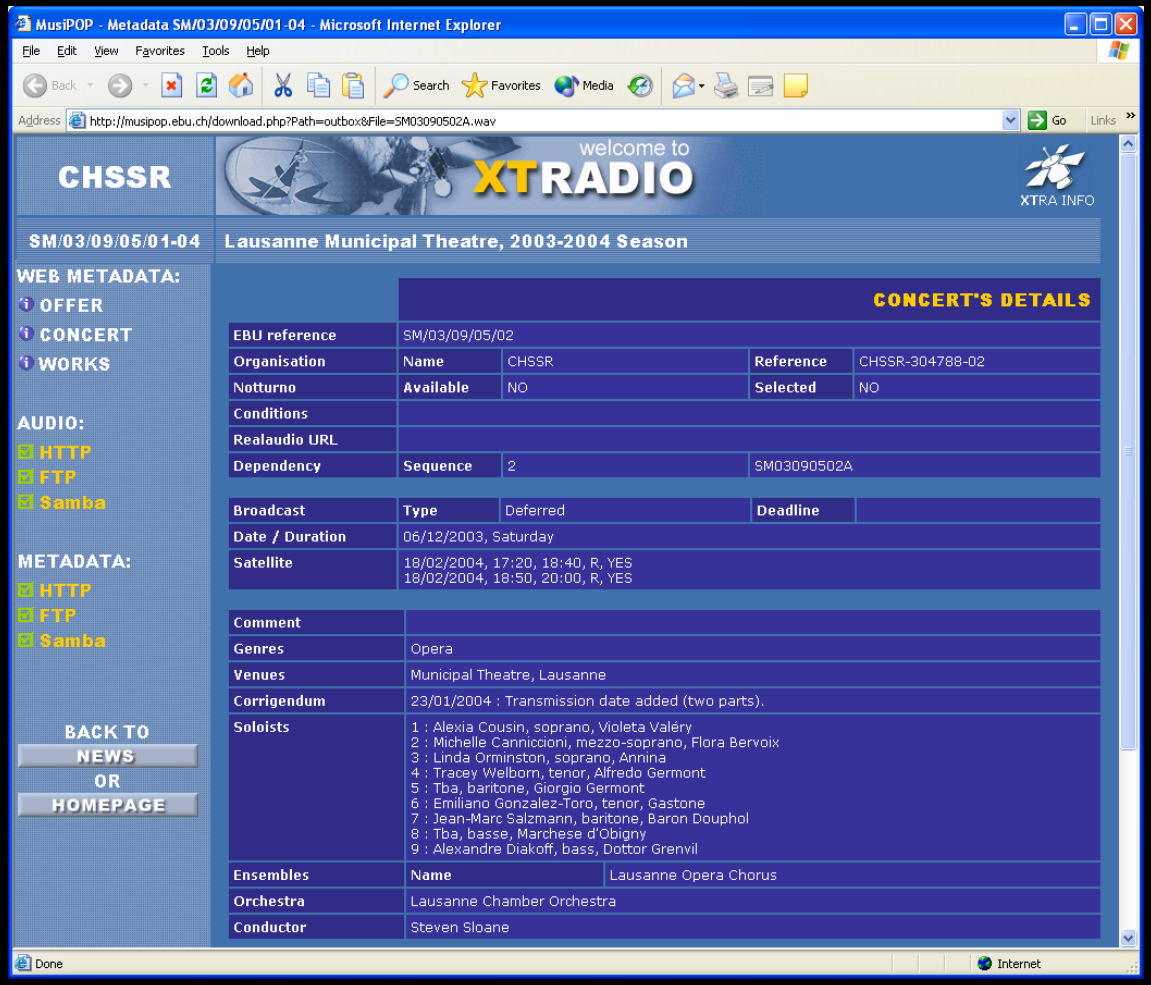
- Send Encapsulated
- Delivered separately
- Info Synchronized



Metadata Visibility

User Infos

- Easy Access
- Standard Tools
- Avoid errors



Metadata Visibility

User Infos

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MUSIPOP

WEB | FTP | SMB

PC

READ & LISTEN | EDIT

MusiPOP Dispatch Status - Microsoft Internet Explorer provided by EBU

File Edit View Favorites Tools Help

Back Search Favorites Media

Address http://musipop.ebu.ch/dispatch.php?Concert=&Org=USMPR&IAge=&BAge=&DAge=&SAge=&EAge=&Status=&Sort=Org&Order=down Go Links

MusiPOP

REQUESTS & DISPATCHES

Where's my concert ?

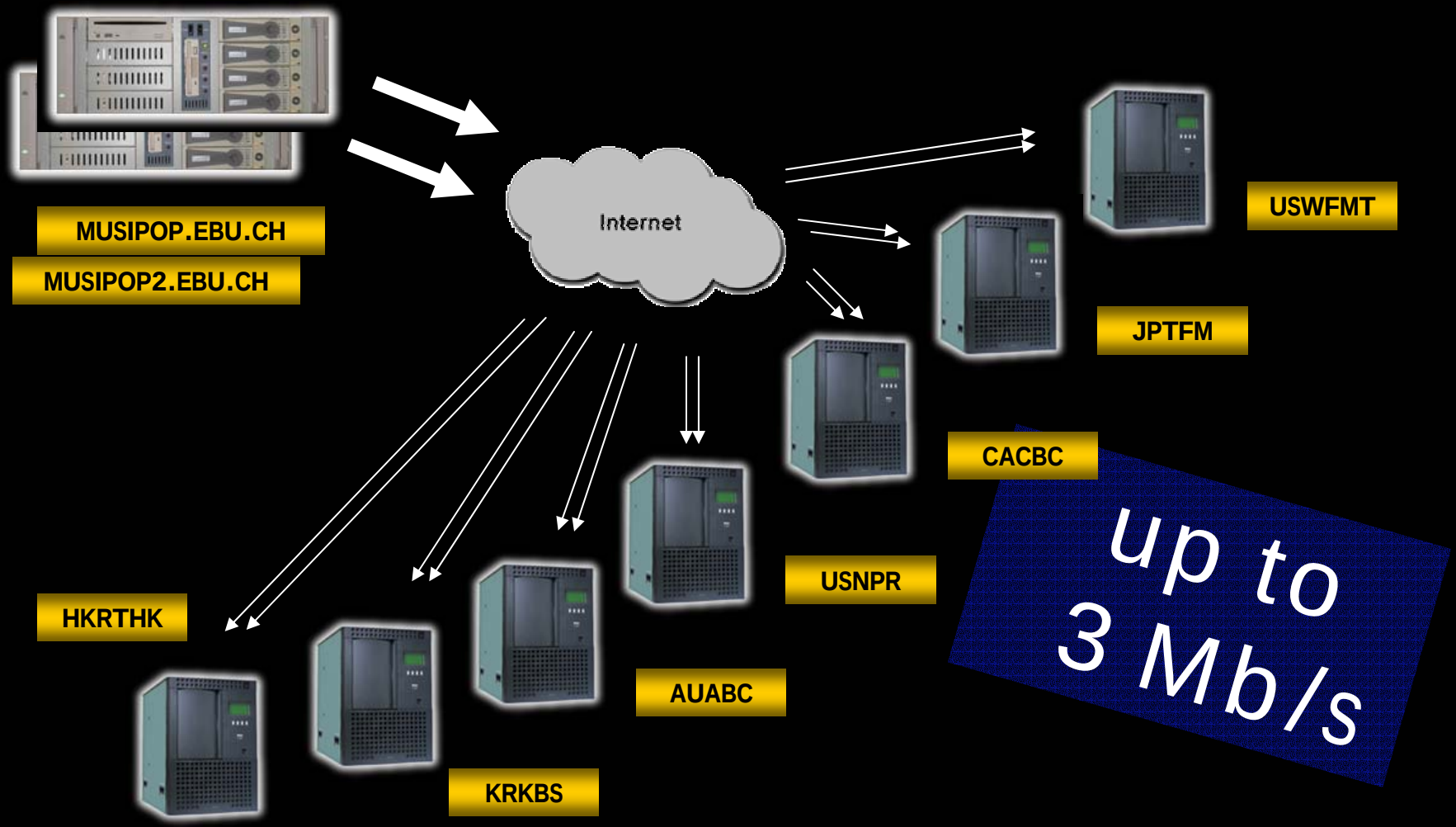
Concert Reference	For	Requested	Expected	Delivered	Push Start	Push End	Status
	USMPR	All	All	All	All	All	All requested concerts
FM/05/01/01/01	USMPR	2005-01-26	2005-02-15	2005-02-16	2005-02-16 04:25:05	2005-02-16 04:36:18	
SM/04/09/01/02B	USMPR	2004-09-20	2005-02-15	2005-02-16	2005-02-16 01:55:06	2005-02-16 02:18:03	
SM/04/11/22/03	USMPR	2004-12-10	2005-02-15	2005-02-16	2005-02-16 01:45:05	2005-02-16 01:45:50	
SM/05/01/11/03	USMPR	2005-02-15	2005-03-11				Audio File not available yet in MusiPOP
SM/05/01/11/05	USMPR	2005-02-15	2005-03-14				Audio File not available yet in MusiPOP
SM/05/01/11/06	USMPR	2005-02-15	2005-03-14				Audio File not available yet in MusiPOP
SM/04/11/22/02	USMPR	2004-12-10	2005-01-31	2005-02-01	2005-02-04 12:45:19	2005-02-04 13:26:13	
SM/04/11/22/01	USMPR	2004-12-10	2005-01-31	2005-02-16	2005-02-16 16:40:04	2005-02-16 16:41:05	
ER/04/04/09/01	USMPR	2004-08-10	2004-08-10	2004-11-25			
ER/04/04/09/02	USMPR	2004-08-10	2004-08-10	2004-11-25			
ER/04/04/09/04	USMPR	2004-08-16	2004-08-16	2004-11-25			
JM/04/12/15/01	USMPR	2004-12-22	2005-02-21				Audio File not available yet in MusiPOP

Saving requested concert outside the MusiPOP

The management of the requested concert is easy handled through the web interface. A concert can be seen as requested, expected to be delivered, and actual last delivery. The user can check either the requested concert in the MusiPOP has been successfully pushed in his local storage server. In case of dispatch problems (red envelopes) he may manually reschedule a push by clicking on the envelope itself.

Dispatch

- Track requests
- Check transfers
- Redo ftp pushes



Serving Affiliate Members through internet

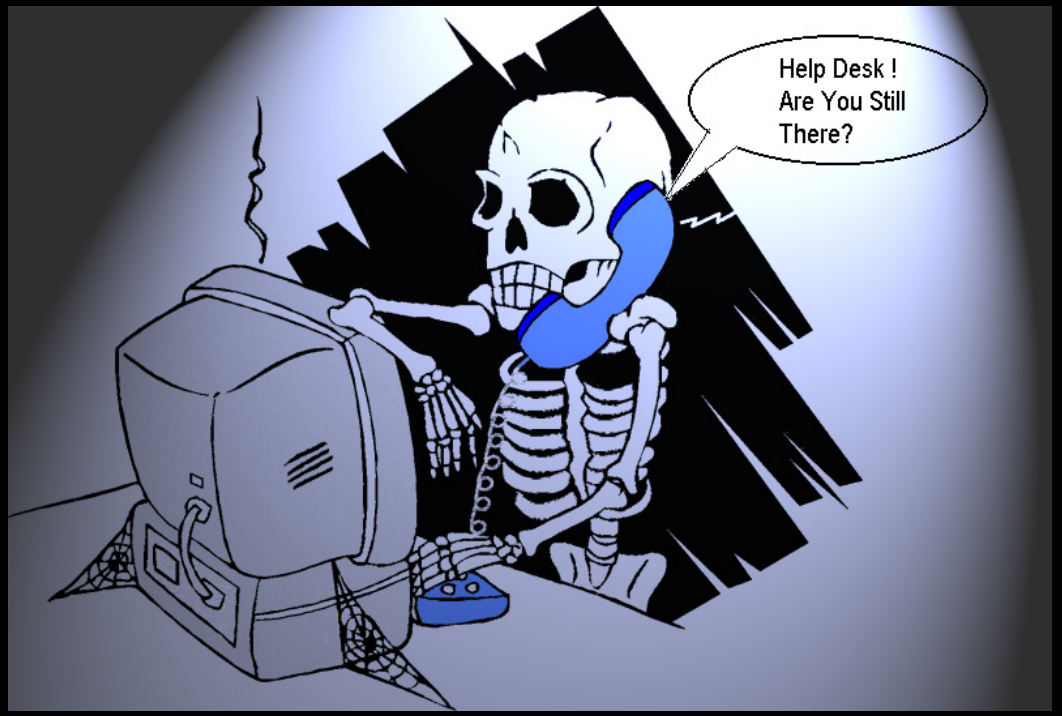
2 redundant MusiPOP servers push all over the world audio files to Affiliate EBU Members not covered by Eutelsat Satellite footprint through the internet. Actual (2005) transfer speed varies between 50 (Australia) and 2 Mb/s (Canada) per connection.

Dispatch

- 2 MusiPOPs
- Internet access
- Resume function
- Best effort

IT SHOULD NEVER HAPPEN ...

- 1 hours diagnostics
- 24 hours to send you a new MusiPOP



Helpdesk Response

Maintenance

- 2 simple steps
- 2 extreme ways
- No local contribution

HARDWARE & CUSTOMIZATION

- Based on Members configuration file
- 4 servers always running
  - receiving FLAC files
  - “burning” test
  - ready for EBU “MEMBER-ization”

ZENON --- EBU CONTRACT

- 20 K€ / year to
  - Repair/ship the hardware
  - debug the software

QUALITY MONITORING

- Every exchange is monitored by EBU
- Help provided when possible to
  - speed up the resolution
  - redirect member’s question (content info / user+admin support)
  - EBU mediation is required

☺ Seems satisfactory

☺ Number of Tickets has decreased after installation period

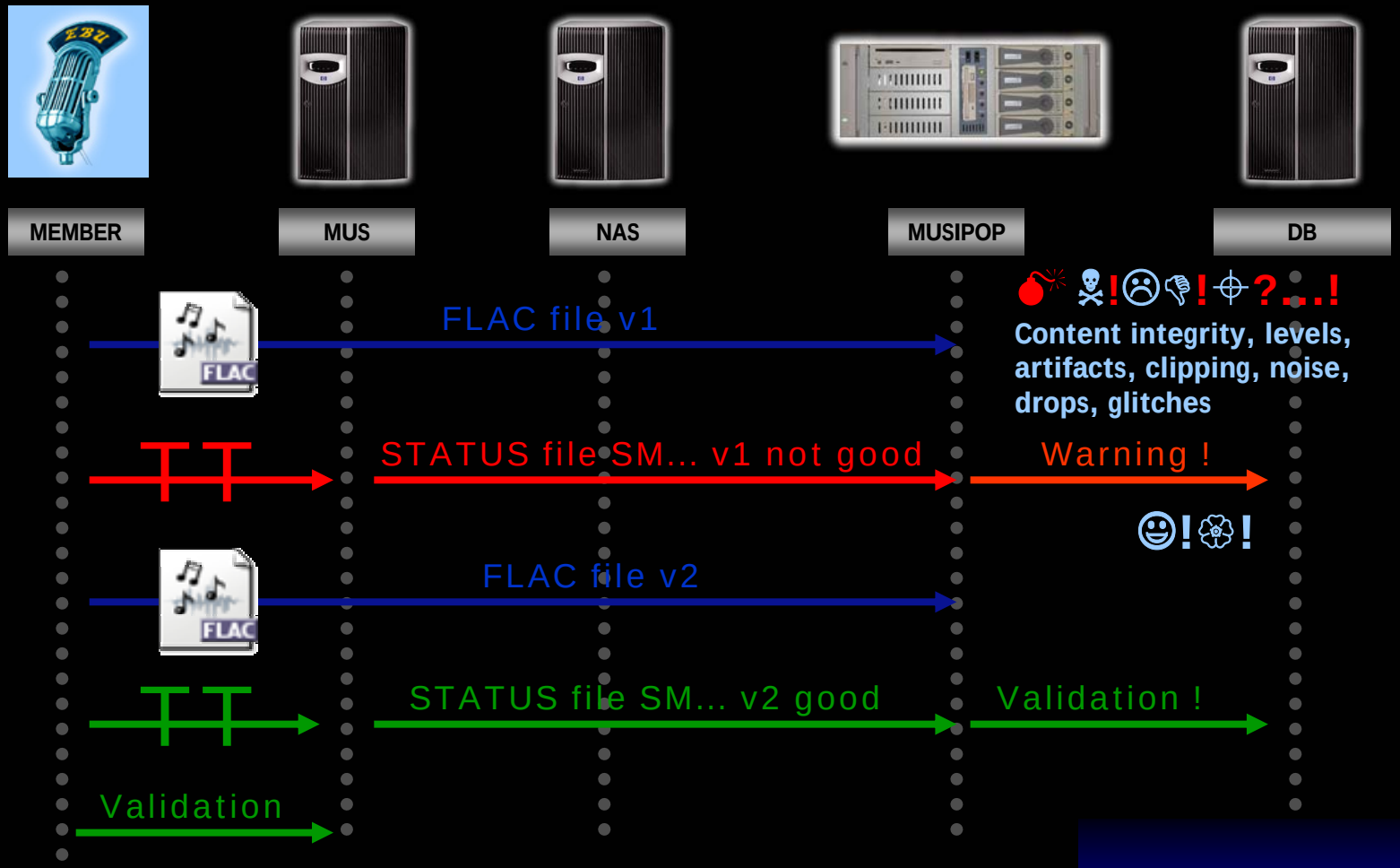
☺ No complains is unresolved

Zenon Media Support

Zenon Media is offering good quality level of maintenance and debugging service to the Members (email, phone helpdesk, server remote access).

Maintenance

- Prepared
- Pro-active
- Back office friendly
- EBU Monitored

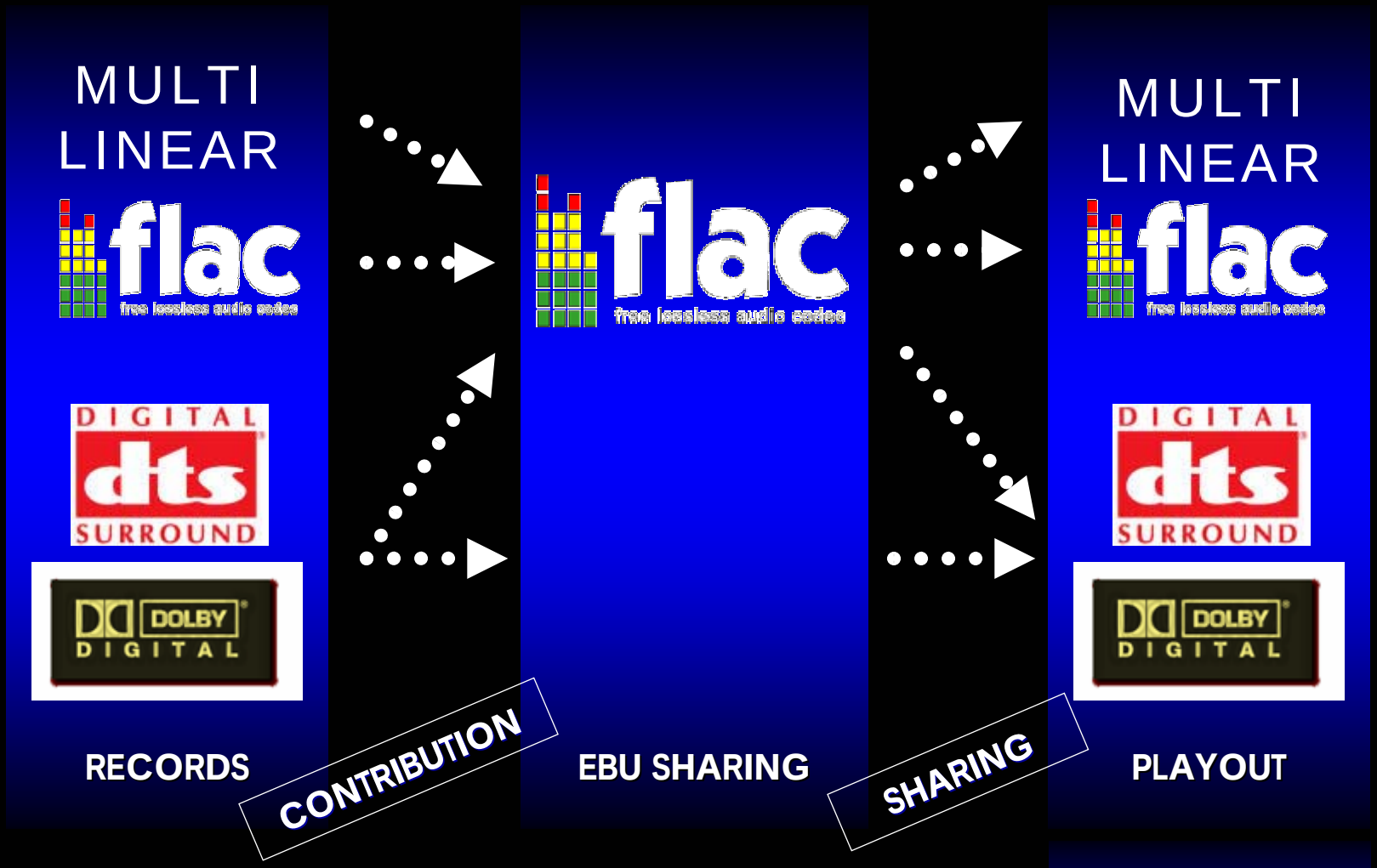


FAULTY AUDIO FILE TRACKING

EURORADIO plans to implement a Trouble Ticketing to track faulty FLAC files and alert people when a a new version is on its way.

Trouble Ticketing

- Fault number issue
- Fault tracking
- versions manager

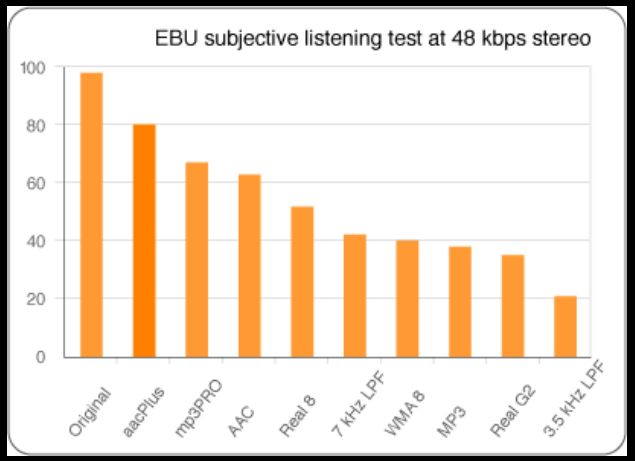


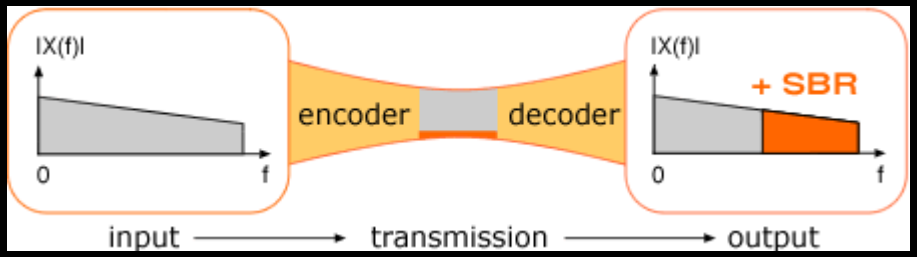
MULTI CHANNEL SURROUND FILES

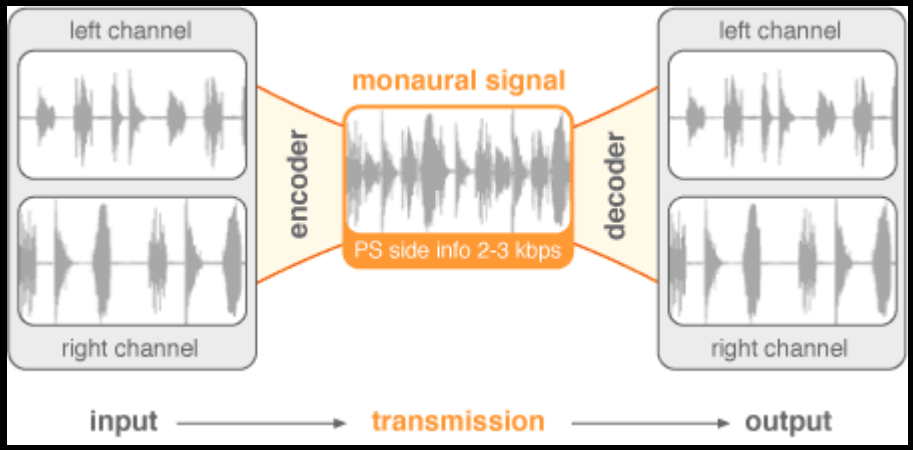
2005 is foreseen as the introduction of surround sound in Euroradio contribution. Retro-compatibility to stereo and cross formats support is the key elements to ensure smooth introduction in all radio organisms.

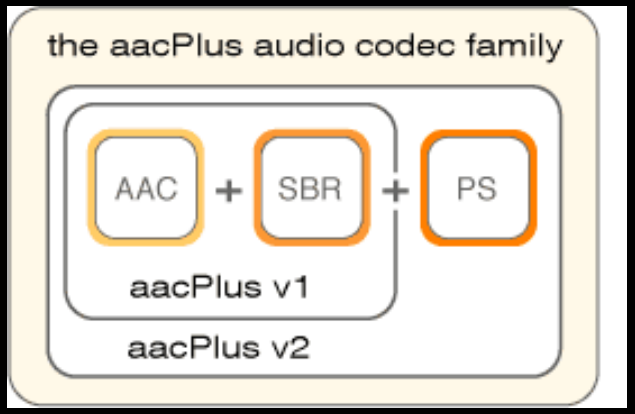
Enhancements

- Single lossless contribution surround audio file standard









coding technologies

drm

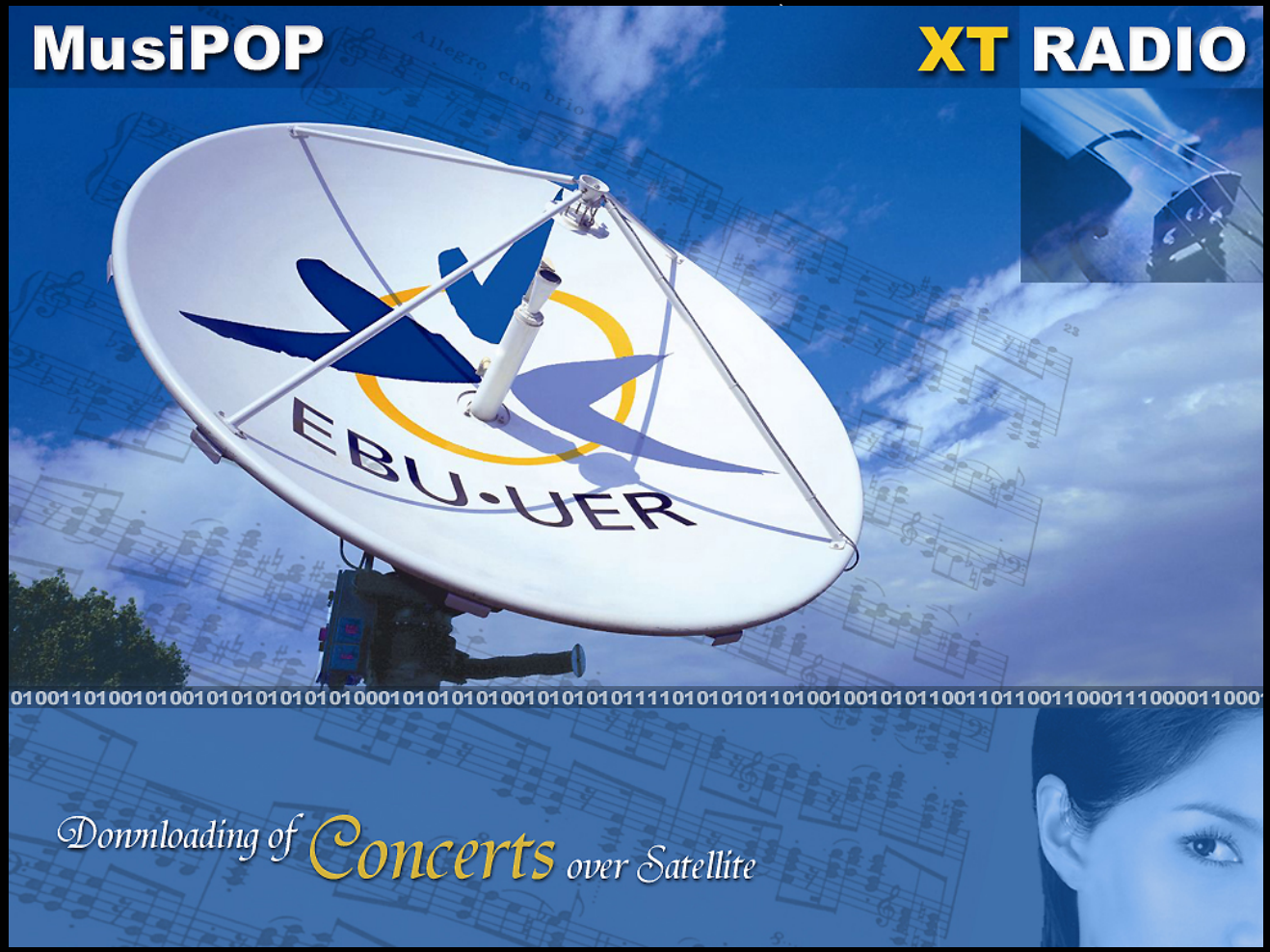
DAB
IPOD

Low biterate services

New compression codec uses new tricks such as Side band replication and parametric localization to reduce bite rate.

New codecs

- 4 all new platforms
- Multichannel ready


MusiPOP
XT RADIO
EBU·UER
Downloading of Concerts over Satellite

THANK YOU