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SuperPOP

Eurovision Mediacache Server

**REAL TIME CONTRIBUTION
AND VIDEO FILE AVAILABILITY**

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Short history

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Three ways were identified to improve today's Eurovision News Exchanges:

- **Faster**= "EVNs as items": migration from group of items to individual items, transmitted as soon as available.
- **Versatile**= "EVNs as files": video is presented as files, ready to be "dragged and dropped" into local editing systems and linked to metadata.
- **Metadata**= "EVNs as descriptive content" : Everything delivered in a feed is accompanied by metadata which describes specific elements of the content and makes it easier to search, manage and use.

These developments must also preserve the quality and compatibility of the existing format of EVNs.

The Eurovision SuperPOP-EMC project aims to address all these issues.

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So, what is a SuperPOP?

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-A SuperPOP (Super Point Of Presence) is the video broadcast complement of the existing POP.

Technically, is a

1. Device: a “video/transport stream” file server with

- Record and Edit functions controlled centrally from Geneva HUB
- Playout and File Transfer controlled locally by the user

2. Service: implementation and support of the abovementioned functions and integration with the existing POP services

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What does a SuperPOP do?

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- It enhances the speed, availability and convenience of the Eurovision News Exchanges
- It introduces video file transfer capabilities at user's premises
- It supports future developments of Eurovision services (FiNE, HDTV, Sports etc.)

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How does it work?

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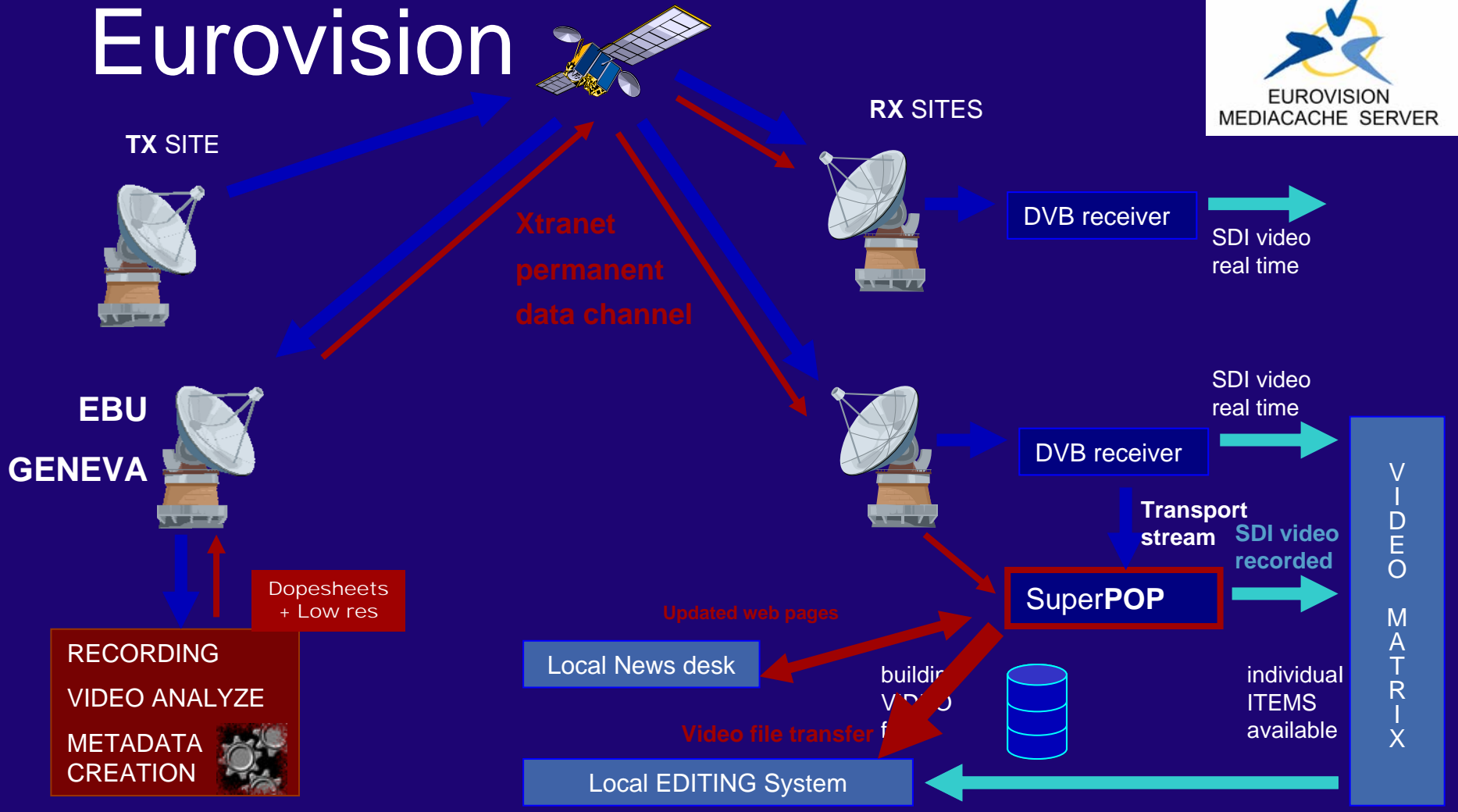


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- The video content is “ingested” in the SuperPOP -mainly- as MPEG Transport Stream, directly from satellite, without being decoded to uncompressed format. Then, each item is automatically edited (to define clean start and end points of the item) and presented as a file to the user. Eurovision controls directly, via satellite, the start/stop/rough-edit/transfer/availability commands. The file can then be played out (as video SDI) or transferred (as a file, to a local video editor) to other video systems.
- A second possible “ingestion” method is (direct) file transfer (e.g. over fibre).

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What are the advantages of this solution?

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Advantages:

- **Total compatibility**: the existing video content delivery (MPEG/DVB) is preserved; all functionalities are added, not replaced
- **No additional bandwidth** required: the biggest advantage, as the material is recorded directly from satellite (MPEG/DVB). Items do not need to be transmitted twice, once as "real-time" video and once as file; still the material is available as file for the user (of course time-shifted relative to "live")
- **Video linked with metadata**: only one environment to present and search metadata and to control the corresponding video; MXF wrapping available for file transfer

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Advantages:

- **Individual items:** news flow is presented as items,
- **Fast availability:** almost at the same time as the item ends
- **Preserve quality:** exactly the same quality as of the "real-time" transmission; no supplementary encoding-decoding process
- **Multifunctional:** "classical" Video File transfer is a subset of SPOP functions! SPOP could "ingest" a material as a stream recorder OR via file transfer; the file transfer could also occur on satellite or on fibre (FiNE ready).
- **HDTV ready:** by changing the output decoder, the SPOP can handle also HDTV



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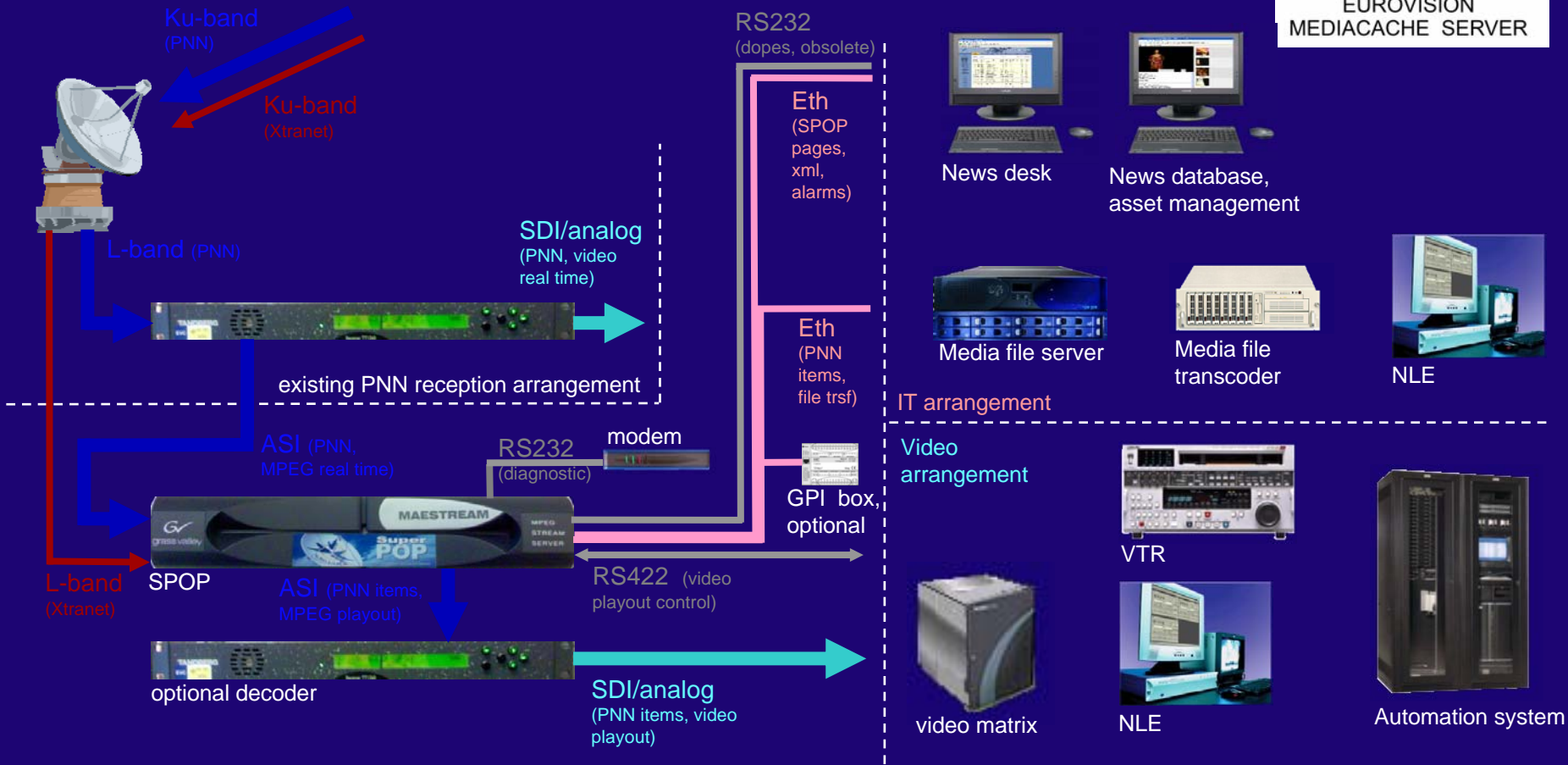


What about installation?

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What are the operating configurations?

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1. Manual video playout with possibility to drive a VTR to ease video transfer. Play, Stop, Lock, Insert TC etc. controlled from web interface, very similar to POP pages



Playlist Control

- Start/Stop playout
- Black between items (as)
- Vtr Control
- Black at start (as)
- Set VTR TC
- use item TC
- start TC at

FTP Push: server1

Start-End	Status	Subj	Origin	City	Source	Rota	Type	Video	Audio	FTP Push	Last Push
03:41-03:42	TRS	Italian ascent still	GBAPT	LNEN	GBAPT		EVF				
07:00-07:03	TRS	Jackson trial	ZZEBU	WSHT	GBAPT	C R	EVN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		hh:mm
07:03-07:07	TRS	EEC summit brides	ZZEBU	WSHT	GBRTV	A	EVN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		hh:mm
07:07-07:10	TRS	Honaidic massacre	ZZEBU	WSHT	GBAPT	R	EVN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		hh:mm
07:10-07:13	TRS	Haiti pro-Aristide	ZZEBU	WSHT	GBAPT	R	EVN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		hh:mm
07:14-07:16	TRS	Bah, debarco, reax	GBRTV	LNEN	GBRTV	A	EVN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		hh:mm
07:17-07:21	TRS	China BEC, اسپرینا	GBRTV	LNEN	GBRTV	A	EVN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		hh:mm
07:22-07:22	TRS	Refet exhum, canality	ZZEBU	ORVE	FRFT3		EVN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		hh:mm

Ethernet
(SPOP
pages,
xml, alarms)



SDI/analog
(PNN items, video
playout)

RS422 (video
playout control)

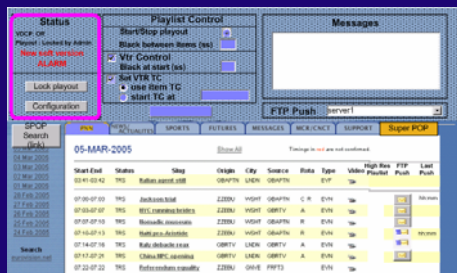


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2. Automatic video playout. SPOP acts like a « VTR », controlled via VDCP by an automation system or a Nonlinear Editing System. Due to a single video output, this function is « toggle » with 1

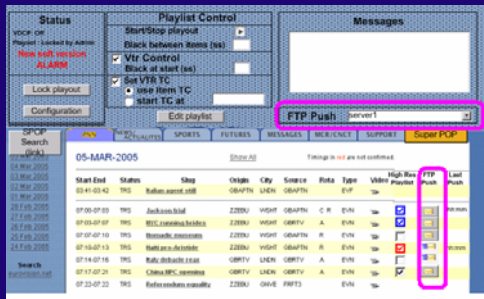


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3. Manual media file transfer: user selects the media server (from a list) and then send the items. The video files are « packed » accordingly to the type of media server; two formats are supported : transport stream (.mpg), MXF (wrapping of transport stream)



Ethernet
(SPOP
pages,
xml, alarms)



Ethernet
(PNN items, video file trsf)



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4. Automatic media file transfer: the media file is forwarded automatically from SPOP to a target file server.

All configurations are setup by the local administrators.

Functions 1,3,4 or 2,3,4 can coexist.



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What is the project status?

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- 10.08.05 Contract signature
- 13.09.05 IBC working demo
- 12.10.05 Complete technical specifications
- 24.02.05 Prototype acceptance
- 20.04.06 Completion first batch 20 units
- 22.06.06 Completion second batch 20 units
- 24.08.06 Completion third batch 20 units
- From June 2006, Members can buy additional SPOPs directly from Thomson



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Thank you

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