Data carousel: interactive tv, OTA and file transfer

Introduction

DCS is the Avalpa product for general file transfer services over DVB; it covers interactive tv in many flavours (**MHP MHEG5, HBBTV Ginga**), **OTA SSU** and proprietary data transfer.

It's deployed in the broadcaster premises, at a satellite uplink or in a residential head-end, and it will deliver, efficiently and effectively, from a single file to a huge software package over a broad range of low cost devices & set top box, with programmed scheduling and error correction for improved reliability.

The issue and our proposal

Sometimes you need to feed large quantities of digital data to a bunch of box deployed on a large area. Sometimes you have additional constraints too, like:

- mobile devices (you can't cope with a fixed line..),
- low cost / low power devices (for mass deployment and scalability),
- high bandwidth streaming (up to many megabit per second),
- hard synchronization between the device network (to fulfill tight time contraint).

A DVB network can be the simplest, more reliable, high quality and cost-effective solution for one way mass data transfer over large or very large areas.

Be it some spare bandwitdth available from a regional tv broadcaster, or an uplink from a satellite provider, it can be put in place easily, quickly and with a highly configurable environment.

On top of such network you need a reliable server with a proven solution made with fully accountable software modules: **Avalpa Data carousel server** is the solution you are looking for.

Based on the **DSMCC protocol**, it leverages all the standard unix facilities for an easy and customizable integration into a complex solution.

You can set up a programmed scheduling of continuous data transfer of a large data set and/or enable just continuous delta upgrades to improve bandwidth efficiency.

Avalpa Data carousel could use very effectively all the available spare bandwidth of your DVB network, as it can just replace the wasted capacity filled of NULL Packets after a multiplexer (usually there are 2 Mbps spare)

We can offer a **DSMCC software client royalty free open source** both for PC and embedded integration into your design.

Advanced features available

Of course, we offer some added features for a more effective setup.

Our data carousel server can add to the data stream the signaling tables (**PSI/SI**) to be compliant with enhanced applications like on the air system software upgrade (**OTA SSU**), interactive tv (**MHEG5, MHP, OCAP, GINGA, HBBTV**) or other customized applications.

The data stream can be **optionally crypted** with strong cipher code like the same DVB CSA to improve security of the data channel over the air

You can add optional features like a **two way path** for feedback from the remote decoders and have an efficient error recovery of a single box.

Conclusion

Avalpa DCS can stream datacast for many interactive tv standard: **MHP, MHEG5, HBBTV, Ginga,** for **OTA SSU** services and also for proprietary data stream.

The **Data Carousel server** is an important add-on service in your broadcaster network if you want to squeeze all the money from your spare bandwidth.

Many closed user groups (like banks, store chains, sale force people) are interested in solid data services, bandwidth hungry but at the right cost.

Features available on Avalpa Data Carousel Server

GNU Linux OS	Proven, reliable, cost effective OS running on a diskless server with no moving part for a reduced TCO
Supported data formats	MHP, MHEG5, HBBTV, Ginga, OTA SSU, customized
Object/Data carousel	Transmit filesystems using an effective the set of modules, sections and TS packets to be broadcasted for many useful data services (with error recovery)
PSI generator	Describe the tables you need to signal interactive applications (**AIT, dsmcc descriptors** ..)
Transparent compression	You can save some bandwidth if you compress the filesystems.
Stream events	Useful for remote applications synchronization (also with audio video events for interactive tv)
Remote updates	You can update the transmitted dataset from an IP network

Call to action now!

If you want more info, talk about your specific issues, have a demo of the system in action or get a quotation for a solution tailored to your exact requirements, please write us at info@avalpa.com or phone at **+39 0514187531**.