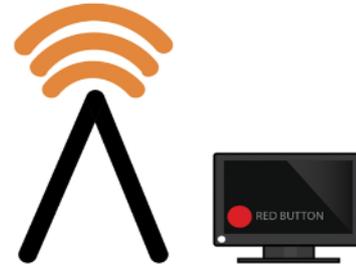




SOFIA BACKSTAGE® DVB HEAD-END FOR OPERATORS



Professional DVB Head-End with fully integrated HbbTV, PSI-SI & EPG management

UNIQUE SERVICE OFFERING BY SOFIA DIGITAL

Sofia Digital is your best choice for demanding DVB head-end deployment projects. We offer unique capability to deliver reliably despite challenging customer requirements.

Sofia Backstage® includes integrated service workflow and full PSI/SI management offering dynamic and easily managed DVB network operations. Sofia Backstage® Guide Manager and Playout Manager working together can accept virtually any service provider EPG data format and convert that to DVB metadata that is always up-to-date.

Using Sofia Backstage® DVB Head-End operators can add HbbTV support into their networks enabling Rich EPG data and TV-Guide Client application as well as various Catch-up TV and Start-over services hosted in Sofia Backstage® Guide Manager Server.

Sofia Digital's HbbTV expertise further ensures state-of-the-art hybrid interactive applications and new TV services integrated with the Guide Manager and Playout Manager back-ends. Any 3rd party HbbTV applications work with the system as well.

SOFIA BACKSTAGE® HEAD-END OVERVIEW

Sofia Backstage® DVB Head-End is based on the award-winning Sofia Backstage® software powering transmissions in many countries throughout Europe and Asia. It is a complete and modern software based solution including tools to manage DVB services in any broadcast networks.

Solution scales from field pilots and trials into full-scale production use. Sofia Backstage® for DVB includes components to generate all essential PSI/SI information including full EPG data as well as insertion of HbbTV application AIT data and DSMCC carousel files into the TV transmission.



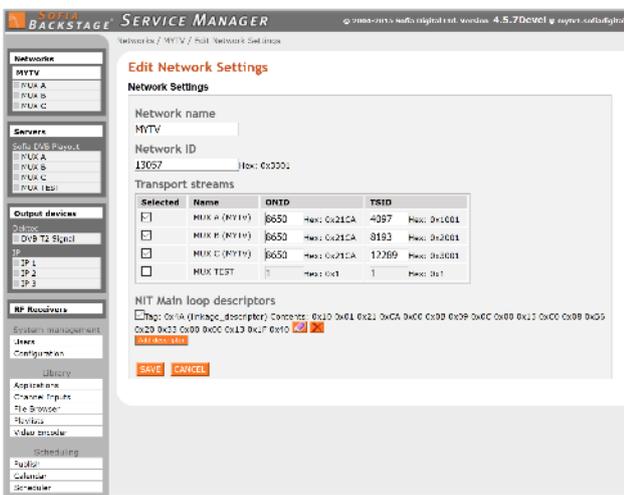
PRODUCTS IN SOFIA BACKSTAGE® DVB HEAD-END

- Sofia Backstage® Playout Manager
- Sofia Backstage® Guide Manager

The **Guide Manager** serves all programming metadata for basic and Rich EPGs. It integrates with the **Playout Manager** which manages dynamic PMT and the EIT data for the basic EPG. Broadcasted EIT data can accommodate on-the-fly dynamic changes in programming data by local editing or by providing a new source file.

The system has Web-based system administrator's management interface that may host multiple DVB networks, transport streams and services in one logical user interface. All main controls of the system are accessible with standard Web-Browser compatible with any PC without any client software installations.

Sofia Digital's software solutions use Hewlett Packard Enterprise server products and field-proven and open redundancy solutions to offer 24/7/365 operation for business-critical DVB and hybrid operations.



SOFIA BACKSTAGE® DVB HEAD-END COMPONENTS

Sofia Backstage® solution-specific configurations are:

- Sofia Backstage® Service manager
- Sofia Backstage® EPG Manager
- Sofia Backstage® HbbTV Server

Service Manager is a component to manage all DVB service data. Features include adding new services into the network and allocation of bandwidth, PIDs, and all SI-tables in the system.

EPG Manager is a scalable solution designed to help professional broadcasting companies as well as any digital television operators to create and manage EPG content for multiple sources and TV-channels.

HbbTV Server is used for management and insertion of HbbTV services. It is designed to create and automate applications and delivery of transmission signal for external 3rd party multiplex.

HbbTV Services managed with Sofia Backstage® are stored into the build-in application library and may be set to start and stop using built-in calendar-based scheduler. System can be expanded with the optional Sofia Digital's Launcher Application or **Sofia Backstage® Author** - HbbTV authoring tool.

The DVB Head-End is part of **Sofia Backstage® HbbTV Platform**, which offers the “red button” interactions and unlimited number of enhanced TV-application services.

KEY FEATURES

- Web-based system administration with automation, scheduling and user management
- AIT insertion and DSM-CC generation with stream events
- Automated PSI-SI generation including PMT, SDT, NIT, TDT, EIT (p/f, sch act/oth) & AIT
- Complete EPG workflow integration for Basic and Rich EPG services
- DVB-ASI, TS-over-IP or RF support with any DekTec DVB-adaptor product
- Support for IP, Terrestrial, Cable and Satellite delivery systems
- System Software Updates (SSU) signaling
- Integrates the HbbTV signaling and applications insertion with all other TV services
- Sofia Digital HbbTV application suite and Authoring tools for interactive services
- Download and upload MPEG transport

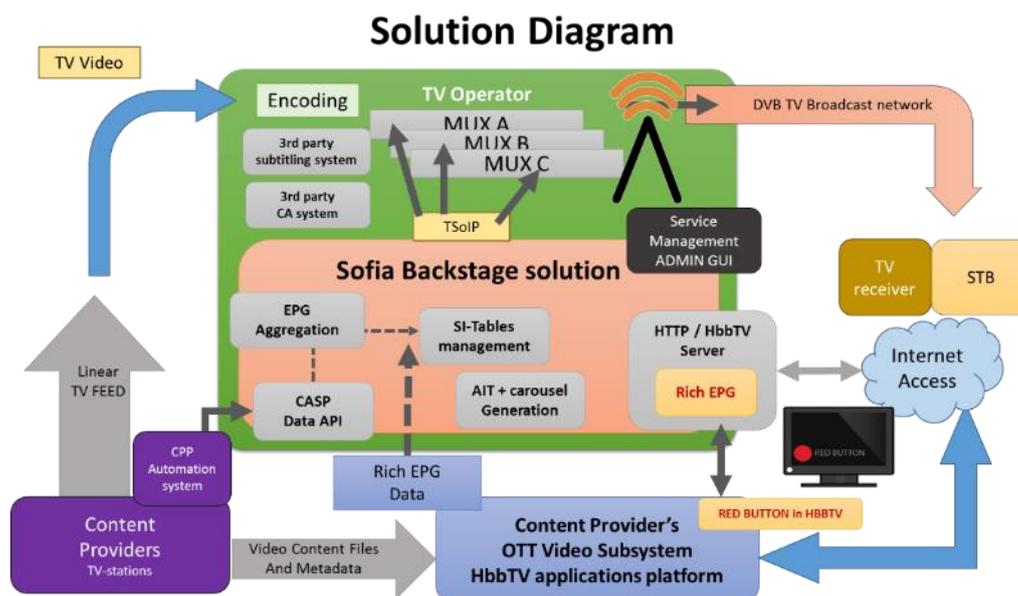
Sofia Backstage for DVB is powered by



Fraunhofer IPMux



DekTec DVB Products



Product features may change without notice.