

DVB Service Management System

Teleste Broadcast Manager is a complete PSI/SI, Electronic Program Guide (EPG) and Bootload management server. It enables operators to manage all service, multiplex and network related configurations and deliver EPG information and set-top box software updates. Teleste EPG Manager Lite is an optimized solution for small operators providing EPG information to the network.



Teleste Broadcast Manager

Broadcast Manager key features

- HD and SD support in MPEG4 and MPEG2
- DVB-C/C2, DVB-T/T2 and DVB-S/S2 compliant
- EPG information from various sources and formats
- Can be expanded module by module
- DVB-ASI, ATM and IP support
- Automatic dynamic service update
- Dynamic Conditional Access System control
- Easy-to-use web-based user interface
- Wizard and Table view
- Supports Teleste MyCast IPTV system
- Option for Main - Remote architecture
- Bitrate management for optimal bandwidth usage
- Support for almost any language
- Independent of multiplexer vendor
- Adjustable table generation intervals
- Adjustable automatic system backup
- All-in-one server hardware



Service description and short schedule information delivered by Broadcast Manager.



Program guide showing service information from Broadcast Manager.

Teleste Broadcast Manager eliminates routine monitoring and configuration work, raises the quality of the network output and ensures that there will be no unexpected complications in the services by automating the network configuration and updating processes.

Flexibility serving your needs

Teleste Broadcast Manager consists of EPG, Network and Bootload modules, which are all used for different PSI/SI management tasks. The structure is modular, the benefit being that it can be expanded module by module and yet all modules can function individually.

Broadcast Manager is fully DVB-C, DVB-T/T2 and DVB-S/S2 compliant, fulfilling all the requirements set by the standards. By default, it can fluently serve various network types and their combinations. Being an integral part of the Teleste MyCast IPTV system is an investment which will benefit the operator when deploying IPTV.

Performance at hand

One Broadcast Manager server can handle multiple multiplexes and hundreds of services in various types of networks. It can utilize input from DVB-ASI, ATM and IP and is DVB-C, DVB-T and DVB-S compliant, allowing the operator to enjoy high adaptability and easy integration. Broadcast Manager adapts to almost any network architecture, including small and large head-ends, based on central or regional broadcasting and whether the system is IP-only, hybrid DVB + IP, or DVB-only.

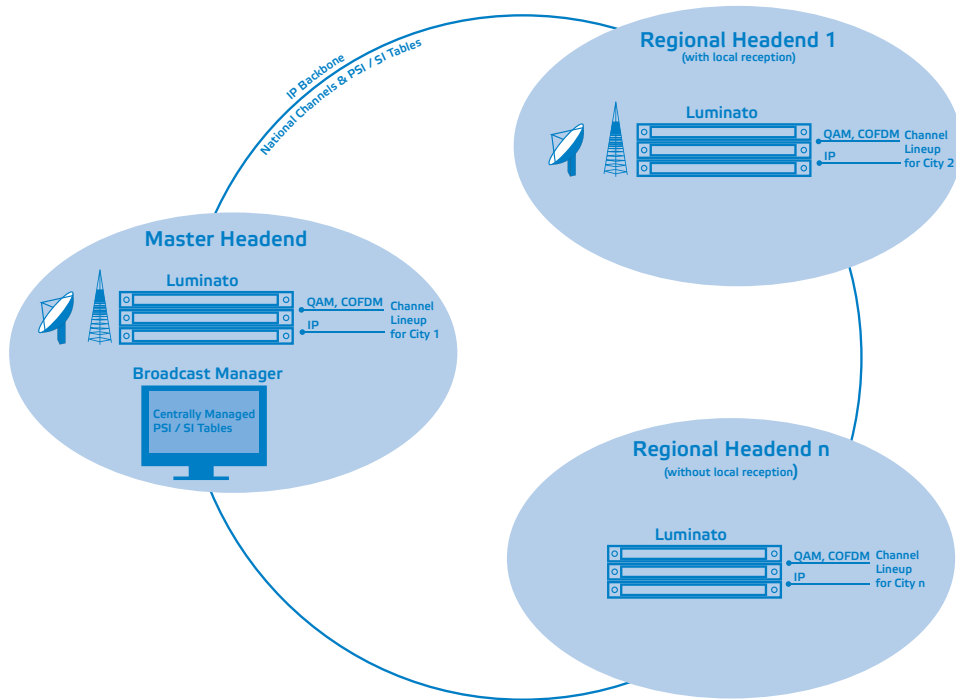
Schedule information for EPG can be taken directly from an incoming satellite or terrestrial DVB stream, fetched regularly and automatically from an external EPG data suppliers' server or imported from a file in various different formats.

EPG content is gathered automatically in a database and sent to multiplexers. The system can send EPG information even if the real-time source is not working, enabling subscribers to use their EPGs and PVRs at all times.

Ease of usage with an eye for detail

Broadcast Manager comes with an easy-to-use graphical web user interface allowing remote configuration and maintenance. The Wizard view guides by setting parameters for an entire network with multiplexes and services, while leaving all the values well accessible for the user. In addition to Wizard view, the alternative Table view provides means to modify, import and export tables in a traditional way showing the table hierarchy.

The EPG database allows the operator to change any information - add or change genre and parental ratings, add descriptions and re-schedule information in case of delays. It is also possible to save broadcasting bandwidth by removing irrelevant information (descriptors, languages), by shortening the schedule or by organizing the schedules to a barker channel.



Centrally managed Cable TV Network with differing Regional Channel Lineups.

Robust operations

Broadcast Managers can be linked to each other hierarchically in order to ensure reliable service delivery. This is plenary, especially in case of limited backbone connection between main and regional headends. In this case, all Broadcast Managers receive and ingest content locally, but Broadcast Manager running on a main headend provides configuration information to regional Broadcast Managers. This makes maintenance much easier and, more importantly, ensures uninterrupted service.

Set-top boxes in control

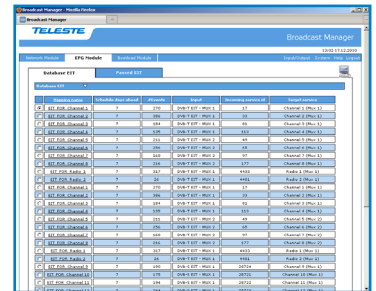
Teleste Broadcast Manager comes with the ability to broadcast set-top box software updates (Bootloads) through a network. Set-top box manufacturers publish new software releases on a regular basis and it can be crucial to have the software updated in order to guarantee high quality service.

Broadcast Manager can update set-top boxes from all possible manufacturers. It is capable of managing hundreds of simultaneous updates, which can all be timed individually and have different versions for different network segments. The Bootload module saves the updates to a server database, broadcasts the updates as TS streams and enables set-top boxes to find the relevant updates.

Teleste EPG Manager Lite

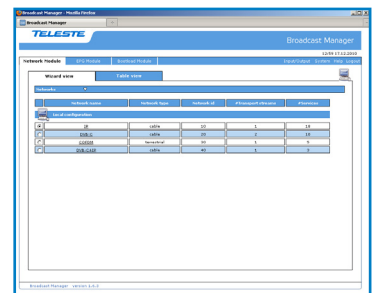
EPG Manager Lite is dedicated solely to EPG delivery. It is an optimized version of Broadcast Manager, able to utilize EPG content from a DVB stream and ingest it as EIT tables to the network. It is an ideal solution for populating a network with EPG information when there is no need for managing services, multiplexes, networks or bootload updates.

EPG Module



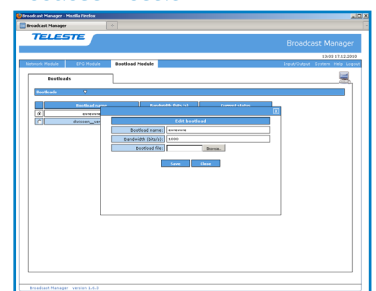
Management window of EPG information.

Network Module

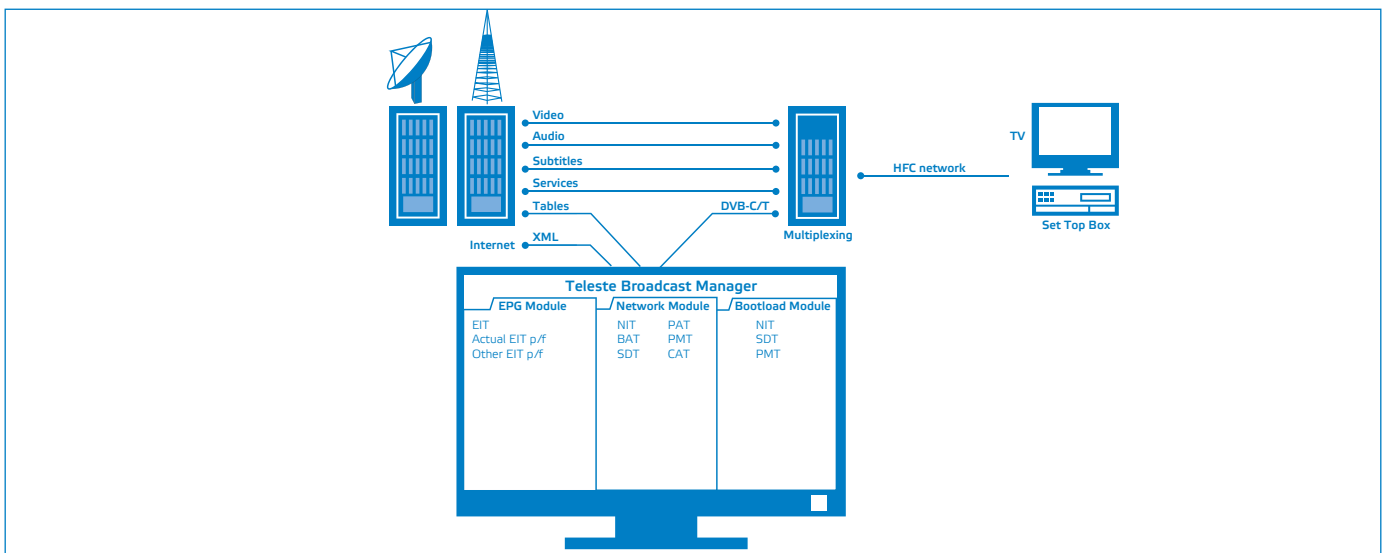


Network wizard view to network and service management.

Bootload Module



Management window for sending set-top box software updates.



Teleste Broadcast Manager system architecture.

Technical specifications

Parameter	Broadcast Manager	EPG Manager Lite	Note
Network			
Elements	up to 1000 multiplexes		22,000 PSI/SI tables (excluding EIT) 10,000 PMT & SDT, 1,000 PAT & NIT
Sub-headends	up to 20 sub-headends		
Table edit capabilities			
Network Information Table (NIT)	Yes		As specified in ETS 300 468
Program Association Table (PAT)	Yes		As specified in ETS 300 468
Program Management Table (PMT)	Yes		As specified in ETS 300 468
Bouquet Association Table (BAT)	Yes		As specified in ETS 300 468
Service Description Table (SDT)	Yes		As specified in ETS 300 468
Event Information Table (EIT p/f, schedule)	Full control	Actual and Other	As specified in ETS 300 468
Table editing capacity			
Storage	Expandable up to 4 TB	250 GB	
Input / Output	up to 100 streams	up to 100 streams	Up to 50 EIT service Ids per PID
EPG information			
Import/export formats	DVB, XMLTV, XML, XLS, text, proprietary *	DVB	*) Via converter
EPG importing systems	PPV, NVOD systems	No	Optional
Bootloading capacity			
Supported Bootload types	TS Streams	No	
Simultaneous streams	up to 100 different streams	No	
Redudancy			
1 + 1 redudancy	Yes	No	
Input/Output Interfaces			
ATM (optional)	1 interfaces, RJ 45 connector (CAT5)		100Mbps capacity
DVB-ASI (optional)	1-4 inputs / 1-16 outputs, BNC connector		26Mbps capacity
IP	2 / 4 / 6 ports		1000Base-T, Full Duplex
Management interface			
Web interface	HTTPS		HTML 4.01, Javascript 1.5
Management and monitoring			
SNMP	v1/v2c, MIB-II, Host Resources MIB, traps		
Remote access	ssh		
Self diagnostics	Automatic HW diagnostic software driven when device is restarted		
HTTP/DHCP based remote configuration	Any DHCP/HTTP server		
Software			
Software implementation	Java 2 Standard Edition		
Additional software	Jboss 4 and MySQL 5		
Operation system	Enterprise level Linux		
Hardware			
Form	Rack 1U		Up to 42 units per standard 19" rack
Supply voltage	230 VAC / 50 Hz		