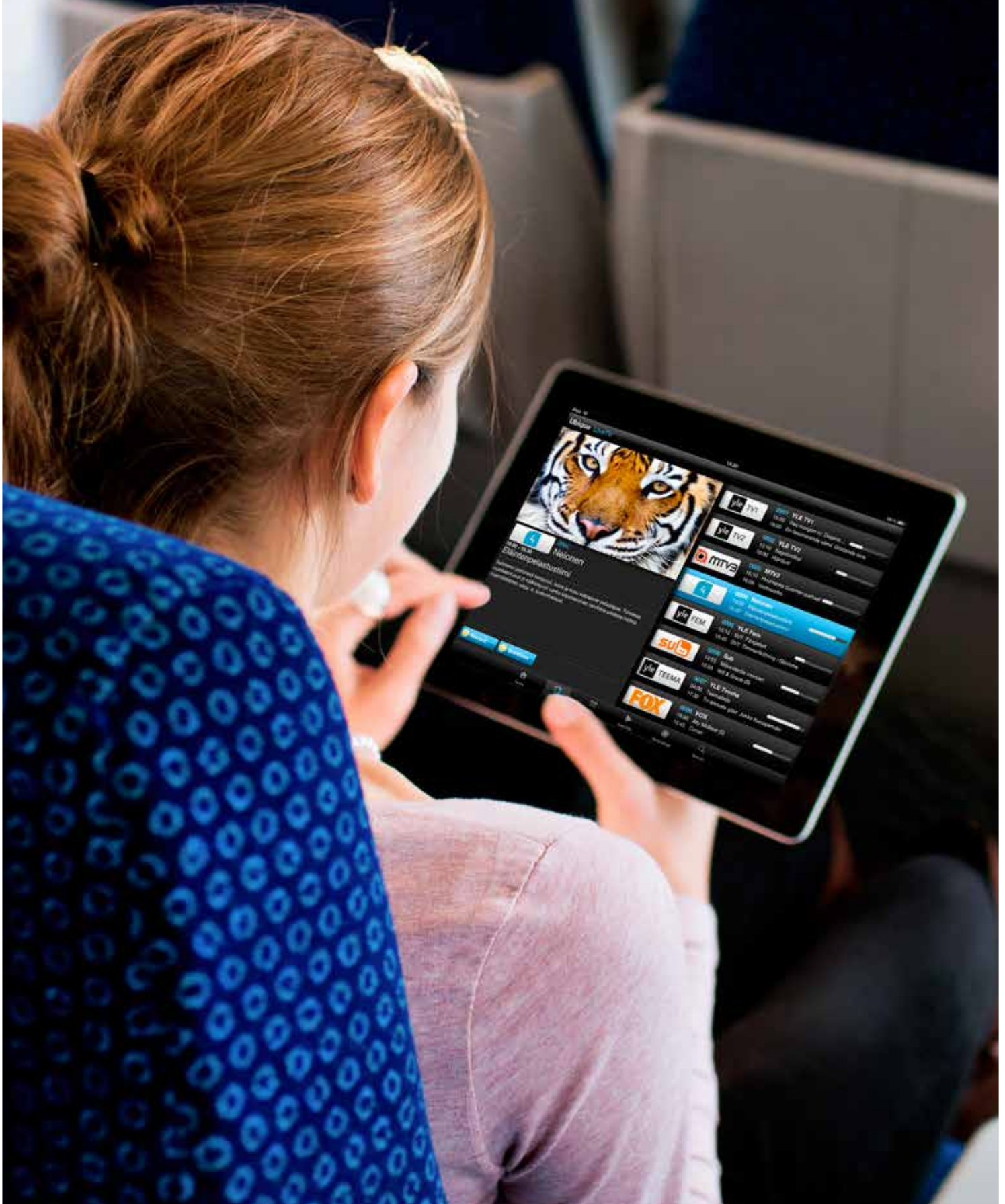


# PSI/SI Generator

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 Broadcast Manager 64-bit

## Broadcast Manager key features

HD and SD support in MPEG4 and MPEG2

- DVB-C, DVB-T/T2 and DVB-S/S2 compliant
- EPG information from various sources and formats
- Can be expanded module by module
- IP support
- Automatic dynamic service update
- Dynamic Conditional Access System control
- Easy-to-use web-based user interface
- Wizard and Table view
- 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 work by automating the network configuration and updating processes. This raises the quality of the network output and ensures there will be no unexpected complications in the services.

## The new 64-bit era

The new 64-bit Broadcast Manager is completely updated and comes with improved performance, capacity and reliability. With the latest technology you can be sure your server is secure and all the potential of the hardware is utilized. The 64-bit environment provides more memory space allowing the users to have e.g. more EIT data in outputs. The improved background processes bring more stability, features and tolerance for possible errors in the input streams.

## Flexibility to serve your needs

Teleste Broadcast Manager consists of EPG, Network and Bootload modules, which are all used for different PSI/SI management tasks. 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 serve various network types and their combinations.

## Performance at hand

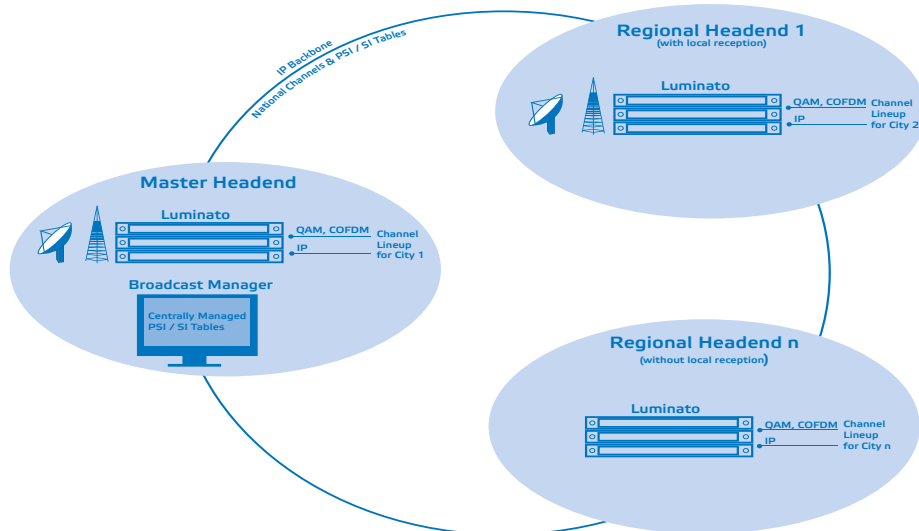
One Broadcast Manager server can handle multiple multiplexes and hundreds of services in various types of networks. It can utilize input from IP and is DVB-C, DVB-T and DVB-S compliant, allowing the operator to enjoy high adaptability and easy integration. Broadcast Manager adapts to almost any network 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.

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

The EPG content is gathered automatically in a database and sent to multiplexers. The system can send the 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.



Centrally managed Cable TV Network with differing Regional Channel Lineups.

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.

## Robust operations

Broadcast Managers can be linked to each other hierarchically in order to ensure reliable service delivery. This is crucial, 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.

## Updating set-top boxes made easy

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.

## Versions

There are two versions of Broadcast Manager for different needs: Broadcast Manager Unlimited and Broadcast Manager Basic. As the name says, the Broadcast Manager Unlimited can be used to control unlimited number of networks, making it ideal e.g. for a customer operating several operators' networks. The Broadcast Manager Basic is for operating up to 3 networks, so it is suitable for one operator having for example 2 real networks and one test network. Broadcast Manager Basic does not include the Bootload module, otherwise the functionality of both versions is the same.

### EPG Module



Management window of EPG information.

### Network Module

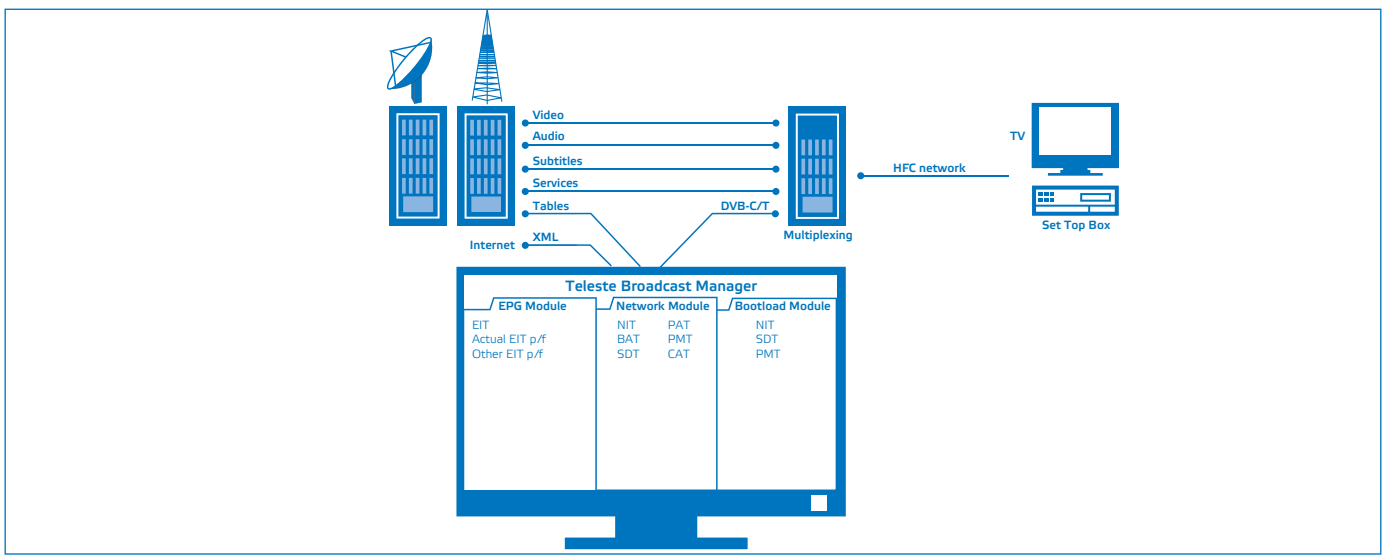


Network wizard view to network and service management.

### Bootload Module



Management window for sending set-top box software updates.



Teleste Broadcast Manager system architecture.

## Technical specifications

Parameter	Broadcast Manager Unlimited	Broadcast Manager Basic	Note
<b>Network</b>			
Elements	unlimited networks	up to 3 networks	up to 22000 PSI/SI tables (excluding EIT) up to 10000 PMT&SDT, 1000 PAT&NIT
Sub-headends	up to 20 sub-headends	-	
<b>Table edit capabilities</b>			
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 (EITp/f,schedule)		Yes	As specified in ETS 300 468
<b>Table editing capacity</b>			
Storage		up to 250 GB	
Input/Output		up to 500 streams	Up to 50 EIT service lds per PID
		Note: Exact capacity depends on the details of the services. More information in a separate document available on request.	
<b>EPG information</b>			
Import/Export formats		DVB,XMLTV, XML,XLS, text, proprietary *	* via converter
EPG importing system		PPV,NVOD systems	optional
<b>Bootloading capacity</b>	<b>(Broadcast Manager Unlimited only)</b>		
Supported bootload types		TS Streams	
Simultaneous streams		up to 100 different streams	
<b>Redundancy</b>			
1+1 redundancy		Yes	active with passive backup
<b>Input/Output Interfaces</b>			
IP		2 / 4 / 6 ports	1000Base-T, Full Duplex
ASI*			
<b>Management Interfaces</b>			
Web interface		HTTPS	HTML 4.01, Javascript 1.5
<b>Management and monitoring</b>			
SNMP		v1/v2c, MIB-II, Host Resources MIB, traps	
Remote access		HTTP	
Self diagnostics		Automatic HW diagnostic software driven when device is restarted	
<b>Hardware</b>			
Form		Rack 1U	Up to 42 units per standard 19" rack
Supply voltage		230 VAC / 50 Hz	
		*ASI output support available by using Luminato with ASI out module with Broadcast Manager	