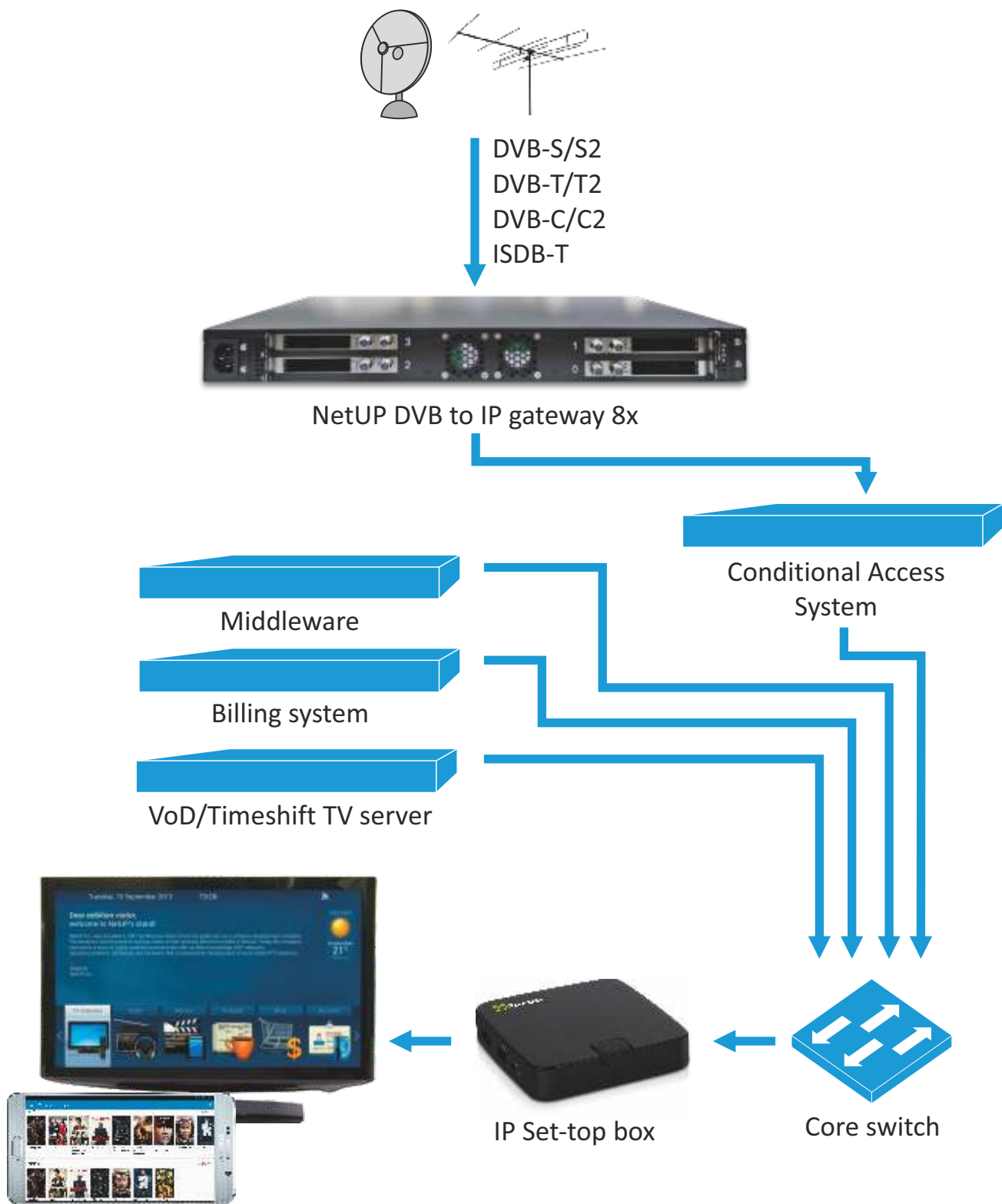


IPTV for ISPs



Core Devices / Software

IPTV Combine 8x



IPTV Combine 8x is a 1U rack-mount all-in-one IPTV headend supporting up to 1000 end users that is optimal for for small & medium Internet service providers or for initial/pilot setup in large networks.

Includes:

- ✓ IPTV middleware
- ✓ IPTV billing
- ✓ DVB to IP gateway
- ✓ VoD server

Inputs & Outputs:

- ✓ 8 x DVB-S2/T2/C2, ATSC, ISDB-T slots
- ✓ 8 x Common Interface slots
- ✓ 4 x 1 Gb Ethernet ports
- ✓ serial console
- ✓ 2 x USB
- ✓ IP stream

Performance:

- ✓ up to 1000 users
- ✓ receive & decrypt 8 transponders
- ✓ 50 concurrent VoD streams
- ✓ 1 TB HDD for internal video storage

IPTV Middleware

IPTV Middleware is the core of an IPTV setup. It connects all IPTV services with IP set-top boxes and provides graphical user interface for the latter. The NetUP IPTV middleware utilizes cutting-edge technologies and most up-to-date approaches in the industry. The system is designed to work with various types of client devices in the same setup: IP set-top boxes, PCs and laptops, handheld devices, etc.

Key features:

- ✓ TV, EPG, VoD, TVoD, radio
- ✓ fast switching of TV channels
- ✓ financial screen, account details
- ✓ messages
- ✓ parental & financial passwords
- ✓ multiple audio streams
- ✓ subtitles & teletext
- ✓ multiple languages support
- ✓ theme customization
- ✓ reminders for desired programs

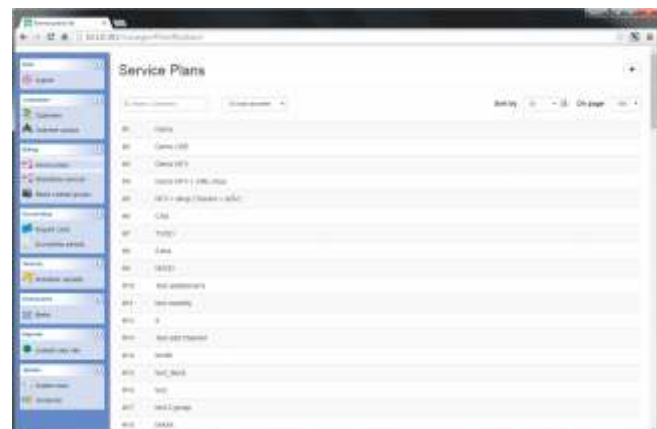


IPTV Billing System

The NetUP IPTV billing system is intended for creation and management of user accounts, service access control, creation of various service plans, adding payments, posting charges for IPTV services, etc. The system supports flexible configuration of the business logic thus allowing to maximize average revenue per user.

Key features:

- ✓ prepaid and postpaid billing
- ✓ multiple currencies support
- ✓ subscriber database maintenance
- ✓ creation and management of service plans
- ✓ access cards management
- ✓ financial reporting



Content Sources

DVB to IP Gateway 8x

1U rack-mount device that can be added to the IPTV setup to increase the number of TV channels taken from DVB sources.



Inputs & outputs:

- ✓ 8 x DVB-S2/T2/C2, ATSC, ISDB-T tuners
- ✓ 8 x CI slots
- ✓ 4 x 1 Gb Ethernet ports
- ✓ admin Web interface

VoD Server

NetUP VoD server software is intended for providing movies to subscribers on demand using unicast (VoD) and multicast (NVoD).



Key features:

- ✓ 100 concurrent streams
- ✓ unlimited HDD space
- ✓ trick play support (play/pause/ffwd/rewind)
- ✓ NVoD support
- ✓ movies meta data (posters, descriptions, trailers, etc.)

Catch up/Timeshift Server

A software system that can be added to the IPTV setup to enable TV on Demand, Pause Live TV, and NPVR features. The software can be installed on a standalone server with high HDD capacity and performance.

Performance:

- ✓ 100 concurrent in/out streams
- ✓ unlimited HDD space



HD-SDI Encoder 8x

A rack-mount device that can be added to the IPTV setup for live encoding of HD-SDI signal.

Features:

- ✓ H.264 encoding
- ✓ 8 channels per device
- ✓ up to HD1080@60P
- ✓ 0.8-19 Mbps per channel
- ✓ WxHxD: 440x44.5x410mm (1U)
- ✓ Weight: 7 kg



Software Transcoder

A software module that can be added to IPTV Combine 8x or DVB to IP gateway 8x in order to perform on-the-fly streams transcoding to H.264. It also allows to combine TV channels into 3x3, 4x4 or 5x5 grid view (mosaic) for preview and monitoring purposes. The software can be also installed on a standalone server for higher performance.



Performance:

- ✓ HD1080 - 8 channels
 - ✓ HD720 - 20 channels
 - ✓ SD576 - 40 channels
- Performance is higher in a standalone server.

MyTV Server

A software module that can be added to IPTV Combine 8x or installed on a standalone server to create custom TV channels by playing them out from files.



Performance:

- ✓ 10 concurrent streams in IPTV Combine 8x
- ✓ 100 concurrent streams in a standalone server

HDMI Encoder 8x

A rack-mount device that can be added to the IPTV setup for live encoding of HDMI signal.

Features:

- ✓ H.264 encoding
- ✓ 8 channels per device
- ✓ up to HD1080@60P
- ✓ 0.8-19 Mbps per channel
- ✓ WxHxD: 440x44.5x410mm (1U)
- ✓ Weight: 7 kg



MPEG-2 Encoder 8x

A rack-mount device that can be added to the IPTV setup for live encoding of analog A/V signal.

Features:

- ✓ MPEG-2 encoding
- ✓ 8 channels per device
- ✓ 0.8-20 Mbps per channel
- ✓ WxHxD: 482x44x455 mm (1U)
- ✓ Weight: 4 kg



Content Protection, Client Devices & Software

IP CAS/DRM

A software that can be added to the IPTV setup in order to protect live streams (TV channels) against unauthorized access. Supported only on original NetUP Android set top boxes.

Features:

- ✓ up to 100 concurrent streams encryption
- ✓ industry-standard AES algorithm used with dynamic keys
- ✓ hardware acceleration in IP set-top boxes allows full HD support



Android Client



NetUP.tv Android Client allows users accessing IPTV services on Android-based IP set-top boxes. The brand new user-friendly graphical interface with animated elements provides access to all IPTV services and Android apps.

Key features:

- ✓ TV, EPG, VoD, TVoD, radio, shop, etc.
- ✓ Android apps (Web, YouTube, games, etc.)
- ✓ high performance, animations
- ✓ multitasking: users can switch between apps

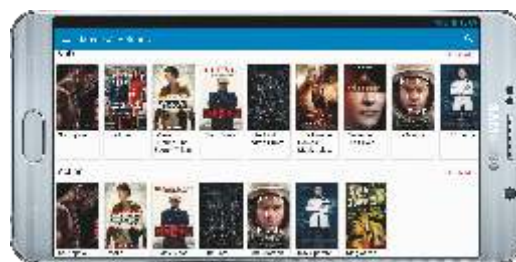


Mobile Application

NetUP mobile app for Android and iOS brings more fun into your viewers' pastimes and allows them to use IPTV and OTT services on-the-go. Coupled with NetUP Middleware this app becomes a great instrument of making profit through selling video content, advertising etc. Application supports full range of IPTV services: Live TV, Time-shifted TV and Video-on-Demand.

Key features:

- ✓ TV, EPG, VoD, TVoD, etc.
- ✓ Web browsing
- ✓ theme customization
- ✓ multiple languages support



Web Player

Web Player is a software that allows to access the IPTV services by web browser from user's PC or laptop. The software can run on most Windows and Linux distributions.

Key features:

- ✓ TV, EPG, VoD, TVoD, etc.
- ✓ Windows 2000/XP/7
- ✓ Linux



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