



## OPERATOR NEEDS

- To Integrate diverse sources of content within a single STB
- Enrich the product offering and lower the attrition rate
- To provide extra services without increasing CAPEX



## NETGEM STB AND MEDIACENTER SOLUTION

The N8000 Series Netbox is delivered with Netgem's award winning IPTV middleware, Netgem TV. The STB comprises a double tuner, hard disk drive, UPnP Media Center HD and a Home Network connectivity such as wifi 802.11n.

The N8000 Series enriches the broadcast TV experience with the power of the internet, blending seamlessly content and services from broadcast channels, IPTV platforms, Web sites and home network devices in a fast and fluid interface.

The N8000 Series is comprised of a core set of application and an advanced set mainly coming from Over The Top services such as:

### CORE FEATURES

- HD Navigation system
- Channel universe
- Rich TV Guide framework (EPG)
- Digital Video Recording (DVR)
- Media Centre HD
- Video On Demand (VOD)

### ADVANCED FEATURES

- Internet live TV
- You Tube
- Online Streaming Music
- Local portal for customer
- Smartphone Control
- Casual gaming

## VALUE PROPOSITION

### HYBRID RECEPTION

- Terrestrial DVB-T2
- Cable DVB-C, DVB-[T+C]
- Satellite DVB-S2
- Internet (Ethernet 100BaseT, Wifi n)

### MEDIA CENTRE

- UPnP compatible
- Access to any USB device or computer
- Full codec compatibility

### DIGITAL VIDEO RECORDING

- Timeshift, pause live TV and rewind
- Video Thumbnails for easy search
- Instant & schedule recording

### NETGEM TV SOFTWARE

- Unified Channel list
- Channel Universe concept
- Easy upgrade of new services

### SOFTWARE SYSTEM

#### Netgem TV

- OS: LINUX
- Client middleware: Netgem TV
- Browser: Netgem Browser
- Web Protocols: HTML 4.01, JavaScript 1.5, CSS1&2, DOM1/2 Events  
IGMP, HTTP1.1, SSL 2&3, RTP/RTSP,SNMP, DHCP
- VOD & web TV: RTSP, Progressive download, Adaptative Streaming  
(Apple HTTP, Microsoft Smooth Streaming)
- Server middleware: Netgem DMS with apache HTTP server

#### Media Centre

- Container: mpeg ts, mpeg ps, avi, asf, mkv, mov, flv, dv
- Subtitles: srt, .sub, .ssa, .ass, .smi, .xml
- Photo: JPEG, BMP, GIF, TIFF, PNG
- Video: see below
- Audio: see below
- Certification: UPnP and DLNA

### HARDWARE SYSTEM

#### CORE SYSTEM

- Tuner: 2
- Reception: 2xDVB-C or 2xDVB-T2, or 2xDVB[T+C]
- Processor: Sigma Design SD8655 / Broadcom BCM7413
- Frequency: 500MHz / 450MHz
- Memory Flash: 128 MB / 32MB
- Memory RAM: 256 MB
- Hard drive: 2"5 HDD variable size

#### AUDIO / VIDEO

- Resolution: Up to 1920x1080i at 50/60Hz
- User Interface: 1920x1080i at 50/60Hz
- Video decoder: MPEG-4.10/H264, MPEG-2, SMPTE 421M
- Audio decoder: MPEG-4 AAC, MPEG-1/2 layer I, II and III,  
WMA9, WMAPro, Dolby Digital 5.1, Dolby Digital +
- Pass-through: Yes on S/PDIF
- Audio Downmix: Available on 2 stereo channels

#### Connectivity

- Ethernet: 1x Ethernet 10/100BaseT Full Duplex
- Wifi: 802.11n single or dual band
- Video output: 1x HDMI v1.3a  
1x DIN out (CVBS, RGB, YPbPr, audio L,R)
- Audio output: 2x RCA  
1x S/PDIF optical
- USB: 2x USB 2.0 host device

#### SECURITY

- CAS : Nagra Card-based/Cardless, Verimatrix
- VOD DRM : Verimatrix, PlayReady, WMDRM10
- Content protection: HDCP over HDMI, CGMS-A on analog
- Data encryption: DES, 3-DES, AES, DVB-CSA

#### POWER

- Power supply: 12V 1.5A external
- Power consumption: 18W
- Low Power: 0.6W

#### ACCESSORIES

- External power supply AC100-240 50/60Hz
- Remote Control Jazz RF/IR 28/33 keys
- HDMI cable length 1,5m
- Mini-din to SCART cable
- Antenna cable
- Ethernet Cable 1,5m

### Options

- Processor : Sigma Design or Broadcom
- Wifi 802.11 b/g/n single band 1x1, or 802.11 a/b/g/n dual band 2x2
- HDD size: 160GB, 250GB, 320GB or 640GB
- Smartcard ISO7816

