AIBO TV System Via Grand Wi-Fi

take your dose of entertainment, everywhere!

TELELYNX

About Telelynx

- Our mission is to introduce and provide high quality **Internet Protocol Television** services to the customers and organizations, and to offer E-Education based on tablets to the worldwide markets.

- We use **Public** and **Private** networks to provide the most advanced services.

- **Telelynx**, a Taiwan based company, which is one of the world leaders in providing end-to-end digital TV solution (both DVB and IP) and E-Education, etc.

About Telelynx

The state-of-the-art technology is powered by Telelynx Inc., world's leading inventor, innovator and implementer of leading-edge technology enabled solutions.

Telelynx brings to the partnership state-of-the-art technology that adds value to customers through a combination of multiple high-end technologies for complete solutions.

Telelynx's Expertise And Solutions

- Signal Encoding, Transcoding for DVB braodcasting and OTT/IPTV
- HLS Streamer, Video servers, STB and APP for OTT and IPTV
- Complete DVB system and OTT systems integration and commissioning.
- Conditional Access System (CAS) and Subscriber Management System (SMS)
- Set Top Box (STB) for DVB and OTT/IPTV
- OTT Enabled Mobile Devices such as tablets and smart phones
- Cloud based E-Learning platform and associated tablets
- Carrier-grade WiFi and cloud-based security system

What are OTT and IPTV?

OTT (Over the Top Technology)

Over-the-top content (OTT) describes broadband delivery of video and audio without a multiple system operator being involved in the control or distribution of the content itself.

IPTV

IPTV is a system through which television services **Internet Protocol television** are delivered using the Internet protocol suite over a packet-switched network such as the Internet, instead of being delivered through traditional terrestrial, satellite signal, and cable television formats.

What is the different between OTT and IPTV?

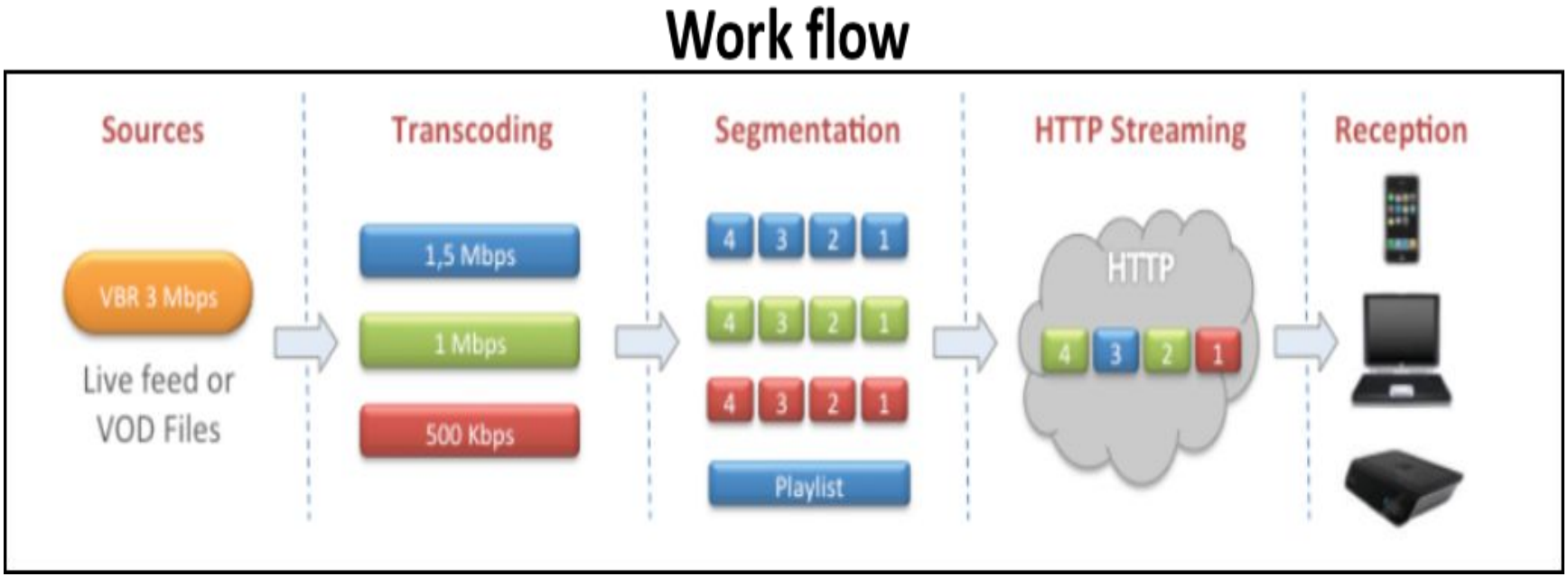
Refer to:http://en.wikipedia.org/wiki/Comparison_between_OTT_and_IPTV

	OTT (Over the Top Technology)	IPTV
Content Delivery	Uses open internet, unmanaged network "**open ecosystem**"	Uses dedicated, managed network. "**Walled Garden ecosystem**"
Network Type	Delivered from the provider/content aggregator to the viewer using open network	Closed, properietary network, accessed via a specific internet service provider
Network ownership	Without the need for intervening carriage negotiations, or infrastructure investments	Services are optimized and customized to suit the network and end-device capability
Quality of Service(QOS)	Not guaranteed, works under best effort conditions	Enables control over quality of delivery
Protocol	Delivered using HTTP (TCP), a connected transport protocol. (e.g. HLS)	Traditional IPTV uses TS (transport stream) transmission technology. Delivers content over UDP in combination with FEC , connectionless protocol
Routing Topology	Unicast (Based on HTTP) or [illegible]ted Multicast (UDP/TCP)	Multicast, Unicast burst during channel change leading multicast join

The workflow of HLS

Adaptive streaming

- Adaptive streaming can satisfy the bandwidth condition of terminal device to choose an suitable bitrate for watching video smoothly.
- Apple HLS supported.



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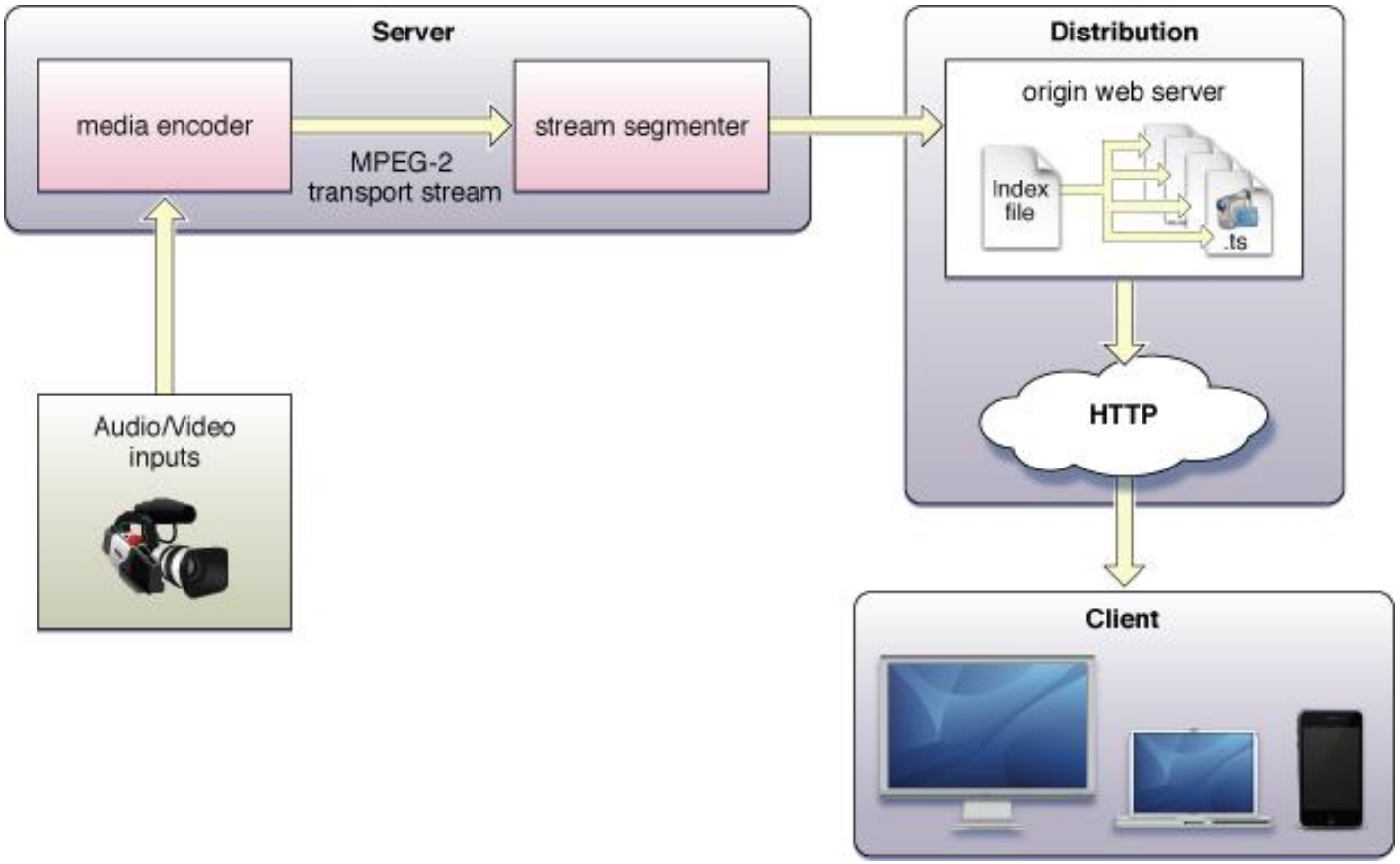
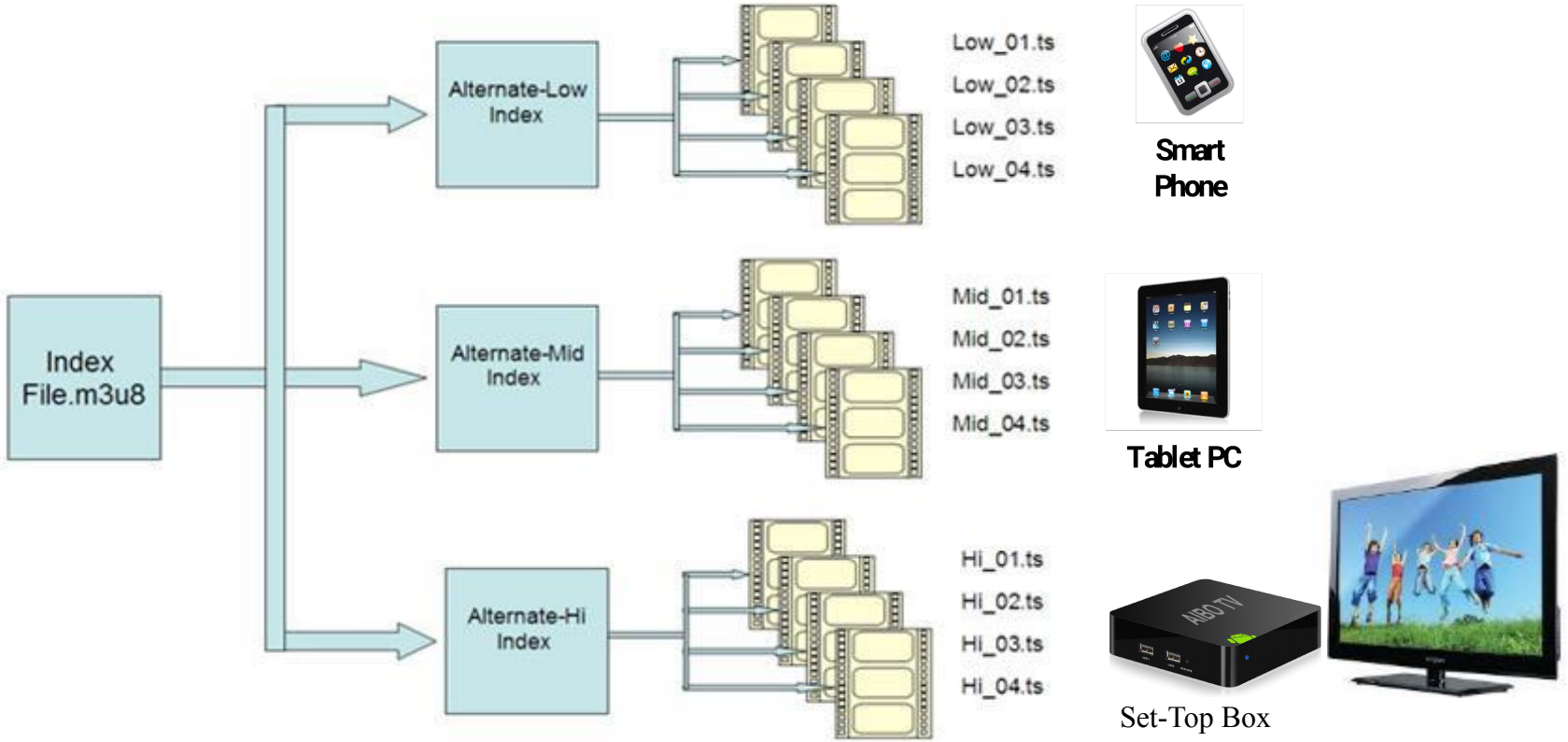
The workflow of HLS (cont.)

- How it works?



Multi-bitrates

- Providing multiple bitrates to satisfy different type of terminal devices.



The OTT end-to-end solution of Telelynx

AIBO TV system

Modern way of the delivery of Entertainment & Information.

AIBO TV system via Grand Wi-Fi Network

- Live TV channels
- VoD (Video On Demand)
- Internet
- Online games
- E-Education
- Online Shopping
- Surveillance

Live TV channels

- WATCH LIVE 100+ Live TV channels – news, business, sports, and entertainment

- This technology empowers you with instant access to live breaking news, live sports, live daily soaps, top TV shows, music videos and your favorite blockbuster movies on the go.

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VoD (Video-On-Demand)

- Thousands of movies, in all genre, available in high quality format, for TVs, Tablets and Smart Phones.
- Easy search, favorite list and frequently watched movies option makes the choice very easy and quick.
- Movies are stored in their native formats in order to preserve & maintain the quality.

Internet

- Broadband internet is integral part of this service
- No separate connection is required for the internet
- Can view web sites or access social networking while watching TV channels or movies

Online Games

- Multi players, popular games are available in this service

E-Education

- Class rooms data in the form of videos can be available on our servers, which can be accessed by the students for learning, refreshing or catching up their attended sessions

Online Shopping

- Through telemarketing companies, online shopping will be integral part of the service

- Shopping can be done while watching the channel or movie on TV, tablet or Smart Phone

Surveillance

- Surveillance IP cameras can be integrated in a close circuit environment, as per the user requirement
- Highest possible picture quality by using latest compression and end-to-end digital acquisition
- The surveillance can be done using Tablets and Smart Phones, which provides mobility
- Wireless WiFi cameras can also be integrated which will eliminate the limitation, cost and bad picture quality associated with the analog wires

AIBO TV System - Everywhere

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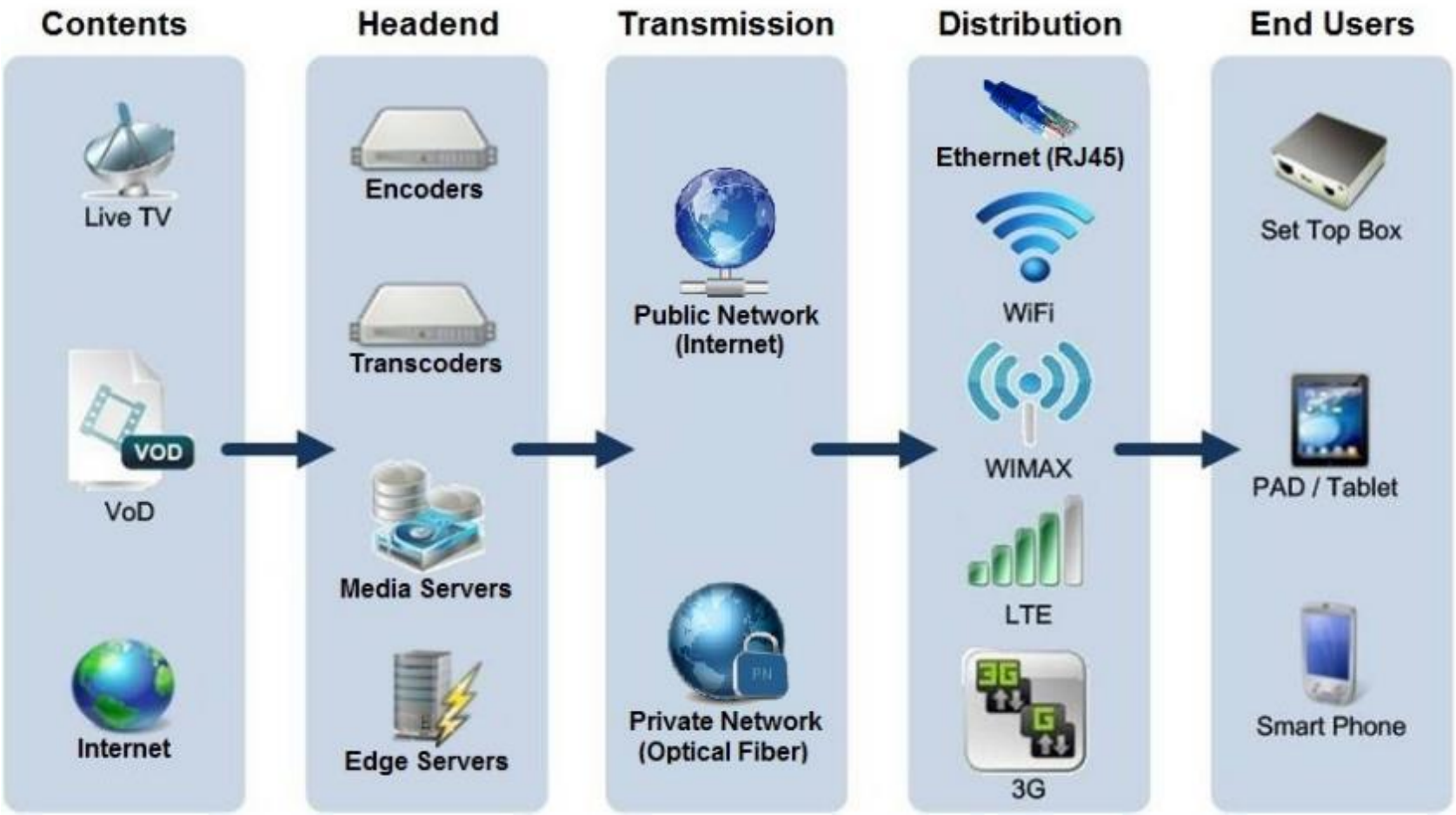
The AIBO TV system overview



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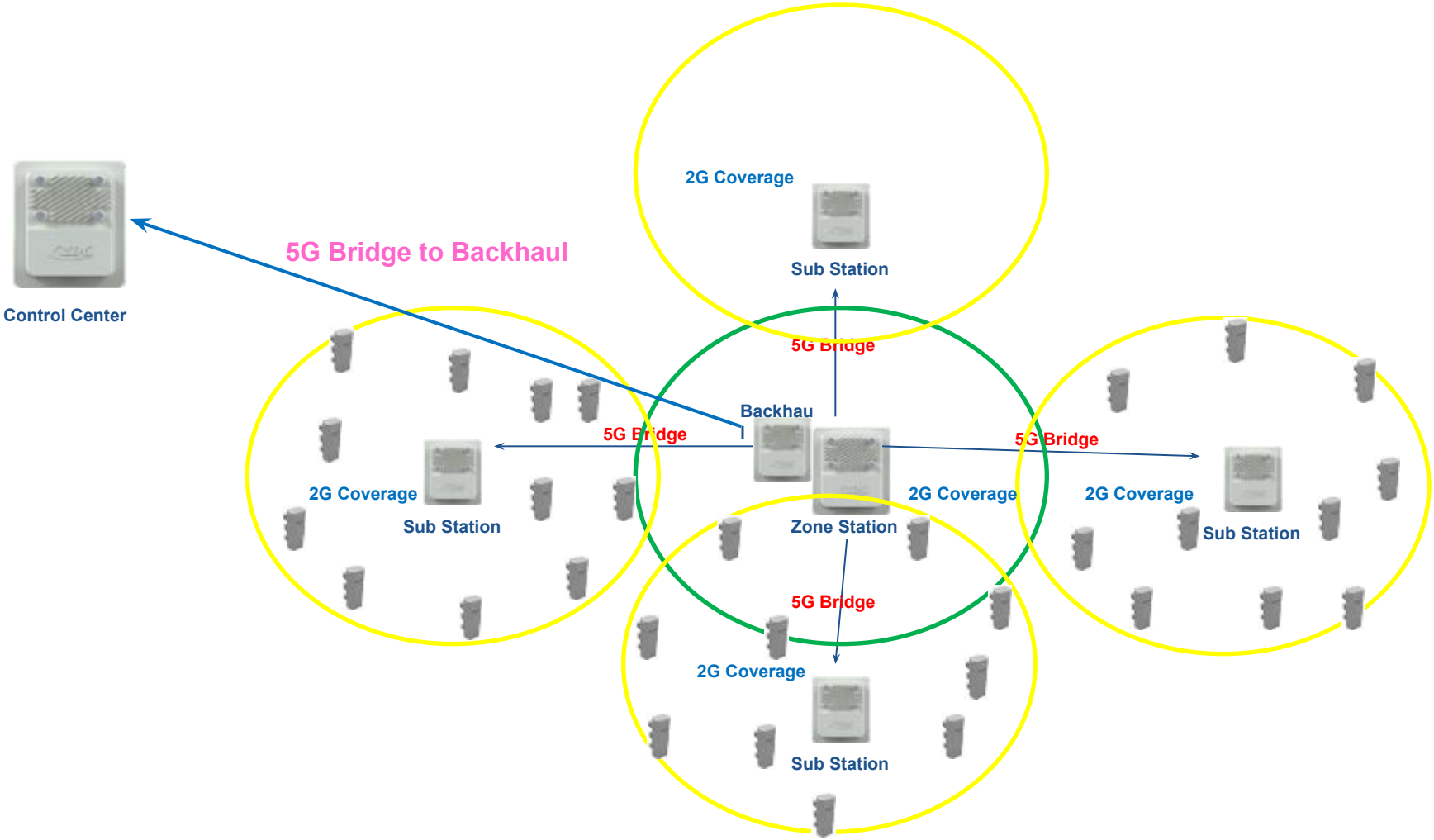
The AIBO TV system overview (Cont'd)

- The content types of AIBO TV are live channels, video-on-demand (VoD) and Internet.
- The video contents are encoded and transcoded, to make it compatible with the user end devices i.e. set top boxes, tables and smart phones.
- All the contents are wrapped in a format, understandable by user end devices and delivered either through public network (Internet) or private network using optical fiber.
- End user can watch the contents on multiple devices or screens, using either wired or wireless connection.

How will this service be delivered to you?



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How will this service be delivered to you?

- System Calculation:

1. The whole Housing Society will be divide into zone stations, and each zone station consists of one station and 4 substations.

2. 5GHz to be used as PtMP to 4 sub-stations as " Bridge"; TN-7100-DE-500G at Zone station, 1 more TN-7100-DE500G as backhaul.

3. Each zone station and substation use 2.4GHz for local coverage.

4. 1 substation supports 10 sets of 2.4 GHz CPE (one CPE for each house). Each outdoor CPE (in each house) supports 2Mbps abilities.

5. (Option)Each outdoor CPE is connected to an indoor 2.4 GHz AP or an indoor router by a LAN line for coverage around each house.

Advantages over analog cable system

- Wireless distribution through carrier-grade WiFi:
  - Set Top Box
  - Laptop
  - Tablet
  - Smart Phone
- Multi Device, Multi Screen
- Live Channels, Catch-up TV, VoD and Internet, all on the same link
- Quality of channels not deteriorated on higher numbers

The AIBO TV player

The AIBO TV player on tablet

- Support Android 4.x
- Customizable

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The AIBO player main menu with ad slideshow

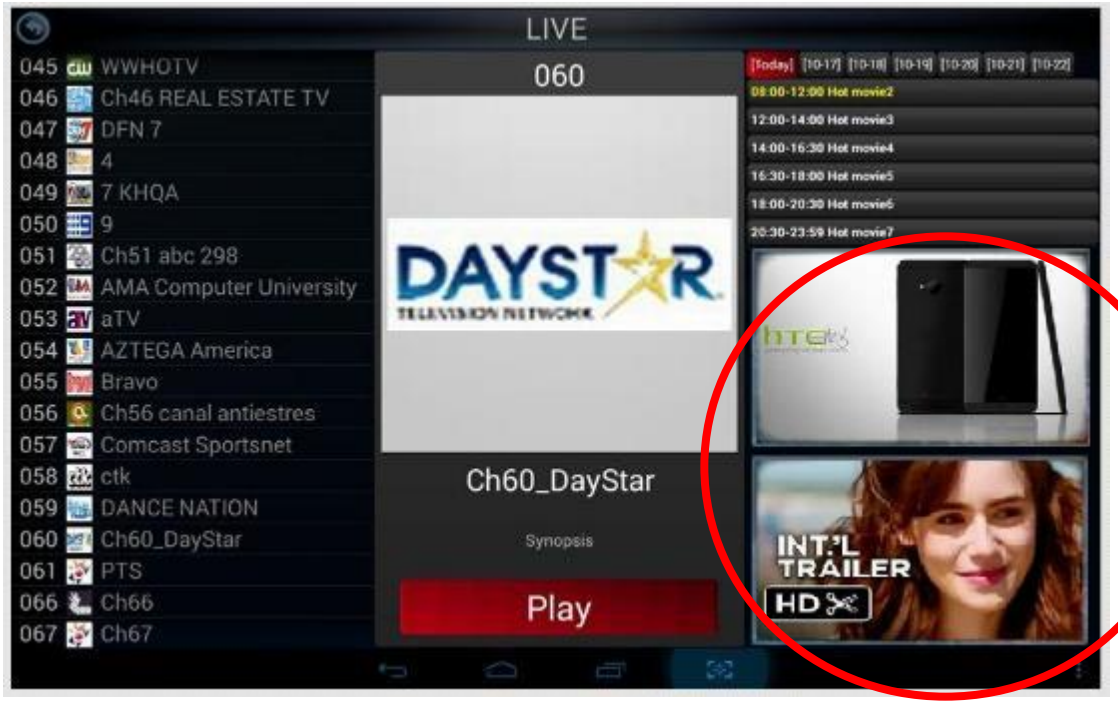
Advertisement

User Interface (cont'd)

Live channel supports conventional channel list and digital EPG program guide.

User Interface (cont'd)

Live channel can optionally support advertisements to add revenue stream



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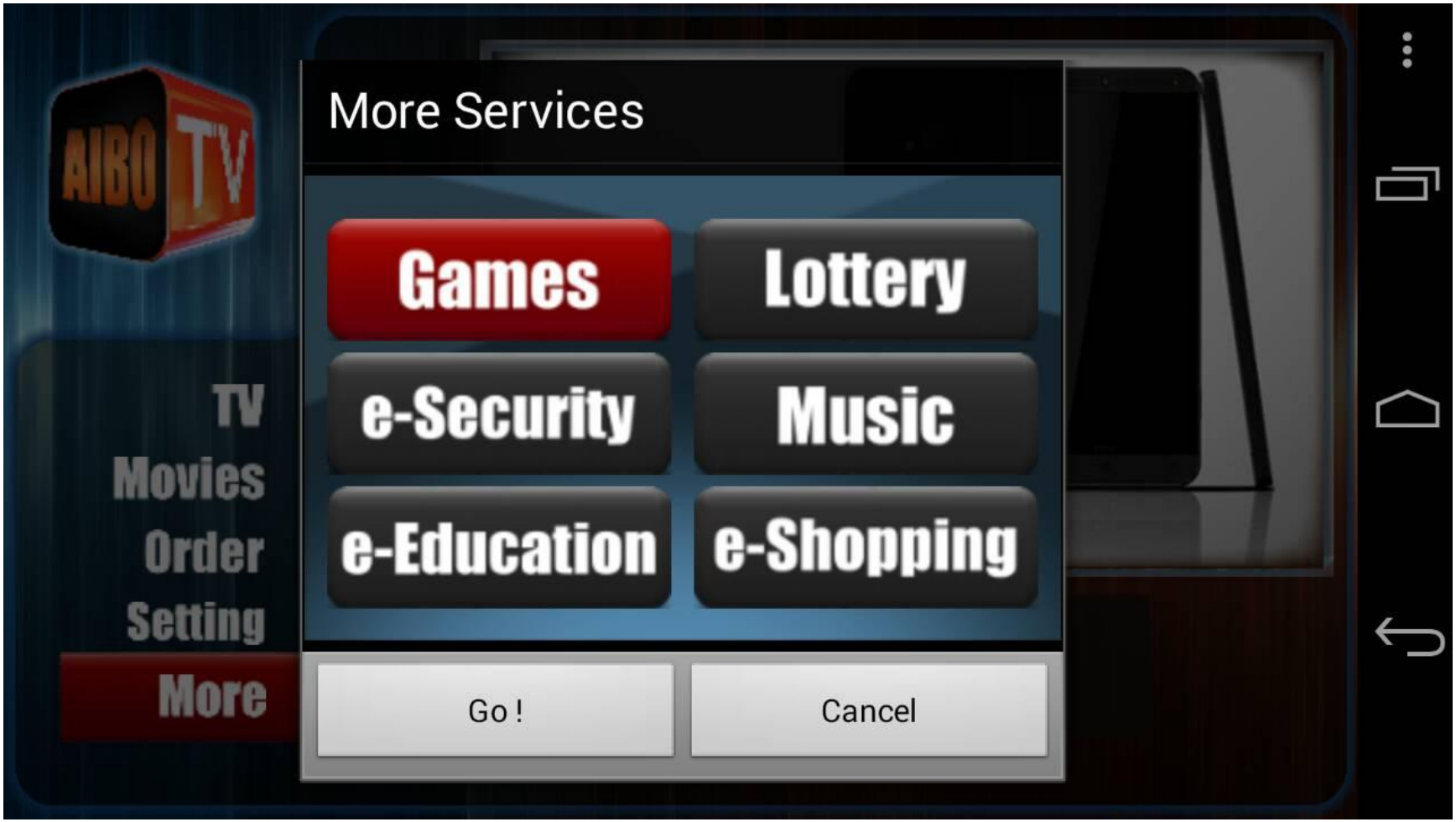
User Interface (cont'd)



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Smart phone for mobile TV

Low bitrates

200Kbps Video stream

40Kbps Audio stream

Access through WiFi/3G

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Tablet for mobile TV

slim, suitable size

700Kbps Video stream

40Kbps Audio stream

Access through WiFi/3G

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IP based Android Set-Top Box

Android Set-Top Box

- **1.5GHz processor, 1G RAM, 4GB Flash**

Home entertainment

1.2M~2.5Mbps Video stream

40Kbps Audio stream

Access through WiFi/Ethernet

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Thank You !

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