CTC’s IPTV service intro & wide topics on standardization

Workshop on Harmonization of Web and IPTV technologies
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Brief on CTC’s IPTV Service

• Some numbers from the China market.
• CTC’s IPTV service: roadmap, standardization, services and the future...
Some Numbers from the China market

- **Internet**: 420M, the largest Internet population [1]
- **Broadband**: 110M [2]
- **Cable TV**: 65M [3]
- **3G Mobile**: 35M [4]

Data source:
[1] CNNIC, July 2010
[2] MIIT, July 2010

Picture source: CNNIC July 2010
- 4.6 M in the end of 2009. Almost 5 million, June 2010;
- The second largest number in the world and the largest one in Asia.

Source: CATR Jan 2010
CTC’s IPTV : Roadmap

**Policy Restriction:** Gov. licenced CP provides all video related content.

**Cooperation:** CPs provide video and EPG also, the SP can only provide IPTV VAS.

**Main CPs:** BesTV, CCTV, CRI, etc

**Main SPs:** CTC & Unicom.

- **Trial in Shanghai**
  - 2006

- **2nd half of 2005**
  - 0.11 million
  - 12 Prvn.

- **2007**
  - 0.57 million
  - 14 Prvn.

- **2008**
  - 2 million
  - 17 Prvn.

- **2009**
  - 3.78 million
  - 17 Prvn.

- **2010**
  - 4.9 million
  - 20 Prvn.

- **2011**
  - 10 million
CTC’s IPTV: Standardization

- Follow ITU-T non-NGN-based IPTV arch, Y.1901, H.720, H.721, H.760, H.264, etc...
- First standardized in 2005 and the second edition republished in year 2007, soon will be Ver 3.0.
- Ever since the V 2.0 standardized, more vendors join in the competition and prices of the IPTV TD and platform dramatically drop.
- V 2.0 soon becomes the main body of the national standard and the main part is contributed to ITU-T in TDES.3, MAFR.6, MAFR.10 and etc...
CTC’s IPTV: Cooperators

- BestTV
- CCTV
- SMC
- Wasu
- Cisco
- ZTE
- Alcatel-Lucent
- Huawei
- UTStarcom
- Onewave
- DareGlobal
- Changhong
- Sunniwell
- Yuxing Group
- Konka
- Kaitian
- Coship
CTC’s IPTV: User Distribution

The “DOMINATOR” of the SOUTHERN part.

extremely rapid growth in Shanghai, Jiangsu, Guangdong, etc.
CTC’s IPTV: Services

- **Live TV**: over 100 channels covers sports, news, entertainment, stock, etc.;
- **Timeshift TV**: 60min timeshift TV for all channels.
- **nVR for live TV**: 48h program recoded for all live TV.
- **VoD**: over 15,000h, including movies, TV series, live music and concert, etc.
CTC’s IPTV: About the future – Quad-play and more...

- Video Telephony
- Movie Recommendation
- Watch on Three Screen (Favorites, )
- Personal
- Company
- Interactive Game
- Colleague Circle
- Friend Circle
- Family Circle
- Video Sharing
- Video Conference
- Mrs. Li’s Father
- Mrs. Li
- Mr. Li
- Friend
- Children
- Colleague
- Friend
- Boss
- Video Conference

用户至上 用心服务 Customer First Service Foremost
Facilitates customer content management of media coming **IN**, going **OUT** and **WITHIN** the home.

**Connecting** all Appliances in the Broadband Digital Home.
CTC’s IPTV: First step in service convergence

‘Surfing Video’ covers mobile phone, PC, IPTV and panel devices.
II Something about the Web & IPTV std.

- web-tech used in IPTV.
- ITU-T’s IPTV standardization
IPTV: a convergent service

Converged Telecom, TV, and Internet... provides advantages in IPTV.

- **Internet**
  - Rich Content
  - Diverse services
  - User Participation

- **Teleco**
  - Good QoS
    - CDN, IMS, etc.
  - Excellent OSS
    - Charging, User data
  - Communication services
    - CallerID, Messaging

- **TV**
  - Professional Content
    - Big screen
      - STB and TV
  - Simple operation
    - Remote control
  - Large number of clients

**IPTV**

- Professional Content
- Big screen
- Simple operation
- Large number of clients
IPTV: web-tech plays an important role

- **The MAFR series:**
  - **MAFR.2(H.762):** Lightweight interactive multimedia framework (LIME) for IPTV services
  - **MAFR.4:** Cascading Style Sheet for IPTV services
  - **MAFR.5:** Document object model for IPTV services
  - **MAFR.6:** ECMAScript for IPTV services
  - **MAFR.10:** Scalable Vector Graphics for IPTV services
  - **MAFR.11:** Worldwide TV markup language for IPTV services
  - **MAFR.13:** HTML for IPTV services
  - **MAFR.14:** Lua for IPTV services
  - **WBTM:** Web-based terminal middleware for IPTV services
Yet..... It’s hard to be harmonized

- **Loose language organization**: without considering different web languages, even the same standard causes trouble in implementation and UE.
New challenges are coming in the way

- HTML 5, CSS 3, Widget, etc.
- new techs bring better UE, but higher requirements than ever.

- Video/Audio
- database
- websocket
- WebGL
- Canvas
- SVG
- Animation
- Transition
- Text Shadow
- Multi font
What can I do for you?

Android provides an open environment for Application Developers, Service Providers, and end-users.

Natural born web tech supporting due to the WEBKIT core...

Honeycomb's supporting GoogleTV, will it be a revolution in IPTV just like in mobile phones?
Standardization: It’s just the beginning, never the end.

- Great job that ITU-T is standardizing the IPTV service related issues.
- Covering guideline for IPTV arch and detailed implementation too.

- Interops is the first step for standards’ harmonization, but still long long way to go...

IPTV Interops
Anyway, IPTV is a BIG Challenge – yet Opportunity
Any Questions? Anything to SHARE?