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# La televisione su Internet nella vision degli organismi internazionali

Jacques LE MANCQ, Thomson Connect

October 20, 2009



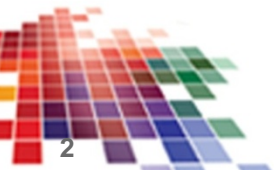
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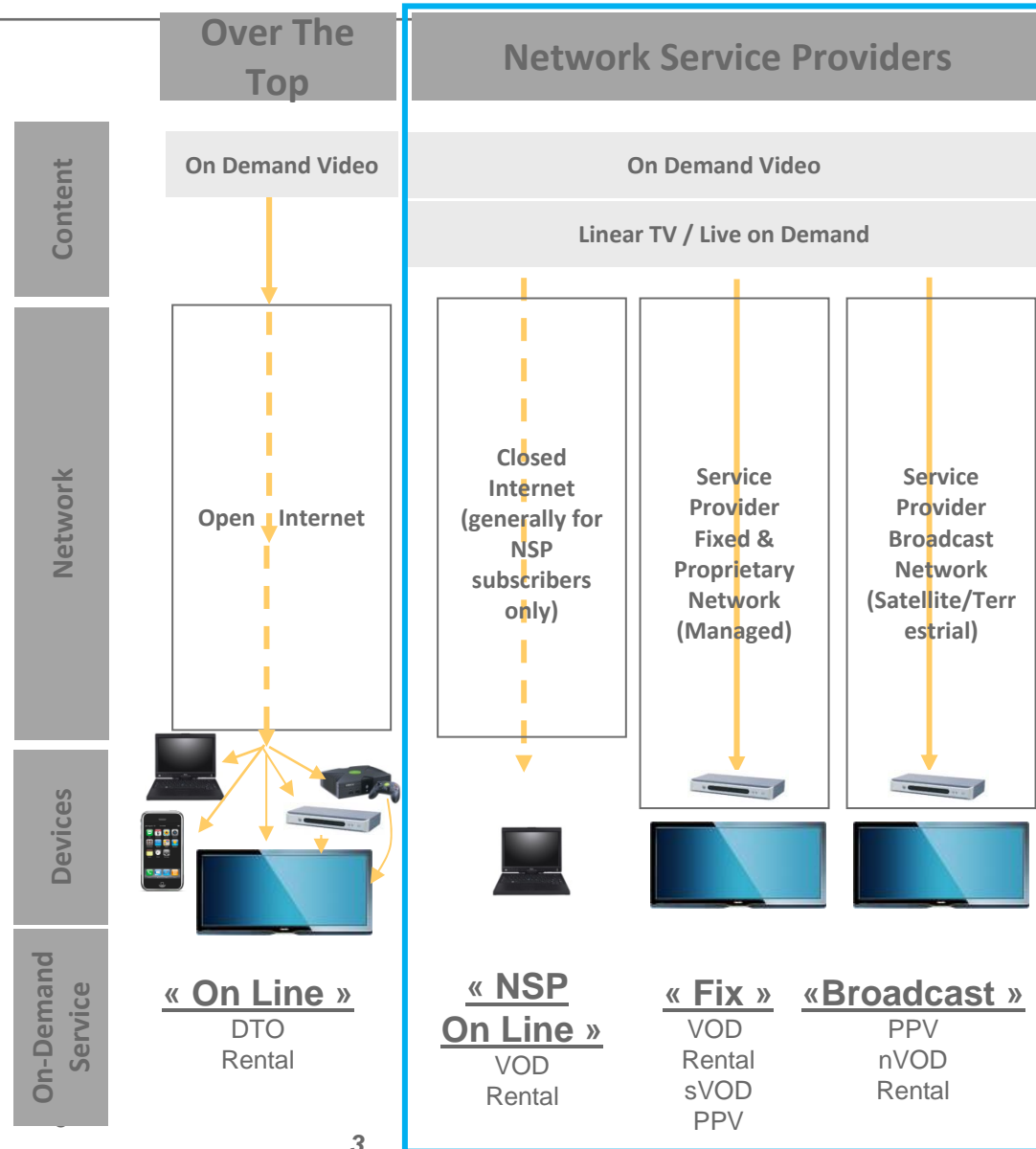
# Agenda

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- Managed Video Networks & TISPAN
- Over The Top & the CANVAS project
- Open IPTV forum combining OTT and Managed Networks video delivery



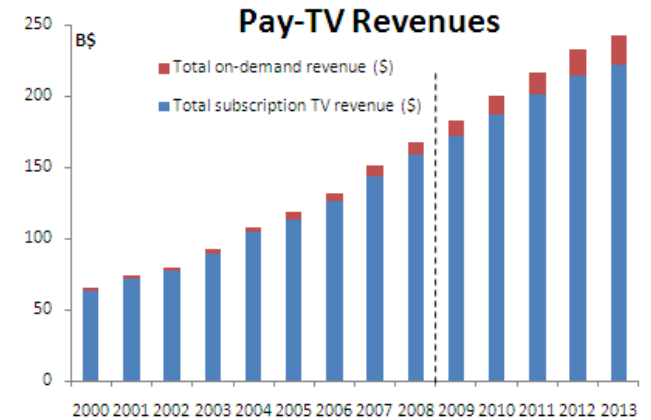
# Video on Demand - Network Service Providers (NSPs)



# Network Service Providers (NSPs) first consider VoD as an anti-churn tool

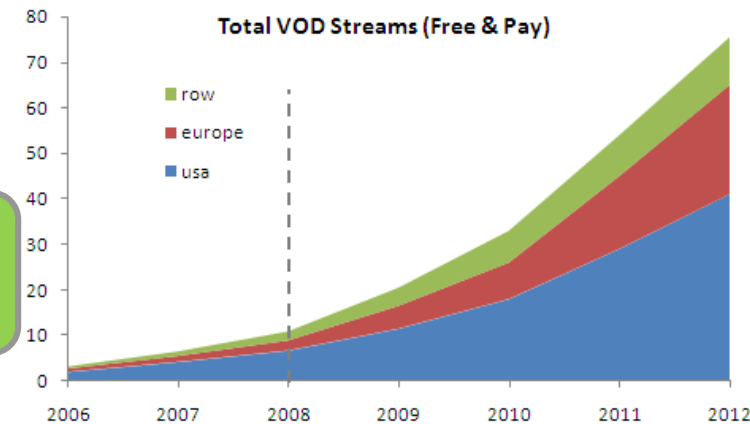
- NSP VOD remains predominantly a US phenomenon although now starting to emerge in Europe.
- Competitive situation in US, between operators first, and secondly with online platforms, encouraged promotion of VOD as a key differentiator to attract video subscribers.
- NSP VOD could be perceived by the end-user mostly as “free”, since included in monthly package (Subscription VoD)
- VOD is one of the ways NSP use to prevent consumers to turn to free online videos by bringing this content to the TV through a NSP offering.

**Churn declines on the order of 50% from people who use on-demand on a regular basis**



Source : Screen Digest 09

On-Demand revenue includes VOD and other Monthly Fees (PVR, content access fees)

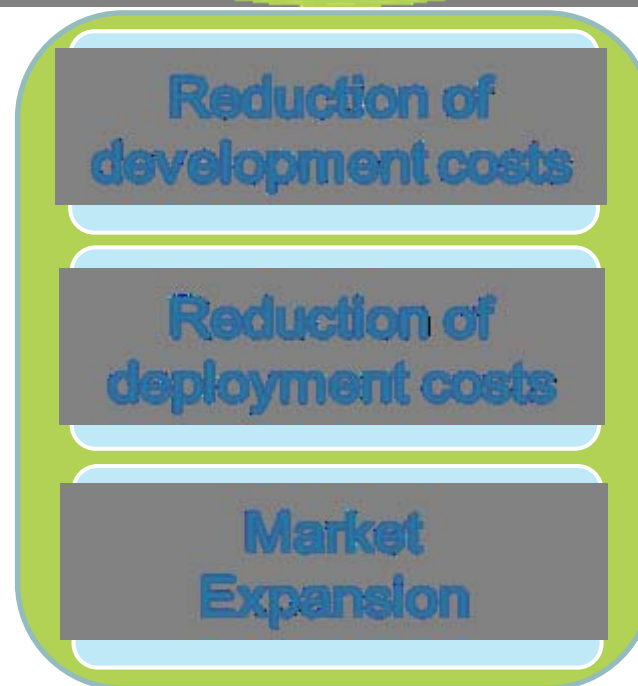
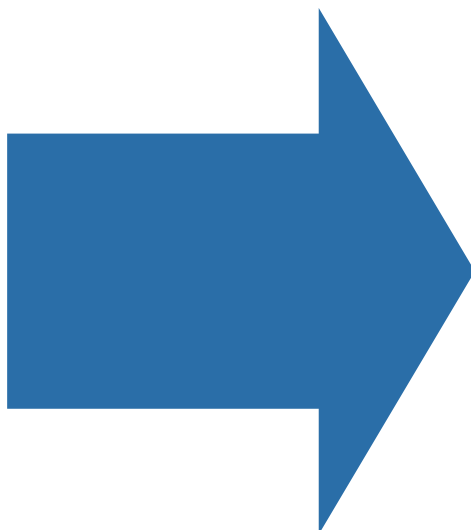


Source : Futuresource Dashboard April 09

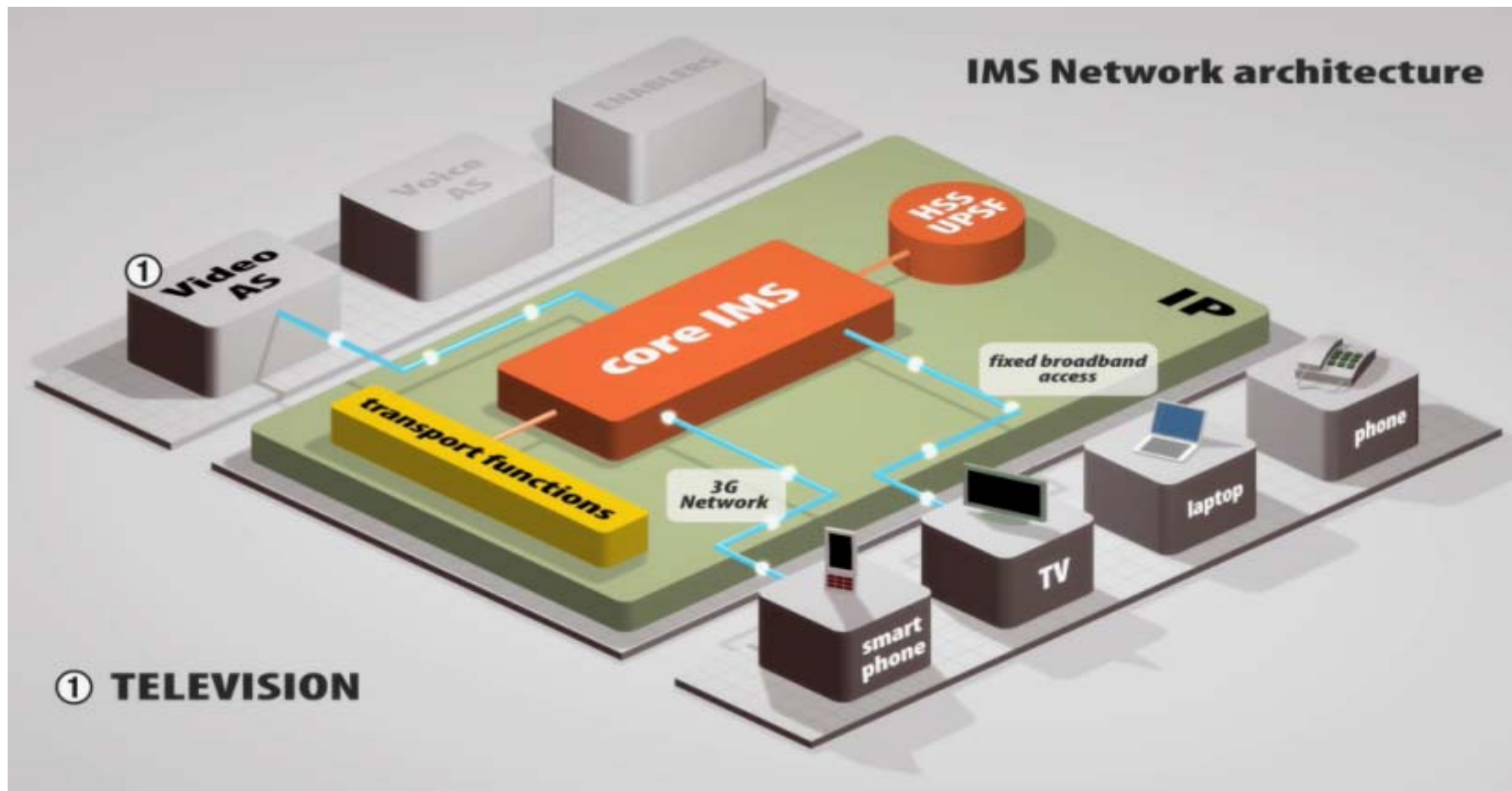
VOD Streams : exclude web streaming to PC



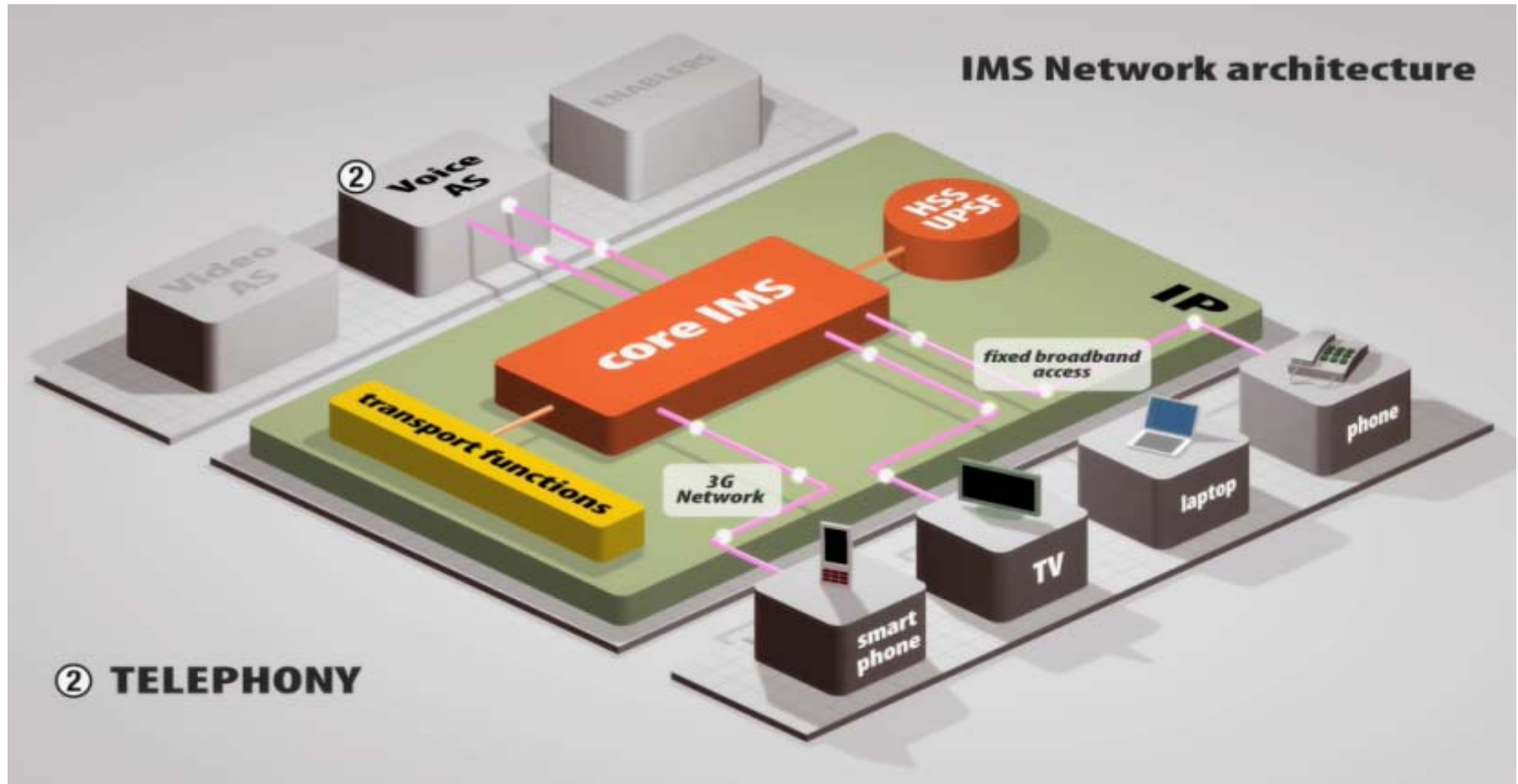
# From Proprietary systems to IMS compliant IPTV solutions (ETSI)



# IMS Television

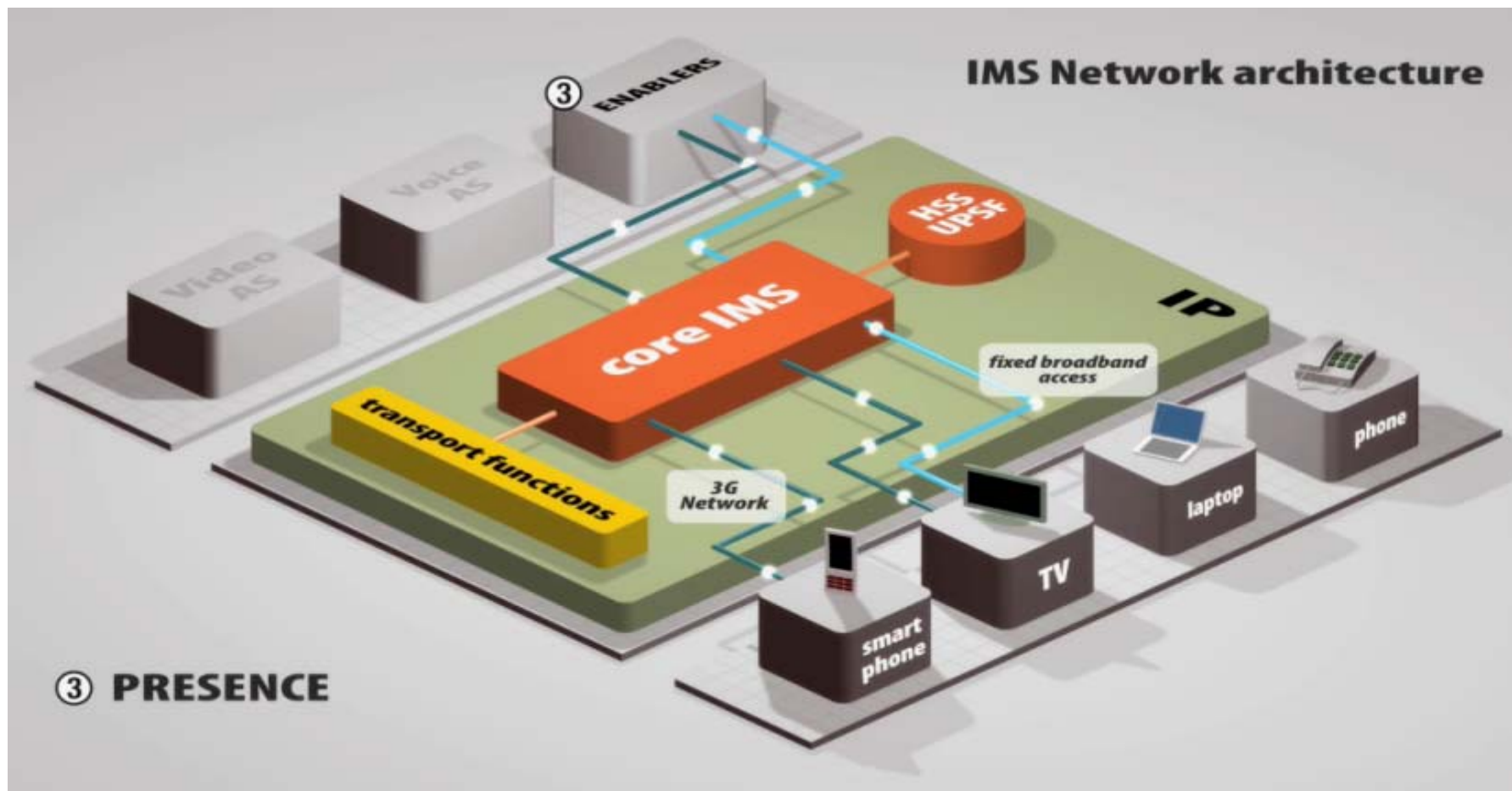


# IMS Telephony



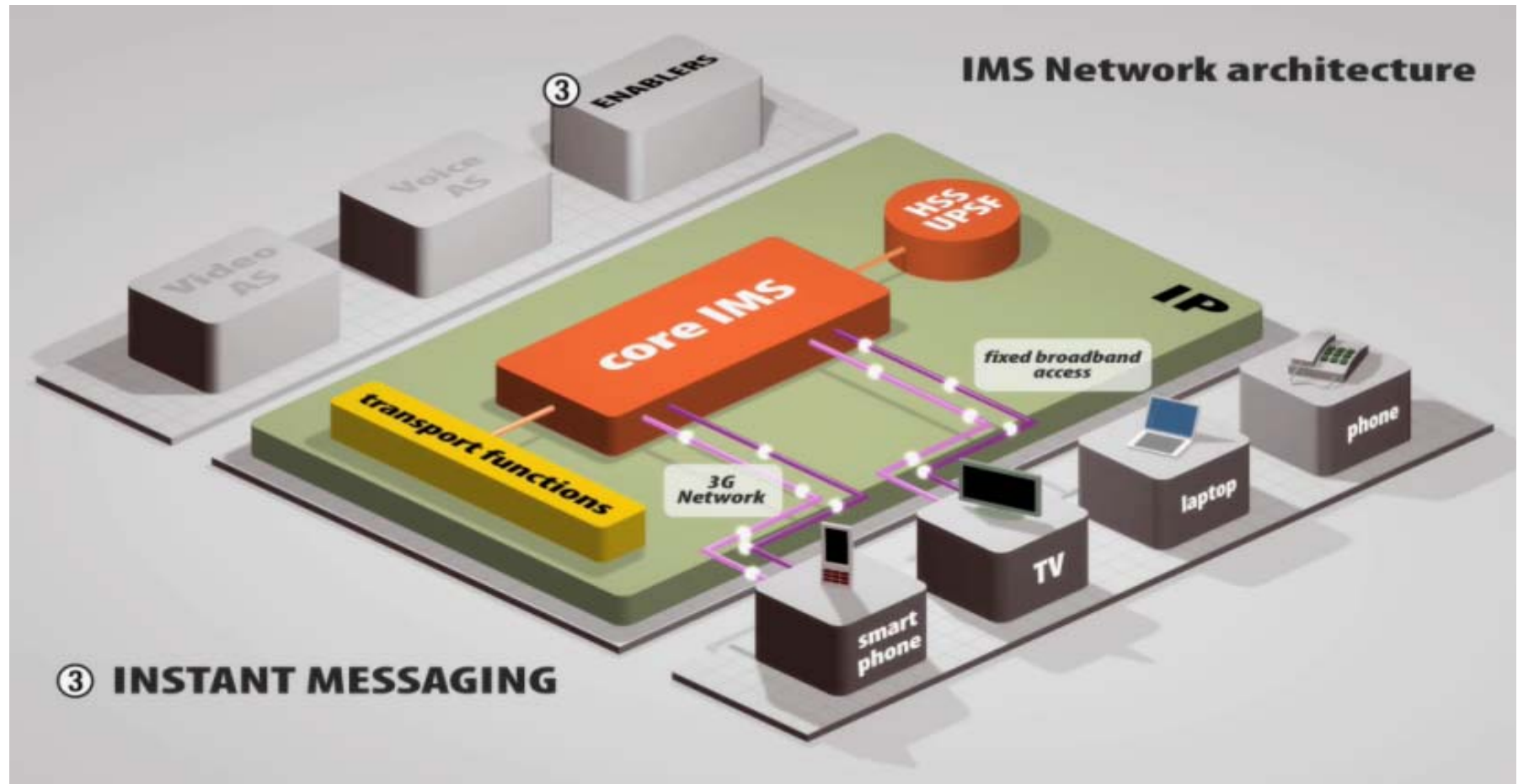


# IMS Presence





# IMS Instant Messaging



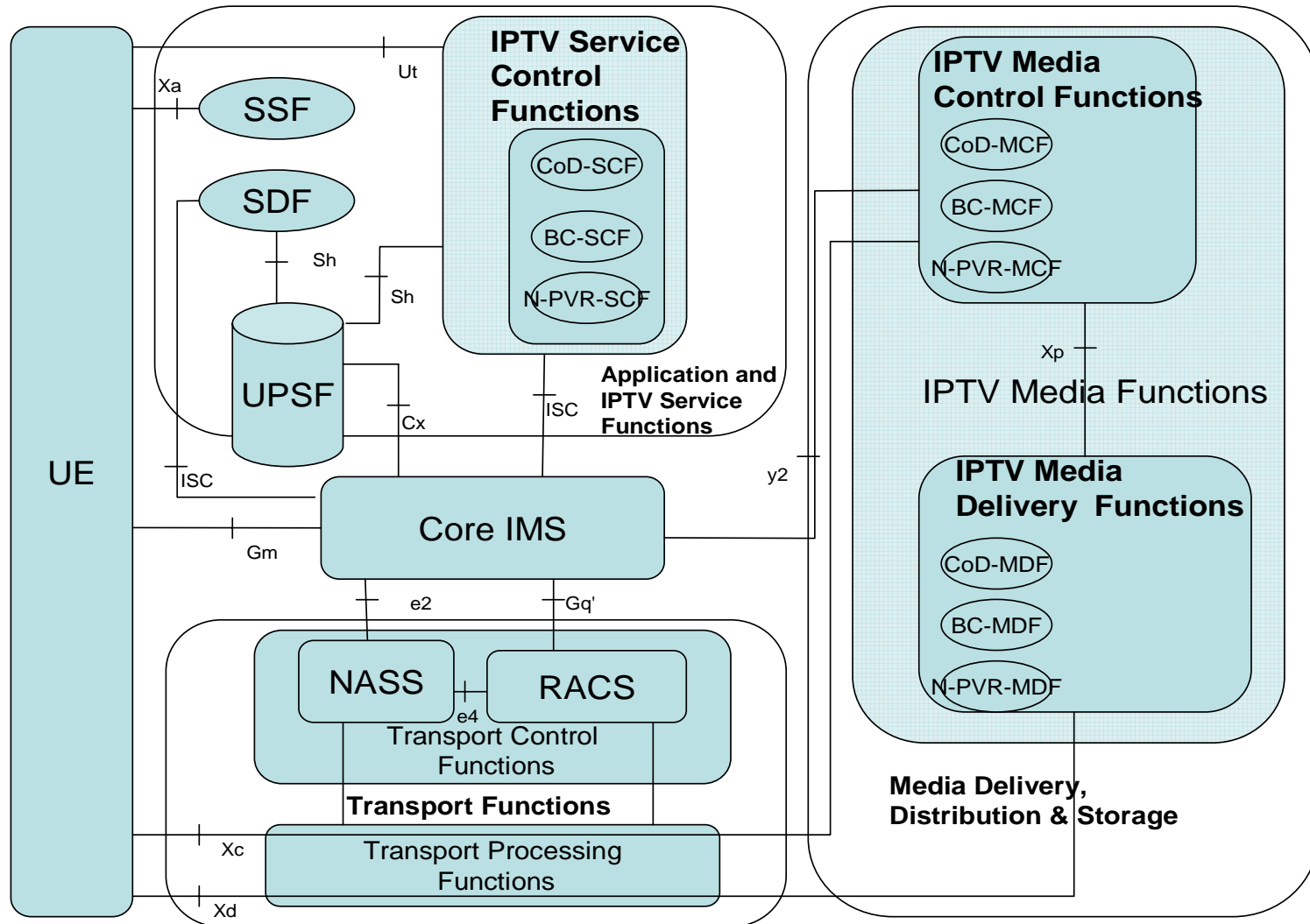
# IMS services

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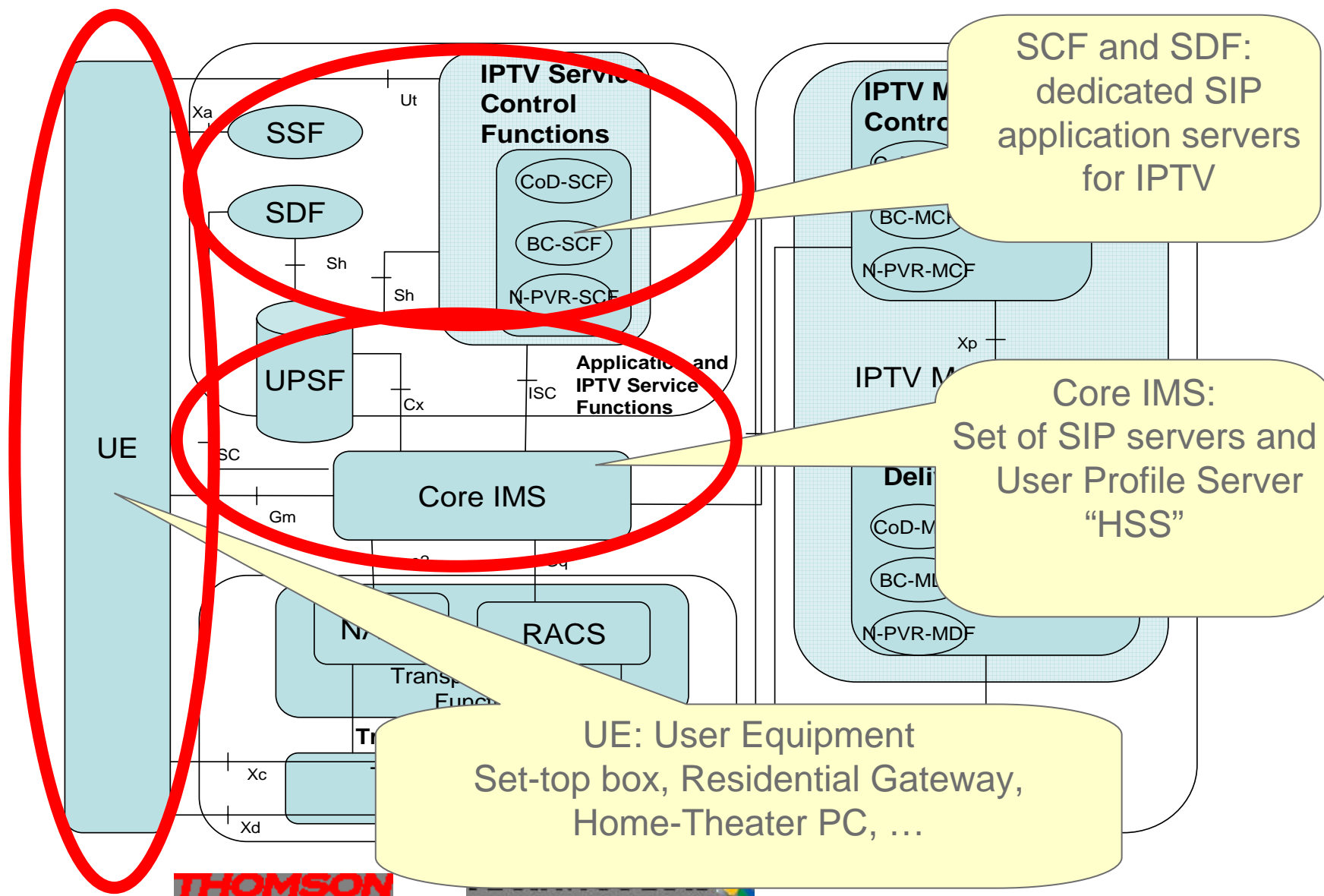
- Broadcast TV (BC)
- Personal Video Recorder (PVR)
- Trick modes : **VCR-like functions**
- Park TV : **impulsive request to record ongoing BC**
- Pickup TV : **retrieve BC programme that was bookmarked via Park TV**
- Time-Shifted TV (tsTV)
- Pay Per View (PPV)
- Content on Demand (CoD) = Video on Demand (VoD)
- Near CoD (nCoD) : **multicast, a film started every fifteen minutes**
- Push CoD (pCoD) : **content downloaded to IPTV terminal (vs. streamed)**
- User Generated Content (UGC)
- Personalized Channel : **particular list of programs scheduled on the basis of the user profile**
- Wholesale content aggregation : **dynamic aggregation of BC and CoD**



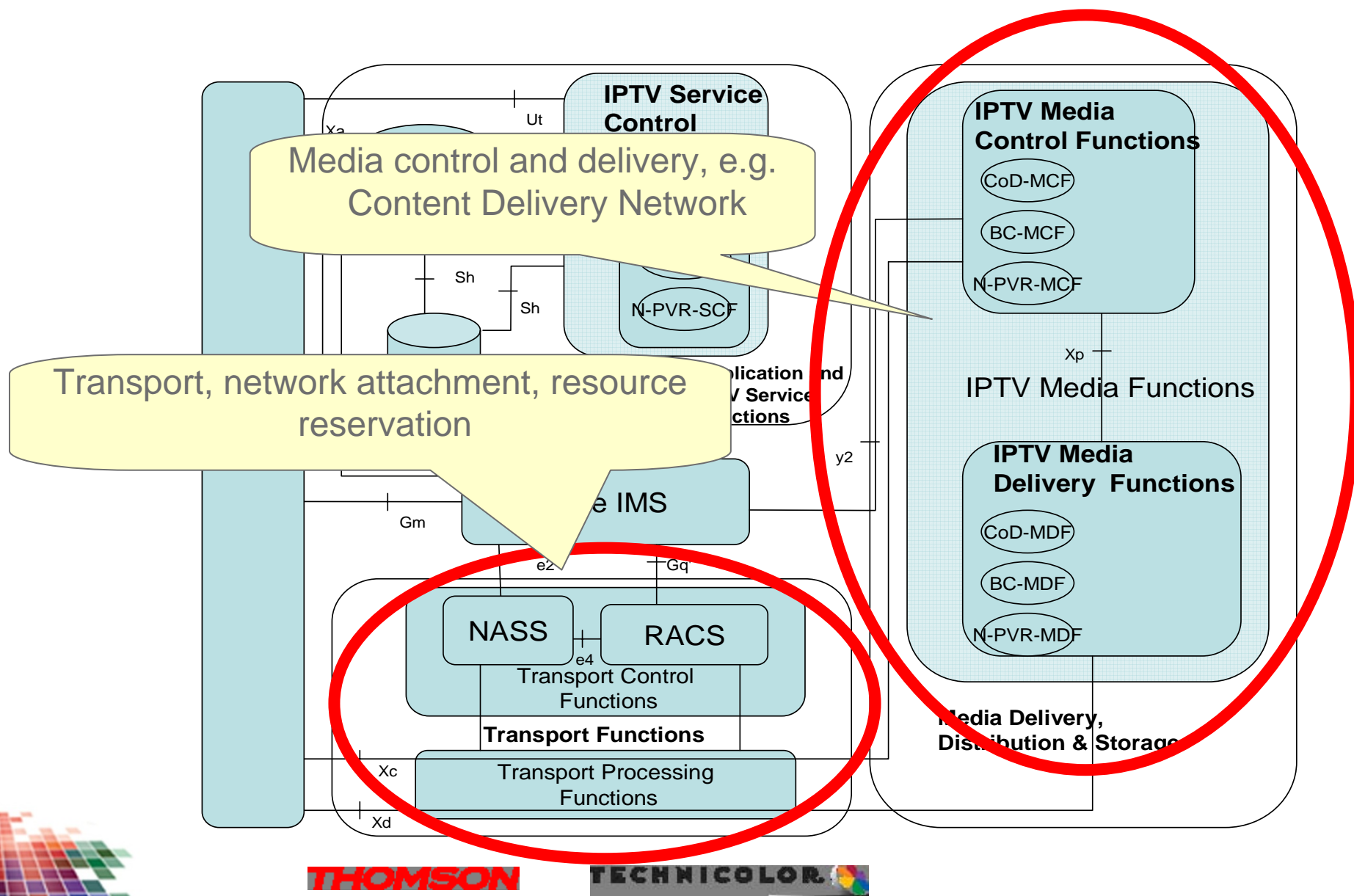
# IMS-based IPTV architecture



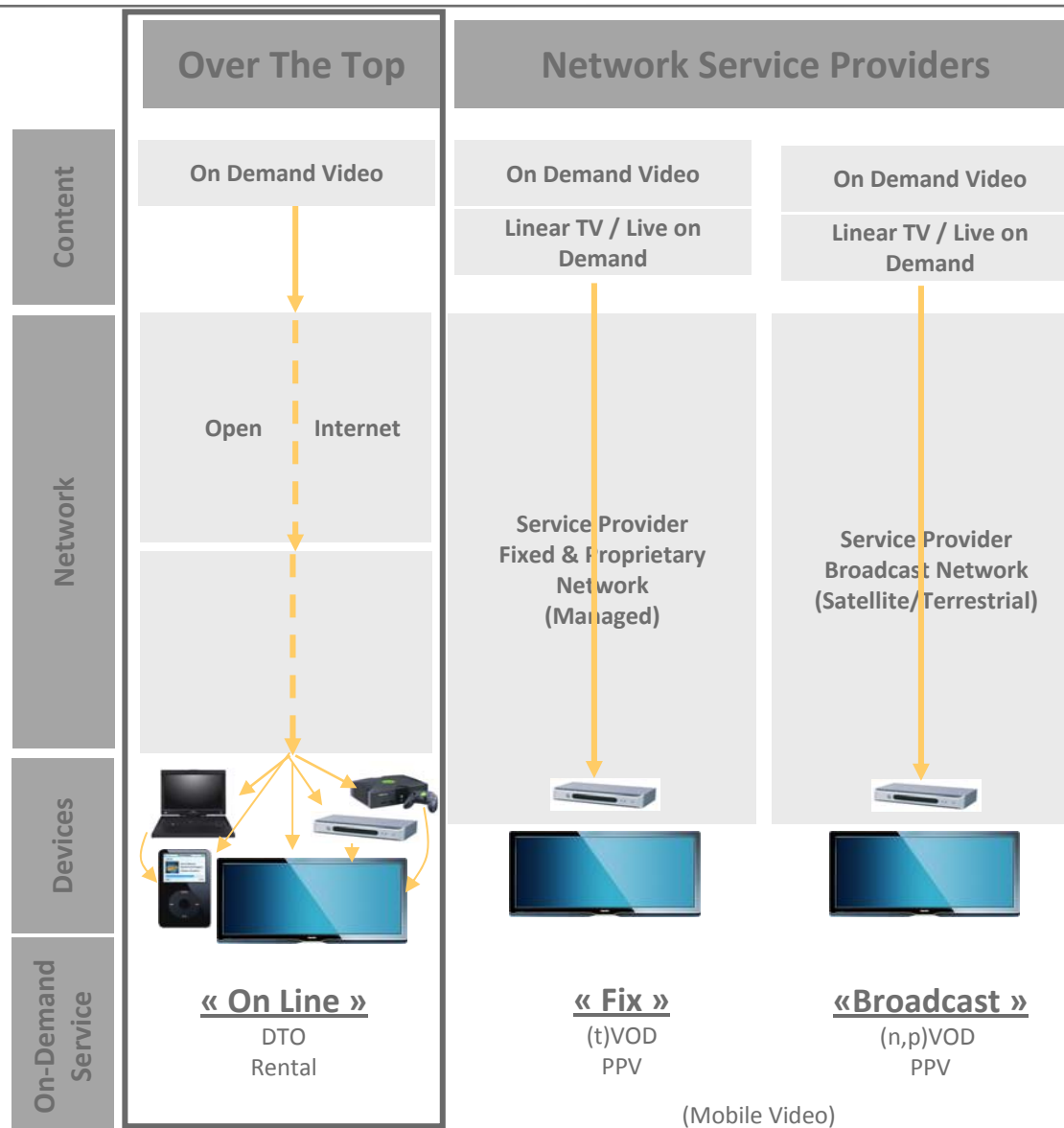
# IMS-based IPTV architecture, TS 182 027



# IMS-based IPTV architecture, TS 182 027

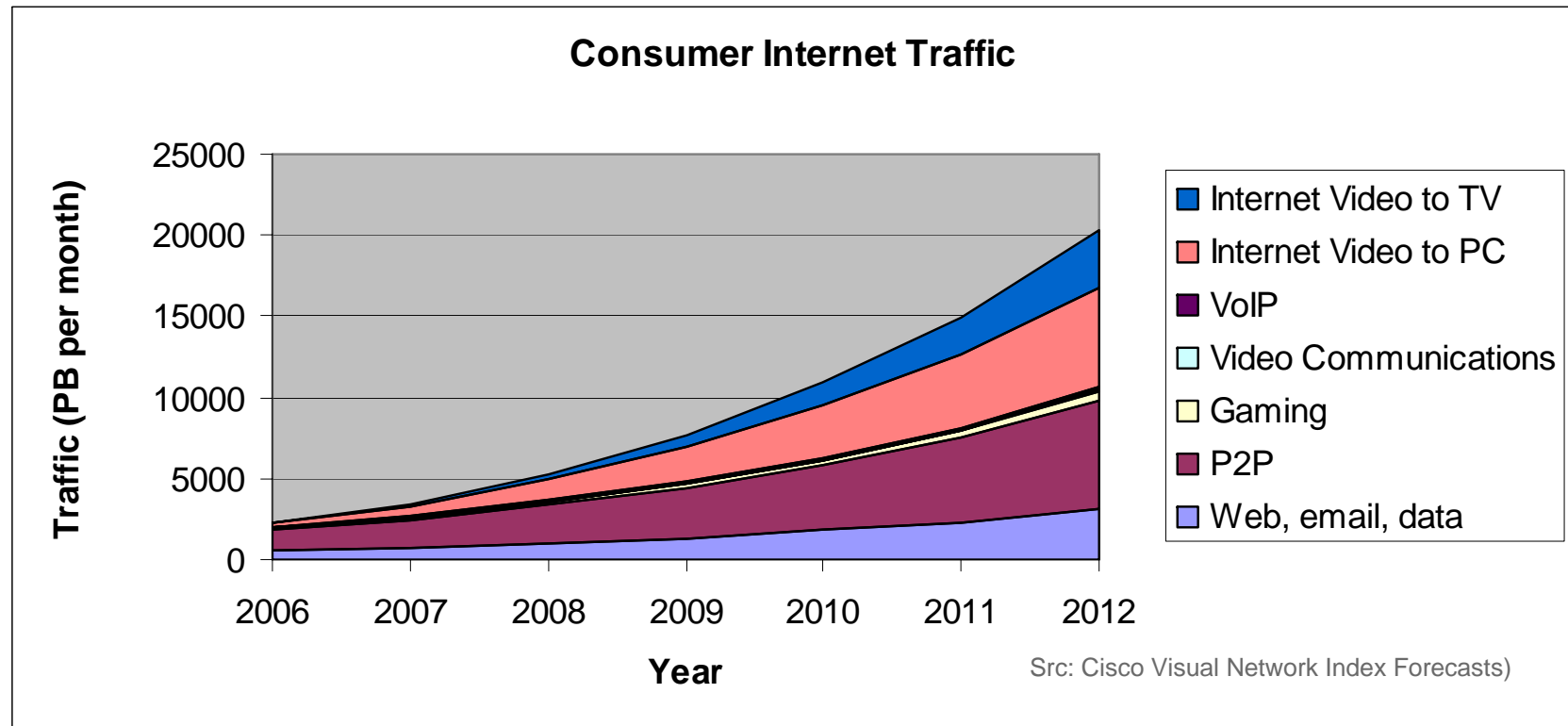


# "Over The Top" Video





# Video killed the P2P star



- Video is growing from 13% to 45% of all traffic from 2006 to 2012.
- 54% & 104% CAGR for video to PC & TV
- Video traffic is putting Telcos under pressure to upgrade their network capacity



# Players – Segmentation & Convergence



## Comments

- There is an empty space today: cooperation between NSP and OTT for On Demand Video
- Signs that this empty space is starting to fill:
  1. Wall Gardened NSP provide On Line video on demand services (Ex: TV Anywhere from Comcast and Time Warner Cable for subscribers)
  2. Some OTT player start NSP cooperation (ZillionTV, Vudu)
  3. Apple could have a play since they already have started a cooperation model with wireless NSP (iPhone)
  4. Some players provide both NSP and OTT services (Ex: CanalPlay)

# BBC iplayer, perfect example of OTT video

The screenshot displays the BBC iPlayer website interface. At the top, the BBC logo is followed by links for 'Text only' and 'Help', a search bar, and a 'Explore the BBC' button. Below this is a navigation bar with 'iPlayer' and links to 'Home', 'TV Channels', 'Radio Stations', 'Categories', and 'A to Z'. A banner reads 'Catch up on the last 7 days of BBC TV & Radio' with 'TV' and 'RADIO' tabs. The 'TV HIGHLIGHTS' section features a carousel of video thumbnails: 'Last Chance to See', 'Formula 1', 'MotoGP', 'The Football League...', and 'Strictly Come Danci...'. Below this are three main content areas: 'TV' with a 'YESTERDAY'/'TODAY' toggle showing programs like 'Strictly Come Dancing' and 'The National Lottery'; 'Radio' with a grid of numbered radio buttons and a 'BBC Radio 1' program listing; and 'Most Popular' with a 'TV'/'RADIO' toggle showing popular programs like 'Strictly Come Dancing' and 'Formula 1'. A 'Welcome to BBC iPlayer!' section on the right highlights the service's features.

**BBC** Text only | Help Search Explore the BBC

**iPlayer** Home TV Channels Radio Stations Categories A to Z

Catch up on the last 7 days of BBC TV & Radio

TV RADIO

**TV HIGHLIGHTS**

▶ Last Chance to See ▶ Formula 1 ▶ MotoGP ▶ The Football League... ▶ Strictly Come Danci...

**TV** YESTERDAY TODAY

**BBC One** ▶ Strictly Come Dancing 7:30 pm

**BBC Two** ▶ The National Lottery: Saturday Draws 9:45 pm

**BBC Three** ▶ BBC Weekend News 9:55 pm

**BBC Four** ▶ Michael McIntyre's Comedy Roadshow 10:10 pm

**CBBC** ▶ Match of the Day 10:40 pm

**CBeebies**

**BBC News Channel**

**Radio**

1 2 3 4 5 6 7 WORLD SERVICE NATIONS AND LOCAL

**BBC Radio 1**  
NOW ON: BBC Switch with An...  
7:00 pm - 10:00 pm

**Most Popular** TV RADIO

▶ Strictly Come Dancing ... 7. Week 5

▶ Formula 1 - 2009 The Brazilian Grand Prix...

▶ Formula 1 - 2009 The Brazilian Grand Prix

▶ Have I Got News for You... Episode 1

**Welcome to BBC iPlayer!**

- BBC radio and TV programmes now all in the same place.
- Radio programmes now in high-quality stereo.

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# Canvas: When Uk content providers come together

## ■ Federated content supply

- **Content providers responsible for their own distribution arrangements**
- **Canvas will not aggregate content**

## ■ Agnostic to ISP provision

- **Basic service not reliant on ISP specific capability**
- **ISPs able to offer enhanced experience**

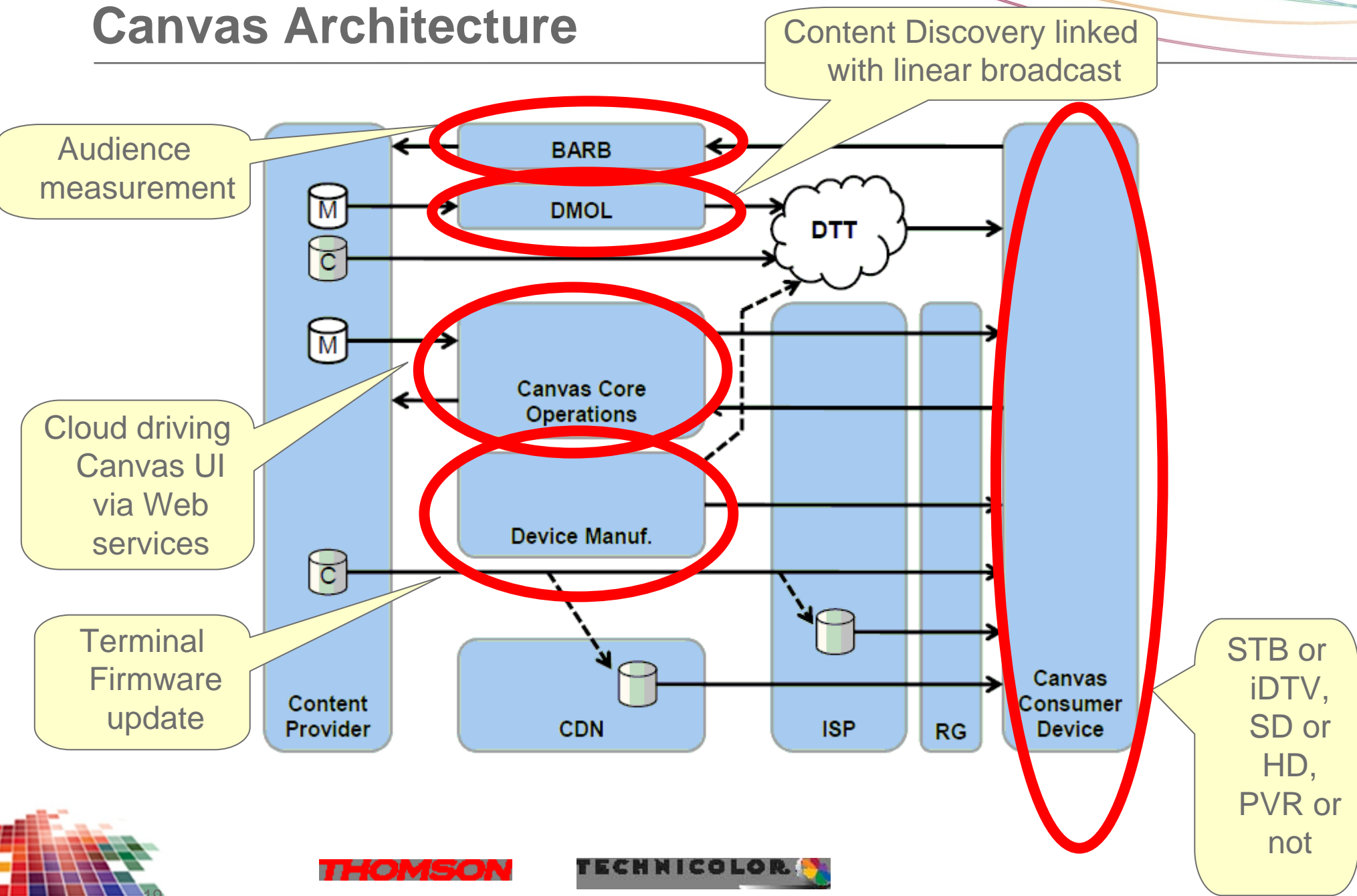
## ■ Horizontal device supply

- **Consumer devices available through retail**
- **Device manufacturers responsible for their product**

## ■ Canvas JV to provide core management services

- **To ensure coherent operation of eco-system**
- **To ensure high-quality user experience**

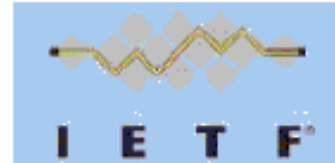
# Canvas Architecture



# Canvas relies on standards

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DVB



W3C

DTG  
Digital TV Group



MPEG.ORG

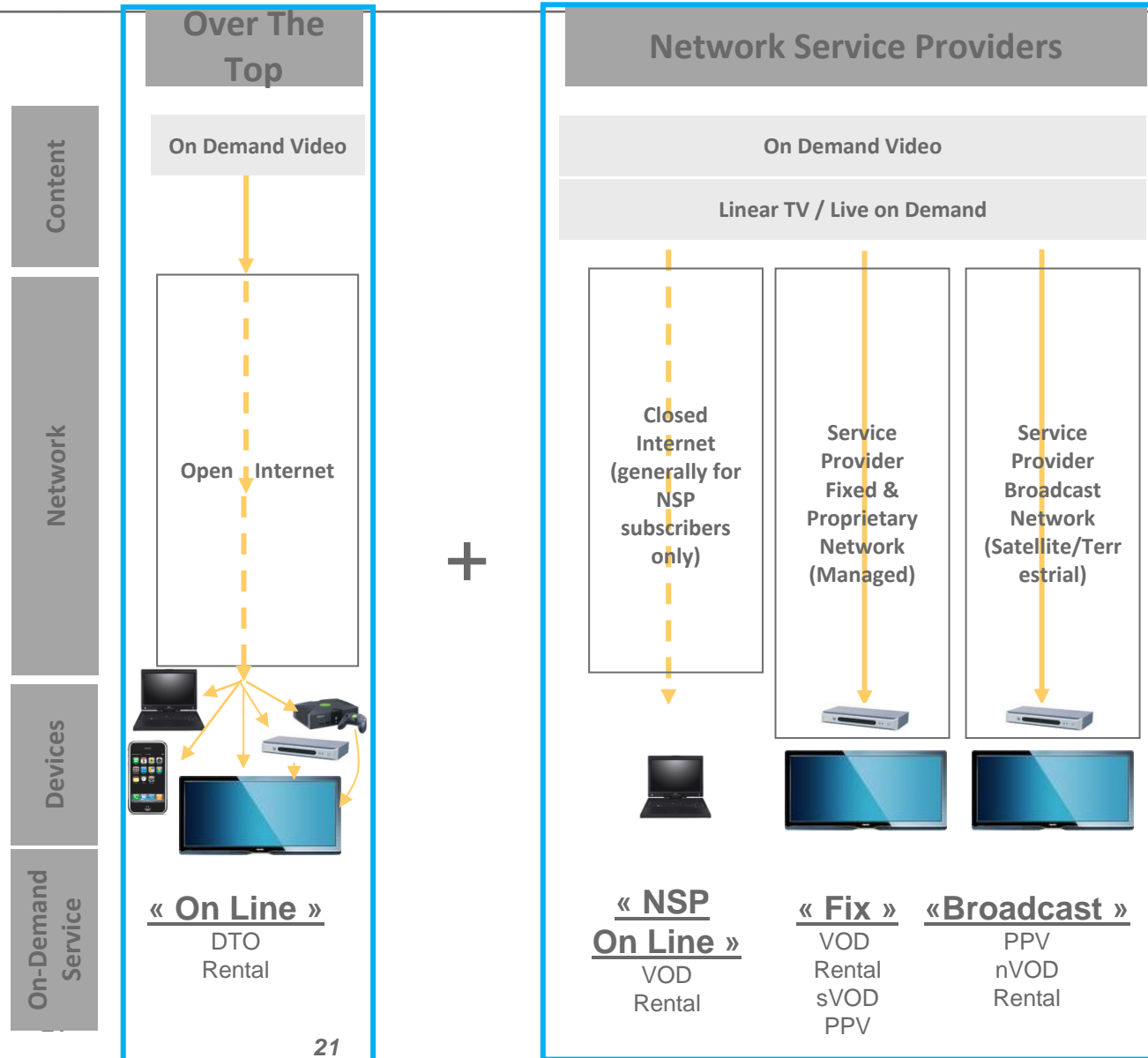
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# When IPTV meets the Open internet



# Open IPTV Forum participants

•Network Operators  
•(11)

•CE/Mobile/Home  
•Device Vendors (17)

•Service Content  
•Providers (4)

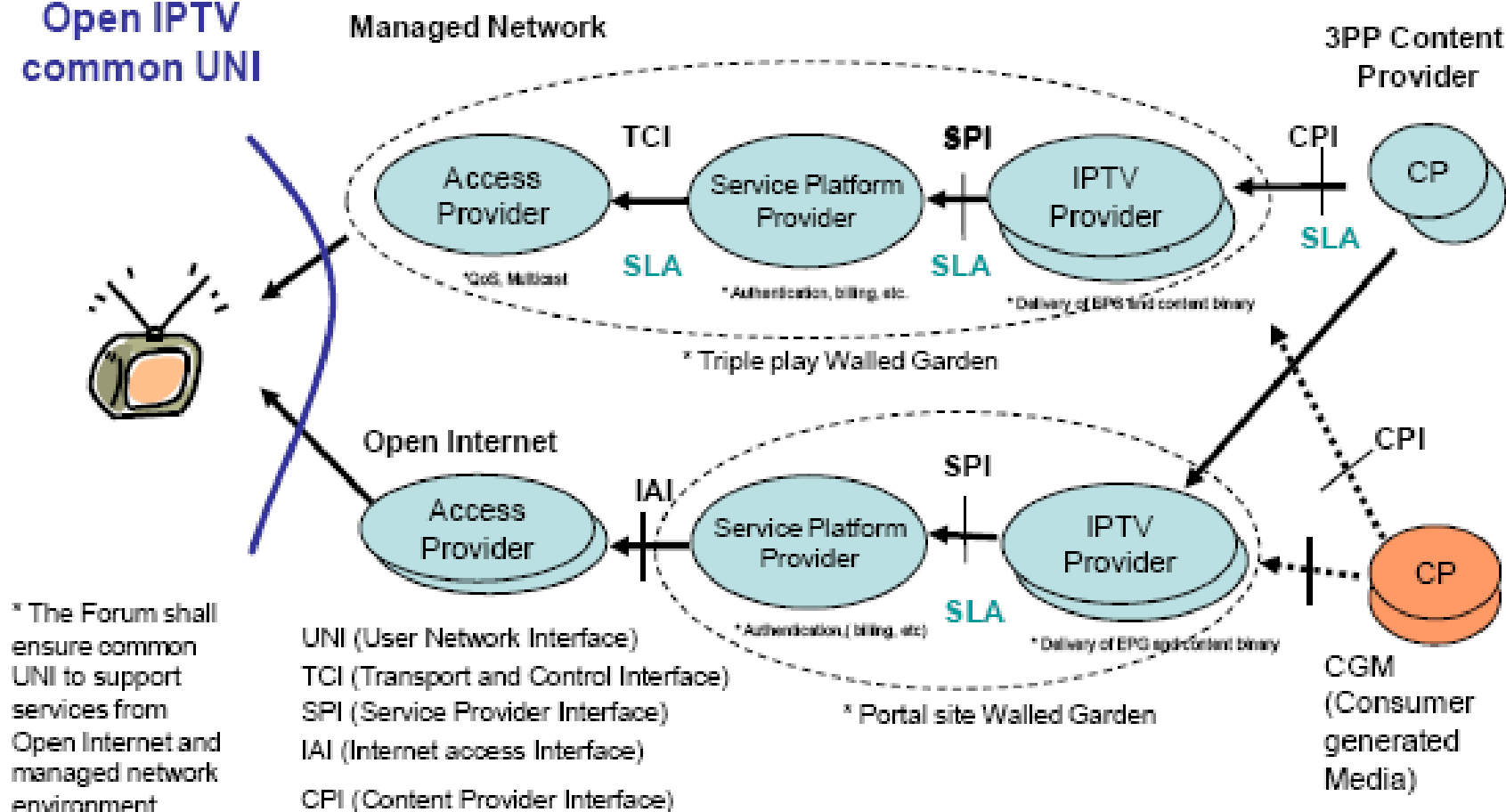
•Technology  
•Providers (18)



# Open IPTV Forum Scope

\* This diagram also assumes multiple Managed Networks and multiple Service Platform Providers via Open Internet

## Open IPTV common UNI



# Profiles

## An Open Internet Profile (OIP) :

- Enables access to :
  - Compliant services that do not provide QoS guarantees (OTT mode)
  - Services where the ISP is also an IPTV provider (ie the ISP may offer network side enhancements to improve QoS)
  - Streamed CoD over Http
- No IMS functions in OITFs (terminal)

## A Baseline Managed Profile (BMP):

- Super-Set of the OIP Profile / Sub-Set of EMP Profile
- Adds IMS-based functionality at network level
- SD&S
- No IMS functions in OITFs (terminal)

## An Enhanced Managed Profile (EMP) :

- BMP Profile + IMS functions in OITFs (terminal)+ BCG, TR-69, ...



# Open IPTV Forum R1 services

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- **Scheduled Content Service** (also known as Broadcast or Linear TV Service)
- **Content on Demand** (also known as Video on Demand and including Content Download)
- **Personal Video Recorder (PVR)**
- **Content Guide** list of Scheduled Content Service and Content on Demand items
- **Notification service** including emergency alert notifications, and scheduled content program events
- **Communication services** interworking including presentation of Caller ID, textual messaging, chatting and presence.
- **Web access**
- **Interactive Applications**
- **Parental control**
- **Home networking**
- **Support of hybrid services** access to TV services delivered over traditional broadcast networks (satellite, cable or terrestrial broadcast) in addition to, or as a substitute for, IPTV services.



# Open IPTV Forum R2 services

- Main idea : Services defined by the Open IPTV Forum shall be **accessible over fixed and mobile access networks** that are suitable for service delivery, and available on various end devices :
  - TV, PC, Portable ,
  - Terminal such as a PDA, Mobile Phone
- **Evolutions of some R1 services:**
  - Fast channel change,
  - Enhanced trick play,
  - for download CoD synchronization of content and associated rights information,
  - enhanced scheduling for Local PVR and N-PVR,
  - personalized interactive advertisements,
  - incoming call management
- **Various:**
  - content sharing,
  - personalized channel,
  - purchase of digital media,
  - presenting messages or comments expressed by other users,
  - browser plugins support, multiple window, forced play out by service provider,
  - audience measurement, session continuity, remote access to Home network
  - CDN: view of the maximum/actual capacity of the delivery servers





# Thomson Internet Television standardization activities

- Thomson is a Major contributor to standard definition in TISPAN and Open IPTV Forum



- Thomson is committed to enable IMS interoperability across vendors and takes an active role in ETSI Plug Tests



- Thomson leads & contributes to many collaborative projects to enable new IMS applications & use cases



- Thomson is actively implementing IMS across following product lines

- Cirpack VoIP platforms & Home Gateway
- SmartVision IPTV platforms

