

ETSI: IMS-based IPTV

Integrate NGN Services and IPTV

TNO | Knowledge for business



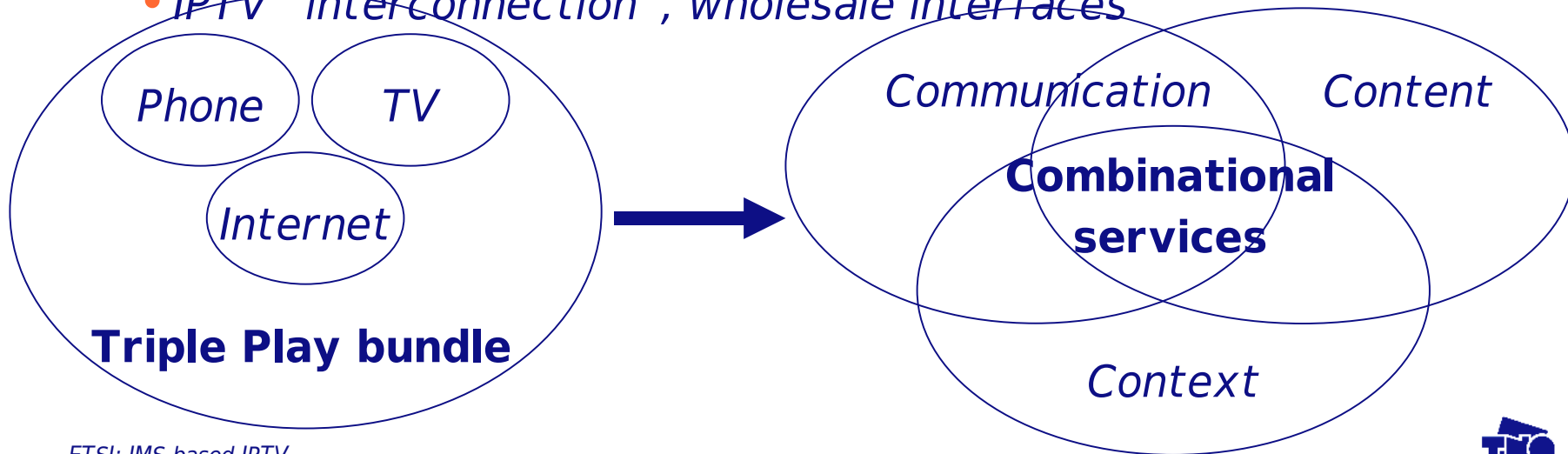
Dr. M. Oskar van Deventer

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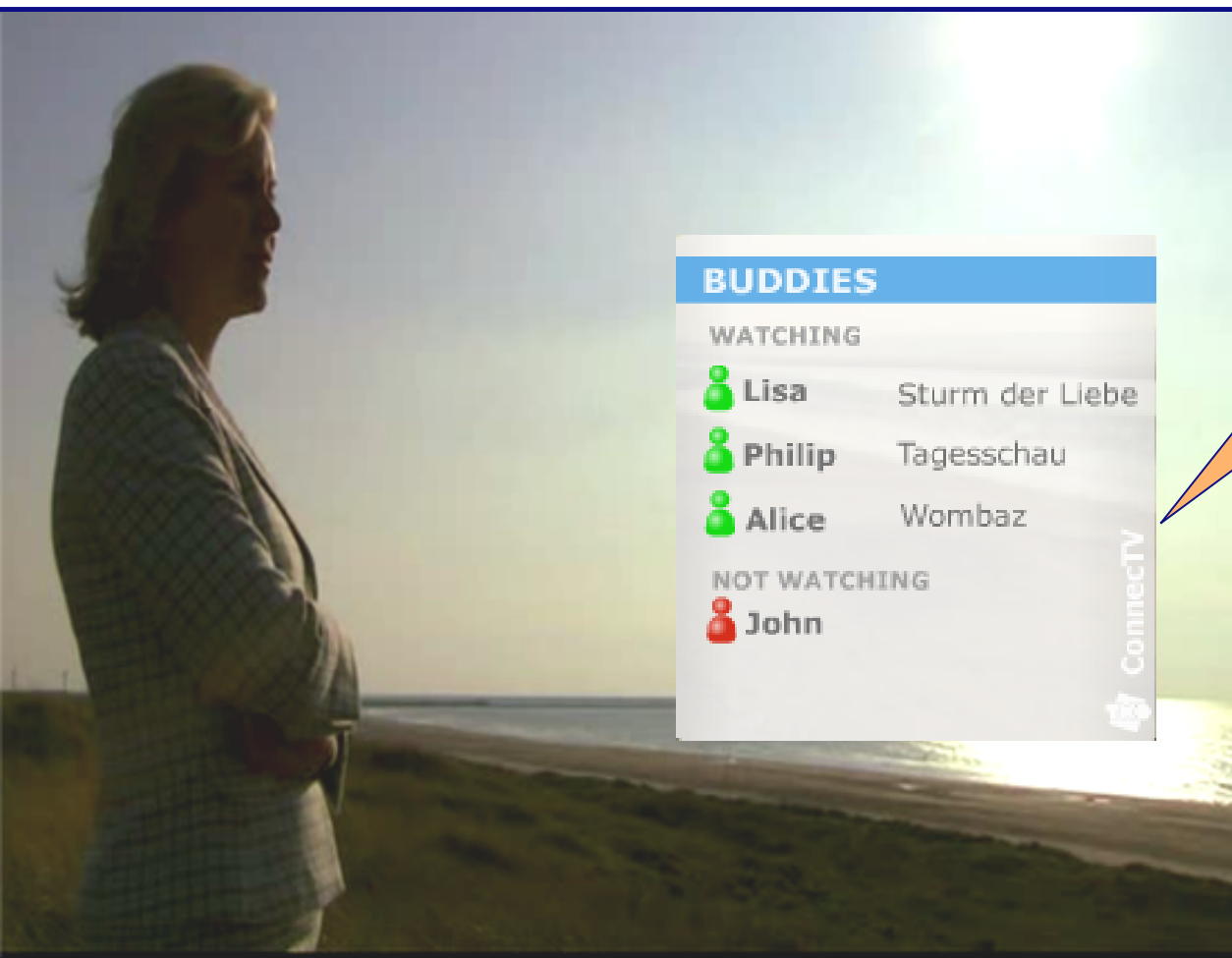
- *TNO vision and mission regarding IPTV*
 - *Example: ConneCTV*
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- *ETSI TISPAN IPTV*
 - *Relation with other standardization bodies*
 - *Documentation of IPTV in TISPAN Release 2*
 - *IMS-based IPTV architecture*
 - *TV URI: television-channel identification*

TNO vision and mission regarding IPTV

- *Vision:*
 - *After triple-play bundling follow combinational services*
 - *TV market will open up and mature similar to telephony*
- *Mission: promote and support advanced IPTV services*
 - *Combinational services: content + context + communication*
 - *Advanced forms of interactivity*
 - *IPTV “interconnection”, wholesale interfaces*



ConnectTV: See what buddies are watching



My buddy list shows who is watching TV...

ConnecTV: Send and receive program recommendations

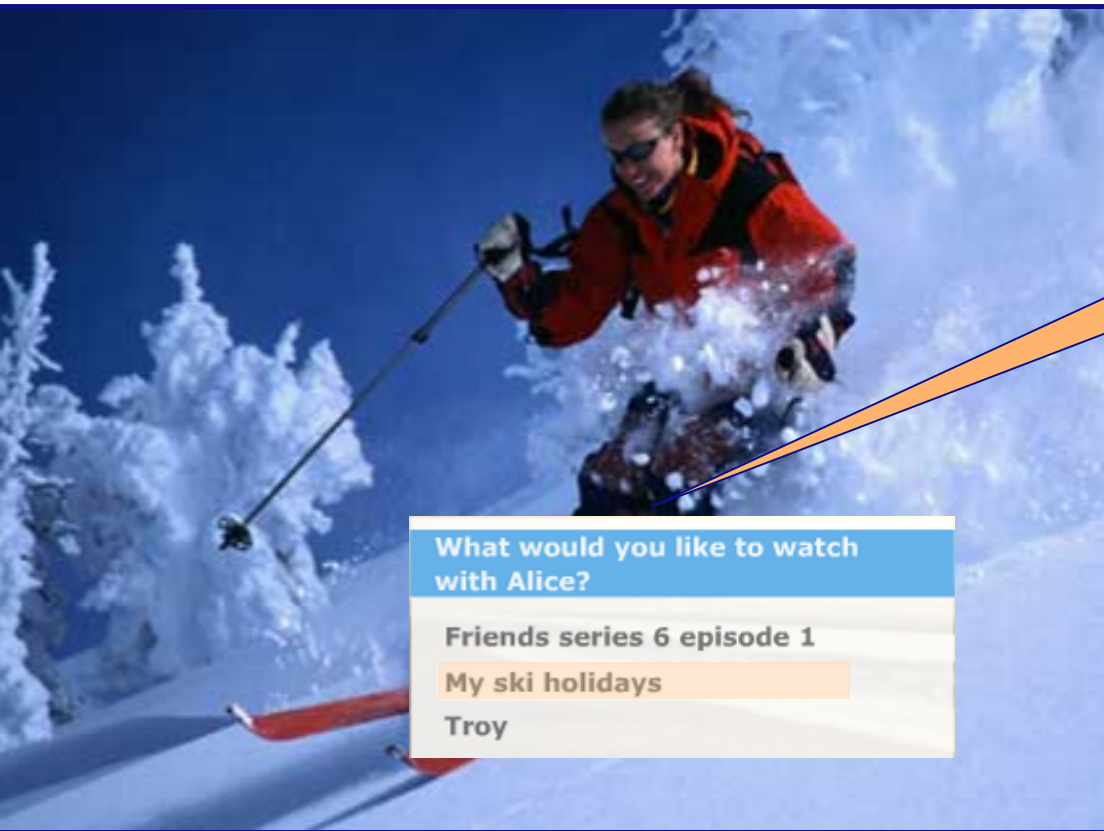


... so I can send a recommendation if I'm watching an interesting program...

... and see when my buddy accepts the recommendation!

Alice is also watching this channel.

ConnecTV: Record and play content for and from buddies



What would you like to watch with Alice?

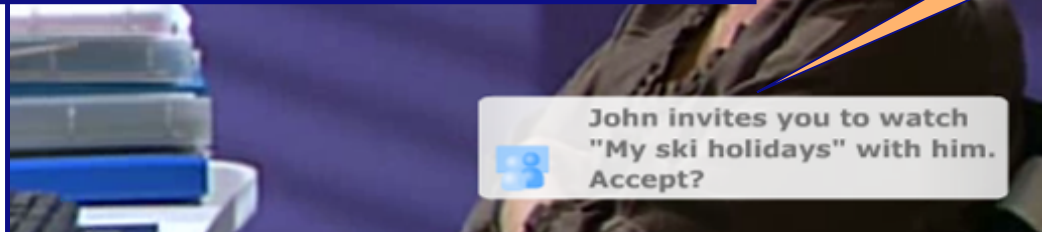
Friends series 6 episode 1

My ski holidays

Troy

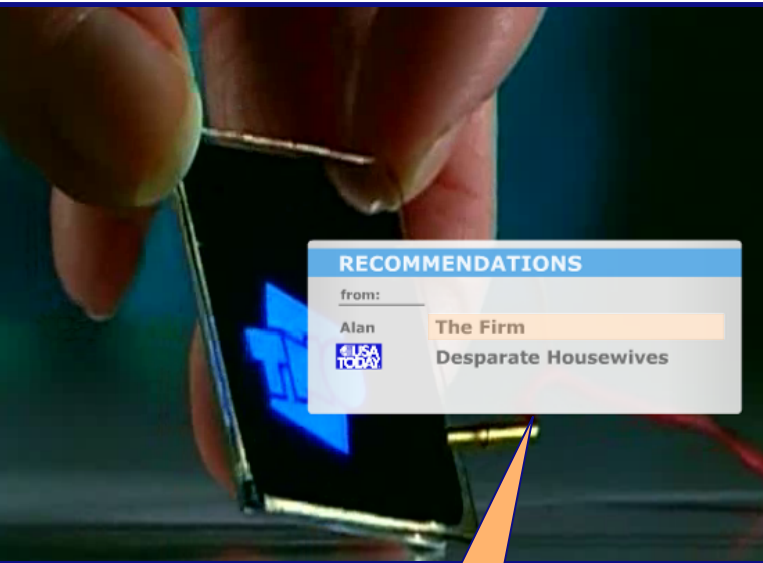
Store my recorded or personal content...

... and share it with my buddies!

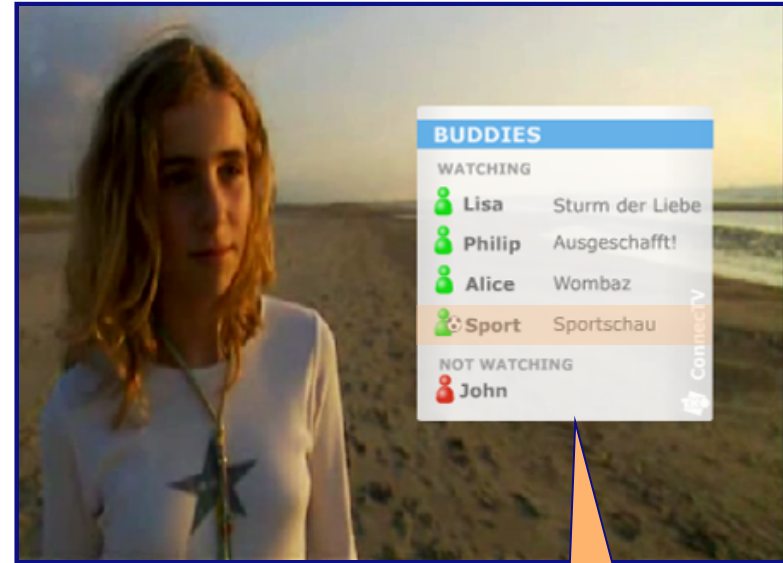


John invites you to watch "My ski holidays" with him. Accept?

ConnecTV: ... and many more services!



...schedule a movie with my buddies using the Program Guide...



Receive recommendations even if I am offline...

TV-GUIDE				12:49
23.Marz	12:00	12:30	13:00	
ARD	Tagesschau	ARD-Bufferet	Philip	ARD-Mit...
ZDF	Tagesschau	drehscheibe Deutschland		ARD-Mit...
RTL	Punkt 12			Lisa
RTL2	Takeshi's Castle		Jackie Chan Adventures	
3sat	Not...	100 % Urlaub	Burgen, Schlösser...	
EuroSport	Tennis: WTA-Turnier			
WDR	Sturm der Liebe		John	WDR aktuell

...get recommendations from my Sport Buddy.

TNO subjects in ETSI TISPAN IPTV

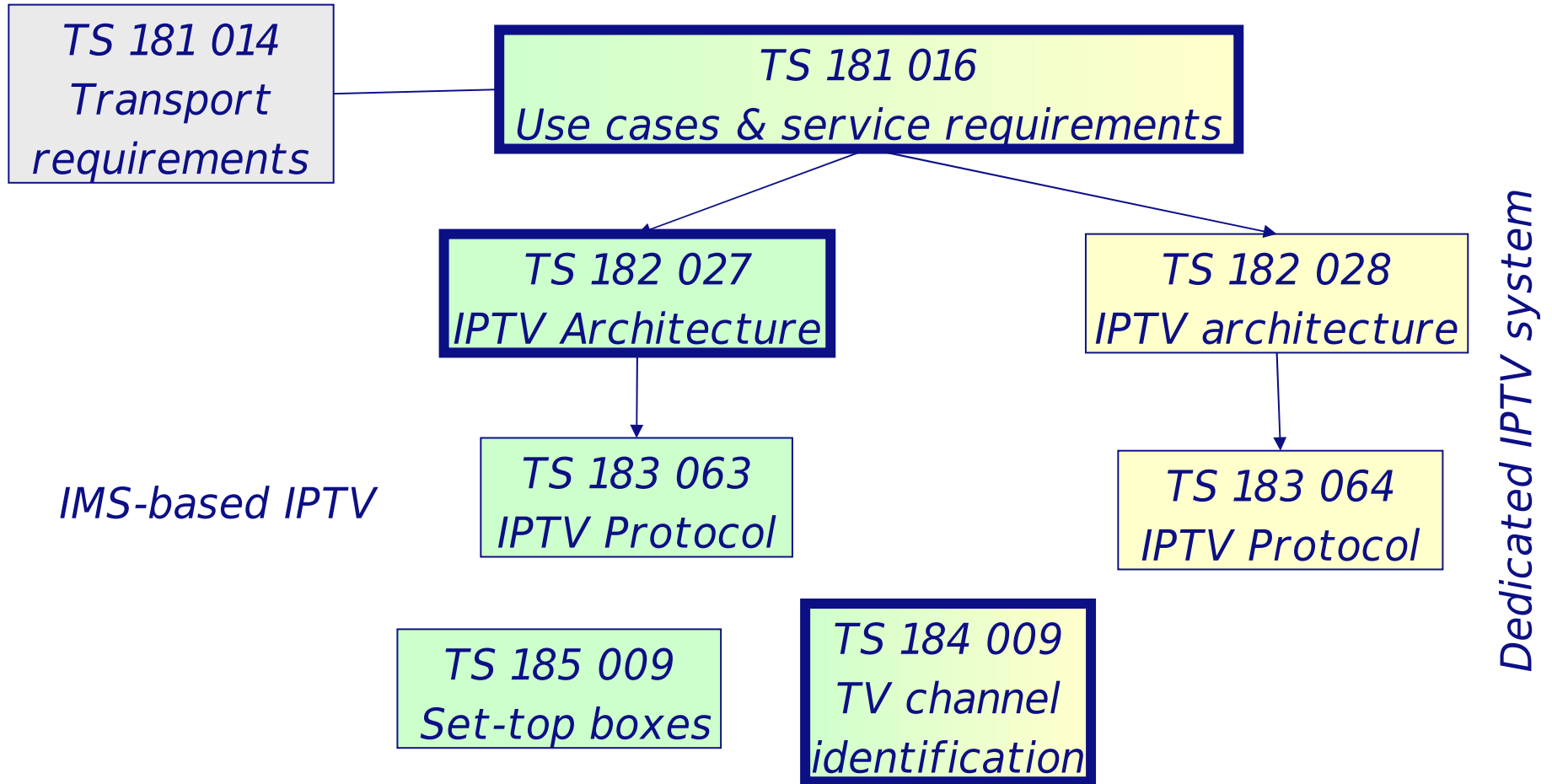
- *TISPAN Release 2*
 - *Electronic Service Guide: add interactivity, OMA liaison*
 - *TV URI: rapporteur of the “E.164” for TV channels*
- *TISPAN Release 3*
 - *Peer-to-peer technology (EUREKA CELTIC RUBENS)*
 - *Wholesale interfaces*
 - *Various other*

Lots of standardisation activity on IPTV

- *DVB IPTV: Technical standards for digital television*
- *OMA BCAST: Mobile TV with interactivity*
- **ETSI TISPAN IPTV: Integrating IPTV with NGN and IMS**
- *ATIS IIF: IPTV network architecture*
- *ITU-T FG IPTV: Coordination, architectural overview*
- *Open IPTV Forum: Personalized IPTV services, plug and play*
- *IETF: Protocols, SIP, SDP, IGMP, RTSP, RTP, TV URI, CRID*

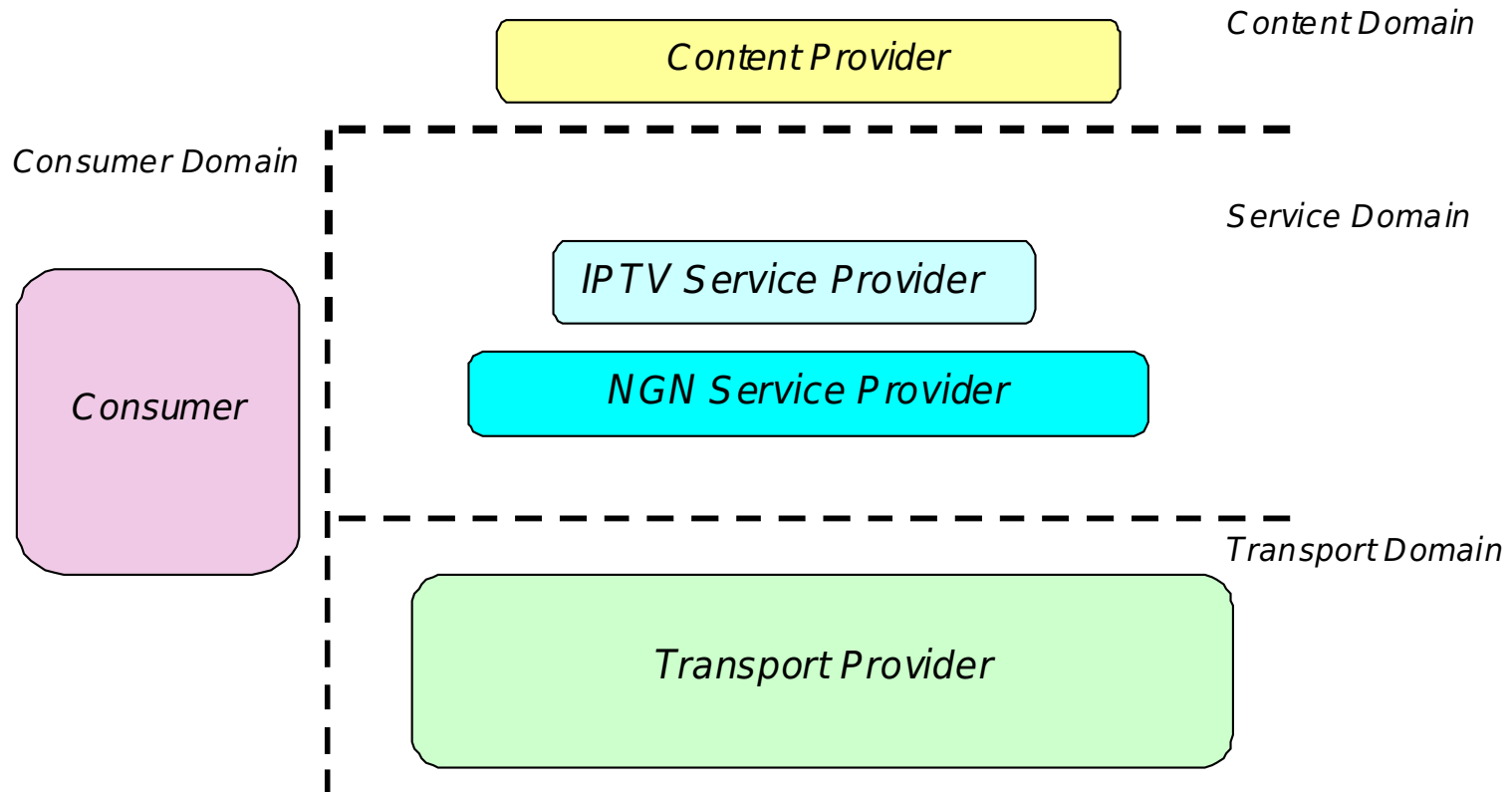
- *Various liaison relationships*
 - *ETSI-DVB: Electronic Program Guide*
 - *ETSI-OMA: Electronic Service Guide*
 - *ETSI-ATIS: NGN-based architecture*
 - *ITU-many: Architecture coordination*

ETSI TISPAN IPTV: Integrate NGN Services and IPTV



TS 181 016: integrate NGN service and IPTV

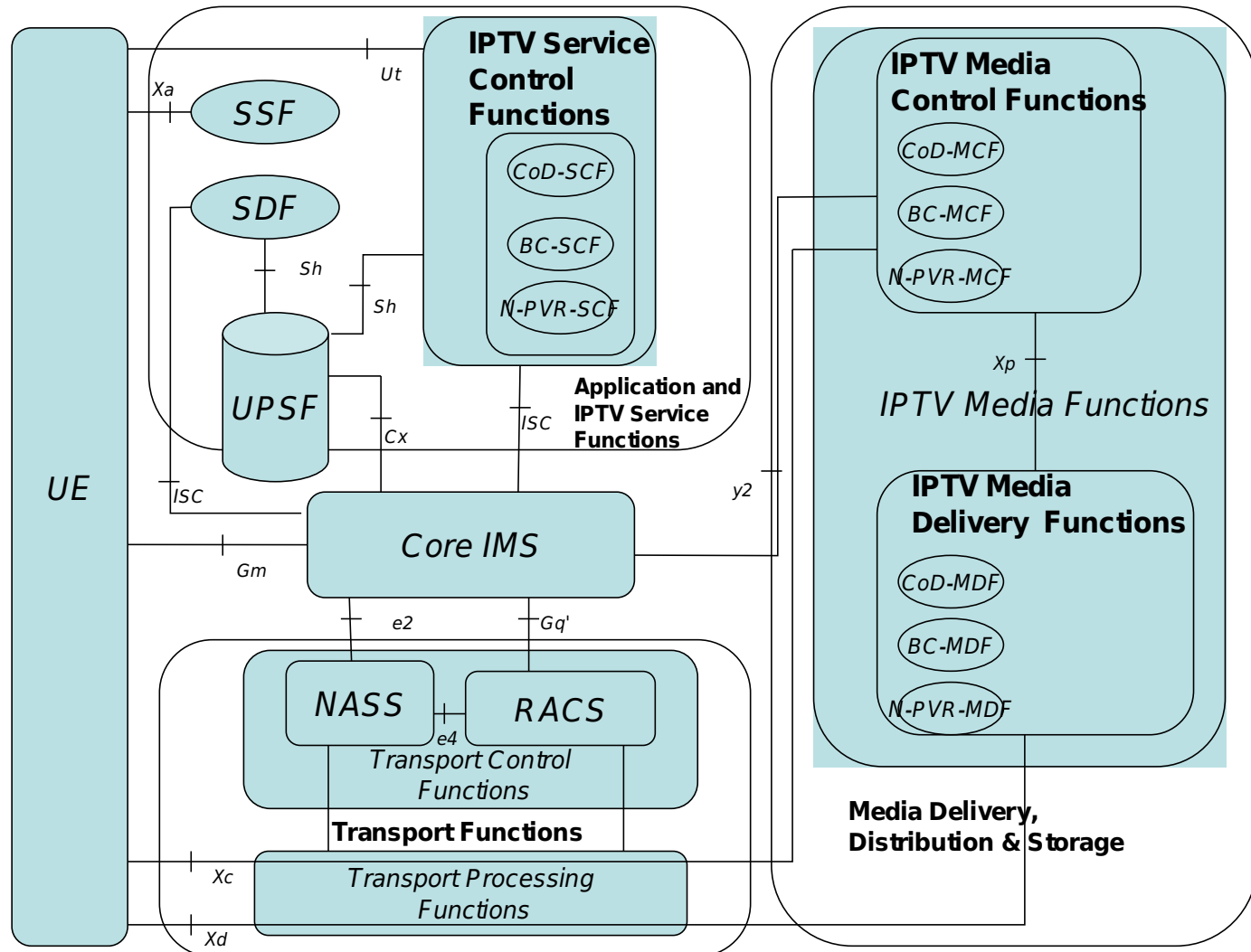
- Informative use cases
- Normative service requirements



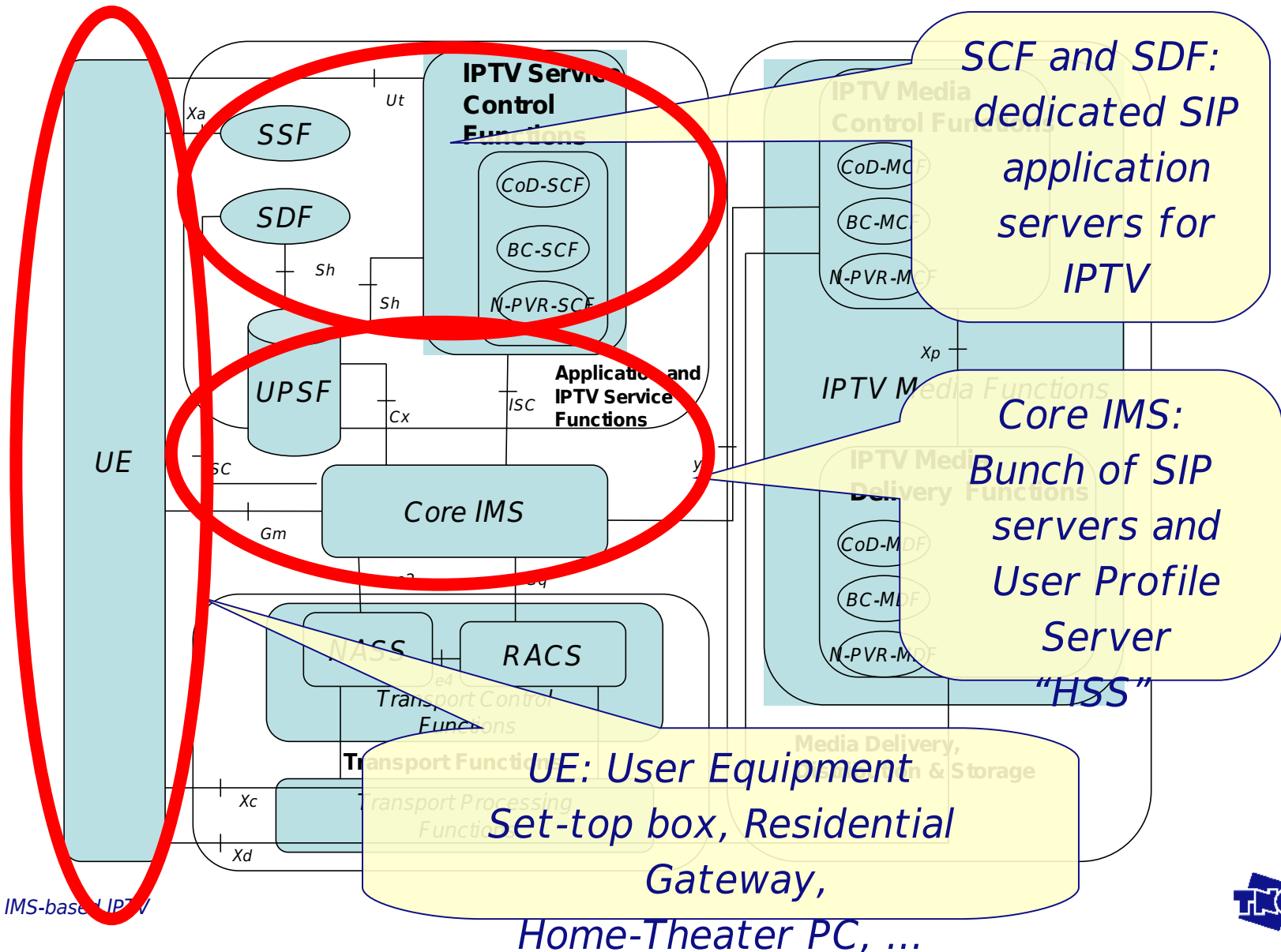
TS 182 027: IMS-based IPTV, leveraging IMS

- *Leveraging (planned) investments in IMS session-control layers*
 - *Common identity and authentication mechanisms: public-, private ID*
 - *Common resource management, common charging mechanisms*
 - *Multi-access solution based on access-independent IMS*
- *Basic broadcast and streaming services*
 - *Broadcast television*
 - *Content on demand*
 - *Network personal video recorder*
 - *(User-generated content: expected in TISPAN Release 3)*
- *Value-added services*
 - *Service discovery & selection*
 - *Electronic program/service guide*
- *Combining IPTV with communication services*
 - *IPTV + conversation: talk with your buddies*
 - *IPTV + presence: see what your buddy is watching*
 - *IPTV + messaging: text to your buddy*
 - *Click-to-dial from TV: response to game or advertisement*
 - *Caller ID on TV: accept or reject the call*
 - *Call forwarding while watching TV*

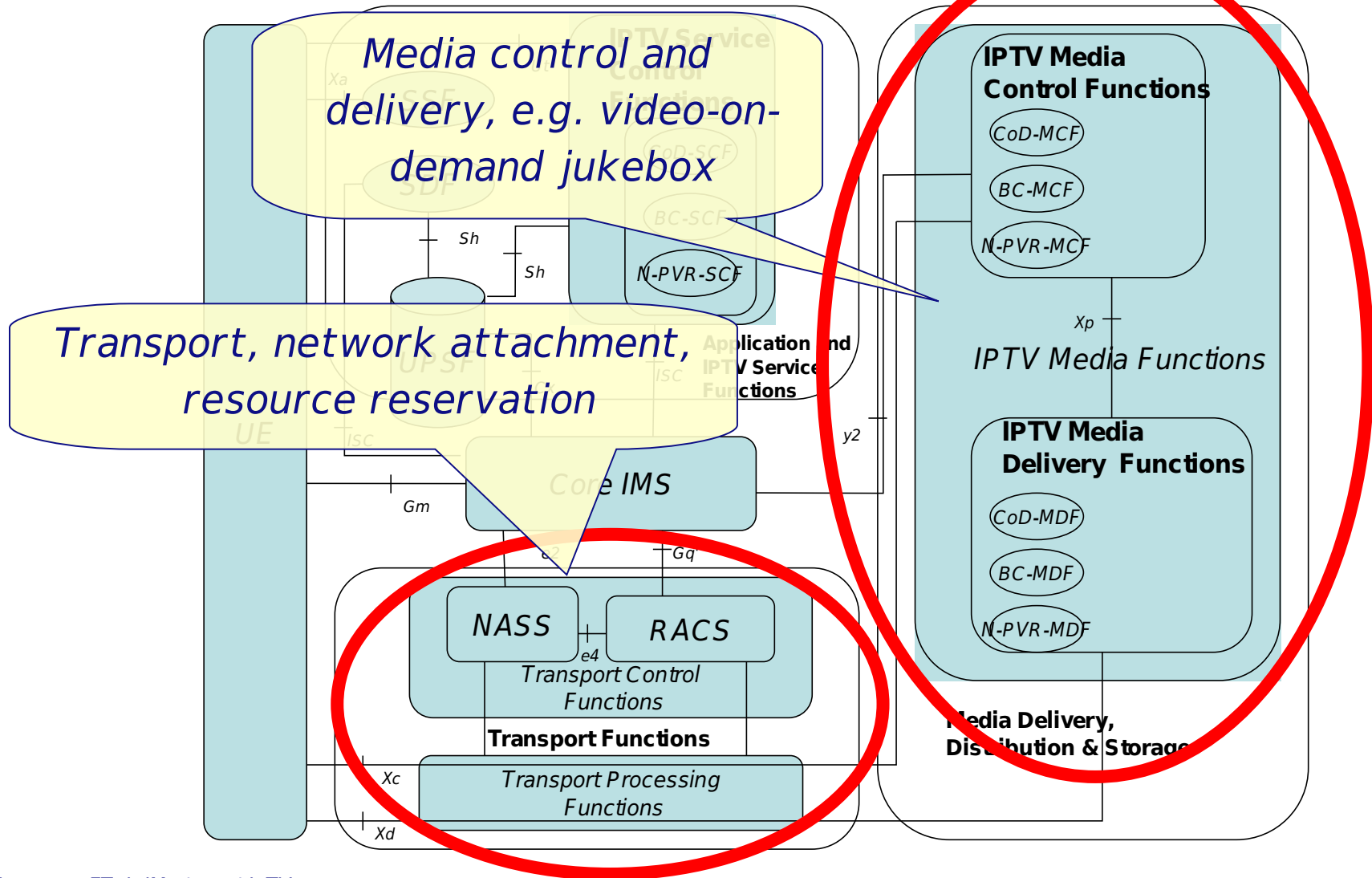
IMS-based IPTV architecture, TS 182 027



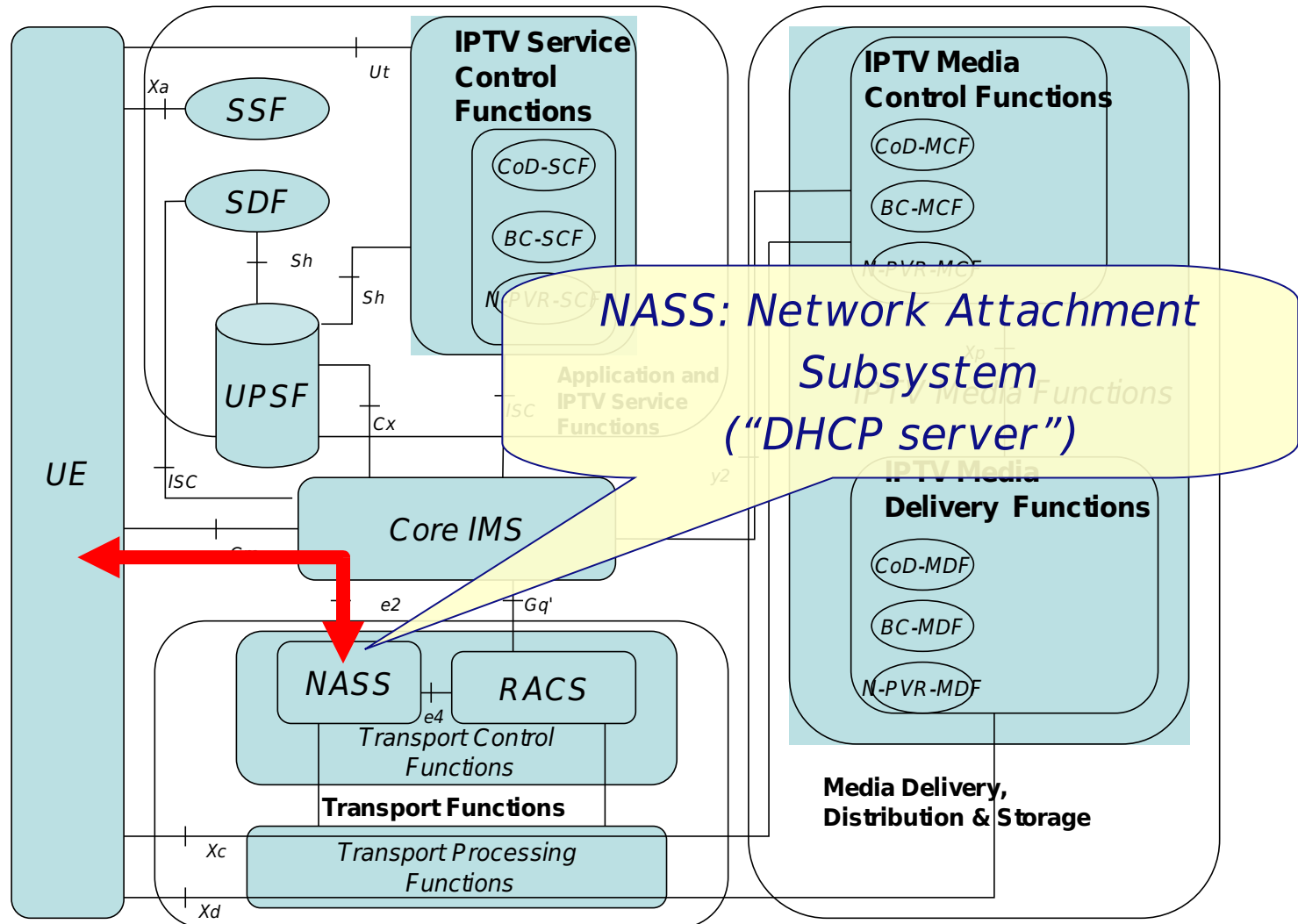
IMS-based IPTV architecture, TS 182 027



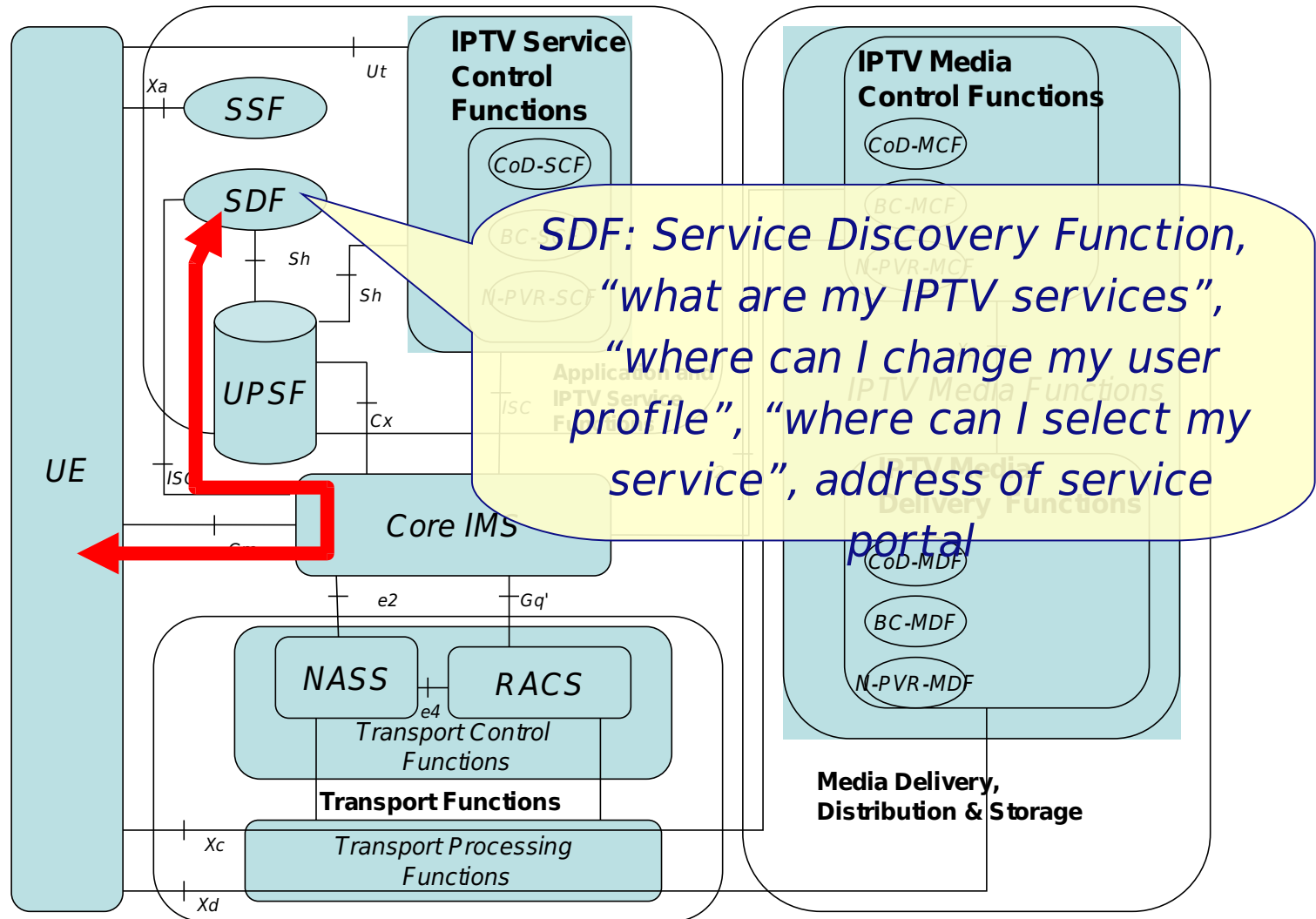
IMS-based IPTV architecture, TS 182 027



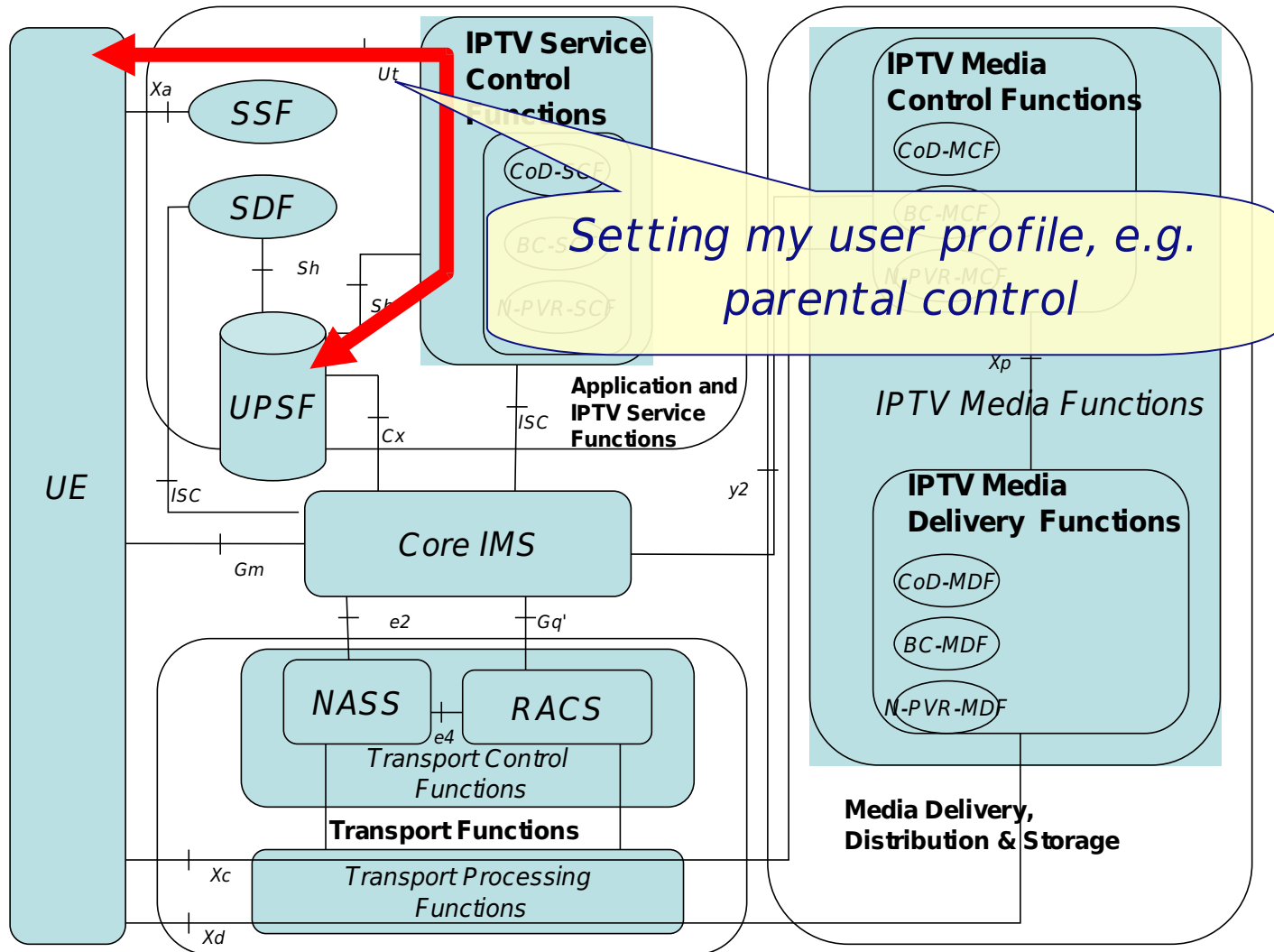
IMS-based IPTV architecture, TS 182 027



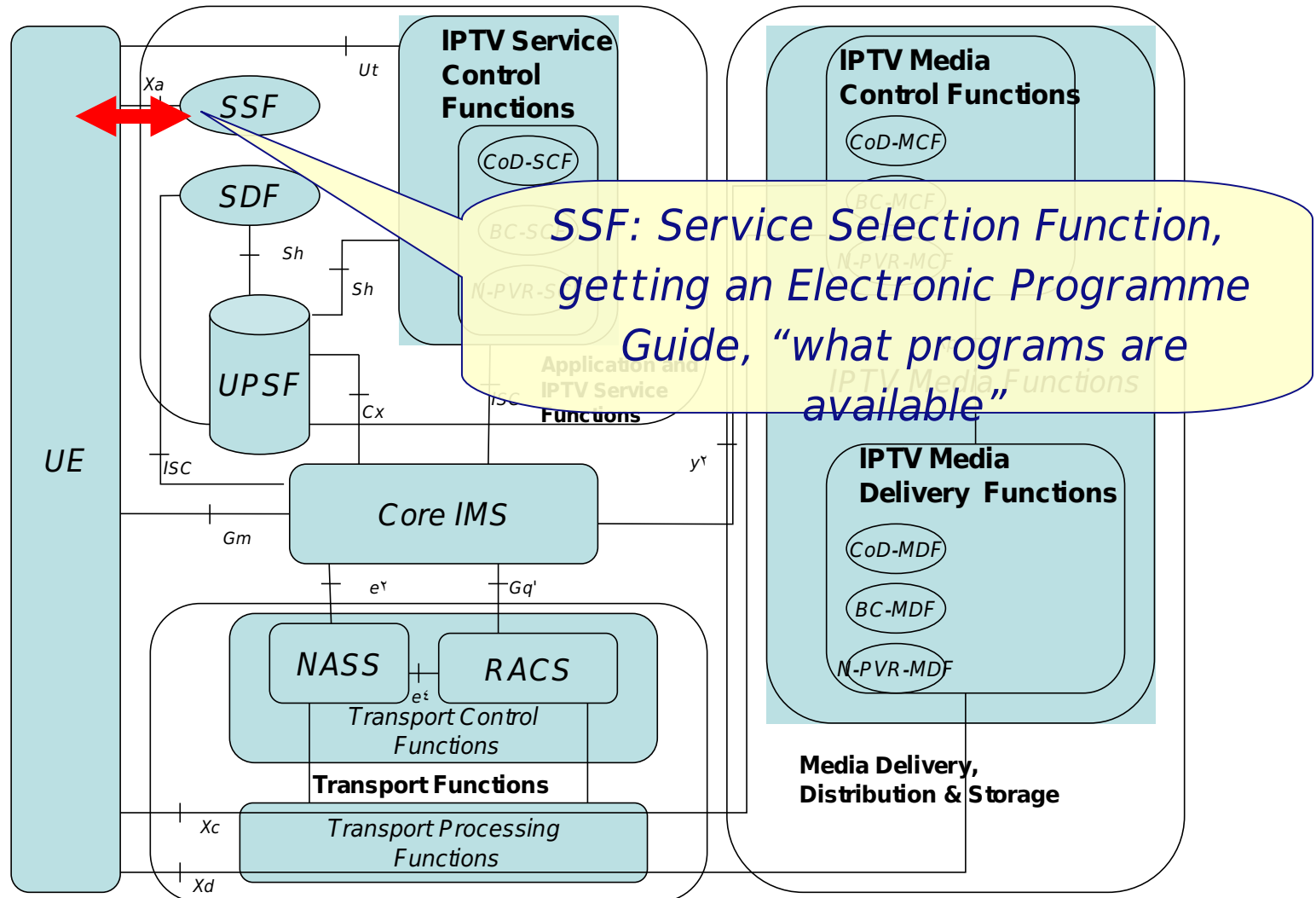
IMS-based IPTV architecture, TS 182 027



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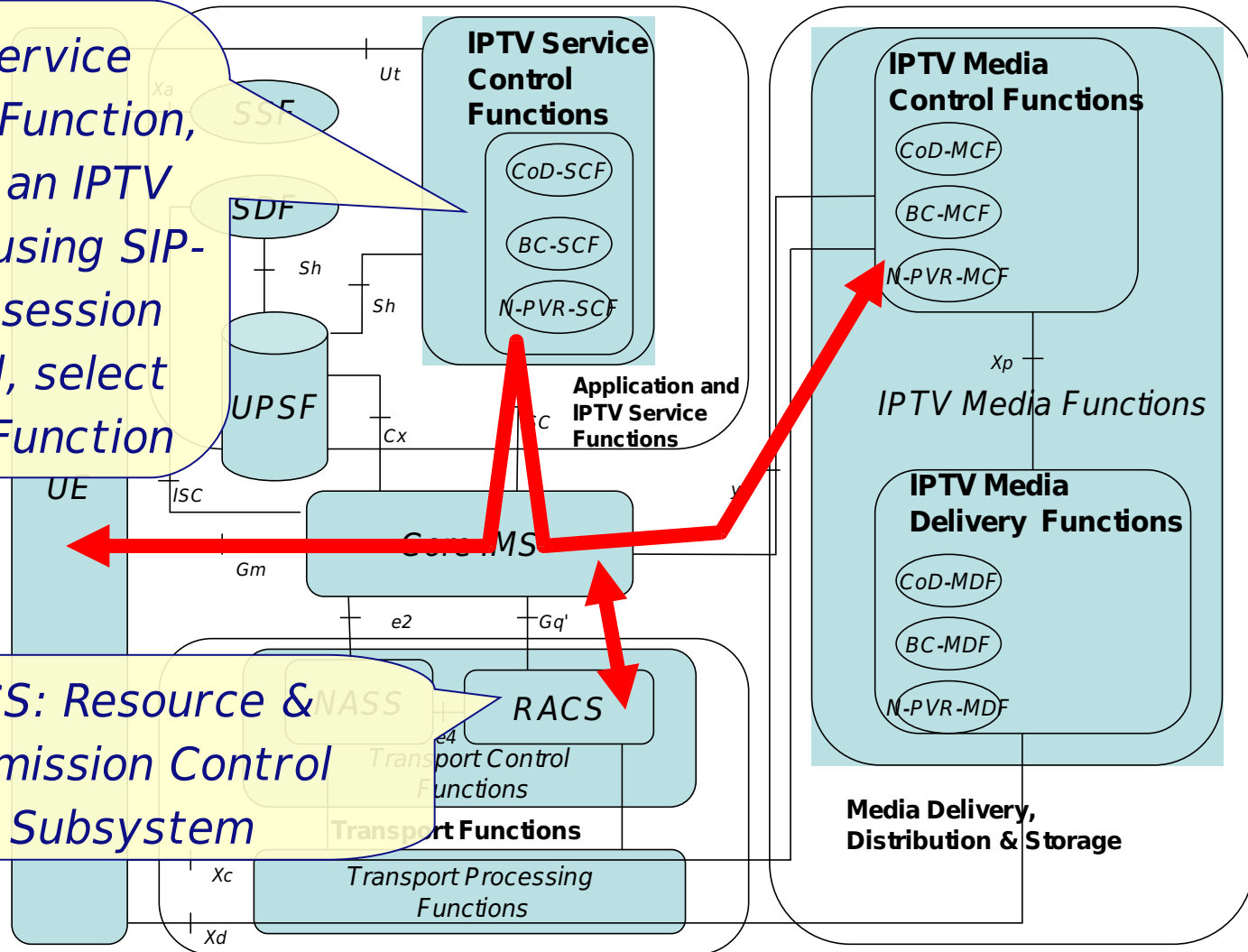
IMS-based IPTV architecture, TS 182 027



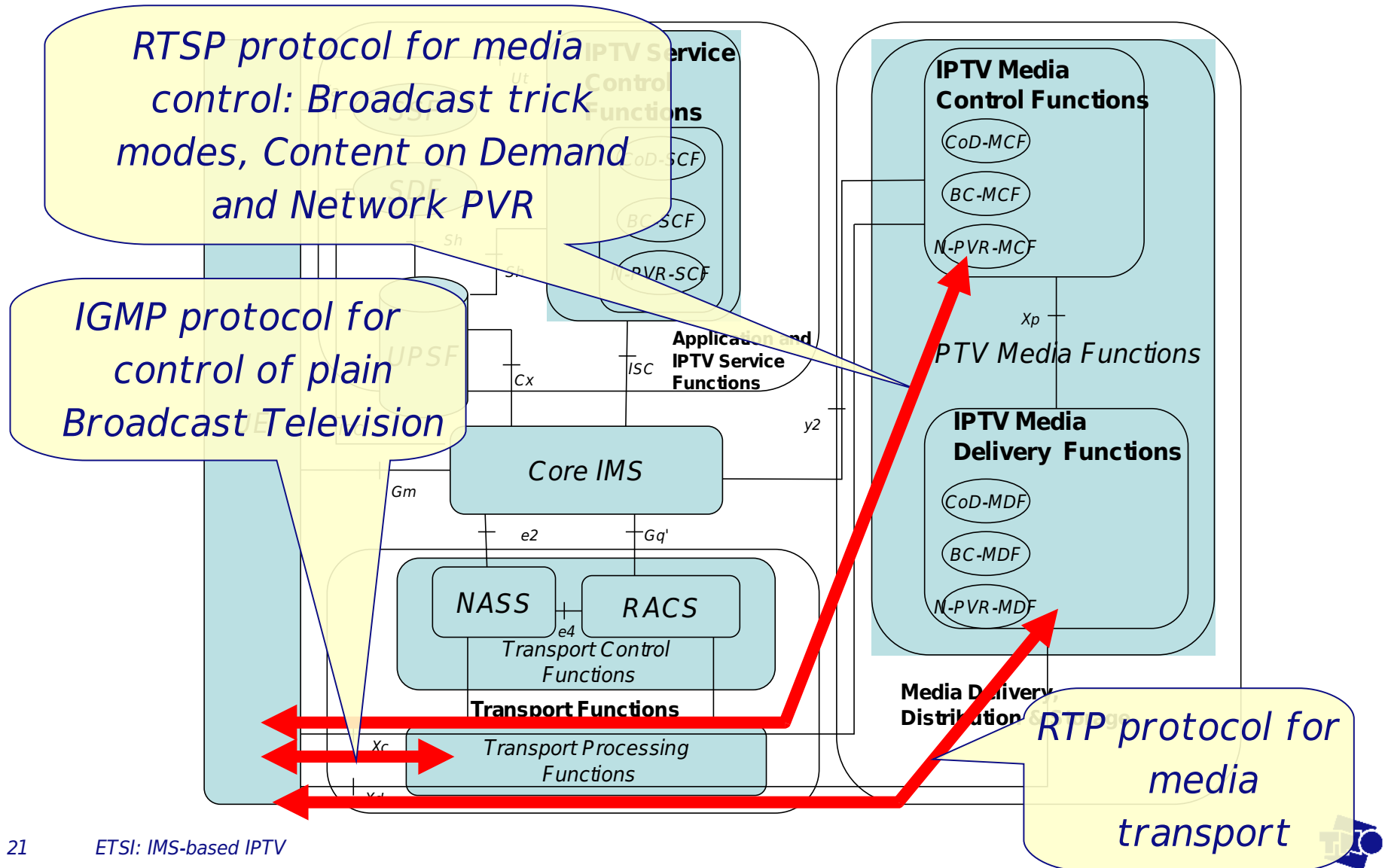
IMS-based IPTV architecture, TS 182 027

SCF: Service Control Function,
Set up an IPTV session using SIP-based session control, select Media Function

RACS: Resource & Admission Control Subsystem

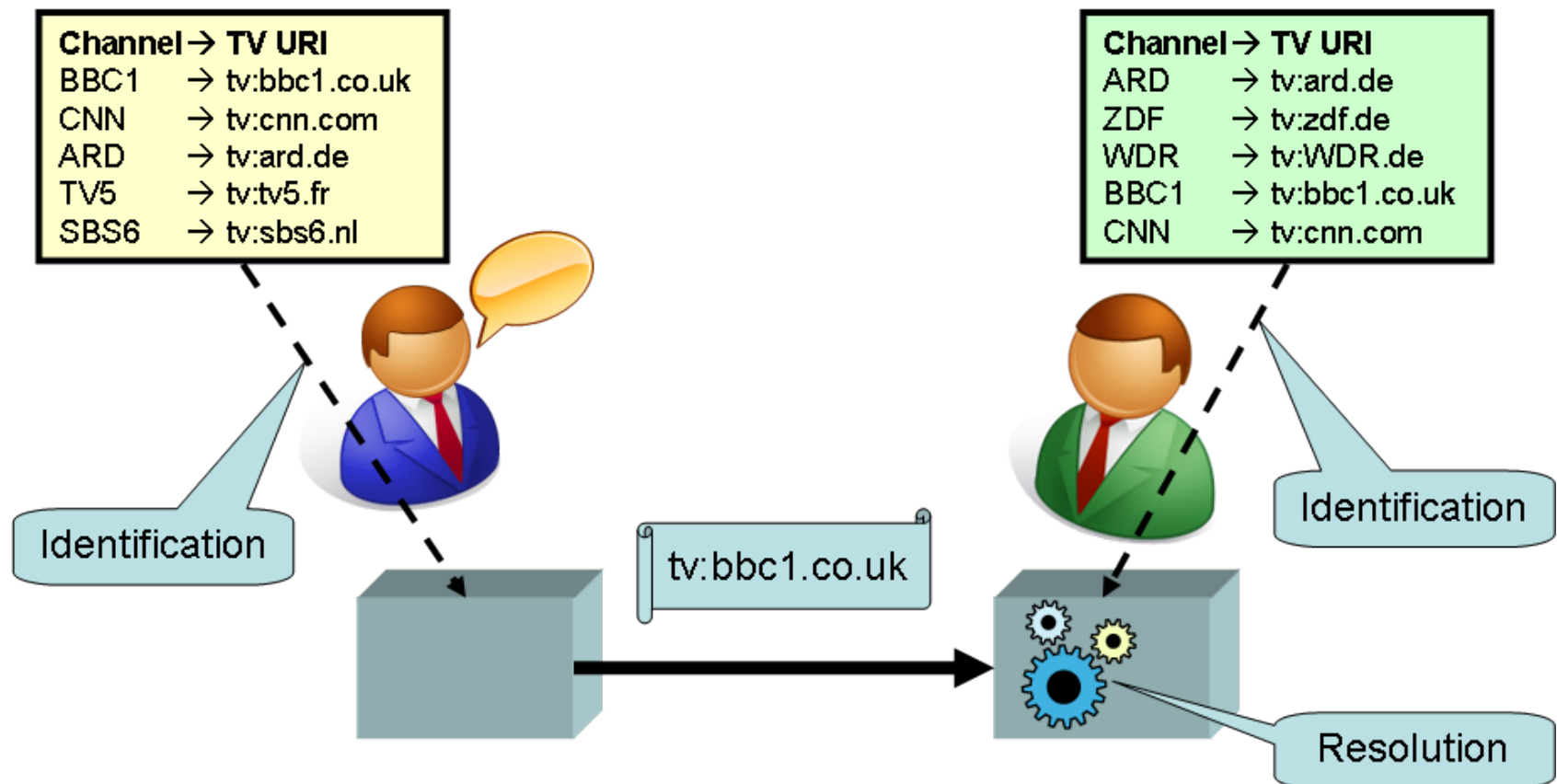


IMS-based IPTV architecture, TS 182 027



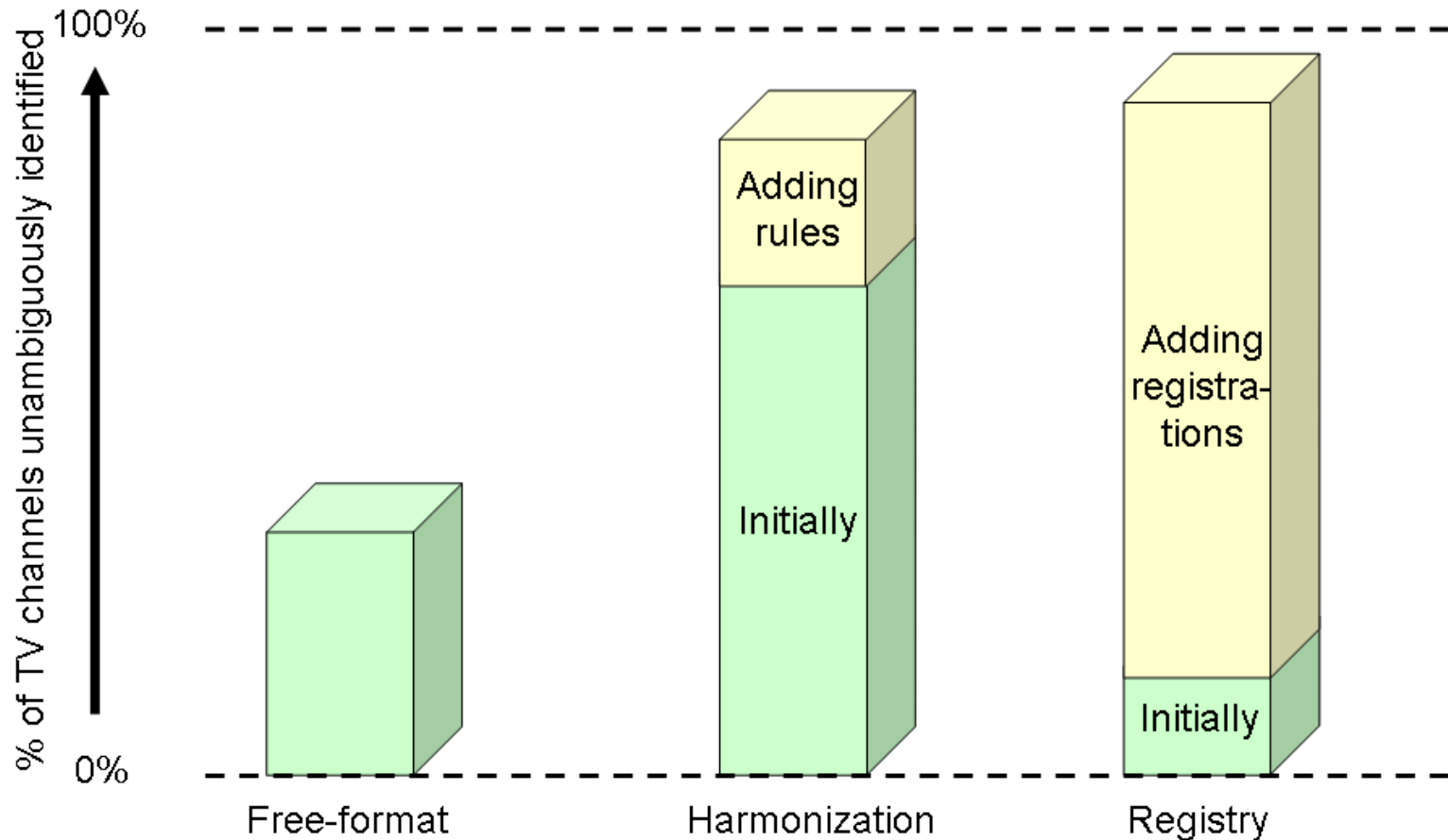
TS 184 009: Rules for use of TV URI

- *TV URI: the “E164” for television channels*



TS 184 009: Harmonisation approach

- *Nederland 1* → *tv:nederland1.nl*



Further reading

- Bruno Chatras, Mikhaël Saïd (France Telecom R&D):
“Delivering Quadruple Play with IPTV over IMS”,
<http://events.projectliberty.org/files/programmes/Session8A-1.pdf>
- Andre Beck, Bob Ensor, Jairo Esteban, (Alcatel-Lucent):
“IMS and IPTV Service Blending – Lessons and Opportunities”,
<http://events.projectliberty.org/files/programmes/Session8A-2.pdf>

Download ETSI TISPAN documents at:

- Published: <http://pda.etsi.org/pda/queryform.asp>,
search e.g. for “TS 182 027”
- Not yet published: http://portal.etsi.org/docbox/tispan/Open/NGN_LATEST_DRAFTS,
 - (Document coded by Work Item number, which in turn can be mapped to the document number at http://portal.etsi.org/Portal_Common/home.asp)

Thank you!

*Dr.ir. M. Oskar van
Deventer
TNO, Delft, Netherlands
+31 651 914 918
oskar.vandeventer@tno.nl*

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