

Overview of Home Networking Standards in TISPAN

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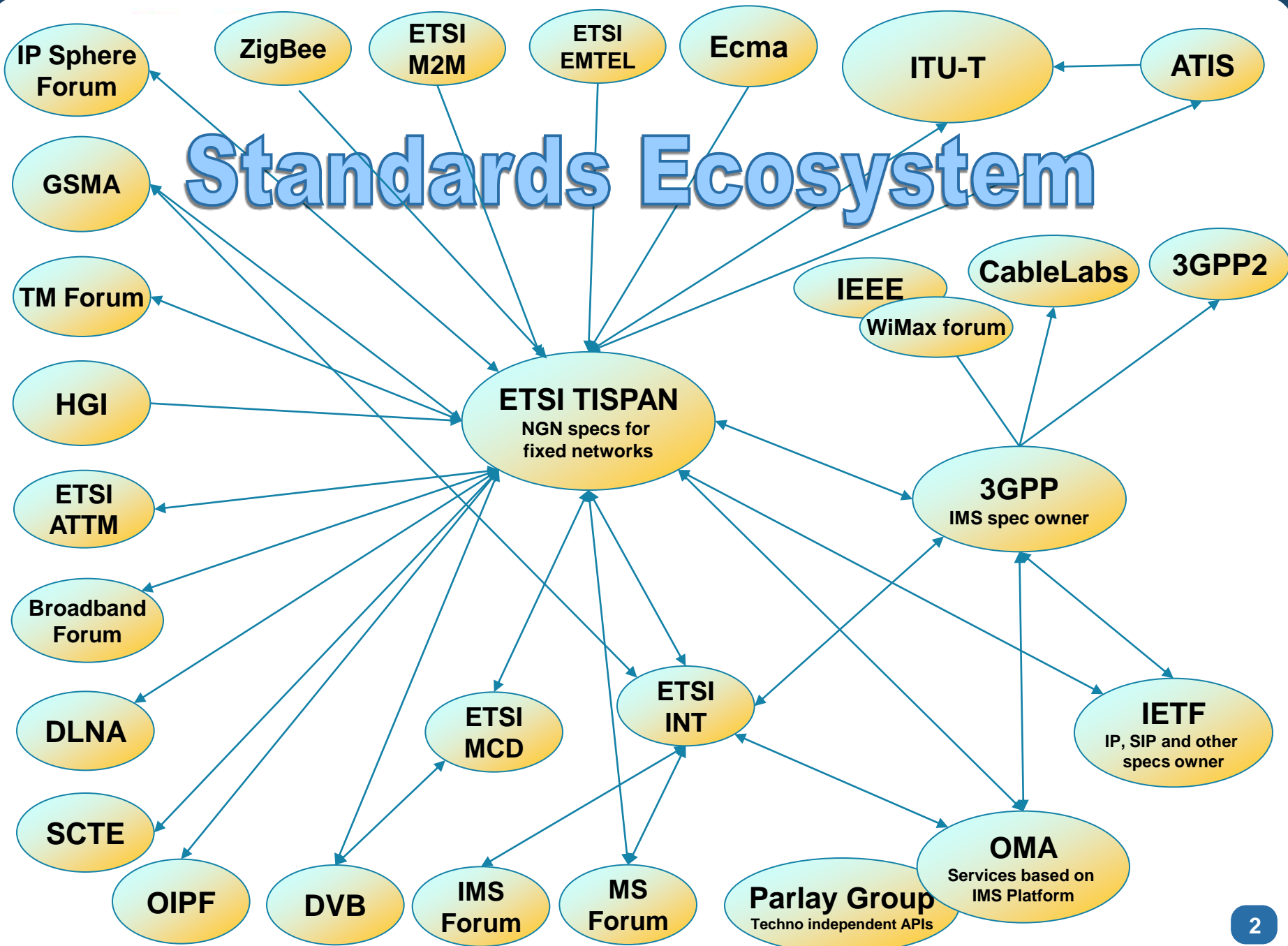
Lindsay Frost (NEC), Chair of TISPAN WG5

ICT for sustainable homes 2010

18-19 November 2010

Nice, France

Standards Ecosystem

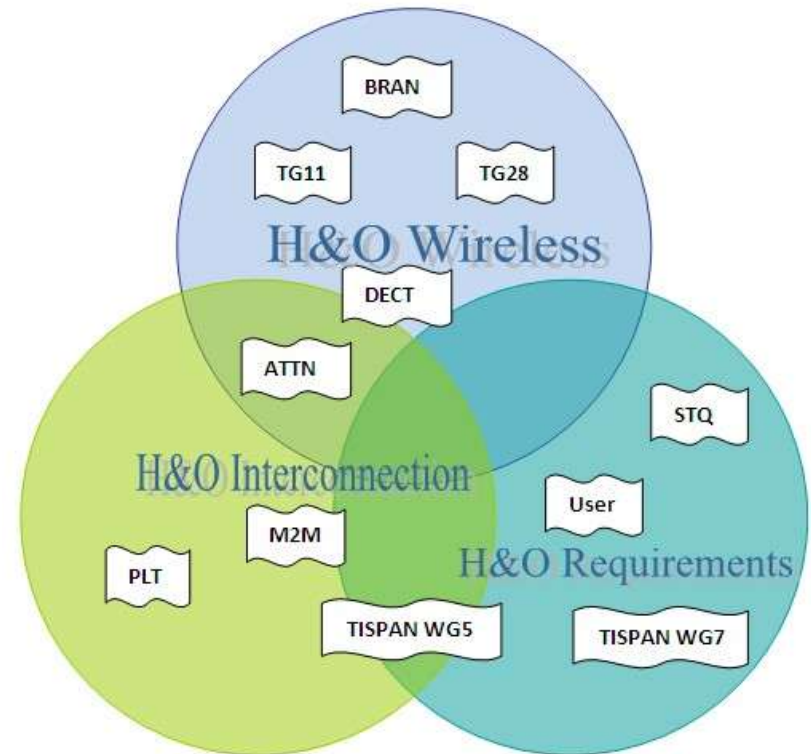


Home & Office Cluster

❑ High Level “classification”

- Home & Office (H&O) Wireless
- Home & Office (H&O) Interconnection
- Home & Office (H&O) Requirements

❑ Some TCs are part of more than one domain



ETSI ATTM Strategic Direction

- ❑ **Support very high speed (broadband) & multi-service networks**
 - **Efficient very high speed residential physical networks**
 - **Definition of standardised approach for the engineering of**
 - the building and campus optical access networks
 - optimized engineering of in-home (plastic) optical fibre network
 - most relevant functional characteristics of components (e.g. connector, cable)

- ❑ **Support implementation of efficient networks**
 - **Energy consumption trends for different FTTx scenarii**
 - **Definition of KPIs to enable proper actions and monitoring**
 - **New specification series on key performance indicators of Energy efficiency and broadband deployment**
 - TS 105 174 Series: Part 5-1 on Home Networking

ETSI TISPAN Strategic Direction

- ❑ **Promote international standards for Next Generation Networks**
 - Clarify the mandatory vs. optional features
 - Develop consensus for migration paths
 - Focus on interop tests and Plugtests
- ❑ **Facilitate adoption of standards**
 - New activities to list and explain the services possible with Release-3 including for Customer Premises Networks
 - Ensure interworking with popular devices
- ❑ **Interwork with legacy or future technologies**
 - Multi-access to CPN: fixed-line, UMTS, WiMAX, remote-access, Femto, ...
 - Roaming

TISPAN WG5 Home Networking Requirements

- **Communication**
 - 1. Person-to-Machine communication P2M
 - 2. Machine-to-Machine communication M2M
 - 3. Person-to-Person communication P2P

➤ **Broadband connection**

➤ **Entertainment and information**

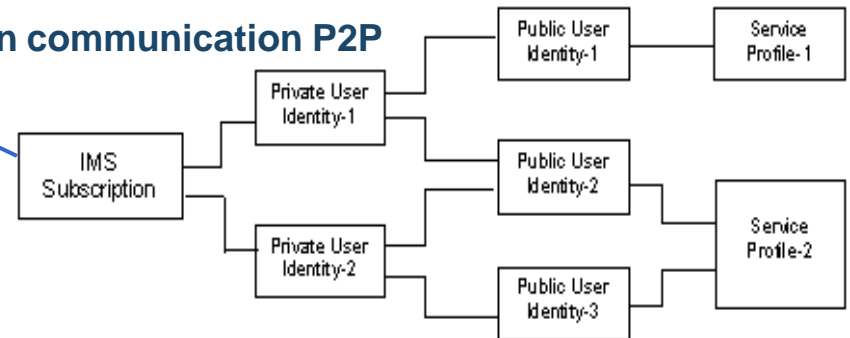
➤ **Home worker + Remote Access**

➤ **Energy Monitoring and Control**

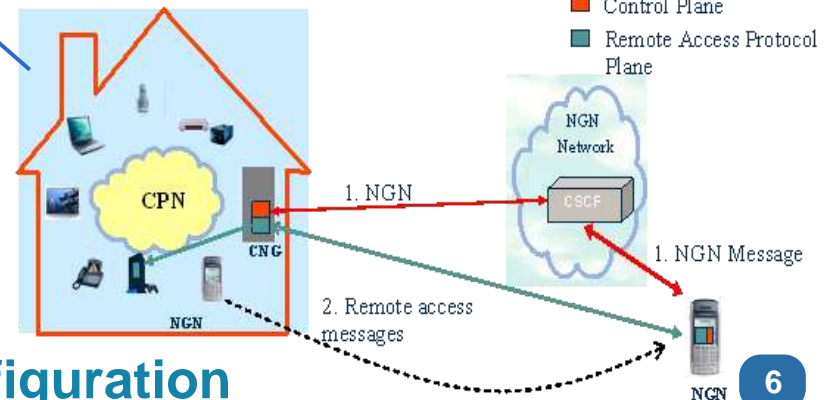
➤ **Home Management and Security**

➤ **QoS Provisioning and Service configuration**

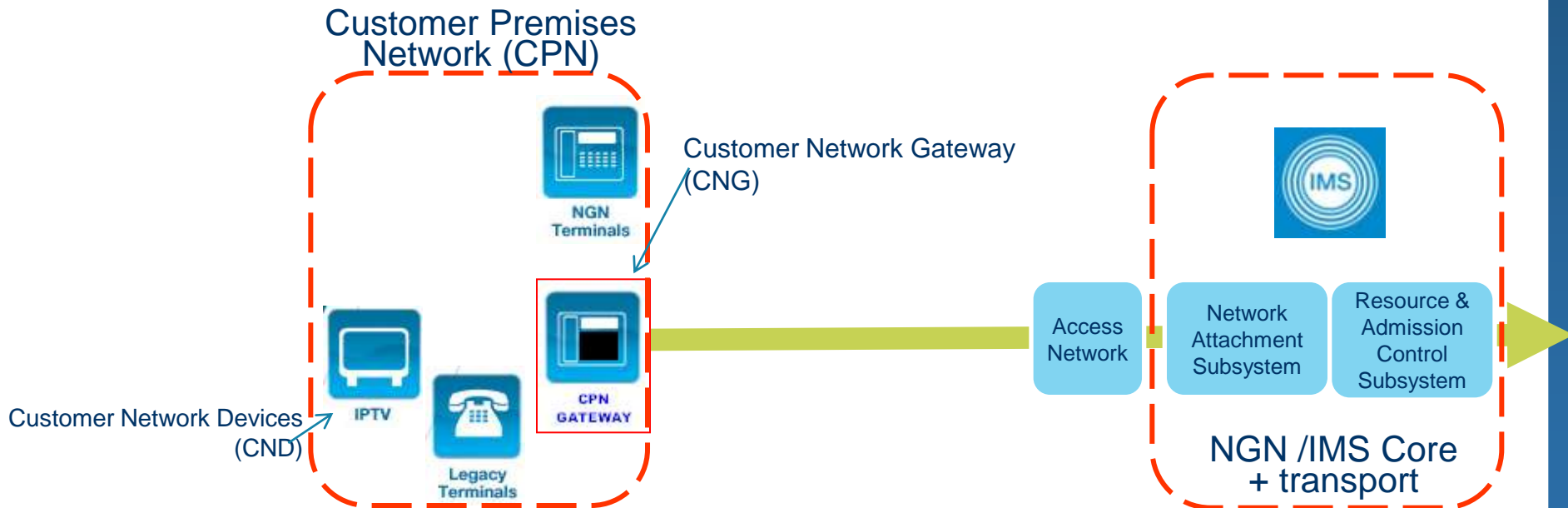
Shared Public Identities



Remote Access



TISPAN sees Home Networks as an IMS NGN end-point

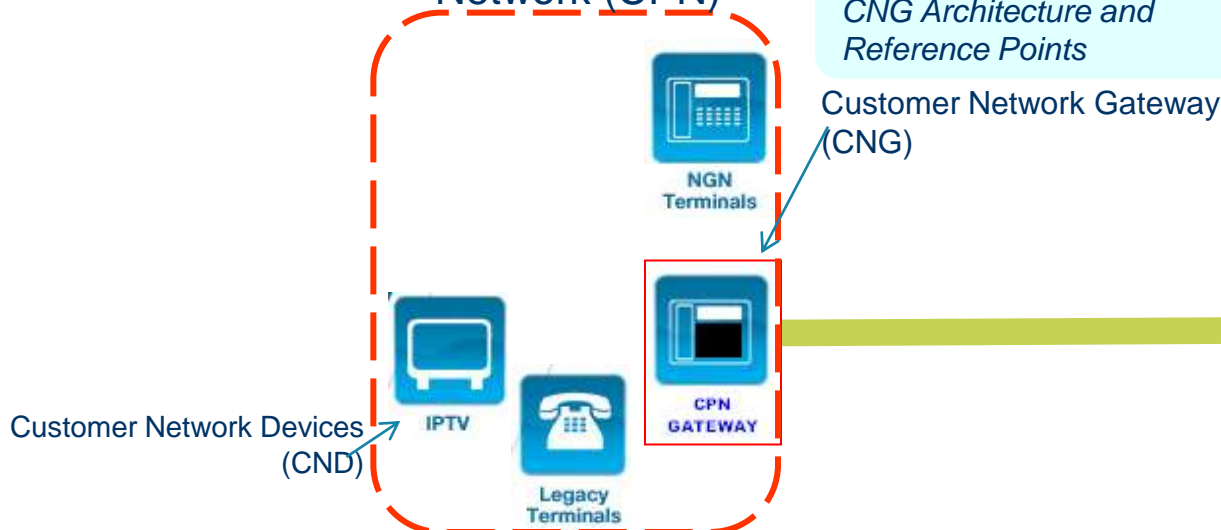


Architecture Specifications

TS 185 005 (R3):
Services Requirements and Capabilities for CPN's

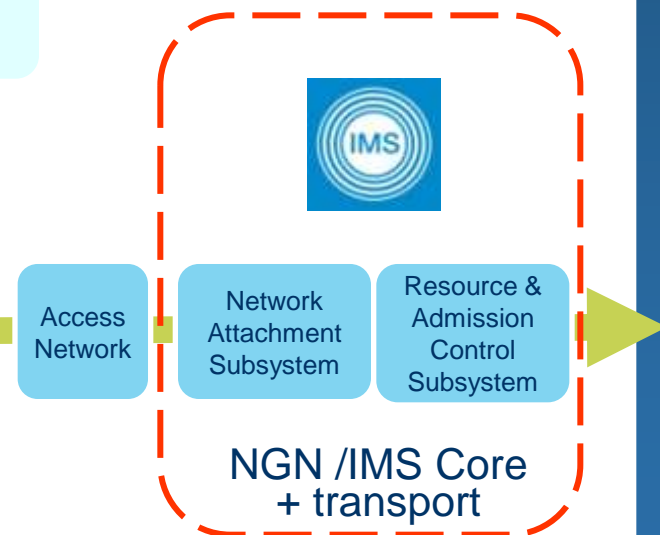
TS 185 004 (R2):
High level customer network architectures

Customer Premises Network (CPN)



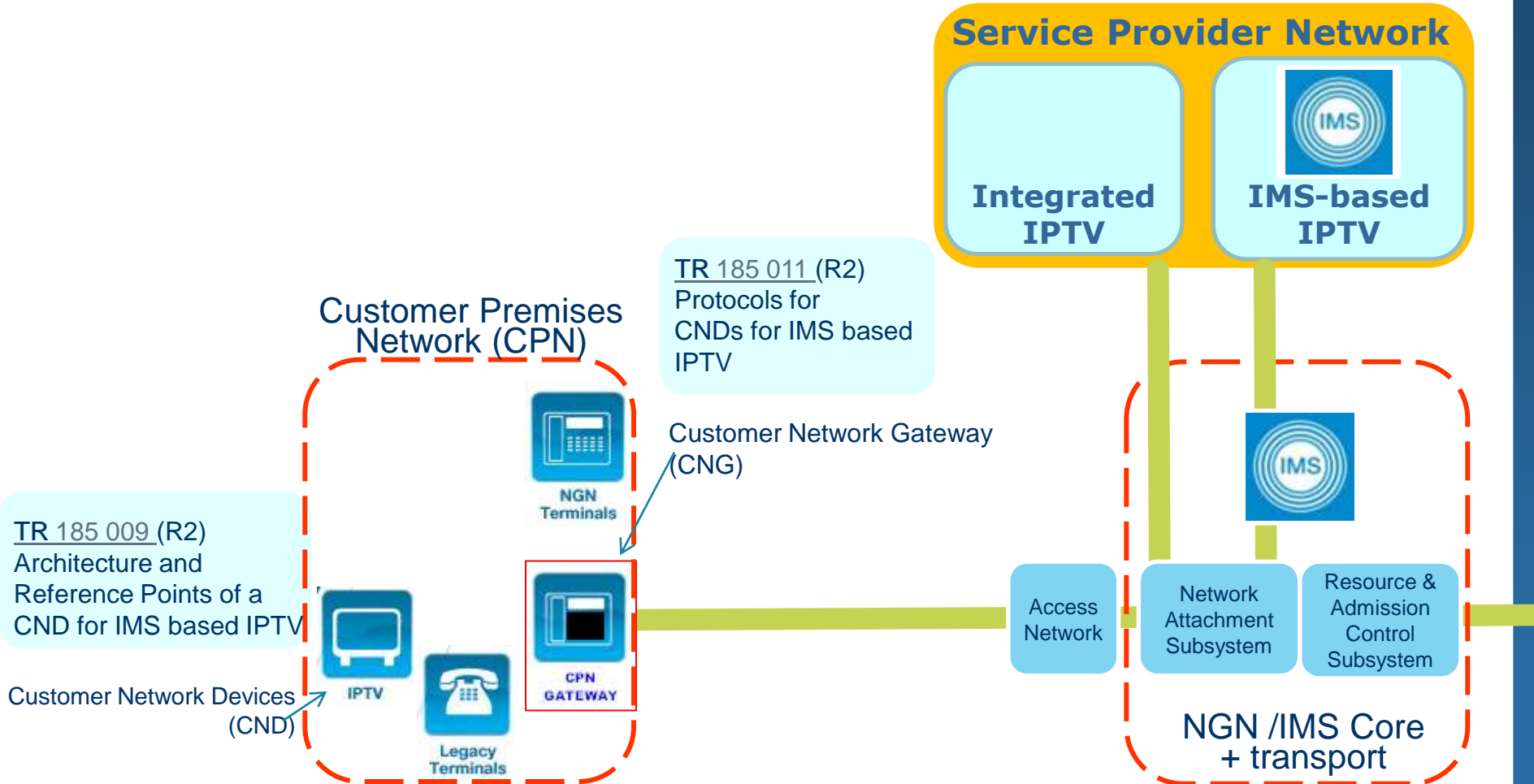
TS 185 003 (R3):
CNG Architecture and Reference Points

TR 185 013 (R3):
Codec's for CND's



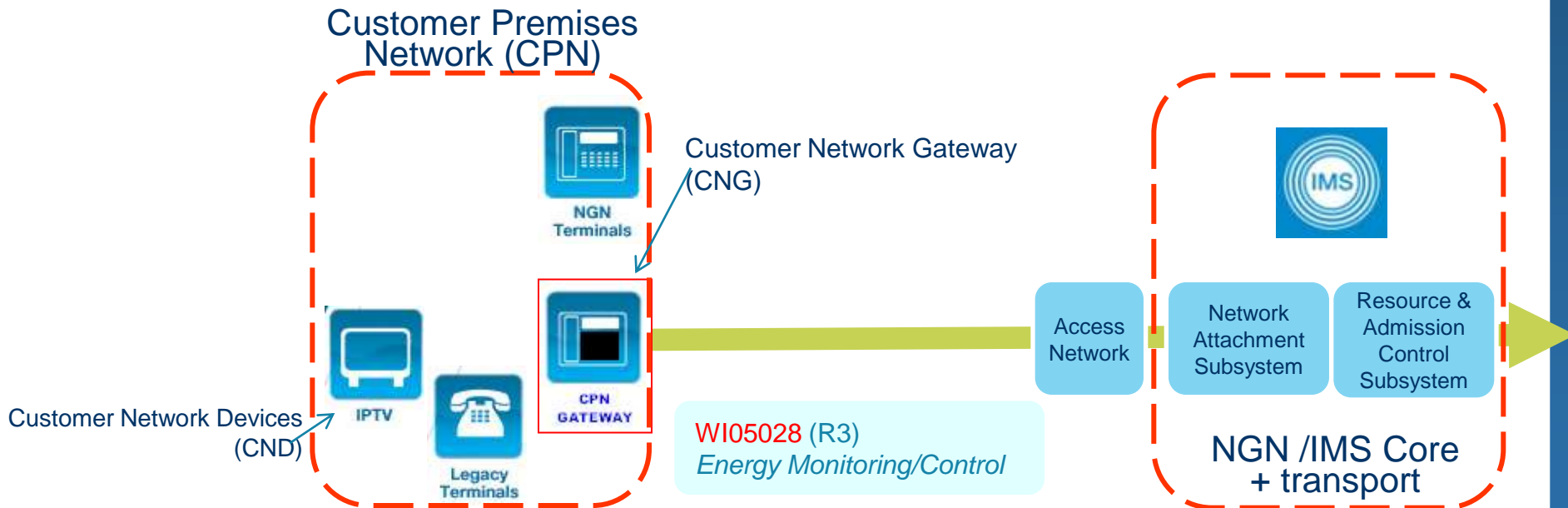
TR – Technical Report
TS – Technical Specification

IPTV Specifications



Security, Energy Monitoring ...

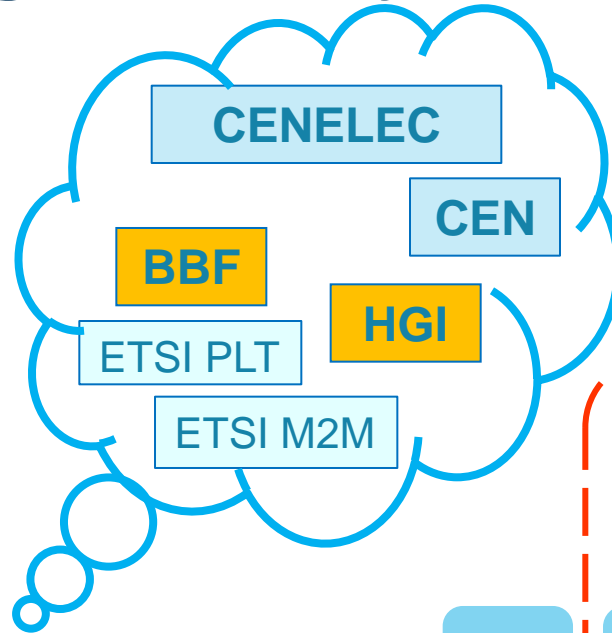
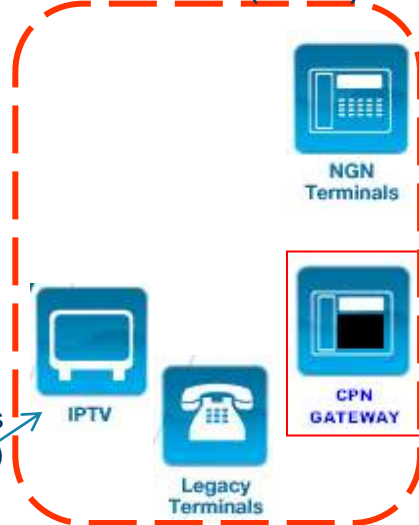
TS 187 001 (R3) WI
07036 NGN Security
Requirements



Security, Energy Monitoring collaborating with many SDO/Fora

TS 187 001 (R3) WI
07036 NGN Security
Requirements

Customer Premises
Network (CPN)



WI05028 (R3)
Energy Monitoring/Control

Access
Network

Network
Attachment
Subsystem

Resource &
Admission
Control
Subsystem

NGN /IMS Core
+ transport

Conclusions: From TISPAN WG5

- ❑ **TISPAN WG5 considers**
 - **the secure connection of the customer premises network to the Next Generation Network**
 - **Connectivity and services within the Customer Premises Network**
- ❑ **Architectures and interfaces are specified**
 - **Significant work on protocols and testing is still to be done**
 - **Liaisons with ITU-T ongoing concerning G.hn**
- ❑ **Currently urgently considering additional high-impact issues:**
 - **Intra-CPN QoS and interaction with RACS**
 - **Energy Monitoring and Control (re Mandate 441)**
 - **Talks with ETSI M2M about machine-2-machine interfaces**
- ❑ **There are large numbers of SDO/Fora working on Home Networks**

... Let us work together !