



CAT-iq for Sustainable Smart Homes

ICT-Sustainable Homes Conference

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Nice, 19.11.2010

Agenda



- Introduction to DECT and CAT-iq
- DECT Coverage
- CAT-iq 2.0 – Significance for Smart Home
- Enabling Smart Homes with DECT/CAT-iq
- Typical Applications
- Summary

The Association of the Global Home and Enterprise Communication Industry



FULL Members (28)



ASSOCIATED Members (18)



DECT World map Year 2010



WORLD

N. AMERICA

S. AMERICA


EUROPE

ASIA


AFRICA

AUSTRALIA



 NO FREQUENCY-BAND ALLOCATED

 SHIFTED FREQUENCY BAND

 STANDARD FREQUENCY BAND

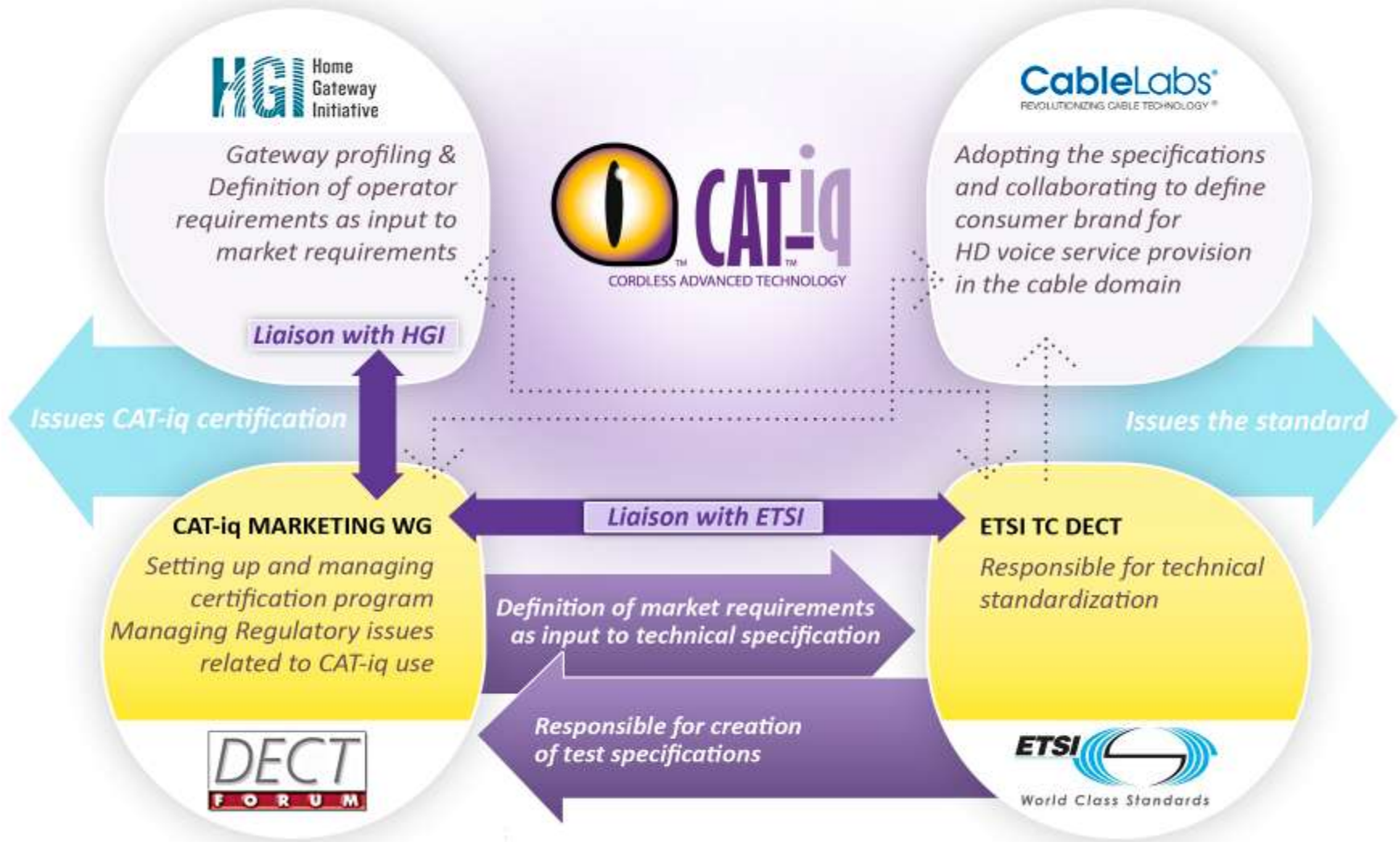
 FREQUENCY BAND IN NEGOTIATION

DECT / CAT-iq : FACTs

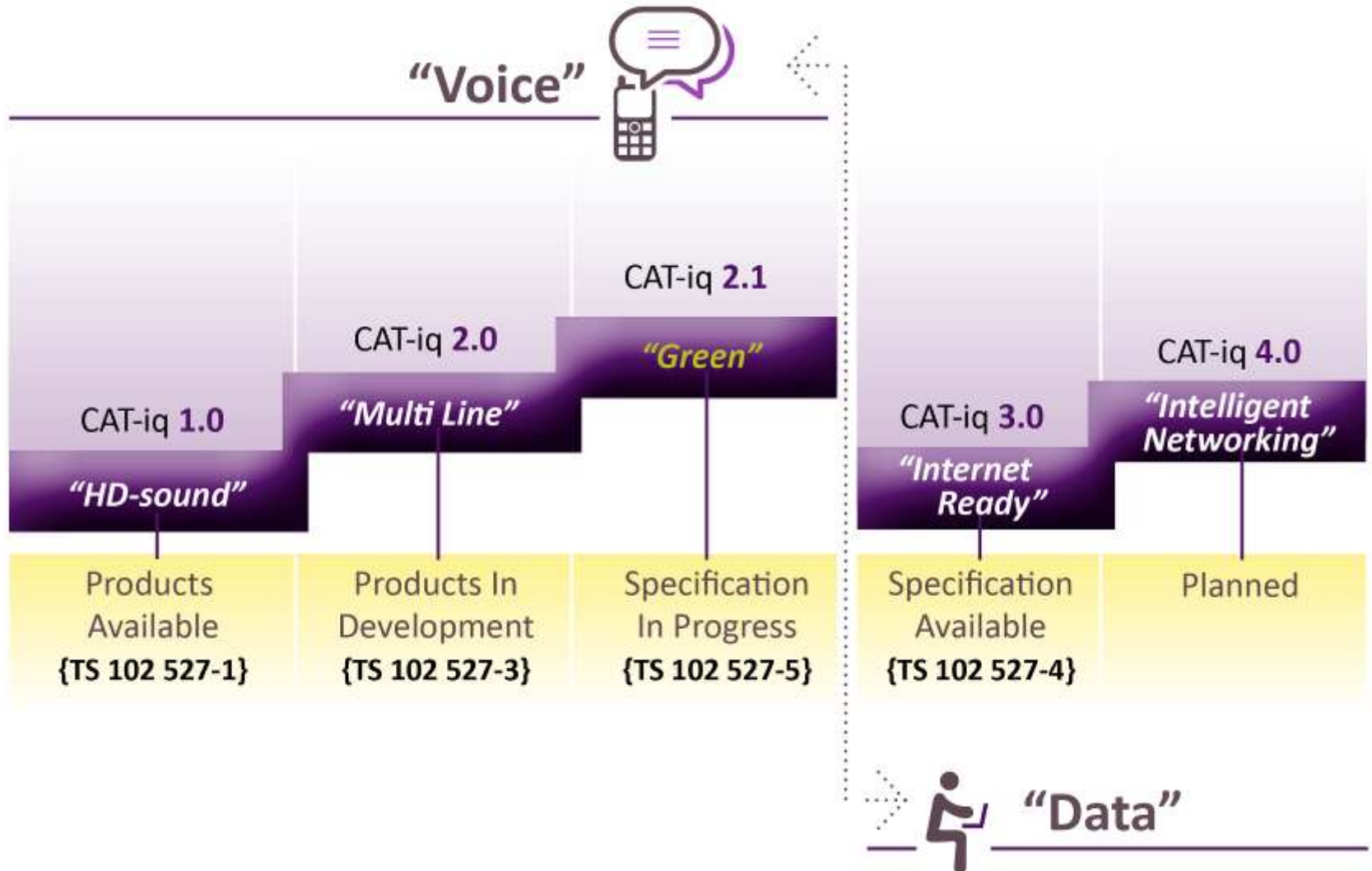


- DECT: a real success story
 - 800 M. systems sold, 100M p/a
 - Licensed Spectrum for voice and data services
- CAT-iq : DECT Next generation: integration in the IP Network
 - Cordless Advanced Technology, Internet and Quality
 - Global technology initiative from the DECT Forum
 - IP-voice and light data services in the next generation IP networks
 - CAT-iq is based on the DECT licensed spectrum 1880-1900MHz.
 - Fully backward compatible to DECT GAP
 - Focuses on high quality wideband audio as well as low bit-rate data application.
- CAT-iq has been developed in cooperation with the Home Gateway Initiative (HGI)
- Technical specifications by the European Telecommunications Standards Institute (ETSI)

Industry Cooperation – the power of standards

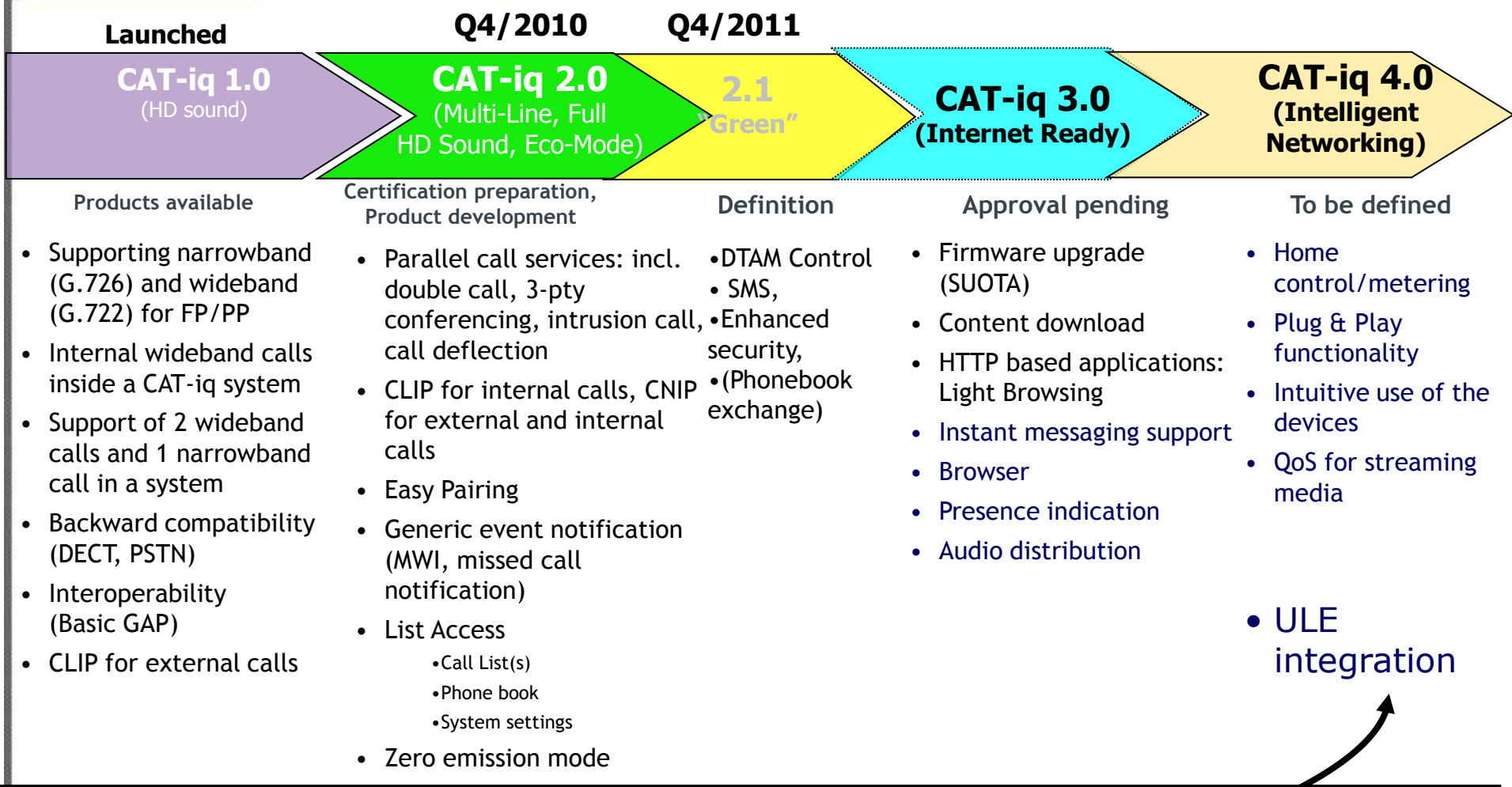


CAT-iq Profile Overview

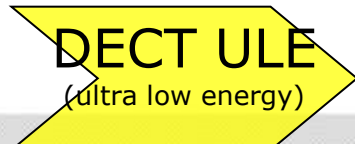


* Note that some data devices may incorporate voice services

CAT-iq profiles: Salient features



Profile definition Q4 2010



Low Power Profile

Source: DECT Forum

CAT-iq 2.0: Significance for Smart Homes



CAT-iq 2.0 means:

- DECT becomes a broadband wireless home networking technology!
 - Licensed protected spectrum means no interference and fantastic reach
- IP connectivity places CAT-iq at the heart of the home network
 - All clients are connected and can be controlled using portable part
- Integration into the Home Gateway means carrier driven
 - HA services can be easily bundled with other telco services
- Bundling voice and Data services means new applications
 - Surveillance, Security, remote medicine, Monitoring, Smart meters
- Opening the door for Low powered applications
 - DECT Ultra Low Energy

USP's of DECT/CAT-iq in M2M



- Proven technology / Open Standard:
 - DECT was specified by ETSI back in 1993
 - Multiple chip providers secures a healthy competitive market
- World Wide:
 - DECT is approved in 110 countries all over the world and is after GSM the most successful ETSI standard ever created
- No Interference controlled Frequency Band:
 - Radio interference is controlled according to EC R&TTE directive
- Low-cost due to mass market:
 - DECT has already been sold in over 800 million devices and DECT ULE devices are using exactly the same core technology
- Interoperability:
 - Industry certification program covering Radio, Protocol and Audio aspects
- Installed base with CAT-iq in gateways:
 - CAT-iq moves DECT into the IP backbone.
 - SUOTA: Remote Diagnosis, SW update, (no truck roll)

USP's of DECT ULE in M2M



- Voice enabled M2M technology:
 - DECT ULE is voice enabled with high QoS as opposed to competing M2M technologies where only data is being transmitted with low QoS as a result
- Low energy consumption:
 - Standby current in the range of a few microamperes extends battery lifetime
- Security and Authentication:
 - ULE has security and authentication features for smart meters
- Low latency:
 - ULE offer low latency for sensor applications that need fast feedback
- Range and building penetration:
 - 300Meters Free Field/ 50 Meters indoors
- Backwards compatibility:
 - Interoperability with legacy DECT products allow possibilities for combining sensor networks (M2M) with DECT voice applications

CAT-iq : Intelligent Networking



IP Connectivity to Utilities

Smart Meters

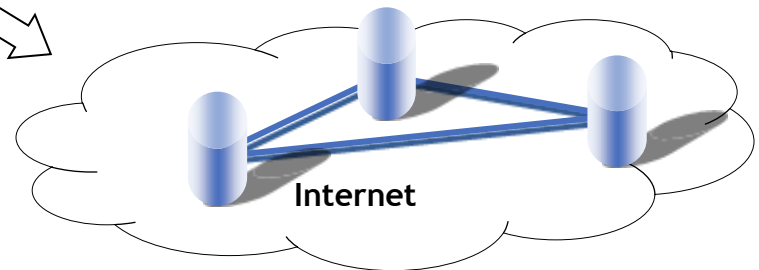


Home Control Unit



CAT-iq GW

At the heart of the connected home



CAT-iq Enabled Services for Carriers



- Home Entertainment: tapping into the power of the Home Gateway
 - e.g. broadband content to the rest of the home, streaming audio, internet radio, news ticker, Instant Messaging



- Home Automation
 - e.g. Energy saving, security, information and control systems



- Telemedicine
 - e.g. Healthcare/disease management, baby/elderly monitoring

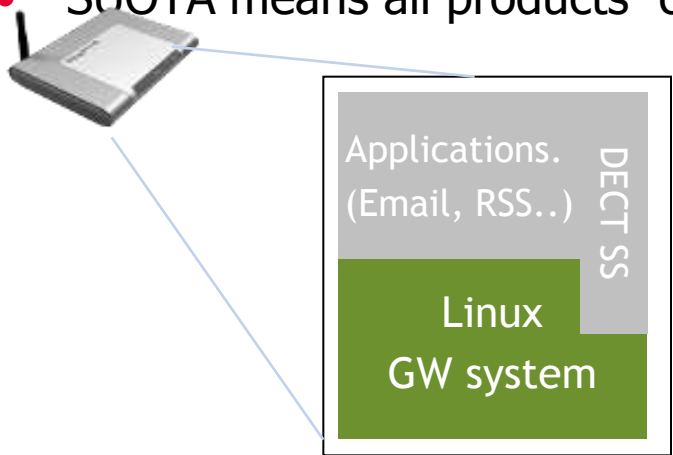


NEW Revenue Streams with Low bit rate applications: tailored for CAT-iq

The vision: - Why CAT-iq



- The CAT-iq handset could become the „infoterminal“ in the home
 - HS to be MMI of GW
 - The HGW houses a huge amount of value, CAT-iq pulls it and displays it!!
 - (Diagnosis, Data Apps, Webradio, Home Automation, News...)
- The GW runs the apps, the CAT-iq Handset plays and displays them
 - HA, Control, Metering Base Station,
 - Web Radio, RSS Feeds, Email Notification
- SUOTA means all products can also be upgraded in the



Summary



- CAT-iq is now a major Broadband Wireless technology in the Home Gateway
 - Stable, Licensed, excellent reach with huge customer base
- With IP connectivity, CAT-iq becomes a vehicle for new Gateway-based Smart Home services
 - VoIP, Light Data services
 - Re-use of voice for surveillance, remote medicine,
 - Re-use of Display for Diagnosis, Control, Data collection...
 - Smart Home:
 - P2MP, Multiple clients, Secure, QOS, simple protocols,
- DECT Forum and ETSI will build the highway to bring the profiles to market :
 - Clean Standards
 - Robust Test Specs
 - Certification Programs (implying IOP)