



Beyond CAT-iq 2.0

Daniel Hartnett,
CAT-iq Working Group
20.9.11

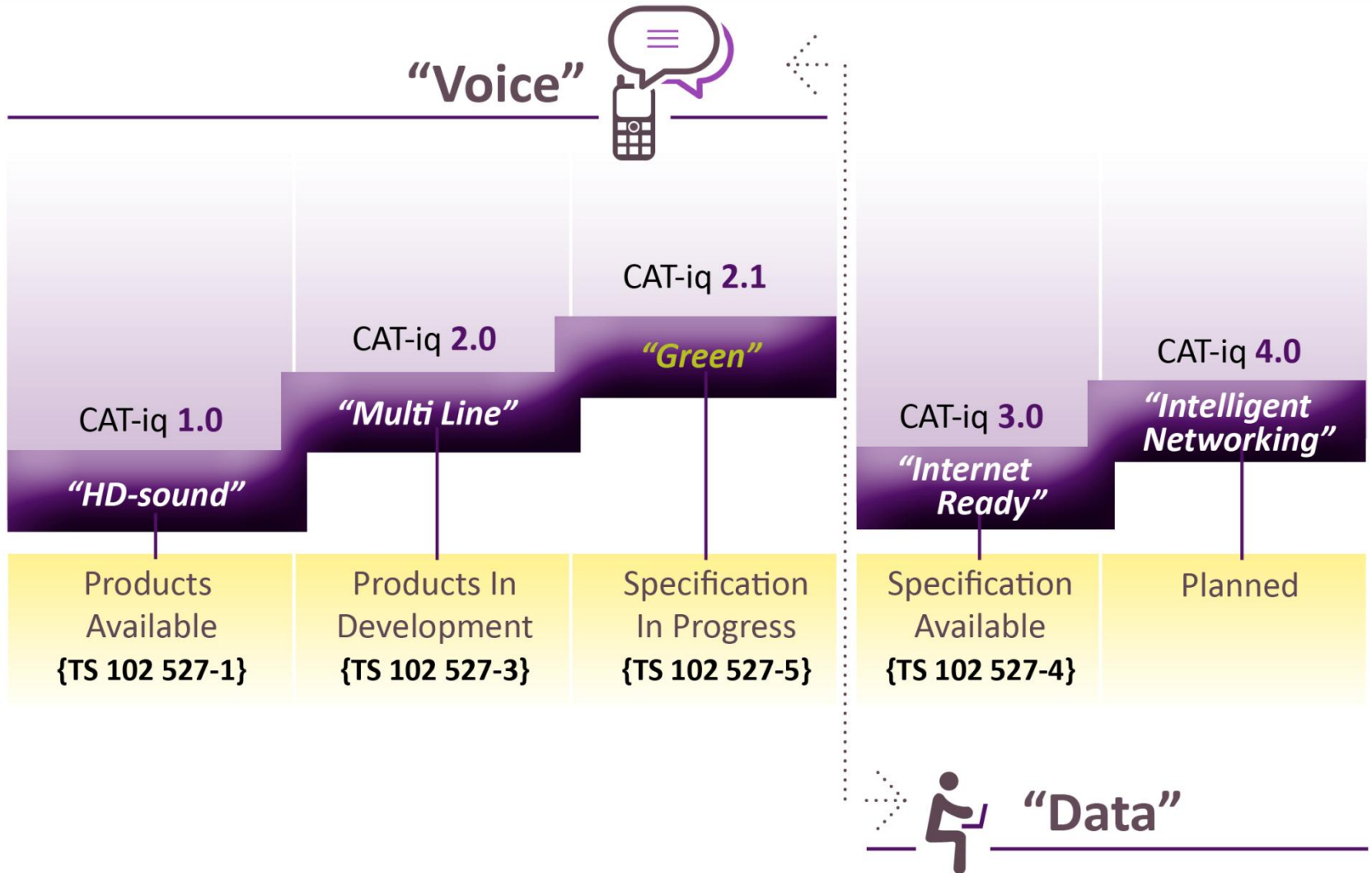


- Brief overview
- CAT-iq 2.1:
 - Features
 - A Closer Look at
 - Green Modes
 - SMS
- CAT-iq 3.0
 - Why is this important?
 - What features will be prevalent?
 - SUOTA
- CATiq 4.0
 - Philosophy
 - Rolling in ULE
- Summary



- 2011 was the year of the CAT
 - Standard released
 - Certification Program open – 7 certified products
 - 3 IOP ETSI IOP events
 - Carriers launching CAT-iq products: Orange, DTAG, Telia...
- CAT-iq 2.1: Draft E2011 (Strong request from HGI and many Carriers)
 - Need ETSI TC and DF members support to hit target
 - Cert Program with D&A 1220
- CAT-iq 3.0:
 - Building Questionnaire for carrier inputs for SUOTA and other data features
 - All inputs welcome
- CAT-iq 4.0
 - Merging ULE into the CAT-iq profiles
 - Defining Profiles for DECT ULE

CAT-iq Profile Overview



* Note that some data devices may incorporate voice services



PLUGTESTS™
INTEROP EVENTS



3rd CAT-iq 2.0 Plugtests™

Munich, Germany
28-30 September 2011

Home

- About this Plugtests
- Registration/Login
- NDA
- Mailing List
- Travel Information
- Contact Us

Event sponsors



Supporting Organizations



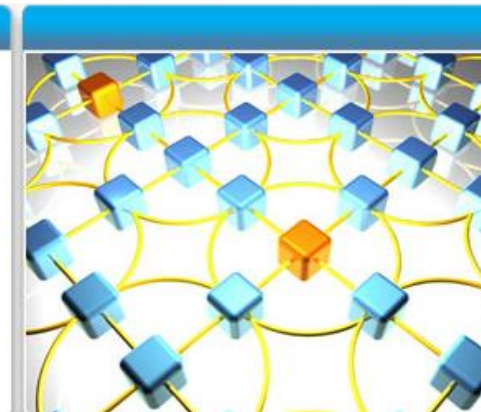
CAT-iq 2.0 Plugtests™



DECT is one of the world's most widely deployed wireless communication technologies. Most of us use DECT cordless phones in our homes.

The next generation of DECT is called **CAT-iq** which stands for Cordless Advanced Technology-internet and quality. CAT-iq will tap into the mighty potential of the ip network as it gets integrated into the Home Gateway.

The next CAT-iq event will be parallel to the Dosch & Amand Seminar. More information may be downloaded in pdf format [here>>>](#)





- CAT-iq 2.1 (Key features)

- 3-party conference call
- Intrusion call
- CLIR (*Calling Line Identification Restriction*)
- Answering Machine control
- Enhanced Security
- 'Green' Power Saving Aspects
- Diagnostics features
- Recommended Tones (optional)
- Handset Capability Enquiry
- Support Personal Phonebook in HS
- SMS



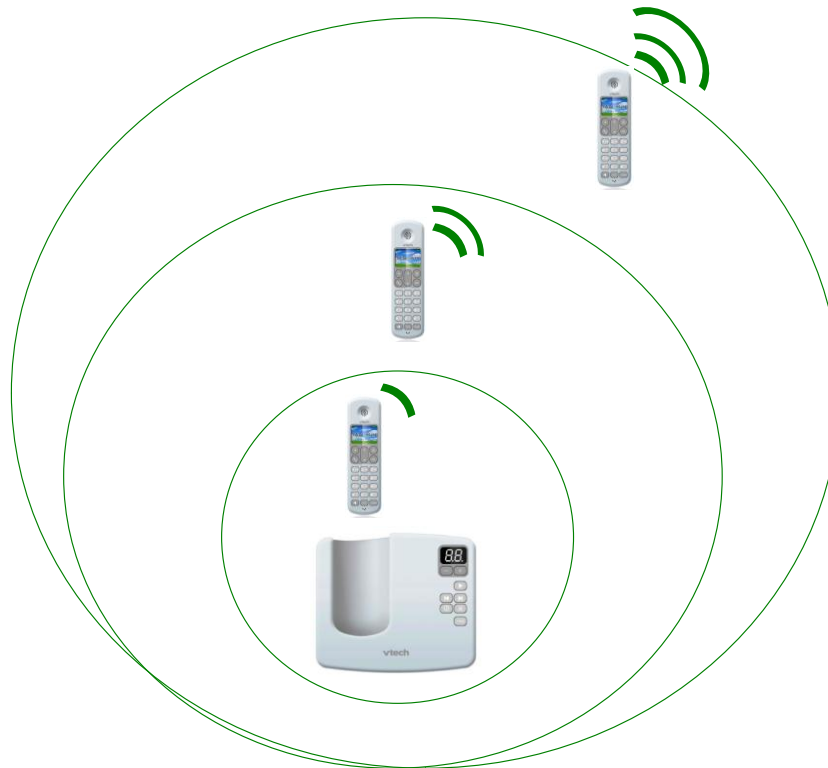
- Green Modes

Power saving modes for DECT cordless systems

- In a DECT system there are the following possible power saving modes of operation:
 - Handset ECO (auto adjusting handset mode)
 - Base ECO (single handset system)
 - Manual ECO (half range mode)

Handset ECO mode (auto adjusting handset mode)

- In this mode the handset adjusts transmit power while a call is in progress.

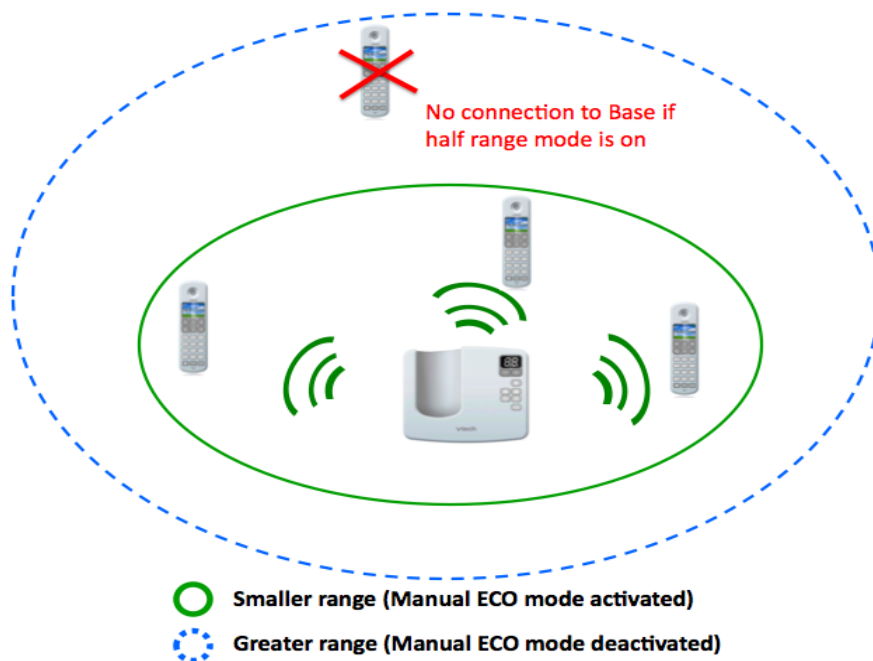


- Feature agreed with in scope of CAT-iq 2.1
- Up to 30% power savings in handset during a call

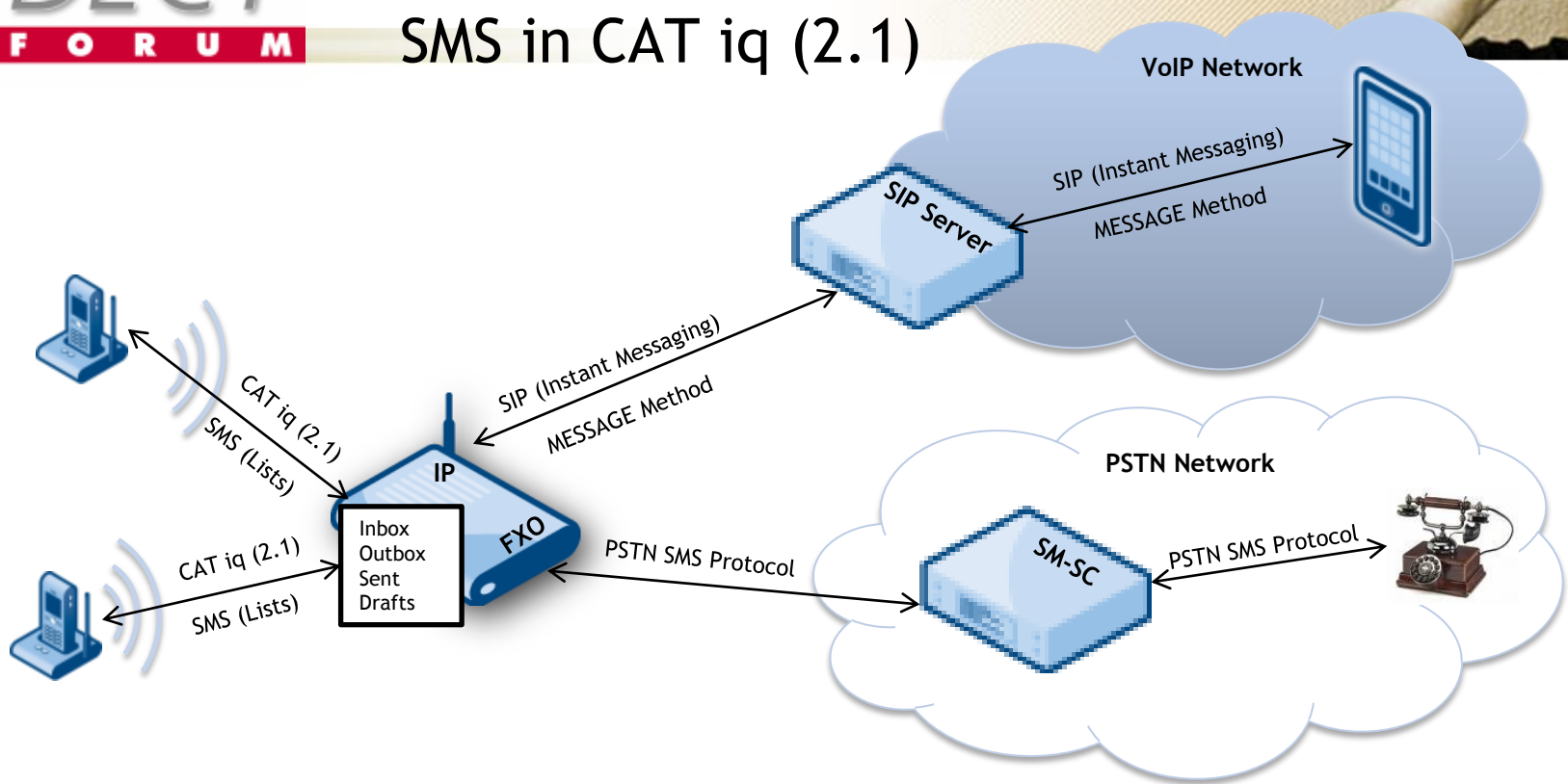
Manual ECO mode (half range mode)



- The user can manually select the range of his cordless phone Use case: the user lives in a small apartment and does not need the full range of DECT.
- In this mode the base transmission power is reduced to approx 4dBm which results in a reduction of 5-10% in energy consumption of the base unit.



SMS in CAT iq (2.1)



Key Requirements

@ FP / GW	@ PP
SMS over the air interface - DECT(10)0332_SMS_contribution from DSPG <i>[Based on CAT iq 2.0 List access method]</i>	
SIP MESSAGE Method – SIMPLE (RFC 3428)	
PSTN SMS Protocol (2) Stack (ETSI ES 201 912)	



What features are Carriers Looking for in CAT-iq profiles 2.0, 2.1, 3.0?

Inputs from the HD Branding Workshop:

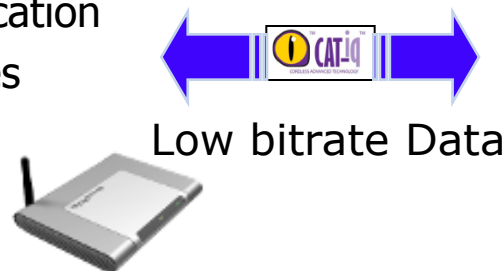
- HD Voice – High Quality across the network – GW and Handset
- Centralized Phonebook
- Voicemail
- Video Streaming
- Security
- (Eco) Green Modes (sustainability)
- IP Services:
 - Yellow Pages, Weather, Web Radio, E-mail Notification, Home Control
 - Traffic Info, Bus/Rail Connections
- CAT-iq Handsets in Retail
- HGW upgradeability for new applications



- The DECT Data Channel enables services which tap into the power of IP
- What are the key use cases?

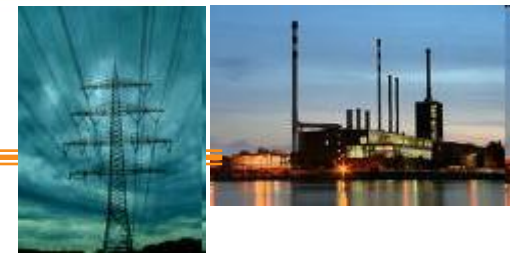
- SOUTA: SW Update over the Air allows Carriers to
 - PUSH FW/SW Upgrades to customers in the field
 - PUSH carrier specific products/services
 - Reduces truck roll
 - Enables remote HS and GW
 - Provides an „umbilical cord“ between Provider and customer
 - Services:

- Bus/Train Timetables
- Traffic Info
- Email Notification
- Yellow Pages
- Web Radio

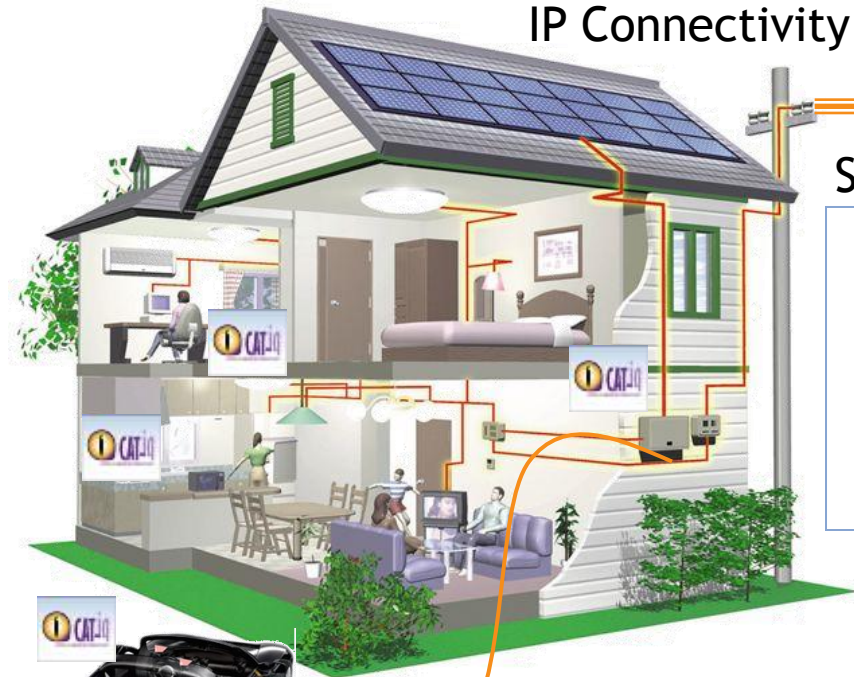




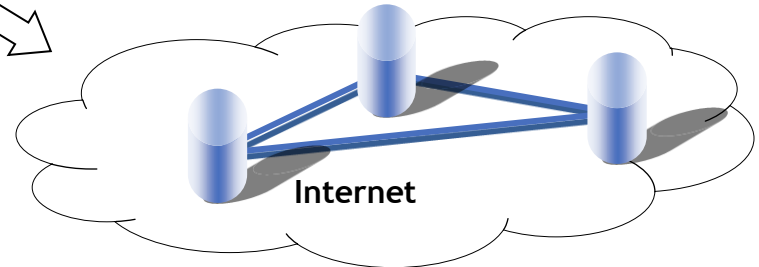
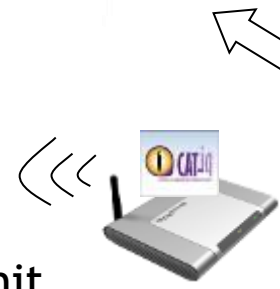
- Do you plan to offer SUOTA as a feature/service
- Do you plan to offer SUOTA for providing bugfixes for the handset SW?
- Do you plan to offer SUOTA for providing feature enhancements for the handset SW?
- Do you plan to offer SUOTA for your provider specific handsets or to all SUOTA capable CAT-iq handsets?
- In which amount of time should the SUOTA process be finished?
- Do you see the need for being able to have an active voice call at the handset being updated during the SUOTA process?
- The SUOTA feature is based on the download of a new SW image via HTTP. Do you plan to use the HTTP download feature also for other applications than SUOTA (e.g. ringtone/wallpaper download)?



IP Connectivity to Utilities



Smart Meters



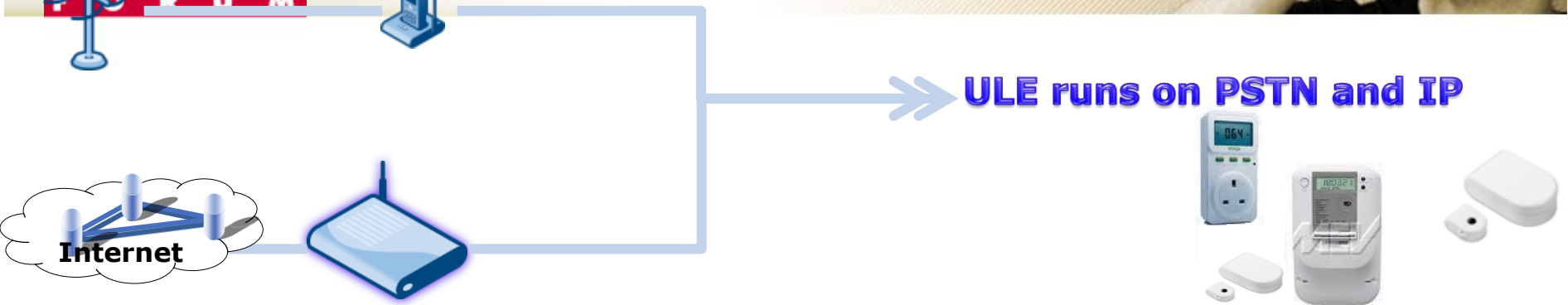
Home Control Unit

CAT-iq GW

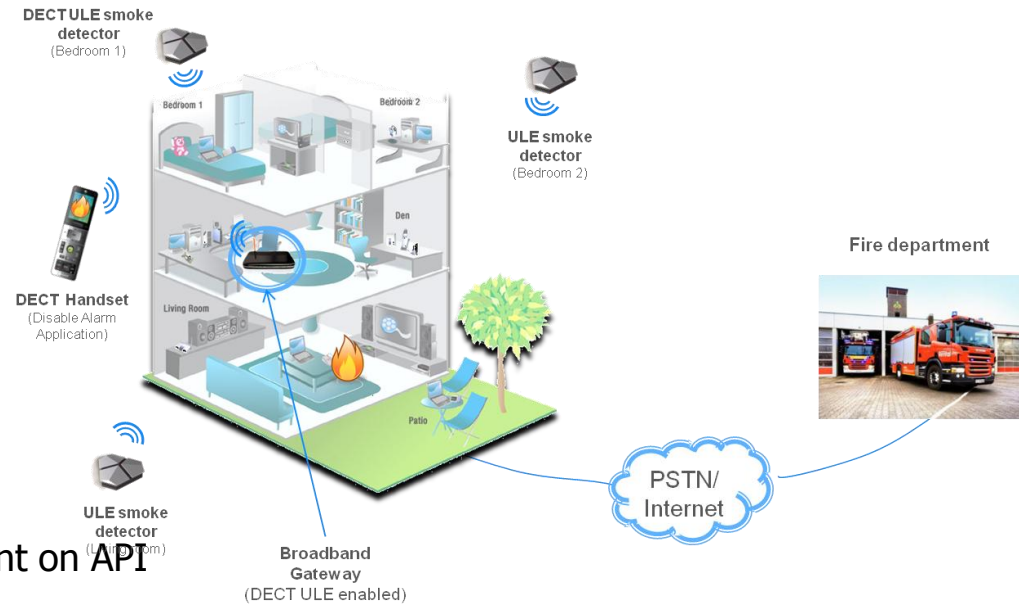
At the heart of the connected home



CAT-iq 4.0 "Intelligent Networking"



- Smart Home is a huge topic and DECT ULE will need to focus to be successful:
 - What are the key use-cases in DECT ULE that will be captured in CAT-iq 4.0?
 - Home Control
 - Smart plug, Lighting Control, HVAC Control
 - Handheld remote control devices
 - Weather reporting station
 - Doorbell push button / phone
 - In home Displays
 - Home Security:
 - Door Access Control
 - Fire Alarm
 - Burglar Alarm
 - Smoke Detector
 - Motion detector
 - Health, Voice Based applications
 - ULE API: DECT Industry needs fast alignment on API
 - Android @Home?
 - SEP ?
 - Others?



Clear Messaging: CAT-iq and ULE – Intelligent Marriage



- DECT is evolving in different ways
 - Regional Coverage: USA, Japan, India
 - CAT-iq enables carriers to offer Voice and Data services with DECT Products
 - Security Upgrade: Secure DECT
 - ULE: Exploiting the (low) Power of DECT
- Challenge: Marrying these branches and communicating this clearly
 - CAT-iq integrates mainstream DECT profiles into the Home Gateway
 - CAT-iq 2.0 : Voice/Carrier/GW release
 - CAT-iq 2.1 : Adding Secure DECT, SMS, Green Modes
 - CAT-iq 3.0 : Data Profile: SUOTA, Light Data Services
 - CAT-iq 4.0 : Adding ULE and intelligently connecting these devices within the home Network (preparing the GW)
- Key Message:
 - CAT-iq and ULE coexist TODAY!
 - CAT-iq 4.0 will integrate the completed ULE protocols
 - Until then all ULE clients can also work on a CAT-iq base



Summary

- CAT-iq is happening..still a long way to go!
 - Eu carriers are adopting.
 - US carriers very strong push on CAT-iq
 - Audio Test Spec being adapted to improve our products
- Certification is good: IOP is better
- Working Group: Needs workers
 - CAT-iq
 - ULE
 - Marketing
 - Security
- Feedback / Input is Key:
 - HGI
 - ETSI
 - DF members
 - Other Carriers
- Execution!!

