



# CAT-iq 2.1 Certification Window Open

Global Technology for Broadband Home  
Connectivity

DECT Forum: Marketing Working Group

2019



# Agenda

- What is CAT-iq ? The evolution of voice
- CAT-iq Value Proposition
- CAT-iq Profile Overview
- CAT-iq Certification Program Goals
- Certification:
  - Scope of CAT-iq 2.1, Usability improvements
  - Requirements and certification flow chart
  - Test and test window
- Certification: License structure
- HD Voice Logo License
- CAT-iq Deployment



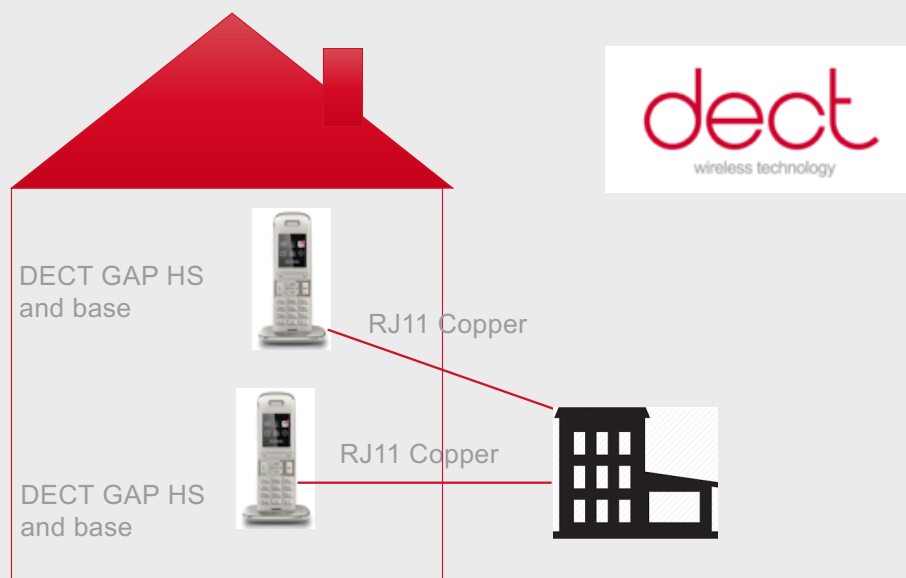
# What is CAT-iq?

## Evolution of DECT Telephony

### Before 2010

#### DECT GAP

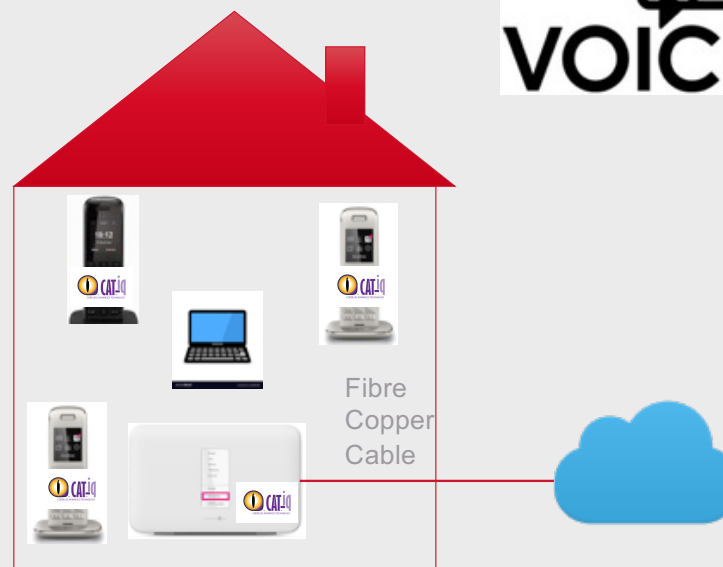
- Narrowband RJ11
- Single Connection (Usually)
- GAP compatible
- No Interop between Manufacturers



### After 2010

#### CAT-iq : VoIP for DECT (SIP functionality)

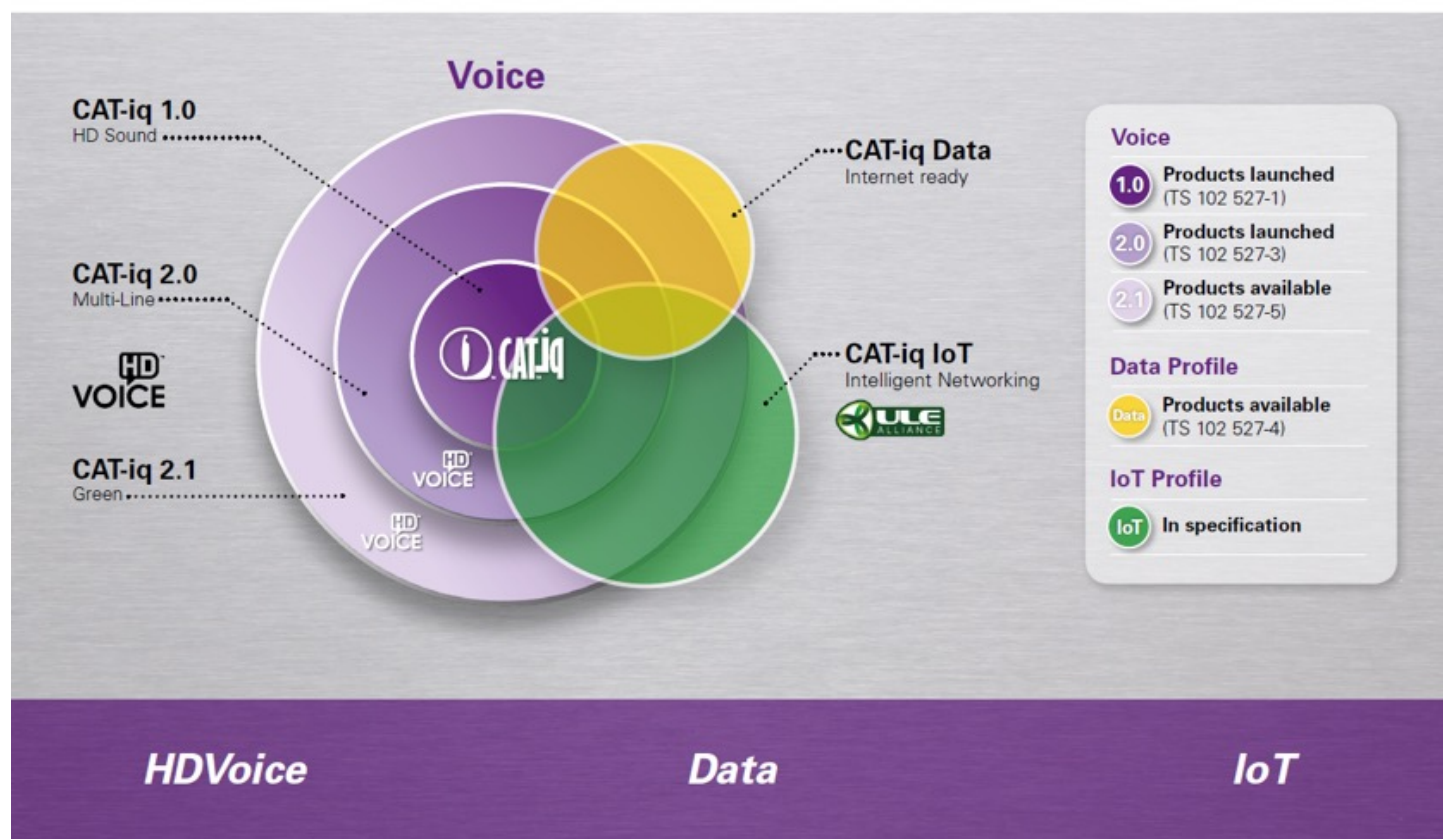
- Broadband via Home Gateway
- HD Voice with wideband G.722 Codec
- Multiple Lines Connection
- GAP compatible
- Interop between different Manufacturers



- CAT-iq enables Voice over IP via DECT
  - The DECT radio has now migrated into the broadband Home Gateway
- CAT-iq offers HD Voice using the G.722 Codec
  - CAT-iq also offers the complete SIP feature set including Multiple Lines, Call Forwarding, Event Notification
- Certification programs for CAT-iq testing RF, Protocol Audio and Application Level Interoperability
- Enables a multivendor approach for carriers, creating a quality standard
  - Already in 100 Millions of European Home Gateways
- Easy Upgrade to smart home,
  - ULE devices use same radio
  - No extra infrastructure
  - Eco System exists



## Profile Overview





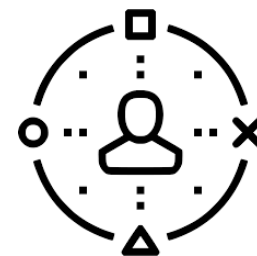
# CAT-iq Certification Goals

- Creation of real value for members and industry alike
- Ensure common user experience with proof of conformity to a mandatory quality level for Audio, RF and Protocol (CAT-iq Standards)
- Retail promotion: A guaranteed level of application layer interoperability
- Promotion and Branding for the CAT-iq technology to all market stakeholders (end users, carriers, retailers)



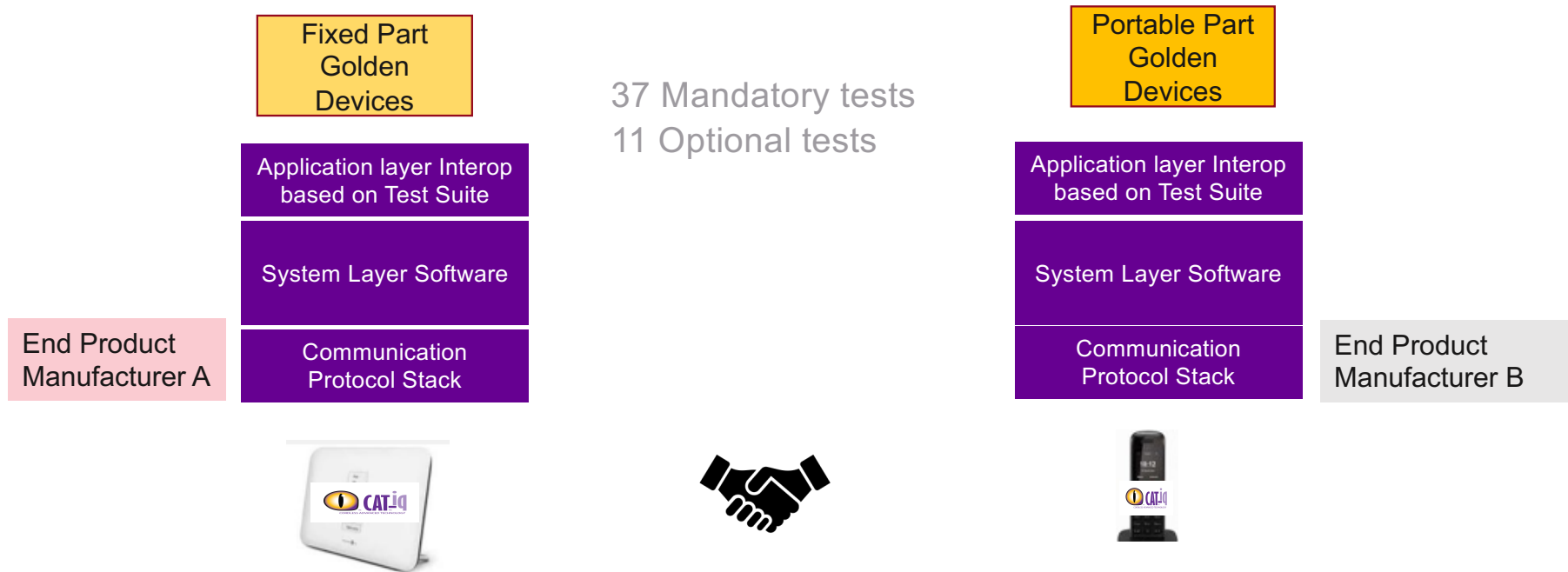
# Scope of CAT-iq 2.1 certification

- Protocol - HD Voice:
  - Extends the operator feature set for HD Voice services
  - New features like 3-Party Conference Call, Call transfer, Power Saving, Call Intrusion,
- RF/ Audio: RF and Audio testing remains the same as in CAT-q 2.0
- CAT-iq Application Guideline/ Test Suite
  - Adding application tests that serve to improve user experience across different manufacturers
  - Includes a test bench in the certification program to test interoperability on a given set of functions



# Usability Improvements

## CAT-iq Application Test Bench



- Test Bench built according to CAT-iq Application Guideline
- Certifying PPs will perform all tests against FP golden devices
- Certifying FPs will perform all tests against PP golden devices
- All mandatory tests must be passed – Report sent to qualification lab
- Golden Device: CAT-iq mode containing all features necessary for certification





# Pre-conditions for Certification

CAT-iq is a registered trademark owned by the DECT Forum, referencing features and procedures

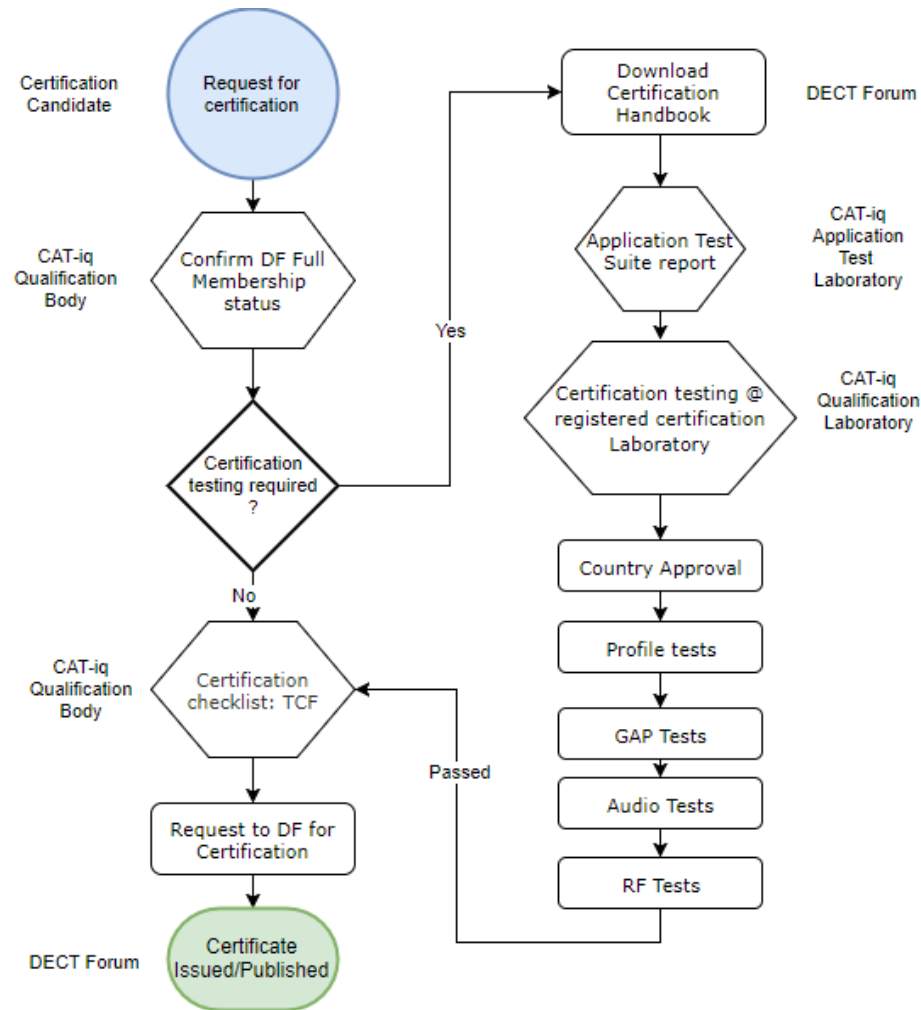


Note\*: Presenting company must be a Full Member of DECT Forum:

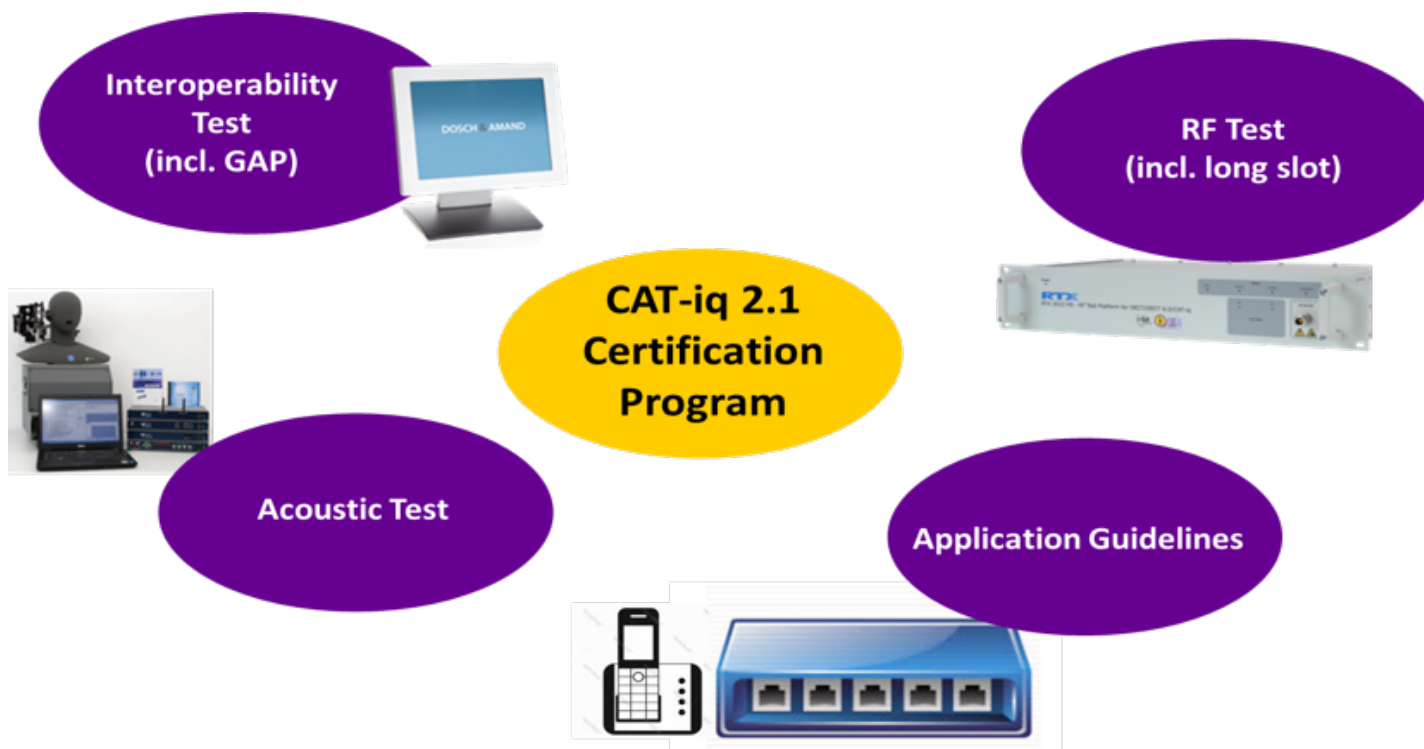
\* Associate members sub contracting for a full member may also apply

A semiconductor chip-set supplier , design house or an operator member cannot be claimed as the FULL member.

# Steps to CAT-iq 2.1 certification



# CAT-iq 2.1 Certification Test Equipment



CAT-iq 2.1 Protocol Tester EU/US Hardware: DA1220(EN/US)	CAT-iq 2.0 RF Tester Hardware: RTX2012 HS	CAT-iq 2.0 Audio Test System Hardware: ACQUA Compact CAT-iq 2.0 Test System
Identno. 1220.2200.20	Firmware: V.9.58 or newer	Code 6860.17
Release V1.8	Software V3.1.0 or newer	
Manufacturer: Dosch&Amand (Germany) <a href="http://www.dosch-amand.com">www.dosch-amand.com</a>	Manufacturer: RTX Denmark <a href="http://www.rtx.dk">www.rtx.dk</a>	Manufacturer: Head Acoustics (Germany) <a href="http://www.head-acoustics.de">www.head-acoustics.de</a>



# Certification Window

- Opening of CAT-iq 2.1 Certification Window: End June 2019
  - Protocol, RF and Audio
  - Application test bench
- Test Duration (non binding estimate)
  - Protocol, Audio, RF: 1-week test
  - Application Test: PP: 2 days, FP: 3 Days (Please adhere to PIXIT questionnaire)
- Certification Bodies
  - CTC Advanced:
  - Nemko
- Certification Labs:
  - CTC Advanced and Nemko for RF, Audio and Protocol
  - Arendi for CAT-iq Application Guideline and Test Suite





# Certification License Structure

- License Fee is payable to the DECT Forum prior to issuing the certificate.
- DECT Forum will use the fees generated from to contribute to the protection of the CAT-iq trademark.
- **Note that this license fee is independent of any certification fee payable to the test house.**
- **Original license**
  - 3,000 CHF Per set
  - 2,000 CHF Per device, e.g. base or handset
  - Full tests to be run, covering RF, Acoustic & Profile
- **Product variant license**
  - Original ODM/OEM Product has been certified already.
  - Product is sold in SAME housing and SAME PCB/Components under a DIFFERENT product name.
  - Colour variations are defined as same housing.
  - No software changes other than in MMI/GUI allowed (icons or text)
  - 1,000 CHF per variant
- **In-line upgrade license**
  - Original ODM/OEM Product has been certified already.
  - Product is in market deployed
  - Firmware upgrade roll-out
  - 1,000 CHF re-testing per single device



# Certification License Structure (cont'd)

- **Re-testing license**

- Original ODM/OEM Product has been certified already.
- Product is sold in
  - DIFFERENT housing or
  - DIFFERENT PCB (Size or components)
  - DIFFERENT software.
- Only the parts of the system which are affected by the effective change require re-testing e.g. change in housing (and no software changes other than MMI/GUI) only the acoustic test has to be re-tested
- 1,500 CHF re-testing per set
- 1,000 CHF re-testing per single device

- **Logo usage license**

- Original ODM/OEM Product has been certified already.
- Product is sold in SAME housing and SAME PCB/Components under a DIFFERENT product name.
- Colour variations are defined as same housing.
- No software changes other than in MMI/GUI allowed (icons or text)
- No additional fee

- Note that in the case where a Full member of the DECT Forum submits a product for certification on behalf of a brand/manufacture or operator who is an Associate or Full member, then said brand/manufacture or operator can select to be shown on the public product certification listing



# HD Voice Logo License

- HD voice is a logo, licensed by GSMA, with the intention of supporting one HD Voice logo, that can become a universally recognised symbol which easily identifies HD Voice enabled services and devices, across both mobile and fixed networks.
- The DECT Forum has entered into a cooperation agreement with the GSM Association (GSMA), where CAT-iq 2.0 certified devices will be able to benefit from the use of the GSMA HD Voice logo.
- The GSMA license program, through its technical annex, will refer to CAT-iq 2.0 specifications as minimum requirements for fixed HD devices
- FULL DECT Forum members, who have CAT-iq 2.0 certified products can apply to the GSMA for use of the logo via the license agreement. There is no additional fee applied. Relevant documents can be found [here](#)
  - The Minimum Requirements document
  - The Licence Agreement
  - The HD Voice Logo Usage Guidelines and FAQ





# Trademark

## Broadband Technology for New Services and Devices



**CAT-iq IS A REGISTERED TRADEMARK IN 47 COUNTRIES  
WORLDWIDE**

**European Union: 25 countries**

Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden

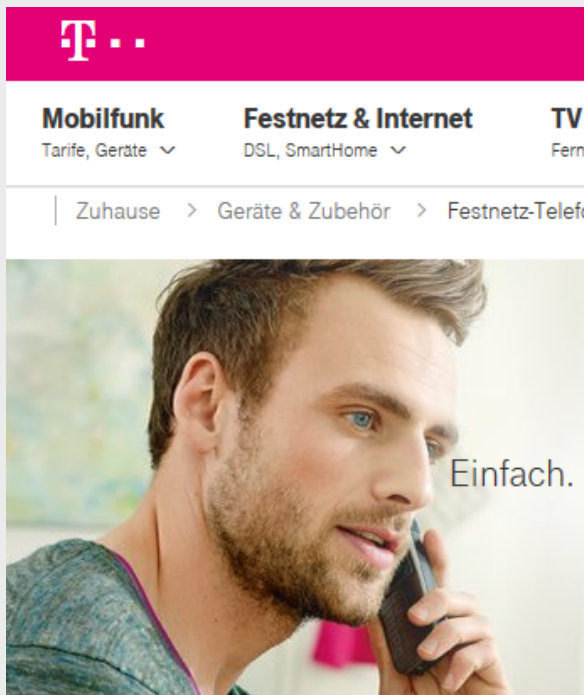
**Additional Applications: 22 countries**

Australia, Belarus, Bosnia-Herzegovina, Bulgaria, Canada, China, Japan, Croatia, Liechtenstein, Macedonia, Monaco, Montenegro, Norway, Romania, Russia, Serbia, Switzerland, Singapore, South-Korea, Turkey, Ukraine, USA





# CAT-iq Market Deployment



## CAT-iq Certified products

### CAT-iq 2.0 Products

	Company	Product	Product Identification	Date of status achievement
	Gigaset	A690HX	01-19-06-100090	14-jun-2019
	Gigaset	AS690HX	01-19-06-100091	14-jun-2019
	Gigaset	E290HX	01-19-04-100089	06-apr-2019
	vtech	Speedphone 32	01-19-01-100088	29-jan-2019
	vtech	Speedphone 12	01-19-06-100087	30-oct-2018
	SAGEMCOM	Speedport Pro	01-19-06-100086	27-jun-2018
	Gigaset	Maxwell C	01-18-04-100085	20-apr-2018
	arcadyan	Speedport W 925V	01-18-01-100082	10-jan-2018
	Panasonic	KX-TGQ500	01-17-12-100080	15-dec-2017
	swisscom	Internet-Box light	01-17-12-100081	15-dec-2017

# Certification Contacts

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**Please download the presentation from  
the DECT Forum website:**

**<https://www.dect.org/downloads.aspx>**