Cut the Gordian Knot – The QIVICON Eco System for the Smart Home.

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Smart Home supported customer scenarios.

+ Energie savings
+ Security
+ Comfort
+ Multimedia integration
+ Healthcare, e.g. Ambient Assisted Living (AAL)
Smart Home Market in Germany. A mass market is starting.

Source: Strategy Analytics (2012): "Total Annual Smart Home Revenue – Western Europe", DT Assumptions
Why now joining the Smart Home market?

- High broadband penetration
- Increasing usage of smartphones/tablets
- Decreasing prices for components
- Increased awareness through energy debate (especially in Germany)
- Pull effects slowly building through trials and first mass-market offers
- Increasing willingness of partners to join an open, standardized platform
Significant Industry Interest.

Energy utilities

Electric installat‘n manufacturers

Heating, AC & Ventilation

Consumer electronics

Household appliances

Health, Assisted living

Photovoltaics

Security, Home monitoring

Key Drivers:

Differentiation, Customer Retention, Growth
Remote Management/Diagnostics
Customer Insights, Customer Demand
Current Market Situation.

- Offers are difficult to understand for customers
- Proprietary systems with limited choice for
  - Hardware (sensors, actuators)
  - Applications
- Limited Usability Experience (too complex)
- Either DIY solutions of (expensive) premium offers

Need for a standardized platform for the mass market
What is needed to open the Smart Home Market?

- Devices from multiple manufacturers
- Extensible protocols (wireless, wired, IP based)
- Easy-to-use setup & configuration
- Applications from multiple providers, incl. free developers
- Easy remote access to devices, services, applications
- Standardized APIs for the Smart Home

An Open Eco System for the Smart Home
Our Vision for 2020.

> 50% of households will be smart in 2020

QIVICON as the leading platform
The Open Eco System based on the QIVICON Platform.

QIVICON – the base for the smart home

End-customer relationship

Partner Ecosystem

Service-, Devices- and Developmentpartners

QIVICON - Platform

QIVICON Backend

QIVICON Configuration & Basic Client

QIVICON Portal incl. Shop

QIVICON Service-, Devices- and Developmentpartners

End-customer relationship

Jochen Hiller

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The QIVICON Home Base.
The QIVICON Home Base.
Hardware Specifications.

- 1-Core ARM v11, 600 MHz
- 512 MB RAM
- 2 GB Flash
- TPM Module
- 4 USB Slots
- Ethernet
- Optional 3G Stick
- Optional Battery Pack

**Wireless HA connectivity:**
- HomeMatic (built-in)
- ZigBee (USB Stick)
The QIVICON Home Base.
Software Specifications.

HGI SWEX underpinning:
- Linux OS
- Java VM (CVM, JavaSE7 planned)
- OSGi 4 Runtime (ProSyst)
- ProSyst mBS
- QIVICON APIs

Remote Access:
- OAuth2 Authentication
- Synchronous: JSON-RPC
- Server Push: WebSockets
The QIVICON Home Base.
The software stack is based on OSGi.

- Facilitates OSGi standards
- OSGi Security Model will be applied
- Deep integration with JavaVM (CVM, JavaSE under investigation) to ensure platform stability (Resource Management)
- OSGi Service Model heavily used internally (EventAdmin, DMTAdmin, ...)
- QIVICON applications (set of OSGi bundles) will be certified and signed by platform provider (Deutsche Telekom)
- Transparent Connectivity with OSGi based backend
- Remote Management & Provisioning via backend
- Extensible APIs / Services for 3rdParty applications
Benefits for the end-customers. The best available solution for individual needs.

+ Rich choice of attractive and innovative solutions
+ Strong brands by the partners
+ Sensors and actuators of different manufacturers – everything compatible
+ Excellent price/performance ratio
+ Connected by radio – no wires, no disruptive opening of walls, mobile when moving
+ Future proof, modular expandable and sustainable
Benefits for the partners.

- Open, standardized and flexible technical solution
- Not limited to DT access customers
- Lower costs due to economies of scale
- DT as competent and reliable partner, driving international standards

- Opportunity to shape the market together with other strong partners
- Differentiation through own customer solutions, sales and installation channels
- Option to sell applicable partner offerings via DT-sales channels
Overview of QIVICON partners.

constantly growing
... and many challenges to realize the vision.

- Sensors and Actuators immature and/or expensive
- In-house connectivity really challenging
  - Wired base: needs electricians (KNX, DigitalStrom), only for new building applicable
  - Wireless: reliability, reach, interference, latency times, security, battery life time of sensors
- Standardization of
  - wireless standards
  - Device abstractions
  - Need to engage in international and national initiatives
- Security / Privacy
Roadmap.

- **Internal Testphase** (since March 2012)
- **QIVICON internal Testphase** (since July 2012)
- **External Testphase** (planned Q4 2012)
- **Commercial Launch** (Q2 2013)
Thank you for your attention.

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