Deutsche Telekom Initiates Open Smart Home Ecosystem with OSGi

Rising energy costs are driving demand for building automation solutions that increase energy efficiencies and reduce energy costs. These "smart homes" capture and communicate energy information so consumers can monitor and control their energy use. Energy efficiencies are the gateway benefit of smart homes, creating opportunities for consumers to enjoy smart home applications in security, convenience, and health services, as well as information and entertainment.

In Germany, smart home revenues are expected to reach 4.2 billion euros by 2016 and jump 64 percent by 2020, according to Strategy Analytics (2012). The smart home market is primed with high broadband penetration, increasing use of smartphones, and greater awareness of energy issues. However, fragmented smart home services, applications and devices are too complex or expensive for most consumers, slowing mass-market adoption.

User applications

- Energy efficiencies and cost savings
- Security
- Comfort
- Healthcare/remote assisted living

End user benefits

- Broad range of attractive, innovative, low-cost products
- Strong brands
- Actuators and sensors of various manufacturers, all compatible
- Everything works wirelessly — no laying wires nor construction work necessary, the system can be relocated
- Future-proof and modular
- Secure. Personal data is multiple-encrypted and stored on servers located with Germany

Standardized Smart Home Platform

QIVICON is an alliance of leading German industrial companies initiated by Deutsche Telekom AG to promote the field of smart home technology and provide solutions for customers on a multi-manufacturer basis. Together with its partners EnBW, eQ-3, Miele and Samsung, Deutsche Telekom is developing a platform that covers areas such as energy efficiency, security and convenience in the home for people of every age group. Moreover, a growing number of additional partner companies are using the QIVICON platform to offer their smart home products.


Our Vision for 2020.

> 50% of households will be smart in 2020

QIVICON as the leading platform
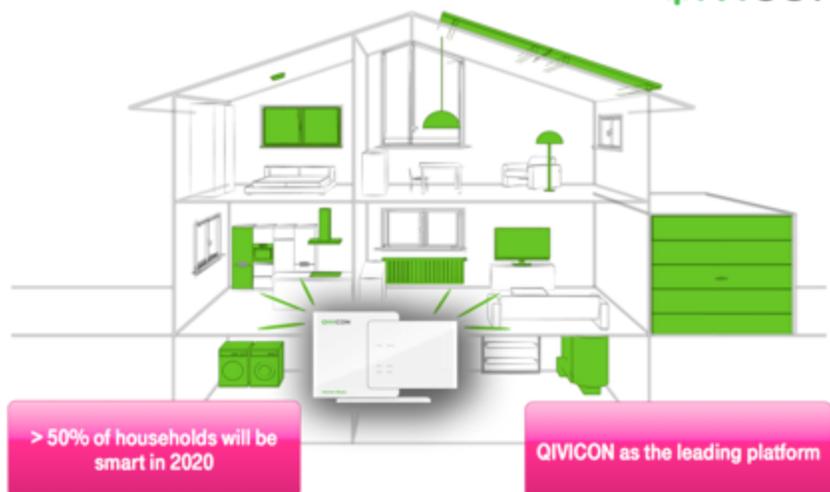
Open ecosystems offer end consumers more choices and usually reduce costs for purchase and for development. QIVICON opens the smart home market to provide:

- Devices from multiple manufacturers
- Extensible protocols
- Easy-to-use setup and configuration
- Apps from multiple providers
- Easy remote access to devices, services, apps via smart phone, tablet and PC
- Standardized APIs for the smart home

QIVICON – the basis for the connected home

Deutsche Telekom's QIVICON Home Base provides the base for the smart home, acting as the central communication hub and service gateway for home automation. QIVICON Home Base is based on OSGi and it provides a toolkit for ecosystem partners to develop applications as OSGi bundles and deploy them to the QIVICON Home Base. The OSGi platform and tools are ProSyst products. The OSGi bundles directly interact with sensors and actuators in the home. A device abstraction layer and flexible query and filter mechanism allow QIVICON to cross system borders between different protocols and devices easily.
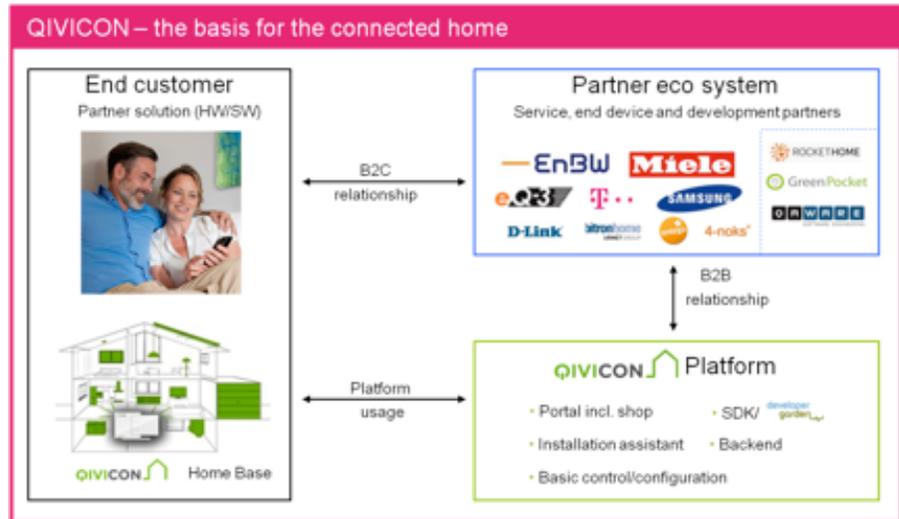
QIVICON and OSGi

By leveraging OSGi, QIVICON removes mass adoption hurdles. OSGi has a dynamic and component-oriented architecture that integrates different communication protocols, applications and devices, supporting the open ecosystem concept. OSGi allows for ongoing remote maintenance and aftermarket sales, bolstering customer satisfaction and retention, while enabling solution providers and developers across diverse industries to grow their businesses and accommodate new customer demands efficiently.

Technology Solution

QIVICON drives mass adoption of smart home solutions with a partner network that creates choice and competition for end consumers and providers alike, and leverages OSGi standards to ease the development, deployment and remote management of smart home applications. It enables solution providers and operators to manage, update and diagnose problems remotely in smart home deployments, maintain customer satisfaction and improve customer retention.

QIVICON Home Base:

- Facilitates OSGi standards
- Applies OSGi Security Model
- Deep integration with JavaVM to ensure platform stability (Resource Management)
- Uses OSGi Service Model internally (EventAdmin, DMTAdmin, ...)
- QIVICON applications, which are sets of OSGi bundles, will be tested by Deutsche Telekom
- Transparent Connectivity with OSGi-based backend
- Remote Management and Provisioning via backend
- Extensible APIs / Services for third-party applications