
CONCEPT OF THE OPEN GATEWAY ENERGY MANAGEMENT ALLIANCE

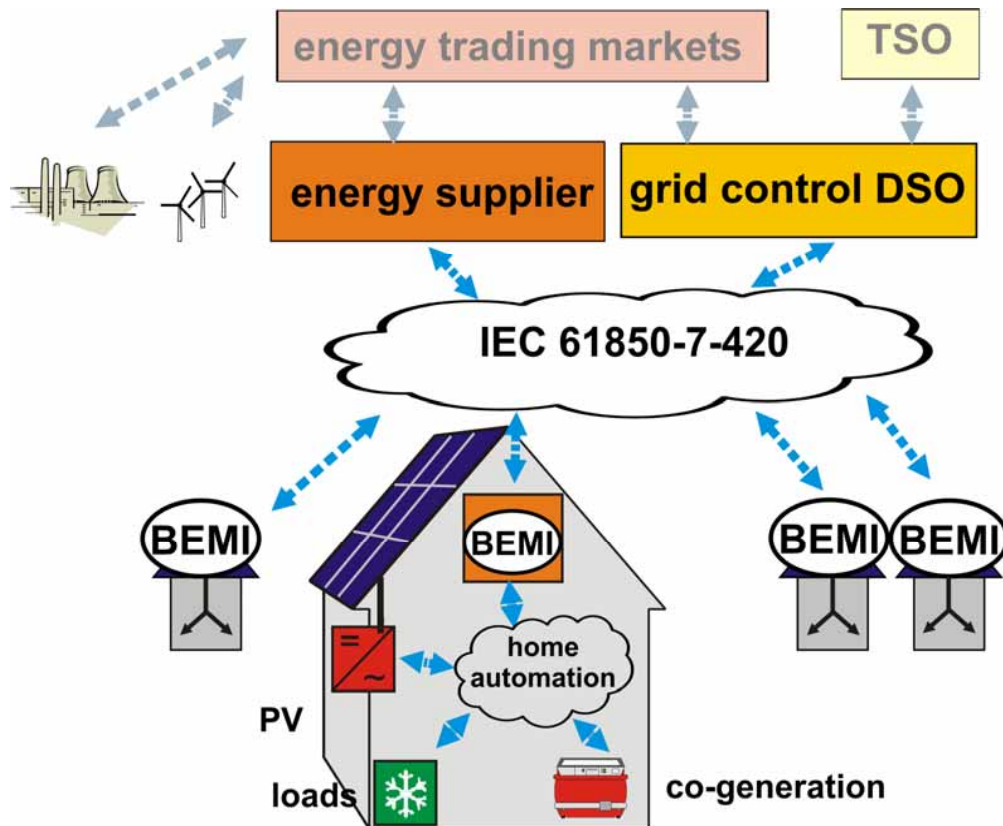
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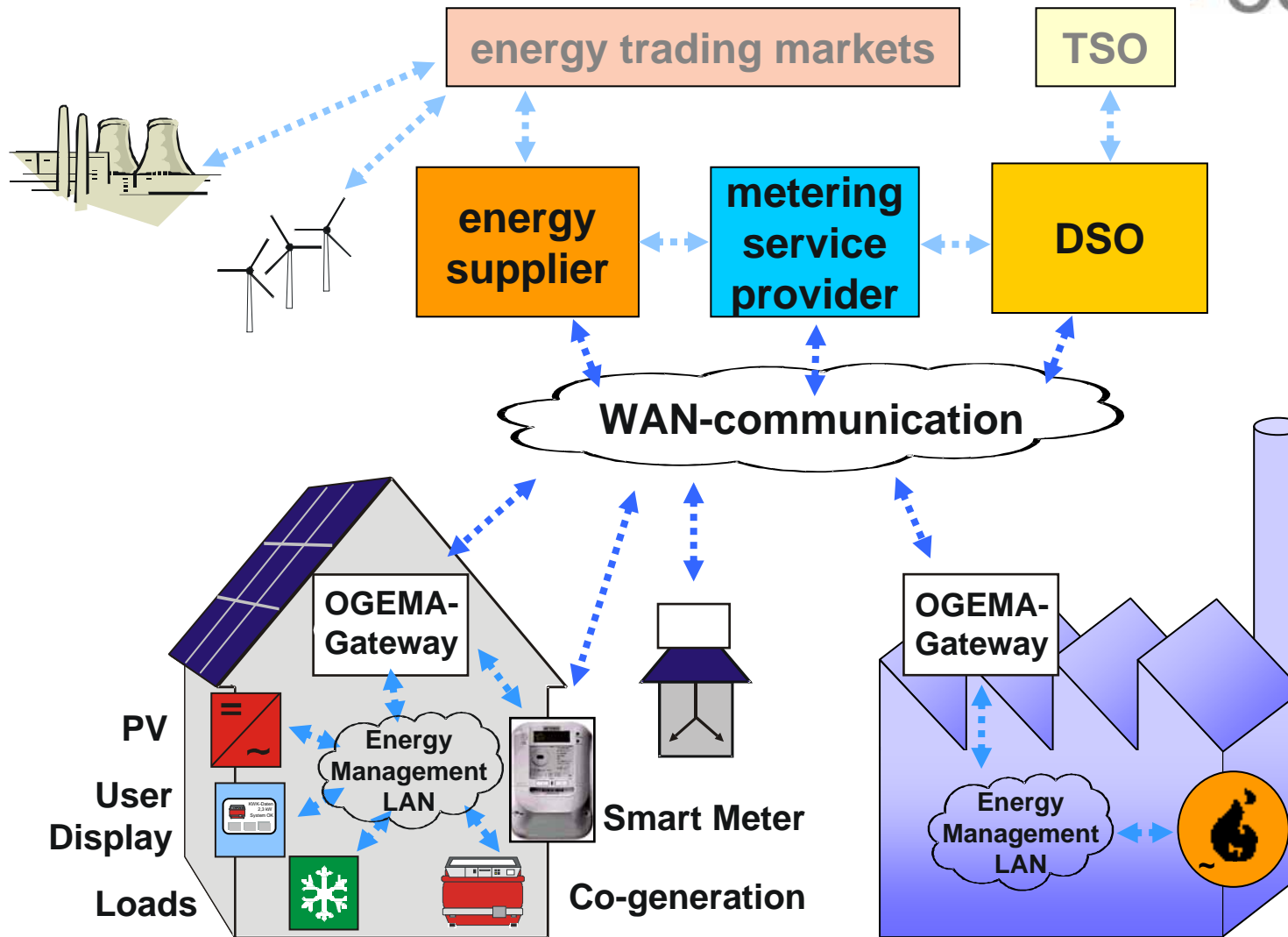


Bidirectional Energy Management Interface - BEMI



- Central information: variable tariffs
 - Automated switching and measurement of devices
 - User interaction
→ User interface
 - Energy management computing platform
 - Open standards for communication
- Can be used for many more applications !

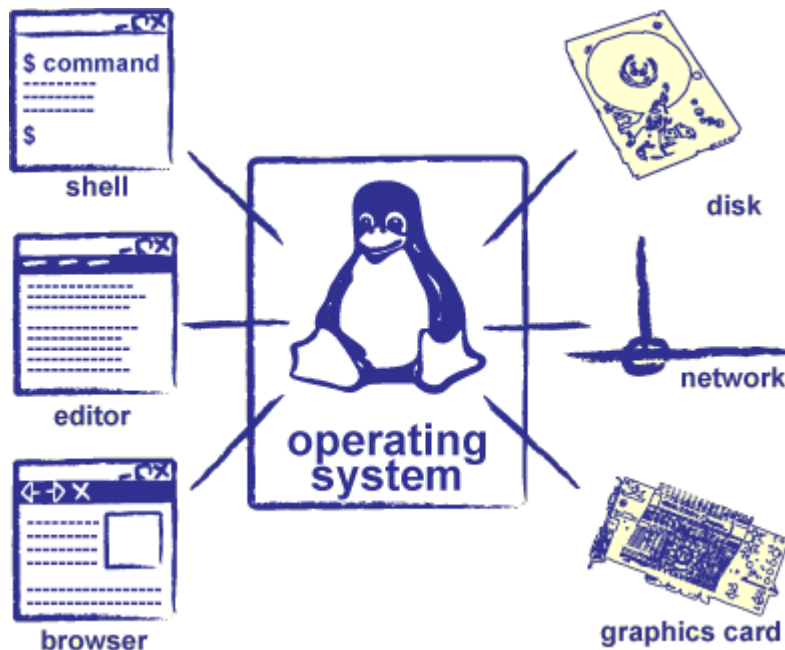
Extended Gateway Specification – Open Gateway Energy Management Alliance (OGEMA)



OGEMA “Operating System for energy management”

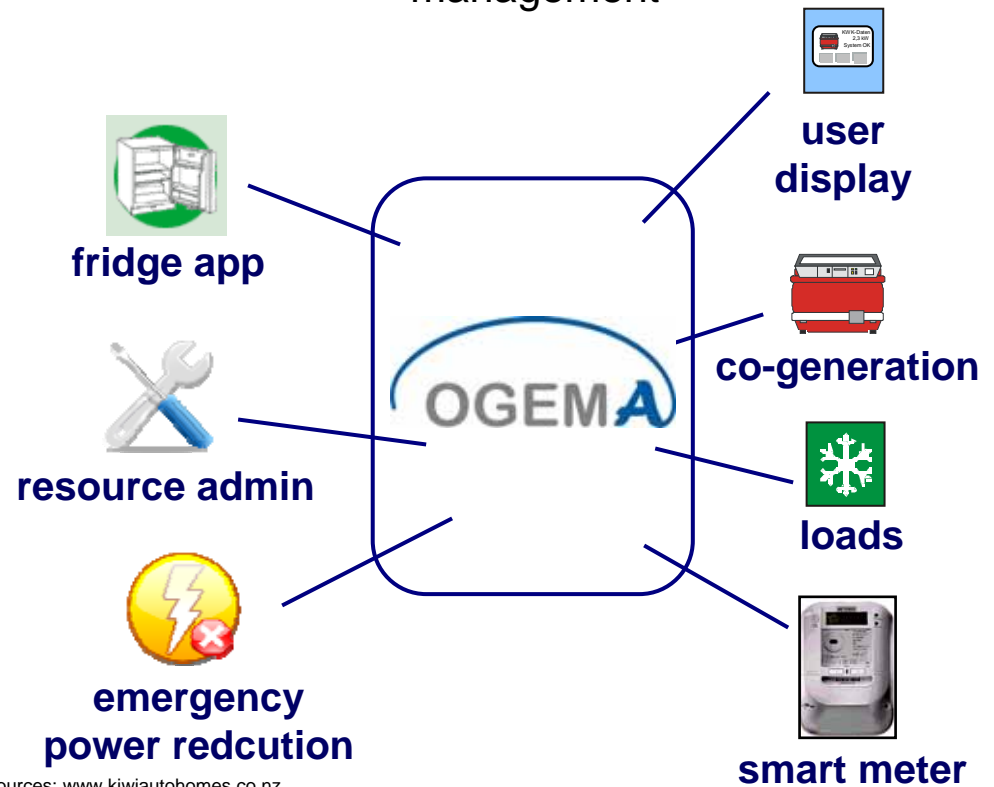


Open source operating system (e.g. Linux)



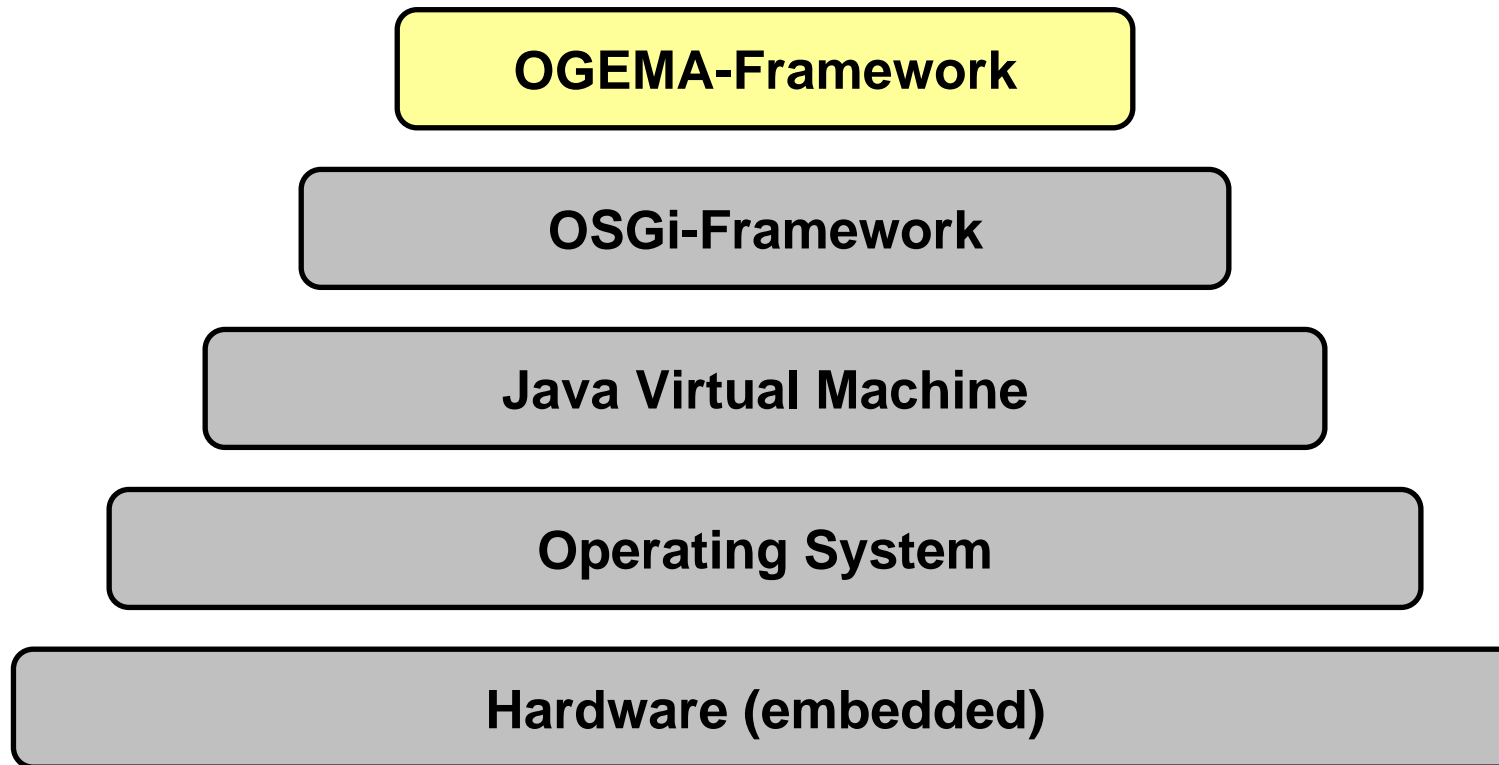
Source: <http://software-carpentry.org/shell01.html>

OGEMA for energy management

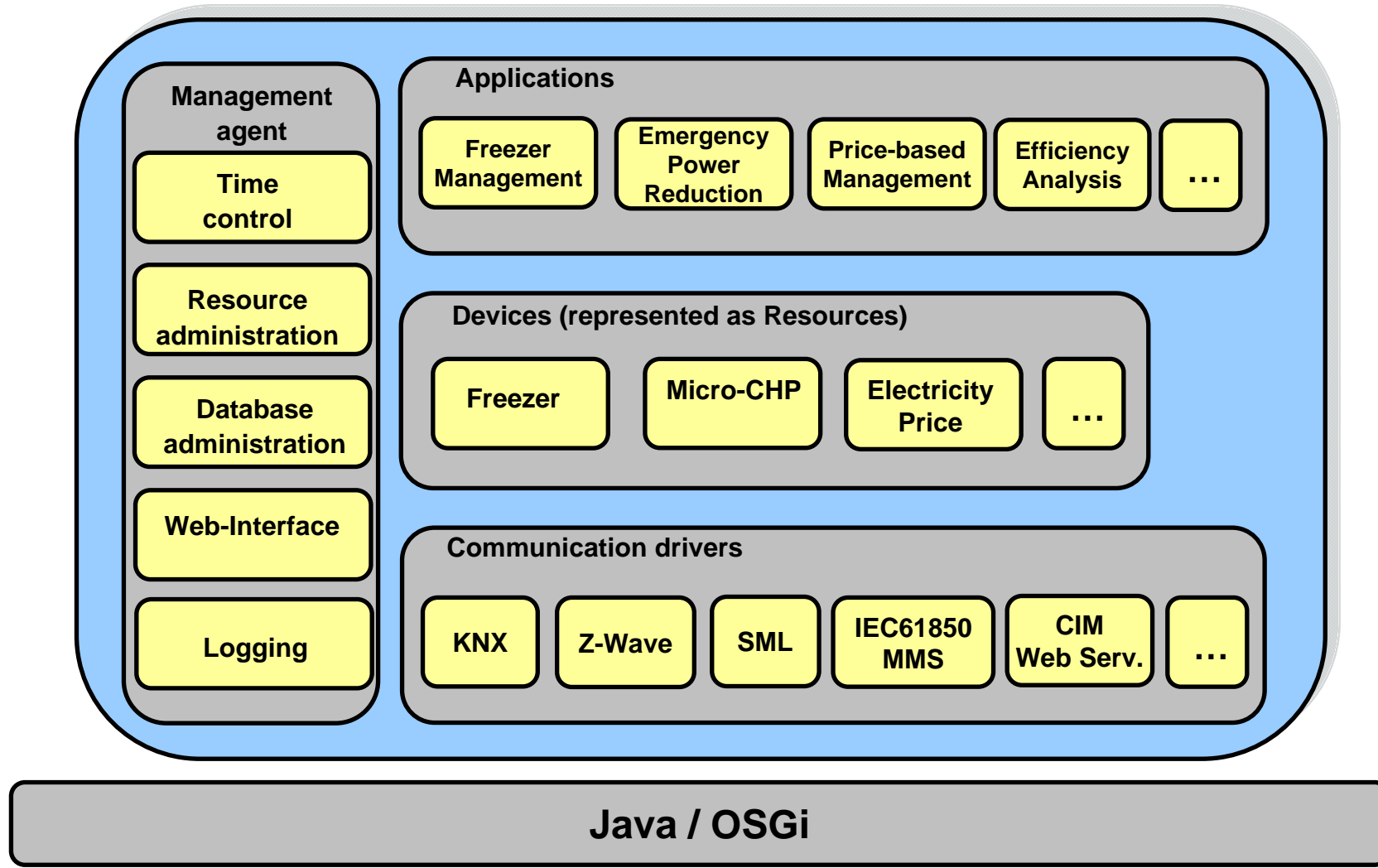


Sources: www.kiwiautohomes.co.nz,
http://commons.wikimedia.org/wiki/Crystal_Clear

Open Gateway Architecture



OGEMA Framework



Summary OGEMA Architecture



- Open Interface for Hardware/Communication Drivers
enabling Auto-detection of new devices by driver
- Framework providing services for access to device / smart grid data based on standardized data models → Application development independently from communication access
→ Plug&Play connection of applications to suitable devices available
- “Firewall” between public grid and customer grid: access control, data privacy
- API optimized for simple and quick development of applications in the area of energy management and energy efficiency
- Applications bring their own web page(s)

OGEMA products and services



- Framework Specification (Public)
- Reference Implementation of management agent (Open Source)
- Reference Applications (Open Source)
- Reference communication driver (Open Source)
- OGEMA Quick-Start-Guide (Public)
- Applications (offered by suppliers)
- Communication Systems (offered by suppliers)
- OGEMA Contact Point
- OGEMA Website

Members: products and services



OGEMA Gateway enables products and services in the following areas:

- Enterprise Integration
- Remote Management
- Hardware platforms and deployment of OSGi-framework
- Smart Metering
- New Energy Products
- ...

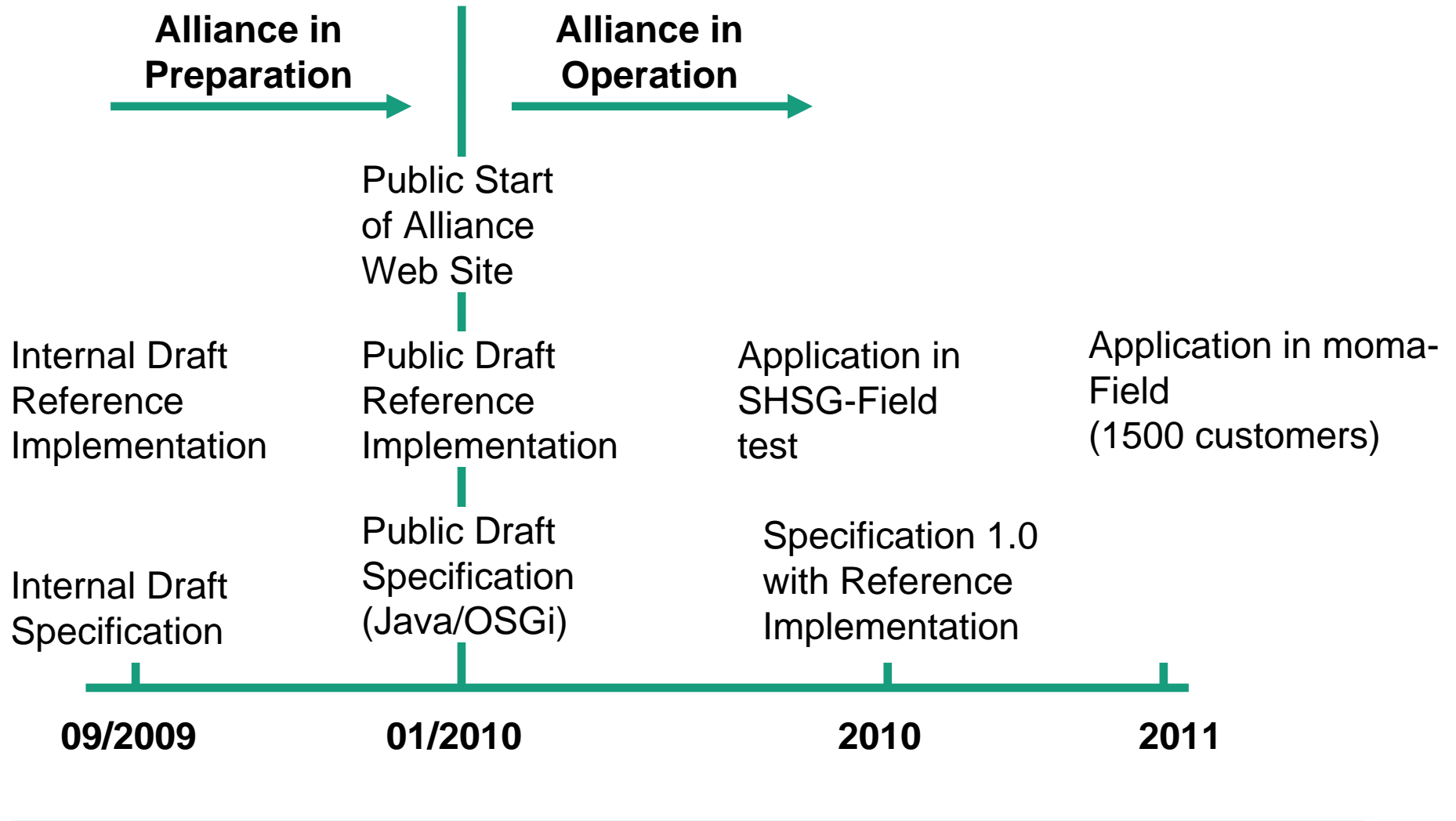
Partners of the Alliance can offer own products without disclosing core technology or source code

Target audience



- Users/operators of standard conformant systems (end customer or energy supplier providing a system including configuration to the end customer)
- Manufacturers and retailers of conformant systems
- Members of the Alliance (“Participants”)

OGEMA Timeline



OGEMA First Draft Reference Implementation



Advanced end customer / service personnel



Simple Fridge Management Application

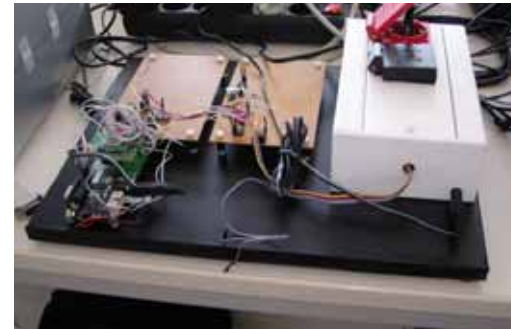


Application Administration



OGEMA Gateway

Z-Wave Communication Driver



Fridge with Z-Wave communication



User Display

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