The OSGi Alliance – Status, Solutions and You
Agenda

• OSGi Alliance – Its Members and Its Work
• What Does OSGi Technology Deliver
• Delivering Value Now
• Where We Go From Here
• How You Can Contribute
The OSGi Alliance is an independent non-profit cross-industrial corporation that provides for the fair and uniform creation and distribution of relevant intellectual property – including specifications, reference implementations, and test suites – to all its Members.
The OSGi Alliance Members

- **Members:**
  4DHomeNet, Alpine Electronics, AMI-C, Aplix, Atinav, Belgacom, BMW, Cablevision, Deutsche Telekom, Echelon, Electricite de France (EDF), Esmertec, Espial Group, ETRI, France Telecom, Fraunhofer Institute, Gatespace Telematics, Gemplus, IBM, Insignia Solutions, Institute for Infocomm Research, KDDI, Mitsubishi Electric, Motorola, NEC, Nokia, NTT, Oracle, Panasonic, Philips, ProSyst Software, Robert Bosch, Samsung, Sharp, Siemens, Sun Microsystems, Telcordia Technologies, Telefonica, TeliaSonera, Texas Instruments, Toshiba
### Member Geographical Distribution

<table>
<thead>
<tr>
<th>Region</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia / Pacific</td>
<td>11 (26.8%)</td>
</tr>
<tr>
<td>Europe / Middle East / Africa</td>
<td>18 (43.9%)</td>
</tr>
<tr>
<td>North / South America</td>
<td>12 (29.3%)</td>
</tr>
<tr>
<td><strong>Total Member Companies</strong></td>
<td>41</td>
</tr>
</tbody>
</table>

- 43.9% of members are from Europe / Middle East / Africa.
- 29.3% of members are from North / South America.
- 26.8% of members are from Asia / Pacific.
### Organizational Requirements & OSGi Capabilities

<table>
<thead>
<tr>
<th>Organizational Requirements:</th>
<th>OSGi Alliance Capabilities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair, open, and democratic governance.</td>
<td>Ideal match.</td>
</tr>
<tr>
<td>Uniform licensing terms with a single party.</td>
<td>Ideal match.</td>
</tr>
<tr>
<td>Credibility in key markets</td>
<td>Strong reputation in Automotive Telematics, &amp; Home Networking</td>
</tr>
<tr>
<td>Single, unified platform approach</td>
<td>Ideal match</td>
</tr>
<tr>
<td>Membership includes key industry players from all major value chain segments</td>
<td>Need more support from Telecom Service Providers (SPs) &amp; Independent Software Vendors (ISVs)</td>
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</tbody>
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What Does OSGi Technology Deliver?

• Open Industry Framework, Service-Oriented Architecture
  - Modular Components – Bundles
  - Collaborative Model
  - Highly Dynamic
  - Software Lifecycle Management

• For Device Manufacturers & Service Providers
  - Improves time-to-market
  - Reduces manufacturing & development costs
  - Unique new aftermarket sales opportunities
What Does the Architecture Deliver?

• Business Model Neutral Architecture
  - Robust Mechanisms
  - Policy Neutral Architecture
    • Dynamically Supplied Policy
  - Examples
    • Walled Garden
    • Open Business Model – Charge per Use
Delivering Value Now

- Fortune Global 500 companies delivering OSGi technology today
  - BMW, IBM, Motorola, Philips, Siemens, Sun Microsystems, and Samsung Electronics
- 14 OSGi based Service Gateways
- 26 publicly announced OSGi member company deployments (more under embargo)
- 10 EU projects using OSGi-certified platforms
### Major Endorsers Worldwide

- Fortune Global 500 companies supporting OSGi technology today

<table>
<thead>
<tr>
<th>BMW</th>
<th>NTT</th>
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</thead>
<tbody>
<tr>
<td>Deutsche Telekom</td>
<td>Nokia</td>
</tr>
<tr>
<td>Electricité de France (EDF)</td>
<td>Philips</td>
</tr>
<tr>
<td>France Telecom</td>
<td>Samsung</td>
</tr>
<tr>
<td>IBM</td>
<td>Electronics</td>
</tr>
<tr>
<td>KDDI R&amp;D Labs</td>
<td>Sharp</td>
</tr>
<tr>
<td>Mitsubishi Electric</td>
<td>Siemens</td>
</tr>
<tr>
<td>Motorola</td>
<td>Sun Micros</td>
</tr>
<tr>
<td></td>
<td>Telefónica</td>
</tr>
<tr>
<td></td>
<td>Toshiba</td>
</tr>
</tbody>
</table>
OSGi Technology Based Solutions

- Home Solutions
  - Blekinge Tekniska Högskola
  - BSH (Bosch und Siemens Hausgeräte GmbH)
  - E2-Home
  - France Telecom, Thomson Multimedia
  - Infinis
  - Institute for Infocomm Research
  - InterComponentWare
  - Linköping Tekniska Högskola
  - P&S
  - Philips iPronto
  - Raum Computer
  - Siemens Med and Prosyst
  - Telia
OSGi Technology Based Solutions (continued)

• Service Provisioning
  – Ciaolab
  – Cisco
  – Electricité de France (EDF)
  – IBM

• Automotive Electronics
  – BMW
  – Bombardier
  – Groeneveld
  – Norwich Union
  – Pilotfish
  – Siemens
  – Volvo
  – Wind River
Serve@Home 1.0 Introduction Package

- Mobile telephone
- Tablet PC
- Outdoor Communication
- GSM
- Powerline
- BSH-Gateway and Plint (Powerline Interface)
- Indoor Communication
- WLAN
- Mobile telephone
- Tablet PC
- Outdoor Communication
- GSM
- Powerline
- BSH-Gateway and Plint (Powerline Interface)
- Indoor Communication
- WLAN
Telefónica – Hogar.es Architecture

Service Providers
- UNED University / Telefonica
- Hospital Clínico San Carlos I / Telefonica
- Telefónica

Services:
- Home Care
- E-learning
- Surveillance, Multimedia, Information ...

Service Aggregator
- Corporate systems (provision, activation, billing, failure management, etc.)

Remote Manager

Residential Consumers

Automatization Network

Entertainment Network

Data Network
EUREKA TOP-IQ – Onboard Computing Via OSGi Service Platform

Customer

OSGi Alliance

Wide Area Network

Gateway Operator

INTERNET

GSM / GPRS

Car Manufacturer (Car Portal)
InHaus Duisburg Architecture

Service-Platforms in the Internet, e.g. Telehome Platform DT

External Networks Internet

Integrated internal building networks

InHaus-1: laboratory/living conditions
InHaus-2: workshop
Siemens VDO Top Level Architecture: From the Concept to the Reality

Since Q4/2003 the new BMW 5-series and 6-series proposes a Top Level Architecture (TLA) based system worldwide including:

- **Entertainment** (CD, TV, Logic 7 amplifier)
- **Communication** (Bluetooth phone, SMS)
- **GPS Navigation** (Whole Europe on DVD)
- **Telematics** (BMW Assist, BMW Online, E-Call)
- **Car Configuration** (Head-Up Display, Car locking)
- **Climate Control**
Where We Go From Here

• Top-tier handset manufacturers and service providers are extending OSGi technology to be the platform-of-choice for mobile services and applications

<table>
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<tr>
<th>Manufacturers</th>
<th>Service Providers</th>
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<tr>
<td>Motorola</td>
<td>Belgacom</td>
</tr>
<tr>
<td>Nokia</td>
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<td>Samsung</td>
<td>NTT</td>
</tr>
<tr>
<td>Siemens</td>
<td>Telefónica</td>
</tr>
<tr>
<td>Panasonic</td>
<td>TeliaSonera</td>
</tr>
<tr>
<td></td>
<td>T-Mobile</td>
</tr>
</tbody>
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OSGi Service Platform Overview

R1
- Package Admin
- Configuration Admin
- Permission Admin
- User Admin
- Preferences
- Meta Type
- Service Tracker

R2
- Framework
- HTTP
- Log
- Device Access

R3
- UPnP
- Initial Provisioning
- Name Space
- Jini
- Start Level
- IO Connector
- Wire Admin
- XML Parser
- Measurement and State
- Position
- Execution Env

R4
- Application Tracker
- MIDP Container
- Signed Bundles
- Declarative Services
- Power Management
- Device Management
- Security Policies
- UPnP Exporter
- Diagnostic/Monitoring
- Framework Layering
- Initial Provisioning
- UPnP

2000 2001 2003 2005
How You Can Contribute

• Shape the OSGi Alliance specification
  - Work together with more than 40 companies
  - Take a lead in the standardization of a flexible integrated platform

• Take advantage of the global cross-industry Service Platform
  - Integrates today’s islands
  - Enables cross-industry business models

• Exchange information in your development community
  - OSGi Expert Groups
  - Discuss with developers and further develop ideas
  - Improve the product solutions of your organization
Benefits to You

• Benefit from the features of the platform
  - Modular architecture
  - Defined interfaces
  - Future-proof platform, connectivity, easy upgrade and extension
• Access to the source of the RI & test suite
• Certification process provides reliable products
  - Five (5) platforms are already R3 certified
  - Compliance testing is only available to OSGi Members
Thank you

www.osgi.org