Examining Gatespace / Ericsson’s Telematics Solutions

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Gatespace Acquires Ericsson e-Services Venture

PRESS RELEASE

Gatespace Secures Additional Financing and Acquires Ericsson’s e-Services Venture.

Acquisition positions Gatespace to offer carrier-grade end-to-end solutions for broadband and telematics operators.

Göteborg, Sweden – March 12, 2002 – Gatespace, a leading provider of managed services systems and solutions for broadband operators and telematics system developers, announced today that it is acquiring the e-services venture from Ericsson Business Innovation. As a part of this agreement, Ericsson transfers its e-Services activity in full, including products, personnel and customer contracts. Gatespace is also receiving additional funding from its current owners, including Ericsson, Bure Equity and Morgan Stanley. Ericsson will take payment in newly issued Gatespace stock.
Facts & Figures about Gatespace

- Founded in July 1999 as joint venture between Ericsson and CR&T, based on collaboration started in 1997.
- 50+ employees.
- Offices in Göteborg, Linköping and Stockholm (Sweden) and Palo Alto, California (USA).
- Main owners: Ericsson and Bure Equity/CR&T.
Who is driving telematics?

Creates a “Service Archipelago”
Archipelago of Telematics Services

- **Vehicle Centric**
  - Services tightly integrated in the vehicle
  - Diagnostics
  - Vehicle Management
  - Security & Safety
  - Emergency
  - Navigation
  - Traffic Information
  - Road Pricing
  - Communication
  - Commerce
  - PIM (Personal Info Mgmt)

- **Vehicle Complementary**
  - Services related to a driving situation, but not tight integrated with the vehicle
  - Entertainment

- **Vehicle Independent**
  - Services with no or little relation to driving

Car makers

Legislation

Telecom
This archipelago of services sets new requirements

- **Must be possible to add, update and remove services over time**
  - Dynamic
- **Must be possible to do remotely**
  - Far too costly to do recalls
- **Services must be portable.**
  - Same service in all cars, no matter model or brand
Other factors speeding up the telematics evolution

**Cars are becoming networked**
- CAN
- MOST

**Wireless networks are evolving**
- GPRS
- 802.11
- Bluetooth

**All this combined**
- Service archipelago
- Networked Cars
- Improved Wireless Access

**is a very good match for OSGi!**
Why OSGi in telematics?

- **Service delivery**
  - Add, remove and update services
  - Remotely managed

- **Service portability**
  - Well defined execution environment

- **Security**
  - Execution environment
  - Management access

- **Agnostic regarding ...**
  - ... business model
  - ... technology (expect for Java)

- **Service/system development**
  - Well proven Java technology
  - Prerequisites for delivery/deployment known

- **Open Standard**
  - No lock in
Managed Services

GSM - CSD, SMS
GPRS
CDMA
3G
Bluetooth
802.11

Modem
Display
GPS

Vehicle LAN

Gateway Operator

Service A
Service B

Content Provider

Service A
Service B

Telematics Gateway

Upgrade of ECU

Vehicle Devices

ECU

End-to-End Security
Standards

- Established standard creates a larger market
- And more competition

- Standards take time to establish for mass markets (10 years)
  - GSM
  - 802.11

- OSGi conclusion in telematics
  - Founded in 1999
  - First commercial systems 4-6 years, 2003-2005
  - Mass market, 2009
Different Life Cycles

Telecom
New Device

Automotive

Telecom
New Standard
Proof of concepts
– field trials
– projects
Volvo

- Field trials with a handful of cars concluded
- OSGi services
  - Diagnostics
  - Location Based Services
- Communication
  - SMS
  - GSM data
Saab

❖ Trail Activates Concluded

❖ Communication
  – SMS
  – GSM data

❖ Services
  – Diagnostics
  – Motor tuning
  – Driver’s log
  – etc.
3G Telematics Project

- EC funded project comprising 5 sites and 15 companies
  - Göteborg (Volvo)
  - Rüsselsheim (Opel)
  - München (München)
  - Paris (PSA)
  - Torino (Fiat)
- Goal is to ensure interoperability for an OSGi based open telematics platform
- ERTICO is prime contractor
- Project period is May 2002 - October 2003
- Gatespace is part of the Göteborg site, together with Volvo TD and WirelessCar
**New value chains**

**Devices value chain**

- Tier 1
- OEM
- Dealer

**Connectivity value chain**

- MVNO (Mobile Virtual Network Operator)
- NO (Network Operator)

**Application value chain**

- Source
- Enablers
- Content Aggregators

**ASP - Application Service Provider**
To deploy, host, manage and leased packaged application software to customers from a centrally managed data facility.

**Portal** - A site with a collection of linked items, applications, services etc. The end-user interface.

**ASP** - Application Service Provider

**OEM Portal**
Business Concept

**Services**
- End User Relations
- New Revenues

**Java**
- Fast development of services
- Platform independent

**OSGi**
- Dynamic deployment of Java applications

**Our solution**
- Gatespace e-Services Platform, Telematics Edition
Gatespace e-Services Platform
## Gatespace e-Services Platform

<table>
<thead>
<tr>
<th>Existing Telematics Solutions</th>
<th>Gatespace e-Service Platform for Telematics</th>
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<tr>
<td>Basic voice-access to human customer service agents</td>
<td>Automated service monitoring and management systems</td>
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<tr>
<td>&quot;Hard-Wired&quot; service functionality — requires service call to upgrade in-vehicle telematics</td>
<td>Real-time access to service data and remote upgrades to in-vehicle telematics capabilities e.g. navigation data</td>
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<tr>
<td>hardware and software e.g. navigation data on local CD-ROM</td>
<td>provided in real-time over the network along with traffic and weather information</td>
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<td>Limited or no support for in-vehicle network devices and remote diagnostics</td>
<td>Comprehensive support for in-vehicle networks (CAN, MOST) enabling remote diagnostics.</td>
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<td>Proprietary Solutions</td>
<td>Open standards enable service provider to access large market for 3rd party services</td>
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Wireless within 5 years

- All types of communication will become IP based
- General Coverage by GSM/GPRS and UMTS
- Hot-spots coverage by Wireless LAN
- Personal network and access by Bluetooth
- IP based broadcasting by DAB/DVB is possible
Extensions to Wireless Telecom

- **Positioning fully integrated**
  - Network based (MPS)
  - GPS / Galileo
- **Payment support integrated (MeT)**
  - Remote via GSM/UMTS
  - Local via Bluetooth
- **Interaction between personal data stored in the network and stored locally on different terminals (SyncML)**
- **Services seamlessly available everywhere. Terminals adapted to different situations**
- **Use of voice recognition etc.**
### Where to find us...

<table>
<thead>
<tr>
<th>Name</th>
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