

For Immediate Release
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OSGi™ Members Race Into Telematics with New Deployments and Product Advancements

Focus on safety, security, performance, communication, navigation, and Internet services for vehicular use

San Ramon, Calif. – The Open Services Gateway Initiative (OSGi) alliance announced today that its members are making significant strides in the adoption of OSGi technology throughout the automotive industry. OSGi Service Platforms are being used to improve safety, security, vehicle performance, communication, navigation, and to provide Internet based services, not only for automobile use, but also for other transportation platforms such as trains and trucks. According to Allied Business Intelligence, the aggregate global market for telematics will grow to over \$12.3 billion by 2007 from \$2.2 billion for 2001.

Many of these telematics innovations will be showcased at the first OSGi World Congress September 24-27, 2002 in Stockholm, Sweden. OSGi member companies will discuss the latest telematics product developments and deployments during the Automotive Track. This will provide an excellent opportunity for developers to network with the OSGi community and learn how to develop their own OSGi service bundles.

Telematics

The term 'telematics' has evolved to refer to automotive systems that combine global positioning satellite (GPS) technology and other wireless communications for automatic roadside assistance and remote diagnostics. General Motors Corporation first popularized automotive telematics with its OnStar system launched in 1996. Recent developments extend telematics systems to include information and entertainment applications for drivers and passengers with connections to devices brought into a vehicle.

A number of OSGi member companies are equipping prototype vehicles with wireless-based services controlled by voice commands. This technology enables motorists to perform a variety of wireless functions such as accessing the Internet, downloading digital audio and video files, receiving or sending e-mail, or obtaining "smart" transportation information while keeping their eyes on the road and their hands on the wheel.

The OSGi Service Platform

The modular OSGi Service Platform supports network delivered services to a remote device that can then be run locally or in conjunction with other network resources. The specification is explicitly designed to be open and synergistic with a wide range of existing networking and computer technologies and enhances

virtually all current networking standards and initiatives. The OSGi compliance program establishes a common specification third parties can use to create value-added services that can be delivered over a variety of networking systems using platforms incorporating compliant OSGi service platforms. Nine member companies are already certified and offer OSGi-compliant solutions.

The following highlights some OSGi member companies' activities in the telematics space:

Acunia

The ACUNIA (www.acunia.com) Open Telematics Framework® (OTF) is the protocol that links the world of embedded devices with the world of enterprise systems. The ACUNIA OTF Business Server is a business application that allows the service aggregator to manage and control the business of delivering value-added services to customers via all types of terminals using the OSGi Service Platform. For pre-commercial life tests, ACUNIA presents the "Telematics Field Test". This end-to-end solution includes in-vehicle terminals, an ACUNIA OTF Business Server and a service portfolio including hands-free calling, distributed navigation, POI, traffic information, e-call/b-call, e-mail and news services. ACUNIA also offers Matilda™, a certified OSGi Service Platform Release 2 implementation.

ACUNIA has a contract with GM Onstar Europe for the standard fit of the ACUNIA Open Telematics Framework® in new car models. Along with the Flemish government and D'Ieteren, Belgium's largest automobile distributor and importer of VW, Audi, Seat, Skoda, Bentley, Rolls Royce, Lamborghini and Porsche, has launched a major on-road pilot project involving a 100-vehicle fleet to research the potential of in-vehicle telematics services to improve traffic flow and driver safety and comfort.

ACUNIA participates in the European Union-sponsored 3GT (Third Generation Telematics) project. ACUNIA is responsible for the API specification and delivers the management software in the 5 trial sites of BMW, FIAT, Opel, PSA and Volvo, which are used for testing and validation.

Espial

Another OSGi member company, Espial (www.espial.com), announced in May a suite of OSGi Service Platform software solutions tailored specifically for demanding telematics applications. The Espial Suite for Telematics is built upon past successful automotive design wins with companies such as Siemens VDO Automotive, Delphi Automotive Systems and DaimlerChrysler. Based on market insight and continued research into the evolving automotive technology market, the new solution provides designers with a complete end-to-end software toolkit for the design of safe and reliable vehicle systems (infotainment, navigation, logistics) that can be branded to the needs of the vehicle OEM or aftermarket provider.

Gatespace

Gatespace (www.gatespace.com) is a leading provider of end-to-end solutions for the telematics marketplace. The Gatespace e-Services Platform for telematics provides telematics service providers and vehicle manufacturers with an end-to-end platform for deploying the next-generation telematics services to the vehicle. Applications supported include accident and theft notification and tracking, location-based information/navigation and vehicle diagnostics. The Gatespace e-Services Platform includes an OSGi-compliant service platform for an in-vehicle gateway and a scalable service management system for remote

monitoring, configuration and provisioning of services. Gatespace also offers developers a full-featured service development kit for developing and testing OSGi services.

Gatespace and the Gatespace e-Services Platform are currently an integral component of several telematics projects, technology/field-trials and deployments:

- European Union-sponsored 3GT (Third Generation Telematics) will establish OSGi Service Platform-based in-vehicle telematics platforms for the European mass market. Gatespace and Volvo will be leading the test site in Gothenburg, Sweden.
- Volvo Technological Development is currently in technology trials of the Gatespace e-Service Platform for building telematics solutions into future generations of Volvo vehicles
- Gatespace and Pilotfish are engaged in a Telematics B2B car-sharing project where the mobile phone replaces the car key, facilitating the administration of rental cars.

IBM

IBM (www.ibm.com) is the world's leading e-business company offering a wide range of services, solutions and technologies that help businesses take advantage of emerging innovation. IBM provides a robust e-business infrastructure based on open industry standards such as those of the Open Services Gateway Initiative (OSGi). Also a leading telematics provider, IBM works with business partners to build a flexible and reliable portfolio of software, hardware, IT services, development platforms and tools. Fully integrating open standards including OSGi, IBM's end-to-end architecture links both portable and embedded hardware devices to the Internet via wireless networks and leverages Java applications to move data to and from vehicles and wireless telematics service providers. IBM's telematics customers include Honda, which is using IBM's embedded speech technology in its voice-enabled navigation systems, and DaimlerChrysler, also using speech technology to deploy an integrated, hands-free, Bluetooth-enabled communications system. Partners include Vetronix, which has teamed up with IBM to provide applications and services to advance practices of preventive maintenance, depreciation, fuel and risk management, and customer convenience.

Jentro

Jentro (www.jentro.com) offers a comprehensive, open and scalable end-to-end solution JentroCar™ for the telematics marketplace. Jentro offers various software solutions for vehicle manufacturers, tier one suppliers and telematics service providers as well as solutions for aftermarket providers. In-vehicle solutions range from simple e-SOS, mobile device leveraging and car radio based solutions to OEM in-vehicle navigation and entertainment systems as well as logistics solutions. Applications portfolio includes dynamic navigation including traffic information, location-based information, vehicle diagnostics, accident and theft notification, tracking and logistics services as well as voice and digital communication services.

The open and scaleable remote management system and multi-channel portal allows managing, provisioning, configuring and aggregating OSGi Service Platform-based services as well as web content, web services and messages. This also includes the integration of mobile devices such as PDAs, cell phones and smart phones. The software supports the integration of databases, directories and legacy systems as well as availability, software (OS, JVM, driver, applications, content), asset and inventory management.

Jentro and Sun Microsystems, Inc. have signed a joint activity agreement for the telematics market in June

– a global agreement for the development and marketing of telematics solutions for the automobile market.

Jentro and Sun Microsystems, Inc.

DaimlerChrysler (www.daimlerchrysler.com) has created a pilot showcase to demonstrate "services on demand" in the first UMTS/3G test vehicle. Services include an innovative off-board navigation with moving maps and traffic cam views, infotainment (e.g. video, music, audio books, games on demand), communication (e.g. video-conferencing, email) as well as office services (e.g. word processing).

ProSyst

ProSyst Software (www.prosyst.com) is a leading provider of embedded software for remote control, networking, and functionality enhancement of devices, including the delivery and management of innovative services. ProSyst's Infotainment/Telematics Suite facilitates the development of vehicle infotainment and telematics solutions. It allows automotive manufacturers, service providers and tier 1 suppliers to offer high value applications and services, including diagnostics, information, security and entertainment. Features such as dynamic off-board navigation, tracking and tracing and fleet management can be securely managed on the fly.

Among others, ProSyst has signed a contract with a Tier 1 supplier. In addition, ProSyst's innovative solutions are integral component of a variety of projects and deployments. For example, one leading manufacturer of railway vehicles utilizes ProSyst's products mBedded Server and corresponding bundles for its Remote Diagnosis System (RDS), a wireless, remote data transmission system that improves and extends the startup maintenance, administration and fleet management functionality for rail vehicles. The exchange of data occurs via the Internet, Intranet, WLAN or other wireless transmission options (CDPD, GSM). Thanks to RDS, railway companies can carry out remote monitoring and diagnosis of their trains, which can be promptly navigated to the nearest repair site when mechanical tuning is needed. This approach significantly reduces vehicle downtime and the associated costs. One of the first applications of RDS consists of 24 electric locomotives ALP 46, which will be delivered to the American New Jersey Transit during 2002.

The automotive-project, ITEA EAST EEA, is funded by the European Union and consists of major European automotive manufacturers, first-tier suppliers and research departments. The goal of EAST-EEA is to enable hardware and software interoperability of in-vehicle electronic control units through definition of an open, middleware based architecture. ProSyst's mBedded Server and mPower Remote Manager are being used as an enabling technology for implementing advanced software maintenance solutions for the life cycle of a vehicle and delivering telematics, infotainment and diagnostics services.

Sun Microsystems Inc.

Sun Microsystems (www.sun.com) is a provider of infrastructure technologies and server hardware for telematics deployments and solutions. The integratable Sun™ Open Net Environment (Sun ONE) architecture provides a standards-based core functionality for provisioning telematics services to client devices. This functionality is extended by integrating partner technologies in both the provisioning architecture and client devices to provide a full telematics solution. Sun also provides professional services and a broad partner base to deliver end-to-end Java™ technologies for delivering in-vehicle OSGi based telematics services.

OSGi-based in-vehicle services are enabled and made platform independent by leveraging the Java virtual machine. Sun's Java technologies allow client telematics services to run in a variety of hardware and operating systems and provides the execution environment for telematics services.

About OSGi

The Open Services Gateway Initiative (OSGi), established in 1999, is an independent, non-profit corporation. OSGi provides the only vendor-neutral, multiple-sourced specification in the industry to deliver and manage an application or service through a network that runs locally on a remote device. OSGi also works to proliferate these open specifications through the sponsorship of technology, market, and user education programs. OSGi is a global, cross-industry consortium.

Membership is open to any interested party, including Internet Service Providers, Network Operators, Original Equipment Manufacturers, Independent Software Vendors, end users, academic institutions, government agencies, and non-profit organizations. The consortium's Web site address is www.osgi.org.

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For registration information and the full schedule of events for the OSGi Congress, go to <http://www.osgi.org/>.