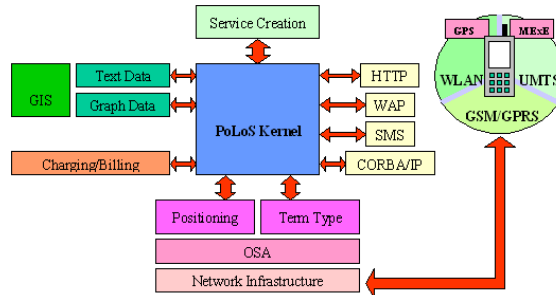


Acronym: POLOS		Project Title: "POLOS":INTEGRATED PLATFORM FOR LOCATION-BASED SERVICES: The GIS Component																														
Project No: IST-2001-35283																																
Name of legal entity	Country	Project value [Mil-lion €]	% carried out by EPSILON	No. of staff provided	Name of Client	Origin of Funding	Dates [start/end]	Name of partners																								
EPSILON S.A	GREECE	3,6	40%	-	EU	EU - IST	JAN2002 DEC2005	See foot note ¹⁾																								
Project Description							Type of Services Provided [Outlined]																									
Location Based Services are gaining importance in our increasingly mobile sector. The term LBS is used to describe a family of services that depend on the knowledge of the geographic location of the end user. For example, the user of a wireless network can retrieve information about his actual position, navigation instructions or question concerning Points of Interest. The main objective of the IST/POLOS project is the design and implementation of an integrated Platform for Location-Based services, covering the latest technological achievements in the sector of Geographical Information Systems, positioning techniques and network interfaces, in order to design and implement a platform capable of providing full functionality aimed to design, create and deploy location based services. The PoLoS platform consists of the below s/w GIS-based components: <u>Service Creation Environment</u>: is responsible for facilitating the creation, storage, deployment and debugging of services on behalf of the PoLoS platform. <u>PoLoS Kernel</u>: is responsible for the management and provision of location-based services. It provides interfaces for connecting services to the rest of the components, which constitute the platform, such as the interfaces, POS and GIS components. It is built on a resilient and scalable platform, suitable for heavy-load applications. <u>Positioning Component</u>: responsible for providing transparent access to a number of different location-detection mechanisms. The mechanisms currently supported are GPS, GSM/ and WLAN, with the potential for adding more mechanisms. It supports both indoor and outdoor environments. <u>Interfaces Component</u>: handles the interactions between the services and the end-users. It supports a number of different access interfaces, including HTML, WML, and SMS, and the possibility of adding more interfaces, like MMS. <u>GIS Component</u>: is responsible to analyze each service and the parameters of the geographic position of the user, localize the user in the world and make a geographic composition of the result of each service visual and textual. The GIS component was developed using: ESRI MapObjects v.2.1 for Visual Basic, Microsoft SOAP Toolkit v.3, Microsoft Access 2000, Visual Studio Enterprise Edition v.6. The GISCOM is consisted of Outdoor and Indoor services. The <u>Outdoor</u> services concerns a spatial, navigation and thematic request for an area in scale 1:5.000. Such services are the Find Location, the Geocoding, the Proximity, and the Navigation. The <u>Indoor</u> Services concerns a spatial and navigation requests for a specific building. Such services are the Find Location and the Navigation. All services of below are available. Any operator can create more services or combine more than one of the above creating new services.							<u>Services-Deliverables</u> Design and implementation of an integrated Platform for Location-Based services <u>Key Words</u> Location Based Services, Outdoor and Indoor Services, Navigation services, Geocoding, Proximity Service, Find Location Service, Service Creation Environment, Positioning Component, Interface Component <u>For Information</u> EPSILON INTERNATIONAL S.A, MONEMBASIAS 27, 15225 MAROUSI -GREECE ☎ +30-210-6898615 ☎ +30-210-6821220 ✉ central@epsilon.gr 🌐 www.epsilon.gr																									
 PoLoS platform architecture							<table><tr><th>Outdoor Services</th><th>User request</th><th>Description</th></tr><tr><td>Find Location Service</td><td>Where am I?</td><td>Localization of the user position</td></tr><tr><td>Proximity Service</td><td>Where is the closest hospital?</td><td>The user wants to retrieve information for POIs, such as theatre, pharmacy, hospital, hotel e.t.c.</td></tr><tr><td>Geocoding Services</td><td>What are the X, Y coordinates of Monemvasia 27?</td><td>The PoLoS Kernel is requesting for the coordinates of a specific address, in order to use it as an input parameter for other services.</td></tr><tr><td>Navigation Services</td><td>How can I go to Monemvasias 27 Marousi?</td><td>The user is requesting navigation information from his position to another.</td></tr><tr><th>Indoor Services</th><th>User Request</th><th>Description</th></tr><tr><td>Find Location Service</td><td>Where am I in the building?</td><td>The user is requesting his position inside a building</td></tr><tr><td>Navigation Services</td><td>How can I go to room A32, first floor?</td><td>The user is asking for navigation instruction from his position to another position in the building.</td></tr></table>		Outdoor Services	User request	Description	Find Location Service	Where am I?	Localization of the user position	Proximity Service	Where is the closest hospital?	The user wants to retrieve information for POIs, such as theatre, pharmacy, hospital, hotel e.t.c.	Geocoding Services	What are the X, Y coordinates of Monemvasia 27?	The PoLoS Kernel is requesting for the coordinates of a specific address, in order to use it as an input parameter for other services.	Navigation Services	How can I go to Monemvasias 27 Marousi?	The user is requesting navigation information from his position to another.	Indoor Services	User Request	Description	Find Location Service	Where am I in the building?	The user is requesting his position inside a building	Navigation Services	How can I go to room A32, first floor?	The user is asking for navigation instruction from his position to another position in the building.
Outdoor Services	User request	Description																														
Find Location Service	Where am I?	Localization of the user position																														
Proximity Service	Where is the closest hospital?	The user wants to retrieve information for POIs, such as theatre, pharmacy, hospital, hotel e.t.c.																														
Geocoding Services	What are the X, Y coordinates of Monemvasia 27?	The PoLoS Kernel is requesting for the coordinates of a specific address, in order to use it as an input parameter for other services.																														
Navigation Services	How can I go to Monemvasias 27 Marousi?	The user is requesting navigation information from his position to another.																														
Indoor Services	User Request	Description																														
Find Location Service	Where am I in the building?	The user is requesting his position inside a building																														
Navigation Services	How can I go to room A32, first floor?	The user is asking for navigation instruction from his position to another position in the building.																														

¹ NTUA (GR), EPFL (CH), Planungsbüro PbS (DE), NSSG (GR), National Statistics Authority of Cyprus (CY), University of Minho (PT), Statistics Office of City of Cologne (DE), Province of Cosenza (IT), MiCE Engineering, spa (IT)