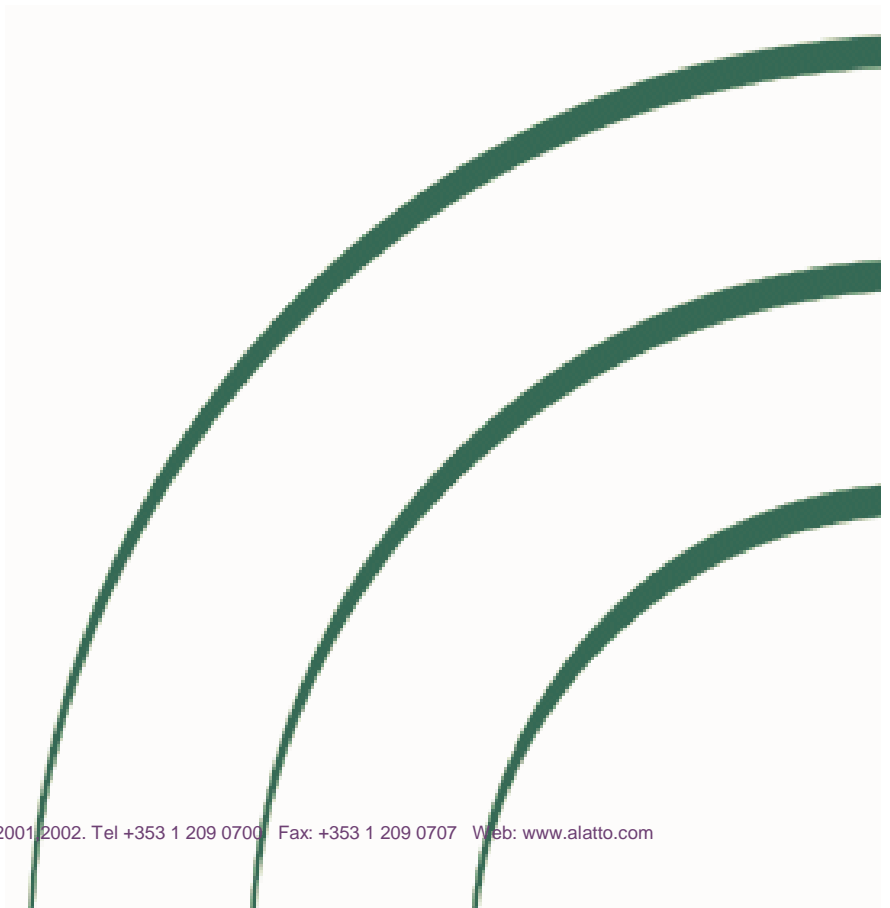




**An overview of our services and the
benefits we deliver to our clients.**



Company Profile

The Company

Alatto is a strategic consultancy focused on working with our customers to develop revenue generating services and applications in the wireless space. Alatto offers end-to-end project services and solutions, ranging from strategic consultancy and executive level research briefings, through to bespoke application development, prototyping and graphic design.

Alatto has built on extensive experience providing leading edge wireless Internet services and solutions spanning 2G GSM systems to the latest GPRS, imode, UMTS, Foma and wireless LAN (IEEE 802.11) technologies.

Operates internationally from its headquarters in Dublin, Ireland. Alatto has won major contracts worldwide and has supplied wireless services and solutions to wireless operators, service providers and corporations in the UK, Europe and AsiaPac.

The rate of change in the wireless space underlines the need to standardise and Alatto is active in leading alliances including 3GPP, WAP Forum, XML organisation, Mobile Electronic Transactions (MET) forum, the Mobile Entertainment Forum (MEF) and 3GPP. Alatto is a member of development and partner programs with Ericsson, Nokia, Motorola, DoCoMo, Siemens, Palm, NEC, RIM and Baltimore.



Our Vision

Alatto's vision is to play a significant role in the evolution of the wireless Internet.

We are helping our clients define and build a broad, rich-content future where customers have ubiquitous access to live events, news broadcasts, TV shows and movies from rich media capable handheld wireless devices. Our focus is on building revenue-generating, real world propositions for our clients.

As wireless technologies advance, many new revenue opportunities are being created. To maximize the return on investment requires both creative thinking and a practical approach to developing applications. Alatto focuses on delivering both strategic analysis of how to best utilize new technology as well as the hands on expertise to deliver success. Because we can provide assistance on the entire lifecycle, Alatto ensures that our clients' strategic ideas are transformed into real services and products. Many projects initially involve our Professional Services Centre at a conceptual or design phase leading to full implementation using the services of our Development and Delivery Centre.

Alatto customers include Mobile operators, Entertainment companies, Technology providers, CRM solution houses, System Integrators and Software Development Companies.

Why Choose Alatto?

Clients tell us they chose Alatto because of the benefits that Alatto bring to any wireless project: Professionalism, Cost efficiency, Tight timescale delivery, Thorough technical knowledge, Great communication skills, Proven and experienced project teams and a true belief in quality.

We can own your problem and deliver excellent solutions on time and on budget.

Domain Expertise

Our team has practical experience in numerous enterprise level projects around the world. Some of our keys areas of expertise include:

CRM

CRM - The wireless channel brings new opportunities to increase the intimacy of your relationship with your customer. Alatto can help you to understand how to integrate your CRM vision into wireless applications.

Entertainment

Entertainment - Wireless services provide huge potential for entertainment. The proverbial "killer application" is entertainment. Alatto can help you to design both entertainment only applications as well as integrating other revenue generating propositions within an entertainment context.

Financial

Financial - Extending banking to wireless channels is an area where the Alatto team has been an early participant, working with mobile operators entering the financial area in the UK and Eastern Europe. The Alatto team have in-depth experience of the financial services industry, from retail to private banking, brokerage and card systems.

Gambling

Gambling - We have developed successful gambling applications as well as prototypes for next generation technologies. We have extensive experience in the strategy, design, and implementation of gambling applications for Fixed Odds, P2P, betting communities, Lottery and Sweeps. We have also worked with industry leaders to develop BetML™, an XML standard mark-up language to add gambling propositions to content.

Gaming

Gaming - Developing interesting game content is one of the areas where we excel, incorporating the games into communities as well as including payment mechanisms. An approach that is attractive to many companies is to use games as a marketing tool utilizing prizes as well as other non-monetary rewards. We have developed for our clients a range and entertainment games, including a casino style game for 3G networks.

Location

Location based applications - Integrating location based information into applications is a key differentiator as many 3G devices include these capabilities. This area is complex in designing applications that are both robust and non-intrusive. Using location effectively can enhance many wireless application areas but it is an area that needs careful consideration given legal constraints and technical resolution limits.

Telematics

M2M - Machine to Machine (M2M) communication in the area of **Telematics** and **Telemetry** is becoming an important source of revenue generation for service providers. The power of cheap, reliable, bi-directional access to remote sensing data has great potential for industry and consumers. Systems Alatto has helped develop include a sea forecasting system for in-shore shipping and a remote security camera monitoring system

Technology

Technology & Architecture - Designing a robust architecture that incorporates both existing technologies as well as flexibility to grow is a key factor in designing cost effective platforms for wireless applications. Our team has extensive experience building system architectures for high demand systems including online banking and brokerage systems for financial clients and publishing sites for online journals.

Interface

UI Design - Our team has extensive experience in user interface design, creating effective device independent interaction paradigms while keeping usability paramount. In addition we can help you map out effective ways to utilize new capabilities provided in 3G handsets and wireless PDA form factor devices.

W-Forensics

Wireless Forensics - Our team's unique combination of skills in wireless technology and CRM demonstrates proven ability to analyse activity on wireless networks. This analysis can be used to covertly identify suspicious or potential criminal activity and even predict such activity before it occurs using pattern prediction methods. Such information has been effectively used by law agencies and is increasingly applicable to the corporate environment.

Professional Services

Project Services

Alatto works with client organisations to develop the best solutions and systems on a case-by-case basis. Our Professional Services Centre staff are domain and technology experts who bring hands-on wireless industry expertise and knowledge.

Alatto can help in any or all of the following lifecycle phases:

- Strategic business consultancy
- Product idea sessions
- Research briefings on a business domain or technology
- Business & Revenue Model specification and walk through
- Requirements capture workshops
- Project Scoping and sizing
- Process workflow mapping
- Functional Specification
- Technical Design Specification
- Technical Evaluation
- RFP/RFQ generation, Vendor Selection
- Technical Audits
- Application development, both bespoke and integration/migration of existing systems
- Enterprise level deployments and implementation
- Wireless Security and Encryption evaluation

Alatto sees building long-term close working relationships with our clients as our key working value.



Project Management

Alatto also provides proven project management skills for wireless business process and software implementation projects, either using client resources or our own Development and Delivery Centre Staff. Alatto staff are experienced in quality processes, project planning, tracking, enterprise methodologies and project metrics. Above all our focus is on the provision of high value, high quality services for our clients

Wireless Enablement

In every project, we help to highlight the unique issues that can determine success or failure for a wireless application. Alatto can help to analyse the impact of such issues as:

- Payment mechanisms
- Traffic volume
- Bandwidth constraints
- Content Integration
- User Interface
- Reducing Time to Market
- Technology uncertainty
- Quality of service (QoS) issues
- Security

Wireless Training

We provide a range of specialist training programs

- Management briefings and workshops on all aspects of wireless – business drivers, technology roadmaps, license holders, European/US/Asian experiences and revenue generation.
- Detailed technology workshops and tutorials on developing applications and services for advanced wireless technologies

Development Services

The Alatto Development and Delivery Centre is a technical centre of excellence for the development of wireless solutions for our clients.

Drawing on the extensive skill base of our staff we undertake the design, development, QA, deployment and ongoing support of system ranging from small, bespoke developments to enterprise wide implementations. The delivery centre also develops and supports Alatto's range of products.

We use the latest technical tools to achieve our goals governed by a pragmatic approach earned through extensive industry experience. We develop using iterative RAD techniques to provide our customers with cost effective and timely solutions.

Our Delivery Centre incorporates three groups, our Advanced Handset Lab, our Development Group and our Multimedia group.



Development Group

The development Group designs and builds high quality, robust and highly functional applications and systems for our clients and also provides technical support and assistance to clients

The group has expertise in the development of n-tier Internet/Intranet/Extranet based systems, client-server systems working on UNIX and windows. Tools and technologies include: OO Design tools, automated testing, application servers, DBMS servers. The team has extensive experience with JAVA, C++, XML/SOAP, EJB, VB, Web, COM+ and CORBA technologies and standards.

Alatto's unique approach combines the best practices of software engineering, unified tools for development and rigorous quality assurance procedures. Our methodology, based on Rose and the Rational Unified Process (Rapid Application Development (RAD) using UML), covers the entire software development life cycle, including requirements analysis, visual modelling, graphic design, coding, QA, automated testing, change management and documentation.

Advanced Handset Lab

The handset lab, a technical co-operation between Alatto and a partner in Tokyo, researches and evaluates new mobile terminal devices and works to assess and exploit the latest terminal technologies.

The AHL also helps migrates emerging Japanese wirefree paradigms to the European and US markets. The lab has extensive experience of delivering sophisticated Java applications on 2.5G and 3G handsets involving animated graphics, 3D rendering, Midi quality sound and video and still images.

Multimedia Group

The multimedia group works to define new and innovative user interface paradigms and developers still, video and audio content for wirefree applications. The group also works in the fields of predictive interfaces and wireless personal portal design.

A Wireless Perspective

The pace of information technology change is enormous. By 2003 it is estimated that there will be 500 million wireless devices in Europe and the US, compared to 400 million PCs. Wireless devices bring the possibility of ubiquitous Internet access to everybody. Wireless user will be able to email, pay bills, buy and watch the latest music video and act as a location aware companion in a new city. Mobile Commerce is predicted to increase traffic over operator networks, strengthen customer relationships and reduce churn.

How big is the Wireless Space?

“Handset ownership will reach 245 million in Europe by 2005” (Datamonitor)

“80% of phone owners will game online by 2005 and mobile gaming revenues estimated at \$6 billion” (Gartner)

“One third of all Europeans will use the net through mobile phones in 2004” (Forrester Research)

What's the Killer App?

The frequently debated leitmotif for the wireless market is the “Killer Application”. We don't believe any one application will be paramount – rather different applications will succeed in becoming significant revenue generators among different business and consumer adoption groups and demographic groups. It is also important to underline the continuing importance of voice – it is the heartbeat of mobile communications and will continue to be the major revenue stream for operators for at least the next 5-7 years.

The following are possible contenders for the ‘killer-app’ title that Alatto has helped clients develop from concept to launch.

Messaging – A key service for attracting customers. Sending a text message or an email message with rich media attachments, sharing a tune, a video clip of a touchdown or a picture from the beach.

Gambling and Gaming – A key revenue generator and customer retainer

Entertainment – Amusement, diversion, displacement and time killing applications.

Location Services – Where am I and what can I do here?

Telematics – For remote device control and access, meter reading, application monitoring, inventory control

What will the end user experience be?

	2G	imode	2.5G	3G	“4G”
Data Rates	9.6kbps	9.6kbps	115kbps-384kbps	Ceiling of 2mbps	11Mbps
Applications driving usage	Voice, texting	Entertainment	Messaging, location, audio, games	Multimedia, location, games, speech recognition	PIM/ Travel De-wiring the office
Standards	GSM TDMA CDMA (is-95a)	Packet based network iAppli (java)	GPRS, EDGE, Bluetooth	UTMS, CDMA2000 W-CDMA Bluetooth, midp, j2me, ippli	WLAN/WiFi (IEEE802.11b)
Data Connect time	60 seconds (for WAP)	5 seconds	“Always on” (20 seconds for GPRS)	“Always on” (<3 seconds)	<5 seconds
Devices	Phones	imode phones	Smartphones PDA, PC, Automotive	Smartphones, PDA	Wireless networked PCs, PocketPCs

End user mileage may differ from operator to operator depending on cell topology and capacity. For example, GPRS can currently provide a maximum data rate of 171.2 kbps assuming all 8 21.4kbps timeslots are used. In typical deployment scenarios the actual user perceived data rate would be around 20kbps, approximately twice 2G data rates. Likewise, always on services will need a connection set-up time that could be up to 20 seconds.

Alatto have direct experience developing services for a range of wireless technologies and through early access to emerging technologies possess real world experience with wireless technology.

Case Studies

3G License holder - Europe

Working closely with our client we have developed a wireless gaming/gambling system from concept to code for a 3G license holder planning a service rollout in 2002.

We have provided strategic business advice, business modelling, system analysis, design and implementation, advanced device prototyping, performance metric design and project management.

We have worked with this client on an enterprise level, integrating the new service into billing and payment systems, CRM systems, security systems, rich messaging and electronic wallet systems.

All this work is being done to very aggressive deadlines and we have provided and are continuing to provide a range of professional services.

"Alatto's level of knowledge of imode and the Japanese wireless experience is rare in Europe"
Ivan McDonald,
CEO eWare

CRM Systems Vendor

We have worked with a leading CRM vendor, providing wireless enabling services and delivering executive business briefings and technical research papers on i-mode and 3G wireless services in Japan. We were able to draw on our in depth experience of the Japanese wireless market and i-mode technology to provide comprehensive and high value information to our client.

"Alatto provide very useful development services that demonstrate a great understanding of the future of the mobile internet"
Erik Blomjous,
Senior Project Manager Product Innovation, KPN Mobile NV

Gaming System House – New Zealand

We have worked with an early stage company in the Pacific Rim region who plans to launch wireless gaming systems in South East Asia. We have helped build their business model and identify payment system solutions providers who fulfil their language, currency and legal jurisdiction needs.

"Alatto are very good at working with pain in the ass clients such as ourselves"
Head of Application Prototyping, 3G license holder, UK

3G Operator - UK

We have developed a wireless inshore weather reporting and navigation system for a major UK telco. The telematic system uploads via satellite real time data from weather buoys in the Atlantic Ocean and processes and renders the data as marine weather maps for display on 3G devices. The service is intended for use by inshore shipping and pleasure craft within range of land based transmitters.

For more information on how Alatto can generate value for your business in the wireless future, please contact us.



**Alatto Technologies
Delphi House
Linden Court
Stillorgan Plaza
Dublin, Ireland**

Tel: +353 1 209 0700

Fax: +353 1 209 0707

**www.alatto.com
info@alatto.com**