



## Solutions For Mobile Handset Manufacturers/ Platform Vendors

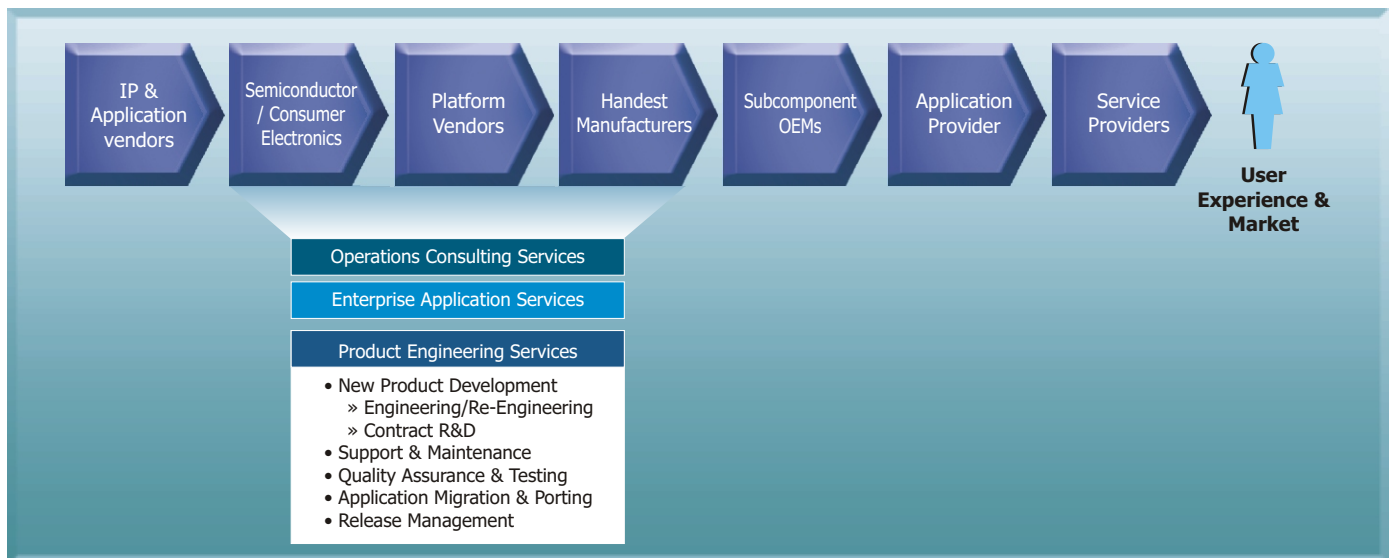
The mobile phone and technology industry is changing at a frenetic pace, with new technologies and innovations coming to the fore almost every day.

With focus increasingly on solutions based on Multimedia, real-time audio/video, as well as IP based solutions and enterprise targeted solutions, handset manufacturers and platform vendors are under pressure to be more innovative than ever before in terms of applications, interfaces and technologies. In this context, open standards, interoperability, platform agnostic and field-level updates together with comprehensive field-level testing have emerged as critical factors in broadening the spectrum of support from the platform, infrastructure and consumer electronics perspectives.

Trianz's specialized experience in the telecommunications and wireless space allows it to understand and effectively address--the issues, challenges, interdependencies and symbiotic relationships amongst the various stake holders: application developers, content providers, aggregators, telecom service providers/operators, handset manufacturers, and platform developers.

Leveraging a unique virtual engineering framework, scenario-specific methodologies and a global delivery model, the Trianz Product Engineering Practice caters to clients' product-engineering needs throughout the product life cycle to bring to market quality software products swiftly and cost effectively.

## An Overview of Our Services and Capabilities



### Application Development- before and after device roll-out into the market

**Multimedia & Messaging applications**  
**Mobile Device Management**  
**Enterprise & Productivity Solutions**  
**Entertainment Solutions**  
**Security & DRM**  
**Platform Middleware Development**  
**Protocol Stack Development**  
**Systems Integration**  
**Benchmark & Evaluation Solutions**  
**System Level Solutions**  
**Embedded Solutions**  
**Reference Implementations**  
**Device Driver Implementations**

### Support & Maintenance:

- Level 2 Support
  - Bug Fix & Patch Management Support
  - Performance Tuning & Optimization
- Level 3 & Level 4 Support:**
- Product or module based support for upgradation
  - Support Knowledge Repository
  - Release management & Code Control
  - Patches and upgrades

### Porting & Migration

- Technology And Platform Migration
- On to specific platform or Mobile OS
- Between runtime platforms
- Customization & Personalization

### Globalization and localization

### Product Quality Strategy & planning:

- Quality Assurance Strategy, Planning, Assessment, Optimization & Re-Engg

### Quality Assurance & Testing:

- COE based Value-Added Services
  - Off-the- shelf Test Cases with Test Automation Suite
  - Certification & Compliance Testing
  - Comprehensive Field Testings
- Product Validation Services:**
- Functionality and Integration Testing
  - Usability & User Acceptance Testing
  - Globalization & Localization Testing
  - Compatibility & Interoperability Testing
  - Performance benchmarking & Testing
  - Conformance & Certification

## Client: A Large OEM

> **Background:** Design and development of a system multimedia API for the Sharp Zaurus CL750 device

### Engagement highlights:

- Develop an API as specified in JSR135
- API to enable playing audio and video on the device
- J2ME reference application
- Provide multi-lingual support

### Business Results:

- Concept to complete approach solution
- Support for market launch of the device
- Use of third party and Open Source technologies such as: Eutopia and Eutopia Library, Embedded Linux and SS Mpeg Lib/ SDL

## Client: Leading Manufacturer of PDA Accessories

> **Background:** An embedded software keyboard driver on Windows mobile/pocket PC.

### Engagement highlights:

#### Provide the following:

- Support for serial port for any PDA that runs pocket PCS.
- Multi-device support
- Comprehensive testing support
- Allow users to type fast using shortcut keys, and hotkeys to open favorite applications, etc.
- International character support

### Business Results:

- An easy and simple driver setup was provided
- Users enabled to configure a certain key combination to activate an application
- Ease of use

## Client: Leading Provider of Software Platforms & Applications

> **Background:** Loyalty applications on MS-Windows powered smart cards

### Engagement highlights:

- Solution should run Microsoft Windows for smart cards, with Windows standard user Interface.
- Enable loyalty operator to analyze merchant transactions and generate consolidated reports
- Offer high security support - 128 bit encryption security with 3-DES (Data encryption Standards)

### Business Results:

- As solution was based on Microsoft platform, need for additional smart card drivers was eliminated
- With the solution PC/SC compliant, any PC/SC reader can read the data

### Trianz Value Proposition

- 360° approach to addressing client requirements
- Unparalleled commitment to high standards that drive client value and success
- Delivery excellence and experience in execution of large product engineering engagements through well proven methodologies and tools
- Trianz value based engineering model (Virtual Engineering Model) ensures reduction in total optimization of engineering costs and profitability

### Client Speak

"As a leading provider of mobile music entertainment services in Europe, time to market of new applications is critical to our growth strategy. Partnering with Trianz has been a rewarding experience. Their superior project management expertise and impressive technical capabilities have been invaluable in the rapid deployment of cost effective solutions for our customers."

- COO, Leading Mobile Entertainment Product Company