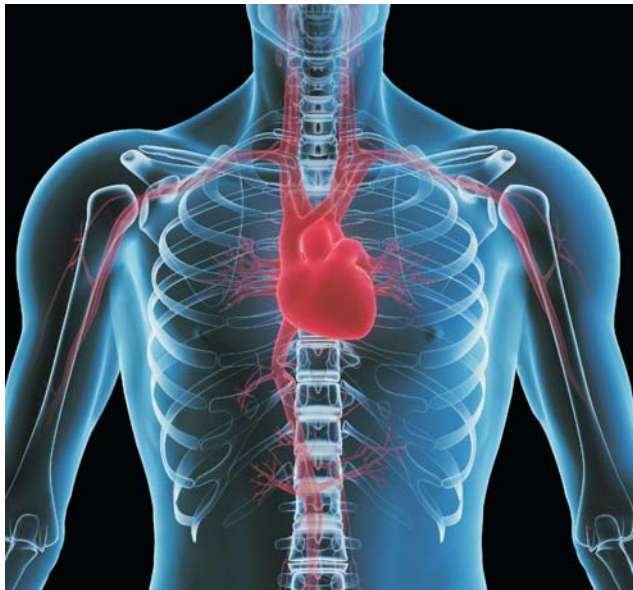


# ITI Technologies **MobiWare** Middleware for Context – aware Application Development



## **MobiWare** - Middleware for Context - aware Application Development

### **Context-aware Applications**

Context-awareness is the ability of an application to adapt to the current situation (context) of the user and his environment. Context is defined by data usually provided by an underlying sensor layer. Examples of user data include his or her current location, his or her movement pattern and health parameters such as heart rate and body temperature. Environmental data include current air temperature, humidity, lighting conditions and any other data that can be gathered by environmental sensors.

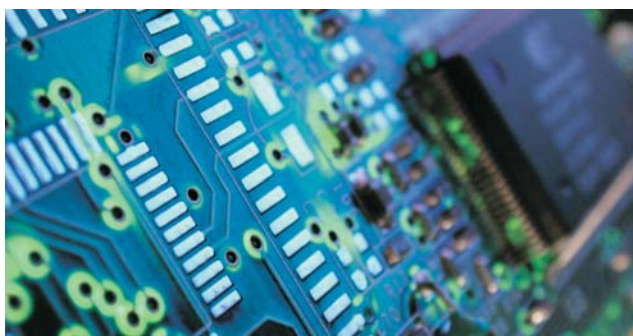


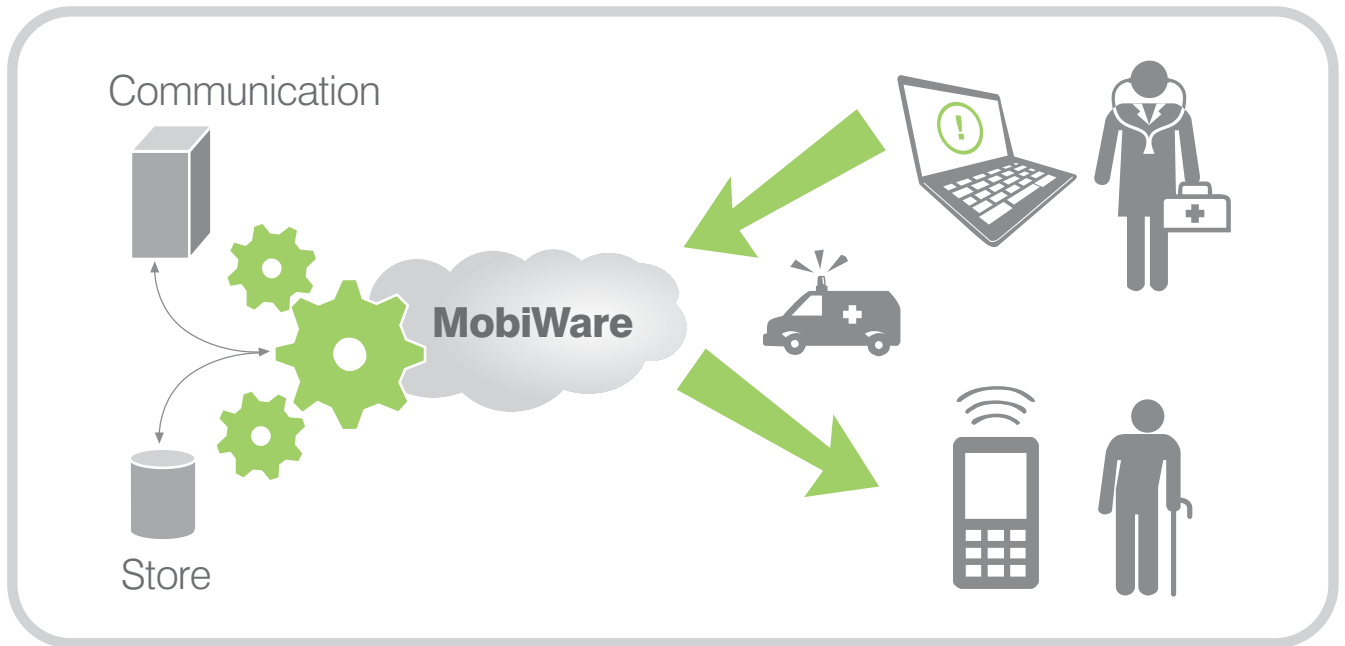
### **MobiWare**

MobiWare is a middleware platform for rapid development and scalable deployment of context aware applications. The platform is aimed at mobile devices, embedded systems and wireless sensor networks. It allows application developers to easily model context as a series of co-related patterns based on sensor data. Events can be triggered in response to pattern detection.

MobiWare consists in the following modules:

- Context and Communication Server
- Sensor API for unified sensor access on different platforms
- Publish / Subscribe based Communication API
- Pattern-based Context Modelling API





## Supported Platforms

- Application API for JAVA and .NET
- Mobile Phone client API for Android and iPhone
- Bluetooth sensor API
- Support for IEEE 802.15.4/ZigBee sensor networks
- Web service API for additional platform support

## Example Applications

MobiWare can be used for many applications. Examples include:

- Monitoring of patients and users with dependabilities / Automatic detection of emergency situations based on

monitoring of movement patterns (e.g. fall detection) and health parameters (e.g. heart rate).

- Geo-location of devices / Detection of device removal from safety area, etc.
- Monitoring of industrial installations / Detection of abnormalities (e.g. abnormal vibration patterns, energy spikes, etc.)
- Energy management and building automation.

## Application sectors

- Health
- Energy
- Others
- Industry
- Entertainment

<http://mobiware.iti.es>