



Information *at your finger tips* anywhere... anytime...

Customer Relationship Management
Supply Chain Management
Sales Force Automation
Mobile Banking
Stock Trading
Logistics Management
Information On Demand
Enterprise Resource Planning

Mobile communication is advancing throughout enterprises of all sizes. The Short Messaging Service (SMS) has been globally available for more than 10 years now and offers a powerful and beneficial tool for enterprise communication. Despite different requirements by SME and corporate users the SMS proves to be a leading wireless communication medium that can be managed and integrated easily with existing IT environments. System requirements are very low, terminal devices widely spread and benefits of its use high. SMS is perfectly suited for 'Mobile Alerts' as well as 'Info on Demand' type of applications in an enterprise.

Corporate SMS Applications

The existing installation scenarios and current trends show an increasing demand for the following applications:

- i) Sales Force Automation
- ii) Supply Chain and Logistics Information
- iii) Management Information System
- iv) Enterprise Network Monitoring
- v) Customer Relationship Management
- vi) Mobile Office Applications (email notifications etc.)
- vii) and many more...

Sales Force Automation

In any organization, the field sales force is the most mobile and spread out group of people. With SMS enabled sales force automation, the sales personnel, regardless of his location, can use his mobile phone to:

- a) Access information about price, product stock/inventory/availability to help him close the order on the spot with the distributor or customer.
- b) Access particular order status information to answer customer queries about the same and thus have a more satisfied customer.
- c) Receive scheduled alerts about his sales performance (consolidated or product wise order booking vis-à-vis sales target etc) to help him plan and manage his sales activity accordingly.
- d) Access customer/distributor ordering and payment track record to manage a customer better.
- e) Receive payment collection due alerts and reminders.

Supply-Chain & Logistics Information

Integration of SMS Solution into Supply-Chain management system can enable the following:

- a) Automatic SMS alerts if any product stock falls below critical stock level.
- b) Automatic SMS alerts for critical demand situation (i.e. demand exceeds inventory).
- c) Automatic SMS intimation for material dispatch.
- d) Using SMS to check stock of a particular item irrespective of the person's location

Management Information System

SMS solution can be used effectively for following management information applications:

- a) Scheduled automatic daily information capsule to management members, regardless of their location, by SMS containing vital business performance indicators, viz. consolidated order booking (for the day, month & year), invoicing, inventory value, production figures and payment collection etc.
- b) Monitor real time sales figures or any other business performance indicator (production, invoicing etc) at any time of the day, from anywhere, by sending a SMS query.

Enterprise Network Monitoring

With increasing dependence of businesses on its IT systems, SMS solutions are ideal for monitoring enterprise IT facility viz. servers, routers, server room environment etc. In case of any problem or fault the SMS system would immediately trigger alert messages to the concerned people so that the problem is immediately noticed and the downtime is thus reduced. Some of the applications that can be implemented are as follows:

- a) Monitor various critical servers in a network by checking their accessibility, CPU usage, memory availability, page file size, directory size, disk space etc and generate automatic SMS alert if there is a problem.
- b) Monitor critical services and processes in a particular server and send automatic SMS alert if the service or process stops.
- c) Monitor database servers, mail servers, web servers, ftp servers for status, availability, accessibility and health and generate SMS alert in case of any problem.
- d) Monitor various active network components viz. router, switch, firewall etc and generate SMS alert in case of any error or fault condition.
- e) Monitor health of backup power supply (UPS) and generate SMS alert in case of a unhealthy condition, so that the problem can be rectified immediately and a emergency situation in case of a power failure can be avoided.
- f) Monitor server room environment (temperature, humidity etc.) using intelligent sensors connected to SMS Application Server and generate automatic SMS alert in case of a problem.

Customer Relationship Management

One of the important aspects of managing customer relationship is to 'keep in touch' with customers and keep them informed about various aspects of their relationship with the company. Depending on the type of business, some of the SMS applications that may be deployed to manage customer relationship are as follows:

- a) Billing/Invoicing and payment due alert SMS.
- b) Allow customers to access account information by SMS.
- c) Allow customers to use SMS to track status of their orders placed by them.
- d) Customer loyalty program information by SMS.
- e) Broadcast information to customers about special discount offers.
- f) Allow customers to track status of their complaints by SMS.

Mobile Office Application (email notifications etc.)

One of the objective of deploying SMS communication system and other mobile communication tools is to mobilize existing applications and integration of field service staff in to the work and communication flow. Some of the mobile office applications that can be deployed using SMS solution are as follows:

- a) SMS notification of new incoming email (any email or email from a particular address).
- b) Access address book from mail server using SMS
- c) Mobile office messenger to contact mobile sales personnel from any office desktop.

Specific Requirements

Corporations have specific requirements for mobile communication systems. All the above listed applications have similar basic requirements of the used communication medium and of the enabling software system. Some of the specific requirements are as listed below:

- ⇒ High reliability and availability of the wireless medium used.
- ⇒ High reliability and availability of the mobile enabling software used.
- ⇒ Seamless integration of the enabling software into existing IT environments i.e. availability of various connectivity/interfaces and high flexibility.
- ⇒ Comprehensive logging of incoming, outgoing, undelivered SMS as well as system errors.
- ⇒ Very strong security mechanism to prevent information access by undesired people.
- ⇒ Ability of the mobile enabling software to send/receive SMS to/from GSM as well as CDMA networks.
- ⇒ One single product that has a flexible and scalable design that allows deployment of variety of applications and also allows upgrade of the software to incorporate newer standards.

Advantages of SMS

Advantages of using SMS for corporate applications are directly related to the advantages of SMS itself. SMS is a highly mature communication tool and guarantees a high level of availability and quality of service. Some of the advantages of SMS are as listed below:

- ⇒ Although service providers do not guarantee delivery time frame for each SMS, however, 95% of message delivery is almost instantaneous, thus making it ideal for alerts and notifications.
- ⇒ Possibility of two-way communication, unlike radio frequency pagers, allows deployment of push messaging as well as interactive applications.
- ⇒ Ability to identify the sender mobile phone number allows deployment of interactive workflow applications.
- ⇒ International delivery allows information accessibility irrespective of the location of origin/destination mobile user.
- ⇒ Single international standard for SMS allows use of same enabling software to send information over multiple mobile networks (for example GSM to CDMA and vice versa).
- ⇒ Growing popularity of mobile phones and availability of SMS capability on all mobile handsets means high reach.
- ⇒ Growing reach of mobile networks gives high reach for SMS based information.
- ⇒ Popularity and ease of use of SMS means virtually zero training requirements for mobile users.
- ⇒ Quieter delivery of SMS as compared to voice calls makes it ideal for reaching mobile users without making them feel disturbed.
- ⇒ Store and forward nature of SMS messaging allows messages to be stored in SMSC if the destination mobile phone is not reachable (either switched off or out of network). The message gets delivered when the mobile phone is reachable again (storage period in SMSC is limited by the maximum validity period setting of the service provider's SMSC).

Limitations of SMS

Short Messaging Service has only small and few limitations as listed below:

- ⇒ Missing broadcast functionality limits the message throughput. A paging system can theoretically reach unlimited number of terminal devices whereas SMS requires each device to be paged sequentially one by one. Using GSM modem based SMS gateway allows a throughput of 480 to 720 SMS messages per hour per modem. Using multiple modems will increase the throughput.
- ⇒ Mobile operators who provide SMS messaging usually do not guarantee any service level i.e. delivery of message within certain time. However, 95% of SMS get delivered almost instantaneously.
- ⇒ Each SMS (in English language) is limited to 160 characters. This limitation is easily countered by splitting of long messages in to multiple messages with user-friendly pagination to identify the sequence.

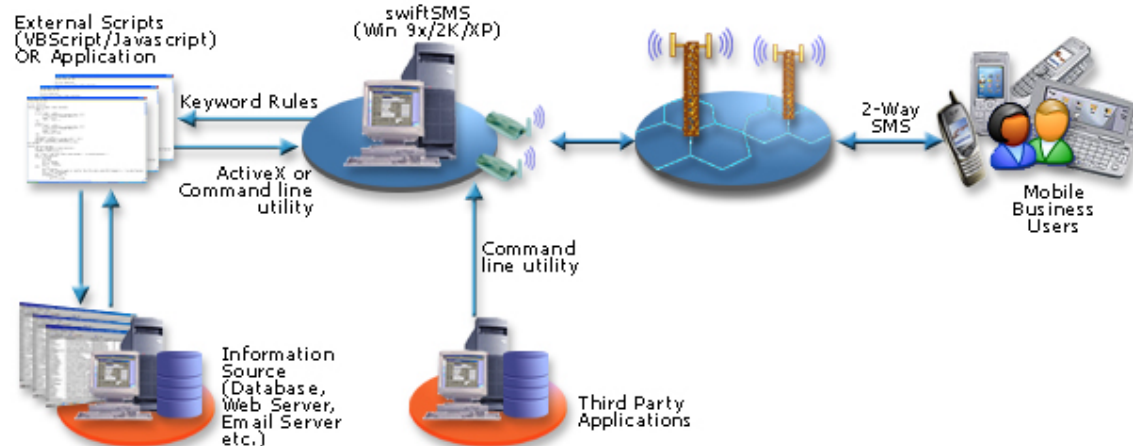
The few limitations of SMS are outnumbered and outweighed by the numerous advantages.

Logix Products for Corporate SMS Applications

Mobile enabling software products from Logix are a result of months and years of interacting with various enterprises and understanding their exact needs. Features have been packed in to the products that make deployment of corporate SMS applications an IT professional's delight. Following are the core product offering from Logix for deploying corporate SMS applications:

swiftSMS – Integrated SMS Gateway & SMS Application Software

swiftSMS is a Integrated SMS Gateway and a SMS Application Deployment Software Tool. It is a easy to use tool that allows enterprises to mobile enable information, using 2-way SMS communication, from virtually any kind of information source.



Some of the key features of swiftSMS are:

- Compatible with any ETSI GSM 07.05 standard compliant modem. Maximum of 8 GSM modems allows configuration of different applications through different GSM modems. Selectively start-stop a GSM modem.
- Uses industry standard scripting languages viz. VBScript & Javascript for application development.
- Bundled ActiveX component for sending SMS from scripts and other applications.
- Command line utility for third-party applications to trigger outgoing SMS.
- A small footprint and low resource consuming software.
- Configuration of routing rules allows messages for particular destination service network be routed through specific GSM modem connections.
- Inbuilt trouble shooting features like test message and signal strength monitoring.

Frequently Asked Questions

Why mobile enable corporate information?

Mere availability of information within the organisation is not enough. What is important is also to make the information available to the concerned people (employee and partners) immediately when required by using easy to use tools. For mobile sales force, delayed information about stock, availability etc could mean loss of business at times. It is for this reason that led organisations to make online availability of important data through internet (websites & email). However, data access through internet requires a person to login to the website or email client using a internet connected desktop or laptop computer. With the advent of mobile phones and growing popularity of messaging services like short messaging service (SMS), the data can be now made available on cell phones. There is no doubt about the fact that population of mobile phones have outgrown the population of computers rapidly. Also percentage of population who know to, and use, mobile phones is far more than those who know to, and use, computers!

Data access through mobile phone - how complicated?

Data access through mobile phone is very simple. Most of us today using this technology already to access our mobile bills, getting latest news, participating in interactive TV shows etc by sending a simple SMS. To access a required data one simply sends a three or four lettered keyword to a predefined mobile number. Parameters sent along with the keywords as a SMS. based on the keyword and parameters (if any) the message is processed by a central system and a response containing the requested information is sent back to us. Accessing information could not be simpler!

Do enterprises need to upgrade their existing system to mobile enable information?

Mobile enabling softwares from Logix can run on standard desktop machines running Windows 9x/XP/2000 connected on network to the information source (i.e. database or web server or ERP etc.) and a GSM modem

What if the information is available in a legacy system for which no connector is available. How to mobile enable it?

Powerful scripting features of swiftSMS allows connection with almost any legacy system, even if a standard connector/interface is not available.

About Logix

Logix is focused on developing and delivering software solutions that enhance business performance and flexibility by leveraging the simplicity and power of latest Internet and mobile technologies. Logix as a company derives strength from its highly skilled, experienced and committed team of application consultants and software developers. The team at Logix share the company's vision of becoming a leader in internet and mobile technologies solutions market by delivering innovative, easy to use and cost effective products and solutions that would bring delight to our clients by adding value to their business.

Would you like to know more?

If you are interested in receiving further technical and commercial information about mobile enabling software solutions from Logix, please contact:

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