

Sapphire - Wireless Messenger

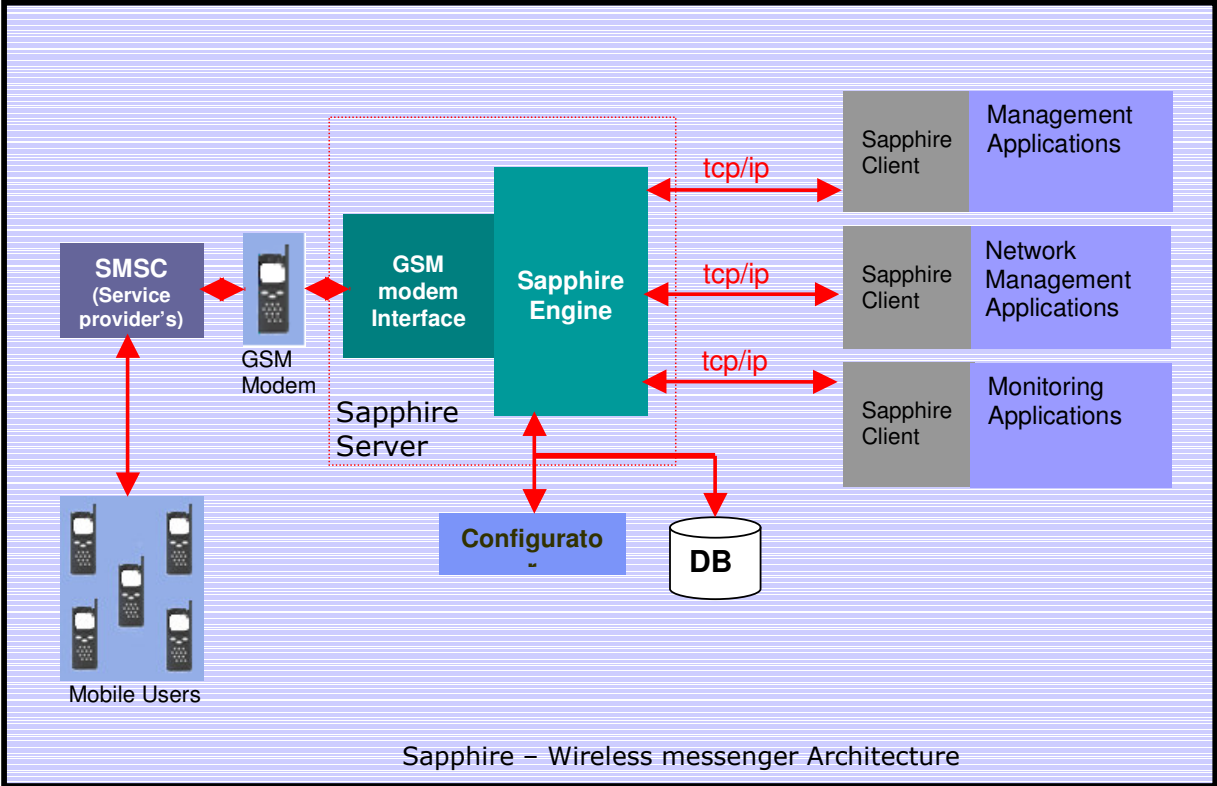
Sapphire provides easy to use, highly effective wireless messaging system. Sapphire is a Wireless messenger, which provides generic framework for the enterprise to communicate with their employees by means of short messages. It is a ready-to-use messenger, which can be integrated with enterprise's network management system directly.



Architectural Features

Sapphire – Wireless messenger architecture is highly scalable. It has server and client components. Server interacts with SMS Gateway as well as the messaging logic. Client component can send short messages to the external world from any system in the network via server.

The following diagram represents how the system is structured and how its components interact with each other. This model is transferable across systems. Also this architecture is future-technology proof, meaning Air communication layer can be substituted with any proprietary protocols(CDMA or Mobitex etc.,)



- **Group based messaging**

Organizations has various groups (network admin, system admin, database admin, Finance, HR, etc.) to take care of specialized set of activities. Upon any faults or potential problems, alerts (as short messages) can be sent to the people belonging to these groups directly using the 'group based messaging' feature provided by 'Sapphire – Wireless messenger'.

It takes care of identifying people belonging to that group and then sending alerts to them.

Group creation and management can be performed using 'Sapphire – configurator'.



- **Security**

Security is of prime importance to any enterprise. Sapphire – Wireless messenger provides different levels of access controls. Administrator can assign the privileges to different users and control the configuration updates. Sapphire also maintains the record of all the configuration updates which can be accessed only by the administrator, making it secure from normal users.

- **Bi-directional messaging / Message Acknowledgement**

Sapphire – Wireless messenger provides a bi-directional messaging feature using which alert messages can be acknowledged by the recipient by means of short messages. Operator or service technicians or repair-attendant attending to the customer calls on the field, can take-up the ownership of new problem in the same area by just acknowledging it. If the problem is already acknowledged by some other operator, it sends out the message indicating the status. This helps operators to plan their work. (It also helps them to reschedule the remaining part of the tasks for the day)

This greatly reduces the transport time required for the operator to come to office to take-up the call, which intern increases the productivity of the organization.

If the operator is sitting in front of the computer, then the message acknowledgement can be performed using the 'acknowledge client' provided by Sapphire. It does not necessitate the use of Cell phones (to acknowledge) by the employees while they are in front of the computer.

- **Escalations**

Sapphire – Wireless messenger provides well defined non-persistent escalation mechanism using which un-acknowledged messages can be escalated to different individuals or groups. This helps the organizations to keep track of the outstanding problems as well as to take corrective action in a timely manner. Sapphire provides multiple levels of escalations and it also provides an option of specifying different time interval between the escalations. Organization can define the escalation policies based on their business process using the Sapphire configurator.

These escalations bring the critical problems to the attention of higher management in a timely manner. This helps organizations to improve the overall productivity and customer responsiveness.

This is an optional feature and it can be disabled whenever this is not required.

- **Actions**

Sapphire – Wireless messenger allows you to perform certain well-defined tasks upon receipt of acknowledgement from operators. These actions are completely configurable and it can be achieved by developing custom applications. Automatic actions include 'Acknowledging the events in HP Openview NNM', 'assigning the open problem in trouble ticketing system to the person', etc.

It also allows you to perform special actions for the messages/alerts which are not acknowledged by the operators.

These actions are completely configurable. Custom applications can be developed using any popular languages as well as using perl scripts.

- **Unified Messaging**

Sapphire – Wireless messenger supports messaging in the form of e-mails as well as to pagers. Link failure is a critical problem in an enterprise and needs immediate attention of the administrator. If the administrator is carrying only the pagers, it is critical to reach to through the pager to avoid any loss in productivity. Sapphire sends out paging message as wireless short messages and informs the administrator about the critical problem.

- **Distributed Messaging**

Sapphire – Wireless messenger consists of server and client components. Server runs on the system which has IP based connectivity to the SMSC of the mobile operator. This is required to interact with SMSC. Client communicates with the server using standard TCP/IP. Hence, client component can be run on any system in the network and the short messages can be sent using the same. This provides a unique advantage of messaging from any system in the network.

Also client component is available on various platforms. Hence it can be integrated with existing applications with great ease independent of the operating platform.

- **Customization**

Sapphire – Wireless messenger provides a flexible interface to customize and integrate with any existing management system. The integration can be performed either using simple scripts or by developing customized applications. Integrating with management system to send alerts is as easy as invoking a 'client' application. This drastically reduces the time required for application integration and customization and the applications can become 'SMS enabled' within no time.

- **Integration with custom applications**

Sapphire – Wireless Messenger can be integrated with custom applications with great ease. i.e. Custom applications can be SMS enabled using the wireless messenger.

Sapphire client can be used to integrate with the custom applications. Sapphire client is available in various platforms and it can be integrated with the applications developed using any of the following languages. 'Visual Basic', 'Delphi', C, C++, Java, Perl.

For example, custom Integration can be performed to monitor the 'syslog' of the system and then generate SMS messages based upon the critical message logged by the application.

- **Reporting/statistics**

Sapphire – Wireless messenger keeps the audit-log of all the activities. This includes logging of incoming messages, outgoing messages, acknowledged messages, unacknowledged messages, escalation details, etc.

HTML based reports are generated at a regular interval to enable easy audit-trail of the entire message flow operations. If needed, relevant customization can be done for the graphical report generation.

- **Configurator**

Sapphire – Wireless messenger provides easy to use graphical user interface to configure the entire system. Configuration includes definition of groups, escalation, actions, roles and users. It also provides an interface to configure and manage the audit-trail. It provides interfaces to view the status of the Sapphire-server, log-file, etc. It follows the standard UI guidelines, hence making it really easy to use.

- **Supported platforms**

Sapphire – Wireless messenger server is available on the following platforms

Windows NT 4.0 / Windows 2000 / Windows XP

Sapphire – Wireless messenger client is available on the following platforms.

HP-UX 11.0, SUN Solaris 8.0, Redhat Linux 7.1, Windows NT 4.0 / Windows 2000 / Windows XP

- **System Requirements**

Sapphire – Wireless messenger server(Windows Version) requires the following system configuration

Processor	Pentium II with 330 MHz and above
Memory	- 128 MB (Minimum) - 256 MB (Recommended)
Free Disk-space	- 100 MB (Minimum) - 200 MB (Recommended)
Peripheral devices	- Serial communication port (1 number) - Network card (1 number, to support TCP/IP based messaging from remote systems)
Access to SMSC of the operator which supports SMPP / CIMD2	-
Database	MS Access, SQL Server 7.0

Sapphire – Wireless messenger client requires 50 kb of disk-space and TCP/IP connectivity to interact with the server.

- **SMS Gateway**

Sapphire interacts with operator’s SMSC via SMS Gateway. It supports SMPP as well as CIMD2.

- **Support**

Customer support is of highest priority. Support personal will be available to address all your queries/problems on all working days. Support will be provided by email as well as by phone. Support personal will respond to the reported problems within 24 hours.

- **Professional Services**

On-site professional services are available. Engineers trained in Sapphire and custom application development can visit your place to assist you with planning, configuring, implementing and maintaining the applications.

- **Training**

Training will also be provided for the personnel to get the complete understanding of the system. Our well-defined training material takes the users through the configuration steps, well-defined error messages, regular maintenance activities, 3rd party product integration, customization, etc.

- **Further Information**

For further information about the product, support, professional services and training, you can reach us in the following address.

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