

Solution Document on SMS Solution - SCL

Section 1 Key Features & Capabilities of HexaALERT

1.1 Highlights

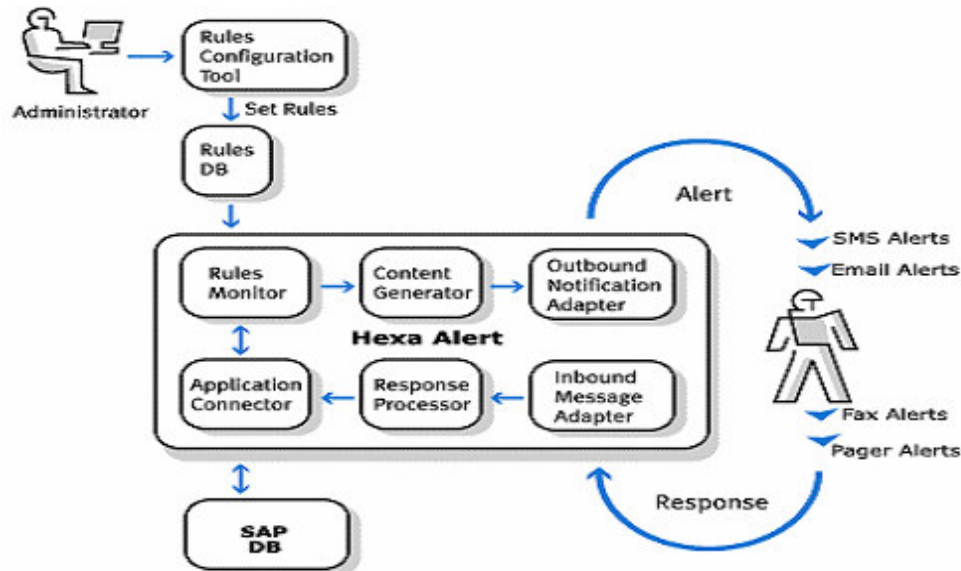
- Choice of events on which to be alerted.
- Alerts can be generated for specific actions or when a particular value crosses the threshold or critical limit.
- Alerts can be marked as one-time or to remain in effect for a specified period.
- Re-alerts can be sent at customizable frequency.
- Option to use another communication channel in case of failure of one channel
- User choice for Notification over: Mobile Phones, Email, Fax, Pager, Voice

1.2 Key Features of HexaALERT

- a) HexaALERT** is a rule-based, notification and interactive alert management platform that offers an enterprise-class solution for sending notification and alerts from multiple, disparate information sources, including enterprise e-mail, legacy applications and third-party business applications for **SAP, CRM, SFA, SCM and ERP**, and handling interactive responses to these alerts.
- b) HexaALERT** monitors your applications for critical information and events and delivers custom notification and alerts to your users quickly and reliably. Notifications and alerts can be accompanied by additional information so that the users can take immediate and appropriate action at anytime, from anywhere. Each user controls where and when alerts are to be received, using any mobile device, voice telephone calls, pagers, fax or e-mail.
- c) HexaALERT** interfaces seamlessly with any database/application for all real time event based notifications and alerts. Events that are to be notified /alerted are captured by **HexaALERT** and pushed as SMS/Pager notification/email notification/Fax or voice dial-out to the concerned worker. Using personal profiles, which can be configured over the web, and linking them to a personal calendar, users can also control how they are notified at different times of the day.

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1.3 HexaALERT System Overview



1.3 Main subsystem modules of HexaALERT:

I Application Connector:

The application connector of **HexaALERT** will interface with the database and will poll for the data (events) from the database to throw the events to the core engine.

II Core SMS Engine:

- The core engine configures and processes the events, and according to the rules configured in the rules DB returns the data/event/custom message to the message router along with the phone number/fax number/email address/pager number etc to the message router. It has the following components apart from other core server functions
- Security, and access control
- User profile management
- Task scheduling.
- It can also be interfaced with the enterprise directories such as LDAP for email notifications.

III Message Router:

- Handles routing of notification messages or alert content to a wide range of messaging and real-time communications devices and systems, such as wireless phones (SMS, WAP), pagers, PDAs, e-mail, voice mail and instant messaging (IM) to send individual or broadcast messages. The message router routes the custom message/event as configured to the recipient's access device.

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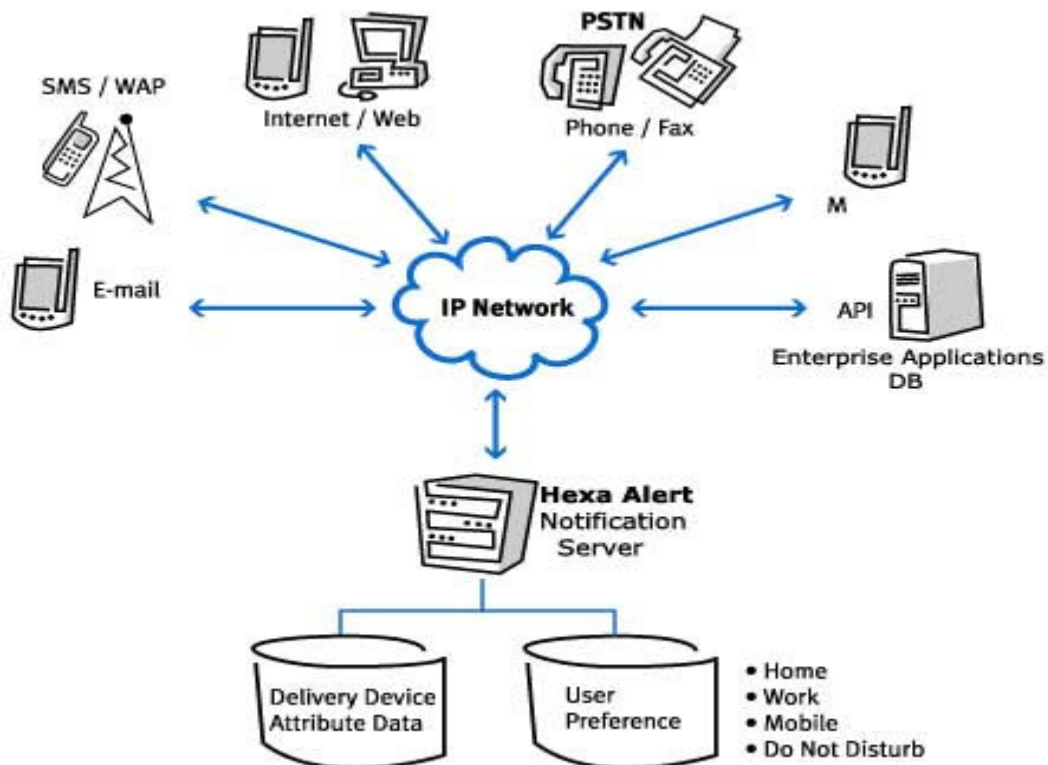
1.4 Capabilities of HexaALERT

1.4.1 Flexible Application Monitoring:

Monitoring for events from the SAP system will be based on predefined schedule or a real-time event trigger. The application-monitoring interface of **HexaALERT** supports industry standard Java and XML technologies and standards such as J2EE.

1.4.2 Comprehensive Real time Messing:

HexaALERT Message Router delivers notification messages or alert content to, a wide range of real-time communications devices and systems, such as cell phones, PDAs, e-mail, for fast, intelligent real-time alerting and messaging capabilities.



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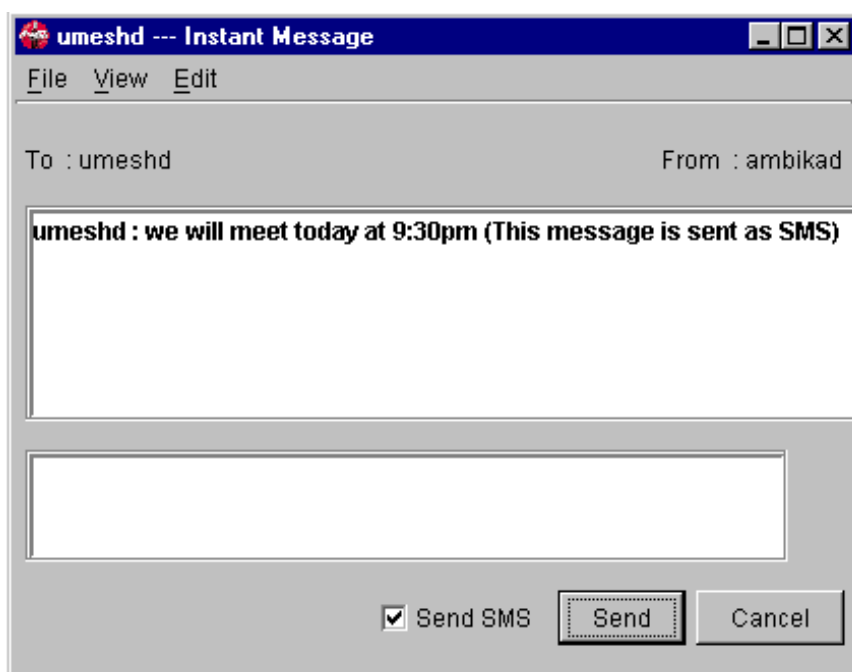
1.4.3 Personalized User Profile Management:

User personal profile and preferences, that define how and when the user expects to receive messages using devices such as a PDA, PC or a phone (wireless and wire line), can be easily set up and changed via HTTP interface by the user.

1.4.4 Send Messages from the desktop to Mobile as SMS:

Mobile Sales force while on field can be contacted immediately. No need of calling them on the phone, no need of sending SMS from a mobile, which is pretty cumbersome. One can straightway send messages, instructions from the desktop using the.

Message sent to a user as SMS to his mobile phone:



1.4.5 LDAP Support with Single Integrated Login (Optional):

Directory support is provided through LDAP enterprise directory to eliminate multiple login or duplicated directory management requirement.

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1.4.6 Real-time Message Tracking and Logging:

Complete real-time tracking and logging of alert content delivery record and message exchange logs allow the user to review system activity history and post-mortem analysis of alert-response interaction.

1.4.7 Messaging Requirements:

Wireless	SMSC gateway; or Nokia RS 232 data Cable, Nokia 6110 or a Nokia 5110 compatible phone;
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1.4.8 Optional Features of HexaALERT

- **Audible Alert** – Provides audible notification that a problem has been encountered on a specific monitored item. You can configure the type of sound (.WAV file or Speaker Beep) as well as select a custom .WAV file for the alert.
- **Pager / Mobile Notification** – This alert is ideal for manned installations where a human will be able to hear and respond to the alert immediately. The pager / mobile notification is by far the most complex notification option available. This area provides both modem based paging through various configuration, mobile alerts through SMS or WAP browser as well as email alerts to be included in the escalation schedule.
- **Email Notification** – Sends an email message via standard SMTP to through the select relay host to the specified address or addresses.

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Section 2 Technical Specifications of HexaALERT:

2.1 The HexaALERT system for connectivity to SAP applications

2.1.1 Server components are modular and use industry standard Application Programming Interfaces (API) for J2EE and SLML (Server Logic Markup Language).

2.1.2 HexaALERT server is the interface that talks to SAP Logical Database Layer, Lotus Domino or MS Exchange server, manages sessions in peer-to-peer communication, takes care of routing to and from various mobile devices etc.

2.1.3 HexaALERT server also takes care of encryption, load balancing, replication standards, presentation logic and content styling for appropriate devices.

Built on open standards, **HexaALERT** server allows for scalability and addition of new applications that may become necessary in these changing business scenarios.

2.1.4 HexaALERT server administrator console is the beginning to applications management with drag and drop environments, privilege status flags, services set up, cross application sharing of services, connected data sources and user data management/administration. **HexaALERT** server admin console is used to add, modify or change user data relevant to corporate LAN/WAN. Various security and monitoring options also exist (login and data/message logs with time stamp, message archives, flexible client configuration, central administration etc.)

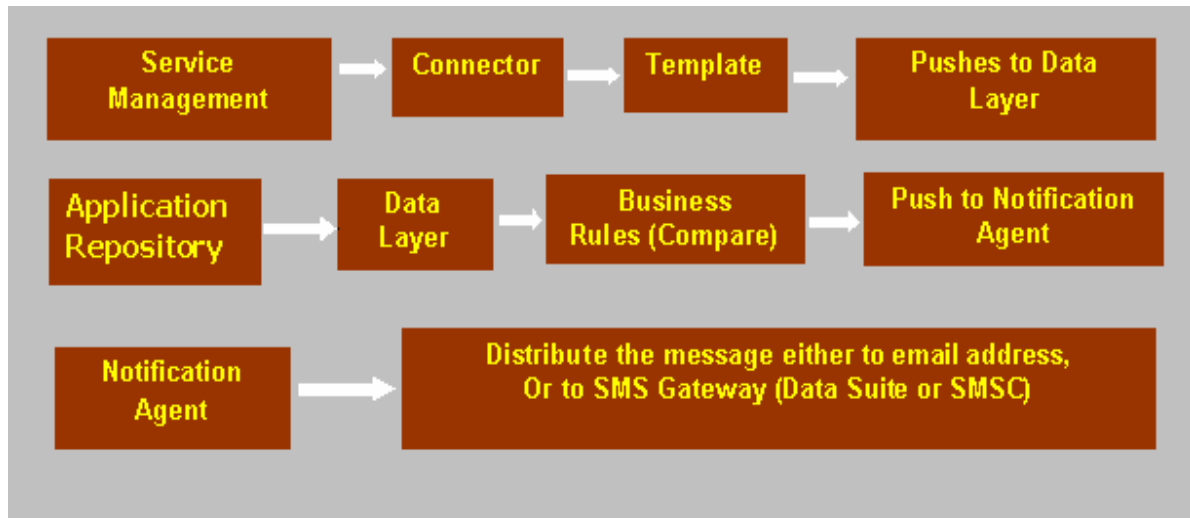
The system has advanced features that seamlessly integrate with SAP applications without compromising on security. The riders for integration of the

2.2 HexaALERT systems for SAP applications are:

- Client should have SAP implemented on their network.
- Database can be Oracle, SQL, etc. This is transparent to the system.
- Client will have to specify the list of events for which the alerts needs to be generated and the access (mobile, fax, pager, e-mail) numbers of the concerned officials.

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3.3 System Information Flow for Scheduler based Services

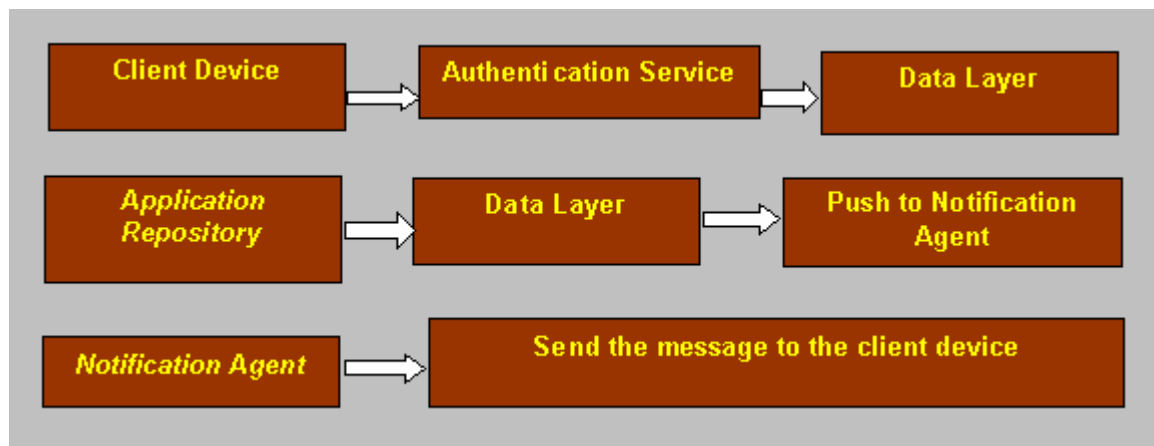


Administrators will start the **HexaALERT** through the Service Manager. The Connector component will connect to the SAP Logical and Oracle Database Layer, which abstracts any database available, and polls for data (events) from the Database Layer as per details set in the Templates. The data received from the Database Layer will be pushed to the Data Layer, which holds the data in a device independent format.

User Personal Profiles like how, when and on which device the user expects to receive alerts/notifications are stored in the Business Rules Definition. These rules can be set and modified through a web interface.

The Application Repository will act on the basis of the rules set in the Business Rules Definitions and send the data to the appropriate devices through the Notification Gateway.

3.4 System Information Flow for Request based Services.



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The request for data will essentially be requested by the client device, which will send some identification along with the request. The Authentication Layer will first authenticate the request. On authorization, the relevant data will be picked up from the Data Layer or from files through the LDAP Layer. The application repository will then push the data to the Notification Agent, which in turn will send it to the client device that requested the service. In this case, the data is regularly updated in the Data Layer through a Synchronization service running periodically.

Section 4 Key Features & Capabilities of HexaALERT

4.1 Highlights

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