



Customer Connect

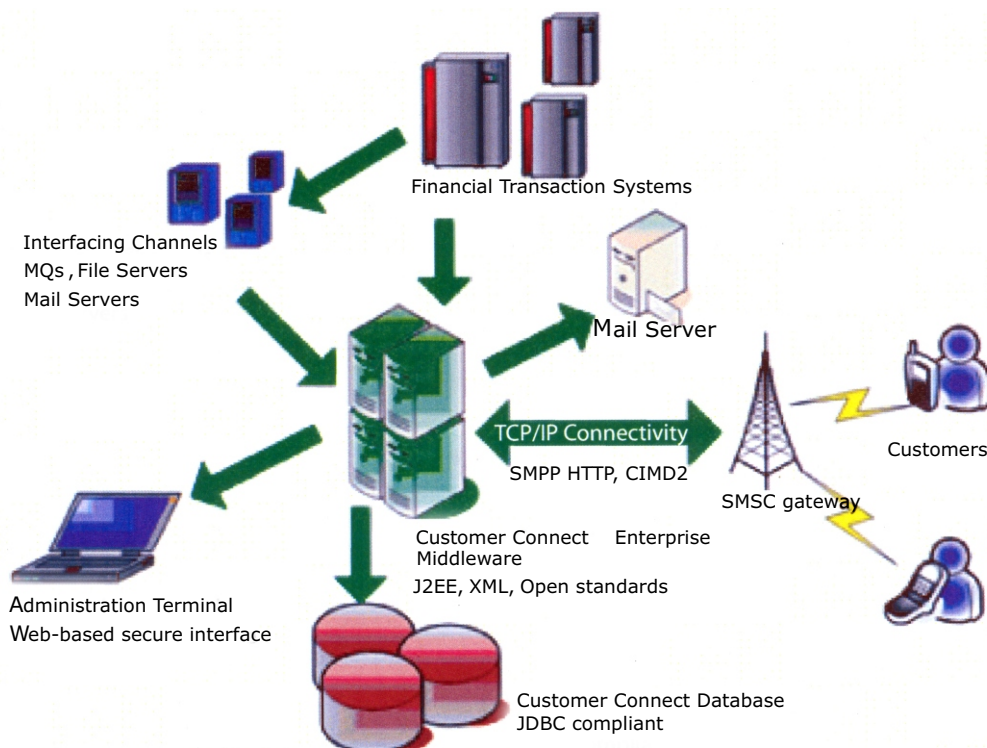


Customer Connect Enterprise -Real-Time Messaging Middleware

In the world of Internet, online presence is a must have requirement for all the major financial sectors. In today's wireless world it is mobile on which financial sectors are focusing on, whether it be mobile banking or mobile-based share trading. TechUnified with its ongoing endeavour in the domain of wireless and SMS based technologies offers Customer Connect Enterprise - A real time messaging middleware to harness the benefits of mobility with services oriented towards financial segments. Specifically for banking, customers can manage their bank accounts, perform check requests, check their balances, perform account to account transfers, pay utility bills while they are on move. The high volume transactions required for share-trading is also easily achievable using Customer Connect with highly scalable architecture.

This middleware platform is ready to be integrated with any core banking/financial transaction system by using HTTP, Secure Sockets, RMI, SOAP/XML or Direct API call. Additionally, this platform provides various adapters to retrieve and deliver messages to and from various channels including File Transfer; Message Queues and E-Mails.

Equipped with both Push and Pull messaging capabilities, it generates various alerts based on financial transactions taking place in the core system and forwards it to the SMSC to be delivered to end customers. Customers can themselves request for certain information through their mobile equipments. The sent information is parsed and forwarded to the core financial system for response. The retrieved response is delivered back to the Customers via SMSC.





Customer Connect Enterprise

-Real-Time Messaging Middleware

Customer Connect Enterprise has been developed with a goal to suit the needs of core financial services market. The product has been specifically designed and load tested to meet the performance and scalability requirements of critical financial services segment.

On top of this, Customer Connect provides a web-based easy to use administrative interface to manage various services and operations available in the middleware. This includes controlling various services and application instances running under the platform, presenting reports and statistics of messages sent and received for various types of transactions, bulk messaging capability for a predefined group of customers for CRM or marketing, on the fly addition of new service alerts using message templates and providing access control to different users within the organization to access services available in Customer Connect .

The platform is already in production for over fifty customers including Banque Saudi Fransi (www.alfransi.com.sa) with successful integration with their FransiPlus banking system, Bank Al Bilad(www.bankalbilad.com.sa) having successful integration with Sofgen Event Manager for Globus core banking system and Samba (www.samba.com.sa).

Operations for Mobile Banking

Push Services	Pull Services
<ul style="list-style-type: none">- Credit and Debit alerts- New Account Creation- Beneficiary Addition- Changed Mobile Number and Address- Credit Amount Due On- Card Renewal Date- Bounced Cheques- Credit/ATM Card Expiry- Salary Deposit- Other Custom Alerts	<ul style="list-style-type: none">- Balance Enquiry- Utility Bill Payments- Account to Account Transfers- Checkbook Requests- Statement Checking- Credit Card Payment

Solutions for Security

Customer Connect system was designed taking into consideration the complete security of information. The security of the system is maintained by adhering to the following points:

- MPINs (Mobile private identification numbers to be sent along with each SMS)
- Access through registered hand sets only
- Password aging
- Secured socket layer based security for any web interfaces
- VPN links between the operation site and the gateways
- Predefined alias names instead of using the exact account number or bill number for utility bill payments
- Encrypted SMS / Decryption on the handset



Customer Connect Enterprise

-Real-Time Messaging Middleware

Customer Connect provides encrypted SMS messages for additional security requirements, which can be decrypted using small software installed on customers' handsets. This feature can be provided by financial organizations to its premium customers.

Messaging Features:

- Message slicing, splitting of larger messages into smaller chunks and sending them as linked messages
- Multiple destination support
- Delivery confirmation of messages
- Unicode support for message delivery in Non-ASCII languages like Arabic and Chinese
- Support for binary messages for calendars, ring tones and images
- Multimedia messaging support

Interfacing Details with Financial Systems:

- HTTP, Secure Sockets, SOAP/XML, RMI or direct API call based interfaces
- Custom integration with other 3rd party systems
- Built-in adapters for File System, JMS based Message Queues, Mail services

Application Management:

- Web-based secure administration interface
- Flexible message definition using parameterized message templates
- Group management and Bulk messaging for Marketing and CRM
- Service and User Access control
- Night time restriction for bulk messages and Validity period for real time messages
- Mail based error alerts

Reports and Statistics:

- Message Log of accepted and rejected messages with a reason for rejection
- Transaction and segment wise summary of messages
- HTML page preview and printing of reports
- Export of data to PDF, Excel and CSV

Scalability and High Availability:

- Additional servers for increased performance
- Support for multiple gateways
- GSM modem support as an alternative channel

Other Technical Details:

- Support for SMPP, HTTP, CIMD2, UCP and GSM modem based connectivity with gateway
- Platform independent - Installation on Windows 2000, XP, AIX, Solaris and Linux
- Works with any JDBC compliant database



Customer Connect Enterprise -Real-Time Messaging Middleware

Customer Connect: Advanced Features

USSD

Unstructured Supplementary Service Data (USSD) provides session-based communication, enabling a variety of applications.

Key attributes:

- USSD is session oriented, unlike SMS and provides menu based services on mobile handsets
- Turnaround response times for interactive applications are shorter for USSD than SMS because of the session-based feature of USSD, and because it is not a store and forward service
- Users do not need to access any particular phone menu to access services with USSD - they can enter the Unstructured Supplementary Services Data (USSD) command direct from the initial mobile phone screen
- No software to download on the mobile hand set
- Unstructured Supplementary Services Data (USSD) works on most of the GSM mobile phones.
- Both SIM Application Toolkit and the Wireless Application Protocol support USSD



Customer Connect

Location Based Service (LBS)

TechUnified provides superior functionality and convenience for mobile phone subscribers through its suite of applications. These applications offer subscribers a broad variety of value added benefits.

Location based Service can be used for

- Locating ATMs, Bank Branches
- New ATM Launch Promotion
- Promotional Campaigns for people driving near Bank Branches
- Social Networking
- Entertainment

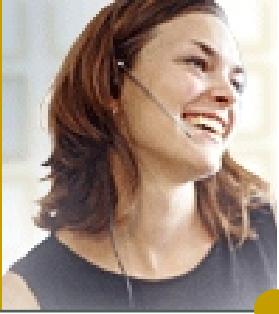
Multimedia Messaging solution (MMS)

Multimedia messaging enriches mobile messages. It's both useful and expressive.

MMS messages are sometimes considered equivalent to so-called "picture messaging," popularized by the recent imaging phones boom, but other uses of the technology do exist.

Multimedia Solution MMS can be used for

- Sending Bank Logo through MMS
- Latest updates through MMS like Stock Quotes
- Creating Bank as a Brand



Customer Connect Enterprise -Real-Time Messaging Middleware

Customer Connect: Experience the Difference

Product Features	Benefits
<ul style="list-style-type: none"> - Multilingual - English, Arabic, Chinese, and many more - Protocol Support: - SMPP, SMTP, CIMD2 and GSM - Message format Plain Text, Unicode, Smart Messaging - Highly Modular <ul style="list-style-type: none"> ▪ Push Module ▪ Pull Module ▪ Customer Registration Module ▪ Report Management Module ▪ Live Status Monitor ▪ Template Management ▪ Campaign Management - Multi-channel Integration Fax, Email, IVR - Futuristic Features Built In - USSD, LBS and MMS - 3G Enabled 	<ul style="list-style-type: none"> - Customer Connect can be integrated with diversified banking systems like Core Banking, Internet Banking, Cards Management and Trading System - Multiple Telecom Gateways Supported - Web Based and User Friendly - Handles high volume of messages (more than 1 million messages per day per server) - High Throughput - Installations on AIX/Solaris/Windows - Integrated with IBM Lotus Notes/MS Exchange - Delivery Tracking - Two- Factor Authentication - Mobile Payment Gateway - Mobile as share trading Terminal

Delivered Business Value

Value Added to the Bank	Value Added to the Customer
<ul style="list-style-type: none"> - End-to-End mCommerce - Increased Customer Satisfaction with mobile Banking - High Quality Assurance with measurable SLA - Modular implementation - Adhere to SEI CMM 5 Standard - Short Time to Market 	<ul style="list-style-type: none"> - Stay Informed - Convenience and speed - Offering new functionality like USSD, MMS and LBS - Utility Bill Payment - Convenient, low-cost mechanism for non-intrusive communication

Customer Connect : Beyond Competition

Technical Features	Customer Connect USP
<ul style="list-style-type: none"> - Message Slicing - Web Based - MVC / Services Oriented Architecture - Platform Independent Framework - Seamless Integration - World Class Security with 128 bit - MD5 based Login, & DES/3DES Encryption - JDBC Database compliant - Best of Breed Technology 	<ul style="list-style-type: none"> - Fast and easy implementation - No need for change in Backend Systems - Platform Independent - Operator Independent - Market Leader in Mobile Solutions - Prompt Onsite Support - Replaced existing Mobile Banking systems at many Banks