



SCO GROWS  
YOUR BUSINESS

## MOBILE SOLUTIONS FROM SCO ADVANCED TECHNOLOGIES GROUP (ATG)

### MOBILE PACKAGED SERVICES BASED ON SCO MOBILE SERVER

SCO Advanced Technologies Group (ATG) offers development and deployment services to mobilize your business. All of these services are built on SCO Mobile Server, which provides all of the essential system level functions required by a mobile enterprise application. By using the enterprise middleware component, the time and resources required to deliver the service are optimized. In addition, the solutions are highly scalable—independent of targeted devices, size of the enterprise, desired functionality and security requirements.



#### **SELF-CONTAINED SERVICE**

- Hosted and managed on SCO Mobile Server
- Extensible to large number of Rich Mobile, Web based and SMS clients
- Does not require pre-existing business services
- Relies entirely on the solid framework of the SCO Mobile Server

#### **BUSINESS INTEGRATION SERVICE**

- Provides integration with pre-existing business services
- Completed application can reside on application server, and/or Mobile Server
- May involve developing database connectors to reside on Mobile Server and agents on the backend server
- Extensible to large number of Rich Mobile, Web based and SMS clients

#### **MONITORING SERVICE**

- Allows proactive monitoring of vital system and business metrics
- Preventive actions can be taken from remote location using mobile devices
- Improved efficiencies and overall performance
- Extensible to large number of Rich Mobile, Web based and SMS clients

#### **WEB 2.0 RICH WEB SERVICE**

- Browser based application utilizing latest AJAX technology
- SCO Mobile Server provides rock solid security and scalability features
- Extensible to mobile web browsers supporting AJAX features

#### **ATG Deliverables consist of:**

- Total or partial development of both server and client features
- Developer training and support on functional extensibility and deployment
- Extensive, customized developer and deployment documentation
- Creation of required rich, dedicated mobile, web, or SMS-only clients
- Web-administrative monitoring and account management

#### **Why Choose Mobile Solutions from SCO Advanced Technologies Group (ATG)?**

SCO ATG offers ubiquitous and secure solutions for your mobile business needs, based on the SCO Mobile Server. SCO Mobile Server provides all of the essential system level functions required by a mobile enterprise application. This means that the time and resources required to deliver the solution to you are optimally utilized. This brochure discusses how a mobile solution based on the SCO Mobile Server provides the device extensibility, security, and ubiquity, to suit your business requirements.

#### **Overall Features of the SCO Mobile Server**

The cornerstone of the solution is the SCO Mobile Server middleware, which can run on a variety of application servers, such as BEA WebLogic 10 or JBoss 4.0.x. SCO Mobile Server can be integrated into existing server infrastructures or it can run as a separate configuration, depending on deployment and administrative preferences.

#### **The salient features of the SCO Mobile Server are:**

1. It is comprised of software components based on EJB3 (Enterprise Java Beans 3) and JEE (Java Enterprise Edition), which provides an optimal combination of scalability, security, and extensibility, as elaborated below.

*More on next page*

2. All components are managed by the application server and are integrated into the server's clustering features. Hence, they are automatically subject to the failover and load balancing policies of the server configuration.
3. The components are inherently distributable through remote interfaces, making it possible to spread the business logic across physical systems, as existing infrastructure dictates.
4. It provides built-in authentication and account management, with accompanying administrative web pages to create and modify both end-user and administrative accounts.
5. It provides a set client-side framework for building rich mobile client applications for mobile devices operating with Windows Mobile 5 and 6, Symbian/Blackberry, JME, and Java FX platforms.
6. Because of its highly modular and reusable design, extended and additional services can be easily integrated and deployed into the SCO Mobile Server and can instantly take advantage of any existing services.
7. It provides a server-side infrastructure which couples seamlessly with web applications based on the standard Model-View-Controller design, accommodating popular frameworks such as Struts or Tapestry. These frameworks are then used to implement web clients that take advantage of AJAX technologies within mobile browsers, or simply Mobile CSS standards for suitable mobile browser presentation.

### Security Features

*The SCO Mobile Server-based solution provides robust security through the following predominant mechanisms:*

- HTTPS transport is used for all smartphone and mid-level device interaction
- Dynamic password generation and exchange is utilized, in a mandatory or optional mode, in all device interaction, providing real multifactor authentication for all types of mobile users.
- Any information cached or stored on the mobile device, on behalf of a rich mobile client application will be encrypted with a private key.
- All Mobile Server transactions are automatically logged and archived on the server. Logs can further be managed with the assistance of customized tools.
- All business transactions are immediately confirmed through SMS and/or email
- EJB security authorization roles are assigned to relevant business components, to separate administrative and/or privileged access from end-user access on a component-by-component basis
- All downloadable client applications will be signed, with a code-signing certificate, by the customer when the application is ready to be distributed.
- Session IDs, generated upon successful login authentication, ensure integrity of an individual user session



It should be noted that the SCO Mobile Server authentication scheme brokers the login request to the existing login process, or handles the authentication entirely within the native SCO Mobile Server authentication scheme, while providing dynamic passwords (as an option) to bolster security. Thus, any existing login security is preserved, and is enhanced by the SCO Mobile Server.

### Ubiquity

*Ubiquity is achieved by providing the capability to handle three types of interaction between your business services and the mobile user:*

1. SMS Messaging: The user can conduct business by sending and receiving text messages
2. Mobile Browser: The user can carry out business using the browser available on the handset. These Web 2.0 solutions take advantage of AJAX technologies to improve usability and performance.
3. Rich Mobile Client: The user can download and use a certified application on a smart phone or PDA to conduct business transactions. The application widgets and controls provide a smooth and intuitive user experience.

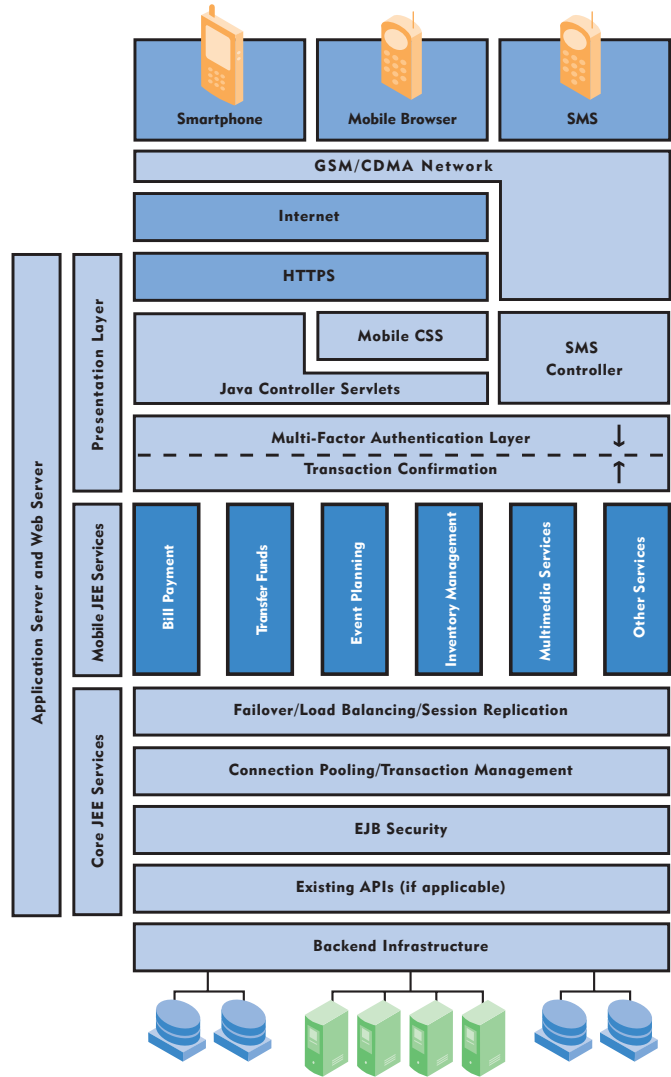
Additionally in all scenarios described below SCO integrates a dynamic password exchange mechanism and transaction confirmation to increase the security of these transactions.

*Diagram on next page*

The following shows these three different modes of interaction:

**Overall Server Architecture**

- The diagram on this page shows a high-level view of the various components involved in the solution:
- At the bottom of this diagram sits the current business infrastructure, if it exists, consisting of DB servers and backend applications, presenting suitable APIs and data objects to the SCO components.
- Above this are several core features of the Mobile Server which are crucial to the overall solution. In this container-managed architecture, all business components above this layer are either eligible for, or automatically subject to, the performance and security features of the container.
- Above these core services are the business-specific services such as Payment/Banking, Inventory Lookup, Event Planning/Scheduling, etc.
- At the boundary between the services layer and the presentation layer is a common multifactor authentication service which brokers incoming login requests to the system against an existing or SCO-based login scheme, and also provides dynamic password generation and exchange via SMS.
- Above this lie the SMS- and HTTPS-based “controller” modules to receive and respond to all requests from the mobile user. The SCO Mobile Server design utilizes HTTPS transport for both rich mobile clients on smart phones and, of course, for web interaction with mobile browsers. Devices which support AJAX browser-based technologies, such as Apple’s iPhone with Safari web browser, can take advantage of SCO’s development of such features in the web portion of the solution.



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