

Mobile Banking for UBL: A Case Study



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United Bank Limited (UBL) is the third largest commercial bank in Pakistan with over 1 million customers serviced from more than 1,000 branches across the country.

The Challenge

UBL wanted to tap into the explosive growth in mobile communications in Pakistan as a vehicle for expanding both its account base and increase transactional volume.

The Solution:

Orion, the brand name for the UBL mobile wallet solution, combines the use of mobile phones as a payment mechanism and pre-paid bank accounts as a mechanism for storing money. What was unique about Orion was that no bank account is required up front to participate in the Orion ecosystem and receive funds.

The Orion solution consists of an SMS and IVR based solution for direct customer access and Orion Agent, a web based application for call center support. This served as a base for extending Orion to a full commercial launch by UBL. Some of the salient features facilitated by Orion system through SMS:

- ◆ Send money to another Orion Account
- ◆ Request for money from another Orion account holder
- ◆ Mobile Bill Payment
- ◆ View and Pay Utility Bills
- ◆ Transfer money between an Orion Account and an ordinary UBL account
- ◆ Buy voucher
- ◆ Money transfer to a branch
- ◆ Cash deposit to Orion account
- ◆ Check Orion Account Balance

Registering to use Orion

Transactions are initiated using a security PIN, followed by confirmation calls initiated by the system that authenticates the user.

A User can request Orion registration either by sending a registration SMS to the designated SMS short code or through the call center. The User is then passed a series of verification steps including voice verification, ID check and agreeing to Terms of service on IVR. The Orion system is integrated with NADRA (the National ID Database in Pakistan) for verification of the customer's identity. After verification, the user sets up a security PIN. Once registered, a customer can use Orion account like any other bank account.

Transacting with Orion

To send money to another Orion account a user sends an SMS message in a specific format through the registered SIM to the Orion SMS short code. The user receives an automated

transaction confirmation call at their registered mobile number. A follow up IVR call replays the transaction details and prompts the user to enter the security PIN to authorize the transaction. A confirmation SMS is then sent to the customer on successful transaction completion.

Orion also allows the linking of an Orion account with an existing consumer account at UBL. Once linked, a user can easily transfer money between their Orion account and their consumer account via SMS messages.

Orion also allows the customer to transfer funds or make payments using a mobile by leveraging the Bank's existing payments channel infrastructure. Orion integrates with the Phoenix ATM switch at UBL and allows customers to access their Orion accounts through an ATM as well.

The system is also designed to ensure high level of account security. Customers can block and unblock their Orion account anytime by calling into the Orion call center. Customers can also change their registered cell number.

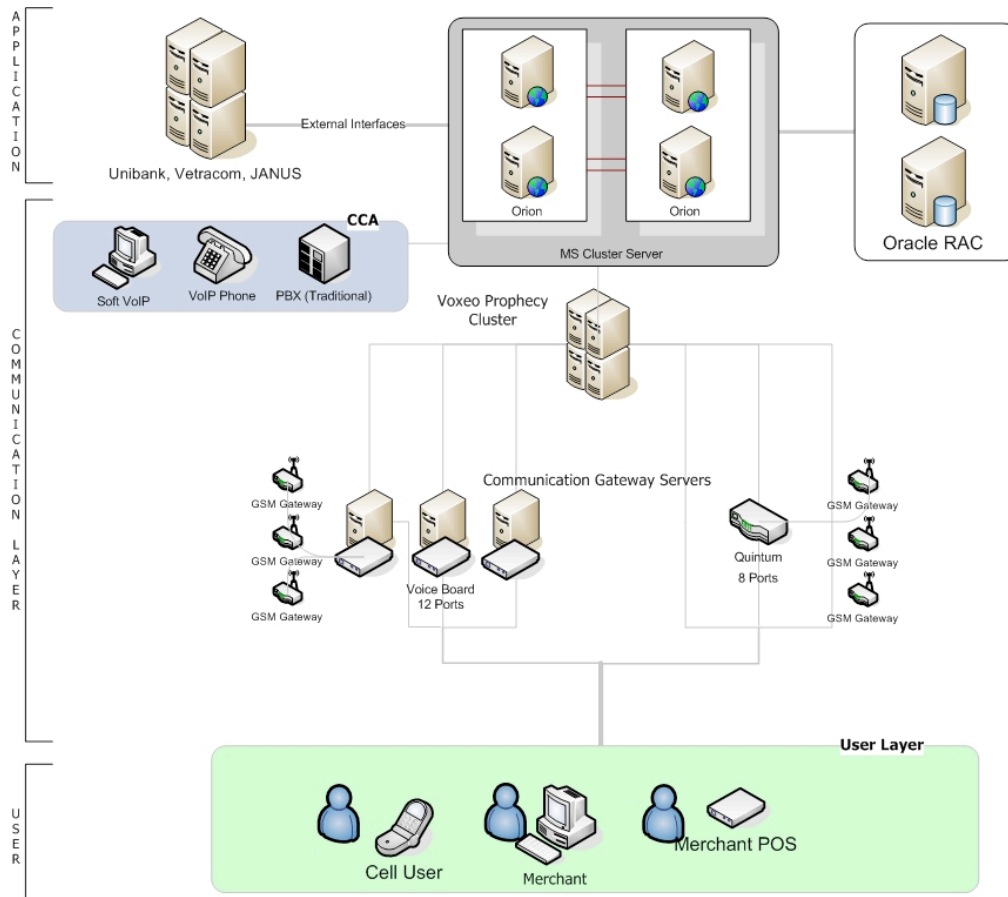
System Architecture

Orion consists of three layers: Application layer, Communication layer and User layer.

The Application layer uses a SOA based design. This ensures the required scalability by deploying web services over multiple machines in a cluster. A real-time Disaster Recovery setup ensures availability in case of a failure. The application layer contains Web/IVR/SMS interfaces and Business Services, Flows Manager, and the Persistence . Requests from Web and IVR are routed to Orion's core application.

The Communication Layer supports integrated VoIP Gateways (such as Quintum Tenor series). The system is designed to also support mix-and-match configurations, whereby one site may use the currently deployed architecture and another site may use an integrated GSM/VoIP gateway. The Communications Layer is based on VoiceXML and CCXML and a customer call can be terminated on any type of VOIP/GSM gateway as long as connectivity with the VoiceXML engine over IP is available. Currently the system is designed to run with Voxeo Prophecy 7.0. From there on requests are forwarded to Individual flow managers that interact with Business Services (through Web-Services/Remoting/Direct Object Instantiation). The SMS Layer has been decoupled to handle both proprietary mCore dialogs (to communicate with mCore compliant devices) and to communicate with GSM Modems.

The User Layer is designed to facilitate adding new user channels without impacting the overall system. Currently Voice/SMS/Web users are supported. Other specialized channels include web-services wrappers for designated services.



Benefits:

UBL has been able to add a significant number of new accounts in a highly competitive banking market due to the specific features provided by Orion.

About Techlogix

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