Pakistan Telecommunication Company (PTCL) started its GSM operations in 2001 under the brand name 'Ufone'. After PTCL's privatization, it became part of Emirates Telecommunication Corporation Group (Etisalat) in 2006. Ufone is now the second largest GSM operator in Pakistan with a customer base of over 20 million. Ufone has network coverage in 10,000 locations and caters for International Roaming to more than 288 live operators in more than 160 countries.

In a competitive environment, Ufone wanted to provide a very high level of customer service. Towards this end, Ufone was looking for a solution for handling high-volume service requests coming through multiple channels in a time sensitive manner.

Techlogix implemented an Enterprise Service Bus for Ufone that acts as an integration backbone and moves Ufone towards SOA. In the first phase, 22 processes were moved on the Service Bus. The bus supports more than 1 million transactions per day.

About the Client
Ufone is Pakistan's 2nd largest cellular services providing company with a subscriber base of over 20 million. The company maintains network coverage across 10,000 locations. Ufone has focused on being the market leader in Value Added Services (VAS) by constantly introducing innovative services.
The Challenge

Ufone was challenged with servicing requests across a huge customer base. These requests came through multiple channels (Call center, IVR, Web etc) and required responses in a time sensitive manner. All of these requests had to traverse across the intersection of the three critical operational systems: CRM, Billing and Network Provisioning. The existing integration solution utilized point-to-point connectivity across these three systems. This had resulted in significant complexity in handling requests in a consistent manner. The point-to-point connectivity also implied that Ufone lacked a unified reporting or monitoring view across the entire process of handling incoming requests. A typical VAS provisioning request might entail more than 40 discrete process steps and gaining visibility overall execution of this complex process was a critical business need.

Apart from the process orchestration issue, the high volume of requests was also a major concern. The required solution had to handle an average load of 1.5 million end-to-end process transactions per day.

The Solution

A joint IBM-Techlogix team proposed a Service Oriented Architecture (SOA) enabled, process centric approach to address Ufone’s requirements. The team automated 22 key business processes. This work also consolidated current and new interfaces, built an SOA enabled platform to support integration of the key business processes and implemented business activity monitoring for insight into the process workflows for proactive improvement and root cause analysis.

Some of the key processes addressed were:

- New Customer Activation
- Package Change
- Change of SIM & Number Change
- Access Level Change
- VPN Activation / Deactivation/Deletion
- Customer Payments & Reversal of Charges
- Friends and Family Offering Activation / Modification / Deactivation
- Credit Limit Update
- Service Barring and Restoration
- VAS Activation / Deactivation

Issues Faced & Strategy Adopted

During the implementation of the project, the major challenge faced by the team was handling the high volumes of process requests many of which were long-running due to possible process flow paths which included retries in calling services on participating system as well, in some cases, requiring human intervention in a work flow. The state of these long-running processes was necessarily persisted into the database and this had significant consequences for throughput.

To handle this challenge, the Techlogix team in effect implemented two versions of each process to serve as alternative paths to each other. When the process encountered no exceptions it was handled as a short-lived non-persistent process with very high throughput. If a process exception occurred, a new long running process was spawned and process execution was handed over to this instance. Since exceptions occurred in less than 5% of all process instances, this allowed Ufone to both have high throughput processes and handle exceptions in a controlled manner.
Technology
The team implemented the solution using the IBM Websphere platform including Websphere Process Server, MQ Broker and Websphere Business Activity Monitor.

Benefits
The backbone architecture developed and delivered as part of this project will serve as a foundation for future business process automation allowing new services to be plugged seamlessly into this scalable service & process centric architecture.

Furthermore, the Business Intelligence delivered by the BAM dashboards is of enormous value to the customer adding visibility into their business execution.

“Techlogix worked with Ufone in implementing a complex BPM/SOA transformation which coupled together our CRM, Billing and Engineering systems. Handling millions of BPM process flows per day required innovations in solution architecture and we required an implementation partner with highly skilled resources and the ability to deliver complex projects. We selected Techlogix because of their strong focus on service delivery and high quality resources. I was very pleased with the performance of the Techlogix team in helping us achieve these results.”

Faisal Khaliq
Chief Information Officer
Ufone
About Techlogix

Techlogix is an IT Services, Consulting and Business Solutions company that helps its global clientele achieve enterprise transformation by harmonizing people, process, and technology. Techlogix builds high performance solutions using practice-specific delivery methodologies that utilize its globally distributed development teams. Our people combine the spirit of engineering excellence with a strong commitment to end-to-end customer experience. Techlogix employs approximately 300 people in 5 delivery centers worldwide.

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Techlogix has worked with some of the largest telecom companies in the world focused on the nexus between CRM, Billing and Engineering systems. We have engineered solutions in high volume transaction processing and also complex multi-state process orchestration to ensure the efficient flow of orders from CRM to the relevant downstream systems. We have considerable experience in Telecoms related standards including NGOSS and eTOM and detailed understanding of the process and system architectures prevalent in a modern Telecom environment.