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IDC CUSTOMER SPOTLIGHT

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Grameenphone teamed with IT services provider Wipro to modernize its software infrastructure, dramatically improving performance and customer service while lowering operating costs and reducing time to market for new products by 80%.

Future Proofing a Leading Cellular Service Provider with Open Source Infrastructure

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Written by: Courtney Munroe, Group Vice President, Worldwide Telecommunications Research

Introduction

Grameenphone is Bangladesh's largest telecommunications service provider with more than 100 million subscribers and an extensive network that covers 99% of the country's population. Grameenphone's goal was the implementation of a modern digital platform. The company faced the challenge of rapidly and seamlessly migrating from an obsolete proprietary legacy platform to a futuristic, scalable, and flexible platform.

Grameenphone, a joint venture between Telenor and Grameen Telecom of Bangladesh, has a rich history of innovation. The company was the first to introduce GSM telephony in Bangladesh and offers a diverse and multifaceted portfolio of services. However, after several years of rapid growth, the company faced multiple challenges. Consumers required personalized services that could be revised rapidly to meet new needs. They also demanded impeccable and speedy customer service with quick call resolution and interaction times. The company faced an increasingly competitive market with continued rapid growth opportunities but was inhibited by a siloed and aging infrastructure that was unable to scale efficiently to meet evolving customer requirements.

The company embarked on an ambitious digital transformation journey with multiple objectives that included the implementation of a future-proof and scalable order management system with the ability to manage 20 million daily subscriber interactions. It also needed to revise its customer care platform to enhance customer experience while providing its agents with a comprehensive 360-degree view of customer data to both up-sell and reduce customer churn.

This comprehensive project included the modernization and enhancement of Grameenphone's back-office IT systems, including CRM, order management, inventory management, product management, reporting, document management, and real-time network monitoring. The goal was to create a COTS-free, open source platform that eliminated operating

SOLUTION SNAPSHOT

Organization:

Grameenphone, Bangladesh's largest telecommunications service provider

Organizational Challenge:

Replace outdated off-the-shelf IT systems with custom, open source, hybrid virtualized cloud-hosted infrastructure

Solution:

IT services from Wipro Ltd.

Project Duration:

Approximately 20 months

Benefits:

The new IT environment has lowered operating expenses, reduced product time to market, and helped Grameenphone prepare for future developments. Most important, the company has improved customer service in the highly demanding Asian market.

silos and created a new, efficient platform that is scalable and flexible enough to meet the current and evolving future requirements of the Bangladesh market. It also had to be compatible with the global Telenor platform to facilitate seamless business requirements globally.

"The Asia telecom market is a highly competitive market, and the business demands are dynamic; hence Telenor developed a technology platform to support rapid time to market for service creation and the ability to make changes rapidly to support Telenor businesses globally," according to Sathian Karuthedath, Grameenphone's Divisional Head of Technology. "We wanted an innovative solution/technology platform that made it easier to design [and that] was more scalable and faster to configure. It also had to be suitable for different markets [and] flexible and adaptable to new requirements as the industry evolves."

After an intensive vendor selection process, Grameenphone partnered with the global systems integrator Wipro Ltd. to create a new digital-ready, virtualized, open source platform that could facilitate the scalable and flexible in meeting the myriad consumer and global business requirements of the market.

This new transformational process required surmounting several major hurdles. The implementation of a completely new infrastructure, which included the implementation of enterprise software, application middleware, database servers, and operating system servers, required a seamless transition of the telecom provider's 100 million subscribers to the new platform. The company had to simultaneously test and implement perhaps the largest open source project ever implemented while meeting and enhancing operating and customer experience key performance indicators (KPIs).

By working with Wipro, Grameenphone was able to implement what it calls "CRM 360," a first-of-its-kind open source telecom CRM system that seamlessly integrated multiple data sources to create a comprehensive view of all relevant customer information on a single screen.

Implementation

Grameenphone has recorded an impressive growth record over the past two decades. It has achieved consistent growth to realize an operational scale of 100 million subscribers that ranks favorably with the best in the world. However, the ability to maintain and strive within this dynamic competitive market requires continued transformation, innovation, and change. The company was nearing the end of the life cycle for the legacy platform. Despite constant investment and revisions, the platform was too inefficient and was inhibiting rapid growth and top-shelf customer experience and personalization. There were frequent downtimes, a high dependency on additional third-party systems for problem resolution, and performance issues.

In addition, user interfaces were increasingly difficult for customers and many critical processes were not automated, making it difficult to properly serve the telecom provider's subscribers. When the COTS vendor decided to discontinue support for the version of infrastructure software that Grameenphone was using in favor of a newer offering, the telecom provider decided it would be better to create its own company-specific solution. Upgrading to a newer version of the COTS software was going to be costly and time consuming, and there was no guarantee of performance improvements.

"Our objectives included the modernization of our IT platform to facilitate scalable, future-proof, open source cost-efficient operations," reported Karuthedath. "We also wanted more flexibility, easier-to-configure technology, and the ability able to create our own road map for the future. We want to be number one in terms of time to market and to be able to rapidly customize products and services for different markets. This required a more dynamic platform, and we selected Wipro not only because of their knowledge of Grameenphone but also their flexibility and ability to meet our budget requirements."

Wipro began working on CRM 360 in April 2016 and successfully completed the project in December 2017 with the seamless migration of Grameenphone's 100 million subscribers to the new system.

The new IT infrastructure includes customer information management (the view into the system), an enterprise product catalog, customer order management, resource management, an enterprise service bus to manage integration and information flow, an SMS gateway, reporting, monitoring, a mobile app, partner distribution management, financial services integration, integration of all channels and notification sources, address verification and agency monitoring, a notification manager, and tight links to marketing sales management.

The switch to CRM 360 has reduced time to market for new products by 80%.

Most critical to the implementation of the new system was the migration of customers from the legacy platform to the new system without interruption of service. Wipro and Grameenphone implemented a multiphased approach in which legacy and CRM 360 applications operated in parallel and customer data was moved in a progressive manner in 11 consecutive instances. This approach also enabled the team to learn from each migration to further improve the process.

Challenges

As can be expected with a project of this enormity, Grameenphone and Wipro faced some challenges. This was a unique project for Grameenphone, which lacked substantial experience with open source platforms, and it took longer than expected to scale up the platform to the required performance level to handle millions of subscribers.

"As we progressed on the implementation of CRM 360, we had to figure out if issues were architectural or coding based," said Karuthedath. "There was some time delay, but performance testing was most impacted. Wipro was very supportive in this process and helped us overcome the issues."

Issue tracking and clearly defined roles between Wipro and Grameenphone, plus regular meetings, provided early and effective resolution. Migration of customer data also was a challenge. In addition to the sheer volume of information, inconsistency of data in the legacy systems – including inaccuracies, unknowns, and duplications – made it difficult for one-on-one mapping and for tracking progress. Switching between legacy and CRM systems was time consuming and potentially confusing. Solving migration issues involved the implementation of multiple test scenarios to uncover discrepancies. Using both pre-production and intermediate dry runs ensured that all inconsistencies were corrected before going live.

Benefits

The switch to CRM 360 has provided significant benefits. First, by having an in-house open source solution, Grameenphone is seeing significant savings in operating expenses. Future licensing, maintenance, and upgrade costs to COTS vendors are eliminated, and the telecom provider is in control of the frequency of changes. Most important is the ability to have what Grameenphone defines as a customer 360-degree view, which provides the information an agent needs to work with a customer on a single screen. This enables the company to better serve customers and has resulted in a measured 45% reduction in the number of click-throughs and a 20% improvement in first call resolutions in customer service. This includes a 10% reduction in average customer handling time and an 80% decrease in time spent handling international roaming issues.

These reductions are due to the consistency of information across all support channels, automation, error-free execution of customer order management, improved workflows, reduced back-end processing, and better monitoring of service progress. By adding a GUI for creation and configuration of products, the CRM 360 solution has reduced time to market for new product offerings by 80%.

"The new CRM 360 platform has met our goals," confirmed Karuthedath. "We have digital ambitions; we wanted more flexibility, reduced time to market, a better ability to customize our offerings, and to be more dynamic in a challenging market. Not only are we now able to develop a road map to the future, [but] we can better focus on the most important aspect of our business — our telecommunications customers."

Methodology

The project and company information contained in this document was obtained from multiple sources, including information supplied by Wipro, questions posed by IDC directly to Grameenphone employees, and Grameenphone corporate documents.

About the analyst:

Courtney Munroe, *Group Vice President, Worldwide Telecommunications Research*

Courtney Munroe is responsible for IDC's continuous research on global telecommunications trends. His core research includes the evolution of WAN networking to software-defined hybrid wide area networking and the impact of digital transformation on WAN architecture.

IDC Custom Solutions

IDC Corporate USA

5 Speen Street
Framingham, MA 01701, USA

T 508.872.8200

F 508.935.4015

Twitter @IDC

idc-insights-community.com

www.idc.com

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