Challenge: Creating Technology to Address a Unique Market Need

The Asian business environment has traditionally placed small and medium-sized firms at a technological disadvantage. In Asia, competitors seize opportunities to engage more fully with clients on a wide range of devices. Companies must respond quickly with new, data-rich, intuitive applications of their own or risk getting left behind. With cost as a barrier, only the best-financed businesses were able to play the game with big enterprise applications. Everyone else had to make do with whatever technology they could afford. Kingslake, a software development consultancy and Progress partner based in Sri Lanka, saw this market imbalance as a growth opportunity.

Kingslake, which operates in Europe and Asia, believed it could engage with many new customers if it could deliver an agile tool to create business management software that didn’t require coding skills, costly licenses or hosting infrastructure. Kingslake came to this insight through familiarity with the Asian industry. Since 1991, the company has offered services such as product development, application transformation, systems integration and business process management in the apparel, automotive, electronics, manufacturing and distribution sectors. It is also known for cross-industry solutions focusing on accounting, HR, enterprise asset management and business intelligence.
Kingslake’s developers had a vision to leverage cloud computing to create a powerful, low-cost software platform. They wanted to offer clients a simple, economical means of rapidly creating sophisticated, web and mobile-based applications. Their goal was to marry their extensive experience in the market, their vertical operational knowledge and new, lightweight development cloud tools. The end product they envisioned would be an Application Platform-as-a-Service (aPaaS) tool that would enable smaller companies to create their own custom software applications to put themselves on an even footing with corporate giants — within a short timeframe and at a fraction of the cost of implementing a full enterprise system.

To realize the aPaaS vision seemed daunting at first. Though the outlines of the idea they called “SmartApps” seemed simple, the execution did not appear to be initially easy.

A viable solution would have to be hosted in the Asian region, not in the U.S., where many cloud candidates were located. Creating the solution with cloud-based tools also had to be a streamlined process to justify the cost of the project. Some of the available options required a great deal of expensive, complex development on top of a bare-bones foundation. This level of effort may have made SmartApps.lk too big of a business risk to take.

Solution: A Product Built on Partnership and RAD Technology

Kingslake’s developers approached the solution on two levels. First, they had to find the right technology. Then, they needed a partner that would provide the kind of local, reliable network and infrastructure they needed to have it run right for local users. Both the aPaaS platform and the host would have to function well together for SmartApps.lk to succeed. “We knew going into this that victory would emerge from attention to detail, and a focus on the nuances of the platform in every way,” said Dr. S.

Dharmavasan, the founder and CEO of the Kingslake Group of companies. “A brief delay in a screen refresh, an interface setup tool that was not simple to understand — these could kill our efforts before we even started.”

After reviewing various options, Kingslake decided that Progress® Rollbase® would be the optimal platform on which to build the aPaaS product. Rollbase is a rapid application development (RAD) tool that combines PaaS with application hosting. It offers users an intuitive, web-based interface for coding-optional application development. Kingslake chose Rollbase because it provided the best mix of features and value for an aPaaS solution. With its central dashboard and an integrated, model-driven authoring environment, Rollbase combines a user-friendly, drag-and-drop, point-and-click interface with the industry’s best application integration and data connectivity. The platform also offers a comprehensive toolset that enabled the team to add a range of pre-built, customizable application templates to SmartApps. These include out-of-the-box integration with Gmail, Google Calendar, Google Docs and Google Maps.

Rollbase was ideal for SmartApps.lk, as the aPaaS site was known, but its default hosting was not suited to an aPaaS product in Sri Lanka. Rollbase is hosted in the U.S. and Europe. Kingslake’s longstanding relationship with Progress allowed the team to explore a new approach: hosting its own cloud instance of Rollbase locally. After ascertaining that it was possible, Kingslake needed to find the right hosting partner in Sri Lanka. It turned to Dialog Axiata PLC, which operates Sri Lanka’s largest and fastest-growing mobile telecommunications network, offering best-in-class 4G LTE broadband connectivity in addition a wide
spectrum of corporate clients and the island’s second largest fixed-line network.

Dialog offers broadband, leased lines and customized telecommunication services to corporate clients. The ISO 9001 certified company also operates several large-scale data centers that meet the latest ISO 27001:2013 security standards and is the only Sri Lankan service provider to do so. Dialog was recognised as a great fit to further the programme, plus, Dialog offers the network capacity and data center facilities for reliable, high-performance cloud hosting of the aPaaS product in Sri Lanka. Dialog also had a wide range of corporate clientele who served as potential customers to SmartApps.lk, plus, a corporate sales team and the billing infrastructure to deliver the product as a natural extension of its commercial phone and broadband business.

The Kingslake and Dialog developers went to work jointly on SmartApps.lk, each concentrating on their part of the product. Kingslake developed SmartApps.lk on top of Rollbase. Adapting Progress Rollbase into SmartApps.lk enables users to create sophisticated Web-based business applications quickly, while paying a fixed, low-service fee for access and usage. SmartApps.lk provides seamless integration with the user’s current applications, enabling them to keep the existing business logic intact, while adding value to these applications. This capability extends the lifetime of existing systems and allows clients to reach out to a larger customer base.

Dialog developers collaborated closely with the Progress team to install Rollbase at its data center, running on RedHat Linux servers. Rollbase APIs integrate the platform with the Progress® OpenEdge® 11.3 database, as well as Dialog’s billing systems and mobile APIs.

Since deployment the Dialog administrative team has been able to manage and monitor the solution with confidence and customer engagement.

**Success: Innovation, Growth and Faster Time to Market**

SmartApps.lk enjoyed a successful launch. “Our clients can dive in with SmartApps.lk and quickly build effective, Web-based software without the hassle and setup costs of infrastructure, software licensing and related maintenance,” said Dharmavasan. “There are no dev, test and production environments to maintain. There is only a single browser-based interface that can be accessed from anywhere.”

For clients, it’s a business win in every sense. Innovators use SmartApps.lk to gain an edge over their competitors by speeding solutions to market. Kingslake is able to provide scalable and flexible services to developers for just $12 a month. At this price, which clients estimate to be about 1/10 of the price of comparable commercial software, developers can also develop six times faster.

“For new SmartApps.lk customers, the Progress Rollbase platform offers a quantum leap in productivity and competitiveness,” said Navin Pieris, Head of Business Broadband & Fixed Telecommunications at Dialog Axiata.

The SmartApps.lk advantage is well suited to Sri Lanka, where many businesses need to maintain agility while employing a large number of people. For example, in the apparel business, which is common in Sri Lanka,

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many of the medium-sized firms in the industry had long sought a solution to track worker transportation. One early SmartApps.lk adopter is a company that runs half a dozen factories with more than 5,000 workers. The workers, who typically live some distance from the plants, rely on company paid shared vans to get to and from work. Without a system to plan rides, it was nearly impossible to keep track of who was coming to work or to optimize the number of hired vans.

With SmartApps.lk, the company has been able to develop a van-sharing, route-planning and “clock in/clock out” application for all its workers. Available as a mobile and Web app, the cloud-based software makes it possible for the company to have a much better sense of work attendance before a shift starts. As yet another value addition to partnership, Dialog provides all necessary infrastructure and communications for the Near-Field Communications (NFC) cards used by workers to interact with the app. A vehicle capacity planning function in the app saves the company money by optimizing the hiring of vans. The app has the added benefit of improving safety, as the company can now track that people are getting home safe via reliable transportation. It would have been cost-prohibitive for this customer to acquire a commercial transport management application or develop one on its own.

Sri Lanka’s University of Colombo School of Computing (UCSC) also signed up with SmartApps.lk as a platform to teach Rapid Application Development. The faculty believes that SmartApps.lk will give students some real-life experience of RAD in a cloud computing environment, including how to deploy and manage Software-as-a-Service. Kingslake will be involved with the program. The company has offered to assist students who want to commercialize apps they develop on the platform.