

Optus Boosts Speed to Market, Streamlines Provisioning Process with BPEL Solution



SingTel Optus Pty Ltd
Sydney, Australia
www.optus.com.au

Industry:

Communications

Annual Revenue:

US\$5.6 billion

Employees:

More than 10,000

Oracle Products & Services:

Oracle Database
Oracle Real Application Clusters
Oracle BPEL Process Manager
Oracle Internet Directory

Key Benefits:

- Improved speed to market by cutting provisioning time from 11 days to five days
- Increased efficiency by automating processes and workflows
- Prevented revenue leakage and avoided human errors by minimizing manual data entry
- Enabled easier problem detection and resolution with XML-based audit trail
- Gained ability to change or add processes with flexible, easy-to-use development tool

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Optus is the second-largest telecommunications provider in Australia and a wholly owned subsidiary of Singapore’s SingTel Group. The company provides a broad range of communications services including mobile, local, national, and long distance telephony, business network services, internet and satellite services, and subscription television.

One of the company’s key business offerings is premium short message services (SMS), whereby an external party can obtain a number (or short code) on the Optus network for competitions, promotions, or content download. In the past, the SMS provisioning process was largely manual, leading to inaccuracies resulting from human error, lengthy waiting times for a request to be processed and entered into the Optus network, and difficulties with problem management.

To address these areas, Optus decided to automate the provisioning process, selecting Oracle BPEL Process Manager to develop a new system and implement around 500 business processes. The system enables Optus to cut the provisioning process from 11 days to five days and minimize the risk of errors arising from manual input. It will also be easier to pinpoint and resolve customer complaints.

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Automating Provisioning Processes

The premium SMS product allows consumers to enter competitions, download content such as ring tones, wallpapers, games, videos, or music to their cell phone, or submit live votes on television programs such as *Australian Idol* by dialing in or sending a text message to a designated number.

Content providers and commercial organizations that want to provision a premium SMS short code on the Optus network must send a request via a third party called an aggregator. These aggregators purchase a number from a government agency and submit it to Optus, along with the promotion or competition details. Previously, the request was manually processed by three different workgroups. This stretched the provisioning time to 11 days and increased the risk of errors from wrongful input.

“We receive an average of 55 short code requests a week, and many of our aggregator clients were asking for faster turnaround times,” said Mulder. “Optus is aiming to automate as many processes as possible, so this was a good opportunity to review the premium SMS provisioning system and workflows.”

Optus used Oracle BPEL Process Manager to develop a new system and model 12 master workflows and up to 500 sub-workflows. When the system goes live, aggregators will be able to log in via the Web to enter the promotion or competition details and attach the number they purchased.

A new workflow will then send the order to the pre-paid, post-paid, and networking workgroups for processing and to the back-end billing systems. Once all the workgroups have completed their tasks, the order re-enters a central database to be marked as finished. Aggregators can check the progress of their requests at all times under the new system.

Increased Efficiency Cuts Provisioning Time

The new provisioning system will ensure requests bypass the provisioning team and go straight to the relevant workgroups. “What we’ve done is remove the process of manually entering data or extracting information and storing it elsewhere,” explained Mulder. “Automating processes will not only increase efficiency, it is also expected to reduce the error margin.”

Optus expects to cut the premium SMS provisioning time from 11 days to five days; in fact, requests will only appear on a

workgroup's task list five days before the launch date of a promotion or competition.

"We will be able to deliver the faster throughput the aggregators have been asking for the past few years, and if they want to quickly launch a new product or service, we will now be able to fulfill their request promptly," said Mulder.

Easier Issue Tracking and Resolution

Problem tracking and resolution will be easier with the new system, which is linked to a data warehouse storing SMS call records. This will give customer service staff easier access to information to help them determine the provider responsible for the issue.

"When customers ring in about a fault, we can raise small workflow issue requests based on the call record and the number that was provisioned," explained Mulder. "We can discover which company was responsible for the mistake, such as a wrong ring tone, route the workflow to them, and they will pick it up and resolve the issue."

Greater Technical Flexibility

According to Mulder, the ease of use of Oracle BPEL Process Manager means it is a very handy development tool.

"One of the reasons we chose Oracle to build the new system was because it supports Web services and interfaces easily with existing systems. The suite of adaptors is easy to use and allows us to integrate and store procedures in back-end systems."

The XML-based audit trail also earned praise as it enables real-time problem detection. "It shows what and where the issues are so we can very quickly track down and resolve the trouble spot," said Mulder. "For example, during the testing phase, we found that workflow issues were very easy to find and fix.

"Oracle gives us a lot of flexibility in the future if the business wants to change a workflow or integrate other processes. We can quite easily make changes to workflow engines and include other workgroups. For example, there is nice functionality around the solution to manage people-based tasks, so a customer service representative can escalate an issue to their manager."

Future Plans

The second phase of the project is to refine the customer care element of the system, integrate the customer complaints system with the provisioning platform, and automate other processes related to provisioning.

“The business has some ideas for further automation of downstream provisioning systems,” said Mulder. “At the moment, a couple of workgroups need to log in and manually acquire these tasks. Ultimately what we want to do is automate those tasks using the provisioning tool.”

Why Oracle?

Optus evaluated products from a number of different vendors and a range of open source solutions before selecting Oracle BPEL Process Manager.

“From a technical perspective, Oracle BPEL Process Manager provides a complete service-oriented architecture (SOA) platform, making it easier to coordinate Web services and automate business processes,” said Mulder. “This was a big factor in Oracle’s selection. Optus is already standardized on SOA so it is a familiar skill set within our development group.”

He added that what gave Oracle the edge was the level of service provided by the pre-sales team during the evaluation phase.

Implementation Process

The core project team comprised 10 business analysts and three developers. To ensure the new provisioning system delivered the required functionality, Optus invited all business holders with a stake in the solution to define their needs. A basic requirements document was written, approved, and given to the team of developers.

A series of flow charts and activity diagrams was then drawn up in conjunction with business analysts. These charts documented 12 complex master workflows and 400–500 sub-workflows.

“One process that runs over five days might have two or three smaller processes in the back-end as well as a number of human interactions with other workgroups,” explained Mulder.

The build phase, which lasted approximately one year, involved a significant number of process refinements.

“The Oracle software gave us the flexibility to make changes with minimum fuss. In some cases, we could rewrite a process within a day,” Mulder said.

Advice from Optus

- Provide initial training for project team members prior to the deployment to ensure they have a basic understanding of the technology.
- Organize post-implementation support to help refine and stabilize the system.

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