Case study: Telekom Malaysia’s high-speed broadband network – ‘out-of-the-box’ BSS/OSS was fast and effective

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Telekom Malaysia had just eighteen months to implement a new high-speed broadband network, along with a set of BSS and OSS processes and systems to support the new services. Because of this short timescale, the CSP adopted an unusual approach; it transformed its operations around new system capabilities based on ‘greenfield’ and ‘out-of-the-box’ principles, and had its systems integrator establish, operate and then transfer the resulting operations and systems.

Problem statement

In 2007, having divested its mobile arm, Telekom Malaysia signed a ‘Public–Private Partnership’ with the Malaysian government, agreeing to build a national broadband network passing more than 2 million homes with high-speed access – mostly FTTH with VDSL fill-in. Under the agreement, the government paid about one-third of the projected cost. From the beginning of the project in 2008, Telekom Malaysia was given 18 months to deploy the core, metro Ethernet, access and FTTH network components as well as the BSS/OSS infrastructure to support the equipment and high-speed services. Telekom Malaysia received approval from the government to proceed with the selected BSS/OSS vendors in April 2009, and the CSP had a few months to prepare the operations and supporting systems.

Analysys Mason interviewed Nizam Arshad, Vice President of Group IT at Telekom Malaysia, about the High Speed Broadband project and the operations and systems to support it.

Implementation approach

The project had three phases. During the first, from April 2009 to January 2010, Telekom Malaysia implemented the basic consumer services. The second phase followed in July 2010 when the CSP launched enterprise, government, wholesale and worldwide services. The third phase involves releasing additional services and capabilities every six months.

Telekom Malaysia approached the scheme as a greenfield project and implemented the full suite of Oracle BSS/OSS solutions for CRM, billing, order fulfilment, service activation, integration, portals and service delivery platforms. As far as possible, these components were implemented out of the box, minimising legacy integrations and customisation. A new logical inventory solution based on Telcordia Granite was also implemented alongside the existing Clarity inventory system for outside plant and legacy inventory. Intec, an incumbent system, provided the mediation and inter-carrier billing functions. EMC’s Ionix was chosen for the
fault management function, while decisions about performance management functions were deferred to a later time.

Telekom Malaysia selected Accenture as the main systems integrator, which provided end-to-end programme management, solution architecture, systems development and business and systems integration services under an ‘Establish–Operate–Transfer’ model. Using this model, Accenture established the initial operations and system functions, operated the systems until they were stable and transferred the operations to Telekom Malaysia’s staff via ongoing training programmes. Oracle was also involved in the project to ensure features of the software product suite were maximised and the solution aligns with Oracle’s roadmap.

Although Telekom Malaysia originally approached the scheme as a standard greenfield project, (in which requirements would drive system selection, followed by customisation of the software and integration with other systems to implement the overall system architecture) the approach chosen was to build on the existing technology. The systems were used as much as possible out of the box, with no novel integrations and limited customisation. This meant that OSS components were selected on the basis of not only a reference customer for the product, but also references for the system integrations that the architecture required.

**Business benefits**

The systems were implemented on time, successfully meeting the incredibly tight schedule. The first release, supporting residential triple-play services over high-speed broadband, was delivered in just eight months. The end-to-end implementation of the Oracle suite was the largest and quickest in the region, and among the quickest in the world.

Although it was a “daily battle” to stay true to the out-of-the-box philosophy, Telekom Malaysia successfully transformed its operations, customising less than 20% of solutions. This was key to the quick implementation and delivery of improved business capabilities to support high-speed broadband that would not have been possible with Telekom Malaysia’s existing legacy platforms.

**Key learnings**

Telekom Malaysia emphasised several key points learned during this project:

- It is possible to meet incredibly tight schedules with out-of-the-box solutions that have already proven themselves in the field, although it is a battle and requires the entire organisation to change its mind set.

- A traditional greenfield philosophy needs to be balanced with the realities of operational, cost and schedule constraints. Strong partnerships with the systems integrator and adherence to modern software integration design principles, are critical to a successful delivery.

- Strong governance, with senior business and technology champions to resolve issues and make decisions in a timely manner, is critical to the success of the programme.

- A multi-release approach, with major services and capability roll-outs every 6 months aligned with marketing’s and network’s go-to-market programme, helps Telekom Malaysia “launch fast and scale fast” to meet business needs.