

CASE STUDY

StarHub Grows with Incognito

Singapore-based StarHub has been using provisioning and service activation products from Incognito Software for more than a decade. One of the region's leading and most innovative info-communication companies, StarHub has leveraged the strategy of "hubbing," or services bundling, since 2002.

Operations and business support systems (OSS/BSS), including those offered by Incognito Software, play a crucial role in any services bundling strategy. They are also key to providing next-generation services. Going forward, StarHub will use Incognito as it continues to roll out fibre broadband services and IPTV.

A Key Singaporean Player

StarHub was set up as a fixed network and mobile services operator in 2000, as part of the Singapore government's efforts to liberalize the telecommunications sector. In 2002, StarHub merged with Singapore Cable Vision, which added cable television assets and additional broadband Internet access operations to StarHub's stable of services. As of 2Q-2011, 57 percent of households in Singapore subscribe to two or more StarHub services, which include video, mobile voice, and data. StarHub is also the fastest growing mobile operator in the country, serving more than 28 percent of the market.

The Singapore market is technologically advanced, with a household broadband penetration rate of 192 percent in 2010. The overall strength of Singapore's economy is reflected in its per-capita gross domestic product, measured at USD \$36,537 in 2009, slightly ahead of the United Kingdom.

StarHub serves four main sectors: residential, financial, hospitality and commercial. Its pay TV subscriber count is about 540,000, roughly comparable with that of fourteenth-ranked U.S. multichannel video programming distributor Cable One. Its profile, however, more accurately reflects a company such as Canada's Rogers Communications, which, like StarHub, has four times as many mobile subscribers as pay TV subscribers. StarHub's annual revenue is \$2.6 billion Singapore dollars (USD \$2.16 billion).

Use Cases

StarHub's relationship with Incognito goes back to 2000, when Singapore Cable Vision chose Interactive Enterprise as the preferred supplier for provisioning and activation of cable TV and broadband services. (As mentioned above, StarHub merged with Cable Vision in 2002.)

In 2003, StarHub deployed Broadband Command Center for DOCSIS and PacketCable provisioning. Then, in 2009, Incognito acquired Interactive Enterprise. By inheriting Interactive Enterprise's technology (for example, Conexon) and customer base, Incognito became a single point-of-contact for StarHub service and device provisioning.

Given the variety of requirements, Incognito products are used in many implementation scenarios. In some cases, StarHub deployed some modules separately for geographical or internal reasons. However, a common database schema supports the service activation instances. In all, StarHub now uses more than ten Incognito products in the following cases:

Digital TV Conexon. Enables the provisioning and activation of StarHub's TV offering, and holds a complete service inventory for cable TV. It provisions linear channels using

¹IDA Singapore, "Household Broadband Penetration Rate (Singapore) 2004 – 2010, Annual."

²World Bank, 2009 World Development Indicators.

³NCTA, "Top 25 Multichannel Video Programming Distributors, as of Dec 2010." Cable One basic video subs numbered 648,000.

a TCP/IP socket interface to the Nagravision conditional access system and video-on-demand channels using a SOAP interface to the eventIS VOD platform.

Impulse Purchase Conexon. Acts as a gateway that receives purchase requests from the set-top box and forwards the requests to an impulse purchase engine that interfaces with Digital TV Conexon. StarHub Principal Solutions Architect Vivek Durairaj says this is “one of our favorite solutions...because now (customers) are able to purchase subscription channels on demand without calling the customer service hotline, and the customer receives the channel within a few seconds, even on multiple boxes.”

HSD Conexon. Uses CORBA to interface with 13 BCC clusters that support cable modems and an additional cluster that supports the FTTH-based MaxInfinity high-speed data service. “What Conexon enables is the translation of the commercial offer to the appropriate modem client class,” Durairaj says. “We’re also able to manage the movement of modems across multiple BCC clusters.”

Broadband Command Center. Keeps StarHub current with DOCSIS specifications. It also enabled StarHub to become the first cable operator in the world to offer 100Mbps service to subscribers with DOCSIS 3.0 cable modems.

FlexiSurf. Enables customers to enjoy pre-paid broadband Internet access service. It manages the service and plan life-cycle and charges the customer based on payment mode, either credit card or pre-paid FlexiCard. It also interfaces with HSD Conexon for activation and deactivation.

FlexiCard. Enables a stored-value, pre-payment mode. The associated life-cycle management allows operators to generate cards, transfer files to a printer, and blacklist cards.

SafeSurf. Blocks out undesirable websites. A self-care portal that interfaces with HSD Conexon allows customers to turn filtering on and off.

Digital Voice Conexon. Enables provisioning by device type and profile of residential fixed-home phone service over StarHub’s high-speed broadband infrastructure to voice-enabled modems. It also enables SIP device provisioning to integrated access devices served by any broadband connection, anywhere in the world.

Utilities. Among the Incognito utilities used by StarHub are an FTP-based speed test, a broadband qualifier that determines whether a PC or modem meets minimum requirements, and an API that translates IP and modem MAC addresses used for internal and third-party applications.

StarHub’s Takeaways

StarHub’s experience with the comprehensive offering provided by Incognito Software has been positive. “What we have from Incognito are stable and reliable software products and solutions,” says Durairaj.

StarHub has also found Incognito responsive and flexible. According to Durairaj, Incognito solutions are also capable of supporting traffic spikes, such as the FIFA World Cup™ broadcast, when transactional traffic increased by ten times.

“We get fairly quick turnaround time for any new project and change requests,” says Durairaj. “We normally just have one session. We don’t have to keep clarifying and repeating...just one session and then it’s delivered to spec,” Durairaj adds.

Given the competitive landscape that StarHub operates in and the multi-faceted demands of its customers, this exacting and efficient track record from a key provisioning partner bodes well for its future successes in growing services and enhancing customer satisfaction.

StarHub Fast Facts

- Based in city-state Singapore
- First quad-play info-communications provider in the region
- Commands more than 28 percent of the mobile market
- As of 30 June 2011, serves more than 544,000 homes with cable TV and 431,000 homes with broadband
- As of 30 June 2011, serves more than 449,000 households with two or more services
- Offers broad service portfolio to multiple markets
- Total employee count of 2,600
- 2010 annual turnover of \$2,238 million Singapore dollars