

Interactive TV comes of age

THUS works with Sky Interactive to deliver interactive TV infrastructure for more than six million Sky Digital subscribers

In late 2000, Sky - Europe's largest digital TV provider - launched its next generation Interactive TV (iTV) platform for its Sky Digital customers in the UK and Ireland. Up until then, interactive services had been created using proprietary TV centric technology, in a "walled Garden" environment. The new platform was to be based on Internet Standards and embrace services from suitably purposed web sites.

Sky chose to invest in a programme to transform its iTV capabilities. Developing a new microbrowser and gateway architecture based on WAP technology, Sky formed a relationship with THUS - to act as a hosting partner, operations centre and Internet provider, as well as to provide dial - in and modem capacity for the new network. THUS plc helped to build and launch a platform that supported a new model for iTV services, with the first service going live in December 2000 behind SkyText. In May 2001 Sky Active began operation based on the new technology platform, and replaced the "Open...." brand as Sky's iTV portal.

For iTV services to be effective in delivering an enhanced viewing experience (as well as generating additional sources of revenue) they must encourage the audience to move from what is essentially a passive 'sit back' activity into an interactive, or 'sit forward' experience. For example: the ability to place a bet on a live horse race or predict who will score the first goal in a soccer game while watching the live match at the same time.

Using the browser model, making the core application small enough to be broadcast in-line with the video signal and by using standard protocols and service models, Sky was able to link iTV services directly with broadcast content. In addition the platform provided viewers with access to a range of value-added services and content that had already been developed for WAP-enabled mobile phones and Internet users.

The iTV service, built and delivered by THUS and Sky Interactive, now underpins the SkyActive portal, The UK online government portal, the Sky Customer Service portal and eTV applications from other broadcasters such as Channel 4 and Disney. It provides Sky Digital customers with access to a growing number of interactive TV services through their Sky digibox, using the Sky remote control or digital keypad.

For the first time, the broadcast TV signal, broadcast interactive content and content generated specifically for the individual subscriber is combined on screen simultaneously and seamlessly and delivered alongside the digital channel currently being viewed.

The initial services made available to Sky Digital customers included on-line betting, email services and directory information services. Within a few months, the list grew dramatically as the Sky Interactive WML Microbrowser Developer Programme - the official initiative run by Sky to support those actively developing iTV content - gained momentum with over 300 different companies now developing iTV applications.

New content providers continue to supply services, Sky is now running over 87 interactive services on Sky Active, the broadest range of iTV services available anywhere in the world, and recently announced that it had increased interactive revenues by 100%, from under £100m to £200m for the last year.

A Sky Digital subscriber can, now obtain a wide range of information, play games, send and receive email and SMS (Short Messaging Service) messages, access the UK telephone directory or place a bet - all through their Sky digibox. A menu detailing the interactive services enables the customer to open up a range of specific screens, such as football, horse racing, cricket or motor racing - outlined in groups for gaming, betting, email, SMS and general information. Tariffs for the individual services vary according to the type of interaction involved.

A timely relationship

THUS won the tender for the project due to its flexibility to meet Sky's challenging deadlines, its ability to offer an integrated solution and the expertise of its staff, delivered as part of a cost-competitive solution.

Sky needed a solution that would enable content providers to operate services in a robust and resilient environment, with a quality of service that was second to none. Using the platform built and operated by THUS, Sky created a network of more than four million WAP browsing devices - the number of Sky Digital Set-Top Boxes in use at the time; by far the largest deployment of WAP technology anywhere in the world.

Standard components - bespoke solution

THUS provided a range of services to BSkyB to support the Sky Interactive platform. THUS was involved in the original design work and specification of the entire platform, from the original concept to final implementation.

The new platform is a prime example of THUS's established approach, allowing a bespoke solution to be created from a series of simple, standard building blocks with a minimum of additional service development involved. As a result, the complete solution was designed, built and tested in less than six months.

THUS's development and operational staff worked closely with the Sky Interactive team to create not only the infrastructure, but also the processes and procedures used to manage the platform on a day-to-day basis, the support models for additional content providers and the selection of key technology suppliers within the overall architecture. This included work on WAP technologies, Internet standards, facilities requirements, security systems, modem technologies and network design. THUS project management teams were also responsible for project managing the build programme.

THUS provides all network capabilities that support the Sky Interactive platform, including use of the THUS UK switch network to accept calls from Sky Digital's current 6.6 million subscribers throughout the UK, no matter who their telephone provider is. THUS's facilities are designed to be able to terminate high volumes of data traffic, along with the ability to interoperate with Sky's own network management facilities to ensure the appropriate authentication and connection to dedicated third-party content providers. The network and platforms for Sky are fully resilient and running full, military specification, encryption designed and implemented by the THUS security team.

Fully managed for Sky

The entire network infrastructure and operation is outsourced to and managed by THUS, hosted within THUS's London facilities, including dedicated racks, LAN

infrastructure, power and hosting suite in a fully resilient, managed environment.

THUS monitors and manages the service, pre-empting or resolving faults and providing operational information to Sky Interactive 24 hours a day, 365 days a year. All other third party support for the platform is also managed by THUS in accordance with Service Level Agreements.

Commenting on the project, Phil Male, Chief Operating Officer at THUS, added: "Our work with Sky over the last few years has clearly demonstrated THUS's ability to work hand in hand with our customers, bringing all of our skills and experience to bear in delivering maximum value to our customers. We are not only intimately involved in the design, build and operation of the Sky Interactive platform; we also provide iTV services directly. Demon customers can read their email and all Sky customers can send and receive SMS messages through services provided by THUS through any Sky Set-Top-Box".