Satellite TV broadcaster BSkyB improves Supply Chain Management with IFS Applications

IFS

The BSkyB vision is that it can only continue to be streets ahead of any other broadcaster by constantly improving its closely-integrated combination of hardware and world-beating services. This is why, unlike many other broadcasters, it installs and services the hardware customers use to view its services.

And that's why BSkyB's hardware and systems supply chain looks, in many respects, like a combination of leading-edge technology with a best-in-class retail operation.

BSkyB is committed to delivering world-beating customer service. Its Inventory Control System (ICS) from IFS is one of the key initiatives that underpin this vision.

Complexity

BSkyB supplies tailored broadcast and other media products and services to one home in three throughout the UK, as well as to pubs, clubs and other commercial premises. Its ambition is to be in 10 million UK and Irish homes by 2010.

In theory the BSkyB business model is simple. Subscribers or potential subscribers order equipment online, from a retail outlet or from a contact centre. They are allocated one of BSkyB's van-based field engineers who will install the equipment according to a schedule of visits.

The engineers draw on the stock they need to complete that schedule from local branch or drop points replenished from BSkyB's central National Distribution Centre (NDC). The manufacturers replenish the NDC from their own warehouses and refill them according to BSkyB purchase orders issued atintervals based on an annual forecast.

The detail is more complex. The BSkyB offering includes not just the installation, repair and upgrade of customer installations but the relocation of systems for customers who move house, and servicing of customer products in the home. BSkyB's manufacturing and logistics team procures, issues and replenishes stocks of set top boxes (STBs), satellite dishes, low

About BSkyB

British BSkyB Broadcasting (BSkyB) is no ordinary media company. The operator of both the UK's largest digital satellite television platform and the UK's fastest growing broadband provider is an endlessly innovating provider of broadcast sports, movies, entertainment, news and broadband services.

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noise blocks (LNBs, the dish receiver), accessories, cabling, consumables and engineers' equipment to over 1,800 BSkyB engineers located across the UK and Ireland. The equipment is delivered either by a third-party logistics company, Unipart, which delivers orders from the NDC to multiple BSkyB engineer collection points, or by direct delivery from supplier warehouses into the appropriate sales channel.

The manufacturers supply the items to the NDC from their own warehouses in various locations. They also supply distributors, retailers, BSkyB's four business partners – who have 14 distribution centres of their own – and small sub-contractors who carry out installations and service on BSkyB's behalf.

BSkyB co-ordinates all these stock movements. The NDC also sends out parcels, such as the routers that customers need to access Sky's broadband product. The same network also supports product returns, managing the movement of stock through the network to third-party repair centres.

To meet its promise to new and existing 'direct to home' (DTH) subscribers BSkyB aims to deliver installation services within 7 days, and service within 2. Equipment required includes a dish and receiver, a set top box (STB), and all the cabling needed to make an installation work. In addition each of the 1,800 BSkyB engineers' vans has to carry electronic and mechanical tools and sundries to do their work, from digital meters to the disposable blue plastic overshoes they wear in customers' premises.

Legacy systems

Throughout the UK and Ireland, BSkyB's operation covered over 100 bulk stock holding locations and over 1,800 engineer van stock locations. The business moves 40,000 stock items a day and handles at least 30 purchase orders a week and 500 internal stock movement orders a day, each with an average of six lines per order.

This supply chain – more than 350 stock keeping units (SKUs) and half a million products is together worth over £25m and was becoming a logistical challenge to manage. Until IFS's implementation of the ICS, BSkyB stock was managed by a combination of legacy-system and manual processes unable to support the company's future growth or provide extra capacity for technological and service innovation.

The information about what equipment was out in the field and where it was located was distributed between a great number of individual spreadsheets.

BSkyB's supply chain management team of two dozen people was stretched by the need to hold monthly stock audits to keep tabs on stock. "We didn't want to have to continue to do that," says Marion Scott, Head of Supply Chain Development at BSkyB.

Dealing with new product introductions (NPIs) and the end-of-product lifecycle were two further big challenges for BSkyB. Innovation is a core BSkyB value. The company beat all

its rivals to provide high definition (HD) television services for the first time in the UK. BSkyB acquired broadband internet provider Easynet to integrate broadband services with its core customer offering. And one in five BSkyB customers also takes an additional service such as Sky Multiroom, or Sky+, now in use in over two million homes.

But NPIs present a big supply-chain challenge. If you can't see the stock, you can't manage NPI launches effectively across all sales channels. As production of HD or any other new device or service is ramped up, knowledge of the serial numbers and locations of all stock becomes even more vital: at first the stock is in short supply and has to be directed to field engineers item by item instead of from bulk stock

Two years ago BSkyB realised that the non-value adding audit workload would worsen as the business grew. The costs of higher-than-necessary stockholding would rise. And with this the risk that, from time to time, BSkyB would fail to meet its customer promises because equipment a customer had been promised was misplaced. Since BSkyB's unique selling proposition, Marion stresses, is the quality of the service it provides to its customers, that risk was unacceptable.

Time for change

So BSkyB began its search for an inventory control system (ICS), an integrated information technology solution that would allow the supply chain team to devote its full attention to serving its customers – transforming the function, in effect, from supply chain administration to supply chain management and development. "It would make us better able to plan stock movements to make us more effective," says Marion Scott. "We would be able to make sure, every time, that equipment was in the right place at the right time to meet our promises to customers."

That, in turn, would make it easier for BSkyB to keep ahead of its competitors by ringing more frequent changes on its product lines. To achieve the flexibility BSkyB needed, its supply chain would need to be governed by an ICS that would provide:

- demand, supply and materials planning;

- order fulfilment;

- returns management;

- supplier management; and

- asset management.

BSkyB identified three key project goals. One was to make its supply chain future proof – to design and deliver an ICS would underpin any future operating systems, no matter how complex or geographically dispersed. Another ICS deliverable was to allow the fastest possible response to market demands, however technologically complex customer needs would become. The third was to eliminate any financial risk from stock failure.

Choosing a vendor

BSkyB's first step was to take a market scan among the available stock management and distribution systems providers. It invited ten to provide more information and, from these, invited four to submit proposals and make presentations.

The project broke new ground. BSkyB's list of IT suppliers shortened once it made clear that it wanted a stock management system, not a full-blown Enterprise Resource Planning (ERP) suite. Most IT suppliers, especially the larger ones, offered a large system with most of its functionality walled off, a cumbersome answer to BSkyB's business need.

IFS came from a different direction. Although IFS will typically supply a whole ERP solution, it was quite unique in its component architecture which enabled it to offer a stock management solution from a set of completely modular building blocks from which BSkyB could pick and mix as needed. BSkyB could even choose features and functions from within modules without taking a whole module. In the end it chose the IFS supply chain module focussing on inventory, the demand planner, parts of planning and some of purchasing.

Even from the start IFS stood out, for two compelling reasons. Unlike any other presenters, IFS supplemented its sales team with project managers – the people who knew what they had promised would manage the implementation and be expected to deliver what they said they would.

Even more important, in BSkyB's view, IFS's project team comprised people they and BSkyB's sizeable IT team would get along with. "It had to be a good IT fit," says Marion Scott, but it had to be more than that: "We knew we were probably going to take everybody we worked with outside their comfort zone." Personalities mattered.

In the end, in a judgement based largely on the quality of the IFS team and its commitment to the project, says Marion Scott, "We reached a point where we said, 'this looks like the right thing to do'," and went ahead with a technical proof of concept.

We are not the easiest customer. But there was a relationship match on both sides that made this a success.

Marion Scott, Head of Supply Chain Development, BSkyB

The ICS model

BSkyB built a 40-strong project team round three core roles: BSkyB's project manager, its IT project manager and IFS's project manager joined, at various times, by database or help desk staff, business analysts or product or service designers.

The ICS deliverables were straightforward: improved planning to reduce working capital, storage and distribution requirements; complete stock visibility to reduce the risk of excessive inventory and potential obsolescence; exception reporting to provide feedback for action; automated administration where possible to reduce human error; and a reduction in the monthly audit burden.

To deliver them, given the complexity of the stock-management task, the ICS has to have foolproof interfaces with several other systems. BSkyB recently completed a significant investment over several years in a customer management system (CMS). The CMS system generates customer orders and forecasts for and collects and maintains customers' addresses and equipment serial numbers. It's a complete record, in other words, of the installed base, and it is heavily used by the contact centre advisors who take customer phone calls.

IFS's ICS system looks at the equipment purely from a stock perspective. It doesn't interface to the CMS directly, but it does talk to a system they have in common, the engineers' field- or job-management system, comprising two or three key sub-systems which schedules the work of the field engineers.

The ICS also interfaces to UTC's internal stock system at the NDC, BSkyB's Ariba purchasing system, which runs orders to manufacturers and others and provides the ICS with product data, a mobile field-service (MFT) management system and ClickSoftware's scheduling and booking software.

Internally, the ICS model comprises a number of closely integrated functions, the core of which is an order-management system which accepts orders and availability requests from the MFT, call-centre and voice-response, CMS and ClickSoft systems. It includes a product database fed by CMS forecasts, product profiles supplied by manufacturers, and Ariba purchase order and product data files.
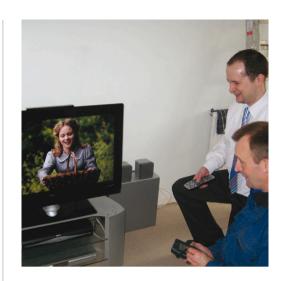
Serial number tracking through the supply chain is another core function, as is processing stock records from each of the nodes out in the supply chain. Stock movements are recorded and managed in a distribution resources planning (DRP) module which issues plans to the supply chain.

The implementation

The starting point was the integration of the IFS system with the NDC's internal system, which processes orders from BSkyB's field engineers. This integration means BSkyB now knows what the engineers have ordered, what stock is in their vans and which customers' systems have been installed, with serial numbers. With these stock movements visible, the team moved on to integrate BSkyB's business partners and their stock control systems. After that BSkyB could move on to connect to the distributors who were responsible for a smaller proportion of system installations.

The interfacing provided particularly difficult challenges. The project rules did not allow even minor adjustments to the Ariba system, for example, so the IFS interfaces had to work perfectly. "One of the biggest challenges," says Marion Scott, "was the number of different systems. You couldn't do a real live test, because there were too many systems involved. So we simulated a number of them through 'stubs'," or routines that mimic the behaviour of a linked system without actually using that system.

But the installation challenged BSkyB's business processes as well as its technology, says Marion Scott. BSkyB was determined

Benefits

- Complete stock visibility

- Automated administration wherever possible

- Frequency of audits has been reduced substantially

- BSkyB's systems are now fully integrated with business partners' own stock control systems

- BSkyB were able to construct their ideal stock management solution from a range of modular functionality components

it wasn't going to tailor the software to support its processes, however, and at the NDC successful integration meant some ways of doing things there had to be changed.

These issues tested BSkyB's faith in its IT supplier. BSkyB had 14 million serial numbers and history records to transfer to the IFS application.

But she sums up the relationship this way: "It's an over-worked word but it was a partnership." She was seriously impressed, "by their approach, their people, their specialist skills, their flexibility, how much they brought to the table." In Marion Scott's 18 years with BSkyB she has become used to IT and other suppliers who listen to what the client says, go away and work almost as hard on solving the problem as on seeing how much extra they can charge for it.

Marion Scott says, "In contrast IFS listened to what needed to be done next, then asked whether we'd thought about doing it another way – and often what they did was delivered without an extra bill attached." If BSkyB had a problem it just phoned IFS "and they'd be there to help us. And they came to the table with suggestions and improvements not just for themselves and the project but for us as well." Her summary: "We are far from disappointed – they have been excellent."

Results

The project took two years from the request for proposals (RFP) to completion of the implementation. Marion Scott says the RFP stage took three months, and the core project a year, net of gaps for financial approvals and for other reasons.

Now the monthly audit is fading away. Though audits are now quarterly, "We're weaning ourselves off [audits] gradually," says Marion Scott. "We still do monthly stock returns and audit quarterly, but we're doing that less and less as we get more confident in the system."

Future developments

At the beginning of the project BSkyB warned vendors that "further changes to the systems landscape will occur through time and therefore the flexibility of packages to operate within a changing environment will be of great importance."

IFS's flexibility appears to have met the test. BSkyB is in the early stages of a project to enhance the extent to which it uses IFS and has bought some additional modules: "We are comfortable to invest further in IFS Applications and we are in the early stages of replacing the job management system which will include PDA functionality," says Marion Scott. The replacement will be installed by July 2008.

At the moment engineers rely on email for scheduling information. On completion of a job they have to key in every item manually, including the equipment serial number, and that is used as a stock movement record. BSkyB has to rely on these manual data entries as evidence of what is on the van and received into van stock.

The idea is that the engineer sees on the PDA what stock he has got on the van plus what he should be picking up. He can use the PDA to add whatever he picks up to the van stock. The new system will allow the engineer to swipe the equipment on completion to provide a full record of each customer's installation.

This is an important mark of approval for IFS's ability to provide seamless integration of tailored solutions that embrace large-scale mobile as well as industrial-strength commercial applications.

Summary

The commitment to the project was total on both sides, says Marion Scott: "We had joint responsibility, a joint investment in making it a success."

Her advice to anyone contemplating a similar step is forthright. This worked, says Marion Scott, for one main reason: "We didn't decide on IFS solely on the basis of a system. We asked, 'were they the type of people we wanted to work with'. We felt we could work with them and they were committed to what we were trying to do."

The two organisations had a good culture fit too, adds Marion Scott. BSkyB is a fast-moving, ever-changing organisation – "We are not the easiest customer," says Marion Scott – and you need to be flexible to make it work, she says: "But there was a relationship match on both sides that made this a success."

More than that, she says, it was about a good fit not just between organisations but with the individuals involved – Mark, Simon, Chris "and our belief in them. It's people who make these systems work, not the systems themselves. A system doesn't know how to go the extra mile. A person does."

All in all the combination of a flexible, agile solution coupled with the experienced and dedicated IFS team has meant that BSkyB are managing their complex supply chain with ease and the BSkyB and IFS partnership is going from strength to strength.

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Marion Scott, Head of Supply Chain Development, BSkyB

Find out more

Further information, e-mail info@ifs.com, contact your local IFS office or visit our web site, ifs.com