

QVC UK

QVC UK is the UK's largest shopping channel reaching 19.3 million digital terrestrial, satellite and cable homes in the UK. It is part of a \$7 billion global business and secured net sales of £331 million in 2006. The company offers a wide variety of brand name products including apparel and beauty, jewellery, homewares, and home electronics.

QVC's UK operation is based out of Marco Polo House, in Battersea, London and it is from there that the channel broadcasts 24 hours a day, 364 days a year with 17 hours of live programming each day (from 09:00 to 02:00 UK time). The channel's customer operations centre is located in Knowsley, Merseyside, and it is here that all phone orders are taken, customer enquiries handled and items shipped to customers.

Background

QVC has been at Marco Polo House since October 1993 having taken over what remained of the office and technical facilities left behind by the previous occupiers, British Satellite Broadcasting. The technical legacy that remained in the building included the old coax-based radio frequency (RF) television distribution system, the modulators and much of the original coax infrastructure.

For the sake of speed, ease and economy, QVC decided initially to utilise and build on this same system, however, as is typical with such a system, many inherent drawbacks had to be either overcome or lived with. However, the system could not keep up with the channel's rapid expansion and in 2006, QVC decided to look for a new solution.

The Challenge

After much internal debate and research, QVC produced a list of requirements that the new solution had to address including the ability to:

- Stream TV to employee desktops, as well as to communal areas of the building, including the reception and the café areas.
- Provide its merchandising department, which is responsible for selecting the goods that are sold on the QVC TV channel and website, with constant access to a wide range of TV channels, via multiple end points including large screens in the department and to individual desktops.
- Link its customer operations centre in Liverpool to its London headquarters, so that sales information could be streamed live to large screens in the studio control gallery and the merchandising department, giving users the opportunity to have an "at a glance" view of current sales.
- Connect two more floors of the Marco Polo building, which has just become available and were promptly leased by QVC, adding another 40,000 sq ft to the offices, which was to house the new merchandising department.



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*Richard Burrell
Director of Engineering
QVC*

The Problem

There were two big problems with the existing RF system that prevented QVC from successfully utilising the existing network. The first was signal degradation across the site; because the Marco Polo building is so large at 157,357 sq ft, signal degradation on long runs across the site tended to cause ghosting and break-up of selected channels, which meant that it was impossible to stream good quality TV to any area other than near the broadcast hub.

The second issue was the inability to add channels over and above the 20 supported by the modular RF set-up. With so many TV channels now available, QVC needed a much more scalable solution. "We could not deliver in-house TV using the existing system because it just did not have the capacity," said Richard Burrell, QVC Director of Engineering. "It had simply run out of bandwidth and channels were interfering with each other. The system was out of date, and we were having to patch it up more and more."

To complicate matters even more, QVC wanted to update its system in record time, Leo Smith, QVC's Broadcast Engineering Projects Manager, explains:

"A major issue was the speed at which the system had to be provided. We had a two week window within the overall plan for the refurbishment works within which all under-floor wiring had to be completed. We knew that irrespective of which system we went for we would also need to contract out the installation."

The Solution

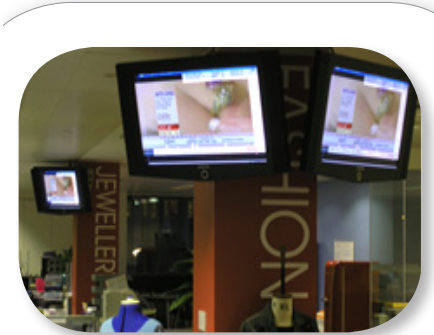
QVC had been keen for some time to discover an alternative to the outdated RF system, and Smith came across an option that he thought might be the answer: "I spotted a different type of TV distribution installation at another broadcaster that instantly appealed. The concept was on demand delivery of channels via a convenient to install CAT5 based infrastructure that also supported many more channels than possible on our on traditional coax-based system."

Fortunately when the previous occupants fitted out the new floor, they flood wired it with CAT5 cabling and patch points, nearly all of which was left intact following their departure. After a quick count of available connections Smith realised that even with all the telephones and PC systems connected, there would be enough capacity left over to provide each desk with their own TV if required. Providing a CAT5-based system suddenly became a very attractive idea, although at this stage, a coax-based alternative had not been ruled out completely as QVC's primary concern was to deploy a cost effective solution.

The next step was for QVC to contact a number of TV distribution system integrators to get a better idea of its options. One of the companies that Smith came across was Klicktv, a London-based company specialising in the design, installation and support of TV and video distribution systems. The company had a host of previous broadcast customers, and had implemented many successful deployments using Exterity IPTV equipment, which delivers TV and video around buildings and campuses over local area networks (LANs). These products represent the digital equivalent of the traditional RF-based TV and video distribution systems, but offered greater flexibility, scalability and control.

Smith explained the process: "We issued a Request for Proposal to Klicktv and a couple of other integrators, which outlined our requirements (including the additional requirement for IF distribution) and asked each to respond by a deadline with their proposal(s). We scored each of the proposals against a set of criteria, which included flexibility, maintainability and of course price.

"The Klicktv proposal excelled in many ways - it was the only respondent to suggest more than one approach and allowed a comparison between coaxial cabling and the more flexible Exterity IPTV solution. On features alone the Exterity system significantly outshone the alternatives."



"We worked very closely with Klicktv on their proposal in order to ensure that we put forward the most effective solution to meet QVC's unique requirements. We were confident about the speed at which the deployment could be completed, as our solutions can typically be installed within a few days, which fitted neatly into QVC's small window for its programme of development. IPTV is typically much faster and easier to install than coax systems because we simply use the existing IP wiring."

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Colin Farquhar, CEO of Exterity explained, "We worked very closely with Klicktv on their proposal in order to ensure that we put forward the most effective solution to meet QVC's unique requirements. We were confident about the speed at which the deployment could be completed, as our solutions can typically be installed within a few days, which fitted neatly into QVC's small window for its programme of development. IPTV is typically much faster and easier to install than coax systems because we simply use the existing IP wiring."



The particular benefits of the Klicktv proposal that led to it being selected by QVC included:

- The number of end users of the system was infinitely expandable and crucially, without the need for additional head end equipment
- The system did not require the use of a separate coax-based distribution to feed the head-end
- The system provided a capability to derive Freeview and Satellite channels through the compact 'Gateway' devices without requiring separate Freeview and Satellite set-top-boxes.
- The distribution method (signal) was compatible with standard IT routing equipment, which offers the possibility of extending the distribution across the Internet to other sites - most immediately, to the site customer operations centre in Knowsley
- Exterity offered a software only PC decoder (Avedia) that allows a PC to act as a TV, which offers the option of reducing the number of TV sets on desks.

The Deployment

The deployment took only a few days to install and consisted of Exterity IPTV solutions which deliver digital media from any source to LCD or Plasma displays, projectors, desktops or laptop PCs. Eight 32" plasma screens were installed on pillars in the merchandising department, as well as access points at every desk. Large screens already in the reception area were connected to the system as well as a number of smaller screens in the café.

"Both Klicktv and Exterity were a pleasure to work with. Klicktv's team completed their installation well within the allotted two-week time and with such efficiency that the foreman of the work site commented on just how well they had worked and tidied as they went. Exterity worked very closely with Klicktv during installation and supported us through the whole process," concluded Smith.

The Benefits

As a result of the deployment, the sixty members of the Merchandising department have access to what is now essentially an infinite number of TV channels. The large screens in the building's reception display live broadcasts from the studios, showing visitors what is being sold at that moment, and also introducing people new to QVC to the concept, look and feel of QVC as a shopping channel.

"Usually the screens in the café show news and information channels, although we have, on occasion, been know to show certain prominent sporting fixtures, due to popular demand - we certainly haven't had any complaints on this particular application of the Exterity system!" said Smith.

The Future

Due to the scalable nature of the IPTV system, QVC intends to roll out the network to the entire building, providing access to TV in conference rooms and other communal areas. The company also has plans to use the system for test runs of future services to ensure that the required quality of content is available prior to going to air.

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Leading IPTV Delivery



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