

Global telecommunications leader BT leverages Cisco's Content Delivery System solution to deliver customized services.

Executive Summary

Customer Name: BT Group Plc.

Industry: Telecommunications

Location: UK

Employees: 111,000

BT Wholesale

BT Wholesale is Europe's largest communications wholesaler, contributing £4.5bn to BT Group's annual revenue. It provides traditional and next generation services and managed solutions to over 1,300 mobile and fixed line operators, internet services providers, broadcast organisations and resellers in the UK. Through the wholesale arm of BT Global Services, BT Wholesale supports its customers worldwide.

BT Wholesale's Challenge

- To meet customer demand for new choices in how, when and where they consume video and TV content
- To enable content service providers and internet service providers (ISPs) to deliver a superior user experience
- To deliver value-added video – and in the future real-time TV – services to better meet needs of consumers and business partners.

BT Wholesale Selects Cisco Solution

- Flexible Cisco solution enables BT Wholesale to establish broadband as a TV and video platform
- Cisco's Content Delivery System will be used by BT Wholesale to support the secure delivery of any content, to any device, in any location, from single, open IP delivery platform
- By selecting Cisco's award winning CDS as the backbone for its content delivery network, BT Wholesale's solution is designed to improve the experience of watching and listening to digital content over broadband.

Results

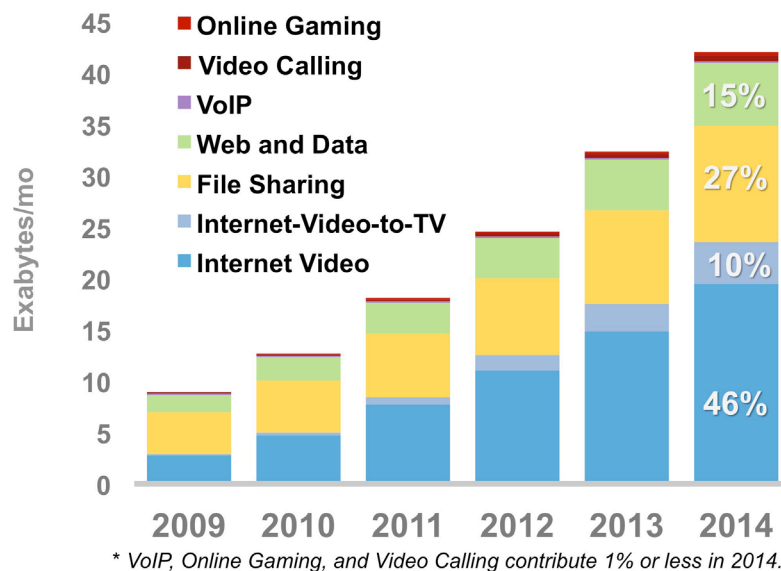
- BT Wholesale's Content Connect service will support a mix of commercial models
- BT Wholesale's robust, UK-wide content service will let content service providers, ISPs and end users alike enjoy superior quality content services over broadband
- It's a scalable solution – the foundation on which to develop further innovative services.

Challenge

Today's consumers are becoming more sophisticated and more demanding in their need for rich multimedia services, seeking new choices in how, when, and where they consume video content.

As the scope and variety of communication devices become more diverse, consumers expect video delivery not only to PCs, but network-enabled TV sets, set-top boxes and mobile devices, such as tablet and phone platforms. Consumption choices are expanding from on-demand content to time-shifted content and real-time TV. Quality expectations are rising as well, as consumers increasingly demand high definition (HD) and 3D services.

Figure 1: Global consumer Internet traffic growth: video is 91% of global consumer traffic by 2014 (source: Cisco Visual Networking Index)



Content service providers want to tap into this huge growth in demand for their content. However, they are finding traditional Internet Content Delivery Networks (CDNs) have been unable to support the higher bit rates, escalating usage and guaranteed video quality that consumers demand – especially as they migrate to new technology platforms which change their consumption habits.

BT Wholesale recognised the need in the marketplace for a sustainable delivery model for video and real-time TV over broadband, and is working with the communications and content industries to do just that. Content Connect will meet the needs of this emerging hybrid IPTV model by supporting over the top and on-net delivery models through an open architecture. It will enable content service providers and ISPs to collaborate to deliver a superior user experience and drive more value.

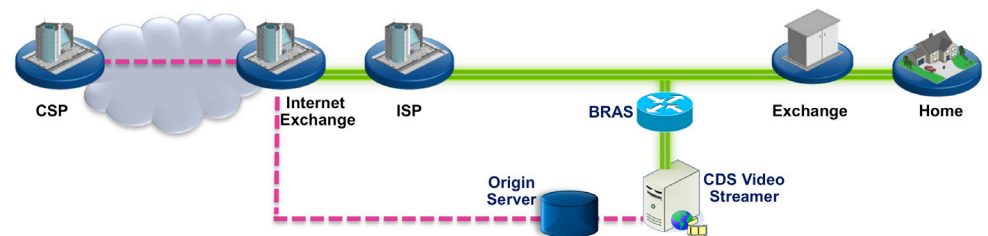
Solution

To address customer needs, BT Wholesale needed a business and technology partner that could offer advanced CDN technologies, such as multiscreen delivery, multiformat streaming, and support for syndicated media. The solution would have to be a flexible platform it could customize with innovative capabilities to support its industry, markets and geography.

Working closely with the Cisco Internet Business Solutions Group (IBSG), BT Wholesale chose a solution based on the Cisco Content Delivery System (CDS). It concluded that Cisco's CDS provided a high degree of flexibility and scalability enabling BT Wholesale to meet today's dynamic market trends and turn them into a competitive edge.

Cisco's CDS integrates medianet technologies to enable personalized video delivery, utilizing standards-based IP technology, and supporting delivery of any content, to any device, in any location, from a single, open delivery platform. Designed for next-generation video applications, Cisco CDS can ingest, store and deliver both live and video on demand (VoD) content. The solution resides on a flexible platform that can support a wide variety of devices.

Figure 2: BT's Content Connect is based on Cisco CDS



The Cisco solution will enable BT Wholesale to leverage the power of the network to provide superior scalability and reliability. A high-performance multitier caching and prepositioning system will bring content closer to end users, and enable regional multi-protocol content storage for scaling end-to-end distribution and delivery with guaranteed Quality of Service (QoS). Flexible streaming at the network edge, including integration into routing platforms, will further enable high performance in multiple delivery formats. Sophisticated dynamic content-routing technologies will support delivery of video services to each user through the best streaming or cache location based on several parameters such as network-based proximity, content affinity, and network health and resources.

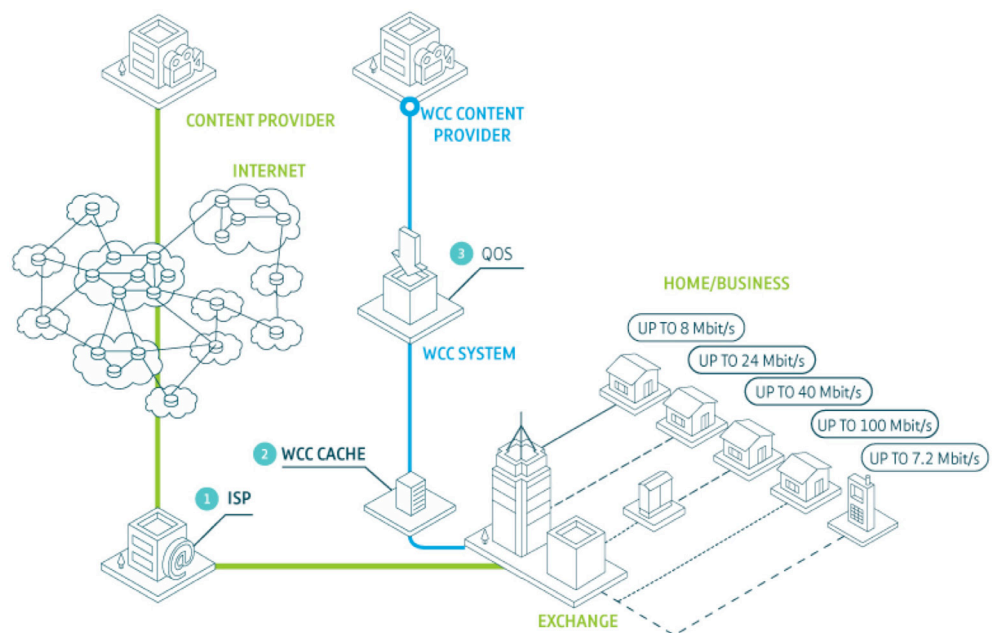
The Cisco solution delivers nonstop service availability through redundant, distributed network elements with no single point of failure and sophisticated software resilience.

BT Wholesale will utilize Cisco's CDS solution to provide wholesale delivery services to its ISP and content service provider customers. The platform greatly simplifies the marking of traffic to prioritize it within the broadband network, to support robust QoS and reliable content delivery, practically eliminating disruptive "buffering" messages.

For previous QoS implementations, ISP or content service provider customers would have to mark traffic. BT Wholesale's Content Connect solution will apply QoS markings to the traffic within BT's network, providing a content-ready solution that can be rapidly delivered to its customers.

The collaboration with Cisco will help BT's next generation Content Connect platform to cache content deep in the broadband network, delivering it much closer to the end user, avoiding congested areas of the network. This, in turn, is set to enable broadcasters to provide video content - and in the future TV - with an assured level of service all the way to the viewer, providing uninterrupted access even at peak times. The solution will provide broadcasters with a predictable user experience critical to supporting advertising or pay models.

Figure 3: Content Connect: a blueprint for the future of content delivery



Content Connect service will also reduce security concerns as content delivery can take place within a private network, avoiding the internet altogether.

Results

Partnering with Cisco is enabling BT Wholesale to provide a wide variety of business benefits for wholesale customers, content service providers and end users alike. Content Connect is based on a best of breed partnership ecosystem, with Cisco's CDN expertise working in conjunction with BT, enabling optimal service delivery, reliability and flexibility.

"Working with Cisco enables us to offer an efficient, long-term solution and bringing the power of broadband and content together leads to exciting, innovative end user experiences," says Simon Orme, BT Wholesale's Strategy Director of Content Services. "It will allow all players – including ISPs and content service providers – to extract more value from content services in the future, while pleasing end users."

The resulting service will support a mix of commercial models, and provide ISPs and content service providers with the ability to differentiate themselves in the market. Perhaps most importantly, Content Connect will enable ISPs to become part of the value chain by charging content service providers for content delivery and value-added services such as targeted advertising, multiscreen delivery and adaptive bit rate streaming.

Not every ISP in the UK has – or will want to develop and run - a content platform and so BT Wholesale will be providing Content Connect as a managed service deployed within operators' LLU, cable or mobile networks – a wholesale solution that can benefit all operators.

Content Connect will offer a UK-wide service with quality of service (QoS) assurance and detailed reporting and analytics on how the customers' content is being consumed. Content Connect will also enable customers to monitor asset deployment, network status, and a broad array of details about the broadband user experience – all available on a single portal-based view. Content Connect's deeper deployment, initially to 20 PoPs across the UK with deeper roll out in the future, means that usage data and service management are at a much higher level of granularity than has previously been possible.

We are witnessing a significant growth in content delivery over broadband – driven by the consumption of video services at home, at work and on the move. Content Connect will enable BT Wholesale – and its customers – to grow in this vibrant adjacent market.

Next Steps

BT Wholesale expects to introduce its Content Connect service in early 2011.

Its ultimate goal is for end users to enjoy fantastic content experience any time, any place and on any device. But there's more... Have you ever wanted to control the story line of your favourite soap? Do you want to follow your friend's experience at a sporting event rather than wait for perhaps a momentary glimpse of him or her in the network coverage? Ever wanted to buy something you've seen on a programme set? Well these are some of the future possibilities that BT Wholesale's content solution could open up to end users – a truly innovative, interactive, converged experience over broadband.

With its flexible, scalable Cisco solution in place, BT Wholesale is poised to address the needs of a wide range of customers and unlock new revenue opportunities.

For More Information

To find out more about the Cisco Content Delivery System, go to:

www.cisco.com/en/US/products/ps7191/Products_Sub_Category_Home.html

Product List

- Cisco Content Delivery System

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