Global network of innovation

SIEMENS

Transformation through partnership

"For the BBC this deal is about ensuring value for money for the licence fee payer and the best creative programming for the audience."
John Varney, Chief Technology Officer, BBC

A new approach to media market challenges

In 2004, the BBC became the first mover in the media marketplace to adopt an outsourcing approach to technology service provision. Leading analysts believe this marks the start of a new trend for the media industry.

The global media and entertainment industry is undergoing a huge transformation.

In recent years digital services on television and over the internet have transformed many people's media choices and expectations. With increasing uptake of broadband and mobile media devices; alongside downloading and time shifting – a world of almost limitless choice is emerging with the audience not the broadcasters in control.

This transforming industry landscape means that media organizations need to adopt new business models to grow revenues and increase customer share whilst also needing to reduce and manage the cost of production and distribution.

For the BBC this new landscape requires them to continue to give real value to licence fee payers, connecting them with great content however and whenever they want it, and taking a leading role in the creation of a fully digital Britain.

The convergence of IT, media and communications technologies aligned to a clear strategic vision is the key to making the future work.

Today, many of the same convergent and commodity technologies that are driving changes in consumer behaviour can also enable media organizations to transform the creative production process, simplify the distribution chain and reduce costs.

The changes required to realize the potential benefits do, however, involve significant investment – and possible risk. Generally broadcasters are not as well placed as dedicated technology service providers to make such investment, to respond to rapid changes in technology or to mitigate such risk.

The increasing deployment of commodity technologies in the media industry also means that outsourcing of technology services to a dedicated provider can deliver significant costs savings by leveraging their economies of scale and purchasing power.

For the BBC, outsourcing technology services was a strategic decision. The Corporation chose Siemens because of our global scale, breadth of capability, and cultural alignment. Siemens' ability to invest in innovation, coupled with our deep understanding of the technology enabled process changes required for the BBC to transform its working practices, will enable the BBC to continue to deliver value to licence fee payers in the fully digital future.

The BBC has chosen Siemens to be their technology transformation partner for the next 10 years.

A shared vision for the digital future

The BBC's vision is based firmly around delivering increased public value to the whole UK in the digital world, sustaining its position as one of the world's most creative organizations by delivering inspiring and creative content, in whatever form and on whatever platform its audiences require. Siemens shares this vision and is a world leader in creating innovative solutions to enable consumers and business to exploit the benefits of convergence across IT, media and communications technologies.

The role of technology in achieving the BBC's vision is to facilitate the creative process, providing program makers with the tools they need to keep the BBC at the forefront of creativity and to deliver value to all licence fee payers. The BBC's technology vision is formed around three core goals:
- serving audiences everywhere
- maximizing creative opportunity
- delivering value and benefit.

Siemens are working in partnership with the BBC to create a roadmap clearly defining the role of technology in enabling the changes in business processes and working practices that the BBC will need to implement. This roadmap forms the basis for the integrated program of technology innovation and cultural and business change which will allow the BBC to achieve its strategic goals. The roadmap is based on the BBC's underlying technology themes:
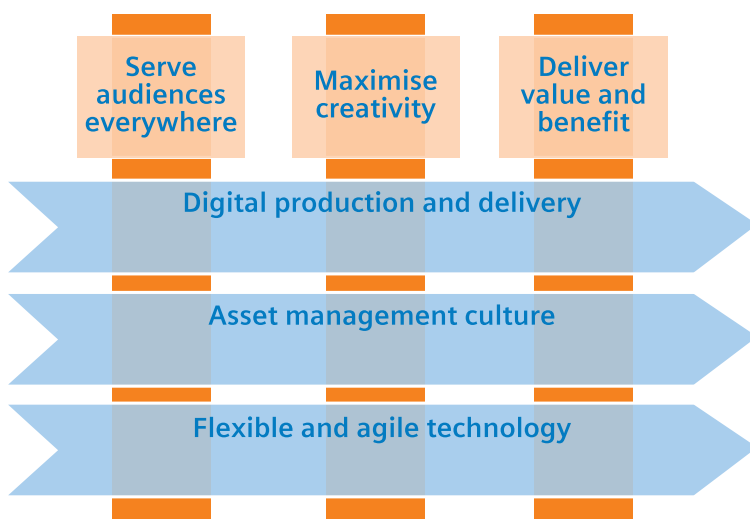- digital production and delivery
- asset management culture
- flexible and agile technology.

Siemens is adopting a two pronged approach to this work to turn the BBC's vision into practical reality by:
- transforming the BBC's underlying technology infrastructure to deliver upfront savings and service improvements
- helping the BBC to develop innovative technology enabled working practices to improve its business and creative processes.

This approach reflects the fact that a common, flexible technical infrastructure across the organisation will be key to enabling the BBC to secure the enterprise-wide transformation of creative and business processes required to achieve its vision.

As the world's largest independent provider of multi-vendor IT infrastructure Siemens is able to provide a fully convergent enterprise-wide technology infrastructure. This will facilitate the integration of program production, distribution to new platforms, connectivity, asset management and business processes, whilst ensuring the highest levels of resilience, security and interoperability at all times.

Serve audiences everywhere · **Maximise creativity** · **Deliver value and benefit**

Digital production and delivery

Asset management culture

Flexible and agile technology

Reference: BBC Technology Direction Group – BBC technology vision and themes

BBC – serving its audiences:

The BBC plays a major role in the cultural life of the UK providing a wide range of services across TV, Radio and New Media platforms:

- 98% of UK households use BBC services every week
- people in the UK spend an average of 20 hours per week watching and listening to BBC programs – 43% of overall TV and Radio consumption
- bbc.co.uk records more page impressions every month than any other content site in Europe
- in 2006 the BBC is due to launch its Digital Curriculum service, providing an online educational resource for every school age child in the UK.

Siemens – serving the BBC:

Siemens today provides the BBC with a full spectrum of technology services to help it deliver services to licence fee payers, including management of:

- 95,000 hours of digital TV output coded and multiplexed every month
- 128 broadcast channel streams
- 35,000 concurrent broadband streams via the internet
- 2.1 billion web page impressions monthly
- 25,000 broadcast feed bookings each year
- tens of thousands of miles of network
- 28,500 PCs
- 2.2 million calls from the public handled annually.

The contract is delivering cost savings from day one, whilst implementing the flexible and agile technology infrastructure that will provide the platform for the BBC's future technology requirements.

Transforming business and creative processes

To realize the BBC's ambition to produce all of its programs on commodity technology, using standard business desktops, networks and storage, Siemens is working with the BBC to enable it to transform its creative and business processes to improve performance and embrace the digital future.

Like all broadcasters, the BBC is seeking to overcome the challenges and maximize the opportunities presented by new digital technologies. This involves the creation of new business models, production processes and workflow solutions to successfully and cost-effectively connect with increasingly fragmented audiences. It also involves overcoming the issues caused by current production technologies which have created a series of unconnected digital islands, with a myriad of different tape and file formats, working alongside traditional processes which were appropriate for tape-based production but are now increasingly inefficient.

To address these challenges the BBC's goal is to create an enterprise-wide digital production and delivery environment that will increase creativity and innovation, but reduce the technical cost of producing content. To do this, new ways of working are required and business, media and technology processes need to be aligned in order to:
- ensure economies in the production process
- develop workflow systems that support a new tapeless environment
- encourage the creation of fully integrated, cross-platform editorial propositions
- make it easy for content to be created once but published everywhere
- deliver connectivity services, which enable creative staff to work anywhere.

To enable this transformation of business and creative processes, Siemens is working closely with the BBC to develop a program of converged technology deployment and enterprise-wide change management, which exploits the benefits of the rapid improvements in IT performance and its convergence with specialist production tools.

Making digital production a reality for the BBC:
Siemens has already worked with the BBC to introduce digital production solutions for the BBC Natural History Unit's landmark television series Planet Earth and for BBC News to address the challenges of handling the vast quantities of media required by a 24 hour news operation. By moving from tape to server-based production, both areas will enjoy a simplified production process with all business, operational and production activities across the workflow, accessible from the program maker's desktop computer. This increases creative opportunities for program makers and will enable journalists to turn stories around with greater ease, speed and flexibility – all at a reduced cost.

A key part of this development will be building on the integrated digital production solutions that Siemens are implementing with the BBC in areas such as the Natural History Unit and News, which enable creative program making to be carried out from any standard desktop using tapeless digital production processes and file-based archiving. These new solutions and underlying technical architecture provide secure access to all production assets and will deliver workflow efficiencies that free up time to be re-invested in creative work or in delivering greater speed to air, particularly important in news.

This new production paradigm coupled with the introduction of interoperable systems and processes will enhance collaboration between distributed teams by providing a seamless environment for program commissioners and producers. The transition will also make the BBC more accessible to the wider creative community, including the BBC's external production partners, and will lead to easier repurposing and publication of content to multiple platforms. Siemens is also working with the BBC to develop the necessary media asset management tools that will increase the use of standard media formats and

metadata capture – vital in tracking and exploiting the full value of media assets as well as creating the more flexible 'on-demand' services that audiences are now demanding.

All of this will provide the BBC with the solutions needed to realize its integrated digital production and delivery environment and the creation of an asset management culture.

Delivering innovative multi-platform content services:
2004 saw a packed summer of sport for the BBC – at the height of which was the coverage of the Athens Olympic Games. For the first time, the BBC had the rights to deliver multiple live streams in broadband quality over the internet, as well as the usual interactive TV services available to Freeview and digital satellite viewers. Our specialist technical teams were commissioned to devise and implement a technology plan to satisfy these requirements – including an estimated demand of up to 30,000 simultaneous broadband video streams via the internet and five concurrent digital satellite, plus two digital terrestrial TV streams on BBC ONE.

Transforming the technology infrastructure

In order to transform the BBC's technology infrastructure, Siemens is investing in and implementing a major program of projects which has already started and will continue over the next three years. This program will create the technical, management and financial foundations of an IT-enabled business change and new ways of working.

Siemens approach for transitioning the BBC's core infrastructure and services is to develop bespoke solutions, based around the new business and creative process; and to commoditize those solutions. This enables standard outsourcing principles to be applied, with Siemens delivering both the ongoing managed service as well as a structured program of major projects to transform the BBC's technology infrastructure. This provides the BBC with cost benefits through economies of scale and also releases resources to focus on its core purpose – making great content.

There are six key components involved in delivering this transformation:

Security
Sharing media and data across the organization and with production partners efficiently and securely is key to the BBC's vision. Siemens is creating a security model that allows authorized users to access content from anywhere, but which ensures the highest level of central control, enabling the BBC to increase collaboration with partners and allow secure, remote access to the BBC network for field-based staff, whilst protecting its network and assets from potential attack.

Networks and telephony
Siemens is implementing an ultra high capacity network to increase bandwidth by 400%, providing a more resilient architecture for broadcast-critical services. VOIP for all voice calls will enable location-independent telephone numbers and ID management – supporting greater mobility and access for remote and field based staff. Siemens' investment in the BBC's internet service will ensure resilient, reliable, cost-effective delivery of online services to audiences and ensure that it is capable of handling future growth, removing single points of failure and improving disaster recovery.

Utility storage
Siemens is introducing a tiered, hierarchical storage service. This move to flexible, low cost service provision will ensure the secure storage of critical data assets. Together with the high capacity network, this will enable the storage and movement of business and high definition digitized content across the organization.

New ways of working: Mobility
In 2005 as part of the first phase of introducing technology enabled new ways of working Siemens is providing a range of new remote connectivity services for BBC staff.

The increased availability of secure mobile access to the BBC's network will substantially increase the flexibility and agility of the BBC as an organization and of its people. For example program makers and journalists in the field will be able to have secure mobile access to e-mail and intranet services via handheld devices, enabling them to stay connected with colleagues across the BBC wherever they are on location.

Servers, applications and data centers

Siemens is consolidating servers and data centers into secure, resilient, fully managed hosting centers. Siemens is also working with the BBC to reduce the variety of applications in use across the BBC, which will decrease support costs and increase collaboration.

New ways of working

As with many large organizations, the BBC needs to share and manage its content assets. The implementation of an information management solution across the organization will improve responsiveness, enhance productivity and support compliance with the Freedom of Information Act. This forms the first step towards a fully digitized media asset management solution which will enable rights management and maximize the creative use of content.

Enhanced service provision

Siemens is introducing new levels of service across all aspects of the BBC contract. This will enhance service availability, capacity and resilience – increasing standardization and reducing costs. The creation of a centralized support desk will ensure efficient, consistent and rapid response to all helpdesk enquiries.

This integrated enterprise-wide technology strategy and infrastructure will radically increase the BBC's ability to track and understand its technology costs across all of its operations and make better informed decisions on prioritization of future technology investments.

A technical infrastructure for today and tomorrow:

As the BBC replaces and refreshes its premises, Siemens is delivering leading edge technology to support new working practices within new or refurbished BBC buildings. For example, Project England is the BBC's largest ever multi-site project and covers over 40 BBC regional sites. The West One Project will provide a new state-of-the-art production and broadcast facility in London for all BBC Radio and Music, News, and World Service national and international live output. We have provided the technical specification and project management for technology deployment across a broad range of facilities including studios and central control rooms alongside the core technical infrastructure. Technology deployments for major premises projects such as these are managed as component parts of the overall enterprise-wide program of technology transformation.

Partnership – our approach

In order for the BBC to remain at the forefront of creativity and technology developments, Siemens is committed to building a close working relationship, based on partnership and focused on enabling the BBC to achieve its goals.

Siemens is committed to building long-term relationships founded on cultural alignment and partnership. Our partnership with the BBC is based on working closely with them to fully understand the business and process changes that they need to achieve their strategic goals and vision. We are thus able to draw on the full breadth of Siemens capabilities and also to work with strategic partners such as Deloitte Consulting, Energis and Spectrum Strategy to ensure that the BBC has access to the best expertise and capabilities to help them succeed.

With in-depth expertise across IT, communications and media technologies, Siemens is uniquely placed to help media organizations understand and address the impact of today's transforming media landscape.

Siemens global network means we have the economies of scale, and the financial strength and purchasing power to help our customers through the required transformation, whilst reducing associated costs and risks.

Siemens is also committed to a continuing process of innovation, developing an average of 36 new inventions every day and spending over €5 billion a year on research and development, with €2 billion of that spent within information and communications alone. This commitment will ensure that the BBC continues to be at the forefront of the latest developments.

What this all means for the BBC
- delivery of the BBC's technology vision through a partnership based approach
- cost savings from day 1 plus ongoing delivery of value for money over the life of the contract
- IT-enabled program of business change across all aspects of the BBC's creative, business and audience processes.

Siemens Business Services:

Is one of the world's leading business services providers, benefiting more than 10,000 customers around the world with its industry knowledge, systems expertise and coordinated portfolio of services. With the acquisition of BBC Technology in 2004 we have combined that media expertise with our in-depth IT and communications capabilities to become the transformation partner for media and entertainment businesses.

Siemens Communications:

Is a leading global provider of solutions for enterprises and carriers. Its portfolio ranges from real time IP-based applications, IP convergence solutions and broadband access to optical networks. It also offers full spectrum mobile communications including mobile phones and accessories, cordless phones, wireless, modules, base stations and intelligent networks, switching systems applications and comprehensive services.

In addition to drawing on the strengths of the full Siemens group we are also bringing best of breed partners into the delivery of the transformation for the BBC.

Deloitte Consulting:

Is working as Siemens' consultancy partner to help develop the program of cultural and process change that will be fundamental in achieving the BBC's technology vision.

Energis:

Has been selected by Siemens as its partner for providing the BBC's distribution networks, including a high capacity next generation media network that will underpin the technology infrastructure for the BBC.

Spectrum Strategy:

Is providing strategic advice across a range of projects in the BBC's technology transformation program.

"We chose Siemens because they demonstrated a close cultural alignment with the BBC; their global capability in the technology industry and their ability and commitment to invest in the future technology innovation – above all they demonstrated very well that they understood our business."
John Varney, Chief Technology Officer, BBC

Siemens Business Services

About Media & Entertainment at Siemens

Siemens is the transformation partner to the media and entertainment industry. Through our media expertise (including BBC Technology, acquired in 2004) and our £2 billion, 10-year partnership and landmark deal with the BBC, we are at the forefront of IT, communications and media innovation. By providing technology and business process outsourcing, business and technology advice, production modernization and content exploitation services and solutions, we enable organizations to increase revenues, reduce costs and maximize customer reach. We do this by integrating core media operations across the value chain – from content creation, management and distribution, to storage and retrieval; this includes the transformation of creative and business processes, customer interaction, and the underlying technology infrastructure. Customers include: BBC, BSkyB, DIRECTV Inc., ESPN Inc., NPR, 3UK (formerly Hutchison 3G), MDR, RTL, WDR, VRT and South African Broadcasting Corporation.

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