IBM

BBC World Service goes On Air with more flexible and efficient production processes.

Overview

■ **Challenge**

For BBC World Service, the key to compelling content are the journalists, producers and studio managers that assemble, edit and mix the content. To compete in the global media marketplace, it needed the flexibility to create and broadcast news stories with greater speed and efficiency— and do so on a very large scale.

■ **Why Become an On Demand Business?**

The BBC World Service needed a modern platform on which it could simplify and standardize its studio production processes. And with no margin for "on-air" error, resiliency was key.

■ **Solution**

BBC World Service engaged IBM and Business Partner Jutel Oy to build one of the world's largest digital production systems. By enabling program makers to capture, retrieve and edit media digitally, the system has made it far easier to create richer, more engaging content—and enabled BBC World Service to transform and standardize its studio processes.

>> On Demand Business defined

"An enterprise whose business processes—integrated end-to-end across the company and with key partners, suppliers and customers—can respond with speed to any customer demand, market opportunity or external threat."

BBC World Service provides international news, analysis and information in English and 42 other languages. Its global network of correspondents provides impartial news and reports on location.

Key Benefits
- A significant increase in productivity across all platforms
- A considerable increase in on-air content capacity
- Increased resiliency due to 99.99% availability

By holding itself up to the highest standards of accuracy, depth and editorial impartiality and objectivity, BBC World Service (www.bbc.co.uk/worldservice) has established itself as the world's most respected voice in international broadcasting. With a weekly global audience of approximately 150 million, BBC World Service broadcasts in 43 languages. The majority of its 2,000 employees are based in Bush House in London, with

ON **DEMAND BUSINESS**™

On Demand Business Benefits

- A significant increase in productivity across all platforms

- Increase in on-air content capacity

- Vastly improved flexibility to enrich stories by integrating other audio assets

- Improved responsiveness to breaking news developments

- Standardized and simplified processes and workflows, which provide BBC World Service with more flexibility to optimize its staffing resources

- Increased resiliency due to 99.99% availability, thus improving on-air reliability

- Space efficiencies through the migration from studio to desktop position

Key Project Statistics

Solution Capacity:	1,500 users (800 concurrent)
User Roll-Out:	8 months

the remainder spread around the world. In the United Kingdom, BBC World Service is more than a source of news and information. It is in many ways the embodiment of British values and the cultural face that the UK projects to the world at large. Editorially part of the BBC, BBC World Service draws its funding from the British government—through the UK Foreign and Commonwealth Office—a reflection of the importance of this role.

Although BBC World Service has earned laurels for its solid values and consistent quality, it can ill afford to rest on them. Indeed, for BBC World Service or any other news organization, success is ultimately measured by its ability to attract and retain an audience. With the number and types of media outlets constantly expanding, the world audience has never had more media options—and competition for its attention has never been stiffer. For media like BBC World Service, this competition has raised the already high bar for quality, timeliness and accuracy. Compounding this has been a series of structural changes in the way BBC World Service distributes its news content. Once reliant solely on shortwave radio transmitters, BBC World Service now also employs a global network of FM, satellite and other broadcasting partners that rebroadcast its content around the world. A further departure, and one that has seen rapid growth, has been the use of online and streaming media technology to broadcast in real time via the Web.

Shorter cycles, bigger challenges

These changes underscore the constantly rising demands on global media players that seek to compete in today's world of ever-shortening news cycles and information overload. Getting news stories out fast and accurate is crucial but not enough. Stories must also be richer in their content, broader in their perspective and more textured in their presentation—in short, more engaging. For news organizations like BBC World Service, the key resources to making this happen are the journalists, producers and studio managers that assemble, edit and mix the content. Equally important, however, are the tools they use from audio capture to broadcast and everything in between. In addition to their enormous potential impact on the quality and timeliness of stories, they also have a direct impact on how efficiently BBC World Service leverages its staff resources. Consider its recent history.

Despite being the world's leading international broadcaster, BBC World Service had relied on 50-year-old analog tape technology to capture and store audio, its highly skilled production staff literally splicing stories

together. While the increasing difficulty of maintaining this antiquated technology ultimately compelled BBC World Service to look for an alternative, the ensuing internal review uncovered a far stronger case for change. Though far-reaching in scope, its problem was fundamental. Fragmented systems had given rise to inefficient, non-standard processes across the organization. The most direct casualty was the effectiveness of BBC World Service personnel, who were forced to divert too much attention to low-value tasks. More pernicious, however, was the impact this fragmentation had on its ability to adapt and optimize its practices to meet the ever-rising competitive challenges.

BBC World Service needed to simplify and streamline its production processes to free up resources that could be channeled into generating more and better content. In broadcast journalism, deadlines generally determine how much supplementary material—audio clips, packages, archived interviews and so forth—can be added into a program. With listeners demanding richer content, BBC World Service knew it had to transform its editing and mixing processes to give program makers more flexibility to repurpose existing audio assets during production. Similarly, with audiences seeking new—increasingly digital—channels to access information, flexible content distribution processes had also emerged as a key requirement. But to effect the kind of transformation it envisioned, BBC World Service saw that it needed a production infrastructure that was integrated, flexible and robust enough to serve as a foundation for these process changes. That's when it called IBM.

Transforming the studio

After an exhaustive evaluation process, BBC World Service engaged IBM and IBM Business Partner Jutel Oy (www.jutel.fi) to design and build a state-of-the-art broadcast content management solution. By digitizing and integrating all key production processes—from audio capture to broadcast to archiving—the system gives BBC World Service staff the tools to produce stories faster and more efficiently, and to create richer stories by better leveraging existing content. The solution's capacity—at 1,500 users (800 concurrent)—makes it one of the world's largest digital radio production systems.

The core of the solution is Jutel's feature-rich RadioMan broadcast content management system. Beneath is an infrastructure layer designed for maximum resiliency, an essential attribute given BBC World Service's requirement of 99.99 percent availability. Deployed on a mirrored cluster of IBM eServer pSeries p680 servers running Linux, the solution's resiliency derives from its full redundancy and hot failover capability enabled by IBM High Availability Cluster Multiprocessing (HACMP) software along with the powerful monitoring capabilities of IBM Tivoli Enterprise Console (TEC). If a processor goes down, HACMP senses it and automatically routes activity to the other cluster, the incident is reported to staff via TEC, but is invisible to the listeners. To store its digital assets and associated metadata, the system employs IBM DB2 Universal Database running on a

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Key Components

Software

- IBM DB2® Universal Database™
- IBM High Availability Cluster Multiprocessing (HACMP™) software
- IBM Tivoli® Enterprise™ Console®
- Jutel Oy RadioMan

Hardware

- IBM eServer™ pSeries®
- IBM eServer xSeries®
- IBM TotalStorage® Enterprise Storage Server
- IBM IntelliStation®

Services

- IBM Business Consulting Services
- IBM Global Services - Integrated Technology Services

Business Partner

- Jutel Oy

"With our new system, we are now more flexible than we've ever been before. The solution provided by IBM and Jutel establishes a foundation for BBC World Service to remain an effective broadcaster into the 21st-century."

– Mike Cronk, Controller Distribution & Technology, BBC World Service

mirrored pair of IBM TotalStorage Enterprise Storage Servers. The solution also employs a number of IBM eServer xSeries servers and IntelliStation workstations to perform ancillary functions.

As leader of the engagement, IBM Business Consulting Services brought together all the IBM resources employed in the project, and worked closely with Jutel Oy to ensure that its product could handle the solution's demanding scalability requirements. IBM Business Consulting Services also designed the underlying high-availability infrastructure, while IBM Global Services – Integrated Technology Services deployed it. With BBC World Service staff handling business process transformation, close alignment between the teams was key given the scope and complexity of the project. But the project was not without its challenges, as the scale and complexity of the system provided the project teams with a number of difficult issues, many of which stemmed from the fact that it was the first large-scale implementation of the RadioMan V production platform, says Mike Cronk, Controller Distribution & Technology. "We hit some rough patches, but both organizations were committed to a successful conclusion." To resolve these issues, the project teams' roles and goals were clearly defined, and close collaboration between the teams was maintained throughout. When in fact the teams went out of alignment, their working relationship was robust and flexible enough to adapt, ensuring success. The ability to interact with "one IBM"— despite the many units involved in the project—ensured a successful result.

BBC World Service has already begun to see major efficiency improvements from its various operations, with some reporting productivity increases of as much as 50 percent. Staff can now produce more on-air content—sometimes double the hours of programming. But quantity is only half of the story. By enabling program makers to capture, retrieve and edit media digitally, the system has made it far easier to create richer, more illustrated content—ensuring that quality remains the cornerstone of BBC World Service's output. The new system's operational benefits are also key. As a public entity, BBC World Service's ability to deliver on its mission is fueled by efficiency and resource optimization. Cronk sees the project directly addressing this imperative by providing a way to simplify and standardize processes, thus making BBC World Service a more flexible, adaptable organization. "With our new system, we are now more flexible than we've ever been before," says Cronk. "The solution provided by IBM and Jutel, establishes a foundation for BBC World Service to remain an effective broadcaster into the 21st-century."

For more information

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