

London Borough of Newham: Bridging the digital divide with e-government



“IBM displayed a commitment and enthusiasm for the project that went beyond expectations, and worked extremely hard to keep us within our budget as well.”

– John Defoe, RegenTV Project Manager,
London Borough of Newham

Overview

■ **Challenge:**

Meet the requirements of a government drive to enable access to government services information and IT

■ **Solution:**

An innovative, community-based services system offering convenient access to digital TV channels, Web and Internet services from existing TV sets based on a flexible, scalable, open standards-based platform utilizing Linux®, IBM @server® xSeries® and IBM @server BladeCenter™ technologies

■ **Why IBM?**

IBM offered digital media expertise and met the overall criteria of providing open-source technologies that would be easy to maintain

■ **Key Benefits:**

Supports the building of strong communities on housing estates; cost-effective, easy-to-implement solution making information available on demand

Extending technology across a multicultural landscape

A vibrant, multicultural inner-city borough in the heart of London's East End, the London Borough of Newham (or Newham Council) is home to more than 254,000 people, originating from around the world and speaking over 100 different languages. With a strong commitment to supporting its citizens, Newham is a renowned innovator in applying IT to improve people's lives, and increasing the efficiency of its processes to do so. Newham will be a major host borough for the 2012 Olympic Games, being the site of the main Olympic Park.

Tapping into community involvement with digital services

As far back as 1997, a group of like-minded people including Council representatives and voluntary and educational groups had come together with a vision for 2005 of the “Newham Digital City.” Finding that many people living in estate housing were feeling disenfranchised, the Borough wanted to equip them with a means to build community spirit and at the same time introduce them to new technologies.

When in 2000 the UK government Department for Education and Skills announced a “Wired Up Communities” program, Newham, with the help of Newham.net—a small-scale social enterprise and telecommunications company committed to serving the people of Newham—applied for and received funding to create “Carpenters Connects.” This is an estate-based prototype service that helps create strong community involvement and provide people with a range of digital services via their TV sets.

Running on the Newham-based Carpenters Estate since November 2002, Carpenters Connects uses standard Ethernet cabling and set-top boxes installed in 350 homes, offering an innovative Internet Protocol TV (IPTV)-based system. With a total of 15 separate operating systems, as well as proprietary hardware and software, the prototype had become unmanageable except by experts.

“Our previous system was not replicable in its present state,” says John Defoe, RegenTV Project Manager, London Borough of Newham. “We needed a reliable, open-source system that non-technical people would find easy to maintain, with minimal licensing costs.”

In 2004, the UK Government Office of the Deputy Prime Minister (ODPM) announced its visionary e-Innovations program, and Newham applied for and received funding to turn Carpenters Connects into a scaleable, affordable and replicable product.

IBM: Technology merges with teamwork

As a result, in July 2004, Newham asked IBM to take over the project's technical aspects. Says Defoe, “IBM met the overall criteria of providing open-source technologies, in a single rack, that would be easy to maintain. In addition, IBM had the technical know-how we required.”

RegenTV, the result of the revamped project, offers residents the opportunity to access community services, digital TV UK and foreign language channels, and Web and Internet services from their existing TV set. RegenTV is a collaboration between several groups, including IBM, Newham Council, East Thames Group (a registered social landlord that owns or manages around 12,000 homes), Newham.net and Home 2 Home—a nonprofit, local social enterprise set up with the support of the Media Trust.

IBM brought its extensive digital media services expertise to the project, backed up by industry-leading hardware. The solution features:

- *IBM @server xSeries servers running Linux—providing a cost-effective, scalable, open-source single platform solution for high availability, helping to reduce ongoing support and license costs*
- *IBM @server BladeCenter server, which offers the ability to easily add servers on demand as capacity needs increase*

Several partners joined IBM to help implement the solution: Newham.net furnished overall project management and produced videos to show residents how to use the system, eliminating the need to have to refer to cumbersome manuals; Arkeia delivered the backup and disaster recovery component; and Kasenna provided two key elements: its LivingRoom Video on Demand solution and Kasenna MediaBase.

Fully integrated with IBM WebSphere®, LivingRoom Video on Demand is a middleware application running on the Kasenna vForge platform, and features a customizable service portal presenting and managing the service's TV aspects. Kasenna MediaBase is a scalable video server technology supplying the underlying streaming and content delivery network for the video on demand content. Both offerings enable service providers to cost-effectively install, deploy and operate a wealth of TV-based applications.

All services for RegenTV are delivered over IP (Internet Protocol) via building-wide Ethernet cabling or standard TV coaxial cabling to the homes, while applications are hosted on back-end servers. The in-home system comprises a set-top box from IBM Business Partner Amino running browser software and an MPEG decoder, a wireless keyboard and remote control.

A wide range of interactive services

From start to finish, the project was completed in just under a year. During that time, IBM provided a range of services, from initial engagement through design, including building a prototype, installing it on-site, and then launching the solution, as well as:

- *Project management*
- *Consulting*
- *Solution design, implementation and testing*
- *Integration with customer's systems*
- *System documentation*

"We were extremely impressed with IBM's level of commitment," notes Defoe. "They were very enthusiastic about the project. We've nothing but praise for the way they worked with us."

The system currently supports approximately 1,000 people in 400 households across two estates. The Borough plans to expand it to other estates, using existing fiber optics. As the system rolls out, users will be able to access a wide range of interactive services, including:

- *Local community TV*
- *Interactive advice channels*
- *Freeview (UK digital TV service, similar to digital satellite) and foreign language TV channels*
- *PC applications and online access to services*
- *Web and e-mail*
- *Self-help and learning channels*

"Clearly the benefit of IBM involvement is that we now have a replicable solution for RegenTV," says Defoe. "We can demonstrate that it works and can work elsewhere as well." At the same time, people who may not have been able to afford computers or broadband connections will now be able to enjoy a range of services. Notes Defoe, "The key benefit of this project is social cohesion and improving people's lives."

Meeting challenges head on

Like any multifaceted project, implementing the solution was not without challenges. Says Defoe, "We were pushing the technological barriers beyond what anyone had previously achieved in this particular area."

However, explains Defoe, "Everything was resolved in the end. Again and again, IBM did extraordinarily well in working with us to help resolve the issues."

He continues, "IBM displayed a commitment and enthusiasm for the project that went beyond expectations, and worked extremely hard to keep us within our budget as well. That's just a measure of their commitment; they wanted the solution to work and ensured that it did."

A successful three-way collaboration

Future plans for continuing to develop RegenTV depend largely on what funding the London Borough of Newham will be able to secure. However, Defoe explains that the Borough would

like to eventually link the interactive TV over IP with electronic assistive technologies, in particular the UK's Telecare and Telemedicine programs. "We'd like to eventually equip residents with remote detection capabilities, instant access to health-related information and the ability, for instance, to have face-to-face interactions with nurses, all without having to leave the home."

A premier example of a successful three-way collaboration between public, private and community sectors, RegenTV is a major step forward in facilitating social change while helping to bridge the "digital divide." The social benefits of RegenTV notwithstanding, Defoe sees economic benefits as well. "We now have a great deal of opportunity to develop the system further into different areas. The technology is already there."

For more information

To learn more about IBM Digital Media solutions and services, contact your IBM sales representative, or visit:

ibm.com/solutions/digitalmedia



© Copyright IBM Corporation 2005

IBM Corporation
1133 Westchester Ave.
White Plains, NY 10604
U.S.A.

Produced in the United States of America
8-05
All Rights Reserved

IBM, ibm.com, the IBM logo, the eServer logo, BladeCenter, WebSphere and xSeries are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both.

Linux is a registered trademark of Linus Torvalds.

Other company, product or service names may be trademarks or service marks of others.

Many factors contributed to the results and benefits achieved by the IBM customer described in this document. IBM does not guarantee comparable results.

References in this publication to IBM products and services do not imply that IBM intends to make them available in all countries in which IBM operates.