Dundee City Council builds an energy-efficient infrastructure with IBM

Overview

■ ***The Challenge***

To meet its environmental objectives, reduce operational costs and save data centre space, the IT department at Dundee City Council wanted to revolutionise its infrastructure through the use of server virtualisation and thin-client architectures.

■ ***The Solution***

IBM helped Dundee consolidate more than 50 application servers to a pair of energy-efficient IBM System z9 Business Class mainframes with IBM System Storage DS6800 storage, and introduced thin-client devices using Windows terminal services software running on IBM BladeCenter server farms.

■ ***The Benefits***

System z9 mainframes, thin-client devices and BladeCenter servers are designed to increase Dundee's computing resources while decreasing electricity and air-conditioning requirements – reducing operational costs and carbon footprint. Server consolidation to compact mainframe and BladeCenter architectures saves space in the data centre and should facilitate the Council's move to a new location in 2010.

Glamis Castle, Dundee, Scotland

Dundee is Scotland's fourth largest city, home to 145,000 people. A former industrial centre, Dundee has transformed itself into a UK centre for life sciences and digital media. As a result, the city has been named one of the world's top seven intelligent communities for two years running (www.intelligentcommunity.org), and has just been chosen to become Scotland's first "Fibre City". Fibre optic cables will be installed in Dundee sewers beginning early next year, which will provide high-speed Internet access, clocking in around 100 Mbps (megabits per second), to homes, businesses and organisations throughout the city. Dundee City Council provides a wide range of municipal services for citizens, many of which rely on IT support. The council runs numerous applications to support both internal processes and public-facing systems, such as its Web portal, which provides information and online services.

"Like all local government organisations, Dundee is committed to a number of environmental objectives," says Tim Simpson, IT Support Manager. "In the IT department, we are increasingly interested in finding ways to reduce our carbon footprint by creating a more energy-efficient infrastructure. If we can reduce the amount of power and cooling required by our systems, it's not only good for the environment – it can also save serious amounts of public money on the Council's electricity bill."

Several years ago, Dundee took an important first step in its move towards a greener IT environment by consolidating more than 50 application servers to the IBM System z mainframe platform. The Council now runs these applications and databases on two System z9 Business Class servers, supported by virtualised IBM System Storage DS6800 disk systems.

With its proven ability to run hundreds of virtual servers side-by-side in a single physical footprint, the IBM System z platform is ideally positioned