

The Polish City of Slupsk and Cisco together create an eGovernment model for EU new member states

Executive Summary

CUSTOMER NAME

- City of Slupsk

INDUSTRY

- Public Sector

CHALLENGE

- Although equipped with some economic potential, with high unemployment following the bankruptcy of large, formerly state owned companies, the City of Slupsk seemed unable to stimulate the socio economic growth needed for regeneration

SOLUTION

- The City's new end-to-end Cisco municipal network provides the first step in the development of the core infrastructure on which Slupsk is to build a complete eCity solution
- Services, including broadband Internet access and IP telephony, are extended from the backbone's four main locations to another 19 offices and sites using wire less technology – providing an excellent basis for quickly expanding the network across the entire city

BUSINESS VALUE

- It has been the focus for forging a shared purpose in the community which is rejuvenating the city and seems likely to attract significant EU funding for further development over many years
- Return on Investment analysis shows 'cost avoidance' totalling \$3.5 million over five years
- The project is regarded as a model for eGovernment

The City of Slupsk and Cisco have demonstrated the power of an information society to increase efficiencies, provide better access to services, and stimulate regional economies through a public/private partnership network services model. Importantly, the initiative shows how a modern IP network can be the catalyst for change to address wide-reaching social and economic problems.

CHALLENGE

Poland was the largest of the 10 latest countries to join the EU on 1 May 2004. Like many of these states, particularly in Central and Eastern Europe, Poland faces a raft of socio-economic issues including the legacy of decades of under-investment and burdensome bureaucracy under communist rule.

Not surprisingly, understanding and use of networking and ICT (Information and Communications Technology) in these countries lags far behind that of established EU members. Significantly, many Government officials and most citizens have little comprehension of how ICT can support their lives, including day-to-day running of local government, let alone the concept of e-Government at the centre of a socio-economic strategy.

This was certainly the feeling of most of the 102,000 citizens of the Polish City of Slupsk, situated a few kilometres inland from the Baltic Sea. The collapse of previously state funded companies had led to a local recession with some 38 per cent unemployment and no new enterprises promising to be the engine for growth. The loss of regional 'voivodship' status compounded problems by effectively closing the door on some central funding.



Prepared by Cisco Systems, Inc.
Internet Business Solutions Group

Forward looking and receptive to new ideas, the City Council's leaders saw the potential when Cisco Systems invited the city to take part in a ground breaking initiative to prove the power of ICT to deliver fundamental social and economic change for the better in the community.

Reviewing progress, the City's Secretary, Andrzej Kaczmarczyk, who became Chairman of the eSlupsk Project Task Force, is clear about the impact of the initiative: "Before this project information technology was not well understood. Many thought it was a luxury to be enjoyed after the social and economic problems had been solved. Now, it is seen as part of the solution."

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SOLUTION

In 2004 Cisco Internet Business Solutions Group consultants and other colleagues in the Cisco Poland team gained senior level backing to create the Cisco e-Society Initiative. Its ambitious aim was, quite simply, to demonstrate how affordable and widely available broadband can contribute to economic and social development in the new member states.

The first phase of the project was the most important – to work with a local authority to develop and execute a plan to create a broadband network capability and help to develop some simple services that would deliver benefit.

Key to Phase One was engaging with a local authority. To help it, Cisco enlisted the help of the Warsaw-based Foundation for Economic Education (FEE), an NGO (Non Government Agency) that had been running the country's Cisco Network Academies that Cisco has established since 2001.

After drawing up a short list of 10 possible authorities, the team approached Andrzej Kaczmarczyk and asked how Slupsk might respond to an opportunity to work with Cisco on a broadband project. They explained that if the City raised 25 per cent of the cost, Cisco would match the other 75 per cent. The city's senior officials proved committed to the project.

However, gaining the commitment of all interested parties – not just the council's leadership – was seen as the critical success factor. With this in mind, the project began with a one-day 'off-site' workshop involving around 50 Government department heads, business leaders and important community groups.

The entire day was spent working through what people felt were the problems and issues facing Slupsk and its citizens. Not once was technology mentioned. Instead, the Cisco team wanted to ensure that all stakeholders had a chance to air their views and to start to understand how a modern infrastructure could help meet their particular needs.

On reviewing everyone's input it became apparent that all issues essentially fell into three areas, which were:

- Education
- Workforce optimisation to improve the workings of the city's government
- The need for a business accelerator.

A project task force was set up and three working groups formed. The Technical Group initially focused on meeting the needs of education facilities, but later embraced those of other public bodies such as the Police and the Employment Office. The Economic-Legal Group, defined objectives and ensured conformance to all relevant legislation, while the Application Group, identified stakeholders' needs.

“CISCO PLAYED A VERY DIRECT ROLE IN MAINTAINING THE MOMENTUM OF THE PROJECT AND IN HELPING TO CALCULATE RETURN ON INVESTMENT WHICH WAS IMPORTANT IN SELLING THE PROJECT TO THE LOCAL COMMUNITY.”

Andrzej Kaczmarczyk, City Secretary, Chairman of the eSlupsk Project Task Force

Over the next six months the groups met, often weekly through workshops, to explore each other's points of view and agree their objectives. Cisco System Engineers and other technical experts made a significant contribution to the Technical Group. For the consultants from IBSG and members of the extended Cisco team, including the FEE's President, Witold Sartorius, the Applications Group became the focus of almost daily meetings. Cisco experts from around Europe presented examples of best practice that the task groups analysed and applied.

“Cisco were extremely supportive. They really wanted the project to contribute to solving our city's problems and to promote its development. They had no other agenda,” remarks Andrzej Kaczmarczyk, recalling some people's initial scepticism regarding the networking vendor's desire to prove the project.

After six months of discussions, workshops and careful planning, work began on creating the new Cisco IP network, where the converged core's 1Gbps Ethernet bandwidth is extended through the use of wireless technology to a total of 23 locations. With the network installed, users could start to benefit from new applications running over it.

Education was the first priority, with two notable successes achieved. The first was a schools admission system enabling students to apply online to the secondary school of their choice. Before there was a manual system, which resulted in an administrative nightmare, as students held open places they did not intend to take up. In addition, the network provides broadband access, via the Internet, to Poland's Interklasa education portal (operated by the FEE) that delivers multimedia course content and the facility for teachers to set and receive homework online, enjoy email communications with students and a range of other aids.

The council also awarded a contract for an eGovernment system for public services and city management based on a Geographical Information System (GIS). The system will allow a range of important information to be overlaid onto digital maps that will be accessed by local government officials and the public. Information will include land ownership, planning applications and restrictions and, very importantly, the transport network and civil disaster planning tools and information.

Several public services have been put on line and more are to follow. Early examples include applying for birth certificates, various permits, including driving licences, as well as job vacancies and applications.

Various workforce optimisation initiatives have been put in place, including an intranet to improve communications and resource management with on-line calendars, meeting room bookings and expenses submission. E-enabling back-office processes is seen as a key priority for the next tranche of investment.

Some departments – such as the Fire Service, local Police and the county Labour Office – are now being equipped with access to real broadband Internet for the first time.

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Andrzej Kaczmarczyk, City Secretary, Chairman of the eSlupsk Project Task Force

BUSINESS VALUE

Andrzej Kaczmarczyk explains the value of the project's consultative approach: “The biggest barrier at the beginning was definitely the resistance of the local IT operators and other players in the local market, who felt that a public involvement in a network project threatened their business. It took many months and the joint work in the Project Task Force to convince them to participate and to make them understand that the project did not threaten but was designed to support them. They are now on board.”

Commenting on the role of Cisco in this process, Andrzej Kaczmarczyk explains: “Cisco helped to organise interactive workshops and presented valuable insights into similar projects from other countries. Cisco advisors also helped to determine the Return on Investment (ROI). The ROI was an important argument when selling the project to the local community.”

ROI analysis conducted by a Cisco team from the UK showed ‘cost avoidance’ totalling \$3.5 million over five years through areas such as workforce optimisation and toll bypass through IP telephony. The savings offered through the flexibility of the new network are illustrated by the fact that the city plans to replace its 14 analogue street CCTV cameras with 50 IP-based ones running over the network. This alone will result in leased lines savings of around \$30,000 each year at the same time as significantly extending the area covered.

In working through the issues, the City of Slupsk has developed a powerful public-private partnership model. A key challenge for the project was to clearly define the dividing line between public interest and commercial opportunity.

“In short, there will be a public backbone city network, but with commercial companies developing services and competing with each other to attract customers and provide the ‘last mile’ connections. Public e-services will be accessible free of charge to all citizens through all the networks,” explains Andrzej Kaczmarczyk.

The benefits the project is delivering to the City's government, citizens and businesses fall into the following four broad areas:

- Improved public services will be cheaper to access
- The management of the city will significantly benefit from improved information systems
- The city is more attractive to citizens, business and potential investors by reducing transaction costs to citizens and business in the city including providing low cost telephony services and other services
- The digital divide between those with access to the modern information society and those without will be considerably reduced.

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Andrzej Kaczmarczyk, City Secretary, Chairman of the eSlupsk Project Task Force

The success of the project is such that the lessons learned regarding applying for EU funding has been the model for the FEE and Poland's Ministry of Economy and Labour developing an information package for 'The Local Education Network Project' model. Available to anyone free of charge from the Ministry's portal at www.fundusze-strukturalne.gov.pl and the Foundation run site www.erdf.edu.pl, it provides an electronic template for completing a EU Structural Funding application, with in-built validation of data in regard to eligibility of project costs and EU rules.

An important part of the learning has been the close cooperation between Cisco and the FEE. "This relationship was essential to the project," explains Andrzej Kaczmarczyk. "In Poland, in particular, the involvement of a not-for-profit intermediary in projects is extremely useful. The good and trustworthy relationship between Cisco, the Foundation and the City was key to the success of the project."

The City, Cisco and FEE have created a manual which details how the project was set up and managed in order to help others, in Poland and beyond. Asked why such trouble has been taken to capture the lessons learned, Andrzej Kaczmarczyk is clear.

"This project is unique because it encompasses all the necessary elements for a successful eCity project. Technology does NOT dominate the project, and great importance is given to measures to win the support of the public, business community, schools and other users.

There is strong commitment on behalf of the leadership in the city to make this project a success, including readiness to provide significant finance from the City budget. All this is really happening."

For Witold Sartorius, part of the real value of the project is that it provides a role model. "It provides inspiration because it shows what is possible. Often when case studies of what has happened in other countries are presented, people say that they are very nice, but that it couldn't be done in Poland. Now we have proven that it can be done here and that is very important," explains Witold Sartorius.

TECHNOLOGY BLUEPRINT

The City's new municipal network went live serving 23 locations, primarily the City Hall and local schools. Designed by Cisco, it provides a core infrastructure that demonstrates the benefits of broadband and converged applications as the stimulus for the community to extend the network across the entire city.

The original network core comprises a Cisco Catalyst 3560 Series Switch at each of four main locations that are connected though diversely routed via optical fibre. Coverage is extended primarily by wireless Cisco Aironet 1300 Series Outdoor AccessPoint/Bridges (with various antennas) with encryption provided by a Cisco 1712 Security Access Router at each site.

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Witold Sartorius, President, Foundation for Economic Education

A Cisco 2691 Modular Access Router and a Cisco 2621 Modular Access Router are used for VPN (Virtual Private Network) termination. Cisco Aironet 1200 Series Access Points provide wireless LANs at some locations. Cisco CallManager V4 provides IP telephony, with a Cisco 2650 Modular Multiservice Router providing access to the PSTN for a variety of some 85 IP telephony handsets (Cisco IP Phone 7940, Cisco IP Phone 7912, and Cisco IP Phone 7970). A Cisco PIX 515 firewall secures the entire infrastructure that enjoys Internet access at [City of Slupsk – please confirm Internet access bandwidth]. Showcase public access wireless hotspots are located at the City Hall and a local park.

Slupsk is working to extend its fibre optic network, using its existing wireless infrastructure to either provide back-up services or extend the fibre network even further as it develops. The current core reflects the installed fibre optic connections that were available at the start of the project. As the original passive infrastructure extends to more and more buildings, current equipment will be replaced during the second phase of the project with true Metro Ethernet switches and routers such as Cisco Catalyst 6500 Series Switches. Responsibility for the network has been given to the City's Road and Transport Division as highway build and maintenance offers ideal opportunities to lay cables.

The city is now working on an EU funding application for a \$1.5 million award, to be matched by its own \$0.5 million contribution, which will enable the infrastructure to be extended city-wide.

MORE INFORMATION

For further information on Internet business solutions, visit <http://www.cisco.com/go/ibsg>



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