



voyager case study | wireless network solutions

hillington park innovation centre

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The Wireless Innovation Project based in Glasgow was officially opened in February 2004. The objective of the centre is to stimulate innovation; product development and technology transfer by facilitating the growth of the Scottish Wireless industry.

This has resulted in the centre becoming Scotland's national centre for wireless and mobile communications. To achieve this they required a secure wireless network that would allow users the flexibility to develop their businesses. **K2o Technology**, an IT services company based at the centre invited **Voyager Networks** to provide that extra level of expertise on the project when required.

In an age where access to information and speed of data retrieval are critical, wireless technology and mobile solutions offer significant and long-term benefits for both enterprise and consumers. Realising the opportunity a centre of excellence could provide and following a successful pilot project in 2003, the Wireless Innovation Centre was created with support from Scottish Enterprise Renfrewshire, Strathclyde European Partnership and the Private Sector.

project undertaken
in partnership with





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The WIC provides a range of dedicated and specialised services to help lower the barriers to entry and encourage growth within this sector. The centre allows companies in whatever stage of their development to have the opportunity to utilise resources and encourage new innovative projects.

Alisdair Gunn

Wireless technology manager for the Centre

“Wireless technology has enabled the mobile revolution that is already changing the way that people work and live. The Wireless Innovation centre provides an environment that allows both tenants and visitors the freedom to develop, enhance and facilitate new applications related to wireless technology”

Hillington Park Innovation Centre, now in its third year of success as an incubator for high-tech start up companies, proved to be the ideal location to house the Wireless project, as it can support the initiative through the well established links their business advisory team has with the entrepreneurial community. Housing over 45 small companies and in utilising the network the issue of being able to move to a fully robust network seamlessly and provide adequate expansion capabilities to support in-house growth, was always a critical objective of the project.

Being an innovation centre it is vitally important that the network can support growth and provide flexibility to expand with those companies and users that utilise the centre's resource.

To ensure these requirements were met the Innovation centre issued a public tender for the project. K2o became aware of this through the relationship they had previously and responded accordingly.

After discussions with the Innovation centre, K2o proposed a full Cisco solution and were selected to become the prime contractor. Because of this, K2o were looking to partner with a company that had the experience to ensure the implementation and overall solution met the requirements of the centre. Voyager was selected because of their expertise with Cisco solutions.

Alun Borland of K2o Technology comments

“Being located at the centre we got to find out about the project fairly quickly. After speaking with the centre themselves we realised they favoured an all Cisco solution. We asked Voyager to partner with us to provide additional experience and resource. After discussing the project with them we were confident that we had partnered with the right company to ensure the project went smoothly”.



the challenge

One of the key issues faced by the centre was that of ensuring controlled security amongst all of the companies located at the centre, as well as external organisations utilising the network. The centre offers the ability for external users to access the internet via an open environment, therefore it is critical that both the companies housed at the centre and visitors have the appropriate level of security to ensure data is secure.

“As an innovation centre it is our responsibility to drive innovation, new ideas and to have the foresight to develop wireless technology and provide a platform for businesses to grow. The challenge on this project was to create that environment without comprising the data integrity of companies within the innovation centre and those external users that utilise the centres resources on a frequent basis”
explained Alisdair.

the solution

Voyager conducted a full site survey and security analysis. Ensuring each tenant company had suitable levels of access into their own Local Area Network (LAN) and controlled access out to each other's, the Wireless LAN (WLAN) and the internet. Providing the highest level of security to protect the data integrity of all the tenant companies located at the centre, as well as those visiting.

A Cisco Wireless infrastructure utilising Cisco Aironet access points was recommended by K20 and Voyager, allowing 802.11g and 802.11b wireless connectivity. At the core of the solution is a Cisco Catalyst 4509 which provides the Virtual LAN (VLAN) infrastructure for all companies located at the centre. It is the use of this and a Cisco PIX 525 that provide the high level of security between all of the separate LAN's.

It was also recommended that laptop users be installed with VPN clients. Allowing users that are working from home, or on the WLAN to utilise the PIX 525 as the termination point for the VPN client and authenticate via a Cisco ACS to gain access to their tenant LAN.

After a successful pilot project which ensured the recommended wireless network and hardware worked effectively, this led to the deployment of the system across the entire innovation centre.

the benefits

The new network has helped the WIC accomplish its goal of reducing the cost of developing the skills and knowledge needed to develop products, lowering the cost of the infrastructure and providing an environment that enables companies to grow.

The integration of the wireless network at the centre now allows those companies and users to have the mobility and flexibility they desire, providing productivity, service, convenience, and cost advantages over traditional wired networks. Users now have access to real-time information anywhere in the centre, ensuring a fast seamless service to those users that require a dynamic environment for their businesses.

The wireless network has allowed the centre and those companies who occupy it to take full advantage of an environment that they perhaps would not normally have the resources to utilise outside of the centre.

Alisdair comments “The wireless network has brought limitless benefits and, most importantly the companies that occupy the centre have the opportunity to utilise a corporate environment, allowing typically smaller companies to punch above their weight. More importantly, we know it is highly secure ensuring confidential information amongst both companies and users that utilise this unique environment”.

the objectives

- Provide an enhanced network infrastructure, capable of expanding with the innovation centre.
- Provide a robust network that enables a seamless transmission to a new infrastructure.
- Ensure that the solution is future proof and able to adapt to technology changes.
- To assist WIC at maintaining their position as the primary centre for Wireless communications.

the solution

- Provide a comprehensive site survey and security analysis.
- Cisco Wireless infrastructure utilising Cisco Aironet access points, with a Cisco Catalyst 4509 providing the Virtual LAN.
- Cisco Pix 525 provides high levels of security for tenant's LAN's and the termination point for VPN clients.

the key benefits

- Provided mobility and flexibility amongst its users, allowing access to real-time information.
- A fast seamless service in a dynamic environment allowing businesses to grow.
- Increased productivity, service and cost savings over a traditional wired network.
- Tenant companies are able to utilise resources that allow them to punch above their weight.



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need more information?



Voyager has published a series of documents providing customers with a comprehensive set of procedures for implementing convergence based technologies. The step by step approach taken by Voyager Networks ensures that the correct technology and security measures are adopted for each customers specific access needs.

For more information on how **Voyager Networks** can help your organisation meet your business objectives, please call Voyager on:

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Voyager Networks, your partner of choice

Voyager Networks develops and deploys secure multi-service Internet Protocol (IP) solutions for private and public sector organisations across the UK.

Established in 1993, Voyager's core strength is adopting new and advanced technologies and translating them into effective solutions that deliver genuine business value for it's customers.

As a Cisco Gold Partner, Voyager understands the need for organisations to operate a network infrastructure that is recognised as being secure. Acknowledged for leading the way with innovation,

Voyager specialises in providing IP Communications, Managed Services, Security Solutions and Consulting services to enable the installation and maintenance of secure end-to-end solutions for its clients.

Voyager has implemented a range of secure tailored solutions, many of which are pioneering in their sector, for customers across a broad spectrum

of private and public sector organisations. Voyager will continue to pioneer and provide complete end-to-end solutions and deliver genuine business benefits to their clients.

To discuss what Voyager can offer your organisation please do not hesitate to contact one of our consultants.



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