ADTRAN's Bluesocket vWLAN Delivers Constant Wi-Fi Connectivity to Thousands of EICC Visitors

The Edinburgh International Conference Centre (EICC) is a company owned by the City of Edinburgh Council (CEC) and operates as an independent commercial venture. Since opening in 1995, the EICC has welcomed more than 955,000 delegates through its doors for over 2,600 events, generating £320M in economic impact for the city of Edinburgh.

World Class Venue

The ideal venue for events of up to 2000 delegates, the EICC offers event organisers the utmost flexibility with a series of sub-divisible meeting suites, impressive adaptable auditoria as well as spacious exhibition and reception areas. The EICC's world-class facilities are complemented by the expertise of the dynamic client services team, with a reputation of delivering successful and inspiring events. The EICC combines world-class technology and technical expertise to deliver the 'wow' factor. Due to the EICC's commitment to excellence, 60% of customers return time and time again. The EICC takes great pride in creating an optimal experience for all of its clients.

Scotland's Greenest Convention Center

The EICC supports Green initiatives and organisations. As such, its Plan-it Green™ program shares its expertise and knowledge to assist clients in planning an environment friendly event. The Edinburgh International Conference Centre Limited considers the environmental impacts affecting every procurement decision associated with running successful events. They require all service contractors to adhere to "EICC Sustainability Principles" and EICC Contractors Guidelines.

Network Usage Prompts Need to Upgrade

Due to the number of concentrated users, convention centres can be a very challenging environment for wireless networks. Conference attendees expect easy Wi-Fi access to check e-mail remotely and communicate while they are out of the office. Challenged by 802.11n data rates, and a proliferation of Wi-Fi devices, the EICC had outgrown its legacy hardware-based wireless LAN solution. The EICC looked for an optimal solution for its demanding environment. It required scalability to satisfy its vast amounts of users, fault tolerant access to ensure client satisfaction and support of its Green initiatives.

The EICC realised that traditional WLAN hardware controllers are cost prohibitive and possess inherent scale limitations which facilitates the need for the addition of more and more hardware as the typical method of scaling.

Freedom From Controller Hardware

The EICC looked at various vendors while searching for alternative approaches. They found that ADTRAN's Bluesocket vWLAN solution innovates through software – not hardware – to deliver unprecedented scalability, integrated guest access, a high availability configuration, support of Green IT initiatives while providing reduced OPEX, CAPEX and TCO.

The Advantages of Virtualisation

Applying virtualisation to wireless networks, can solve critical capacity and scaling burdens and provide other substantial benefits facilitated by a virtualised environment. ADTRAN's Bluesocket vWLAN solution enables centralised WLAN control and management virtualised on software residing on a hypervisor (e.g. VMware) or on an appliance. Rather than deploying hardware controllers to operate a wireless network, vWLAN leverages virtualisation to eliminate the need for physical hardware controllers thereby also eliminating the associated cost and scale impediments. With vWLAN, the EICC found that scaling the network could be simple, cost effective and only limited by the size of the data centre capacity.

Integrated Guest Access

The EICC provides guest access for event attendees. Unlike other WLAN solutions which require additional software and/or hardware to deliver guest access, vWLAN includes an integrated guest access solution. vWLAN's secure, full featured guest access solution supplies role-based policy for access and bandwidth usage. The EICC can effortlessly set-up custom login pages tailored for each specific event.

Unprecedented Scaling and Capacity

vWLAN makes scaling the network simple and cost effective - and only limited by the size of the data centre capacity. vWLAN, designed as a distributed architecture, separates the control and data plane to allow for separate scaling and greater capacity. Adding more access points (data plane) does not drive an increase in the control plane or a need for additional control plane investment. System capacity is no longer determined by the backplane capacity of the hardware controller; rather with vWLAN, capacity is a function of the aggregate throughput of all the access points combined (e.g.: a deployment of 1,000 access points could easily reach 200 to 300 Gbps).

High Availability Ensures an Optimal Client Experience

vWLAN's reliability is based on the dependency of the data centre as opposed to the traditional single purpose hardware controller. The EICC deployed optional high availability software for vWLAN to provide hitless failover with zero packet loss to ensure uninterrupted wireless LAN service even during a control plane failover. The 1+1 high availability scheme, which does not require the addition

"A great product is nothing without great support and Westcom Networks have become part of the team. They understand our unusual business environment and provide us with time critical support on some of our largest events."

– Richard Lloyd
Client ICT Manager

of new hardware as it is standard for other vendors, is based on installing both a primary and secondary vWLAN software control instance, which can be deployed anywhere as long as the Bluesocket access points and both control instances have network connectivity to each other. vWLAN offers unprecedented flexibility, since the control instances and access points can be located independent of each other—anywhere in the networked world.

Security Enforced at the Edge

With wireless security a constant concern, vWLAN leads the way with a secure 802.11n solution that takes advantage of intelligent access points to enforce security policies at the edge. A full stateful firewall is configured and managed centrally but the policy is enforced at the access point to ensure that any unwanted traffic never enters the network.

vWLAN = Cost Savings + Green IT

By abolishing the functional need for hardware controllers, ADTRAN's Bluesocket vWLAN solution thereby eliminates the associated costs of controllers such as OPEX and CAPEX which can be considerable savings during the initial wireless deployment phase. vWLAN decreases the TCO of the WLAN and will dramatically reduce energy usage since legacy hardware controllers typically account for 80% of the total energy usage within a wireless network. ADTRAN's Bluesocket vWLAN solution fits nicely into the EICC Green strategy since it greatly reduces energy usage, floor space and additional hardware waste.

EICC Expansion Plans

To maintain its position as a world class conference venue, the EICC has commenced on a new £30 million expansion project which is due to open in the Spring of 2013. vWLAN's "go as you grow" architecture , allows the EICC to add access points within the new expansion as needed - without incurring additional controller-related costs. vWLAN provides added investment since it is 802.11ac ready. As the EICC grows, so will ADTRAN's Bluesocket vWLAN solution - ensuring client connectivity as part of the EICC's "wow" factor.