

Castle Howard Case Study



Networking a Historic House:

Castle Howard is one of Britain's finest historic houses, sitting in the heart of North Yorkshire. The Estate spreads over 10,000 acres of land in the Howardian Hills, 15 miles out of York.

There are almost 200 buildings and monuments across the Estate, including a Farm Shop, Courtyard Café, Plant Centre, Chocolate Shop, Gift Shop and the Lakeside Holiday Park, a holiday base for hundreds of people a year.

With news that Castle Howard was going to be used as a location in Ecosse Film's new production of *Brideshead Revisited*, and the production team required wireless internet access for the duration of the filming, Castle Howard's IT Manager, Miles Gaynor, decided it was time to extend and upgrade their WiFi network.

Networking in a Grade 1 listed building with stone walls over three feet thick makes for unique challenges, and wireless networking provides many advantages in locations which would otherwise be outside the reach of modern communications technology.

5 Ghz to the Rescue:

With the approach of a complete film unit and its production office it was obvious that the existing network infrastructure would need to be reinforced to provide internet access for all the cast and crew who required it. The production office relied entirely on wireless internet access for their laptops and WiFi Skype phones while free access was provided on set and at the artists' trailers via 11g WiFi. These areas were spread out over several hundred acres and a backbone solution was required to bring the network back to a single location for centralised firewall control and secure access to the internet. The winning technology would also be used to create permanent links for the Farm Manager's office, the Lakeside Holiday Park office and residents as well as the Park Farm Easthorpe complex of commercial let property which is outside DSL range from its telephone exchange.

After some consideration, Miles opted to install a 5GHz networking solution. "I felt that 5GHz would deliver a more reliable and secure system compared to the overcrowded and much more common 2.4GHz WiFi" commented Miles. "Using the licensed C band leaves your backhaul links clear of interference from any client devices that your users may set up off their own bat as well as allowing higher power output"

He chose to use EnGenius' NOC-8610 range of outdoor wireless bridging products, as the backbone for the WiFi network, as they provided an 802.11a/b/g access point, which has a 5GHz 16dbi panel antenna built in and a Reverse SMA socket for 2.4GHz for flexible deployment

options. "I have used the EnGenius outdoor equipment in the past for 11g WiFi and I have been impressed with its reliability and features. I felt comfortable committing to EnGenius for the 5Ghz project even with the tight schedule bearing down on me".

Miles also uses Solwise HomePlug Adapters for distributing the network in areas where drilling for cable is impractical and WiFi cannot penetrate the solid stone walls. The HomePlugs are used at the Gatehouse and other locations where a NOC-8610 bridge is located on the roof and the signal is then distributed via the power cables within the rest of the building. In most cases, end users still prefer WiFi access and Solwise PL-85PEW Wireless HomePlug adapters are used to provide this while avoiding the signal loss that would result from attempting to beam the signal from one central location.

The network now enables far more people than before to gain connectivity throughout the Estate. The EnGenius NOC-8610 also encrypts all wireless transmissions through 64/128-bit WEP data encryption and supports WPA2/WPA/802.1x for powerful security authentication.

Notes to the Editor:

Castle Howard

Castle Howard is home to the Hon. Simon and Mrs Howard, and their twins Merlin and Octavia.

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Solwise

Founded in 1991, Solwise Ltd. is a UK based 'Direct Channel' importer and distributor of Telecoms and computer products. In addition to our attractively priced range of high quality ADSL, VoIP, Wireless, HomePlug & Networking devices, we stock a number of interesting specialist items.

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