

Wireless Networking Considerations

Wireless Networks have matured with a number of technical changes being implemented and standardised. At the same time more and more mobile devices are being adopted in the classroom, for example netbooks, smartphones and many other devices.

This move towards mainstream use of wireless for the connection of devices has placed new demands on the wireless system that the current design is struggling to cope with. This results in patchy coverage and generally poor performance with people asking why I have seamless wireless operation at home but not in school.

Home use of wireless places different loadings upon a system to that of schools. At home it is rare that more than 2 or 3 devices are used simultaneously, whereas at school there will often be sixteen or more machines in use in a classroom. And with schools now moving towards having multiple IT suites using wireless devices at the same time the increased load on systems is substantial. The immediate thought is to place more Wireless Access Points (WAPs) around the school to increase coverage, but unless these are setup and configured correctly the result can well be reduced coverage rather than the desired increase.

The most current solutions use so called 'dumb' or unmanaged WAPs, each device has no knowledge of the other devices in the building. For smaller installations this is not an issue but as the number of WAPs increases the effective coverage decreases. Specialist contractors can work with these unmanaged WAPs and make them operate effectively but any change to the requirements can mean a costly and time consuming re-configuration.

The solution is to change from an unmanaged to a managed system. Managed wireless systems use a central controller which automatically configures all of the WAPs in a building ensuring that they do not interfere with each other and deliver the maximum signal to all devices.

Unfortunately not all managed wireless systems are created equally and as this represents a substantial commitment on the part of the school then it is important that systems are specified correctly and the differences between them identified. There is lots of jargon which can be confusing even for technically confident people, making it quite easy to miss some important differences when comparing systems. Generally if the cost difference between two systems is substantial then the less expensive one is missing some important features.

Wireless Network Equipment Purchasing Toolkit

We have created a checklist that poses a set of questions a supplier should be able to answer which should allow a non-technical person to make a valid comparison without complex terminology.

To find this, along with a comparison table for schools and a checklist for potential suppliers to complete please go to http://www.thegrid.org.uk/info/traded/sitss/services/computer_management/wireless_network/

