

Whole Class Learning

30 Laptops Per Class or
300 Laptops in the hall.

Whole School Learning

Every Class
Every Communal Area

Fast Login

Simultaneous login times
cut by a factor of ten

Classwide Multimedia

Smooth delivery of multi-
media applications

Simple to Support

Single channel architecture
removes design implemen-
tation and support com-
plexity



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Meru Networks UK Education Solutions

Meru Networks wireless LAN solutions are rapidly becoming the standard implementation for schools wishing to use wireless LAN to deliver resources to whole classes of pupils across a whole school. Meru's virtualised single channel architecture enables schools to provision 802.11n wireless coverage everywhere with minimal planning implementation and support effort. It provides a high performance infrastructure for high densities of users and enables simultaneous log-in and simultaneous delivery of multimedia applications to whole classes of devices. It offers the highest performance and offers concurrent support for 2.4GHz and 5Hz 802.11abgn devices.

Success through Excellence

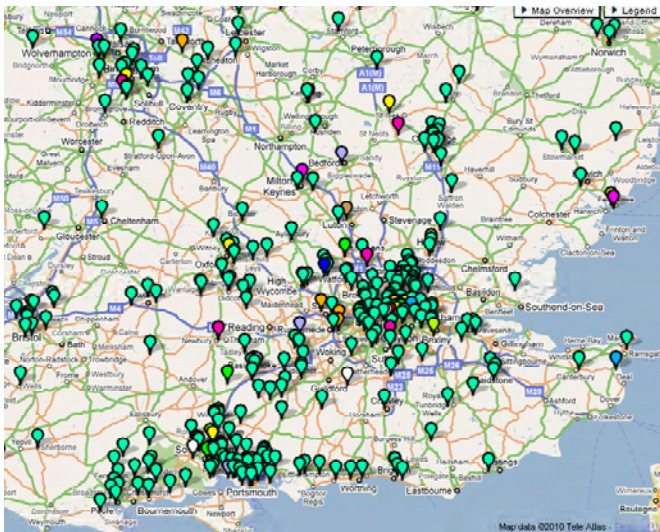
Meru has gained a reputation for being the product that works. During 2010 over 300 educational establishments have installed 802.11n Meru wireless networks. These include primary and secondary schools, public and private sector, BSF and Academy, new builds and upgrades, colleges and universities. Meru's technical leadership has lead to market analysts Dell Oro ranking Meru as number two in worldwide shipments of enterprise 802.11n , a re-

markable achievement for a new entrant into the market. Founded in 2002 Meru floated on Nasdaq this year and since has announced three successive record quarters of business. Siracom is the leading UK distributor of Meru products and supports a channel of education specialist resellers . These resellers are trained and accredited to high standards set by Meru and can offer desin and implementation services throughout the UK.

Meru Success in UK Education

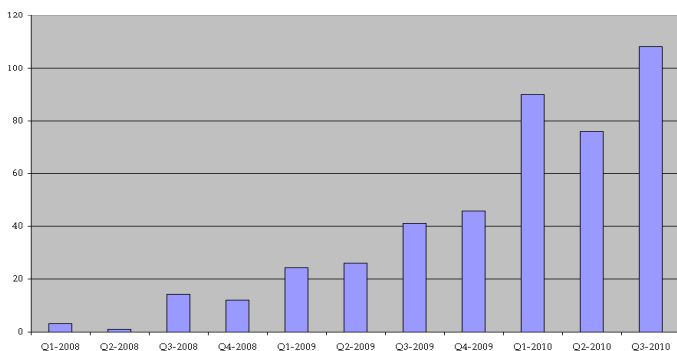
Every Site a Reference Site

The Meru philosophy is that every wireless installation should meet or exceed the customer expectations, our goal is for every customer to be a happy reference site. This philosophy permeates through our Meru channel and is the cornerstone of our growth. The map below shows south east region education reference sites similar information is available for the rest of the country.



Meru has also been successful outside of education particularly where customers require wireless access to support business critical applications.

Meru UK Growth - New Edu Customers Per Quarter

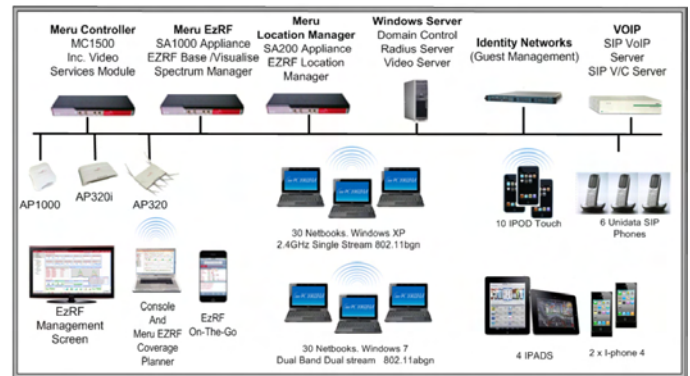


The Formula for Success

Setting Expectations - The MTDS

Siracom and its customers offer a comprehensive demonstration facility, The MTDS. The Siracom Meru Technical Demonstration Suite (MTDS) is available to demonstrate the power of the Meru solution, by providing the wireless infrastructure, management and devices to run data, voice, video and multimedia applications, in high user density configurations over a Meru wireless network. The MTDS boasts 60 netbooks enabling us to simulate two classes, it also includes I-Pads, I-pods, and the latest I-phones. It is often used to show simultaneous login, multimedia applications and streaming video over wi-fi.

The Siracom MTDS



Careful Design

The Meru Networks single channel architecture simplifies wireless network design. Working with Meru we can assume that all access points will be on the same channel and will all be set to the maximum allowable transmit power. This means that the RF design is reasonably predictable. Siracom resellers offer desktop surveys and onsite surveys to accurately predict access point requirements. Further information on the design process is available at <http://www.siracom.com/pdf/wirelessdesign>

Manufacturer Backed Accredited Installers

Meru operates a channel program which ensures that its education partners have suitable design and implementation skills. These accredited partners are backed by UK based Meru Systems Engineers, 24x7 technical assistance centre and next business day pre-10.00 delivery of maintenance replacement from UK stores at Siracom

The Siracom Recommended Design Methodology

1) Design for potential for whole of class teaching

Specify the classrooms in which you want whole of class teaching. Input access points to the coverage planning tool to a density where each class specified has 150Mb/s coverage.

2) Design for potential for simultaneous whole of class teaching

Specify additional access points to ensure that there are enough access points to cover simultaneous usage. In the example above if we were teaching simultaneously in classrooms 59 and 64 we would need an access point in both classes.

3) Design for coverage

The access points specified in 1) and 2) above may provide coverage across much of the school. The school should identify all areas where coverage is required, and a minimum connection speed should be agreed. Next we build in some leeway by designing to a higher minimum agreed speed / signal strength than the minimum required. 36Mb/s might be a good number. Access points should be added to the planning tool to give this coverage.

4) Install

After purchase the system should be installed as agreed.

5) Test

The site survey tool may be used to map coverage and confirm (or otherwise) that the system is operating as designed. With Meru's single channel design if there are coverage holes these are easy to fill, by adding an access point, without having to reconfigure the whole network.

Look Out For Interference

The most common cause of problems with Meru wireless is interference. Wireless operates in the 2.4GHz and the 5GHz frequency bands. These are unlicensed bands and other wi-fi and non wifi devices may cause interference.

2.4GHz is the worst affected frequency but also the frequency on which most wifi devices operate. An RF scan should be carried out before installation using a tool such as Wi-Spy.

Common interference sources are:

Neighbouring wi-fi	Microwave Ovens
Alarm systems CCTV cameras	Handheld telephones
Bluetooth.	

This sounds like a long list but with the correct configuration Meru wi-fi is very resilient to noise.