NETCOM ICT SOLUTION

SHAW PRIMARY ACADEMY

Netcom92 ICT Suite solutions
Shaw Primary Academy case study

After

The requirement:

In March Shaw Primary Academy was handed the task of completely re-designing the schools ICT suite. They found Netcom's website and contacted our sales team where a pre-sales consultation meeting was arranged and booked.

Shaw Primary needed to upgrade their ICT suite to accommodate an additional 16 workstations and create a much better teaching environment for all the students. The school needed to provide a workstation for each pupil and the teacher. This meant the room would be increasing from 15 workstations to 31 which brought about several problems.

To accommodate these extra machines the room needed a re-designed floor plan which would make the room functional but safe for all the pupils working in there. This meant new furniture would be needed as the room currently had benching which was very old and didn't make full usage of the rooms teaching space.

Shaw Primary was looking for a company who could take care of the entire project including product supply, installation and design.
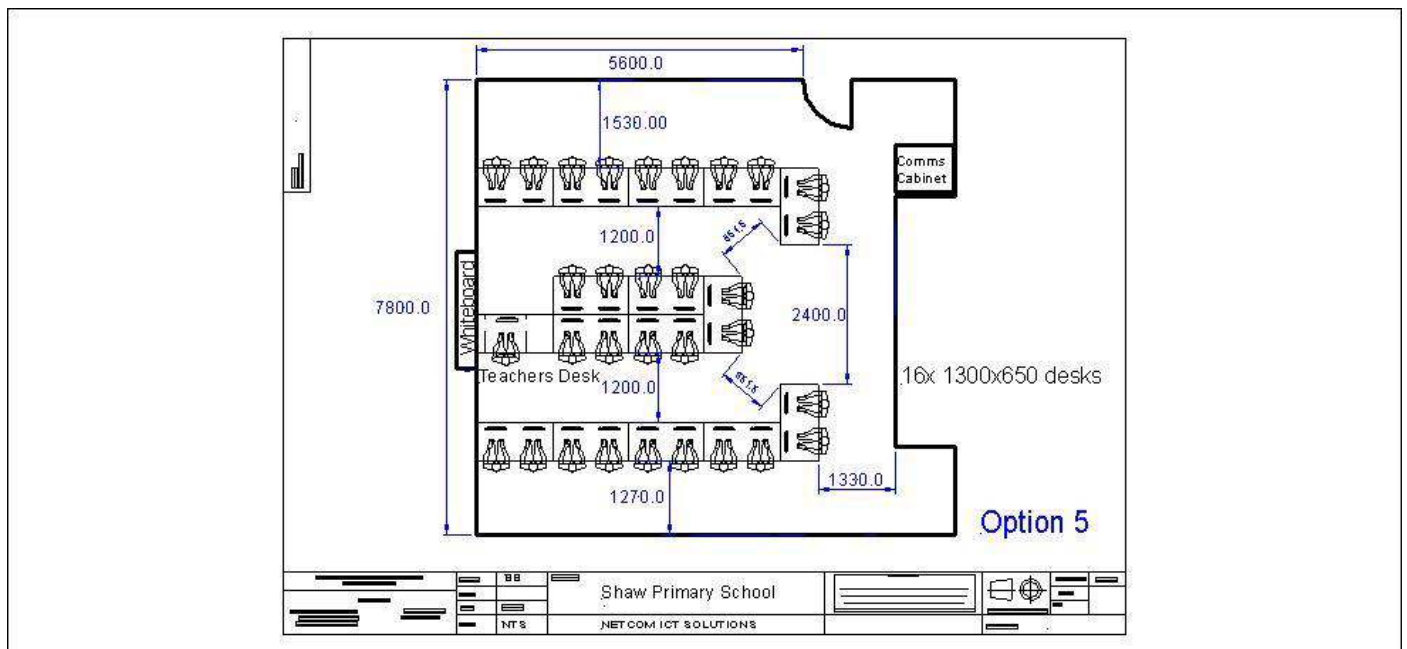
The full requirements were:
- 15 x Double secure students desks (30 seats)
- 1 x Teachers desk
- 31 x Secure PC enclosures
- 31 x Secure Monitor arms
- 35 x Cat5e data outlets
- 32 x Twin electrical sockets
- 3 x compartment trunking system to house new cabling
- Air conditioning system
- Full projector solution including connection to local computer

The room design and desking:

Netcom visited the school to carry out a consultation meeting and to run through the schools project requirements. Netcom then began designing the ICT suite ensuring we did our up most to meet all the schools requirements. The first thing was to design a seating plan to accommodate the students and teacher.

Netcom designed a floor plan on our CAD software. The designs included our secure ICT desks with full security features. The new room plan included a completely new data and power containment system to provide to each PC workstation. Netcom carried out a complete new re-wire to create the new floor plan along with an air conditioning system.

The PC enclosures are designed to house the tower or desktop under the desk. Each enclosure has its own key lock ensuring the unit is completely secure. The monitor arms are designed to be installed to the top of the worktop. They contain a lockable device which ensures the monitor is secure at all times. The arms have tilt and swivel movements for optimal student viewing.

Netcom used double desks designed to seat two students per desk. We also included a teachers desk which had all the security features plus a set of draws mounted on the under side of the desk top.

The desks also included our under desk cable containment design. This means that you can have a power and data outlet at each student workstation. This was very important to the school as they wanted to keep the cable routes from the PC's to the data and power provisions short so students would not tamper with any cables. This feature also adds to the health and safety aspect along with the PC enclosures which takes the PC off the floor.

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Structured cabling and outlet locations:

Once we had a preferred floor plan we created a cabling plan for the Cat5e user outlets. Netcom would install 35 new data outlets situated around the room. We installed an outlet at each work station which was situated in our under desk cable containment. The 4 remaining outlets where placed along our bespoke work bench as they are to be used for printers, scanners and laptops.

The cables were routed round the classroom through compartment trunking system. This trunking prevents any tampering and also adds to the aesthetics of the room.

The new Cat5e outlets were terminated at the new cabinet within our patch panels. Netcom then patched all the new outlets into the relevant data switches.

The data outlets were then performance tested with our Fluke testing equipment. Each workstation would now have its own data outlet ensuring optimum network speed and connection.

PC Workstations:

Netcom would be providing and installing 31 new PC's for Shaw Primary's ICT suite. During our consultation meeting we discussed the specification the school required. The school opted for Dell optiplex machines with 19" monitors.

The machines would be installed into the security features at each workspace. The monitors were mounted to the secure monitor arms and the towers were situated in the PC enclosures mounted under the desktop.

All the cables were connect to the data and power outlets within the under desk cable containment. Netcom then collected all the serial numbers and passed them to the school for asset tagging.

Projector and Screen:

Shaw Primary Academy required a new projector and screen for their ICT suite. The placement of the projector was very important and we designed the floor plan around where it would be situated.

Netcom understand that the students need easy access to the screen. With this in mind the position of the projector was decided before we agreed the room's new floor plan.

Netcom installed the projector and screen also added a Kensington lock attachment to make the projector fully secure at all times. Netcom then connected the projector to the new data and power outlets situated on the wall. The projector was then connected to the teachers PC with the cables being routed through our perimeter and under desk containment.

The screen was mounted. The projector and screen is situated just beside the teacher's desk as it is used frequently in lessons.

Air Conditioning:

Shaw Primary Academy had very specific requirements for their ICT suite and air conditioning was one of them. The school explained that the room became very hot when the class was in use. They were concerned about the room temperature with the addition of 16 new PC's.

To solve this problem the school would require Air conditioning. Netcom supplied and installed a brand new Mitsubishi Hyper inverter wall mounted system. The unit was mounted to the wall at a height which would filter and cool the room but would not cause any discomfort to the students. Netcom installed a wall mounted LCD controller giving full control of the unit to the teacher. The unit includes a 3 year manufacturer's guarantee.

Remote Cat5e Outlets:

Shaw Primary Academy wants to offer ICT provisions to the pupils in every classroom. To offer this they need to have data provisions in every room.

The requirement was to install 35 new Cat5e data outlets into the classroom. Netcom would then connect these data outlets to the remote wall cabinets. The wall cabinets are linked back to the main comms cabinet in the ICT suite.

Netcom installed the new outlets by using internal room trunking and presented the outlets within double gang back boxes.

All the new data outlets and cabinet links were performance tested with our Fluke testing equipment.