

BARTON COURT GRAMMAR SCHOOL:

ICT SUPPORT DEPARTMENT

Introduction

The ICT Support Department provides the facilities, services, support, and training to the school community necessary for the effective and efficient use of technology in the teaching, learning, and administrative objectives of the school.

ICT within the school has undergone significant redevelopment during the previous 6 years, and this policy of continual improvement and development continues as recent advancements in technology are regularly assessed in order to provide new and innovative ways of supporting the school's ethos and objectives.

Infrastructure

The fibre optic and switching backbone of the network was fully replaced in 2011 to provide a fast and resilient core network, and HP ProCurve switches are used across the site. Site-wide wireless networking is provided by a Ruckus solution, and BYOD is offered to Years 11-13. In addition, the UTP cabling in a number of areas has been replaced in recent years.

The majority of the server infrastructure is virtualized using the VMware vSphere suite, and this has recently been upgraded to v6 with new host servers. Four physical hosts currently provide a pool of 208 GHz of CPU resources, and 384GB of RAM, supporting a varied range of VMs including DCs, Exchange, and SharePoint services. A Nimble Storage SSD/HDD Hybrid SAN provides for the bulk of the school's storage requirements.

The school runs a standard Microsoft Windows-based network, utilising Active Directory and Group Policy (at 2008 R2 functional level) to provide network configuration. In addition, some Server 2012/R2 and Linux instances are in use. A project to migrate to Windows Server 2016 is currently underway.

Data backup requirements are fulfilled by Veeam Backup & Replication and Nagios network monitoring is used to ensure a proactive response to network availability issues.

Facilities

The school has over 400 computer clients, and a Student-to-PC ratio of approximately 3:1. There are 4 main ICT Suites in the school, with one being dedicated to Sixth Form use. In addition, departments such as Music, Art, and DT have specialist ICT Suites or laptop sets for their use, and all staff are issued with either a laptop or desktop PC as appropriate. All computers have been replaced in the previous 5 years and run the Windows 7, 8.1, or 10 Operating System. A project to migrate all computers to Windows 10 is currently underway, and planned for completion by September 2017. All classrooms are equipped with SMART Board Interactive Whiteboards, with a combination of short-throw projectors and LCD displays in use.

Microsoft SharePoint is heavily used in the school, both for information management, and as a Virtual Learning Environment to support 24/7 access to learning and this is accessed by all staff, students, parents, and Governors. Microsoft Exchange is used alongside this to provide e-mail functionality and the school MIS is provided by the CMIS/e-Portal products. The ICT Support Department is also responsible for the provision of Digital Signage and telecommunications equipment within the School.

Staffing

The ICT Support Department is led by the Trust ICT Strategy Manager who is responsible for the strategic leadership, development, and support of ICT across the Academy Trust and provides 3rd line support. A Trust Lead ICT Technician is also available to provide support and guidance when required. Within the School, a Senior ICT Technician provides 2nd line support, and a ICT Technician is the primary responder to 1st line support requests, and assists the Department in other tasks as required.

M. Blake, Trust ICT Strategy Manager, June 2017.