

MPLS WAN upgrade boosts college's IT performance



Orchard Hill's improved network helps students with learning difficulties to use photos and videos to link with their peers via the College's 'ShareSpace'.

At a glance

Challenge

- Increase bandwidth
- Integrate new sites into WAN
- Support VoIP and video conferencing
- Make SAN replication feasible
- Speed up remote access

Solution

- MPLS WAN
- Shared Internet access pool
- Resilient colocation
- Central managed firewall
- Traffic prioritisation

Benefits

- Bandwidth bottlenecks gone
- IT centralised
- New sites integrated
- Video conferencing
- Resilience improved
- 24x7 support

Why they use hSo

Value for Money

Orchard Hill College evaluated proposals from three providers. Andrew Barnes, the college's head of IT, chose hSo for its "combination of very good pricing and full service management". hSo doubled the bandwidth at the college's main site, while charging less than the previous supplier. Other sites received a ten-fold increase in bandwidth, at little additional cost.

Flexibility

With significant expansion and various challenging IT initiatives underway, it was essential to pick a supplier that could adapt the solution to meet evolving requirements.

Carrier neutrality

Orchard Hill wanted a connectivity provider that could compare options from a range of different providers

(such as BT and Virgin Media), cherry-pick the best option for each site, then combine these to form a single MPLS WAN (wide area network).

MPLS expertise

The college wanted a supplier that knew how to configure an MPLS WAN suitable for video conferencing and VoIP.

"The WAN has been exceptionally reliable and the service has been second to none."

Andrew Barnes, Head of IT at Orchard Hill

Challenge

Orchard Hill College is for young adults with severe and profound learning difficulties. It educates 350 learners across five sites.

The college's WAN was suffering from a lack of bandwidth. Staff were experiencing slow Internet access and sluggish remote connections. The college's Head of IT, Andrew Barnes, was keen to remedy these problems and instigate some ambitious IT initiatives.

He planned to consolidate their IT resources at fewer sites and share these resources over the WAN. He wanted to introduce VoIP and Video conferencing, and to boost resilience by replicating the college's SAN at a secondary location. All these projects would need a significant increase in bandwidth. Any new WAN would have to be extendable, as they planned to open several new sites.

Many of the college's IT systems were hosted at its main centre. Andrew felt it wise to move several of these systems to a colocation facility with resilient power.

Staff would access the network remotely at all hours to fill in essential paperwork, so 24x7 support would be vital.

“It was a vast improvement for our users... extremely noticeable.”

Solution

The initial solution involved a three-site MPLS WAN, delivering a major increase in bandwidth. Internet access was shared between all sites. A managed firewall was colocated, along with VPN & internet filtering appliances. Lastly, VoIP and video-conferencing traffic were prioritised on the WAN.

Subsequent upgrades involved doubling Internet access bandwidth and adding two new sites to the WAN. Circuit bandwidth was doubled at two sites to speed up SAN replication, while colocation space was expanded.

Benefits

The bandwidth upgrade had immediate benefits:

“It was a vast improvement for our users... extremely noticeable,” said Andrew. “Prior to the upgrade, we had constant complaints from users that access to file servers, email and Internet access was all slow. Now, all those problems have gone away.”

The bandwidth upgrade let us centralise IT resources at fewer venues and speed up remote access, making the IT infrastructure easier to manage.

The shared Internet port gives all sites fast access to the Internet, while minimising the college's bill. Meanwhile, a single managed firewall protects all sites, removing the need for each site to have its own.

Video conferencing has been introduced. Lecturers can schedule combined lessons, featuring interaction between class groups from different centres. The college's management team use video conferencing for meetings, reducing the need for staff to travel between sites.

Prior to switching to hSo, replicating data had been a challenge. “It was quicker to copy it to a USB key and jump on the bus, to be honest,” said Andrew Barnes. Now the college can quickly replicate its SAN over the WAN.

The college moved its SSL VPN & web filtering appliances to an hSo data centre, speeding up response times. Additional servers will follow, to speed up response times further and to ensure a more resilient hosting environment.

The college's Carshalton site uses VoIP handsets that run off a PBX at the college's main site. The WAN is ready for the next phase of the college's VoIP adoption plan: the switch from ISDN30 to SIP Trunking. This is expected to save the college hundreds of pounds each month.

“The WAN has been exceptionally reliable,” adds Andrew, “and the service has been second to none.”

About hSo

hSo is a carrier-independent network service provider. Our managed services span inter-site and Internet connectivity, telephony and data centre solutions, including cloud and virtualisation. To find out more, visit www.hso.co.uk or call us on **020 7847 4510**

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