

Briefing Note – Education and Youth Overview and Scrutiny Committee

Topic: To provide information on Public Sector Broadband Aggregation (PSBA) and how national infrastructure challenges were being address at schools across Flintshire.

Background

Schools across Wales use a Welsh Government provided network called PSBA to access all internet-based services. To ensure that school children are protected from accessing inappropriate content on the internet an all-Wales filtering solution called Websafe is used. This solution is located in Cardiff and is managed by Welsh Government’s contractor BT.

Recent Infrastructure Challenges affecting Schools

Over the past few years there have been several issues that have affected all schools in Flintshire.

Dates	Issue	Cause	Resolution	Mitigations to Prevent Recurrence
October 21 to April 22	Schools across Wales started to notice disruption to internet-based services that was affecting all schools in Wales. This quickly escalated and caused major disruption.	The Web Safe Filtering solution had insufficient capacity to cope with demand and lacked resilience.	Escalation to Ministerial level at Welsh Government. Limited improvements were made in the interim, however new hardware was required which took time to be delivered and implemented.	Regular capacity monitoring undertaken by Welsh Government with continuous improvement and investment being made in the technology.
September 22 – October 22	Schools in Flintshire and other authorities were experiencing slow internet access in all schools	New release of antivirus software causing web browsers to run slowly due to the way the in which the software was scanning for vulnerabilities	Interim resolution disabling certain elements within the software was deployed, pending a new release of the antivirus software. This was provided in October 22 and the issue was resolved.	As the antivirus software is cloud hosted Flintshire have no control over when updates are released. However, the setup has been modified to allow quicker resolution if issues are encountered.

1 st February 2023 -3 rd February 2023	Schools in Flintshire and across Wales experienced disruption to internet-based services for 1 day and a reduced service for the following two days.	Increasing the capacity in the network undertaken by the contractor BT caused a loss of Internet based services and resulted in the requirement to rebuild the Websafe infrastructure.	The changes were reverted and the infrastructure was rebuilt.	Commitment received from Welsh Government that changes of this nature will only be undertaken out of hours.
9 th June 2023	St. David's High school reported issues with running online GCSE examinations and students had to resort to paper submissions. The school suspected the issue was a lack of broadband capacity to the school.	Investigations concluded that the school's connection had sufficient capacity and was running at 50%. Other Flintshire schools successfully completed the same examination online.	Following discussions with other technical colleagues at different schools it was reported that they had experienced difficulties in installing the software but had managed it eventually.	The actions taken by other schools to successfully install the software have been shared with the Technician employed by St. David's High School.

Capacity Planning

On a weekly basis the capacity of the connection to the internet from each school is reviewed and where they have regular high utilisation, upgrades to those connections are ordered and installed.