Meeting of:	**Democratic Services Committee**
Date of Meeting:	**Monday, 16 November 2020**
Relevant Scrutiny Committee:	All Scrutiny Committees
Report Title:	ICT Update for Members
Purpose of Report:	To inform Members of any new developments or issues within the ICT service and how they relate to the services provided to them.
Report Owner:	Managing Director
Responsible Officer:	Head of Digital and Innovation
Elected Member and Officer Consultation:	None
Policy Framework:	The terms of reference of the Committee include responsibility for overseeing The Council's approach to Member Development, including Member ICT.

Executive Summary:

- This report provides a summary of the IT activities undertaken to support the Council following the COVID-19 pandemic and initial lockdown in March 2020.

Recommendation

1. That Members note the contents of this report.

Reason for Recommendation

1. To ensure Members are made aware of any developments to ICT Services across the wider Council.

1. Background

1.1 The Committee's terms of reference include responsibility for overseeing the Council's approach to Member Development. As part of its role, the Committee has agreed that a Members' ICT update be a standing item on the agenda for each meeting.

2. Key Issues for Consideration

2.1 The Council's ICT service has experienced significant changes in demand since the launch of Reshaping Services in 2015, the evolving nature of our changing organisation, demands from the public and more recently with the demands on infrastructure following the global COVID-19 pandemic.

2.2 Since 23 March 2020, the organisation has moved at a pace and scale to deliver a level of change that has never been seen before, in order to ensure availability of our core services, support our communities and facilitate evolving priorities such as Track, Trace and Protect.

2.3 The Vale of Glamorgan's ICT infrastructure prior to lockdown in March 2020 was designed to support c. 2,000 office-based workers in three main offices, but also included staff in schools, libraries, care homes, etc. There was no real demand for video conferencing, with virtually all meetings taking place face to face or over the telephone.

2.4 Approximately 300 staff had been set up to occasionally work from home or remotely, with a handful of staff being classed as permanent home workers.

2.5 The remote connection method of choice was via an Aruba VPN device for home workers, with a small number of staff using Always on VPN to connect in remotely whilst away from the home or office.

2.6 Always on VPN was in the process of being rolled out to more remote and home workers to allow the service to phase out the use of the Aruba VPN device in favour of one consistent remote connection method for all remote and home workers.

2.7 The network infrastructure coped will with the type of demand that was placed on it, i.e. a mix of predominantly office-based staff, with a relatively small number of home and remote workers.

2.8 Immediately following lockdown, the Council immediately needed to relocate c. 2,000 office-based staff to work from home. The balance of demand on the network infrastructure changed to one of c. 99% home-based staff with a handful of staff being required to work out of Council buildings and care homes, etc.

2.9 The Always on VPN secure remote network access solution was not able to cope with the increased load, and an alternative solution was required as a matter of urgency.

2.10 ICT staff re-initiated the F5 / RSA secure remote network access solution that had previously been decommissioned to make way for the Always on VPN solution, and rolled out the RSA tokens to the personal mobile phones of c. 1,600 staff within two weeks. Additional licences were required over time as more staff required this type of secure remote connection.

2.11 At the point of the first lockdown in March 2020, the Council was in the process of migrating to the Microsoft 365 platform which had already been rolled out to c. 600 staff in the 5 – 6 months leading up to lockdown. Microsoft Teams forms part of this platform and was therefore the Council's default videoconferencing solution. However, due to COVID-19 related demands on the ICT service, the Microsoft 365 rollout was postponed to prioritise other critical work to support services i.e. remote access, mobile device deployment etc. and to minimise disruption to staff during a critical period of communication.

2.12 The business was finding alternative video-conferencing solutions as c. 1,500 staff did not yet have Microsoft Teams available. Other solutions that had been used included WhatsApp, Zoom, GoToMeeting/Webinar and Cisco WebEx. The quality of the video calls initially was very poor, and it was identified that there were a number of 1Gbps bottlenecks in the Council's infrastructure that were causing the issues and no applications had been split-tunnelled at that point. An initial security assessment of options was conducted to mitigate risk for any interim solutions. ICT services worked across directorates to ensure that any interim arrangements could be facilitated across the network where required in a safe and consistent way.

2.13 For Committee and Council meetings, GoToMeeting/Webinar was chosen as it had a number of features not yet available within Teams and had already been successfully used by officers in Democratic Services for a number of months in supporting remote meetings with members of the public. It was also determined to be one of the most secure following the security assessment.

2.14 The ICT infrastructure and firewalls were amended to whitelist GoToMeeting/Webinar servers and allow the software to run on Council devices, while maintaining appropriate security measures. The use of GoToWebinar for public/Committee meetings will be replaced with Microsoft Teams Live in November 2020, aligned to the Council's Microsoft 365 platform and offering additional functionality, flexibility and security.

2.15   The following plan was initiated following lockdown and implemented to upgrade and resolve the network infrastructure limitations:

- **Split tunnelling**   **June/July 2020**

   Traffic for Teams video, and windows updates was segregated on the network to improve performance, especially remotely.

- **Firewall upgrade**   **July 2020**

   The Firewall provides security between the Council's network and the wider internet. Installation of new hardware which will provide greater capacity and improve bandwidth speed for this element of the network from **1Gbps** to **10Gbps** on our core network.

- **PSBA Upgrade**   **July 2020**

   The PSBA link connects Welsh public sector organisations together via a private, secure, Wide Area Network (WAN). The installation of new hardware will increase capacity and bandwidth speed for this element of the network from **1Gbps** to **4Gbps**.

- **DMZ Switch Upgrade**   **July 2020**

   The DMZ (Demilitarized Zone) switch supports the Council's external services; it operates behind the firewall and allows public access to some services. The installation of new hardware will increase capacity and bandwidth speed for this element of the network from **1Gbps** to **10Gbps**.

- **LAN Core Upgrade**   **July 2020**

   The LAN core switch is part of the Council's network backbone and manages all the internal traffic in Council buildings. The installation of new hardware will increase capacity and bandwidth speed for this element of the network from **1Gbps to 10Gbps** connectivity on the core network.

2.16   Microsoft Teams was rolled out to all staff in July 2020 to provide them access with video conference functionality and collaboration tools. Staff who had not been migrated to O365 at that point were still able to use Teams video conferencing facilities, albeit with slightly less functionality.

2.17   Cabinet Members were able to conduct cabinet meetings using Microsoft Teams. Meetings are recorded and published online via the Council's social media channels.

2.18   Following the development of a new rollout plan, the Microsoft 365 programme was re-initiated in August following the infrastructure changes, and the pace of the rollout was accelerated to a level where an additional 1,500 staff have been fully migrated to Office 365 to-date.

2.19   Following the completion of the migration programme for the remainder of staff to Microsoft 365, the ICT Team will be carrying out an upgrade of the Council's Microsoft Exchange Mail Server. This will allow split tunnelling for Outlook, improving performance of corporate email, and also freeing up bandwidth to

further improve video-conferencing stability and quality. This upgrade is scheduled to be completed in mid-November 2020.

2.20 As part of a renewed programme of work, the Information Governance Board will be considering a number of new policies with regards to additional flexibility offered by the Microsoft 365 infrastructure, following the completion of its rollout in November.

2.21 A number of major programmes have continued despite the COVID-19 pandemic and associated restrictions/lockdowns. These include:

- Raising the Educational Digital Standards via the Hwb programme, which is seeing a multi-million pound capital investment in schools' IT infrastructure and devices. To-date, approximately 4000 end user devices have been procured for schools as part of the programme, and structured cabling upgrades are currently being implemented across all school sites.

- Supporting the Council's 21st Century Schools Programme. All school refurbishment and/or new buildings require new networking infrastructure and IT as part of the programme, delivered by the Council. This work is ongoing as part of Band B of the Council's 21st C Schools programme.

- Support for the Council's recovery programme. This includes supporting service areas in delivering services differently in order to meet need or mitigate the challenges and required as directed by national legislation in response to COVID-19.

- 'Business as usual' programmes, including involvement in procurement for new core-system upgrades for essential services.

2.22 With all decision making, information security must continue to be a consideration. The Council is required to maintain security compliance as part of its PSN certification. Without this, the Council risks losing its connection to other public services, such as health, which is especially critical within the context of the current pandemic.

2.23 From September to October, The Council had nearly 1 million emails across its network. Of those:

91,000 were spam

70 contained active viruses

6700 contained other malicious threats (malicious software, links etc)

The Council and its users continue to receive daily attacks on its systems.

2.24 The pace of change and requirements of staff to engage with technology in a new way has created challenges, as many staff have had to hone their IT skills given the nature of remote working. Inconsistencies of use-cases, remote problem-determination, and confounding variables which may affect service in a home setting, including (but not limited to) broadband speeds, latency, WiFi signal strength in different areas of the home, unfamiliar software, etc. have increased the level, scale and scope of support that has been required. Engagement has also been a challenge, as staff who have not engaged with their devices or technology

have had a greater challenge in the migration programme, and have required additional support in ensuring appropriate use of the tools provided, and in ensuring their devices up operating at the required standard. Additional training will be a key priority.

2.25 In 2017, the Council established its first Digital Strategy. The strategy sets out the Council's vision for how it will leverage new technologies to continue to provide high quality priority services. The strategy seeks to define what residents, businesses and visitors in the Vale of Glamorgan can expect in terms of our organisation and how our staff will work in a more agile way to meet customer needs. A new strategy is due to be published in 2020, and will need to be reflective of the emerging trends, service needs and enablers to allow a dynamic response to changes in our service needs and delivery mechanisms, as well as establishing a sound ethos to promote innovation, remote working, and choice, in how our staff and our users engage with Council services.

2.26 The COVID-19 pandemic has been the catalyst for unprecedented change at a pace that from any perspective has been incredibly challenging. It has become clear that, whilst the Council's existing ICT infrastructure has been able to serve the organisation up to the beginning of March 2020, significant investment was required to enable the organisation to move on to new ways of working, supported by, not hindered by technology. This must continue as we move forward in a changing world in order to create proactive and dynamic service-owned solutions.

2.27 The forthcoming Digital Strategy will also need to be reflective of the Council's 2020/21 Corporate Plan, where we are committed to having a more integrated approach to working across services and have developed new areas of focus to establish competitive services and service delivery standards, many of which are dependent on appropriate technologies and support mechanisms in an increasingly competitive market.

2.28 ICT Services remains committed to engaging with our service users, and Members, to ensure that relevant technologies and platforms are available, and suitably flexible, to meet service needs. To that end, service leads have been having regular engagement sessions with DMTs across the Council to formulate priorities on COVID-19 response measures, and have provided update sessions and training to staff and Members.

3. How do proposals evidence the Five Ways of Working and contribute to our Well-being Objectives?

3.1 Supporting staff and communities with the underpinning infrastructure required for The Council to deliver its services in response to the COVID-19 pandemic

3.2 To work with our communities and facilitate new ways of digital working to meet evolving needs.

3.3 Raising overall standards of achievement by improving the network infrastructure and associate digital devices to meet Welsh Government Education Digital Standards guidance.

3.4 Reducing poverty and social exclusion by increasing access to digital technology and improving digital skills.

3.5 Promoting sustainable development band protecting our environment by reducing the number of hard copy prints therefore contributing to The Council's Carbon Management Plan.

4. Resources and Legal Considerations

Financial

4.1 There are no financial considerations that arise from this report.

Employment

4.2 Additional ICT resources have been acquired on a temporary basis to deliver the Education Digital Standards programme of works to improve ICT in schools, support changes to The Council's infrastructure, and provide specialist knowledge to deliver key initiatives.

Legal (Including Equalities)

4.3 There are no legal considerations that arise as a result of this report.

5. Background Papers