

Meeting of:	CORPORATE OVERVIEW AND SCRUTINY COMMITTEE
Date of Meeting:	4 SEPTEMBER 2023
Report Title:	ICT RESILIENCE
Report Owner / Corporate Director:	CHIEF OFFICER – FINANCE, PERFORMANCE AND CHANGE
Responsible Officer:	MARTIN MORGANS – HEAD OF PARTNERSHIP SERVICES
Policy Framework and Procedure Rules:	There is no effect upon the policy framework and procedure rules.
Executive Summary:	This report provides information for Members following the ICT disruption experienced in July 2023 and outlines the work being done to mitigate the likelihood of this occurring again.

1. Purpose of Report

- 1.1 The purpose of this report is to provide the Corporate Overview and Scrutiny Committee with information regarding the Council's ICT infrastructure and proposals to mitigate future risks for the Committee's consideration and comments.

2. Background

- 2.1 The on premise datacentre is the foundation of all ICT services provided at Bridgend County Borough Council (BCBC). The datacentre was historically located at Sunnyside House, and more recently at Raven's Court. Datacentre infrastructure is composed of three critical hardware components:

- compute,
- storage, and
- network.

- 2.2 The storage and compute elements of the BCBC datacentre were purchased in 2017 and are approaching the end of their usable life. The current capital programme includes an allocation to replace this infrastructure in the current financial year.

- 2.3 The current ICT disaster recovery infrastructure is co-located within the Rhondda Cynon Taf primary ICT datacentre. All BCBC ICT systems data is directly

replicated to this infrastructure in real time, so an exact copy of the Council's data is always available at this remote site. All data is also backed up to a secure offsite location over night. The ICT Business Continuity Plan lists the key systems that will be made available in a priority order within 8 hours. Non key systems would be made available within 5 working days.

2.4 The Council is very dependent on ICT with regards to its day to day operations and has an excellent record with regards to reliability. This dependency has increased with the introduction of hybrid working, as staff and members are accessing systems remotely and many meetings now take place on a hybrid basis with attendees joining the meeting either in person or remotely.

2.5 Instances of major ICT outages are very low in Bridgend Council with only three having been experienced in recent years as summarised below :

- 2013 Core network hardware failure, 4 hours downtime
- 2020 External civil contractor cut fibre cable, 8 hours downtime
- 2023 Infrastructure hardware failure, 12 hours downtime

3. Current situation / proposal

3.1 Early on Monday 27th July 2023, the ICT service became aware that the compute, storage, and network elements of the datacentre hardware were not able to communicate. This resulted in a loss of ICT services across the Authority. As a result the following services were impacted:

- Email services, both internal and external to the Authority
- Telephony services
- Hybrid working platforms, so no meetings could take place
- No service specific ICT platforms could be accessed

3.2 It was quickly identified that the issues being experienced were not the result of a cyber attack. The internal and external ICT systems are subject to annual penetration tests as part of Public Sector Network Code of Connection requirements, these tests are conducted by a an accredited external company. Recent penetration tests highlighted no major security vulnerabilities.

3.3 Due to the complexity of the systems, external input was required from the supplier to identify the root cause of the issue. The cause of the problem was identified at 17:00 on the 27th July 2023 and a technological fix was applied which addressed the issue.

3.4 Other services in the Council did ensure that they could deliver critical services over this 12 hour period. Social Services confirmed that all safeguarding issues were dealt with over this time. All service areas have their own specific Business Continuity Plans, that are service led, they form part of the Councils Business Continuity Management framework.

3.5 A review was undertaken and work is now underway to reduce the risk of this type of event occurring again and to minimise the impact if it should occur. This includes:

- Due to the age of the current datacentre infrastructure, ICT completed a procurement exercise in June 2023 for a datacentre infrastructure refresh and the new datacentre infrastructure is due to go live in November. The new infrastructure chosen will be inherently more robust and this includes less single points of failure than our current infrastructure.
- The progression of hybrid working and the acceleration of cloud based ICT services has raised a new set of challenges. ICT are already implementing extra services to allow staff laptops to have full access to cloud services even in the event of full system outage. These include Outlook, Teams, and OneDrive.
- Further work is being carried out to implement resilience in the customer contact telephony service. It is essential that residents and businesses can make contact via telephone in the event of an ICT failure.

3.6 Alongside the datacentre infrastructure refresh project, ICT will be looking at the possibility of hosting the BCBC website on a Cloud based platform. This will allow us to present messaging to all staff and residents via personal devices in the event of failure.

4. Equality implications (including Socio-economic Duty and Welsh Language)

4.1 An initial Equality Impact Assessment (EIA) screening has identified that there would be no negative impact on those with one or more of the protected characteristics, on socio-economic disadvantage or the use of the Welsh Language. It is therefore not necessary to carry out a full EIA on this policy or proposal.

5. Well-being of Future Generations implications and connection to Corporate Well-being Objectives

5.1 The report contributes to the following goals within the Well-being of Future Generations (Wales) Act 2015:

A prosperous Wales - Improving ICT infrastructure and enablement to support Councils drive for a prosperous Wales.

A resilient Wales – Supporting the changes to working practices providing flexibility to Council officers.

A healthier Wales – Timely access to information to ensure support can be provided promptly preventing further deterioration, supported by real time information.

A more equal Wales – Flexible services, responsive to the needs of the most vulnerable.

A globally responsive Wales – Digital services reduces the need for journeys and resources such as fuel and paper, reducing Co2 emissions and use of resources.

6. Climate Change Implications

- 6.1 The consolidation of compute, storage, and networking into one solution has reduced the physical datacentre space requirement from six to three racks. This minimised footprint saves the Council money by avoiding costly over-provisioning. It also lowers energy consumption, helping the Council with reducing power needs and tackling climate change.

7. Safeguarding and Corporate Parent Implications

- 7.1 There are no safeguarding and corporate parent implications arising from this report.

8. Financial Implications

- 8.1 £1,260,000 is included in the Capital Programme for 2023-24 to procure and implement the datacentre refresh project.

9. Recommendation

- 9.1 The Committee are requested to consider the report and provide any comments.

Background documents: None