RHONDDA CYNON TAF COUNTY BOROUGH COUNCIL

CABINET

21ST MARCH 2019

DIGITAL STRATEGY WORK PROGRAMME
DATACENTRE RELOCATION

REPORT OF THE DIRECTOR FINANCE & DIGITAL SERVICES IN DISCUSSION WITH THE RELEVANT PORTFOLIO HOLDER (CLLR NORRIS)

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1. PURPOSE OF THE REPORT

1.1 The report sets out a proposal for the relocation of the Council's Datacentre facility, which forms part of a wider work programme to support the ongoing delivery of the Council's Digital Strategy 2020.

2. RECOMMENDATIONS

2.1 It is recommended that Cabinet:

   i. Agrees to the proposals set out in Section 6 for the relocation of the Councils Datacentre from Bronwydd to Rhondda Fach Leisure Centre.

   ii. Approve the Head of ICT to work in conjunction with the Director of Estates to ensure that works are undertaken in the most economically advantageous way.

   iii. Agrees to include the scheme in the capital programme utilising funding previously agreed and on the basis of the costs and resource requirements outlined in section 9

3. REASONS FOR RECOMMENDATIONS

3.1 As part of the Council's Digital Work Programme, Cabinet agreed to receive a future report on the relocation of the Council's Datacentre facility in response to agreed future plans for Extra Care delivery at the Bronwydd Site.

4. BACKGROUND

4.1 As part of the Council's proposal to transform Adult Social Care, Bronwydd House, which currently houses over 200 Council employees, has been identified as a site for Extra Care housing developments.

4.2 On 21 November 2018 Cabinet approved changes at Rhondda Fach Leisure Centre, part of which was to utilise part of the building for Council office accommodation,

4.3 Business processes, enabled by ICT, are a crucial aspect of all organisational operations with business continuity being a key requirement to ensure the reliable delivery of services. Services rely on their information systems to run their operations and in the event a system becomes unavailable, these operations may become impaired or stopped completely. Therefore it is necessary to provide a reliable ICT infrastructure, in order to minimise any chance of disruption.

4.4 The key component of an ICT infrastructure to ensure effective business services is a Datacentre and or appropriate alternative / complimentary arrangements such as Cloud Computing.

4.5 A Datacentre is a specialised physical facility used to house servers/storage, networks and computer systems e.g. Financial, Education, Social Care systems. As such it is a highly critical facility and includes risk mitigation solutions to maintain continuity such as redundant or backup power supplies, redundant data communications connections, environmental controls (e.g. air conditioning, fire suppression) and physical security measures.

4.6 Cloud is a virtual infrastructure that is external in its location, storing computer systems and data on the internet. Within this environment, computing and storage services may be accessed on-demand with less requirement for physical infrastructure.

4.7 The Council's current Datacentre is located within a timber based building at Bronwydd, which needs significant investment to upgrade it to the standard provided by other data centres in the public and private sectors. Whilst, the current data centre has been improved and has served the Council well over the past 20 years, with the ever increasing reliance on ICT technology, aspects of the datacentre and in particular the building need to be upgraded as more and more staff have access to mobile devices.

5.   OPTIONS APPRAISAL

5.1   With the known requirement to vacate Bronwydd House, a number of potential options have been considered to ensure service continuity and for the relocation of the Datacentre facility. The options from a service delivery perspective were:

A) Do Nothing
B) Migrate to a new facility at a Council location, creating a hybrid infrastructure with Cloud Services
C) Migrate all infrastructure to Cloud Services
D) Migrate to an external private sector location
E) Migrate to an external public sector location.

5.2   A full appraisal of all Data Centre options is shown at Appendix 1.

5.3   Due diligence in relation to all options has demonstrated that Option B is the recommended option, which would provide:-

- The lowest cost option over the medium & longer term, both revenue and capital
- A reduction to the risk of any migration (internal or cloud)
- Improved resilience for ongoing service delivery
- An opportunity to gradually transition toward Cloud Services as part of hybrid infrastructure
- The potential opportunity to host other organisations equipment in the future.

6.   PROPOSED WAY FORWARD

6.1   Following the refurbishment of Rhondda Fach Leisure Centre an opportunity exists to create a new Datacentre facility and allow for the relocation of our computer systems, and infrastructure from Bronwydd.

6.2   Officers from Corporate Estates and ICT have undertaken a review and due diligence with regard to the opportunity and the outcome of this review has been used to inform the proposed way forward.

6.3   There are several identified benefits that the site provides for the creation of a new facility. These are:-

- Location is of suitable construction
- Location can be securely separated from accessible areas
- There is suitable surplus space at the location
- The day to day property costs such as business rates are already funded;
- Opportunity to develop office accommodation to optimise the delivery of Agile Working

- Sufficient power grid supply
- Sufficient space to meet requirements such as mechanical & environmental needs
- Independent entry access
- Location is above highest expected floodwater levels
- Ease of access and parking
- Reduce power consumption through use of more efficient equipment

In addition, the Centre has separate secure access along with the potential to create additional parking spaces so as not to be detrimental to users of the leisure facility and provide additional car parking for leisure centre users in the evenings and weekends when the Centre is at its busiest.

6.4 Subject to Members approval, phases of delivery have been identified for the various aspects of the overall project delivery.

Phase 1 – Construction of office accommodation and fit out, located on the 1st floor, formerly where the fitness suite was located. The works will incorporate agile work facilities and appropriate staff facilities, including a disabled toilet and lift.

Phase 2 – Construction of Datacentre and introduction of specialist support services to mechanical and environmental requirements including:-

- Emergency generator
- Primary and standby cooling system
- Fire suppression
- Fault detection/notification
- Fibre connection – incoming supplies

Phase 3 – Construction of car park to rear of site requiring drainage connection and the introduction of a petrol interceptor. This phase can be undertaken separately from the works within the main structure of the Leisure Centre.

Phase 4 – Migration of servers/storage and supportive infrastructure equipment into the new provision on the ground floor. The migration will require physical transfer, assembly and connection of systems with a period of testing before going fully live. Migration would be phased outside of normal work hours over a number of weekends.

Phase 5 – Ongoing assessment and review of local infrastructure opportunities that maybe migrated to Cloud Services.

6.5 Subject to approval the construction will be programmed as follows:

- Office accommodation to 1st floor (construction) – completion by August 2019
- Car park (construction) – November 2019
- Datacentre fit out ground floor (construction) – November 2019
- Data Centre configuration/operation (Live) initiate migration – January 2020

7. EQUALITY AND DIVERSITY IMPLICATIONS

7.1 An Equality Impact Assessment (EqIA) screening form has been prepared for the purpose of this report. This exercise has shown that a full EqIA is not required. The screening form can be accessed by contacting the author of the report**.**

8. CONSULTATION

8.1 In line with the Council's agreed procedures consultation will take place with any stakeholders impacted by the proposals.

9. FINANCIAL IMPLICATION(S)

9.1 As part of the first phase of this work, known commitments have been summarised below in Table 1:

Table 1: Financial Commitments (where final costs known)

Scheme Phase	£M	Comments
Phase 1 & 3	0.504	Construction of office accommodation & car park construction
Phase 2	0.626	Datacentre facility construction
Phase 4	0.520	Specialist internal facility equipment, logistical move and hardware / infrastructure costs associated to enabling the migration i.e. temporary parallel running
Total	**1.650**	

9.2 It should be noted that with regards to Phase 4 £0.250m of the £0.520m total relates to infrastructure that would be required to be replaced naturally over the medium term.

9.3 The above commitments can be funded from existing resources which have already been identified and set aside as part of the agreed Digital Work Programme.

10. LEGAL IMPLICATIONS *OR* LEGISLATION CONSIDERED

10.1 There are no legal issues to highlight at this time. The procurement processes would be undertaken in the most efficient manner if Cabinet decide to progress the proposal.

11. LINKS TO THE CORPORATE AND NATIONAL PRIORITIES AND THE WELL-BEING OF FUTURE GENERATIONS ACT.

11.1 The proposals are aligned to the Council's Corporate Plan commitment of providing more flexible services through use of the web and self-service channels to support increased user satisfaction. The proposals also support the Well-being of Future Generations Act in the following ways:

- The well-being goals of: 'a Wales of cohesive communities' by enabling residents, businesses and visitors to be digitally connected and 'a prosperous Wales' through the efficient use of resources and the development of skills and a well-educated population; and

- The sustainable development principles of 'involvement' in helping us shape digital services and support in line with what stakeholders require and 'prevention' through supporting vulnerable clients.

12. CONCLUSION

12.1 This report sets out actions that will support the ongoing transformation of Digital Services at Rhondda Cynon Taf. In addition to ensuring continuity of services for customers, actions identified will also allow for a key building block for the Council to deliver wider digital improvements in line with our Digital Strategy.

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Datacentre Options Appraisal

	Option	Advantages	Disadvantages		Recommended Option and Rationale
A	Do Nothing			No	Not an option due to the need to upgrade and improve the Council's datacentre capacity with the existing building and facilities not providing modern 21st Century facilities and the need to decant Bronwydd in response to agreed future plans for Extra Care delivery at the site.
B	Migrate to a new facility at a Council location, creating a hybrid infrastructure with Cloud Services	• Estimated total costs over 10 years of £1.44M is the most economical option* • Ease of access & total control of facility • Council business & priorities are fully understood • Able to run partial services in event of internet failure • Built to meet requirement • Exploit & reuse existing infrastructure. • Able to co-locate staff	• Initial upfront cost to create • Need to maintain skills to maintain and support	Yes	Officers from Corporate Estates and ICT have undertaken a review and due diligence with regard to potential sites that may be able to accommodate our requirements. There is a requirement for services to continue to be provisioned as part of a Datacentre facility into the medium term, with this option allowing for greater certainty over the continuity of service provision, its improvement and the ability to exploit Cloud Services at a more managed pace. This will allow us to better maximise the use of our current hardware assets and allow for local infrastructure requirements to be reduced via the hybrid configuration over time.

	Option	Advantages	Disadvantages		Recommended Option and Rationale
		• Surplus space available and so no additional property running costs • Hybrid configuration allows for ease of transition to Cloud Services			
C	Migrate all infrastructure to Cloud Services	• No requirement to create a facility. • No requirement for hardware. • Flexibility for change i.e. storage / server increases or decreases • Ease of Accessibility	• Estimated total costs over 10 years of £4.3M is higher than the recommended option** • Totally dependent upon an internet connection. • Any increases to services would cost additional money • Certain line of business applications may not be supported in this model • Accountability & responsibility may diminish • Cloud incidents or outages cannot be controlled	No	Not considered a viable option. Detailed work has been undertaken with Microsoft and concluded that whilst there is an opportunity to transition toward Cloud Services overtime, the wholesale migration could not be achieved as it represented unnecessary risk and would realise an overall increase to our medium to longer term costs, predicated on a requirement for ongoing annual revenue model.

	Option	Advantages	Disadvantages		Recommended Option and Rationale
			• Council environment is not easily capable of migration. • Current Council hardware assets would be redundant • Staff required to learn new skills quickly		
D	Migrate to an external public sector location	• Likely to be Cost effective against private sector, although pricing details were not available. • Shared Service Public Sector Collaboration • Opportunities to potentially expand collaborative model • Facility is maintained on behalf of the Council	• Security issues may arise due to 3rd party dependency. • Neighbouring local authorities may not have the capacity in their current data centres to accommodate our needs. • Timely access to facility maybe difficult. • Migration activities are dependent on the supplier. • Subject to sustainability of local organisations facility • Not able to co-locate RCT staff	No	Opportunities were explored for the provision of an off-site external facility with two local authorities and a public sector shared service provider. None of these organisations were able accommodate our requirements within their own facilities.

	Option	Advantages	Disadvantages		Recommended Option and Rationale
E	Migrate to an external private sector location	• No requirement to create a new facility • Pay for what you use Model • Facility is maintained on behalf of the Council • Any legal or regulatory requirements are the responsibility of supplier • Use of supplier staff for certain operational tasks	• Estimated total costs over 10 years of £2.35M is not the most economical option** • Not able to co-locate RCT staff. • Timely access to facility maybe difficult. • Subject to commercial market forces. • Security issues may arise due to supplier dependency. • Accountability & responsibility may diminish • Migration activities are dependent on the supplier. • Public Sector Network infrastructure required to be recreated.	No	Opportunities were explored for the provision of an off-site external facility with specialist private sector suppliers. Providers were able to accommodate our requirements, however their services would realise an overall increase to our medium to longer term costs and increase the requirement for ongoing annual revenue.

*   Estimated total costs over 10 years includes one off costs for any construction work, project management and logistical move costs as well as ongoing annual revenue running and associated facility refresh costs for the 10 year period. This model does not include any storage or server refresh.

**   Estimated total costs over 10 years includes annual revenue costs for Cloud Services and provides datacentre facility, storage and servers. This model is very different to all other options. As such it is not a direct cost comparator for a facility alone.

***   Estimated total costs over 10 years includes annual revenue costs for rental of space within a private sector facility, project management and logistical move costs.