
Report to: Cabinet

Date of Meeting: 23 June 2011

Subject: Secondary ICT Centre to provide Business Continuity & Disaster Recovery

Report of: Head of Corporate Finance and ICT **Wards Affected:** All

Is this a Key Decision? Yes

Is it included in the Forward Plan? Yes

Exempt/Confidential: No

Purpose/Summary

To inform Cabinet of the risk that exists in having a single ICT Data Centre; and to propose a secondary Data Centre facility to provide business continuity and disaster recovery.

Recommendation(s)

It is recommended that Cabinet:

- i. notes the risk that exists by having only one ICT Data Centre;
- ii. approves need for a secondary ICT data facility;
- iii. approves the selection of the Prinovis site as the most cost effective solution;
- iv. agrees inclusion of £250,000 in the capital programme funded from earmarked reserves;
- v. agrees the virement of £35,000 from the IT Development budget to meet the ongoing revenue costs of this project.

How does the decision contribute to the Council's Corporate Objectives?

	<u>Corporate Objective</u>	<u>Positive Impact</u>	<u>Neutral Impact</u>	<u>Negative Impact</u>
1	Creating a Learning Community	✓		
2	Jobs and Prosperity	✓		
3	Environmental Sustainability	✓		
4	Health and Well-Being	✓		
5	Children and Young People	✓		
6	Creating Safe Communities	✓		
7	Creating Inclusive Communities	✓		
8	Improving the Quality of Council Services and Strengthening Local Democracy	✓		

Reasons for the Recommendation:

The risk that exists in relation to a single Data Centre was highlighted as a Corporate risk by the external auditors. It can be mitigated by the creation of a secondary data facility. The creation and operation of the secondary Data Centre can be met from within planned reserves.

What will it cost and how will it be financed?

(A) Revenue Costs

£35,000 which will be met from the IT Development budget.

(B) Capital Costs

£250,000 will be met from earmarked reserves.

Implications:

The following implications of this proposal have been considered and where there are specific implications, these are set out below:

Legal	
None from this report.	
Human Resources	
None from this report.	
Equality	
1. No Equality Implication	<input checked="" type="checkbox"/>
2. Equality Implications identified and mitigated	<input type="checkbox"/>
3. Equality Implication identified and risk remains	<input type="checkbox"/>

Impact on Service Delivery:

The complete failure of the existing sole ICT Data Centre would have a substantial impact on service delivery. A complete failure would remove all ICT business applications including email and telephone services. E.g. payments of invoices, payment of social care monies and housing benefits would cease and there would be no access to the Council’s financial systems.

What consultations have taken place on the proposals and when?

The Strategic Leadership Team (SLT) and the Strategic Asset Management Group (SAMG) have been consulted and any comments have been incorporated into the report.

Are there any other options available for consideration?

The only other option is that the existing ICT arrangements remain in place and the Council accepts the continued risk of a prolonged period without telephony, email, or computing capability across all services, whilst a replacement ICT data centre is located, equipment sourced, and environment constructed and fitted.

Implementation Date for the Decision

Following the expiry of the “call-in” period for the Minutes of the Cabinet/Cabinet Member Meeting

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Background Papers

The following papers are available for inspection by contacting the above officer(s).

- Strategic Leadership Team report: 30 September 2010
- SAMG Request for capital expenditure: 12 October 2010
- PWC Report to Audit and Governance Committee: December 2010

1. Background

- 1.1 Sefton MBC has one ICT data centre, operated by arvato Public Sector Services Ltd and located in St Peter's House, Bootle. It hosts and operates the Council's computer business systems and network infrastructure as part of the contract with arvato for the provision of ICT Services.
- 1.2 Data centre failure can be caused by environmental events (such as fire or flood), emergency events (such as terrorist threat/event or area-based power failure) and technical failures (such as computer hard disc failure). One of the most common reasons for the failure of a data centre is crime. It is industry best practice to have a back-up data centre to ensure that business interruption is minimised.

2. Introduction

- 2.1 The existing data centre operates over 100 business applications supporting the wide range of council services e.g. systems that record information about children; vulnerable people; benefits claimants; buildings; maps and plans; coroners information.
- 2.2 The existing data centre became operational in March 2010 as the result of the relocation of the Information Services (IS) Dept into St Peter's House. This data centre is managed by arvato to the highest industry standards, but all data centres can run the risk of system failure. Although the St Peter's data centre is new and of a very high standard there will always be the risk of failure, however small that risk.
- 2.3 If the arvato data centre experienced a complete failure, arvato and the Council would have to rely on a third-party rebuild and restore solution which is both expensive and time-inefficient. This risk has also been identified in the recent external auditor's (PWC) report to the December 2010 Audit and Governance Committee.
- 2.4 At present, it would take arvato approximately 12 months to fully restore the Council's ICT systems. This would be funded by arvato using monies from their existing insurance arrangements. This period would include:
 - Sourcing a suitable location
 - Design of the new facility
 - Fit with requisite air cooling, air filtering and fire extinguisher systems etc
 - Three months to completely rebuild the Council's business applications
- 2.5 Under the existing ICT contract, arvato are required to submit proposals for options around a second ICT data centre in order to provide a Disaster Recovery (DR) solution. No monies have been paid to arvato to deliver the Council's preferred DR solution.

3. Second ICT Data Centre

- 3.1 Sefton MBC can ensure service continuity by implementing a secondary ICT data centre facility that would be used in the event of a partial or complete failure of the primary data centre in St. Peter's House. A fully-equipped secondary data centre replicating the whole of the primary data centre at St. Peter's House has been ruled out on the grounds of cost which would be in excess of £1m.
- 3.2 The proposed secondary ICT data centre would have sufficient capacity to restore only the Council's top 20 critical business applications. The time taken to restore each of these 20 critical systems would range from a few hours to a few days but should see the Council operating key systems and services within the week, albeit for a limited number of users.
- 3.3 This would mean that Sefton would have the top 20 critical business applications operational in a much shorter time period than the 12 to 18 months quoted above for a complete replacement.
- 3.4 This will enable the following:
- Limited number of email users within 24 hours, with numbers increasing daily
 - Contact centre operational within 24 hours
 - Children's, Adults and Financial systems operational within 24 hours
 - All top 20 critical systems restored within a week, with reduced numbers of operational staff having access

4. Proposal

4.1 arvato has made the following proposal for the provision of a secondary ICT Data Centre facility.

4.2 Location

- 4.2.1 arvato has proposed that Sefton make use of the data storage facilities offered by its sister organisation Prinovis, which has a sophisticated, 'state-of-the-art' facility in Speke, Liverpool.
- 4.2.2 The Prinovis server room has fire suppression, air conditioning units, secure entry systems, entry & environment monitoring already installed. The site itself has its own combined heat and power station generating 11 Megawatts and also has a National Grid connection for power back up. This would thus remove the capital costs around the air-conditioning, fire alarms, physical security and racking costs required for the Council to fit out its own secondary data centre.
- 4.2.3 It should be noted that an in-house facility based in Sefton MBC premises was the initial aspiration, but the lack of suitable existing accommodation - and the costs involved to set up the requisite environment even if there were – mean that this is not a valid option at the present time.

4.2.4 Although Speke is of course outside the borough of Sefton, it is good industry practice to have a safe distance between the primary and secondary data centres. The secondary data centre should be a suitable distance away to avoid any environmental cause of the loss of the primary data centre, but be close enough to allow workable connectivity speeds and also allow reasonable travelling time for IT staff.

4.3 Hardware and Licences

4.3.1 The facility would be fitted out with the necessary Unix environment equipment plus one Windows server. The necessary additional Windows servers for extra capacity would only be acquired in response to a failure occurring as they can be sourced within 24 hours and made operational within a week. This reduces the need for expensive licenses as there would only be one set of licenses in operation at any one time.

4.3.2 As the likelihood of complete failure is guarded against by the existing Business Continuity plans, implementing a secondary data facility in this way balances readiness against cost and would draw on insurance monies, available to arvato as a result of the failure, to fund the purchase and operational readiness of the complete ICT infrastructure and systems. This option would guard against investment in equipment and licenses that could remain unused should a complete failure not materialise.

4.3.3 The ongoing server refresh programme will displace equipment, elements of which would be utilised (where appropriate) to develop the secondary site so that its capacity and responsiveness grows and - except for licenses - will facilitate the restoration of systems in increasingly shorter spaces of time over the next 2 years.

4.3.4 The cost of this hardware and licences is £250k in capital with £35k in annual revenue expenditure.

5. Costs

5.1 The costs are outlined as follows:

	Capital	Revenue (annual)
Equipment	£123k	--
Licensing	£82k	--
Software	--	£4k
Connectivity	--	£16k
Hosting	--	£12k
Electricity	--	included
Maintenance	--	included
Commissioning	£45k	--
10% Contingency		£3k
Totals	£250k	£35k

6. Other Options Considered

- 6.1 Sefton has previously sought external funding for a secondary data facility; we were the lead authority in a Greater Merseyside local authority group bid to the North West Improvement & Efficiency Programme (NWIEP) for funding for a shared, secure secondary data centre. We were invited to bid twice, but were unsuccessful on both occasions primarily because the panel believed that the provision of DR facilities was a core responsibility of the councils themselves.
- 6.2 Opportunities to offer reciprocal arrangements with neighbouring authorities have been investigated and costs compared.
- 6.3 The ProiNovis location is a lower cost, better value and more practical solution for the following reasons:
- There is available capacity in the server room for the proposed equipment with sufficient spare to allow for more equipment to be installed should a failure at St. Peter's occur that requires rapid expansion of the second data centre
 - There are empty racks available for mounting the Council's servers so the cost of purchase is avoided
- 6.4 The implementation of a Sefton-specific secondary data facility as outlined in the recommendation presented in this report fits the requirements of:
- Location
 - Security
 - Capacity
 - Expansion potential
 - Cost
 - Access and control by arvato
- 6.5 Taking into consideration the requirements, standards and costs involved in this project, the PriNovis solution is the best value option.