

Ward: [All]

## Disaster Recovery Provisions

### Report by the Director for Digital and Resources

#### 1.0 Summary

- 1.1 This report is a response to queries raised at Adur and Worthing Councils Joint Governance Committee in 2013 and an update requested through JGC/16-17-008. CenSus ICT were asked to respond to the Committee regarding the state of Disaster Recovery services and options at the Councils' disposal.

#### 2.0 Background and Progress

- 2.1 At the previous JGC meeting, an update was requested on the progress of ensuring disaster recovery arrangements are in place at the Councils in the event of serious ICT failure.

This report outlines the work completed in various areas, as well as detail on the future strategic direction of technology provision at the Councils which will have considerable positive impact on disaster recovery and business continuity.

At a high level the approach at the Councils works on three main levels:

- **Strategically**, the move towards cloud computing provides much greater resilience to our systems, and pushes the risk onto our suppliers
- **Operationally**, a business impact assessment exercise is being carried to inform a corporate business continuity plan, which will cover more than just ICT elements
- **Tactically**, plans are in place for the current technology stack to ensure we can respond quickly and effectively to any incident in the near term

#### 2.2 Business Continuity Planning

In 2015 a specialist consultancy (PTS Consulting) was commissioned to undertake a review of our disaster recovery arrangements. All service areas were interviewed to establish recovery times for ICT services and a prioritised recovery plan was established. This has been used in the development of the IT disaster recovery plan mentioned in 2.3 below.

A broader piece of work is well underway to establish business continuity plan

across the organisation which also address issues such as site availability, personnel and other resourcing issues.

Lloyd Harris (Emergency Management Officer) is working with Digital and CenSus on a Business Impact Assessment and Business Continuity planning tool. This is an essential aspect of the DR toolkit, allowing the impact and urgency of services and processes to be expressed by the business (rather than by IT Services). The tool, which is cloud hosted on the Mats service, provides an input mechanism for recording business requirements, but also offers detailed insights into continuity and recovery priorities during a contingent situation.

At the time of writing, the development of the tool was completed and user guidance notes are being written by Lloyd Harris.

### 2.3 ICT Disaster Recovery Process / Plan

In February 2016, the previous CenSus Service Delivery Manager, Mark Gawley, published a revision of the Adur Worthing ICT DR System Restart Process produced in June 2015.

The document describes the actions required to restore/maintain IT services in the event of a significant power loss event affecting the Town Hall.

It includes, specific instructions for:

- Calling off and connecting an emergency power generator
- Procedures for safely restarting infrastructure services (voice and data network, locally servers and applications).

Copies this document are stored in the fire emergency pouches (in locations around the Town Hall) with all confidential supporting documentation saved securely on Google cloud storage.

*Note: The document is security restricted and available to Council personnel and authorised agents on request.*

It was noted in the June 2016 audit update that the documented process would be validated and tested by the new Site Service Delivery Manager, Simon Taylor. The validation of the process has been completed and the approach found to be appropriate in principle, however a full formal test exercise is yet to be completed.

### 2.4 Resilience Arrangements - Data Backup

All operational data is backed up at least daily, with some services backing up once every 4 hours. Data backup provides protection for accidental deletion of data (by the end user for instance) and also offers recovery options for data corruption and/or loss of host server.

For operational assurance, backup services operate at 3 levels.

1) Short-term assurance (5 days) - Remote backups, transferred over the secure wide area network to HDC's data centre in Park House, Horsham.

2) Medium-term (80 days) - Local backup to disk at Worthing Town Hall

3) Long-term (> 5 Years) - Daily, Weekly and Monthly backup to tape currently stored in Worthing Town Hall and Portland House.

Note:

- Discussions have started with WSCC to explore options of storing tapes at Centenary House, Durrington rather than Worthing Town Hall and Portland House.
- Options for longer-term off-site backup storage are included within the Infrastructure as a Service (IaaS) strategy.

## 2.5 Resilience Arrangements - Emergency Power Supply: Uninterruptable Power Supply (UPS) and Generator

In the event of a power loss event affecting the Town Hall power to the data centre and communications cabinets will immediately and temporarily be powered by Uninterruptable Power Supplies (UPS - essentially large capacity batteries that enable the services to continue running for up to about 30 minutes to enable safe shutdown, reducing the risk of data corruption or hardware failure). The UPS are configured to provide dual redundancy (that is if one UPS fails its twin will continue to provide coverage).

In addition to UPS, CenSus have access to an emergency power generator service through Shenton Group. This is a call off service which places a diesel-powered generator into the loading bay behind Room 20 of the Town Hall (off Stoke Abbott Road) for as long as is required. Noting that it will be delivered and commissioned on request.

The generator will provide a stable power supply to the Data centre only, not the office spaces or public areas of the Town Hall. This being the case it will be necessary for essential services and personnel to decamp to other sites until electrical supply is restored to the building. Therefore it is essential that services complete business impact assessments and discuss their contingency plans with staff and collegiate services.

## 2.6 Server / Service Information Data Sheet

CenSus maintains a spreadsheet outlining each supported service and the associated server or system that supports it. Along with a service recovery

prioritisation plan (to be provided by the Council) this information enables CenSus to recover services in the order of their stated criticality and impact.

It should be noted however, that before line of business applications and services can be restored the underlying infrastructure service will be recovered first. Once infrastructure services are resumed, line of business services will be recovered in line with identified recovery time objectives. Where data loss has occurred CenSus will endeavour to recover data to a recovery point objective of 24 hours prior to service failure.

Information from this sheet will also be stored in the Business Impact Assessment toolset to provide a comprehensive DR recovery plan in the event of an contingent scenario

## 2.7 DR Service Options Review

Following a serious fire incident affecting South Oxfordshire District council in January 2015, they engaged a 3rd party company, Adam Continuity, to assist with their disaster recovery and business continuity.

CenSus at Horsham DC have started enquiries with this and other DR service providers to understand the cost, benefits of using such a service in the period prior to moving to cloud hosting (see 2.7 below). The service is bespoke to the requirements of the customer, however these services typically include the following elements for either total or partial loss of service:

- DR planning consultancy
- DR plan test exercises (plan execution, data/service recovery rehearsal)
- Standby Data Centre with network and storage hosting capability
- Office equipment (PC and Telephony) and space
- Loan infrastructure equipment (up to 100 days inclusive within the annual fee, with option to rent for longer).

## 2.8 Cloud hosting of the data centre

Joint Strategic Committee in July 2016 signed off the budget to progress the transition of the Councils' data centre to the cloud. This will have significant implications for disaster recovery, bringing much greater resilience to the Councils' IT infrastructure and making it accessible using a range of devices in any location, while maintaining appropriate levels of information security.

The other members of the Census IT partnership are also following a similar path, offering potential for collaboration in the future.

## 2.9 DR Exercise

As stated earlier in the document no formal DR exercise has yet been performed. Once the new BIA tool is in place it will be possible to model scenarios with the Business Continuity Group and then prepare and execute a joint exercise between

the Council and CenSus ICT staff. This will provide the Council with valuable data and lessons learnt regarding its business continuity planning and disaster recovery capability.

If/when engaged, it is expected that any external DR consultancy service will participate in the exercise as part of their service provision.

### **3.0 Legal**

3.1 Under Section 111 of the Local Government Act 1972, the Council has the power to do anything that is calculated to facilitate, or which is conducive or incidental to, the discharge of any of their functions.

3.2 Alternatively Section 1 of the Localism Act 2011 empowers the Council to do anything an individual can do apart from that which is specifically prohibited by pre-existing legislation.

3.3 Section 3(1) of the Local Government Act 1999 (LGA 1999) contains a general duty on a best value authority to make arrangements to secure continuous improvement in the way in which its functions are exercised, having regard to a combination of economy, efficiency and effectiveness. al]]

### **4.0 Financial implications**

4.1 At present, all costs of DR options services for Adur Worthing are being investigated by CenSus, however, early indications are that such services are available for between £25-40k per annum.

Finance for other work mentioned in the report has already been signed off by the appropriate Committees.

### **5.0 Recommendation**

5.1 That Joint Governance Committee note the progress made towards the provision of IT disaster recovery arrangements; and wider business continuity planning.

## **Local Government Act 1972**

### **Background Papers:**

- Moving to the Cloud, Joint Strategic Committee, 13 July 2016

### **Contact Officers:**

Dave Briggs  
Head of Digital and Design  
07501 190090  
dave.briggs@adur-worthing.gov.uk

Simon Taylor  
Census Site Service Delivery Manager  
01903 221197  
simon.taylor@adur-worthing.gov.uk

## Schedule of Other Matters

### 1.0 Council Priority

- 1.1 This work will enable the Councils to meet our ambitions around becoming an Adaptive Council, as set out in *Catching the Wave*.

### 2.0 Specific Action Plans

- 2.1 This work will enable the Councils to meet our commitment, as part of the 'Becoming Adaptive Councils (and Places)' wave catcher in *Surf's Up*:

*Our workforce is mobilised using modern devices and digital tools, working smarter and collaborating more easily with colleagues, partners and customers.*

### 3.0 Sustainability Issues

- 3.1 Cloud services make a positive contribution to sustainability: The cloud encourages important clean-tech applications like smart grids and it also encourages consumers to use virtual services such as video streaming to replace resource-heavy physical products.

The cloud also draws resources to where they are used most efficiently and its jobs tend to be cleaner and safer than those of more traditional industries. The cloud's efficiency and scalability help reduce energy usage. By reducing the need for hardware, companies can reduce costs and eliminate the need for maintenance and upgrades.

The cloud offers cheaper running costs and more flexibility for businesses hoping to expand. The cloud also increases productivity through its ability to accommodate online collaboration that reduces the need for face to face meetings.

### 4.0 Equality Issues

- 4.1 The related projects discussed in the report will enable the Councils to support a wider range of devices and working environments for our customers, staff, and partners.

### 5.0 Community Safety Issues (Section 17)

- 5.1 None identified.

### 6.0 Human Rights Issues

- 6.1 Privacy and security issues are the most important issues for citizens in relation to government use of ICT, particularly data, and it will be essential to strike the balance of risk and reward here, and communicate exceptionally well with residents and members.

## **7.0 Reputation**

- 7.1 ICT failure has a considerable impact on the Councils' ability to deliver services and thus on our reputation. One of the core objectives of this project is to reduce the likelihood and impact of ICT failure.
- 7.2 The Councils have achieved in recent times a good national reputation for innovation in ICT and digital.

## **8.0 Consultations**

- 8.1 None so far.

## **9.0 Risk Assessment**

- 9.1 The Councils currently have risks identified around the lack of reliable ICT infrastructure and disaster recovery. These are managed through the service risk and corporate risk management processes.

This work mentioned in this report will help mitigate both risks.

- 9.2 As part of the project management of any work, a full risk register will be produced and maintained.

## **10.0 Health & Safety Issues**

- 10.1 None identified.

## **11.0 Procurement Strategy**

- 11.1 The work to procure the new cloud infrastructure, the support for the transition and the ongoing managed service of the infrastructure will be carried out in full accordance with the Councils' Procurement Strategy and Contract Standing Orders.

## **12.0 Partnership Working**

- 12.1 The Councils are engaged with our partners in CenSus ICT and this work will help to inform the future direction of that partnership.