

Disaster Recovery Plan for ADS systems (Version 1.6)

Paul Young (ADS Systems Administrator)

NOTE: THIS IS A REDACTED VERSION FOR PUBLIC CIRCULATION. ALL PERSONAL DETAILS AND SYSTEMS-SENSITIVE INFORMATION HAVE BEEN REMOVED.

Change History

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Update	2009	1.2	Tony Austin
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Note: most of the links in this document are internal

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1. Introduction

This plan considers the ADS hardware and software systems.

The ADS has a series of servers located on campus and staff PCs and peripherals located in the ADS Offices. The servers are virtual machines and are maintained by IT Services. In addition, an off-site data store is maintained at the UK Data Archive (UKDA), University of Essex. Locally held original, preservation and dissemination data are regularly synchronised to servers at this remote site. The ADS also makes use of the university Network File System (NFS) and File Storage, both which are maintained by IT Services.

The actions described below are usually the domain of the ADS Systems Manager or the ADS Administrator.

Generic contact details (see below for specific contacts)

Archaeology Data Service
Department of Archaeology
The King's Manor
York YO1 7EP

Phone: 01904 323954 (internal 3954)

Email: **REMOVED**

Web: <http://archaeologydataservice.ac.uk>

IT Services
The University of York
Heslington
York
YO10 5DD

Phone: **REMOVED**

Email: **REMOVED**

Web: <http://www.york.ac.uk/it-services/>

UK Data Archive,
University of Essex,
Wivenhoe Park,
COLCHESTER,
ESSEX,
CO4 3SQ

Generic Help Desk (if you can't get **REMOVED** - see contacts below)

Email: *REMOVED*

Phone: *REMOVED*

Web: www.data-archive.ac.uk

2. Access to the plan

This plan is located on Google Drive which is managed by the University of York. Access is restricted to ADS staff and associates. Digital and / or paper copies are also maintained off-site, as system or network failure may prevent access to the plan. These are currently held by the:

- ADS Director (off-site)
- ADS Systems Manager (on-site and off-site)
- UK Data Archive

Other important information can be found here:

- **Systems overview**
REMOVED
- **Hardware inventory**
REMOVED
- **Off-site data storage**
REMOVED
- **University File Storage**
REMOVED
- **ADS wiki**
The ADS wiki contains lots of useful systems information. A digital backup is held in the office on a pen drive and off-site by the Systems Manager (*REMOVED*). The wiki pages are also backed-up on the NFS drive for 30 days and for 3 months on the tape drive.
- **Username / Passwords relevant to ADS systems:**
These are stored in *REMOVED* which is managed by the University of York.
- **ADS and associated organisations domain information**
(see *REMOVED*)
- **Policy and Guide to the Insurances of the University of York**
http://www.york.ac.uk/admin/hsas/safetynet/Insurance/insurance_home.htm
- **Current ADS staff list**

<http://archaeologydataservice.ac.uk/about/contact>

or

<http://www.york.ac.uk/archaeology/staff/ads-staff/>

3. Production servers

Please see the [systems overview](#) document and the [systems wiki page](#) (link **REMOVED**) for more information.

3.1 Hardware failure

Please contact IT Services for any ADS systems problems, and the UK Data Archive (UKDA) for any off-site storage problems.

3.2 Hardware damage and theft

This is not relevant as the production servers are maintained by IT Services.

3.3 Data loss

Our important data is backed-up on the NFS for 30 days. This data can be accessed by going to the *.snapshot* directory on the relevant server. Note that the backups are numbered according to how many days ago the backup was made, e.g. *nightly.4* is a backup 4 days in the past. IT Services also maintain backups on tape for a longer period (3 months?) but this data is more difficult to access.

The UKDA take a single monthly disaster recovery tape backup of current data, performed once a month, with a three month retention period. This is in addition to three copies of data currently held directly on servers).

4. PCs and peripherals

The ADS supports a number of PCs as detailed in the [hardware inventory](#) (link **REMOVED**) on Google Drive. Peripherals (printing, scanning) are now provided by the University as part of the York Print Plus (YPP) service.

4.1 Hardware failure

Hardware is protected via a limited warranty (usually three years) which is a part of the purchase. Details of warranties are held in the ADS hardware inventory. YPP equipment is maintained centrally. To initiate a warranty claim contact the supplier directly.

Maintenance beyond a standard warranty for PCs is not currently ADS practice. A policy of replacement is in place for major failure outside of warranty.

4.2 Hardware damage and theft

Maintenance contracts do not cover theft and accidental or malicious damage. The University of York has insurance to cover this but clearly recovery in such scenarios could be protracted. The University's insurance is handled by Campus Services which is situated in the Information Centre, Market Square.

In the event of damage to equipment the ADS Systems Manager or his stand-in needs to supply a list of damaged or stolen equipment and its replacement cost to the ADS Administrator who will further any claim.

The UKDA will be responsible for any insurance claims on servers in Essex. To quote, (UKDA, Essex) 'University has a blanket coverage which covers all equipment. Both hardware damage and theft is covered'.

4.3 Data loss

Facilities exist for staff to backup critical data from their PCs on to the *M:* Drive or File Storage (*storage.its.york.ac.uk*).

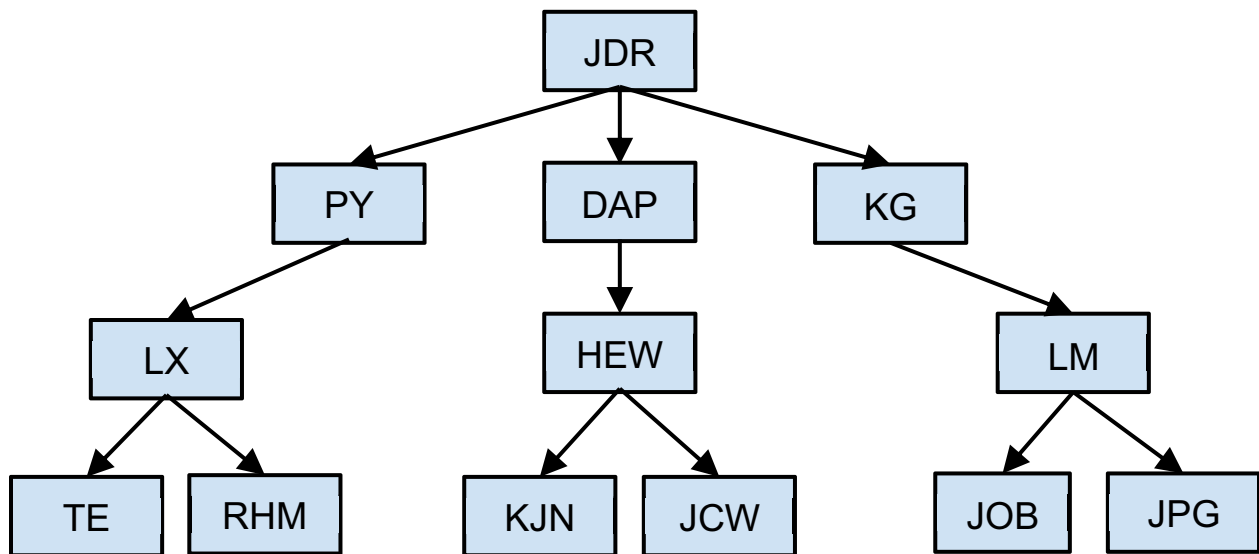
5. Catastrophic Disaster

In the case of catastrophic systems failure the ADS would be reliant on IT Services. However, peripheral services and organisations such as the ADS are likely to have a very low priority in any large-scale failure.

In the event of a national or international disaster, multiple and distributed copies of data will help the chances of survival but cannot guarantee it. Furthermore, it does not guarantee that there will be the will or wherewithal to resurrect and curate such data or indeed even awareness of its survival.

6. Disaster action including avoidance

Swift action may avoid disaster or lessen the effects. For example, the effects of flooding might be lessened by moving stuff to areas that do not flood. In order to act quickly a means to cascade information to staff 'out of hours' is necessary by telephone. This is shown as a pyramid. Information would cascade down from the top in an ideal situation. However, the first person who becomes aware of a situation will initiate a cascade by contacting the top. Some situations would not require a full cascade. For example, if a server or service is down it will require a technical contact.



If someone is unavailable jump to the next person. It may be necessary in some cases to call back the person jumped depending on the situation (see examples).

Initials	Name	Mobile
TE	Tim Evans	<i>REMOVED</i>
JPG	Jo Gilham	<i>REMOVED</i>
KG	Katie Green	<i>REMOVED</i>
RHM	Ray Moore	<i>REMOVED</i>
LM	Louisa Matthews	<i>REMOVED</i>
KJN	Kieron Niven	<i>REMOVED</i>
JOB	Jenny O'Brien	<i>REMOVED</i>
DAP	Donna Page	<i>REMOVED</i>
JDR	Julian Richards	<i>REMOVED</i>
JCW	Judith Winters	<i>REMOVED</i>
HEW	Holly Wright	<i>REMOVED</i>
LX	Lei Xia	<i>REMOVED</i>
PY	Paul Young	<i>REMOVED</i>

6.1 Example scenarios

The following describe some possible disaster recovery/avoidance scenarios that may arise.

6.1.1 Water penetration

This is a known problem in ground floor offices; G11 and G12. It is mainly centred on the dividing wall between these offices but does spread along joining walls.

Scenario:

As observed on the local news an unpredicted severe weather warning for the York area develops over the weekend especially for Sunday evening.

KG has a growing concern and phones JDR but receives no answer.

KG now phones LM, who is the next person down in the cascade from JDR.

KG and LM now decide to cascade down the list in order to try and find someone who is able to attend King's Manor. It is probably reasonable to assume that it is easier for people living in York to attend the offices.

LM phones JOB next in the cascade but there is no answer.

LM phones JPG who agrees to go to King's Manor.

JPG attends KM, unplugs the electrical stuff and moves paper documents from areas likely to be affected to a safer location.

6.1.2 Service failure

Scenario:

One evening JDR notices that our main website is down.

JDR phones PY but there is no answer.

JDR phones LX who logs in remotely and ascertains the problem is Glassfish which he restarts.

6.1.3 Loss of access to offices

This is pure fiction but demonstrates where everyone might need to be contacted using the cascade.

Scenario:

KJN sees on the local evening news that a serious incident has occurred at King's Manor with access to the whole complex likely to be closed off for sometime.

KJN phones JDR in case he isn't aware of the situation. JDR decides that the best option is for people to work from home the following day, where practical, or to seek computer access on campus. Also, staff should check university email for updates during the following day.

JDR phones DAP and PY who in turn cascade the information downwards.

PY phones LX who does not answer. PY makes a note to retry LX later on.

PY jumps to the next person in the cascade and phones TE successfully.

All other calls are successful in the cascade.

7. Other contacts

IT Services:

Tel: *REMOVED*

Email: *REMOVED*

Url: <http://www.york.ac.uk/it-services>

If you think your machine has been attacked or other activity of concern is taking place, contact the York CERT (Computer Emergency Response Team).

Email: *REMOVED*

Phone: *REMOVED*

Name	Org	Role	Phone (work)	Email
<i>REMOVED</i>	ITS	Linux & Security	<i>REMOVED</i>	<i>REMOVED</i>
<i>REMOVED</i>	ITS	Linux & Security	<i>REMOVED</i>	<i>REMOVED</i>
<i>REMOVED</i>	ITS	Linux & Security	<i>REMOVED</i>	<i>REMOVED</i>
<i>REMOVED</i>	ITS	Linux & Security	<i>REMOVED</i>	<i>REMOVED</i>
<i>REMOVED</i>	ITS	Databases	<i>REMOVED</i>	<i>REMOVED</i>
<i>REMOVED</i>	SoA	Library Catalogue	<i>REMOVED</i>	<i>REMOVED</i>

<i>REMOVED</i>	UoY	Insurance Officer	<i>REMOVED</i>	<i>REMOVED</i>
<i>REMOVED</i>	UKDA	Systems Manager	<i>REMOVED</i>	<i>REMOVED</i>
<i>REMOVED</i>	UKDA	Systems Admin	<i>REMOVED</i>	<i>REMOVED</i>