NDSA Storage Survey 2013 -

Intro NDSA Preservation Storage Survey 2013 The National Digital Stewardship Alliance conducts regular surveys of member organizations to improve understanding of preservation issues, systems and approaches. The Infrastructure working group is interested in how member organizations are approaching storage of their digital collections. This 2013 Storage Survey asks each NDSA member institution to respond with details about their storage systems. This 21 question survey follows the 2011 Storage Survey and typically takes 15 minutes to complete. The NDSA plans to run the Storage Survey biannually.

1. Does your organization use separate storage systems for access-only and preservation-only services? For institutions that have separate archival storage, all questions in this survey should be answered for the archival storage only. For institutions where the collections are accessed at the same storage level as they are preserved, all survey questions should be answered for the entire system.

- ❍ Yes (1)
- ❍ No (2)

2. My organization's preservation storage system uses the following media. Do not include storage managed through third parties. If your organization maintains a local cloud, indicate the type of media used by the cloud. Check all that apply.

- ❑ Spinning disk - Locally or network attached storage (NAS) (1)
- ❑ Spinning disk - Storage area network (SAN) (2)
- ❑ Magnetic tape (3)
- ❑ Other (Please specify) (4) _____
- ❑ None (5)

3. In general, how many preservation copies of the digital assets is your organization keeping? (Please enter a single digit or multiple digit number. Do not enter a range.)

3a. If your organization keeps different numbers of copies for different assets, please explain.

4. Approximately, how many terabytes of preservation storage space does your organization require for all copies of the content that you manage?

5. Approximately, how many terabytes of preservation storage space does your organization anticipate needing over the next three years for all copies of content that you manage?

6. Is your organization keeping copies of digital assets in geographically distinct places to protect from regional geographic disasters? Check all that apply.

- ❑ Yes, we manage our own copies in one or more geographically distinct offsite locations (1)
- ❑ Yes, we keep additional copies of our materials in a distributed collaborative partnership, (E.g. MetaArchive) (2)
- ❑ Yes, we keep one or more additional copies of our materials managed by another institution or commercial provider (3)
- ❑ In some cases, decided on collection basis (4)
- ❑ No, we would like to but we do not have the resources (5)
- ❑ No, we do not and this is not something we are pursuing (6)

7. Does your organization follow practices with respect to fixity checking? Check all that apply.

- ❑ Yes, we do fixity checks before and after transactions like ingest (1)
- ❑ Yes, we do fixity checks on all content we are preserving at fixed intervals (E.g. every 9 months) (2)
- ❑ Yes, we randomly sample content and check for fixity (3)
- ❑ Yes, we store fixity information in an independent system (4)
- ❑ Yes, we use a tamper-resistant fixity check mechanism (E.g. LOCKSS, ACE) (5)
- ❑ No, we do not do fixity checks on our content (6)

Answer If 7. Does your organization follow practices with resp... Yes, we do fixity checks before and after transactions like ingest Is Selected Or 7. Does your organization follow practices with resp... Yes, we do fixity checks on all content we are preserving at fixed intervals (E.g. every 9 months) Is Selected Or 7. Does your organization follow practices with resp... Yes, we randomly sample content and check for fixity Is Selected Or 7. Does your organization follow practices with resp... Yes, we store fixity information in an independent system Is Selected Or 7. Does your organization follow practices with resp... Yes, we use a tamper-resistant fixity check mechanism (E.g. LOCKSS, ACE) Is Selected

7a. 7a. If your organization performs fixity checks on content you are preserving at fixed intervals, how frequently (in months) do you perform those checks? (i.e. if your organization performs them monthly enter 1, if every nine months enter 9, if annually enter 12)

8. Does your organization have documented requirements for your preservation storage system or system(s)? Check all that apply.

- ❑ Yes, we have documented general performance requirements (1)
- ❑ Yes, we have documented performance requirements for ingest (2)
- ❑ Yes, we have documented performance requirements for migration to new technology or other one-time intensive operations. (3)
- ❑ Yes, we have documented functional requirements (4)
- ❑ Yes, we plan to develop requirements within one year (5)
- ❑ Yes, we have other documented requirements (Please specify) (6) _____
- ❑ No, we do not have documented requirements, but plan to develop requirements within one year (7)
- ❑ No, we do not have documented requirements, and do not plan to develop them (8)

9. What are your organization's requirements for availability of the content you store? (If you have different requirements for different collections please check each option that applies to one of your collections)

- ❑ Eventual availability only (dark archive/disaster recovery) (1)
- ❑ Off-line availability (e.g. able to retrieve on request w/in 2 business days) (2)
- ❑ Near-line availability (e.g. able to retrieve on request w/in 3 hours) (3)
- ❑ On-line availability (e.g. instant online access for "moderate" number of simultaneous users) (4)
- ❑ High-performance availability (access to large number of simultaneous users/or for HPC) (5)
- ❑ Not applicable (6)

10. Which services does your organization currently provide for files in your preservation storage? Check all that apply.

- ❑ Secure storage with backup and recovery procedures in place (1)
- ❑ Periodic fixity checking (2)
- ❑ Version control (3)
- ❑ Format normalization, format migration, or platform emulation (4)
- ❑ Other services (Please describe) (5) _____
- ❑ None (6)
- ❑ Not applicable (7)

11. Does your organization provide different services for different "collections" under preservation storage?

- ❍ Yes (1)
- ❍ No (2)

Answer If Do you provide different services for different "collecti... Yes Is Selected

11a. If your oganization does provide different services for different collections please describe them below.

12. How significant are each of the following general features of preservation systems for meeting your organization's objectives? Please order the features by filling in each text box with numbers 1 though 7, 1 being the most imprtant to your organization's objectives. Numbers may not be repeated.

_____ More storage (1)
_____ Block level access to storage (Not just file level) (2)
_____ Higher performance processing capacity (to do processing like indexing on content) (3)
_____ More built-in functions (like fixity checking) (4)
_____ More automated inventory, retrieval and management services (5)
_____ More security for the content (6)
_____ File format migration (7)

12a. Are there other general features of preservation systems for meeting your organization's objectives? Please describe.

13. My organization has a plan to meet our preservation storage requirements over the next 3 years.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Neutral (3)
- ❍ Agree (4)
- ❍ Strongly Agree (5)
- ❍ Not Applicable (6)

14. In general, how long (in years) is your organization responsible for preserving content? (Enter 999 if your organization has explicit or implicit indefinite responsibility)

15. My organization will have adequate resources to meet projected preservation storage requirements over the next three years.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Neutral (3)
- ❍ Agree (4)
- ❍ Strongly Agree (5)
- ❍ Not Applicable (6)

16. My organization plans to make significant changes in technologies in its preservation storage architecture within the next three years.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Neutral (3)
- ❍ Agree (4)
- ❍ Strongly Agree (5)
- ❍ Not Applicable (6)

17. My organization intends to meet the requirements for a trustworthy digital repository according to external standards within the next three years.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Neutral (3)
- ❍ Agree (4)
- ❍ Strongly Agree (5)
- ❍ Not Applicable (6)

Answer If My organization intends to meet requirements for a trustw... Agree Is Selected Or My organization intends to meet requirements for a trustw... Strongly Agree Is Selected

17a. Please indicate the trusted digital repository standard(s) your organization is targeting. Check all that apply.

- ❑ ISO 16363 (1)
- ❑ TRAC (2)
- ❑ Data Seal of Approval (3)
- ❑ Other (Please specify) (4) _____

18. Is your organization participating in a distributed storage cooperative or system? (ex. LOCKSS Alliance, DPN, MetaArchive, Data-PASS)

- ❍ Yes, my organization currently participates in a distributed storage cooperative or system. (1)
- ❍ No, but my organization is planning to participate in a distributed storage cooperative or system. (2)
- ❍ No, but my organization is currently exploring participating in a distributed storage cooperative or system. (3)
- ❍ No, my organization is not considering participating in a distributed storage cooperative or system. (4)
- ❍ No, and my organization is uninterested in participating in a distributed storage cooperative or system. (5)
- ❍ Not applicable. (6)

Answer If Is your organization participating in a distributed stora... Yes, my organization currently participates in distributed storage cooperative or system. Is Selected Or Is your organization participating in a distributed stora... No, but my organization is planning to participate in a distributed storage cooperative or system. Is Selected Or Is your organization participating in a distributed stora... No, but my organization is currently exploring participating in a distributed storage cooperative or system. Is Selected

18a. If you are using, considering or exploring participating in a distributed storage cooperative please list specific cooperatives you are participating in, considering or exploring.

19. 19. Excluding distributed storage cooperatives, is your organization using third-party cloud storage service providers (E.g. Amazon, Rackspace, Azure, DuraCloud, etc.) to keep one or more copies of its content?

- ❍ Yes, my organization currently uses third-party cloud storage service providers for keeping one or more copies of its content. (1)
- ❍ No, but my organization is planning to use third-party cloud storage service providers for keeping one or more copies of its content. (2)
- ❍ No, but my organization is currently exploring using third-party cloud storage service providers for keeping one or more copies of its content. (3)
- ❍ No, my organization is not considering using third-party cloud storage service providers for keeping one or more copies of its content. (4)
- ❍ No, and my organization is uninterested in using third-party cloud storage service providers for keeping one or more copies of its content. (5)
- ❍ Not applicable. (6)

Answer If Excluding distributed storage cooperatives, is your organ... Yes, my organization currently uses third-party cloud storage service providers for keeping one or more copies of its content. Is Selected Or Excluding distributed storage cooperatives, is your organ... No, but my organization is planning to use third-party cloud storage service providers for keeping one or more copies of its content. Is Selected Or Excluding distributed storage cooperatives, is your organ... No, but my organization is currently exploring using third-party cloud storage service providers for keeping one or more copies of its content. Is Selected

19a. If your organization is using, considering, or exploring third-party cloud storage service providers (E.g. Amazon, Rackspace, Azure, DuraCloud) for keeping one or more copies of its content please list specific services your organization is using, considering, or exploring.

20. Excluding distributive cooperatives and third-party cloud services, is your organization contracting out storage services to be managed by another organization or company?

- ❍ Yes, my organization currently contracts out storage services which are managed by another organization. (1)
- ❍ No, but my organization is planning to contract out storage services which are managed by another organization. (2)
- ❍ No, but my organization is currently exploring contracting out storage services which are managed by another organization. (3)
- ❍ No, my organization is not considering contracting out storage services which are managed by another organization. (4)
- ❍ No, and my organization is uninterested contracting out storage services which are managed by another organization. (8)
- ❍ Not applicable. (7)

Answer If Excluding distributive cooperatives and third-party clo... Yes, my organization currently contracts out storage services which are managed by another organization. Is Selected Or Excluding distributive cooperatives and third-party clo... No, but my organization is planning to contract out storage services which are managed by another organization. Is Selected Or Excluding distributive cooperatives and third-party clo... No, but my organization is currently exploring contracting out storage services which are managed by another organization. Is Selected

20a. If your organization is considering, exploring, or currently using storage services managed by another company please list the specific services you are considering, exploring, or using.

21. My organization has a strong preference to host, maintain, and control its own technical infrastructure for preservation storage.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Neutral (3)
- ❍ Agree (4)
- ❍ Strongly Agree (5)
- ❍ Not Applicable (6)

Answer If My organization has a strong preference to host, maintain... Strongly Agree Is Selected Or My organization has a strong preference to host, maintain... Agree Is Selected

21a. If your organization does have a strong preference to host, maintain, and control its own technical infrastructure for preservation storage why does it have this preference?

Final My NDSA member organization is ... The survey results will only be reported in aggregate. We are collecting your organization name strictly to keep track of which members have responded.