Sample School
Back up Service
Service Level Agreement (SLA)

Version 2.1

1. Executive summary
This Service Level Agreement (SLA) between the Office of Information Technology (OIT) and the Sample School (Sample) establishes a commitment for OIT design and support as detailed in this Agreement. This document clarifies both parties’ responsibilities and procedures in ensuring end user needs are met in a timely fashion.

Services provided
This Service Level Agreement describes Office of Information Technology’s commitment to provide the following services over a 1-year period starting July 1, 2009 and ending on June 30, 2010. This agreement will be reviewed and adjusted as needed. (See Section 5, Service Provider responsibilities for detailed list of services.)

- Backup support of the servers specified in Appendix A, starting on July 1, 2009.

a) Hours of coverage
OIT will provide 24 hours per day, 7 days per week, 365 days per year backup service for the Sample servers.
Requests/concerns should be sent to the website http://oit.duke.edu/enterprise/backups/remedy/index.html, or email tsm-admins@duke.edu, or to oit-ops@duke.edu, or call 919-660-7015, for nights and weekend support.
b) Definitions

- Backup Services: for the servers listed in Appendix A, backup each server's data to a disk pool starting at 5:00 p.m.; after the data is written to the disk pool the migration to the on-site tapes begins; subsequently, the migration to the off-site tapes going to Iron Mountain begins.

- The off-site tapes go to Iron Mountain daily, Monday through Friday. Saturday and Sunday's tapes go to Iron Mountain with Monday's tapes.

  Complete process is done by 7:00 a.m. of the following day. The data on the disk pool is generally kept until the next backup kicks off at 5:00 p.m., but emergency backups could overwrite it sooner. Consequently, the data in the disk pool is not guaranteed past the migration to the off-site tapes.

  Tape Retention: Three copies (one active and 2 inactive) of the files are kept. After 60 days of no changes, the oldest inactive copy is removed from the tape copies; this continues at 60 day increments for each of the inactive copies until only the active copies remain. The active copy is kept indefinitely on tape (on-site and off-site). If the active copy is deleted from the customer’s server, TSM maintains a copy of that on the tape copies for an additional 180 days.

- Customer: Sample School

- Service Provider: Office of Information Technology, Communications and Systems Infrastructure

c) Measurement and reporting

OIT will provide Sample with the following reports in the intervals indicated:

<table>
<thead>
<tr>
<th>Report name</th>
<th>Reporting interval</th>
<th>Delivery method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident Reporting of missed or failed backup from the TSM server logs. This same data is available on each client in the dsmsched.log and dsmerror.log files.</td>
<td>As incident occurs from TSM scripts on the backup server. Operations sends a separate email for failed connections.</td>
<td>Email</td>
</tr>
</tbody>
</table>

Rev. 9/28/2016
d) Financial impact

<table>
<thead>
<tr>
<th>Service Provided</th>
<th>Yearly Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total First Year</td>
<td>$xxxx.50</td>
</tr>
<tr>
<td>Total Subsequent Years</td>
<td>$xxxx.50</td>
</tr>
</tbody>
</table>

2. General overview

This Service Level Agreement (SLA) between the Service Provider and the Customer establishes a commitment for technical support of backup service for the servers listed in Appendix A. This document clarifies all parties’ responsibilities and procedures to ensure Customer needs are met in a timely manner.

a) Contacts

<table>
<thead>
<tr>
<th>Service Provider Contact</th>
<th>Customer Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eric C. Johnson Assistant Director, OIT – SSI <a href="mailto:ej36@duke.edu">ej36@duke.edu</a> (919) 613-6758</td>
<td>Carl McMillon Director, OIT Computer Operations <a href="mailto:carl.mcmillon@duke.edu">carl.mcmillon@duke.edu</a> 919 660-7002</td>
</tr>
</tbody>
</table>

3. Terms and conditions

a) Agreement period

Agreement is valid and defined in Services Provided section above, and remains in effect throughout the life span of the services and/or applications supported.

b) Agreement review

The Service Provider’s designee will initiate a review of this SLA with the Customer 3 months after the effective date. A representative of either party may submit a written request for review of the Agreement to the Service Provider at any time. The Agreement should be reviewed annually. In the absence of the completion of a
review, the current Agreement will remain in effect. The Service Provider will incorporate revisions into the Agreement if both parties mutually agree to the proposed changes.

c) Hours of coverage
The procedures in this Agreement are followed from 24 hours per day, 7 days per week, 365 days per year.

d) Incident management service goals
The Service Provider’s subject matter expert or other knowledgeable staff member will respond by telephone to the Customer’s incident (submitted through Remedy or an e-mail message) within:

- One hour (during coverage hours) for issues classified as urgent.
- Two hours (during coverage hours) for issues classified as high priority.

See Customer responsibilities in section 5a for requirements on how Customer shall submit issues. A resolution may not be available at the time the Service Provider contacts the Customer, in which case the Service Provider will attempt to estimate the “time to resolution.”

The Customer and appropriate Service Provider staff will mutually determine an issue’s priority classification.

4. Supported services and charges

a) Services provided

- Notification of missed or failed server backups via email.
- Maintenance of tape library and off-site tapes to Iron Mountain.
- The backup support includes maintaining the infrastructure in terms of backup server, tape drives, tapes, cache and robot to support customer’s backup needs.

*The Agreement does not cover hardware or operating system support outside of those services listed. For example, things such as rebuild or restore of the Operating System, O/S patching, system diagnostics and troubleshooting are not a part of this agreement.*

b) Charges

Infrastructure Support
The customer agrees to compensate OIT-Communications and Systems Infrastructure group for the backup services. The charges are broken down into startup and recurring costs, and are based on the number of servers, the server configurations, and the
amount of data backed up. These charges can change if the number of servers or the amount of data increases or decreases, and will be changed on documented trends. This rate covers the Customer’s share of backup server, tape drives, tapes, cache, FTE, and robot to perform the needed backups. See Section 1D for the details. Again, as the number of servers or the amount of storage changes, these charges will also change.

Operations Support
The customer agrees to compensate OIT-Operation for support and housing of the tape library in the amount specified in Section 1D. Should the equipment or services change during the term of this agreement the amount transferred will be prorated based on the actual term of coverage.

Explanation of charges
The one time charges are for TSM client licenses, one per cpu, and FTE charge for initial setup. The recurring charges cover maintenance charges for the TSM client software; share of backup server tape robot and tape drives, and disk pool; off-site tape charges (Iron Mountain); and FTE charge for support.

5. Party responsibilities

a) Customer responsibilities

Customer agrees to:
- Follow appropriate procedures as detailed in this Agreement.
- Purchase related hardware and software licenses according to Service Provider's recommendations.
- Determine appropriate Remedy issue priority in cooperation with Service Provider.
- Request and schedule special services (for example, installation of new equipment, after-hours support) with at least two business days lead time.
- Be willing and available to provide critical information within 2 hours of receiving a request for information from a Service Provider seeking to resolve a Customer issue on a high or urgent priority Remedy ticket.
- The Customer shall notify the Service Provider of data changes greater than 250 GB per server, within 5 business days.
- Need to keep backup client software at vendor supported levels, as notified by the Service Provider.

b) Service Provider responsibilities

General responsibilities:
- Meet response times associated with the priority assigned to Customer issues.
Service Life Cycle Management

- Maintain appropriately trained staff.

Communications and Systems Infrastructures responsibilities:
- Ensure optimal efficiency of backups and restores.
- Perform backup and restores of server data.
- Backup data from all systems as defined in Appendix A.
- Keep backup server software at vendor supported levels, and notify Customer when backup clients need upgrading.

Computing Operations
- Notify CSI-Systems if a system backup fails via monitoring and reporting.
- Assist as necessary with data restores

6. Service enhancements
Service enhancements are Customer requests for planned changes in service, not covered under Service Provider responsibilities. Customer should request services by sending an e-mail message to the tsm-admins@duke.edu and OIT Management as defined in Section 2a, with at least 5 business days notice.

Financial impact

The Service Provider will assess and negotiate Customer service enhancement requests, taking into consideration the enhancement’s impact on existing budget and staff resources. If delivery of service enhancements can only be provided with funding from the Customer, Service Provider will provide Customer with a cost estimate in writing within 5 business days. Customer will then have the opportunity to determine whether to proceed with enhancement.
7. Signatures of approval

OIT: Service Provider:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nice Person A</td>
<td>Analyst, IT</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sample School:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nice Person A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appendix A

Customer Environment As Defined on the Day of Signing

<table>
<thead>
<tr>
<th>Example node name</th>
<th>OS</th>
<th>Owner</th>
<th>PVU Count</th>
<th>Total Storage Used (GB)</th>
<th>Offsite Storage used (GB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.duke.edu</td>
<td>Mac OS X 10.5</td>
<td>Nice Person A</td>
<td>x</td>
<td>x0</td>
<td>x0</td>
</tr>
<tr>
<td>b.duke.edu</td>
<td>Server 2003 Linux (CentOS 5.3)</td>
<td>Nice Person A</td>
<td>x</td>
<td>x0</td>
<td>x0</td>
</tr>
<tr>
<td>c.duke.edu</td>
<td>Linux (CentOS 5.3)</td>
<td>Nice Person A</td>
<td>x</td>
<td>x0</td>
<td>x0</td>
</tr>
<tr>
<td>d.duke.edu</td>
<td>Linux (CentOS 5.3)</td>
<td>Nice Person A</td>
<td>x</td>
<td>x0</td>
<td>x0</td>
</tr>
<tr>
<td>e.duke.edu</td>
<td>Linux (CentOS 5.3)</td>
<td>Nice Person A</td>
<td>x</td>
<td>x0</td>
<td>x0</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>Nice Person A</td>
<td>5x</td>
<td>5x0</td>
<td>5x0</td>
</tr>
</tbody>
</table>

Appendix B

Description of First-year and annual charges

<table>
<thead>
<tr>
<th>Hardware &amp; Software Service</th>
<th>Charge</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration costs, setup per server</td>
<td>$500.00</td>
<td>first year</td>
</tr>
<tr>
<td>Onsite storage, per gb, 100gb minimum</td>
<td>$0.45</td>
<td>annual</td>
</tr>
<tr>
<td>Offsite storage, per gb</td>
<td>$0.45</td>
<td>annual</td>
</tr>
</tbody>
</table>