TOSM Server Backup Service
Memorandum of Understanding

The department of Technology Operations and Systems Management (TOSM) provides its customers with various IT-related services, including backups. This document describes the TOSM Server Backup service, which is available to Texas Tech University (TTU) and Texas Tech University System (TTUS) departments and colleges, and serves as a backup Memorandum of Understanding (MOU) between TOSM and its Customers.

1.0 Overview

This MOU is between TOSM, who is the service provider, and the Customers of this service, the departments and colleges of TTU and TTUS. This document outlines the details of the TOSM Server Backup service as well as the roles, responsibilities and expectations of both parties while providing a framework for problem resolution and communication.

2.0 TOSM Standard Server Backup service

    2.1 Service Description – The TOSM Standard Server Backup service is designed to create copies of designated data residing on servers to an alternate location physically separate from the primary data location as to protect the data from accidental loss. Designated data refers to all data not explicitly excluded by the Customer. Exclusions to Standard Server Backups are addressed in Section 3.0 and Section 5.4 of this document. All Standard Server Backups performed by TOSM, unless otherwise explicitly specified, are backed up to an offsite location as to provide data recovery capabilities in the event of a disaster that rendered the primary data center unusable.

3.0 Backup Exclusions

    3.1 Removable media, such as external hard drives (i.e. USB, eSATA) and thumb drives, will not be backed up.

    3.2 Database files, such as those used by Microsoft SQL Server, Oracle, MYSQL, Microsoft Access, etc. cannot be locked and WILL NOT be backed up automatically. In order to have consistent backups of these types of data files, application-specific backups are required and will be managed by the Customer, or specialized backup agents that perform this function automatically are available for an additional cost. These specialized agents are addressed in Section 7.2 of this MOU under Costs for Extended Server Backups. TOSM is available to assist the Customer in configuring application-specific backups, but the Customer is responsible for maintaining and testing these backups. Any modification or additions to the configuration of these systems may require additional steps to ensure the recoverability of database files. **It is the sole responsibility of the Customer to ensure that all relevant data is being backed up and should be tested regularly to ensure the recoverability of these systems.**

3.3 Outlook PST Files – Microsoft recommends storing active Outlook PST files locally, then periodically copying the files to an alternate location to be backed up. One way to accomplish this is by using the Outlook add-in (for 2007 clients and older) which can be found at http://www.microsoft.com/en-us/download/details.aspx?id=9003. For Outlook 2010 clients, a patch will need to be applied in order for the add-in to work correctly and can be found at http://support.microsoft.com/kb/2030523. The copy of the PST file will be backed up as long as it is not being accessed by an application. PST files that are open, including archive PSTs, <u>WILL NOT</u> be backed up.

3.4 The TOSM backup application will attempt to lock open files in an effort to obtain a consistent backup, but these files are typically locked in an inconsistent state and cannot be restored. We make no guarantees that files that are locked by applications during a backup are recoverable. Application-specific backups should be performed whenever possible to guarantee that files are backed up in a consistent state.

3.5 Servers with less than a 1 gigabit connection to TTUnet are not eligible for the TOSM Server Backup service. Systems with less than a 1gb connection must be upgraded to a gigabit network connection or relocated to the data center to take advantage of this service.

3.6 Disaster recovery and business continuity planning, testing and implementation for server hardware and software are the responsibility of the Customer. **The TOSM Standard Server Backup service DOES NOT INCLUDE disaster recovery or business continuity outside of providing the ability to restore the most recent backup from an offsite backup copy.**

4.0 TOSM Responsibilities

4.1 TOSM is responsible for all central backup hardware and infrastructure, including backup servers as well as both primary and offsite backup data. The backup hardware will be refreshed and updated as necessary to ensure optimal backup performance and reliability.

4.2 TOSM is responsible for base backup client installations, standard backup file system client configurations and base backup client patches and upgrades.

4.3 Hardware and software refreshes, patch installations and upgrades will be coordinated with departmental backup administrators to minimize any disruptions to the service. Major upgrades will be performed during our normal system maintenance windows and communicated 72 hours in advance when possible.

4.4 TOSM will monitor the performance of its systems to ensure the availability of the service.

4.5 TOSM will schedule automated backup reports to be delivered to the designated contacts for each customer on a weekly basis.

4.6 TOSM will be responsible for initiating and monitoring restore jobs requested by the customer.

4.7 In the event of a system failure with large-scale data loss (a full server or more), TOSM will work with the customer to optimize restore time to the best of our ability. We will only be able to devote resources to the extent that other customers are not impacted. Restoring large amounts of data (terabytes) can take several days or even weeks using standard backup and restore processes. Those customers requiring specific recovery time objectives (RTOs) should contact TOSM for a customized backup solution and specialized service level agreement.

4.8 In the event of a major campus outage or in the event the data center becomes unusable for an extended amount of time, TTUS and TTU enterprise level systems will be restored first, followed by departmental servers prioritized by impact.

4.9 System maintenance for the backup environment and related system outages will be communicated through email to contacts designated by the customer.

5.0 Customer Responsibilities

5.1 Customers are responsible for providing TOSM with up-to-date contact information for persons responsible for the server(s), including name, email address and phone number.

5.2 Customer is responsible for completing a Backup MOU Assessment each fiscal year for each server covered under this MOU.

5.3 Customer must allow TOSM system administrator privileges in order to install backup client software.

5.4 Customer is responsible for communicating backup exclusions to backupadmin.tosm@ttu.edu as those exclusions are identified.

5.5 The Customer is responsible for monitoring the success or failure of their backups on an ongoing basis, including whether or not the expected data is being backed up. A weekly report will be generated and delivered via email to the designated contacts for each area. This report should be analyzed on a weekly basis and issues with backups should be reported to TOSM within one business day.

5.6 The Customer is responsible for verifying all data following a restore.

5.7 The Customer is responsible for testing the backup and restore processes on an ongoing basis as frequently as necessary to ensure the integrity of the backup data.

5.8 Customers are not to modify or tamper with the backup agents or client services in any way without the direct consent of TOSM.

6.0 Problem reporting and issue resolution

6.1 TOSM will provide backup assistance and support to address issues as problems arise and will respond to requests for assistance within 1 business day.

6.2 Backup or restore issues identified by the Customer should be reported to TOSM as soon as they are found. Issues with backups should be reported via email and addressed to backupadmin.tosm@ttu.edu. Restores of an emergent nature where production systems critical to the University are not available should be reported using our on-call procedures, which can be found by visiting http://www.texastech.edu/it/tosm/oncall.aspx. Backup issues will be handled during business hours unless other arrangements have been coordinated with TOSM. Restore issues will be handled on a case-by-case basis.

6.3 Backup issues identified by TOSM and related to the Customer's server and/or data will be communicated to the Customer via email and/or phone.

7.0 Costs for Backups

7.1 Costs for Standard Server File System Backups

7.1.1 Standard Server File System Backup Description – this backup process will cover the majority of servers across campus and includes backing up the system drive and data drives as well as the system state of the server (minus explicit backup

exclusions). A Standard Server File System Backup is a free service to the Customer assuming the following:

7.1.1.1 Server is not a virtual server hosted outside of the TOSM VMware cluster.

7.1.1.2 Server is not functioning as a virtual server, virtual desktop or virtual application host. This includes servers running operating systems with configured hypervisors (examples include, but are not limited to, Microsoft Hyper-V, VMware ESX/ESXi and Citrix.

7.1.1.3 Server is running a server operating system supported by our enterprise backup software. This currently includes all modern versions of Microsoft Windows Server beginning with Windows Server 2003 and Red Hat Enterprise Linux 5 as well as various other server operating systems. Support for operating systems is subject to change and TOSM will only perform backups on systems currently supported by the operating system vendor and our backup software vendor. Contact TOSM for a complete list of supported server operating systems.

7.1.1.4 Server has a minimum 1gb connection to TTUnet.

7.1.1.5 Server resides in the data center and contains less than 1TB of data to be backed up **OR** server resides outside of the data center and contains less than 250GB of data to be backed up.

7.1.1.6 Server does not run a transactional application, including, but not limited to, Oracle, Microsoft SQL Server Database, MySQL, Microsoft Sharepoint, or Microsoft Exchange. These applications require additional backup considerations and/or specialized backup agents to ensure consistent and reliable backups. For more information, please contact backupadmin.tosm@ttu.edu.

7.1.1.7 Server is capable of completing a full backup cycle in a standard backup window.

7.2 Potential Costs for Extended Server Backups

7.2.1 Extended Server Backups Description – Extended Server Backups address systems not covered by the Standard Server File System Backups and include support for larger amounts of data and specialized applications, such as Microsoft SharePoint, Microsoft SQL Server, and Oracle. The costs for backing up data for these systems vary depending on the amount of data and the number of specialized applications that need backup support.

7.2.1.1 A server that resides within the data center and contains more than 1TB of data OR a server that resides outside of the data center and contains more than 250GB of data is subject to an extended backup fee. The extended backup fee is $0.15 per GB over the threshold amount depending on location. The calculated space will be determined by the maximum amount of a single backup at any point during the fiscal year and will be billed in arrears at the beginning of the next fiscal year.

7.2.1.2 Additional backup agents, including Microsoft SharePoint agents, Microsoft SQL Server agents and/or Oracle agents will be charged the perpetual license cost plus annual maintenance. Annual maintenance costs will be calculated at 18% of the original license cost.

7.2.2 **TOSM has implemented a data archiving strategy that can significantly reduce extended server backup costs for file systems containing a large amount of data that is not regularly modified. This data archiving strategy can significantly improve backup performance and reliability for these large file systems. Please contact serversupport.tosm@ttu.edu for more information about our data archiving service and high capacity, low cost storage options.**