



## System Administration and Server Management Service Level Agreement (SLA)

### OVERVIEW

The goal of this SLA is to delineate responsibilities, communication paths and other details for computing capacity and support provided by the IS&T Windows Server Hosting Team for servers in the centrally managed Windows domain (win.mit.edu).

Client:	
Server Names:	
Server Location:	
Effective Date:	
Annual Cost:	

### Client Contact Information

Contact - Primary:		
Emergency Contact:		
Group Email address:		
Technical Contact - Primary:		
Billing Contact:		
Cost Object for service charges:		
For pageable servers:		
Emergency Contact - Primary:		
Emergency Contact - Secondary:		

### IS&T Contact Information

Location	MIT Building W91 565 – 570 Memorial Drive Cambridge, MA
Windows Server Hosting Team	<a href="mailto:WSH-Help@mit.edu">WSH-Help@mit.edu</a>

### Signatures

IS&T Windows Server Hosting Representative:
Departmental Financial Contact:
Departmental Technical Contact:
Date:

## Customer Agreement

The Windows Server Hosting Team and the client agree to the terms outlined in this document for supporting their servers to be located in the W91 Data Center.

### Terms of the Agreement

This SLA may be cancelled with 30 days written notification. Fees will be pro-rated to the end of the quarter in which service is terminated.

### Payment

IS&T Finance will bill clients quarterly and will occur on or shortly after the midpoint of each quarter (February 15, May 15, August 15 and November 15). Service fees begin on the first day of the month after the server installation begins. IS&T Finance will complete a journal voucher (JV) transfer from the cost center provided in the client profile.

### Service Overview

The IS&T Data Center provides an environmentally secure location for housing servers and related equipment. IS&T provides rack space, power, cooling and network connectivity, including hostnames/IP addresses for the machine, 24x7. IS&T will install, house and maintain the machine, including appropriate software, in an access-controlled machine room in the co-location facility. IS&T will monitor the system and provide support based on the Service Level described below.

WSH will provide the following services with appropriate assistance from the IS&T Data Center:

- Act as a liaison to DOST
- Install and house the hardware
- Monitor and maintain machine room environment
- Maintain the machine including appropriate software
- Setup and maintain an IS&T Request Tracker (RT) Queue for each server SLA, to be used both for reporting problems and for tracking client initiated changes to the system.
- Control access to the machine room
- Provide dual supply, non-UPS conditioned power
- Provide network connectivity via a 10Gb/s switched connection to MITnet
- Register hostname(s)
- Register IP address(es)
- Monitor system to ensure server availability
- Keep operator and client documentation
- Conduct reboot and system status checking procedures
- Maintain equipment list with MIT Property tag, serial number, make and model
- Act as hardware field service contact
- Maintain hardware maintenance contract information
- Install operating system and apply updates and patches
- Windows System Administration within win.mit.edu
  - Basic Windows Server and Workstation OS and Application Administration
  - Active Directory Group Policy settings & Software assignment
  - Windows System Security configuration settings and tools
  - Windows scripting (Windows command language and Perl)
  - MIT Athena integration (Moirra ACL lists, Cross Realm Kerberos Accounts)
  - Liaison with Network Operations
- Apply security patches
- Manage TSM backup: setup, restore
- Provide support based on the Service Levels described below.
- De-install old or replaced hardware
- Disposal of old equipment.

## Server Access

Clients may access their servers remotely. The Client is responsible for any changes made using remote administration.

The clients will provide pre-authorized lists of MIT Kerberos accounts for those who will have physical or remote access to the server. The clients will be responsible for maintaining "sponsored" accounts for any outside vendors or contractors who will need to access the managed servers.

WSH will, in consultation with the client, setup Moira ACL lists, that the client will have access to for adding and removing access right to additional users of the managed system.

During Data Center hours of operation, Data Center staff will grant physical access to the server to the pre-authorized personnel designated in the client profile. A Data Center operator must be present. A System Administrator will be available onsite from 9:00 AM to 5:00 PM, Monday through Friday. For planned after hours work, contact WSH at least 2 business days ahead of time.

### Data Center Hours of Operation:

24x7

Staffed: Monday through Friday, 6 AM to 9 PM

On-call Hours: by contract. For emergency access during unattended hours, contact the on-call operator.

## Service Levels

### Identification of critical applications/services:

Please indicate critical dates and times for your server. Include times of the year that are important to your department's business. WSH will record this information, as well as any special instructions, in the client profile and use the information to prioritize shutdown and startup order.

Ex: The xyz server is accessed by new applicants 24x7 during the months of December, January, March and April.

### Response Time requirements and agreement:

For identified 9x5 servers:

- Next business day

For identified 24x7 servers:

- Call back within 60 minutes of client call.
- On site within 4 hours of client call.

### Notification requirements:

For planned outages:

- Notification by email at least 48 hours in advance of outage

For unplanned outages:

For identified 9x5 servers:

- Notification as soon as possible after outage with a goal of notifying within 4 hours of the event.
- Email notification of problem resolution.

For identified 24x7 servers:

- Email or telephone notification within 60 minutes of knowledge of outage.
- Status updates during outage every 8 hours.
- Email or telephone notification of problem resolution.

### Remedies for resolution of SLA non-compliance

- Meet with client to discuss cause of non-compliance and find ways to address any issue.
- Review processes with WSH.

## SERVER SPECIFIC INFORMATION AND CHARGES

<b>SERVER</b>			
<b>Name1</b>	<b>Cost Factor</b>		<b>Points</b>
	Size Of Hardware		
	Age of Server		
	Service Level		
	Backup		
Application Installation			
<b>Total Points</b>			
<b>Lease</b>			
<b>Base Cost</b>			
<b>Interest</b>			
<b>Total</b>		(year x of lease)	\$xxxx.xx / FY
<b>Total Charges</b>			\$xxxx.xx / FY

<b>Description of server purpose and/or any special services:</b>
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### **Basic Cost Factor Components**

#### **Size of Server (U factor / 1.75")**

- .5 point per U

#### **Level of Service**

- 1 point - 9x5
- 2 points - 24x7
- 4 points – Client Pageable

#### **Type of Backup**

- 1 point for TSM service

#### **Age of Server**

- 0 points year 1-4
- 1 point per year 5 and over

#### **Application Installation Support**

- 0 points for no application support
- .5 point for Microsoft Web or server applications
- .5 point per processor for Microsoft SQL standard server (database)
- 1 point for non-Microsoft Database or Applications
- \$150/yr. licensing fee for Windows Server 2003 Enterprise
- Other outstanding Microsoft SQL licensing costs based upon per seat or per processor usage (vary)

**Note:** A "point" is currently assigned a value of \$1,155.

## **SERVER OPERATIONS POLICIES AND PRACTICES**

The section below describes specific expectations of WSH and the client.

### **Server Hardware**

*Hardware supplied will by default meet the following minimum standards:*

- Dell PowerEdge 2950 or equivalent
  - Rack mounted (available in various configurations)
  - Raid 1/5 or higher (3 HD's minimum)
  - Redundant power
  - 4 GB of memory minimum (6 or 8 for Heavy Database Apps recommended)
  - Dual CPU's if the application warrants. (Heavy Database Apps)
  - 4 year minimum hardware support warranty
  
- Purchase: The customer is responsible for the cost of the hardware.
  - The customer can purchase the hardware based on IS&T's recommendations. Purchase of this hardware must be in coordination with WSH to ensure that it is within the standards for support. In these cases, clients will also be responsible for the ongoing cost of additional components (memory, internal disk storage, network interface cards) to keep the server up to date, and ultimate replacement cost of the server(s).
  - WSH can purchase the hardware on the client's behalf and JV the full cost of the hardware back to the client within the 1<sup>st</sup> quarter in which the hardware is installed.
  - WSH can purchase the hardware and "rent" it back to the customer by spreading the cost of the server over 4 years with a 6.5% finance charge and including it with the quarterly billing. (In the case of service termination, the client is responsible for the remaining unpaid cost of the server)

After initial configuration, any significant changes to the system points profile will be discussed either via email or in a meeting prior to being implemented, and will be reflected in future costs.

Most servers are replaced when they are four years old, but this may vary depending on specific circumstances. If this SLA is renewed beyond the life of the hardware of the machine, IS&T will recommend new hardware configurations.

### **OS and other Software**

WSH will maintain the operating system on the machine. WSH will also maintain the "standard" win.mit.edu environment on the machine, including remote login (RDP) and required administrator access to the machine via Athena Kerberos principles. WSH will coordinate fixes necessary to address security and other support issues for the server as needed.

If requested, we will also maintain a client application server installation (excluding content) on the machine. This will include initial installation, configuration, and the subsequent installation of: any upgrades and/or other necessary patches. When a planned outage is required to perform preventative maintenance on part of the system that we maintain, we will coordinate a time with you.

The client is responsible for any application license costs, including any vendor support. Vendor support is required for non-MIT standard applications. For these applications, WSH will act as a liaison between the client and vendor, if needed.

WSH will provide the clients with access to an RT queue where issues can be logged and tracked. Additionally it is the client's responsibility to log any administrative or system configuration changes made to the servers using remote administrative access.

## **Service Levels**

While all servers are monitored 24x7, the service level determines how quickly support is available.

**The three levels of service are:**

### **9x5**

We carry a 9x5 maintenance contract on the server. If contacted during business hours, we will coordinate any maintenance, reboots, etc., with the client. Outside of business hours email may be sent to WSH by the client, requesting service. Action will be taken on the following business day.

### **24x7**

We carry a 24x7 maintenance contract on the server. If contacted during business hours, we will coordinate any maintenance, reboots, etc., with the client. If contacted after business hours, we will perform emergency maintenance, reboot, etc., as deemed necessary. Email or telephone notification will be sent to the client, informing them of the problem/resolution.

### **Client Pageable**

Emergency client contact information is required. There is a 24x7 maintenance contract on these servers and auto-paging is set up. WSH will make every effort to reach the emergency client contact immediately upon discovery of a problem and, if possible, coordinate any maintenance, reboots, etc., with the client contact. If the emergency contact can not be reached, WSH will perform emergency maintenance, reboots, etc. according to instructions in the client profile for the server in question.

## **Backups**

WSH will perform regular backups of the machine. This includes daily system backups including databases, when applicable. In special cases, the standard backup procedures can be modified to meet specific needs. The default retention for daily backups is 30 days.

TSM Backup software is used for this purpose. The major features are:

- Off site backups (incase of fire or other catastrophic event in the main data center)
- Increased storage capacity over 300GB's

## **Application Monitoring**

For accurate monitoring of performance and to plan maintenance, the client will supply the WSH with basic application usage requirements. This is especially important for non-business hour maintenance when the staff must coordinate activities across multiple machines.

## **Maintenance Windows**

WSH will make every effort to coordinate all maintenance outages with the client, but there may be cases where emergency intervention is necessary that may result in an unexpected interruption of service.

The client will identify the times of year when availability of the server is most critical. WSH will use this information for advance planning of maintenance activities, especially where multiple systems may be impacted.

## **Contacting the IS&T Windows Server Hosting Team**

For all requests, you may contact us by sending mail to WSH at [WSH-Help@mit.edu](mailto:WSH-Help@mit.edu). In the event of an emergency, please call the WSH hotline at 617-715-4132.