

# MyServer

## *Standard*

### Service Level Agreement

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University Of Michigan  
Information Technology Central Services

Revised February 26, 2004

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#### **1.0 Overview**

This Service Level Agreement (SLA) is between ITCS and its Customers. Under this SLA, ITCS agrees to provide, at the rates and for the duration specified, MyServer service for subscribing units and departments of the University of Michigan Ann Arbor campus. This service provides file system and printer access to shared servers running Novell NetWare.

There are two flavors of MyServer, MyOwnServer and MySharedServer. Differences between the flavors are mentioned where appropriate in this document and summarized in Appendix A.

This SLA also covers performance, reliability, and other topics pertinent to the Service; in particular, it lists key responsibilities of ITCS LAN/NOS Services and its Customers.

#### **2.0 Purpose**

The purpose of this SLA is to help establish a cooperative partnership between the Customer and ITCS by clarifying roles, setting rates and expectations, and providing mechanisms for resolving problems.

#### **3.0 Funding Of Services**

Service charges are detailed in Appendix C. These will be reviewed annually. Any revisions will be made by ITCS in consultation with ITCS customers prior to SLA renewal. Billing will be done on a quarterly basis, at the beginning of July, October, January and April. Billing will be based on maximum allocated space during the previous quarter.

#### **4.0 Terms Of Agreement**

This SLA is for the fiscal year. At the end of this term, this agreement may be renewed on an annual basis, but may be modified, amended, or terminated at any time by mutual agreement of the authorized signatories of the agreement.

#### **5.0 ITCS LAN/NOS Services Responsibilities (see Appendix B for chart)**

ITCS LAN/NOS Services shall:

- 5.1 Provide value-added services based on the campus NetWare infrastructure.
- 5.2 Provide all server hardware, software, and networking necessary to deliver the production service to the campus backbone on a 24x7 basis, except as outlined in section 7.0, to campus departments including fault-tolerant disk arrays for file storage.
- 5.3 Ensure a secure environment by aggressively limiting administrative access to fileserver resources.
- 5.4 Provide full file server backup for disaster recovery purposes.
  - A backup of the entire file store is maintained on a daily basis.
  - Backups retain data for 60 days.
  - All backups will be performed between the hours of 8:00 pm 4:00 am Sunday through Saturday. Note that these times indicate windows. The backup will not be running during the entire time, but will occur sometime within the window.
  - Only closed files will be backed up.
  - File restores will be provided as necessitated by server hardware or software failure.

The customer may use the file system while the tape backup is running. However, any files that are open at the time that the backup system reaches them may not be recorded (or recorded but corrupt).

- 5.5 Provide file restores at Customer request as a charged service. One complementary restore may be requested per month. Normal turnaround time for file restore will be 24 hours. See Appendix C for rate information for second and subsequent restores per month.
- 5.6 Provide 24x365 monitoring and maintenance of file server hardware, software, and network up to the campus backbone.
- 5.7 Keep the Department Administrators informed of service status via e-mail and/or direct telephone contact.
- 5.8 Provide performance measurements as detailed in Section 7.
- 5.9 Diagnose all reported service problems.
- 5.10 Provide timely billing to departments.
- 5.11 Provide access to MyServer by department workstations based on shared, centralized servers. Supported workstation platforms include all current (as defined by Microsoft) Windows platforms, and Mac OS. All services are accessed via Novell eDirectory (eDir).
- 5.12 Provide as secure, robust and reliable a service as possible by running only core Novell services and services required to provide a secure, robust and reliable service (e.g. backup software, virus protection software)
- 5.13 Install, update and maintain server-side components of running services..
- 5.14 Provide print services to eDir compliant printers connected directly to the network using eDir with external print server devices (e.g. HP JetDirect), using queue-based print services. (Note: NDPS and iPrint are available for MyOwnServer customers only)
- 5.15 Provide other Novell services as reasonable. The services available on MySharedServer are limited by their ability to coexist on a shared server while delegating administration

and keeping security separate. See Appendix A for examples of services possible on MySharedServer and MyOwnServer.

- 6 Provide training and documentation for Customer System Administrator(s) at customer request. This training/documentation will be on the use of the MyServer service including creation of customized Group and/or Organizational Role Objects for Customer use and setting up printing. This training is not to exceed 3 hours of ITCS staff time. Additional personalized training may be purchased from ITCS for an additional fee (see Appendix C)

### **6.0 Customer Responsibilities (see Appendix B for chart)**

Customers shall:

- 6.1 Designate one or more system administrators to provide the following administrative services: (Note: this list may not be comprehensive, depending on the environment)
  - User account creation and management
  - Group creation and management
  - Password management
  - Login script management
  - File system management
  - Access control to file system
  - Print service creation
  - Print service management
  - Security maintenance
- 6.2 All services must be accessed via Novell Directory Services (NDS). Users of all client platforms must authenticate to NDS to access the service. Authentication and access will require the IPX or IP protocol on all clients. To support this, the following must be done on all Departmental workstations:

Install, configure and maintain the current version of the supported Novell client on all platforms. Supported clients can be obtained from <http://download.novell.com>. Macintosh access is supported via the Native File Access Protocol and must be specifically requested.
- 6.3 Set up, configure and maintain NetWare printing using HP Jet Direct devices in the Queue server mode or other eDir compatible network printing hardware and software, configured as external print servers. Printing via NDPS and iPrint is also available for MyOwnServer only.
- 6.4 Set up, configure, maintain and deliver to workstations client-side components of running services.
- 6.5 Contract with ITCS Contract Services or another service provider of choice to perform System Administrator duties not able to be performed by members of the Customer's staff.
- 6.6 Maintain workstations and LAN(s) to ensure reliable connectivity to the campus backbone and performance on the local LAN(s).

- 6.7 Provide support to the end users of this service including, but not limited to, the following:
- First-level network support for service users
  - Distribution of software specific to service users
  - Distribution of applicable documentation for this service
  - Readily available training in the use of the service.
  - Documentation covering security and the proper use of this service
  - Management for all aspects of client workstations, operating system, and software.
- 6.8 Perform file restores upon request of the Customer. If a user needs to have a file restored, the System Administrator will first attempt to restore the files using Novell's salvage capability. If that is not possible, the System Administrator will provide the following information to ITCS LAN/NOS Services via e-mail:
- the file name with it's full path on the server volume
  - the date of the last known good copy
  - the urgency of the restore

Restores will normally be done within 24 hours during normal business hours.  
(See Appendix C for rate information)

The customer may request one complementary file restore per month. Second and subsequent file restores will be charged to the customer at the rates listed in Appendix C.

- 6.9 In consultation with others, as necessary, handle violations of system security and take appropriate security measures, including user education.
- 6.10 Provide ITCS staff with contact information (email, pager, and phone) for the System Administrator and a backup administrator. Any changes to these contact/notification methods must be communicated to ITCS LAN/NOS Services and be reflected in the unit's eDir container (OU) description property value.
- 6.11 Notify ITCS LAN/NOS Services of any change in the System Administrator at least one week before the change occurs, and include the name of the temporary or replacement System Administrator. The Customer will tell ITCS LAN/NOS Services who the new, permanent System Administrator is not later than one week after the new person is hired. This is necessary so that ITCS LAN/NOS Services are able to contact departmental staff easily in an emergency.
- 6.12 Not divulge privileged contact information, such as the phone numbers of the ITCS LAN/NOS Services staff, to anyone not acting in the System Administrator role.
- 6.13 Notify ITCS at least 6 weeks in advance of anticipated additional file space needs. Supply ITCS with realistic projected file space requirements for the next two years when requesting additional file space or when ITCS LAN/NOS Services requests that information.

6.14 Be responsible for any charges from ITCS for diagnosing problems that fall under the customer's responsibility.

## **7.0 Performance Measures**

### **7.1 *MyServer Technical Performance***

ITCS will ensure that the MyServer server(s) operate(s) at industry standards.

In order to ensure reliability and performance, ITCS will decline to run or offer certain services, including but not limited to Bindery Services and Customer-requested NLMs (e.g. LAN-based e-mail applications). Therefore applications requiring Bindery Services will not be supported (e.g. bindery-based printing).

MySharedServer is limited to running services that can be delegated within a single server. Services that cannot be delegated within a single server may be run on MyOwnServer if the service does not require console access and does not impact reliability or performance. See Appendix A for a comparison between MySharedServer and MyOwnServer.

If use of a Customer's application or access to files on the fileserver compromises the performance of an ITCS MyServer server, ITCS will take appropriate action to restore performance (if possible), or take other action, up to and including prohibiting use of the software or files on the fileserver and, in the case of non-compliance with request to remove the offending software and/or files from the fileserver, blocking access by the department to the fileserver.

### **7.2 *Service Performance***

Except as covered below, ITCS will ensure availability of the Service 24 x 365.

In general, availability will only be changed by negotiation and agreement between the Customer and ITCS (such as for major hardware and software upgrades). In the rare circumstance that ITCS must alter system availability, we will notify the Customer as soon as possible.

Server maintenance, when required, will occur on Tuesday, Thursday, and Sunday mornings between 5:00 AM – 8:00 AM. Planned maintenance that may result in complete lack of connectivity for all Customers will be negotiated in advance with the Customer.

If a Server fails, the on-call ITCS technician will be automatically paged, and the technician will respond within 15 minutes of notification. If on-site support is required during normal business hours (i.e., 8:30 AM to 5:00 PM Monday through Friday, excluding holidays), ITCS will have a technician on-site of the server within 30 minutes of notification. During non-business hours, a technician will be on-site of the server within two (2) hours.

Unscheduled downtime for any fileserver due to "typical problems" (e.g., mis-configuration and hardware failures) is targeted not to exceed .01% of scheduled availability during a year period. Atypical problems and emergencies (e.g., vandalism or fire) will be handled to the best of ITCS's ability.

To gauge such performance, ITCS keeps uptime/downtime reports that are available to the Customer upon request. These reports will be kept up to date on a monthly basis.

### *7.3 User Perceptions of Server Performance*

ITCS and the Customer acknowledge performance and performance measures are affected by many factors which may be difficult to define and/or anticipate due to the nature and uses of the underlying systems and clients. Further, we recognize “perceived response time” by users is a critical performance measurement. Therefore, in cases where the “perceived response time” by users becomes an issue, problems will be resolved by the procedures outlined in Section 8.0, “Problem Resolution.”

### **8.0 Problem Resolution**

To help determine the existence and scope of a possible problem, the System Administrator may send email to [myserver.support@umich.edu](mailto:myserver.support@umich.edu). In an emergency situation, the System Administrator may send a text page to ITCS-[myserver.oncall@umich.edu](mailto:myserver.oncall@umich.edu). Messages sent to this address will be sent to the pagers of the staff members currently on call.

Similarly, ITCS will contact the Customer's System Administrator by email, phone or pager to address any problem resulting from the Customer's use of the MyServer service.

When performance measures do not meet the standards specified in this SLA, the Customer and ITCS will jointly work to:

- Identify the cause of the problem.
- Resolve the problem as quickly as possible.

If resolution is not achieved within eight (8) business hours, the Customer and/or ITCS will escalate the problem to the appropriate ITCS Customer Relations Manager (CRM).

### **9.0 Upgrades**

Software and hardware upgrades are at the discretion of ITCS and cover the NetWare server and associated server hardware. These upgrades will be made with minimal disruption of service (See Section 7). Large-scale changes and upgrades will be coordinated with the Customer System Administrator to minimize the impact upon the Customer and its users.

Customers may request upgrades to the OS or services running on the server. Units should contact [myserver.support@umich.edu](mailto:myserver.support@umich.edu) to discuss options and timing.

### **10.0 Security**

ITCS will take appropriate steps to provide physically secure access to the file servers. Servers are placed in secure locations. All remote access to the file servers will be password-protected in a secure fashion. The Customer, however, is responsible for securely administering access to files and other resources made available on the server.

If access to the service requires more strict security measures than is usual and customary, the Customer and ITCS will discuss the issues and together form a best plan of action. If necessary, additional security experts will be called upon.

To prevent access to Customer data by System Administrators from other departments that share file space on the same server, departmental System Administrators will never be given Supervisor access to the file server or access to the file server console. This implies that no printing solution that requires running Novell's PSERVER.NLM will be permitted.

A limited number of ITCS staff has access to all resources on its servers, including all files. Unless necessary for troubleshooting purposes, however, the contents of files and directories will never be viewed by ITCS staff. Should troubleshooting require access to file or directory contents, the customer will be notified and these contents will be kept strictly confidential.

### ***11.0 Accountability***

ITCS warrants that all reasonable measures within its resources shall be taken to ensure the performance, availability, and integrity of the Servers as covered in this agreement. ITCS assumes responsibility for the hardware and software that it provides to execute this SLA, as well as for the actions of ITCS staff. ITCS's liability for damages is limited to hardware replacement or repair, software fixes, and corrections to staff errors.

The Customer agrees not to operate the Service in a manner that compromises the Service or violates security or other applicable policies. The Customer also assumes responsibility for any misuse of their file and print resources by users and will remedy any such situations.

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Revision History:

#### **June 24, 1999**

Sec 6.7: begin charging for file restores, with one complementary restore per month. File restore requests will only be accepted from system administrators.

#### **November 30, 2000**

Sec 5.11: "FTP access for the DOS name space only is also supported" added

#### **January 8, 2003**

ITD replaced with ITCS throughout.

Sec 5.4: revised backup section to reflect new policy to retain data for disaster recovery purposes for 60 days

Sec 5.11: outdated references to particular workstation platforms removed.

Sec 5.15: reference to ITCS Education Services Novell training removed (no longer offered).

Sec 6.2: outdated references to supported clients and protocols updated.

Sec 6.3: added reference to NDPS option for single-unit servers.

Sec 6.7: reworded and revised to reflect change in backup policy as outlined in Sec 5.4.

Sec 10.0: reference to no-longer current Security Top 10 Lists removed.

## **February 2, 2004**

File and Print Services replaced with MyServer throughout.

Novell Directory Services (NDS) changed to eDirectory (eDir) throughout.

Sec 3.0: Billing terms changed from annual to quarterly.

Sec 5.13: Sub-allocation item removed and replaced.

Sec 5.14: Printing services clarified.

Sec 5.15: Added information about running other Novell services

Sec 5.16: Renumbered from original 5.15

Sec 6.1: Added “and management” to User and Group duties; added “Access control to file system”

Sec 6.2: Access via Macintosh platform changed.

Sec 6.3: Clarified printing services.

Sec 6.4: Added workstation responsibilities

Sec 6.4 through 6.13: renumbered to accommodate new 6.4

Sec 6.10 Changed location of contact information to OU object

Sec 7.1: Removed Meetingmaker as an example – no longer available on NetWare.  
Added paragraph explaining difference between MyOwnServer and MySharedServer

Sec 9: Added paragraph regarding unit requests for upgrades

Appendix A: Added chart describing differences between MyOwnServer and MySharedServer

Appendix B: Added chart describing ITCS and unit responsibilities

Appendix C: Rate schedule (was Appendix A) has changed considerably.