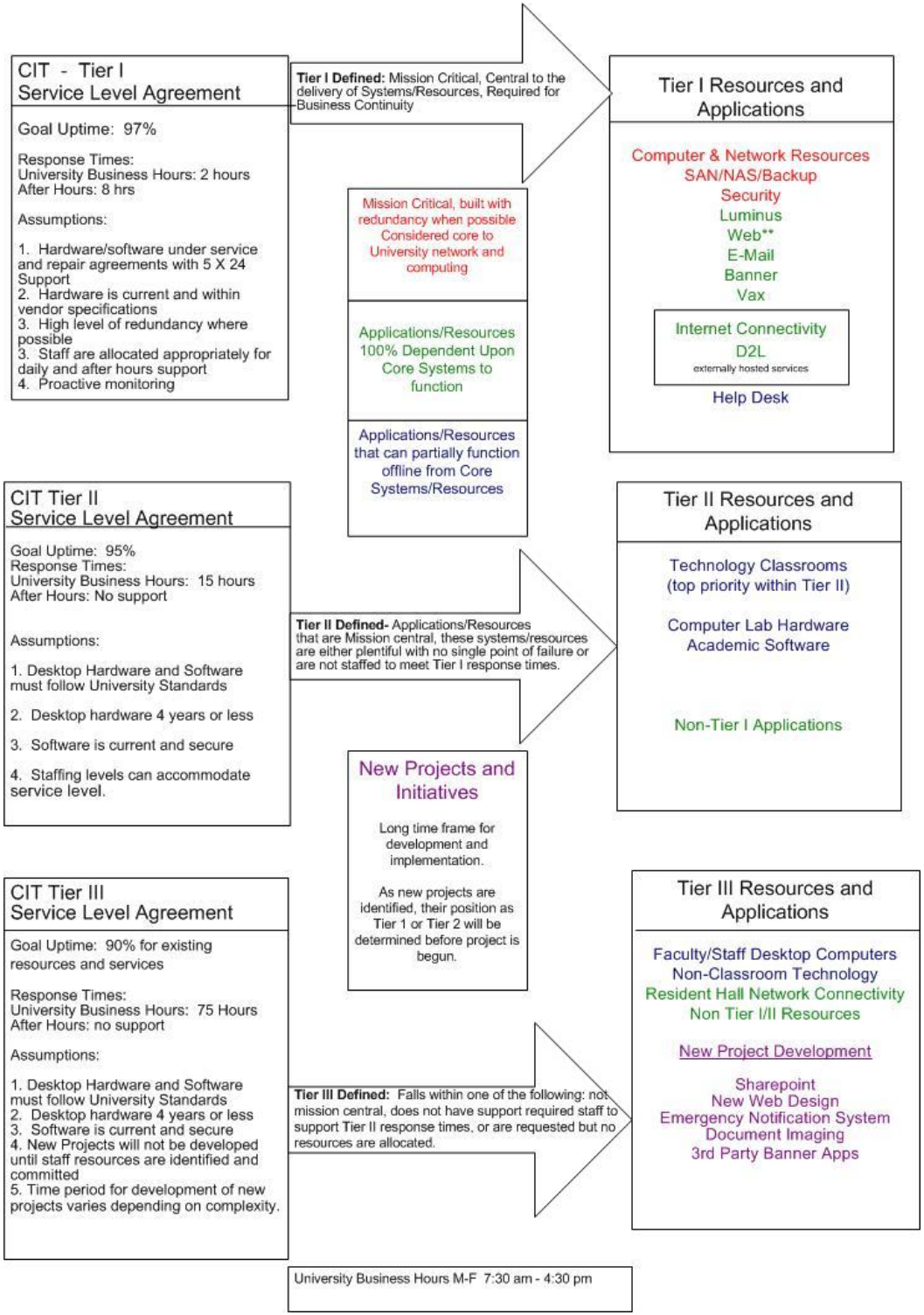

Communication and Information Technologies Service Level Agreements

This diagram illustrates the three tiers of service available through CIT

Tier I – Mission Critical
Tier II – Mission Central
Tier III – Mission Central resources that do not have staffing or resources allocated that bring them to Tier I or Tier II

Tier assignments are subject to change based upon University needs and reallocation of resources.

Following this diagram are the descriptions of TSU information technology resources and assigned Tiers. This document is applicable in the daily function of the CIT department by providing useful information on service request and incidence response procedures and the responsibilities of CIT and end users.

The color designations include:

Red for the "core resources"

Green for resources that depend on the "core resources"

Blue, for resources capable of functioning without "core resources"

Purple for new projects and initiatives

A. Computing and Network Resources
San/NAS/Backup, Security
Luminis, Web, E-Mail, Banner, Alpha, Internet Connectivity, D2L, and Help Desk
Service Level – Tier I

Users Served: Students, Faculty, and Staff
Services Provided: Central Computing and Networking Resources considered to be mission critical
Response Time: University Business Hours – 2 hour response time
Non-University Business Hours – 8 hour response time

A-1. Assumptions:

1. Support is available onsite during University Business Hours are Monday – Friday, 8:00 – 4:30 pm. Except during hilidays or when the university is closed. During weekends and evening, support staff will monitor systems remotely, respond to system threshold alarms, and receive/review notices on issues reported by designated CIT staff.
2. Systems and resources within Tier I are considered to be mission critical
3. Systems and resources will be routinely monitored
4. Assistance and communications is provided through Help Desk via telephone, e-mail, or voice mail
5. All systems and resources within Tier I will be under service and repair agreements with 5 x 24 support and or have spare parts in-stock.
6. Security compliance will be maintained at the levels specified in ISO 17799
7. Necessary outages for hardware & software maintenance (e.g., the application of security patches) are required, and extended outages (e.g., major upgrades to a system) are negotiated and scheduled.

A-2. Metrics

1. Services will be measured by monitoring key servers, network devices and software processes (automated where possible).
2. CIT will publish the following statistics each semester:

   a. Percentage of time Tier I systems and resources are up
   b. Number of critical incidents within Tier I systems
   c. Average response time to Tier I critical incidents
   d. Average repair time to Tier I critical incidents

A-3. Resources, Protocols, Responsibilities Defined

Computing and Network Resources Defined	**Incident Management Protocols**	**CIT Responsibilities**	**Faculty/Staff Responsibilities**
1. Campus Network including core services -login, print services, NAS/SAN storage 2. Network and Computing Security 3. myTSU 4. TSU Website 5. Exchange E-Mail 6. myTSU E-Mail 7. Banner, Unix and other databases 8. SIS on VAX 9. Backup 10. D2L and Internet services ** 11. IT security services 12. CIT Help Desk ** ***These are critical service resources external to Tennessee State University will be***	All mission critical systems and resources are monitored such that the potential exists for possible proactive responses to most mission critical failures. During normal University work hours students, faculty and staff should contact the CIT helpdesk to report any issues with access to the network or resource on the network. **After Hours** Students, faculty and staff experiencing issues with critical issues should advise CIT whenever possible of the issue by one of the following methods: a. Call the Help Desk and leave a voice message. b. Report incident to a public lab student monitor. c. Contact University police and request that the message be relayed.	**I. Establish Mission Critical Computing and Network Resources** 1. Implement, maintain, upgrade and enhance all currently defined Tier I computing and networking resources. 2. Initiate and manage contracts with vendors for the purchase, installation, maintenance, and upgrade of Tier I resources. 3. Establish and adhere to a set of operating systems, software and IT services for Servers. 4. Follow industry defined best practices and standards for all Tier I resources. 5. Provide trained staff and service resources within CIT to manage the computing and network infrastructure and user service needs. 6. Develop, in consultation with key stakeholders, and publish University wide policies and procedures as required.	1. Advise CIT about expected changes in requirements or demand for the service in a timely manner, so that adjustments may be made in the way the service is provided. 2. Advise users that they are required to abide by all relevant University IT policies 3. Faculty and staff must abide by all relevant University IT policies and ensure that only University supplied or recommended equipment is connected to the network. 4. Adhere to the standard core set of operating systems, software and IT services for servers where appropriate. 5. Provide requirements in sufficient time to allow solutions to be designed, implemented, and tested: and to test and approve the

defined and will have varying tiers of service not controlled by CIT directly but are negotiated at service inception.		7. Establish necessary policies, procedures, and daily standard operations necessary to create, maintain, update, and plan IT services to the University enterprise. 8. **II. Planning** 1. Proactively initiate technology and capacity planning via regular consultation with University stakeholders. 2. Consult and negotiate planned outages, maintenance, and upgrades with University stakeholders. **III. System Monitoring** 1. Maintain a vigilant monitoring activity and take appropriate action to protect the University's information and assets. **IV. Security** 1. Install and maintain authentication services to all network and computing resources. 2. Ensure that all operating systems are up to date with security patches. 3. Maintain an appropriate level of security resources between the Tennessee State University network	environment. 6. Advise students that they are required to manage their own data and mail files. 7. Advise their University community to report problems to the CIT helpdesk. 8. Establish University governance that will steer the development of application content. 9. Provide requirements briefs and change requests sufficiently early to facilitate implementation and testing before they are required. 10. Advise students of all University policies governing internet usage and faculty specific guidelines. 11. Cooperate with the CIT Security group and other relevant groups. 12. Faculty and staff are required to abide by relevant University

		and other networks on an ongoing basis. 4. Develop and implement the University- wide IT Security Policy and Framework in consultation with key stakeholders. 5. Provide IT Security advice and information to the Tennessee State University community.	Privacy Policy particularly in regard to the disclosing of student and staff personal information

B. Technology Classrooms
Service Level - Tier II

Users Served:	TSU Students, Faculty, and Staff
Services Provided:	The Installation, Maintenance, Support, and Upgrade of Technology Classrooms
Response Time:	University Business Hours - 15 hours, however response will be as quick as resources allow Evening hours – limited support based upon staffing. Major failures cannot be remedied after hours. Weekends – no support
Response Time Defined:	The time it takes for a help desk technician or Academic Specialist to review the issue and to make recommendations on repairs. Because Technology classrooms are used for instruction, they will have the highest priority within Tier II resources/applications

B-1: Assumptions:

1. University Business hours are 8:00 am – 4:30 pm Monday – Friday, evening hours are from 4:30 pm – 10:00 pm
2. The resources within technology classrooms will be clean, consistent and well maintained
3. Computers used in technology classrooms will be replaced on a three year replacement cycle.
4. Standard software will be installed with a consistent desktop presentation in each classroom
5. Software deployed in technology classrooms will be managed through a centralized "push" technology allowing software installations and repairs to be completed efficaciously
6. Discipline specific software will be made available in technology classrooms when requested and licensing allows.
7. Security software will be installed consistently in all classrooms
8. Projectors will be monitored so that bulb replacement can be proactive.
9. Bulbs will be in stock.
10. Services will be available from AV vendors to install/repair technology classrooms
11. Contingencies are planned for with roll carts, portable projectors, and laptop computers
12. CIT will be staffed appropriately based on the quantity of technology classrooms

B-2.. Metrics:

1. Services will be measured by monitoring lab hardware, software, and staff resources daily and analyzing work order statistics from the Track-Helpdesk system.

2. CIT will publish the following statistics each semester:

    a. The number of requests received
    b. The number of requests resolved within 15 hours
    c. Average response time per semester to all requests
    d. Average time to repair reported issues

B-3. Resources, Protocols, Responsibilities Defined

Technology Classroom resources defined	Service Request Procedures for Technology Classrooms	CIT Responsibilities	Faculty/Staff Responsibilities
1. Standard TSU desktop hardware and software. 2. Projection/large display 3. Desktop or wall mounted control system. 4. Other hardware depending on room including document camera, vcr/dvd player, remote controls, smart boards.	1. Faculty and Staff must contact the CIT Help Desk to report equipment and software issues. 2. Requests are entered into the work order system and the information is conveyed to the technology classroom manager. 3. Requests are serviced in the order they are received unless other circumstances dictate. 4. Hardware, when possible, will be hot swapped with 24 hours of call receipt.	1. Initiate technology and capacity planning via regular consultation with Technology Vision committee 2. In consultation with Academic Affairs, TEKV, and other stakeholders, establish and adhere to a set of operating systems, application software and services required. 3. Execute decisions made for new/upgraded equipment, software, etc. 4. Initiate and manage contracts with vendors. 5. Establish necessary policies, procedures, and daily standard operations necessary to create, maintain, update, and plan Technology Classroom resources and services 6. Monitor activity and take appropriate action in order to protect the University's information and assets. 7. Apprise deans, department heads and faculty and coordinate with Academic Affairs any potential issues which could interfere with instructional activities.	1. Advise CIT about expected changes in requirements or demand for the service in a timely manner, so that adjustments may be made in the way the service is provided. 2. Advise users that they are required to abide by all relevant University IT policies 3. Faculty must abide by all relevant University IT policies. 4. Be prepared to continue instructional activities in the event of hardware/software failure within the classroom.

C. Computer Lab Hardware
Academic Software
Service Level – Tier II

Users Served:	Students and Faculty
Services Provided:	Computing Lab hardware, software, printing, access
Response Time:	Access to network and core computing resources will follow Tier I service level. Individual PCs issues will be reviewed within 15 hours and problem resolution dictated by lab function.
Response Time Defined:	The time it takes to review the issue and to determine the remedy to be implemented. Equipment failures or software malfunctions that disrupt teaching will have the highest priority for repairs with Tier II similar to the level of service for technology classrooms.

C-1. Assumptions:

1. Support is available onsite during University Business Hours are Monday – Friday, 8:00 – 4:30 pm, after hours support will be provided to that extent possible by student lab assistants.
2. The resources within public computer labs will be clean, consistent and well maintained
3. Computers used in public computer labs will be replaced on a three year replacement cycle.
4. Software deployed in computing labs and technology classrooms will be managed through a centralized "push" technology..
5. Standard software will be installed with a consistent desktop presentation in each lab.
6. Department software will be made available in designated labs according to licensing and technical viability.
7. Software installed must be reviewed by the Lab Supervisor before deployment is possible.
8. Software installations should be requested prior to the start of the academic semester/session.
9. Security software will be installed consistently in all computer labs.
10. Computers that fail will be replaced as quickly as possible with top priority given to teaching labs.
11. Printer paper and toner will be well stocked.
12. Lab Management will review hardware routinely to preemptively replace failing equipment.

C-2. Metrics:

1. Services will be measured by monitoring lab hardware, software, and staff resources daily and analyzing work order statistics from the Track-Helpdesk system.

2. CIT will publish the following statistics each semester:
   a. The number of requests received
   b. The number of requests resolved within 15 hours
   c. Average response time per semester to all requests
   d. Average time to repair reported issues

C-3. Resources, Protocols, Responsibilities Defined

Computer Labs Resources Defined	**Service Request Procedures**	**CIT Responsibilities**	**Faculty/Staff Responsibilities**
1. Standard TSU desktop computer - PC or Macintosh capable of running the current standard operating system; 2. Standard University software, discipline specific software where applicable, printers, scanners, 3. Printing Services 4. IT security services including campus firewall, campus desktop standard malware defense software 5. Network Access to: -myTSU Portal - -e-mail -the Internet -D2L 6. Access to facility 7. On-site assistance with basic login, software access, and printing 8. Appropriate levels of consumables	1. Students and Faculty should contact a lab assistant or the CIT helpdesk to report equipment and software issues. 2. During University business hours (8:00 am – 4:30 pm, Monday – Friday) full time professional staff will be available to service and support hardware/software issues affecting entire lab or specific systems. 3. After hour support (Monday – Friday, 4:30 pm – 10 pm, Saturday from 10 to 4 pm, and Sunday 2 pm – 10 pm) will be limited as follows: a. Student lab assistants will provide the first line of support for lab access, toner/paper resources, and ongoing assessment of overall service availability including: TSU network accessibility, Internet access, e-mail availability, and other server based resources	1. Initiate technology and capacity planning via regular consultation with Technology Vision committee 2. In consultation with Academic Affairs, TEKV, and other stakeholders, establish and adhere to a standard set of operating systems, application software and services required. 3. In consultation with Academic Affairs, TEKV, and other stakeholders, review academic department recommendations and needs for hardware and software and coordinate installations /upgrades/maintenance. 4. Provide infrastructure and support for academic software applications including application installation and configuration, systems integration, technical documentation, technical analysis and backups. 5. Provide servers and the IT environment for student computing labs, including file storage, backup and management tools. 6. Provide and maintain print servers and software.	1. Advise CIT about expected changes in requirements or demand for the service in a timely manner so that adjustments may be made in the way services are provided. 2. Provide advice through the Technology Vision Committee on campus computing and network infrastructure and lab specific hardware and software, staffing, and policy needs. 3. Students and faculty staff must abide by all relevant University IT policies.

	b. If it is determined that network resources are not available, a call will be made to the Assistant lab manager or their designee for further assessment. c. Individual computer failure will be reported to Help Desk via the standard after hours reporting procedure with repair commencing the next business day. 4. Notice of Scheduled maintenance/downtime will posted on the CIT department website, myTSU, and on the desktop wall paper in all labs. **Problem escalation procedures** 1. If the standard procedure for remedying the requested service is deemed unsuccessful, the request will be moved to CIT Second Tier Support.	7. Provide robust mechanisms which allow support staff to monitor printer operation. 8. Provide prompt and courteous referral service for problems outside of CIT realm.. 9. Provide a web presence concerning lab resources that is up-to-date. 10. On a regular basis, produce various publications about IT and related services.	

D. Faculty/Staff Desktop Computing Resources
Service Level – Tier III

Users Served:	Faculty and Staff
Services Provided:	Desktop computing resources including hardware maintenance and repair and software installation and upgrades
Response Time:	University Business Hours - 72 working hours After Hours/Weekends – No support
Response Time Defined:	The time it takes for a help desk or desktop technician to review the issue and to make recommendation on repair strategy

D-1. Assumptions:

1. Support is available during normal University work hours: Monday – Friday, 7:30 am – 4:30 pm,
2. Assistance is provided through Help Desk via telephone, e-mail, or voice mail
3. After hours support does not exist for individual desktop/network service needs.
4. Desktop support is provided on systems that follow TSU Hardware and Software Standards
5. Desktop hardware is replaced on a four year replacement cycle.
6. Desktop computers will be hot swapped when possible

D-2. Metrics

1. Services will be measured by monitoring lab hardware, software, and staff resources daily and analyzing work order statistics from the Track-Helpdesk system.

2. CIT will publish the following statistics each semester:

    a. The number of requests received per semester
    b. The number of requests resolved within 75 work hours
    c. The average response time to all requests
    d. The average time to repair all reported requests

D-3. Resources, Protocols, Responsibilities Defined

Desktop computing Resources Defined	**Service Request Procedures**	**CIT Responsibilities**	**Faculty/Staff Responsibilities**
1. Standard TSU desktop computer: PC or Macintosh capable of running the current standard operating system 2. Standard TSU desktop printer: ▪ HP ▪ Dell Each of which must be currently supported within standard desktop computing operating systems. 3. Standard TSU Desktop Software: ▪ Windows XP/7 ▪ Internet Explorer ▪ Microsoft Office Suite 2003 or 2007 ▪ Adobe Acrobat Reader ▪ Forefront Client Security	1. Report issues to the CIT Help Requests are entered into the work order system and the user will be given a Work Order number. 2. Requests are serviced in the order they are received unless other circumstance dictate. 3. Desktop computers and printers, when available, will be hot swapped with 24 hours 4. Data transfer can take an indeterminable amount of time depending on the condition of the storage device.	1. Recommend hardware specifications required to support current OS standard. 2. Stay current on hardware/software trends which may require adjustment in campus standards 3. Audit campus hardware and report to administration, deans, department heads their relative position within the hardware standards 4. Consult with campus users on purchase decisions and cycled replacement planning. 5. Provision campus software licenses 6. Provide technology reviews of the campus to identify hardware upgrades necessary to support current software standards. 7. Develop, in consultation with key stakeholders, and publish University wide policies and procedures as required.	1. Advise CIT about expected changes in desktop computing needs relative to new projects and initiatives. 2. Provision hardware on a cyclical basis that follows the TSU desktop computing standard. 3. Abide by all by all relevant University IT policies concerning desktop hardware, software, and security. 4. Make backups of data files by storing on network shares or through local devices such as CD, DVD, tape, etc. 5. Do not install non-standard software under any circumstance without review by a technician.

E. Residence Hall Network Connectivity
Service Level – Tier III

Users Served: Students living in residence halls
Services Provided: Internet connectivity
Response Time: University Business Hours - 72 working hours
After Hours/Weekends – No support
Response Time Defined: The time it takes to review the issue and to make recommendation on repair strategy

E-1. Assumptions:
1. Support is available during normal University work hours: Monday – Friday, 7:30 am – 4:30 pm,
2. Assistance is provided through Help Desk via telephone, e-mail, or voice mail
3. After hours support does not exist for individual desktop/network service needs.
4. TSU will provide network connectivity in each residence hall up to the jack.
5. Students are required to install and configure all hardware and software on the desktop or laptop computer.

E-2. Metrics
1. Services will be measured by monitoring residence hall network infrastructure

2. CIT will publish helpdesk statistics including: the number of requests received for the following:

a. The number of requests received per semester
b. The number of requests resolved within 75 work hours
c. The average response time to all requests
d. The average time to repair all reported requests

E-3. Resources, Protocols, Responsibilities Defined

Network connectivity resources defined	Service Request Procedures	CIT Responsibilities	Student Responsibilities
1. Campus core, switches, cabling, and network jack required to provide residents access to the Internet.	1. In the event of a loss of service, the outage should be reported to the CIT Help Desk at 7777. 2. Help Desk determine the nature of the loss of connectivity. 3. If necessary, a work order will be entered to dispatch a technician to troubleshoot the problem with the network connection. 4. Requests are entered into the work order system and the user will be given a Work Order number. 5. Requests are serviced in the order they are received unless other circumstance dictate. 6. TSU personnel cannot install software on student computers or repair computers or printers belonging to students.	1. Provide a viable network infrastructure to the University residence halls and apartments. 2. Proactively test network infrastructure serving residence halls and apartments. 3. Provide appropriate level of network security to residence halls and apartments. 4. Provide tune-up clinics for students in residence halls and apartments that will assist students with hardware and software issues. 5. Provide a web presence concerning lab resources that is up-to-date. 6. On a regular basis, produce various publications about IT and related services. 7. Keep the SGA apprised of recommended changes in policies and procedures.	1. Use computer hardware and software recommended by the University so that connectivity can be optimal. 2. Abide by all by all relevant University IT policies concerning desktop hardware, software, and security. 3. Make backups of data files by storing on network shares or through local devices such as CD, DVd, tape, etc. 4. Install and keep up-to-date security software.