Hardware Planning Considerations

General Technology Planning

A strategic technology plan is an IT specific type of strategic plan that allows the organization to assess what state their technology is currently in, and plan for the organization's future technology needs. The plan should include current hardware and software inventory, an organizational needs assessment, upcoming business initiatives requiring technology support, and a proposed technology budget.

It is suggested that a technology strategic plan as described above be put in place and updated (at a minimum) on an annual basis.

Network Servers

Network servers provide centralized functionality within the organization's local area network (LAN). There are many types of servers: file servers, print servers, database servers, e-mail servers, application servers, etc. In smaller environments, many of these services are combined in one or more servers. The client workstations in the LAN depend on the services provided by the network server(s). When a single client workstation fails, it only affects one user. If a network server fails, it will affect a group of users or even the entire network. It is, therefore, important that network servers have a redundant storage array, are backed up on a regular basis and are adequately protected by a server-class Uninterruptable Power Supply (UPS). Servers should be checked on a regular basis to prevent failures. Proactive monitoring with e-mail or other alerts is preferred. In order to maintain a (critical) network server, it is essential that it is covered by the manufacturer's warranty. Depending on the environment (number of users, frequency of usage, types of services performed, etc), a network server should not be older than five years. Manufacturers will not extend the warranty after five years due to the (un)availability or high cost of older parts. Maintaining an older server will raise the total cost of ownership (TCO).

It is suggested that an IT network professional assess servers five years or older for capacity and functionality issues. An IT network and hardware professional can recommend exact sever specifications based on the existing server's use for the organization.

Workstations

Client workstations or PC's provide a workspace where employees can access documents on the network, use e-mail and access the Internet and perform other daily tasks. Depending on network policies and restrictions, workstations can be accessed by all users that have sufficient access using a username and password. In most cases, each user will have a dedicated workstation with a tailored desktop environment. It is recommended that workstations be connected to a surge protector or work-station-class battery backup.

The typical lifespan of a workstation is three to five years, depending on the configuration and the system requirements of the applications to be used. Older computers may not be able to support the newer operating systems. A company you are working with or a vendor may no longer be able to support your software system if it is outdated. It is recommended to keep workstations under manufacturer's warranty for at least three years.

As of October 2013, we suggest workstations have a minimum 2GB of memory, a hyper threading or dual core processor and at least a 100 GB hard drive to cover the use of personal email folders, personal documents, and any client productivity software that might be installed. In addition, it is recommended that workstations be placed on a 3-5 year replacement-rotation (staggered) schedule so that all stations are replaced on a regular basis. This schedule should be prioritized based on how much the workstation is used (daily for 8 hours a day vs. 4 hours a day, etc.).

Naming Computers

All computers have names that are set up when operating systems are installed. The computer name distinguishes each computer on the network. Organizations should adopt a naming standard when naming all computer networks.

There are a variety of naming standards and two common practices are location based standard and a user based standard.

- ConferenceRoom-1 would be an example of a location based standard.
- Jane-Smith would be an example of a named based standard.

There are other recommendations that discourage the use of personal names if you are not the only one using the computer. Pick a scheme that best suits the needs and complexity of your organization.
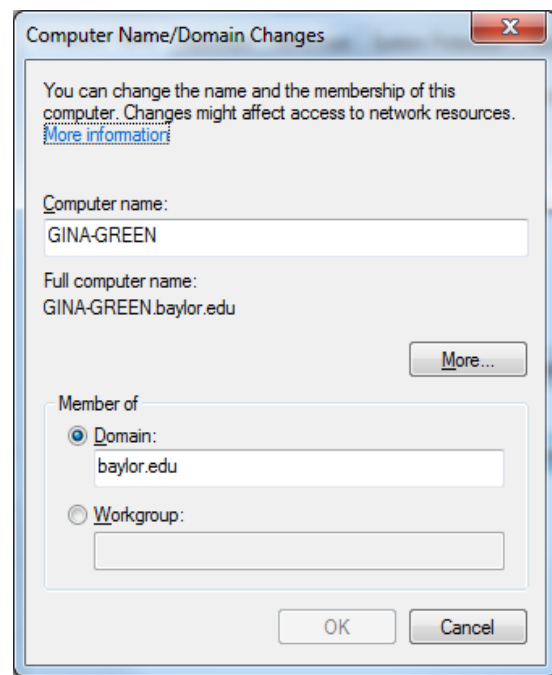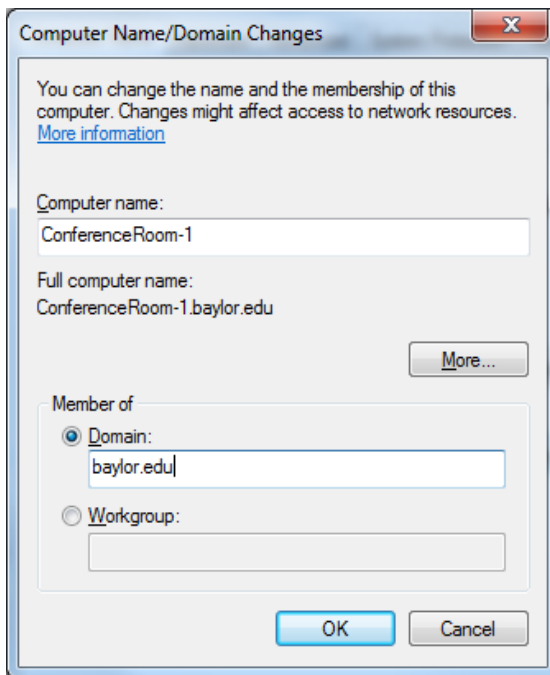
To change the name of your computer:

1. For Windows 7, right-click on Computer and select "Properties."

2. Once you scroll down you will see the name of your computer. To change the name of your computer click "Change Settings"
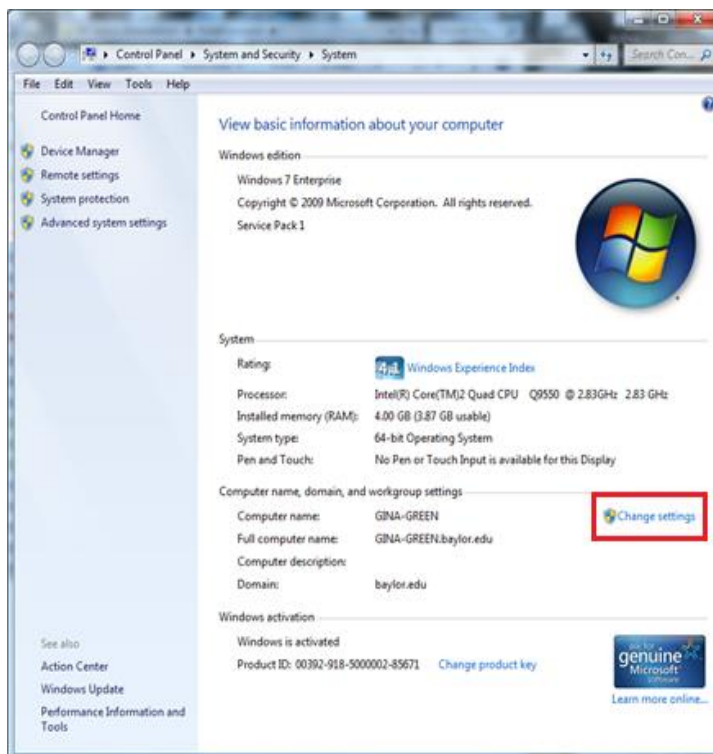
3. A System Properties window will pop-up and click on the Change button.
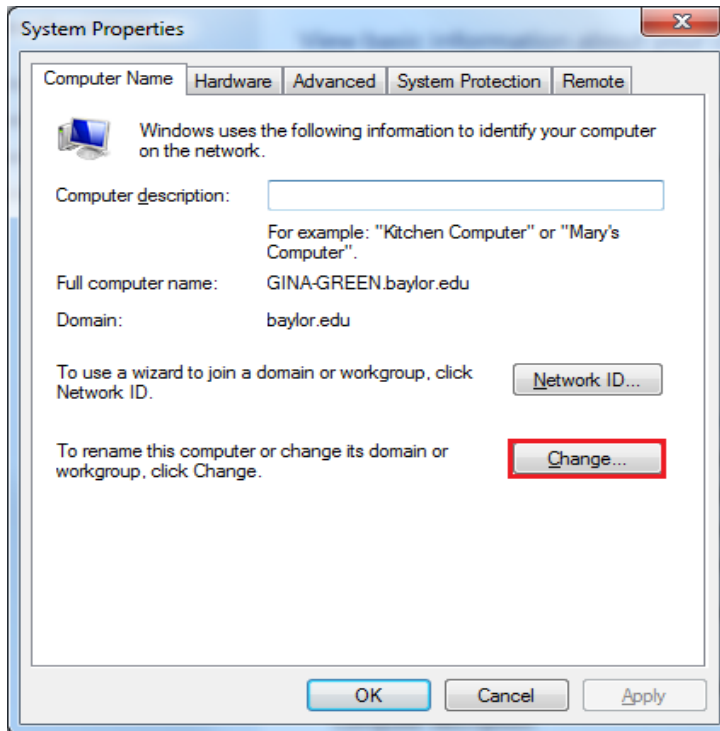
4. Change the name to a location based standard or a user based standard.

Hardware Inventory as of 05-01-2012

Location	Computer Name or Hardware Description	Manufacturer	Model	CPU speed	RAM	Serial Number	Acquisition Date	Replacement Date	Replacement Cost
Management									
ED	Ashley-Mills	HP	Compaq 6200	2120(3.30GHz)	4GB	MXL207286B	2012	2015	$650.00
AD	Charles-Smith				1GB	STY231DS	2012	2015	$200.00
Staff									
Bookkeeper	Sheldon-Williams	HP	Compaq dx7400	2.33 GHz	5GB	M8DSA24D	2009	2013	$1,000.00
Servers									
Server Room	Amy-Lane	HP	Compaq Proliant ML350		4GB	MLSE232WS	2009	2013	$2,700.00
Server Room	Grant-Johnson	HP	Compaq Proliant ML350		4GB	3CQ232SE86Q	2009	2013	$2,250.00
Printers									
Room 202	Breakroom LaserJet	HP	LaserJet 2055dn				2010	2016	$200.00
Room 651	ConferenceRoom LaserJet	HP	LaserJet 4250tn				2008	2014	$1,350.00
Small Equipment									
Room 202	Copier	Cannon	ImageRunner 4570			C-IR-32111000	2009	2016	$3,500.00
Server Room	Printer/Copier	Sharp	MX-5001N			SC329A1357	2010	2017	$12,000.00
Hardware Total									$23,850.00

Software Inventory as of 05-01-2012

Location	Vendor	Name	Operating System	Version	Number of Licenses	Acquisition Date	Replacement Date	Replacement Cost
All Servers	Microsoft	Small Business	Windows	2003 - Premium	1	2009	2015	$ 24,300.00
All Workstations	Microsoft	Small Business	Windows	2007	7	2009	2013	$ 2,000.00
ED & Bookkeeper	Intuit	QuickBooks Pro	Windows	7	2	2010	2016	$ 500.00
All Workstations	Microsoft	Office Standard	Windows	2010	7	2011	2014	$ 168.00
Software Total								$ 26,968.00