

Reference: Network Audit

Findings Overview:

An audit of the network systems and those computers joined and attached to the network while the audit was conducted produced the following findings:

1. It is the opinion of this firm that law firm of this size should have never been moved from Small Business Server to a full server.
2. The server system is set up in a RAID 1 configuration with two each 500 Gb hard drives. RAID 1 is the minimum redundancy for server systems and allows for what is written on one drive to be duplicated on the second drive. If one of the drives fails in a proper RAID 1 configuration, the secondary drive will boot and contain all the data of the primary drive. Failure of both drives could cause total loss of data and programs.
3. The primary partition on this configuration is 12 Gb for the operating system or OS, and it is separated by partitioning a section of the primary drive. The minimum recommendation by the Best Practices Guidelines of Microsoft is 40 Gb. This allows for installation of service packs and security updates. However, the current configuration does not allow for the growth of profiles, programs and other features that require installation on the OS partition.
4. The server was found to have been migrated from a Small Business Server (SBS) to a full Microsoft 2003 server system. This left registry information within the server that will inhibit the ability to move forward and must be cleaned up and removed.
5. No anti-virus was found on the server system during the audit. This may be because the anti-virus being used is Symantec Endpoint software which inhibits certain server and workstation functions, allowing for the free flow of data packets between the server and workstations.
6. The paging file on the server is located on the OS partition which is already constrained for space. Paging files act as additional Random Access Memory (RAM) for the server allowing it to offload information from the static memory to the hard drive for quick access and speeding up information flow. Best Practices states that paging files should be 2 x (RAM). In this case, the paging file should be set to 8 Gb and is currently only 2 Gb.

7. Nightly backups are being conducted using Yosemite software and a local tape backup system. Review of these backup shows they have been consistent in running without errors.
8. VNC software is installed on the server and should be removed.
9. Mail server not found nor was it installed on the primary server system. This can impact use of Time Matters and/or other applications that interact with Exchange for information dealing with clients.
10. The Dell Optiplex 755 computer system was purchased on 12/28/08 and has a 2.99 Ghz Duo Core processor and 4 Gb of RAM. This system is more than enough to support most office environments; however, the following was found to be installed and will radically affect the efficiency of the system and should be removed:
  - a. Multiple tool bars are installed on the computer system: Yahoo browser service and tool bar, MSN, Instant Messenger, Google tool bars, Rhapsody, Google Earth, and others.
  - b. Other applications that affect memory usage and startup of system: iPod music applications, BlackBerry applications, Google updater applications, WebEx applications, Apple mobile device application, Net Meeting service, and many others.
11. The computer named “ ” is a clone computer and has a 2.2 Ghz processor with 2 Gb of RAM. This system, depending on its use, can still be functional; however it has the same problems as the Dell Optiplex 755 with unrelated software installations that will affect the use of the system even more dramatically than the Dell and should be cleaned up. This system also has camera software installed that will have a major impact on startup.
12. The Sony Computer named “ ” is a notebook with a 2.2 Ghz Duo Core processor and 2 Gb of RAM. This system has some of the same issues as listed above and is running Microsoft Office 2003.
13. Connectivity to all workstations from the server is not at optimal speed and could be bottlenecked at the switch.

### Resolution Recommendations:

1. The server needs to be repartitioned to ensure that it meets the minimum recommendation of Microsoft.
2. The paging file needs to be increased to allow for faster swap files.
3. The remnants of the Microsoft SBS should be removed from the server system. This could be a major undertaking in the clean-up process.
4. Recommend that the entire office and server system be moved to Eset NOD 32 virus software system for full protection and standardization.
5. An Exchange server system should be considered for installation.
6. Replace current switch with a 10/100/1000 fast Ethernet switch.
7. Remove software not required for operations and turn off the services that this software creates.
8. All workstations that were examined should be cleaned from all but one toolbar, and non-work related software should be removed or placed on a non critical computer system. This is primarily referring to camera software, BlackBerry software, and other mobile device software that have a large memory requirement. While each computer has iTunes installed and all of the related software associated with the program, this should not impact the overall performance of the system. If the user is not using the software, it should be removed.
9. Recommend considering remote backup solutions to ensure data integrity.