

Extra tasks:

1. Unnecessary services

Examine which services are running on the gateway and the server, how they are started and which ports they use. Disable services you don't explicitly use. You should have a list of the services that you disabled on each system.

2. DHCP

The client machine, and visiting machines if any, should automatically be assigned IP addresses and other network settings that are required for communicating over the network. The automatically assigned IP addresses should also have entries in your DNS. The system responsible for this automatic allocation of IP addresses should log leasing (i.e. time, MAC-address and IP address) information. The automatic IP allocation service should be started automatically when the system boots, and should be shut down gracefully at system shutdown. Make sure your service does not accept automatic assignment requests from outside your own network.

3. HTTP proxy

Set up and properly configure a transparent web-caching service on the gateway system that caches standard web traffic initiated by computers on your internal network. Ensure that the service is started automatically on reboot and logs usage information.

4. File sharing between Windows and UNIX

Set up a file serving service on your server that allows users on the client machine to mount their home directories. Each user on the server should have a home directory that is mountable (readable) from the client by that user only. The remotely mounted home directory should coincide with the home directory of the user on the server. Any method that works is allowed, even those that require extra software to be installed on the client computer. The file serving service must not be reachable from computers outside your own internal network and should be started automatically when the system boots and shut down gracefully when the system shuts down.

5. PHP configuration

Configure your web server so that it can serve PHP generated pages. Use two PHP pages - one that is viewable on clear-text connections and one that is only accessible via SSL connections. The content of the PHP pages is insignificant i.e. "Hello World!" is plenty.

6. Web mail

Set up a web based mailing service on the server system that allows users to send and receive mail using a web browser. The service should only be accessible through secure (SSL) connections.

7. PKI

Generate a pair of ssh keys for each group member and enable the usage of these keys for ssh logins from the client machine to the gateway or the server.

Create a digital certificate for each member of you group for signing your email messages. The certificates should be signed with your own CA certificate. Then configure your email client to use this certificates and sign the outbound emails.