Unix for Telecommunications

Portfolio Task – P-Lab-09-Samba
Pass Level Task

I. Introduction

In this lab you will configure a Samba server to offer a number of shared directories on your RULE host. These directories will be privately accessible to the nominated users of those shares only.

II. Purpose

To gain and/or enhance the following practical skills:

- Deploying and configuring Samba server to offer a number of shared directories to Windows hosts
- Understand issues relating to service configuration
- Process and respond to error messages in log files
- Configure services to auto-start in Unix

III. Preparation

You can prepare for this lab by reading some of the Samba documentation available at http://www.samba.org/.

IV. Methodology

A. Samba Introduction

1) Examine the Samba web site listed above.
2) Samba has already been installed on your RULE host – how would you go about installing it under FreeBSD.
3) From reading the Samba documentation, locate:
   - The primary Samba configuration file.
   - How to start and stop Samba using the FreeBSD init scripts.
   - How to ensure Samba starts automatically at system boot.

B. Basic Samba Configuration

1) Set the workgroup name to `MSHOME`
2) Set the server string to `ruleXX.caia.swin.edu.au` (where `XX` is the number of your RULE host).
3) Set the security method to `users` and for passwords to be encrypted.
4) Ensure that the hosts allowed to access Samba shares include (at least) your Windows PC, your alternate RULE host and the RULE primary server. To simplify tasks you may wish to allow connections from any host in the Rule subnet or even from any host in the Swinburne LAN.
5) Please note that since Samba version 4.5, default values have changed regarding NTLMv1 authentication. You will now need to manually enable this in order to complete your task

C. Create Users

1) You already have the `student` and `root` accounts on your RULE host. Create a new user with the username `samba` – it is your responsibility to research how to create user accounts under FreeBSD
2) Samba maintains a password database for Samba connections that is separate to the Unix system password database. This password database is maintained using the command "`smbpasswd`". For each user account you wish to make accessible via Samba, you need to create a corresponding Samba account and password. Now create a Samba account for the user `samba`.

3) Create a second system and Samba user account with the username `autocollector` and the password `autocollector`

D. Creating Shares

Create a home share for each Samba user, the local (Unix) path to the shared directory should be "`/home/<username>`", each home directory should only be accessible to users who log on using the correct username/password combination. The authorised user should have read/write access to this share

E. Testing your Configuration

1) You should be able to connect to your Samba share from your Windows computer in the lab. Please note the following:
   - Windows will cache your password when you connect to a network share, this can be annoying when you want to connect as different users. When you wish to change the user you connect to your rule host, you need to disconnect using the command `net use \\rulexx.caia.swin.edu.au /delete`
     Note: *that Windows Explorer may cache the connection info, you may need to close Explorer, execute the above command and then restart Explorer.*
   - If the logon process does not work you should explore the Samba log files to locate why and fix the problem from there.
   - If the logon succeeds but you do not appear to have the correct access rights, again look for the Samba log entries to see what is going wrong.
2) As user `samba` you should:
   - Be able to access the `home` share.
   - Any files copied to this share (from Windows) should be placed in "`/home/samba`" on your RULE host.
3) As user `autocollector` you should:
   - Be able to access the `home` share.
   - Any files copied to this share (from Windows) should be placed in "`/home/autocollector`" on your RULE host.
4) It is your responsibility to ensure both users have full read/write access to the connected shares, that shares are mapped to the correct corresponding directories on the rule host, and that users do not have access to shares they are not supposed to have access to.

V. Assessment

The due date for completion of practical work is **11:00pm**, exactly **six** days after your scheduled class.

Note: *The nominated submission day/time holds regardless of whether that day is a non-teaching day or public holiday*

A. Self Assessment

You can self-assess your progress at any time via the marking script available at http://ruleprimary1.caia.swin.edu.au

B. Completion of task in Doubtfire

Download the PDF output of the marking script from http://ruleprimary1.caia.swin.edu.au and submit it to Doubtfire. Your tutor will confirm completion of the lab by examing the rule marking log files on the rule server.

If you complete the task during class beforehand, you may demonstrate completion in class to your tutor.

Note: *The downloaded PDF is not evidence of successful completion of the lab, it is a document to demonstrate completion within your portfolio. Your tutor will assess the evidence via either direct confirmation via the marking script or via the log files generated when you run the marking script*

C. Tutor Discussion

In order for the submission to be marked as complete, you must discuss your work with the tutor