Due: Dec 3, 2018. Midnight.

Overview

In this assignment, you will be installing a (somewhat) secure Apache server. There are two main components for the assignment. Installing a self-signed SSL certificate, and creating groups and permissions for the files:

Server

In the project that you created for the other assignments, create a Linux Server called "asn5-server". It is up to you which distribution of Linux you choose as long as you remember to allow https traffic. The resource "Apache on Ubuntu Linux" should provide you with the overall architecture of Apache file system and where the config files are located.

To get started on the server setup, have a look at the "Creating self-signed certificate" link provided. This guide provides the general steps you will need to follow to self-sign certificates on your server.

Create two folders "web1" and "web2" under your root directory. Both should listen for HTTPs requests. Create a different webpage under each directory; they don't have to be extravagant. For example, you can display the words
welcome to web1 and
welcome to web2
to differentiate the two pages.

Authentication

We will now add some basic authentication to our two folders. A basic authentication can be set up by using a .htaccess file (stored in each folder) to override the defaults (which is no authentication). For more information on this, please see the resources "Adding user groups in Apache". Create two groups grp1, and grp2 with the following users:

User	Password	Group
as1	1234	grp1
rp2	5678	grp1
ts3	4321	grp2
we4	8765	grp2
Bn5	9999	grp2

Configure the server so that only grp1 can access the *web1* folder and only grp2 can access the *web2* folder, using basic authentication.

Submission

Be sure to turn off your virtual machines before the submission date. Similar to past assignments, we will simply turn on the virtual machines for your server, then click on the external IP of your application and append **/web1** and **/web2** to the URL. We should then be able to login to the folder.

Marking Scheme

SSL certificate installed and working: 5 Marks
web1 and web2 folders set up properly: 5 Marks

THE END