



## CYB 300 Module Four Lab Worksheet One

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### 4-2 Lab Worksheet One: Certification Configuration and Management

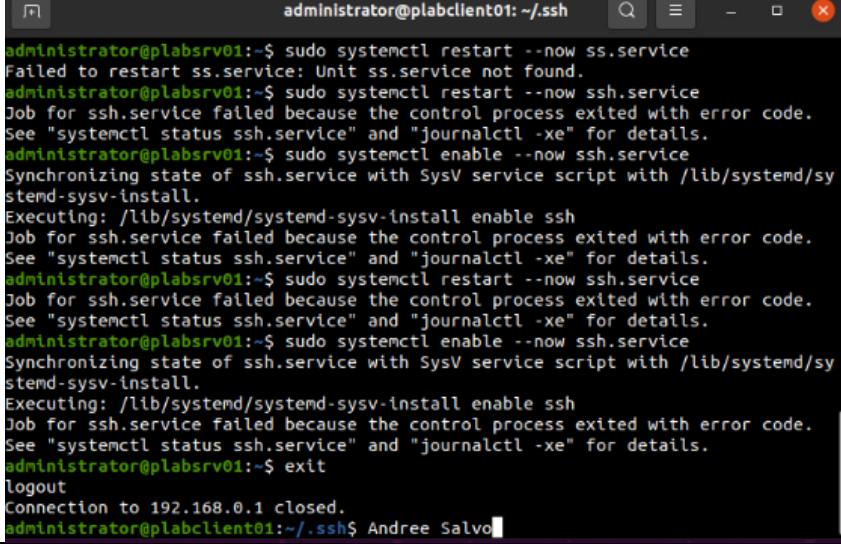
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#### Lab: Certification Configuration and Management

##### Exercise 1: Enable Certificate-Based Authentication

Prompt	Response
Task 1: Take a screenshot of step 7 showing ssh active and running. Add your name in the command line.	<pre>[Administrator@plabsrv01 ~] keychain libpam-ssh monkeysphere ssh-askpass molly-guard The following NEW packages will be installed:   ssh The following packages will be upgraded:   openssh-client openssh-server openssh-sshd-server   3 upgraded, 1 newly installed, 0 to remove and 262 not upgraded. Need to get 1,105 kB of additional disk space. After this operation, 138 kB of additional disk space will be used. Do you want to continue? [Y/n] y Get:1 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 openssh-sshd-server amd64 1:8.2p1-4ubuntu0.13 [51.6 kB] Get:2 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 openssh-server amd64 1:8.2p1-4ubuntu0.13 [378 kB] Get:3 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 openssh-client amd64 1:8.2p1-4ubuntu0.13 [670 kB] Get:4 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 ssh all 1:8.2p1-4ubuntu0.13 [5,080 B] Fetched 1,105 kB in 1s (1,466 kB/s) Preconfiguring packages ... (Reading database ... 71702 files and directories currently installed.) Preparing to unpack .../openssh-sshd-server_1%3a8.2p1-4ubuntu0.13_amd64.deb ... Unpacking openssh-sshd-server (1:8.2p1-4ubuntu0.13) over (1:8.2p1-4ubuntu0.4) ... Preparing to unpack .../openssh-server_1%3a8.2p1-4ubuntu0.13_amd64.deb ... Unpacking openssh-server (1:8.2p1-4ubuntu0.13) over (1:8.2p1-4ubuntu0.4) ... Preparing to unpack .../openssh-client_1%3a8.2p1-4ubuntu0.13_amd64.deb ... Unpacking openssh-client (1:8.2p1-4ubuntu0.13) over (1:8.2p1-4ubuntu0.4) ... selecting previously unselected package ssh. Preparing to unpack .../ssh_1%3a8.2p1-4ubuntu0.13_all.deb ... Unpacking ssh (1:8.2p1-4ubuntu0.13) ... Setting up openssh-client (1:8.2p1-4ubuntu0.13) ... Setting up openssh-sshd-server (1:8.2p1-4ubuntu0.13) ... Setting up openssh-server (1:8.2p1-4ubuntu0.13) ... rescue-ssh.target is a disabled or a static unit, not starting it. Setting up ssh (1:8.2p1-4ubuntu0.13) ... Processing triggers for systemd (245.4-4ubuntu3.15) ... Processing triggers for man-db (2.9.1-1) ... Processing triggers for ufw (0.36-5ubuntu1) ... admin@plabsrv01:~\$ sudo systemctl status ssh ● ssh.service - OpenBSD Secure Shell server   Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)   Active: active (running) since Sat 2025-07-26 06:07:01 UTC; 20s ago     Docs: man:sshd(8)           man:sshd_config(5)   Main PID: 3895 (sshd)      Tasks: 1 (limit: 2290)     Memory: 1.2M       CGroup: /system.slice/ssh.service               └─ 3895 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups  Jul 26 06:07:01 plabsrv01 systemd[1]: Starting OpenBSD Secure Shell server... Jul 26 06:07:01 plabsrv01 sshd[3895]: Server listening on 0.0.0.0 port 22. Jul 26 06:07:01 plabsrv01 sshd[3895]: Server listening on :: port 22. Jul 26 06:07:01 plabsrv01 systemd[1]: Started OpenBSD Secure Shell server. admin@plabsrv01:~\$ Andree Salvo.</pre>

##### Exercise 2: Configure Server Keys SSH Certificates for Authentication

Prompt	Response
Task 2: Take a screenshot of <b>Step 6</b> showing successful ssh update and new key installation. Add your name in the command line.	 <pre>administrator@plabclient01:~/ssh\$ sudo systemctl restart --now ss.service Failed to restart ss.service: Unit ss.service not found. administrator@plabclient01:~/ssh\$ sudo systemctl restart --now ssh.service Job for ssh.service failed because the control process exited with error code. See "systemctl status ssh.service" and "journalctl -xe" for details. administrator@plabclient01:~/ssh\$ sudo systemctl enable --now ssh.service Synchronizing state of ssh.service with SysV service script with /lib/systemd/systemd-sysv-install. Executing: /lib/systemd/systemd-sysv-install enable ssh Job for ssh.service failed because the control process exited with error code. See "systemctl status ssh.service" and "journalctl -xe" for details. administrator@plabclient01:~/ssh\$ sudo systemctl restart --now ssh.service Job for ssh.service failed because the control process exited with error code. See "systemctl status ssh.service" and "journalctl -xe" for details. administrator@plabclient01:~/ssh\$ sudo systemctl enable --now ssh.service Synchronizing state of ssh.service with SysV service script with /lib/systemd/systemd-sysv-install. Executing: /lib/systemd/systemd-sysv-install enable ssh Job for ssh.service failed because the control process exited with error code. See "systemctl status ssh.service" and "journalctl -xe" for details. administrator@plabclient01:~/ssh\$ exit logout Connection to 192.168.0.1 closed. administrator@plabclient01:~/ssh\$ Andree Salvo</pre>