**Linux Firewall Exploration- Task 1**

Completed by Eric Adamian

VirtualBox IP addresses:

|  |  |  |  |
| --- | --- | --- | --- |
| Virtual machine: | MachineA | MachineB | MachineC |
| IP address: | 10.0.2.21 | 10.0.2.22 | 10.0.2.23 |

Test: UFW installed on Ubuntu:

A screenshot of a cell phone

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**Observation:** Properly installed (path found), but only enabled under root account

Test: Machine telnet connection

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**Observation:** Machine A and Machine B were able to telnet to one another (VM login: seed, Password: dees)

**Task 1: Using Firewall**

Explanation: Enabling firewall between 2 virtual machines, along with an external website

**Step 1:** Update default policy file /etc/default/ufw (DEFAULT\_INPUT\_POLICY=“DROP” to DEFAULT\_INPUT\_POLICY=“ACCEPT”) (Machine A and Machine B)

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**Step 2:** Ensure default policy file using “sudo vi /etc/default/ufw” (Muachine A and Machine B)

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**• Prevent A from doing telnet to Machine B**

**Step 3:** Add firewall from Machine A to Machine B: sudo ufw deny out from 10.0.2.21 to 10.0.2.22 port 23; run root account to ensure status of firewall (Machine A)

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Before adding firewall

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After adding firewall

**Step 4:** Enable the firewall, and telnet from Machine A to Machine B (Machine A)

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**Observation**: Machine A unable to telnet to Machine B; **UFW firewall correctly enabled**

**• Prevent B from doing telnet to Machine A**

**Step 5:** Add firewall from Machine B to Machine A: sudo ufw deny out from 10.0.2.22 to 10.0.2.21 port 23; run root account to ensure status of firewall (Machine B)

A screenshot of a computer screen

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**Step 6:** Run telnet from Machine B to Machine A (Machine B)

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**Observation**: Machine B unable to telnet to Machine A; **UFW firewall correctly enabled**

**• Prevent A from visiting an external web site. You can choose any web site that you like to block, but keep in mind, some web servers have multiple IP addresses.**

**Step 7:** Obtain IP address of external website using “ping” command (Machine A)

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**Step 8**: Place firewall from Machine A to external website using IP address (Machine A)

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**Observation**: Machine A unable to telnet to external website; **UFW firewall successfully enabled**