

Topics:

DDoS: Network DoS, Common tools used for DoS, Specific DoS attacks, Land attack, DoS mitigation

Links:

<https://classroom.udacity.com/courses/ud199/lessons/9131800005/concepts/92283448180923>

<https://www.guru99.com/ultimate-guide-to-dos-attacks.html>

<https://www.team-cymru.com/ReadingRoom/Whitepapers/2010/ddos-basics.pdf>

<https://github.com/ACM-NITK/ACM-CyberSecurity/tree/master/src/Week2/11.Security.pdf>

Assignment:**Defending Against Specific Denial of Service Attacks**

1. Using the Web or other tools, find a DoS attack that has occurred in the last six months. You might find some resources at www.f-secure.com.
2. Note how that attack was conducted.
3. Write a brief explanation of how you might have defended against that specific attack.

Case Study

Runa Singh is the network administrator in charge of network security for a medium-sized company. The firm already has a firewall, its network is divided into multiple segments separated

by routers, and it has updated virus scanners on all machines. Runa wants to take extra precautions to prevent DoS attacks. She takes the following actions:

- She adjusts her firewall so that no incoming ICMP packets are allowed.
- She changes the web server so that it uses SYN cookies.

Now consider the following questions:

- Are there problems with any of her precautions? If so, what are the problems?
- What additional steps would you recommend to Runa?

Answer the following questions:

- 1) What can you do with your firewall to defend against DoS attacks?
- 2) Why will protecting against Trojan horse attacks reduce DoS attacks?
- 3) What are three methods for protecting against SYN flood attacks?