

The Computer Security Environment Today

Objectives

- Discuss what threats we see today
- Explain how vulnerable we really are
- Discuss the hope we have in battling risk

Where We Are Today

- We are always connected
- We have at least 2 devices that receive internet close to you right now
- We have apps for everything!
- We bank online
- We watch TV online
- We pay our taxes online
- We communicate with others online

The Devices We Have...

- We use smart phones
- We use smart watches
- We use smart cars
- We use smart TVs
- All these assets are connected. They are all online.
- All devices and the way we use them have the potential to become vulnerable in some way.

Within The Past Week...

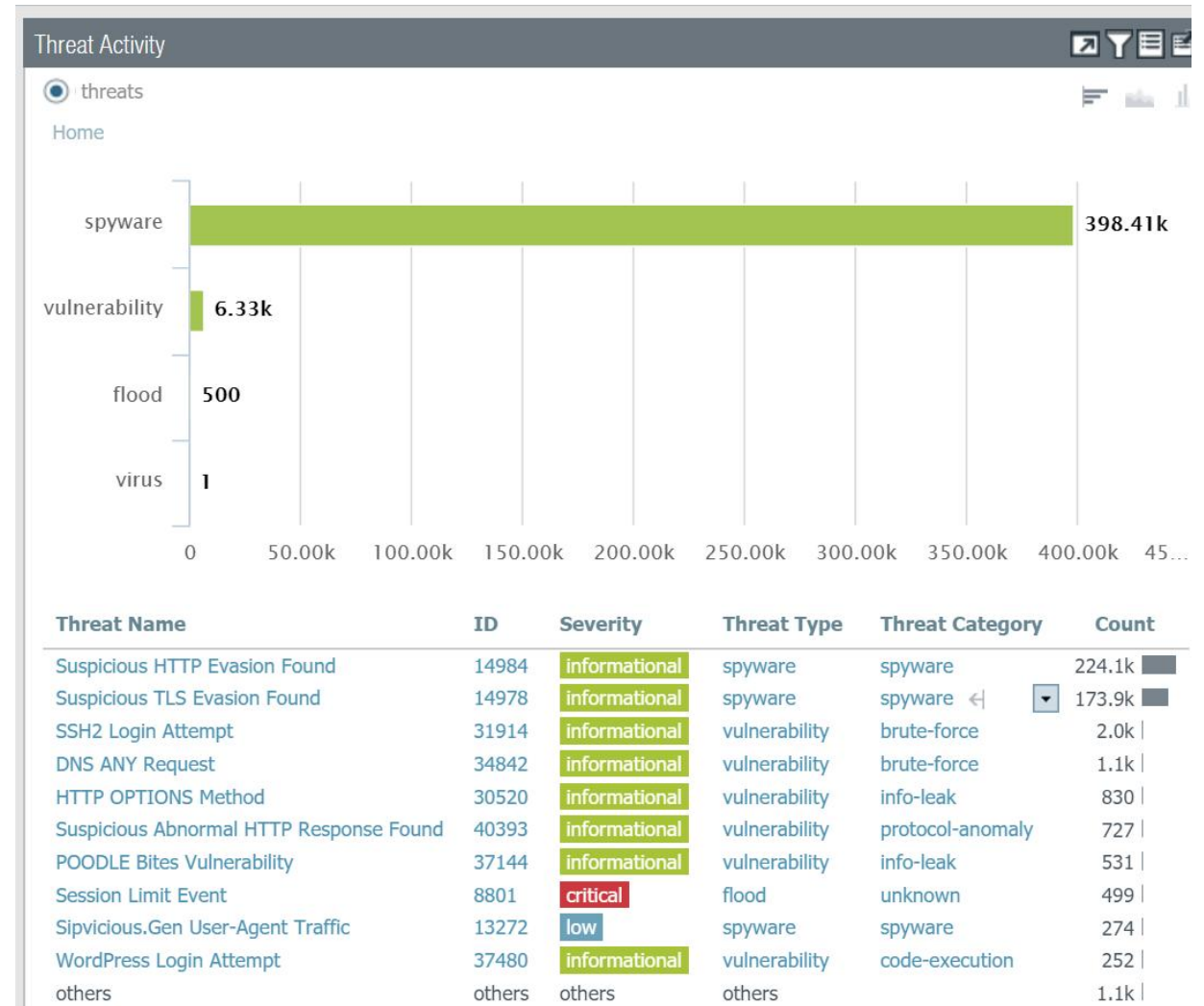
- Within the past week I have:
 - Been sent phishing emails
 - Received calls from “Microsoft” saying that I have a virus on my computer
 - Seen someone in the data center that I didn’t know who they were, but they had credentials
 - Had to deal with a security incident in which student data may have been accessed – it wasn’t.
 - Fixed bugs in a system
 - Learned how to increase security in some way

So WHAT?

- The point I'm trying to make is that computer security is every bit a part of who we are
- We all have devices that need protecting
- We all have information that needs to be protected
- There are threats out there that we may encounter

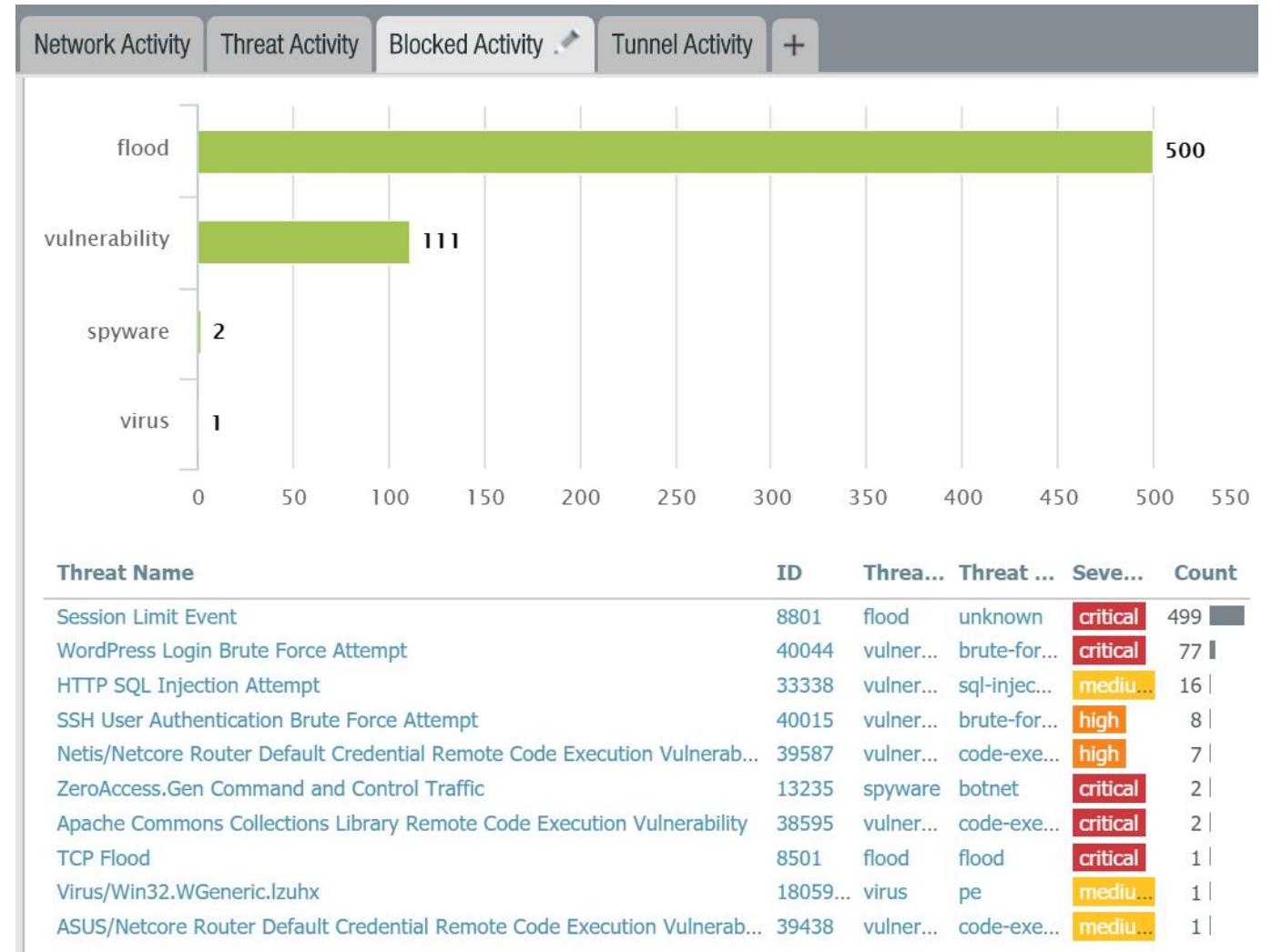
What's on my radar today?

- These are the firewall hits.
- In the middle of the summer.
- Without students.
- For a one hour time period!



Perhaps these aren't as serious or are they?

- Once again, only 1 hour time period!
- Maybe we should investigate these...



The Challenges

- Computer security is not simple. It takes time to understand. You have to learn both theory and learn through example.
- When deploying services or systems, there are always going to be vulnerabilities. How can you account for them when the system is being designed or implemented
- It is necessary to balance security with practicality and productivity
- Security is a constant battle against those who want to do harm
- Information is everywhere – knowing when to use it and not use it or how to protect it is a full time job
- The security field is so hot right now it's difficult to keep good people

There is HOPE!

- First, you taking this course to learn about the practical side of security
- Second, the security field has near 0% unemployment. We need the best and the brightest to fight the adversaries out there
- Software and tools are becoming better at mitigation
- We must remain vigilant!