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Lecture 66

- 1. Pretty Good Privacy, a security protocol
- 2. Because solutions at the time were pretty bad and the government could crack them
- 3. Yes, from a variety of standpoints
- 4. To continue development and ensure that the level of quality remains good

Lecture 67

- 1. PGP authentication is as follows:
 - a. Sender creates a message M
 - b. Sender generates a hash of M
 - c. Sender signs the hash with private key and prepends the result to the message
 - d. Receiver decrypts the hash with sender's public key
 - e. Receiver generates a hash of M and compares it to the decrypted hash from sender
- 2. PGP confidentiality is as follows:
 - a. Sender generates a random session key K and encrypts message M with it
 - b. K is encrypted with Recievers public key and then prepended onto M
 - c. R decrypts K with its private key and then uses K to decrypt M.
- 3. Do both protocols

Lecture 68

- 1. Compression, email compatibility, segmentation
- Compression is needed to reduce bandwidth usage for sending messages over the internet
- 3. So the decryption protocol doesn't depend on the compression algorithm
- 4. Radix 64 is needed for email encryption
- 5. Segmentation is needed to break up the message

Lecture 69

- 1. There are four kinds used by PGP
- 2. Sessions have special properties
- 3. Session keys are generated by the unique random number generator similar to UUID
- 4. RSA keys and session keys are generated in the same way.
- 5. Private keys are protected so that no one can impersonate somebody

Lecture 70

- 1. He tries every single combo until he unlocks it
- 2. All your private keys are there
- 3. All your public keys are there
- 4. You just pop the key off
- 5. To ensure the key is legitimate from the correct source.
- 6. You generate a new key so that old keys don't work anymore

Lecture 71

- 1. Consumer problems have to do with consuming things that should be secure where as producer problems have to do with producing things that should be secure.
- 2. Syn flooding is when you flood everything in your message with synergistic synergy.
- 3. Because they're not time efficient or space efficient.

Lecture 72

- 1. Filtering thru all packets could ascertain which packets are harmful
- 2. Intrusion detection is when intrusions are detected where as intrusion prevention prevents intrusions
- 3. There's a couple of ways to DDOS which means there is a DDOS here and a DDOS there and there's a DDOS every where.

Lecture 73

- 1. False positive is when you think something is penetrated but its not, false negatives is when you think something doesn't penetrate but it does. It depends on the situation.
- 2. Accuracy is when something is close to the correct value but precision is when you repeatedly get the same value
- 3. You can't have both
- 4. Base rate fallacy is the argument that the base rate is either accurate or precise but not both

Lecture 74

- 1. Determine when something has gone wrong
- 2. It didn't do that well enough
- 3. A worm is memory resident when it saves itself into memory
- 4. It prevented memory resident worms

Lecture 75

- 1. It improved upon previous version by a large degree since it was more robust and powerful
- 2. To better solve the problem of worm holes in space which wasn't prevented before
- 3. Code Red II was all about the prevention of security since it was there
- 4. That would effect the efficacy of the algorithm
- 5. They learned that Code Red protocol wasn't enough to prevent what they needed to prevent

Lecture 76

- 1. To ensure that everything is double checked by a third party
- 2. You have to evaluate many aspects of a program/app like its input, its output, and how it saves data
- 3. You need a seperate evaluation mechanism for crypto to take into account for the cryptography which throws off the whole evaluation from before
- 4. There are four levels for the certification process.

Lecture 77

- 1. The common criteria is the criteria in which all apps must meet
- 2. Since all programs have input/output then it must meet the criteria for those aspects
- 3. National schemes determine security based on a nation's laws

4. Protection profile specifies data for each object being protected, whereas a security target marks out which targets might be infilitrated.

Lecture 78

- 1. There is an overall goal for the protection profile of WBIS
- 2. There are various parts of the protection profile of WBIS
- 3. The matrix identifies the various parts and how they contribute the overall goal

Lecture 79

- 1. Sun identitiy manager manages identities because it has the ability to do so.
- 2. There's quite a bit of difference in between the two types so it should be pretty clear to be honest.

Lecture 80

- 1. EALs are not even close to being correct even though they might mean something to someone.
- 2. Common Criteria is evaluated by an independent third party since most places are aware of the common criteria.
- 3. They are not recognized by people since it is not prevalant.
- 4. No since they cannot be trusted to secure their own things.
- 5. Because it may not be an accurate representation of the model.