

116: Attacking Networks

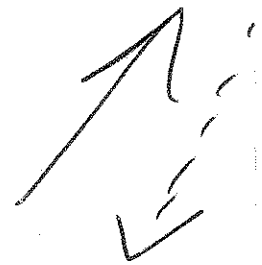
- ① ARP → switched vs. unswitched networks
 - ② Types of network attacks
 - ③ Goals of attacks
 - ④ Sniffing
 - ⑤ Detecting sniffers
 - ⑥ Defending sniffers
 - ⑦ What about switched networks
 - ⑧ To learn: Ruby
 - ⑨ Next class: TEP
- ARP redirection + ARP poisoning

A:
IP: 192.168.0.100
MAC: 00:00:00-AA-AA-AA

B:
IP: 192.168.0.200
MAC: 00:00:00-BB-BB-BB

ARP cache:
192.168.0.200 @
00:00:00-FA-CA-DE

ARP cache:
192.168.0.100 @
00:00:00-FA-CA-DE



Malom:
IP: 192.168.0.137
MAC: 00:00:00-FA-CA-DE

ARP cache:
192.168.0.100 @ 00:00:00-AA-AA-AA
192.168.0.200 @ 00:00:00-BB-BB-BB

ARP redirection
ARP^{cache} poisoning

197: #FAIL

The Reality

- ① Majority of projects fail
(yes, software)
- ② Cost of #FAIL over course of history is incalculable

The Reasons

- ① Feature creep (recall game dev)
- ② Constant reestimation
- ③ Redesign and rewrite during testing
- ④ No documentation of design decisions
- ⑤ Didn't account for security until the end
- ⑥ Didn't test until the end
- ⑦ Didn't know domain knowledge well enough
- ⑧ Didn't know customers and needs well enough
- ⑨ No users
- ⑩ Hardly any documented project plan
- ⑪ Didn't use revision control
- ⑫ Personality issues

Effects of #FAIL

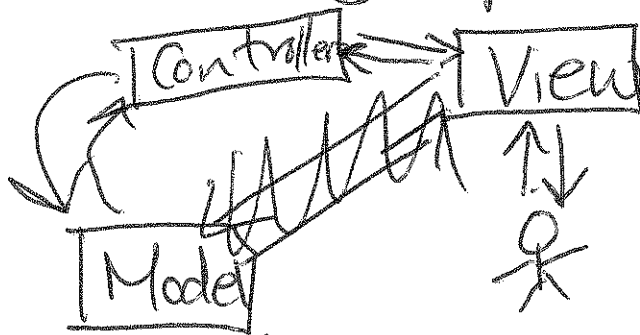
- ① Low quality & reliability
- ② Delays
- ③ Cost overruns
- ④ Unfinished project
- ⑤ Vapourware
- ⑥ Tarnished reputation
- ⑦ Legal issues, lawsuits

Fact to the matter is, SE is

- ① People interaction is paramount
- ② Ability to write and communicate well will set you apart
- ③ Never built from scratch
- ④ Never reinvent the wheel
- ⑤ Complex really fast

120: MVC, Model-View-Controller

- ① Review exercise
- ② Design pattern (theory)
 - Reusable practice for designing software
 - Proven way, benefits
 - Used by many
 - Risks are known
 - Avoids reinventing the wheel
- ③ MVC
 - Software architecture design pattern



- ④ Frameworks that Use MVC
 - iOS
 - Android
 - Backbone.js
 - ASP
 - Spring (Java)
 - Ember
 - Angular
 - Django
 - Rails

