Packet Tracer Workshop
Lingen – May 2012

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Schedule

- Social Networking - The Net & the Community
- Layer 1 Let’s get physical
- Layer 2 Let’s go Bridging
- Layer 3 PTBridge as Router
- Layer 7 PToMAC
- Q&A
Social Networking – The Net & The Community
Social Networking
The Net & The Community
• Go to Academy Connection
• Go to „New Communities“
• Select PT Community
Layer 1 - Let's get Physical
Packet Tracer - Modes

• Logical (Default)

• Physical
  o Background pictures
  o Cable length
  o Wireless coverage
  o LAB01
    ▪ Place Devices
      – Switch, Access Point
      – PC, Laptop
    ▪ Select background
    ▪ Move Devices

• Realtime (Default)

• Simulation
  o Packet Inspection
  o Filter
Layer 1 - Let’s get Physical
Layer 1 – Let’s get physical (howdy??)

- Choose Physical (Upper left corner)
- Create Buildings, Wiring Closets, Move Object around
- User backgrounds, scale them (meter/pixel) — i had to multiply by 10!
- Click on the cable,
  - insert & remove bendpoints
  - Choose colour

![Diagram of interface with buttons: New Closet, Move Object, Grid, Set Background]
Layer 7 – Let’s Go Bridging
Let’s go Bridging

• Interconnect PT with the Real World

• Prerequisites:
  o PT V5.3.3
  o Java either JRE or SDK V1.7.03
  o WinPcap (comes with WireShark) V4.1.2
  o JnetPcap (put .dll into app-path) V1.3.0
  o PT533Bridge-1.0.11
PTBridge – Architecture

PacketParser (PTBridge)

TCP:38000

PacketIPC (MultiuserConnection)

Pcap API (jnetpcap)

Via cmd.exe: java –jar PTBridge….

Pcap Driver

Wireshark

the wire

PTIPC

PT 5.3.3

Cisco Networking Academy
Mind Wide Open™
Layer 2 – Lets go Bridging (Cont.)

• Pitfalls
  o Runs on Windows (LINUX not tested yet-requires other jnetpcap)
  o Does not implement all protocols – feel free to add others
  o WinPcap is somewhat limited (does not run smoothly on WLAN interfaces)

• Howdy?
  o Start PT with defaults (esp. Multiuser settings)
  o Extract PT533-Bridge-1.0.11.zip into some directory
  o Run `java –jar PT533-Bridge-1.0.11.jar` from that directory
  o Look at the output: at least some interfaces should be listed; use the appropriate interface-id in the next command as if-id
  o Run `java –jar PT533-Bridge-1.0.11.jar localhost 38000 Peer0 cisco [if-id]`
  o Connect wires to the appearing multiuser cloud in PT (crossover)
  o Check by pinging outside devices
Demo....

Check the Portal for 2 introduction videos
Layer 3 – PTBridge as Router
PTBridge as Router

• Just a bit more complex
  The router is routing!
Demo....

Check the Portal for 2 introduction videos
PTBridge – to be continued

- Implement more parsers/translators!
- You need pt-cep-java-framework
- You need Java Development Environment (eclipse)
Layer 7 - PToM on Mac
PTonMAC

- runs on PlayonMac (tested on LION)
- Use Andrew Smith’s doc from the portal (thanks Andrew)
- get WINE v1.2 1st
- Install on new virtual drive
- may require WINE v1.2
- choose path to .exe
- Do not run PT as last step!
PTonMAC V2

• Use Wineskin Winery (thanks Henryk)
• Install PT without running it as „PT“
• Browse to Application folder
• Open „PT“ with „show package content“
• Select „advanced“ → „Tools“ → „Winetricks“ → „dll“
• Select vcrun2008 Visual C++ 208 libraries
• Have Fun!
• Close package
PTonMAC - Caveats

- Multiuser is probably not working
- Remove PTUpdater from the extensions directory
Scoring - Scripting
Scoring

- Select Advanced Profile
- Goto answer network
- Select „Scoring Model“
- Define Work Product Features
- Define Scoring Rules
- Check under Scripting → Data Store
Q&A.....
Thank you.