



Introduction to Emulab

W W W of EMULAB

- Who came up with Emulab???
- What is Emulab???
- Why something like EMULAB??

What is EMULAB!!!

- Emulator (wherein u'll use a simulator 😊)
- A facility to run large scale experiments.

Why Do we Need Emulab

- ◆ Real world experience
- ◆ Scalability test

Internals of Emulab

- Hardware facilities
 - ◆ Types of Nodes (pc600/850)
 - ◆ Ethernet cards
- Software features
 - ◆ Default OS provided (Linux-RHT, BSD)
 - ◆ OS IMAGE : WHY DO WE NEED THIS, and how does it work

OS – IMAGE Generation

- Delta: Another name for Od-image creation

e.g. :

- *sudo /usr/local/bin/create-delta proj/testbed/foo.delta*
 - ◆ *Sudo* → *root permission*
 - ◆ *Create delta* → *creates an image of the OS*
 - ◆ *foo.delta* → *file which will be accessed to load*

Using Emulab

- How do I get an account ? ? ?
- How do I create an *experiment* ?
- How do I generate topologies
 - ◆ ns2 for generating topology (GUI to the rescue 😊)
- How do I Access the machines.....

Next step.....

- ssh into the machines

- ◆ Eg: Format for ssh name.....

- ★ ssh

- nodename.expname.projectname.emulab.net -l
sachdr*

- source.demo.bananas.emulab.net*

- Start working.....the machine is up and running.....

Cool Features of EMULAB

- Batch running
- Real time log while creating
- An EXCELLENT response time to problems 😊
- Setting up latency, probability of loss, bandwidth, IP addressesthe only thing that they don't provide is.....user defined Ethernet addresses 😊

That's It.....

- Try Working on it, worth it!!!
- In case of doubts....
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THANK FOR LISTENING

AND....

I HOPE...

UNDERSTANDING ☺