

Assignment 1 Physical Layer and Infrastructure

Exploring VirtualBox, BusyBox, Shell commands & physical $_{\rm LAB}$

Enterprise Networking: Practices and Technologies (MS018A)

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1 Installing Ubuntu 12.04 Server (x86) on a virtual machine

Virtualbox allows to run an operating system (Guest machine/OS) on top of another machine (Host machine/OS). Virtualbox runs as a hypervisor, controlling the host resources and processor, allocating resources as needed to each operating system and ensures that the guest machines do not disrupt the operations of the host machine. The virtual machine instances share hardware resource of the host machine hence the hardware resources of the host machine dictate the number of virtual instances that can run on the host machine.

In this lab, we will install ubuntu 12.04 server - x86 onto the host machine.

2 Some LATEX Examples

2.1 Sections

Use section and subsection commands to organize your document. LATEX handles all the formatting and numbering automatically. Use ref and label commands for cross-references.

2.2 Comments

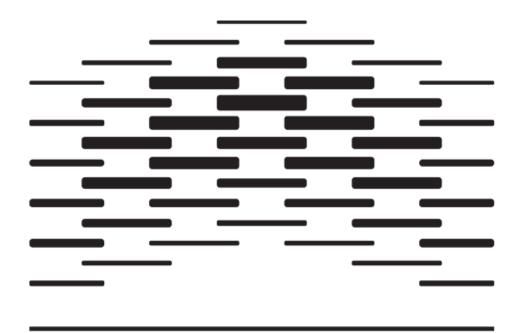
Comments can be added to the margins of the document using the <u>todo</u> command, as shown in the example on the right. You can also add inline comments too:

This is an inline comment.

Here's a comment in the margin!

2.3 Tables and Figures

Use the table and tabular commands for basic tables — see Table ??, for example. You can upload a figure (JPEG, PNG or PDF) using the files menu. To include it in your document, use the includegraphics command as in the code for Figure 1 below.



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Figure 1: This is a figure caption.

2.4 Mathematics

LATEX is great at type setting mathematics. Let X_1, X_2, \ldots, X_n be a sequence of independent and identically distributed random variables with $\mathrm{E}[X_i] = \mu$ and $\mathrm{Var}[X_i] = \sigma^2 < \infty$, and let

$$S_n = \frac{X_1 + X_2 + \dots + X_n}{n} = \frac{1}{n} \sum_{i=1}^{n} X_i$$

denote their mean. Then as n approaches infinity, the random variables $\sqrt{n}(S_n - \mu)$ converge in distribution to a normal $\mathcal{N}(0, \sigma^2)$.

2.5 Lists

You can make lists with automatic numbering ...

- 1. Like this,
- 2. and like this.

 \dots or bullet points \dots

- Like this,
- and like this.

We hope you find write LATEX useful, and please let us know if you have any feedback using the help menu above.