Module 2 Agenda

➢ Introduction to IT-Environments
➢ Environment Purpose and Design
➢ ISEAGE-ISELab Overview
➢ To Do
Introduction

• An IT-environment is a collection of network components, both physical and virtual that collectively assist an organization with its daily technology-driven operations.

• Almost every organization, company or university supports and maintains an IT-Environment. The purpose and function of their environment will of course, vary.
Introduction

IT-Environment Ownership:

• Ownership tends to mean:
  - The individual responsible for all bills
  - The individual responsible of all legal matters
  - The people in charge of routine maintenance

• IT-Environment user:
  - A student at a University
  - An employee at a corporation
  - A consumer of a virtual product or service
Introduction

• An IT-environment has a virtual border similar to property lines around your home

• Often, common ownership across a set of components is an important quality that distinguishes one IT-environment from another
Introduction

Example of a coffee shop IT-Environment

Coffee Shop Building

- Internet
- Customer 1
  - Laptop
  - Smartphone
- Customer 2
  - iPod Touch
- Customer 3
  - Tablet
- Coffee Shop WiFi
- Coffee Shop Ordering System
Introduction

IT-Environment Components:
• Computers, Servers
• Applications, Software
• Some Form of Connectivity
  – WiFi
  – Wired Ethernet
  – Cellular
• Security Measures: Firewalls, Intrusion Detection Systems, etc.
Environment Purpose and Design
Purpose and Design

• An owner of an IT-Environment has a reason for investing in, and maintaining it.

• Depending on the setting the purpose will vary
  - Home: Be able to manage family finances, do school work, work from home, stream TV shows, purchasing etc.
  - School: Manage curriculum and for learning.
  - Business: commercial use.
Purpose and Design

• Functionality of IT-Environment must address the purpose
  – If it doesn’t, IT-Environment is essentially useless

• IT-Environments must be affordable
  – Otherwise, the owner will have to prioritize other expenses, redesign, or stop using environment.

• IT-Environments must be reliable
  – Otherwise, the owner will spend more money on additional technology or different solutions
ISEAGE-ISELab Overview
ISEAGE-ISELab Overview

- Watch the following video...
- It will be explained in the next few slides

Video:
ISERink Overview
ISEAGE-ISELab Overview

- The next slide contains a diagram of the ISERink playground, which contains ISELab.
- It is a testing environment used to learn about cyber security.
- Everything you do within ISELab is cut off from the rest of the internet.
- This is to protect the greater internet or your network from any “oopsies”.
- You will only be using the “student network” branch of ISELab. Everything else is inaccessible to you, but don’t worry you don’t really need it.
- Occasionally, you’ll connect to the internet with a proxy.
Figure 1 ISERink playground
ISEAGE-ISELab Overview

Disambiguations:
- ISERink: Internet-Scale Event Rink
- ISEAGE: Internet-Scale Event and Attack Generation Environment
- ISELab: Internet-Scale Event Lab

Additional details:
- ISERink and ISELab may sometimes be used interchangeably.
- ISERink is built upon an internet testbed named ISEAGE, a subcomponent that provides a real-world networking environment for students.
ISEAGE-ISELab Overview

ISERink is for hands on activities and the Cyber Defense Competition and should not be used for...

- Online shopping
- Personal use of social media
- Doing homework for other classes
- Any other purpose other than for IT-Adventures related use.
To Do

- Module 2 Activity 1
- Module 2 Check your Knowledge! Worksheet
End of Module 2!

What questions do you have?

Next Module Topic:

Virtual Machine Setup
Questions?

Contact IT-Adventures support staff!

e-mail: 
ita@iastate.edu

Your school’s IP-Range can be found at: 
http://www.it-adventures.org/ip-ranges/