CSET 3600 Project Proposal – Group 5

# Problem Definition

The project will implement a graphical network configurator using for [V-NetLab](http://www.eng.utoledo.edu/~wsun/papers/ncisse05.pdf), a tool for creating isolated virtual networks for network experiments. The project goal is to design and develop a graphical user interface (GUI) network configurator. The GUI will allow users to create a network topology, and specify parameters for the hosts and network devices (i.e. hubs). Users of the GUI should be able to save network configurations with the ability to open and continue working on the configuration. Users of the GUI should also have the ability to check for correctness of the network specifications. Once correctness has been verified, the user will have the ability to save the specification into a configuration file for V-NetLab to read.

# Background

V-NetLab was developed to make to logically isolate virtual networks of computers and simplify administration by automating the startup and shutdown of the virtual network. This improvement was created due to the physical limitations of settings up a dedicated physical isolated network for each student to experiment and test while learning. V-NetLab realized six to eight dedicated virtual computers for each student, upwards to fifty students, on inexpensive hardware.

The development environment is required to be an object-oriented programming language with Java being the preferred language.

Group 5 will leverage GitHub to communicate and version control all code and documents. We will also leverage the Blackboard group site for additional collaboration when needed.

# Group Introduction

Group 5 has five members; Taylor Hunt, Benjamin Kania, Sean Morris, Steven Murphy, and Jeremy Ziehr.

**Taylor Hunt** is a junior in the Computer Science and Engineering program at University of Toledo with an interest in databases.

**Benjamin Kania** is a senior in the Computer Science and Engineering Technology program at University of Toledo. Benjamin has used a variety of programming languages and has an interest in programming and running PC games.

**Sean Morris** is a senior in the Computer Science and Engineering Technology program at University of Toledo. Sean has experience with many scripting languages like bourne shell, korn shell, sed\awk, and PowerShell along with experience in object-oriented languages like C++ and Java in an academic environment.

**Steven Murphy** is a senior in the Computer Science and Engineering Technology program at University of Toledo. Steven has experience with HTML and PHP programming languages in addition to object- oriented languages C++ and Java.

**Jeremy Ziehr** is a senior in the Computer Science and Engineering Technology program at University of Toledo.

# Plan

High-level Milestones:



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| **PROJECT DETAILS** | |  |
| **DATE** | **Owner** | **MILESTONE** |
| 1/21/2016 |  | Project Start |
| 2/5/2016 |  | Project Proposal |
| 2/15/2016 |  | Use Cases |
| 2/26/2016 |  | Project Plan |
| 3/7/2016 |  | UML |
| 3/14/2016 |  | Task List |
| 3/21/2016 |  | First Code Review |
| 4/1/2016 |  | Test Suite |
| 4/8/2016 |  | Updated Task List |
| 4/15/2016 |  | Second Code Review |
| 4/25/2016 |  | Final Report \ Code |
| 4/29/2016 |  | Project End |