King Fahd University of Petroleum and Minerals
College of Computer Sciences and Engineering
Department of Computer Engineering

COE 547/CSE 552 – Network Management (T141)

Homework # 01 (*due date: Monday 22/09/2014*)

Notes:
- ➢ Late submissions are not acceptable.
- ➢ This assignment is based on hands-on experience with at least one publicly available network management tool.
- ➢ A list of references is given at the end of this assignment from where some tools can be accessed.
- ➢ Students will work in teams of two for each tool, which is to be selected after consultation with the instructor. You should send your choice to the instructor ASAP but no later than **Monday, September 15th, 2014**. (The instructor will assign the tools on First Come First Served basis).
- ➢ This assignment has two parts: (1) downloading, installation, and experimentation with selected tools; and (2) presentation of the tool to the rest of the class.
- ➢ Each student will be graded individually and is expected to understand all related aspects of installation and use of the assigned tool.
- ➢ Overview of the tool and its features/characteristics/areas should be presented by one student while the other presents the use of the tool with examples.

Question # 1: Network Management Tool

Download the assigned tool from the web and install it on an appropriate platform where that tool works (Windows/Linux/Solaris, etc.). You can also use an evaluation copy with limited usage time (e.g., 30 days). Some tools are available only in executable binary forms (especially those that run under Windows) while others are available with source code. You should build the tool from the source code following developer's instructions on your platform (typically Linux). Each tool comes with some documentation about its use and a few examples. Execute at least two such examples and comment on the results provided by the tool.

Question # 2: Presentation

Present an overview of the tool to the class. This overview should minimally include an introduction to the input used by the tool and types of application for which it is suitable. Second part of the presentation should walk through some examples of the use of the tool. Each team has 14 minutes for the presentation (**7 minutes** per student). You should send your prepared slides to the instructor by email by **4:00 PM** on **Monday, September 22nd, 2014**.

Areas of interest include but are not limited to:

- Topology discovery
- Performance Management (statistics collection, throughput, link utilization)
- Reachability
- Capacity planning
- Traffic monitors and analyzers

- Fault Management
- General purpose NMS (Network Management System)

List of Selected References:

1. http://www.caida.org/tools/: The CAIDA Tools site contains CAIDA tools and software as well as a taxonomy of available research and visualization tools.

2. http://www.simpleweb.org/software/: The SimpleWeb Network Management Software site provides links to commercial and freely available SNMP (and other) software packages.

3. Others of your own.

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Fall 2014 (Term 141)

<u>Speaker Evaluation Form</u>

Presenter Name: _____

Presentation Title: _____

Date: _____

Evaluator Name: _____

<u>Evaluation:</u>

1. **Technical content (Overview of the tool, its features, and examples of its use)**	**/50**
2. **Speaker's ability to explain and answer questions (Understanding)**	**/25**
3. **Quality of slides and organization of presentation (Clarity, Format, etc)**	**/20**
4. **Duration of presentation within 7 minutes**	**/5**
Total	**/100**

General comments: (Use the space below to summarize your comments on this work)