Exercise 6 - Run a Management Application

The sixth exercise of this course consists of the following parts:
- Part A: Monitor usage of your SNMP agent, using tcpdump.
- Part B: Periodically poll SNMP Interface statistics of all SNMP agents (including your own), using tools like MRTG/Cacti/Nagios or Zenoss.
- Part C: write a report, in which you analyse how the various tools retrieve MIB objects

Part A: Monitor usage of your SNMP agent
You should use tcpdump to capture all SNMP traffic to and from your agent. You will use this trace file for Part C of this exercise. For the precise timeline (start and end of tcpdump), see below.

Part B: Periodically poll all SNMP agents
Use a management tool like MRTG/Cacti/Nagios or Zenoss to periodically poll the "**ifInOctets**" and "**ifOutOctets**" objects of all the SNMP agents installed as part of this course (so also your own). Use the tool's default setting as far as possible. For the precise timeline, see below. In addition, if an extension has been added to a remote agent, you should monitor the objects of this extension too.

Note that the information needed to access each agent has previously been provided by everyone on teletop.

Part C: Analyse the trace file, and write a report
In part C you should analyse the tcpdump trace file (collected under Part A). The idea is that you discover the precise way the various tools retrieve the MIB objects. What are the precise PDUs that are exchanged, which precise OIDs are retrieved, what is the interval between subsequent polling events? Is this interval always the same, or is there a slight "jitter" (of several seconds). Do you find any particular behaviour?

Important dates:
- ✳ Monday June 1st 9:00 o'clock"
  - Monitoring usage of your own SNMP agent should have started by now.
  - Polling "**ifInOctets**" & "**ifOutOctets**" of other agents, as well as possible additional objects that have been added as extensions, should have started by now.
- ✳ Friday June 5th 17:00 o'clock:
  - Monitoring usage of your own SNMP agent may stop.
  - Polling of other agents may stop too.
- ✳ Friday June12th 24:00 o'clock:
  - Your report describing the analysis of the trace file should have been entered into Teletop. In addition, you should send an email to mourag@ewi.utwente.nl indicating where the original (compressed) tcpdump trace file can be downloaded from.