

# Management of Computer Networks

## CS 158B

Assignment #1: Agent and Management Station

# Assignments

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- ▶ Deliverable: report
- ▶ Individually or teaming up with another student
- ▶ Grade weight: 5%

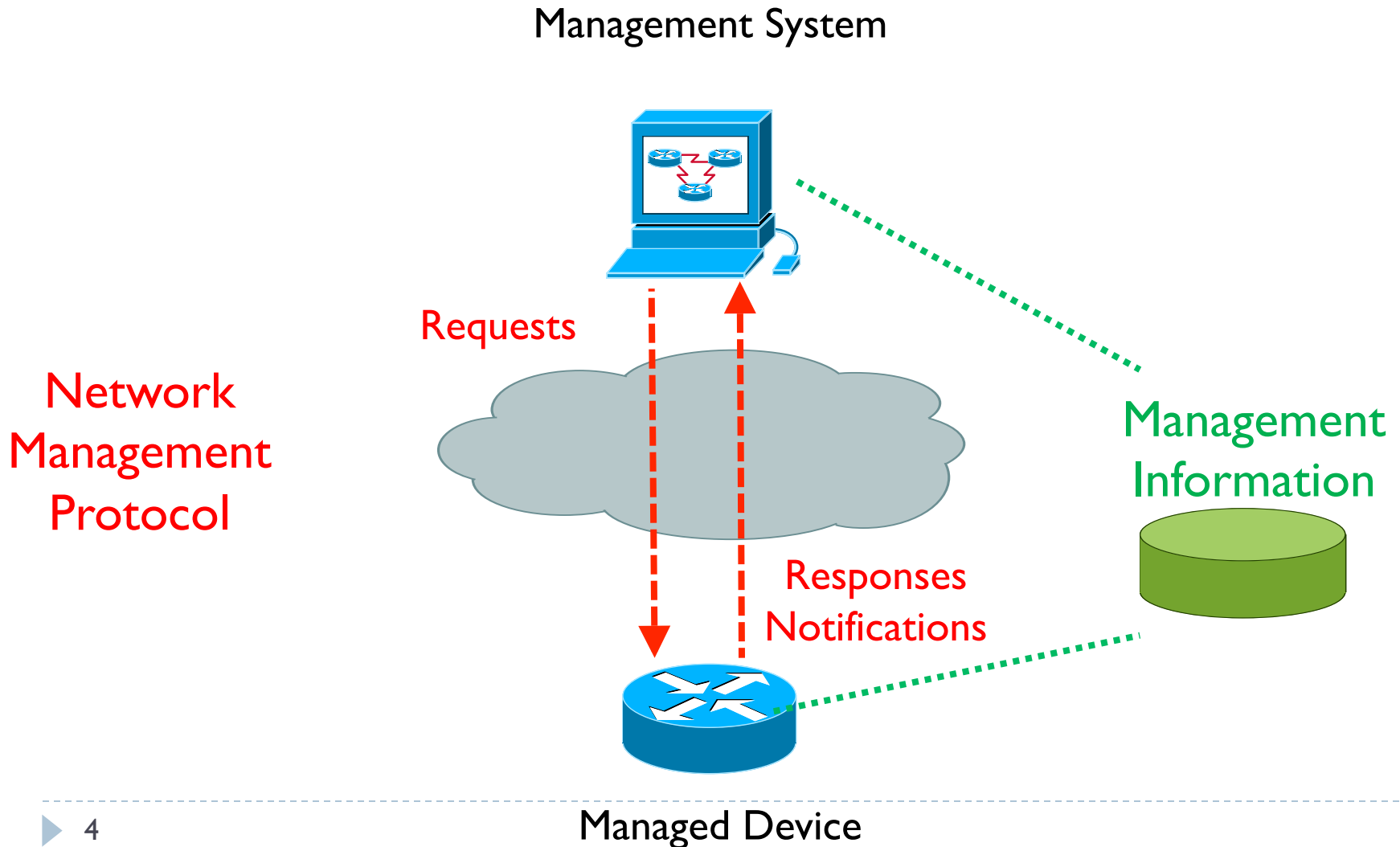
# The Goals

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- ▶ The goal of this project is to familiarize yourselves with basic management tasks including
  - ▶ Configuration of a management agent
  - ▶ Configuration of a management station
  - ▶ Passive monitoring
  - ▶ Data presentation

# Agent and Management Station

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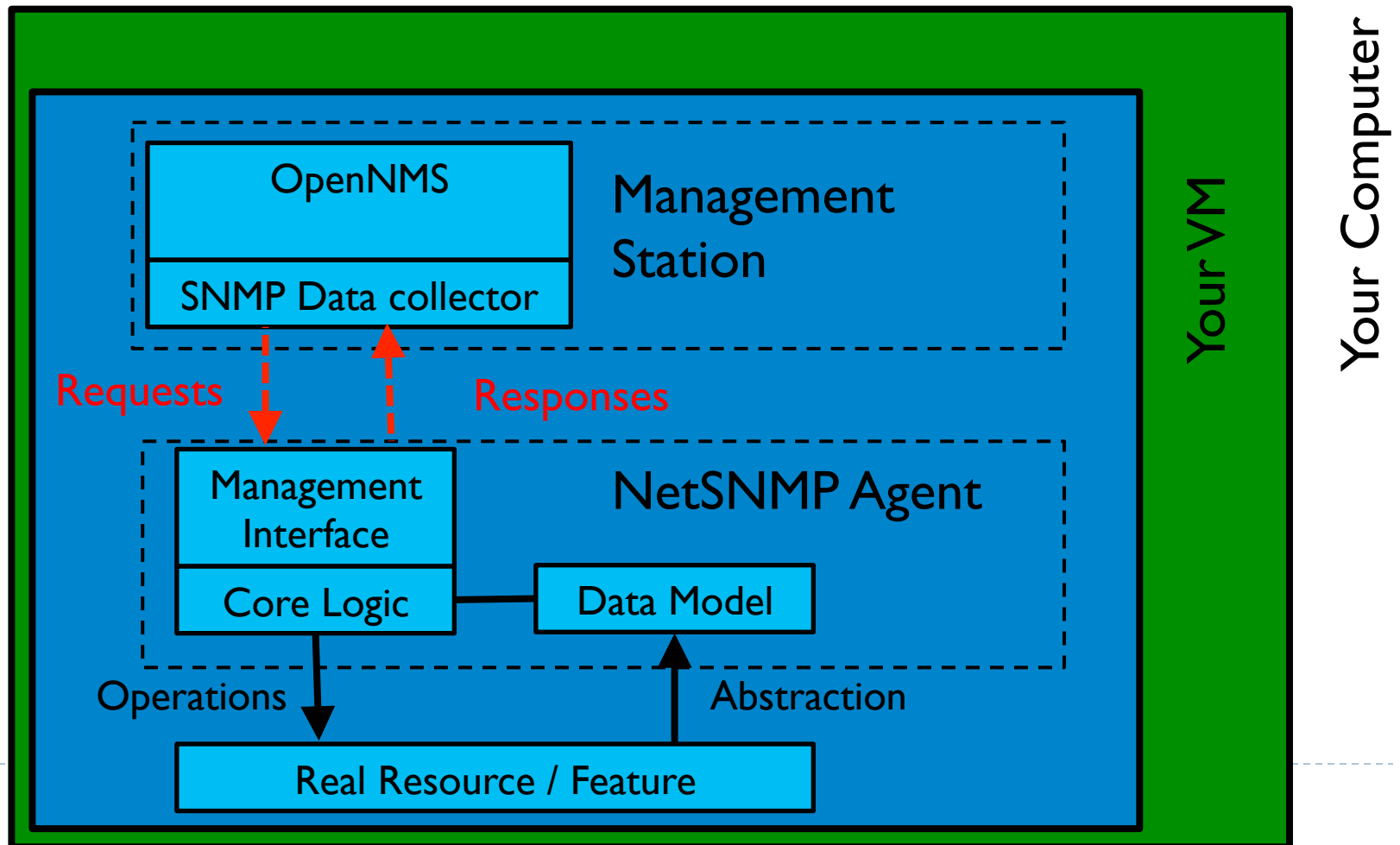
# The Tasks

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- ▶ Obtain access to an SNMP agent
  - ▶ The recommendation is installing Net-snmp's SNMP agent on a computer
- ▶ Obtain access to an OpenNMS management station
  - ▶ The recommendation is installing it on the same computer where you run the SNMP agent
- ▶ Configure the agent and the management station so that they can communicate using SNMP
  - ▶ The recommendation is using SNMP v1. In this case, the configuration mainly involves coordinating the configuration of SNMP “communities”
- ▶ Verify the management station is actually monitoring your SNMP agent
  - ▶ The management station polls the agent periodically and presents graphically the polled data
- ▶ Describe the end-to-end flow that permits visualizing device statistics

# The Setup: an Option

- ▶ Run the agent and management station on your computer in a VM



# End-to-End Flow

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- ▶ Agent Configuration
  - ▶ Community (for version I)
    - How is it configured?
- ▶ Management Station Configuration
  - ▶ Community (for version I)
    - How is it configured?
  - ▶ Polling rate
    - How is it configured?
- ▶ Data Handling
  - ▶ Storing the data
    - What tool performs it?
  - ▶ Visualizing the data
    - What tool performs it?

# Agent and Management Station Submission

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- ▶ 10/17 (Monday)
- ▶ Via e-mail
- ▶ 1 Word Text Document
  - ▶ End-to-End flow description
  - ▶ Snapshots from the management station showing device statistics
- ▶ Make sure the document cover includes your names and SJSU Id's



# Links

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- ▶ **Net-snmp:** <http://net-snmp.sourceforge.net/>
- ▶ **OpenNMS:** <http://www.opennms.org/>
- ▶ **Virtual Box:** <https://www.virtualbox.org/>
- ▶ **Virtual Machine: ODL virtual machine: odl-test-desktop2** [https://wiki.opendaylight.org/view/CrossProject:Integration\\_Group:Test\\_VMs#Links\\_to\\_VMs](https://wiki.opendaylight.org/view/CrossProject:Integration_Group:Test_VMs#Links_to_VMs)
- ▶ **Wireshark:** [www.wireshark.org](http://www.wireshark.org)