Tracking Security Policies Provisioned into the Network

Abstract:

Cisco TrustSec solution enables deployment of security policies into organization’s network. The policies are enforced by the network infrastructure such as routers and switches. The policies define the type of traffic that is allowed in the network and whether traffic of some employee in an organization is allowed to reach various resources in the network (for example policy can define that in the network of the university a student can access only the servers in the computer science faculty lab and cannot access any other computers in the university).

The network security policies are dynamic and are obligated to changes. As a result the network infrastructure which enforce the policies maintains different policies at a given time.
Goals:

- Develop a prototype which will interoperate with the network infrastructure and parse the Syslogs messages received from the switches and routers.
- The developed tool will provide an accurate real-time information which policies are enforced by each router and switch in the network.
- The customers of this prototype (network security administrators in organizations) will be able to get an updated and accurate view of the policies in each network element and identify any issues that may cause network connectivity or security bridges that need to be mitigated.

Requirements:

Internet Networking Course, Python, C++, Java

Guided by: