



Supporting Built-in Monitoring Agents in Mininet

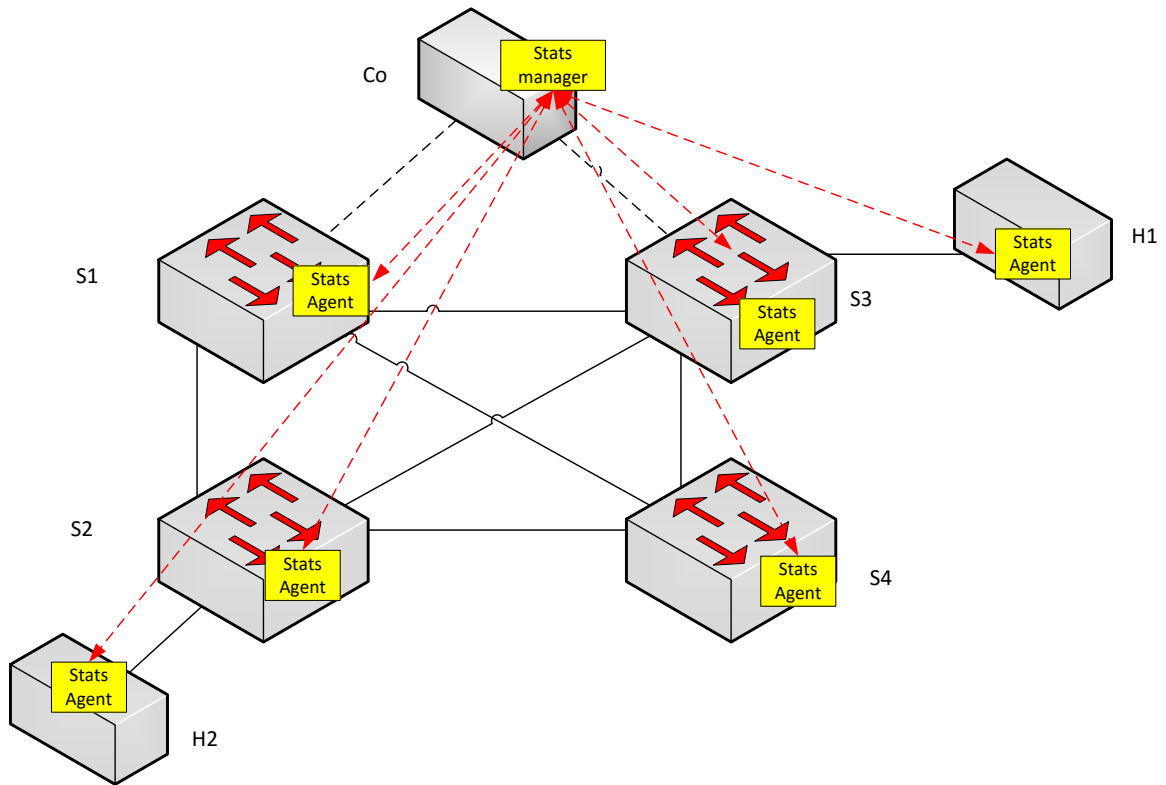
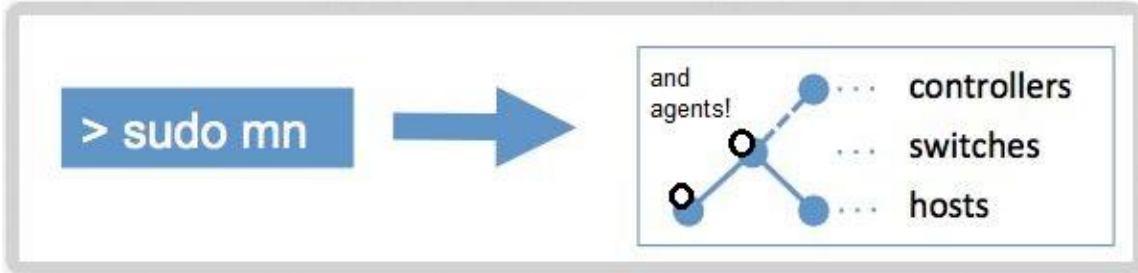
Abstract:

Mininet¹ is a system for rapidly prototyping large networks on the constrained resources of a single laptop. Mininet makes it easy to interact with your network using CLI and API, making it a great way to develop, share and experiment with OpenFlow and Software-Defined Networks.

Network traffic monitoring is a critical building block in various management, control and security applications. Analysis of monitoring data provides important information like trends in network load and utilization, performance of traffic engineering systems, or security vulnerability.

Deploying a network wide efficient monitoring algorithms usually requires deploying monitoring agents (either reactive or proactive) on various nodes, an ability that Mininet currently lacks.

¹ Mininet - An Instant Virtual Network on your Laptop (or other PC): <http://www.mininet.org>





Goals:

- Provide support for deploying extendable built-in monitoring agents in Mininet. The support should enable users to deploy monitoring agents using all of Mininet interfaces (i.e. CLI, API, topology detection, etc.). Furthermore, the implementation should consider Mininet's design and code guidelines so you can contribute it back to the community²!

Requirements:

Basic Networking Course, Basic knowledge of python and preferably Linux namespaces

² Mininet@GitHub: <https://github.com/mininet/mininet>