





Enterprise Networking

Building networks for the enterprise (e.g. campuses or satellite offices) is difficult due to the complex nature of enterprise environments.

A number of unique challenges make building enterprise networks different from building networks for datacentre or telco environments, such as:

- Complicated building layouts with limited cabling resources
- Large number and variety of network devices
- Providing good and consistent user experience everywhere
- Security and visibility over client devices

Faucet for Enterprise SDN

Faucet is a lightweight, open source SDN controller, developed from the ground up for enterprise networks. Faucet moves the control plane implementation of network features from network hardware to general-purpose compute infrastructure.

Faucet has the following key features to address enterprise network problems:

- Allows operators to build flexible and resilient topologies
- Centrally manages many network devices
- Provides a central view of the network for monitoring
- Allows operators to define and deploy custom network policy

Faucet is a multi-vendor OpenFlow SDN controller for enterprises that enables operators to run their networks in the same way they do server clusters

https://faucet.nz

Faucet can provide whitebox vendors a community of users and a test suite to validate OpenFlow hardware implementations

SDN for Low-Cost Devices

Faucet relies on vendor hardware to succeed as enterprise networks require many physical network ports.

For vendors looking to get into the enterprise network space, faucet offers a deployable solution, a community of users and a test suite to validate OpenFlow hardware implementations.

The faucet project has existed since 2015, and in that time we have seen five hardware vendors implement support for faucet on low-cost enterprise switches, mostly from scratch. Vendors have been able to do this and test their implementation works due to the comprehensive integration test suite faucet provides.

Faucet Architecture External Grafana System **Events** Prometheus Flow Rules & Instrumentation **Port Statistics** External faucet.yaml **Faucet** Gauge Router BGP Switch OpenFlow Agent (OFA) Forwarding Plane