

Lab Requirements

This page describes the requirements for a lab to participate in Lab as a Service. The reference implementation can be found at: <https://git.opnfv.org/laas-reflab/tree/>

The API

The dashboard is the single source of truth, and communicates tasks to the lab through the api. You can read the api spec on this page: [Developer Documentation](#)

The API is how the dashboard tells the lab about a booking from a user, and how the lab communicates information back to the user. To participate in LaaS as a lab, you need to implement your end of the API. The rest of the document describes the pre-built backend system that the LaaS project has built, but you are free to implement your own system if the pre-built one does not fit your needs.

Reference Architecture

[blocked URL](#)

Networking Requirements

- Stackstorm must be able to reach everything:
 - The LaaS dashboard on the internet
 - The IPMI interfaces on the LaaS servers
 - The management IP of the LaaS switches
 - The management and public IPs of the LaaS servers
 - FOG
 - The VPN server
- FOG must be able to PXE boot the LaaS servers
- The gateway / vpn server must:
 - Route vpn traffic to / from the LaaS machines
 - Allow the LaaS servers to reach the internet
 - Serve DHCP and DNS such that:
 - A server is always reachable by its hostname, regardless of what network it is on
 - Servers will always PXE boot through FOG

Description

The reference implementation relies heavily on Stackstorm, a nice automation server: <https://stackstorm.com/>. This is what does all the communication with the dashboard API and configures the switches + servers as required. This is where all the code and logic of the reference implementation lives.

FOG (Free Opensource Ghost) is used as a way to quickly backup and restore disk images: <https://fogproject.org/>. This is how we reinstall the servers on a new booking: FOG will PXE boot the servers and write a clean disk image.

A more detailed description of how deployments work can be found in the reflab repo: <https://git.opnfv.org/laas-reflab/tree/README>