Project:	Document:
Maintenance of Network System	Application to support maintenance operations

1. Project overview

The project consists of the design, implementation and deployment of an application providing support for routine maintenance operations of the network infrastructure of the University of Bologna.

After an HTTP request, the client-side application allows the operator to access real-time information from the switch devices placed in various buildings. The request is generated by the interaction with the 3D models that faithfully reproduce the structure of each network racket.

The back-end system consists of a sequence queries executed by the SNMP protocol following a request. These queries retrieve various information about each device: from the model to the uptime, from the ports status to the VLAN that is associated with them.

The following technologies are used:

- **Android**: to develop the client-side application
- **Metaio SDK**: to manage 3D contents
- **jSON**: for data format that are sent between client and server
- **PHP**: to implement SNMP queries
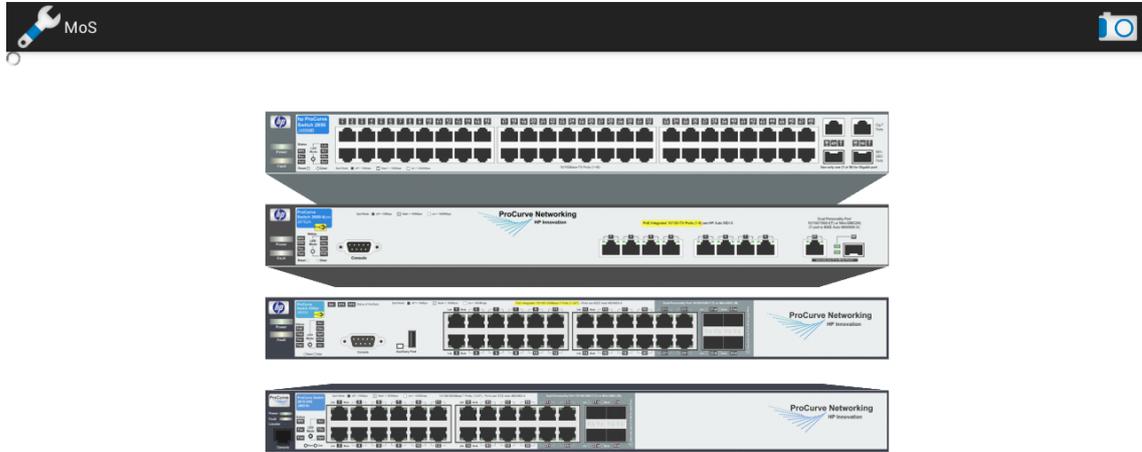
2. Logical schema
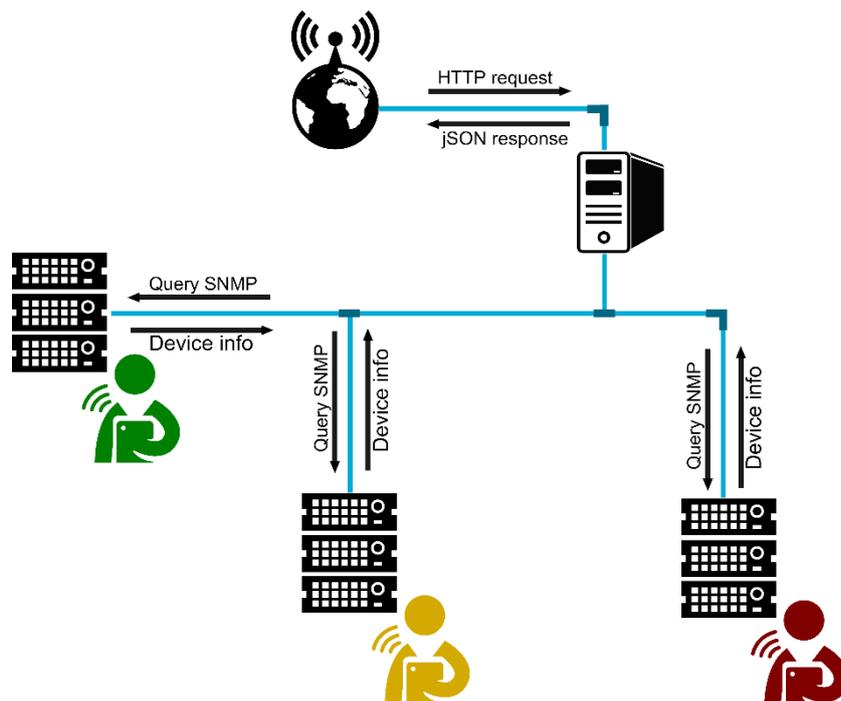
3. Screenshot

Figure 1 3D models that faithfully reproduce the structure of network racket
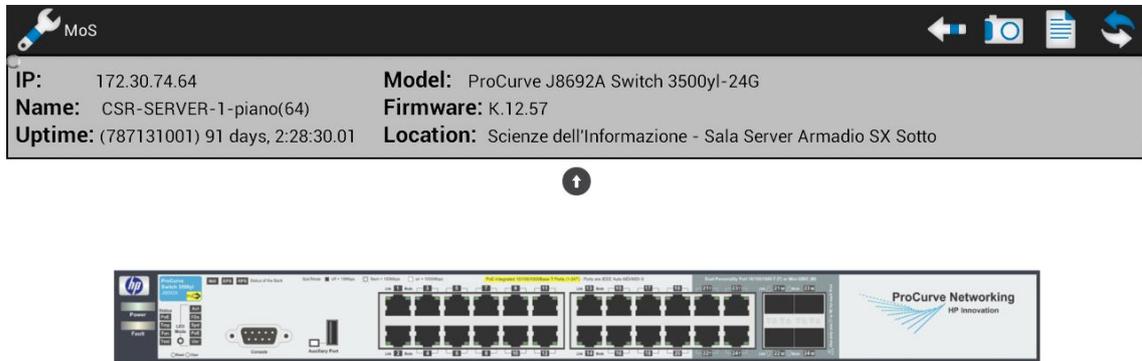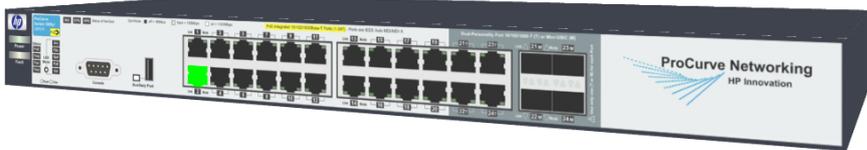

Figure 2 Selected 3D model and relative general info

Figure 3Model after received port info