

# SDN HACKFEST

— DEV - UX - DOCX : Teamwork Contest —

www.sdnhackfest.org



## SDN Hackfest hosted on July 2, 3 2016 at ASM Technologies Limited, Bengaluru, India

ASM Technologies Ltd joined ONF, Allied Telesis and IACC in providing an amazing opportunity for the talented Software developers to contribute to the Open Source community with a SDN Hackfest. A Hackfest for working hands-on in diverse teams to achieve/solve a real problem/project. A team with Developers, UI/UX Designers, Documenters to develop a complete deployable solution to the given problem.

ASM Technologies Ltd participated in organizing, hosting and sponsoring the 2-day SDN Hackfest on 2nd & 3rd July 2016 at ASM Technologies Ltd. The 2-day event produced 8 projects with 32 participants and ASM teams too actively participated in 8 projects namely,

### **Ryu/Faucet + pyodbc integration:**

Ryu faucet + pyodbc integration for storing flows; Use <http://couchdb.apache.org/> as database for example. [Requirements: NoSQL databases, JSON, REST, Python]

### **Flow Manager UI:**

A UI program to get real-time info on flows installed on the switches managed by a controller - interrogate controller database; A UI program to push - add/update/delete flows on the selected switch; Focus is on UX; Bonus: integration of d3js for topology visualization and click to select switch.

### **Dynamic Access Provisioning:**

Build an application to allow access to users based upon time of day (use case - Schools where access & access rights might vary based upon how a room or area of the School is intended to be used); Build an application to program users and strong passwords who can use the network - ex. Hotel guests who are provided access for the duration of the stay.

### **Dynamic Firewall:**

Build a dynamic firewall application that takes feeds from open source ones Spamhouse and Phishtank; Must contain whitelist and blacklist domains; Use case: school deployment, a firewall for network that gets lots of BYOD devices.

### **Integrate with enterprise infrastructure DHCP server**

Integrate with enterprise infrastructure DHCP server. Integrating DHCP with Faucet means that it can prevent address conflicts. For example, the switch can enforce policy.

### **Break FAUCET with Delta (pen test framework)**

Try to break FAUCET with Delta (pen test framework).

### **Develop a IT NOC dashboard with Grafana**

Develop a IT NOC Dashboard with Grafana - users on network, MACs, Bandwidth utilization, etc.

Use RaspberryPi as a Faucet Controller + test tools

For more information on the Hackfest visit [www.sdnhackfest.org](http://www.sdnhackfest.org)

For project videos visit

<https://youtu.be/a1Q8MFScams?list=PLY6VojXkyY1dUyjm7EHFrzI4GDM6s2STX>