Living in a Programmable World
The Network is the Classroom

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if this then that

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APIs and SDKs
## Location API

### Clients History API

- **GET** This API returns client by macaddress  
  `/api/location/v1/clients/macaddress`

- **GET** This API returns history of client by macaddress  
  `/api/location/v1/history/clients/macaddress`

- **GET** This API returns history playback for client by macaddress  
  `/api/location/v1/historylive/clients/macaddress`

### Beacon Management API

### Tags Information API

### Active Clients API

- **GET** This API returns active clients count  
  `/api/location/v2/clients/count`

- **GET** This API returns all clients  
  `/api/location/v2/clients`

- **GET** This API returns collection of active clients macaddresses  
  `/api/location/v2/clients/active`

### Northbound notification types and attributes API
## Analytics API

- **Toggle All Endpoints**
- **Toggle All Methods**
- **Analytics summary metrics API**
- **Dwelltime API**
  - **GET** Retrieve the dwell time for a given period and location
- **Analytics notification alerts API**
- **Device count API**
- **Overview API**

## Configuration API

### Mail service API

| GET: Get service API definition | /api/identity/v1/mail/services/
| GET: Get service details by name | /api/identity/v1/mail/services/name
| DELETE: Delete service by name | /api/identity/v1/mail/services/name
| PUT: Update service by name | /api/identity/v1/mail/services/name

### Map resources API

| GET: Get resource API definition | /api/identity/v1/maps/
| GET: Get resource details by name | /api/identity/v1/maps/name
| DELETE: Delete resource by name | /api/identity/v1/maps/name
| PUT: Update resource by name | /api/identity/v1/maps/name

### History alerts API

| GET: Get alert history API definition | /api/identity/v1/alerts/
| GET: Get alert history details by name | /api/identity/v1/alerts/name
| DELETE: Delete alert history by name | /api/identity/v1/alerts/name
| PUT: Update alert history by name | /api/identity/v1/alerts/name

### Users API

| GET: Get user API definition | /api/identity/v1/users/
| GET: Get user details by name | /api/identity/v1/users/name
| DELETE: Delete user by name | /api/identity/v1/users/name
| PUT: Update user by name | /api/identity/v1/users/name

### Alerts API

| GET: Get alert API definition | /api/identity/v1/alerts/
| GET: Get alert details by name | /api/identity/v1/alerts/name
| DELETE: Delete alert by name | /api/identity/v1/alerts/name
| PUT: Update alert by name | /api/identity/v1/alerts/name

### Notification subscription API

| GET: Get notification subscription API definition | /api/identity/v1/notifications/
| GET: Get notification subscription by name | /api/identity/v1/notifications/name
| GET: Check if notification subscription already exists | /api/identity/v1/notifications/exists/name
| PUT: Add notification subscription | /api/identity/v1/notifications
| PUT: Add a list of notification subscriptions | /api/identity/v1/notifications/subscribe
| DELETE: Delete notification subscription | /api/identity/v1/notifications/delete
| DELETE: Delete a list of notification subscriptions | /api/identity/v1/notifications/delete
| PUT: Change status of notification by name | /api/identity/v1/notifications/name/change_status
| POST: Change status of notification by name | /api/identity/v1/notifications/name/change_status

Software Defined Networking
<table>
<thead>
<tr>
<th>OpenDaylight APIs (REST)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA: Authentication, Authorization &amp; Accounting</td>
</tr>
<tr>
<td>AuthN: Authentication</td>
</tr>
<tr>
<td>BGP: Border Gateway Protocol</td>
</tr>
<tr>
<td>COFS: Common Open Policy Service</td>
</tr>
<tr>
<td>DLUX: OpenDaylight User Experience</td>
</tr>
<tr>
<td>DDoS: Distributed Denial Of Service</td>
</tr>
<tr>
<td>DOCSIS: Data Over Cable Service Interface Specification</td>
</tr>
<tr>
<td>FRM: Forwarding Rule Manager</td>
</tr>
<tr>
<td>GBP: Group Based Policy</td>
</tr>
<tr>
<td>LISP: Locator-Identifier Separation Protocol</td>
</tr>
</tbody>
</table>

### Service Abstraction Layer (SAL)

- (Plugin Manager, Capability Abstractions, Flow Programming, Inventory, etc.)

### OpenFlow Enabled Devices
- OpenFlow
- Open vSwitches

### Data Plane Elements
- (Virtual Switches, Physical Device Interfaces)
- Additional Virtual & Physical Devices
<table>
<thead>
<tr>
<th>Method</th>
<th>URI</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELETE</td>
<td>/qos/app-class-map/mapping/{id}</td>
<td>deleteMapping</td>
</tr>
<tr>
<td>GET</td>
<td>/qos/app-class-map/mapping-id/{mappingId}</td>
<td>getAppClassMappingById</td>
</tr>
<tr>
<td>DELETE</td>
<td>/qos/app-class-map/{id}</td>
<td>deleteMappingAppToClass</td>
</tr>
<tr>
<td>POST</td>
<td>/qos/policy/scoped/{scope}</td>
<td>addQosPolicy</td>
</tr>
<tr>
<td>POST</td>
<td>/qos</td>
<td>enableQos</td>
</tr>
<tr>
<td>GET</td>
<td>/qos/traffic-class</td>
<td>getAllClasses</td>
</tr>
<tr>
<td>POST</td>
<td>/qos/app-class-map/mapping</td>
<td>addMapping</td>
</tr>
<tr>
<td>GET</td>
<td>/qos/status/scoped/{scope}</td>
<td>getClassStatusByScope</td>
</tr>
<tr>
<td>POST</td>
<td>/qos/app-class-map</td>
<td>getAllAppClassMapping</td>
</tr>
<tr>
<td>GET</td>
<td>/qos/traffic-class/count</td>
<td>getClassCount</td>
</tr>
<tr>
<td>GET</td>
<td>/qos/status/mapping-id/{mappingId}</td>
<td>getClassStatusByMappingId</td>
</tr>
<tr>
<td>DELETE</td>
<td>/qos/policy/scoped/{scope}/{id}</td>
<td>deleteQosPolicy</td>
</tr>
<tr>
<td>GET</td>
<td>/qos/status</td>
<td>getAllQosStatus</td>
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<td>DELETE</td>
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<td>disableQos</td>
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<td>GET</td>
<td>/qos/app-class-map/mapping</td>
<td>getAllMapping</td>
</tr>
<tr>
<td>GET</td>
<td>/qos/traffic-class/(startIndex)/{recordsToReturn}</td>
<td>getClassByRange</td>
</tr>
</tbody>
</table>
Internet of Things
Hackathons
TOMORROW starts here.