Getting Started with Intel IoT Cloud Analytics

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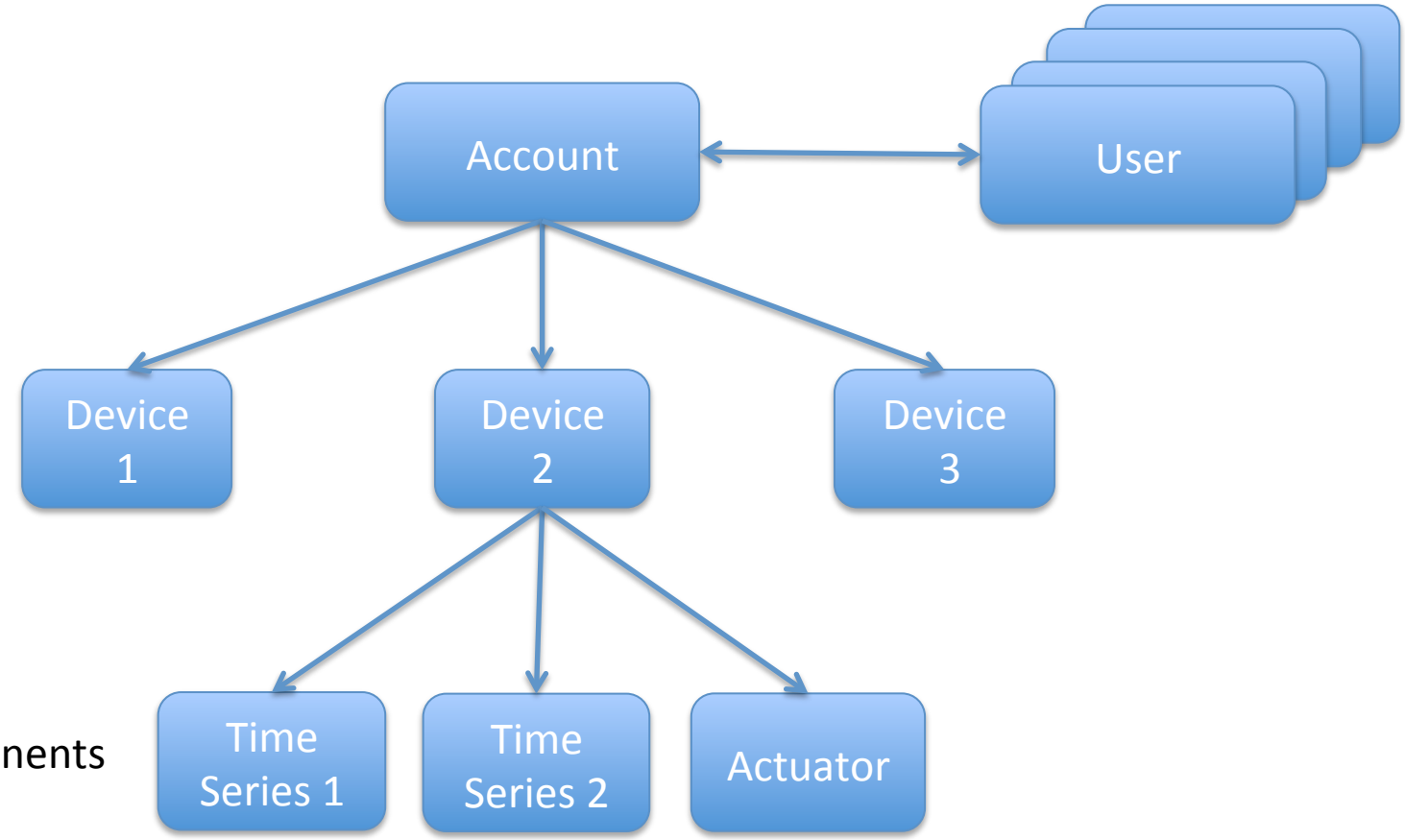
What ?

- Send data from your device to the cloud
- Chart your data on the web
- Create rules to watch your data 24x7
  - Sends you alerts when rules fire
- Download your data for further analysis
- REST API

Concepts



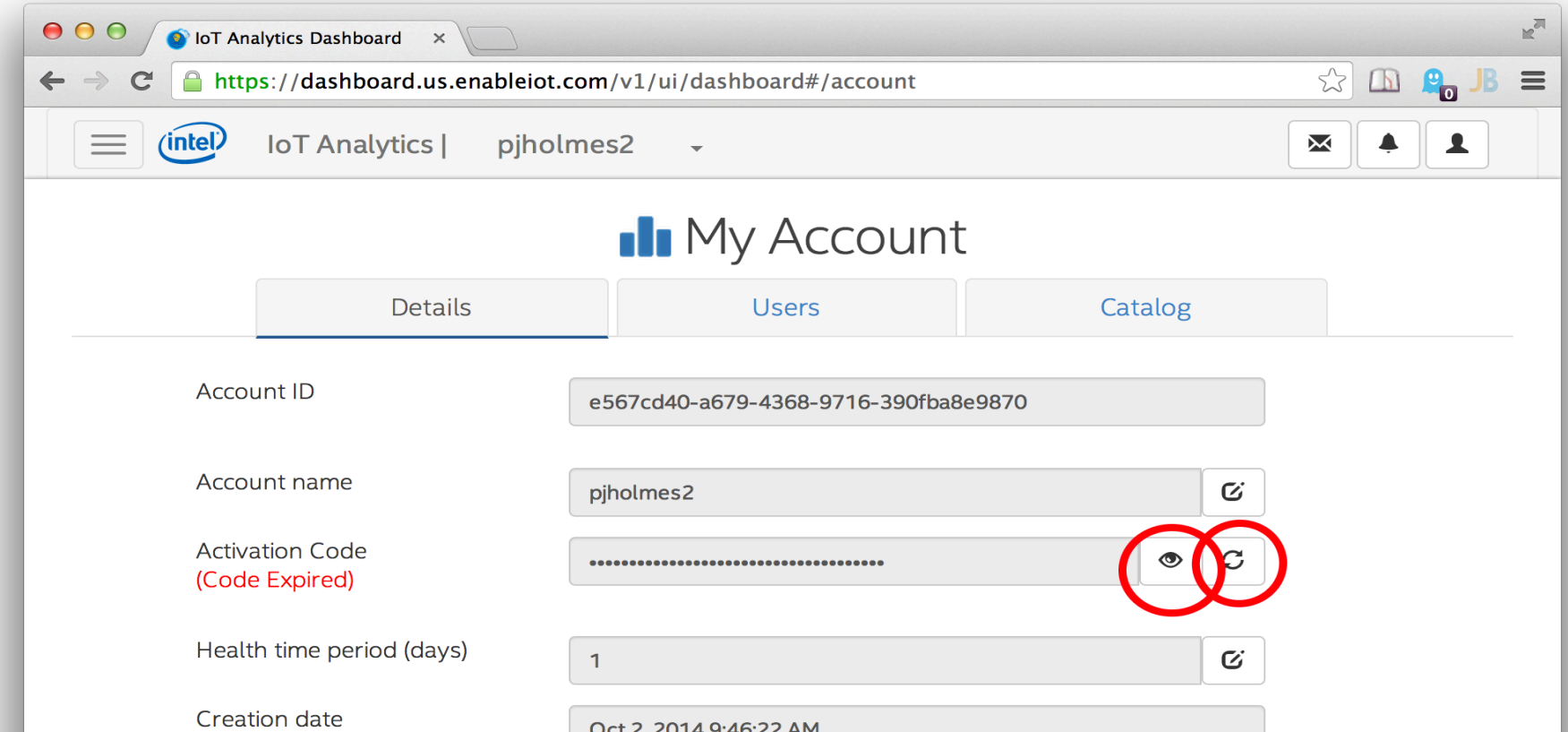
Components

Sign Up

- Go to http://www.enableiot.com
- Click “Sign me up”
- Don’t use OAuth buttons
  - If you want to get at your data with REST

Get Activation Code

- Click on Menu in top left and select Account
  - Activation will work for one hour



What’s on the board ?

- Iotkit-admin
  - command line wrapper for REST API
- Iotkit-agent
  - helper for constrained environments

Test for Connectivity

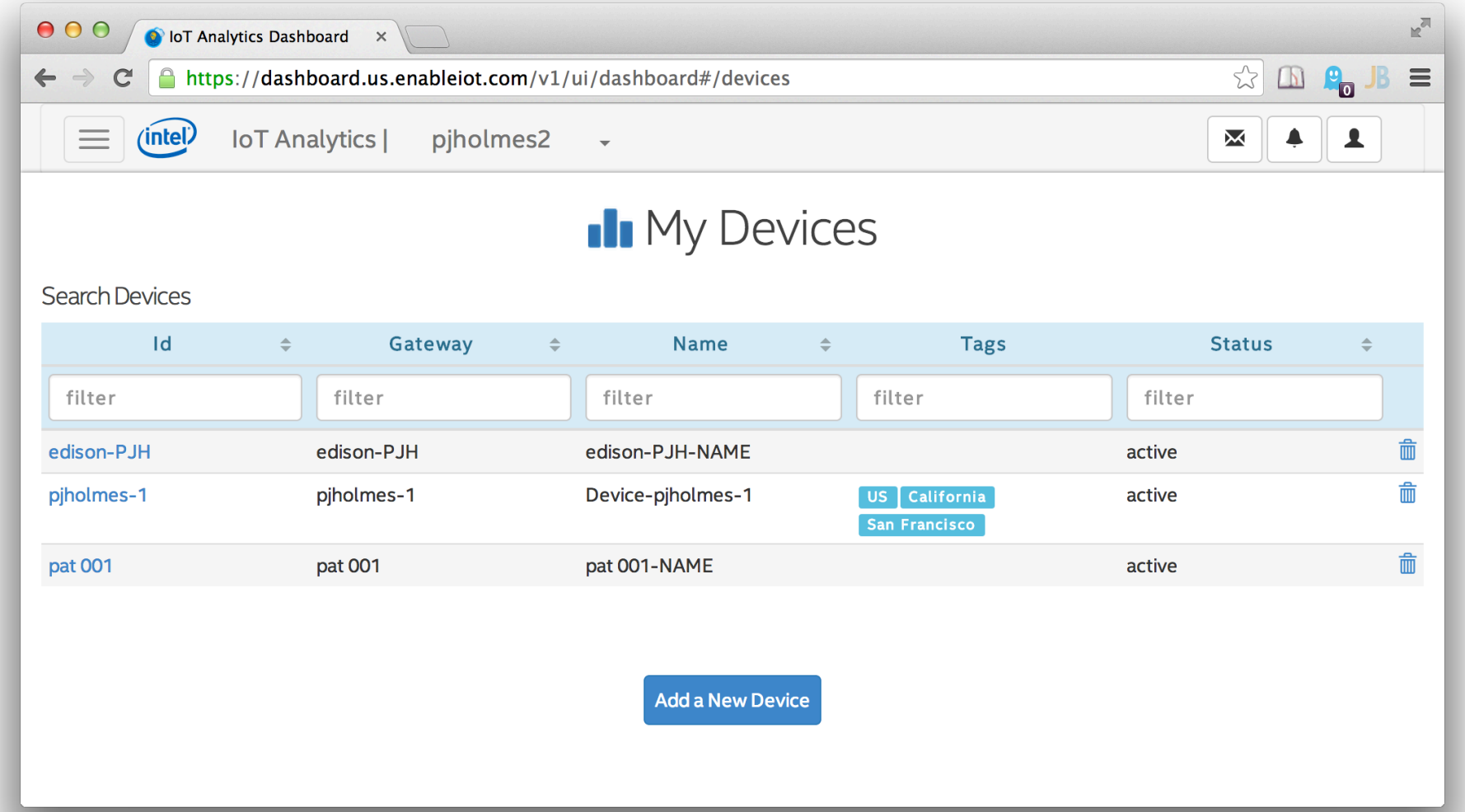
- Get a terminal / SSH into your board

iotkit-admin test

Activate

iotkit-admin activate <activation code>

Devices


IoT Analytics Dashboard
https://dashboard.us.enableiot.com/v1/ui/dashboard#/devices
intel
IoT Analytics | pjholmes2
My Devices
Search Devices
Id
Gateway
Name
Tags
Status
filter
filter
filter
filter
filter
edison-PJH
edison-PJH
edison-PJH-NAME
active
pjholmes-1
pjholmes-1
Device-pjholmes-1
US
California
San Francisco
active
pat 001
pat 001
pat 001-NAME
active
Add a New Device

Add a Time Series

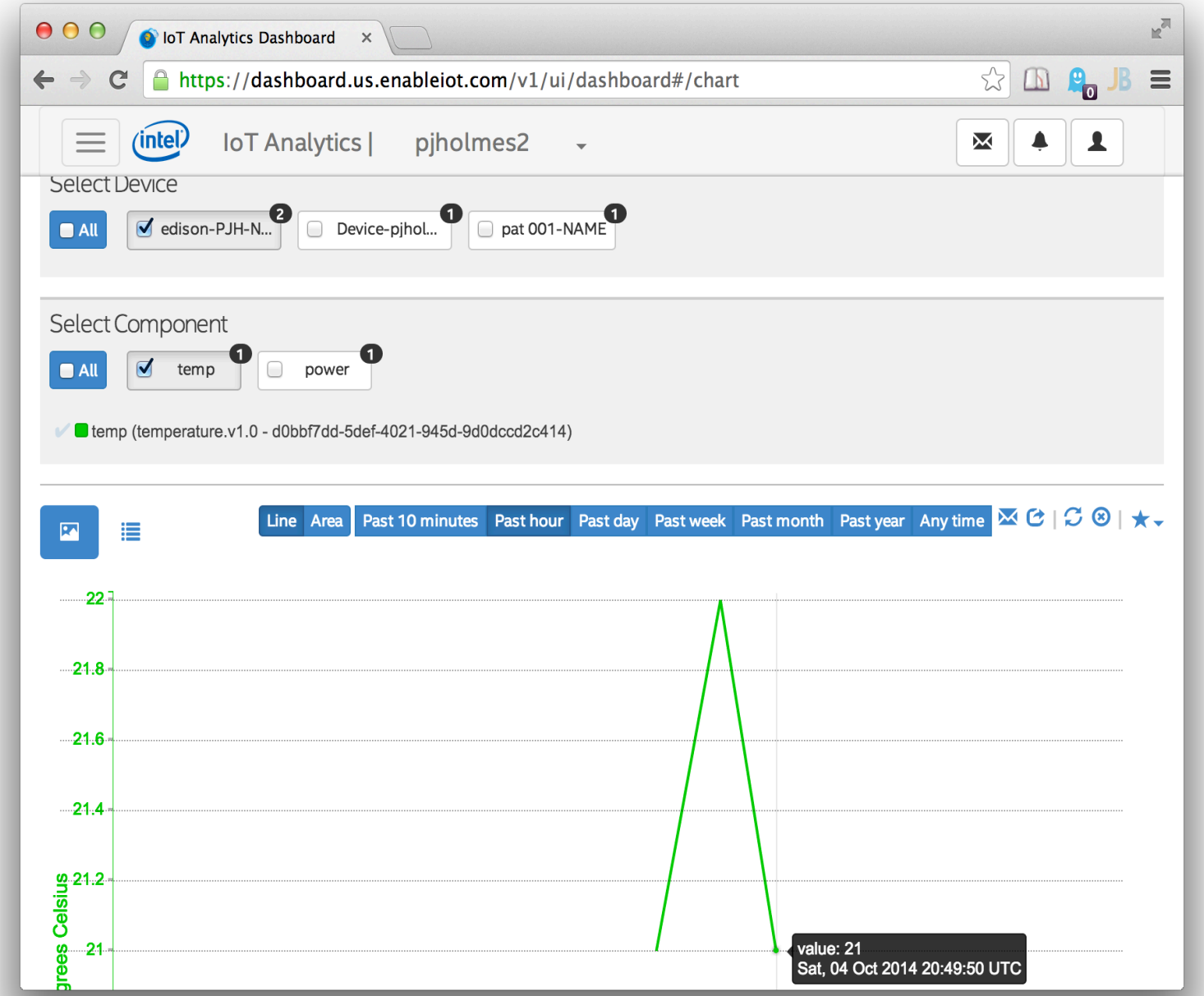
```
# iotkit-admin register temp temperature.v1.0
```

- The name “temp” is only used by the agent.
- This makes up a ComponentId which is used for REST reference to component

Send a couple of observations

- iotkit-admin observation temp 21
- iotkit-admin observation temp 22
- iotkit-admin observation temp 21

View Chart

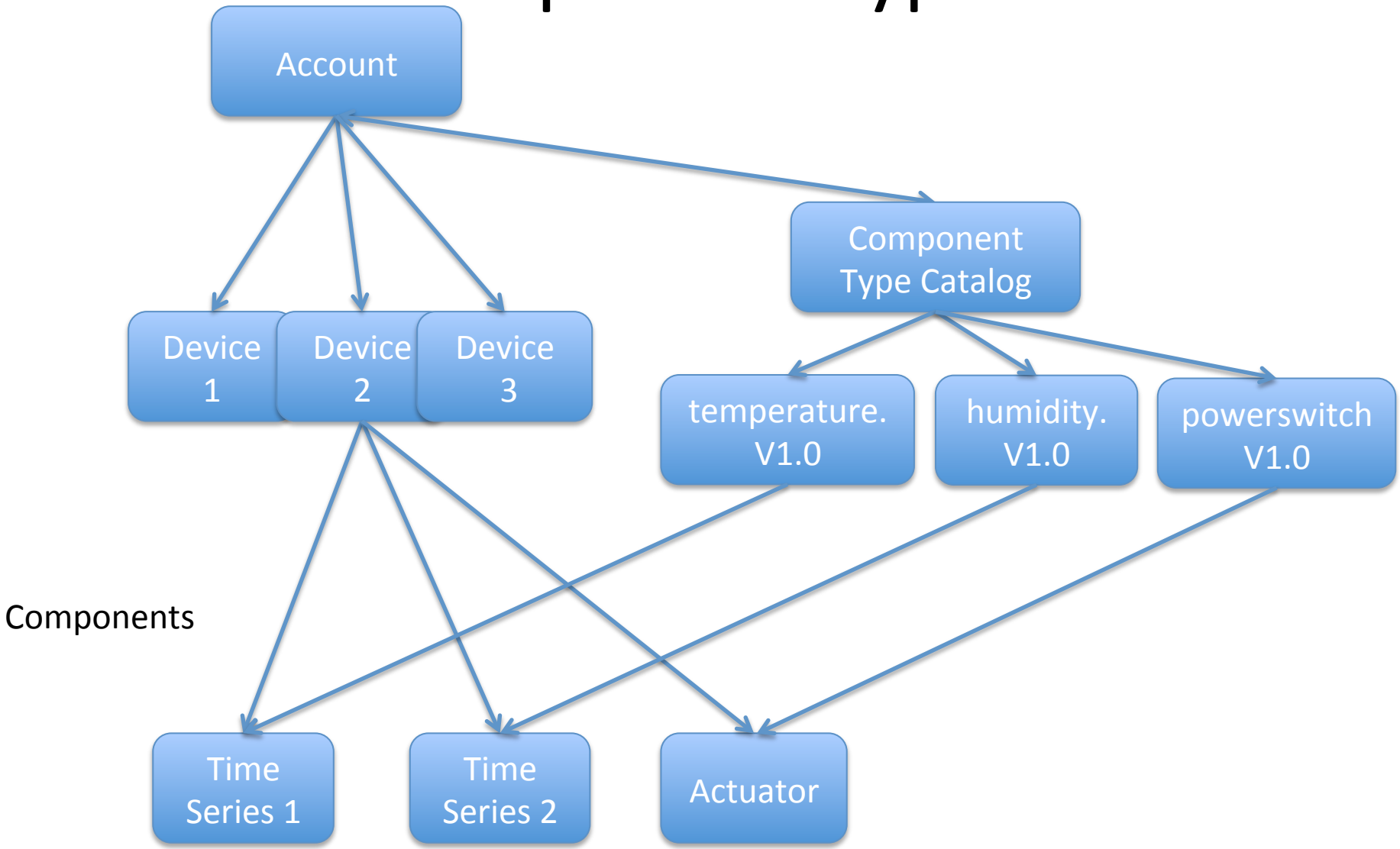

IoT Analytics Dashboard
https://dashboard.us.enableiot.com/v1/ui/dashboard#/chart
IoT Analytics | pjholmes2
Select Device
All
edison-PJH-N...
Device-pjhol...
pat 001-NAME
Select Component
All
temp
power
temp (temperature.v1.0 - d0bbf7dd-5def-4021-945d-9d0dccd2c414)
Line
Area
Past 10 minutes
Past hour
Past day
Past week
Past month
Past year
Any time
22
21.8
21.6
21.4
21.2
21
grees Celsius
value: 21
Sat, 04 Oct 2014 20:49:50 UTC

More

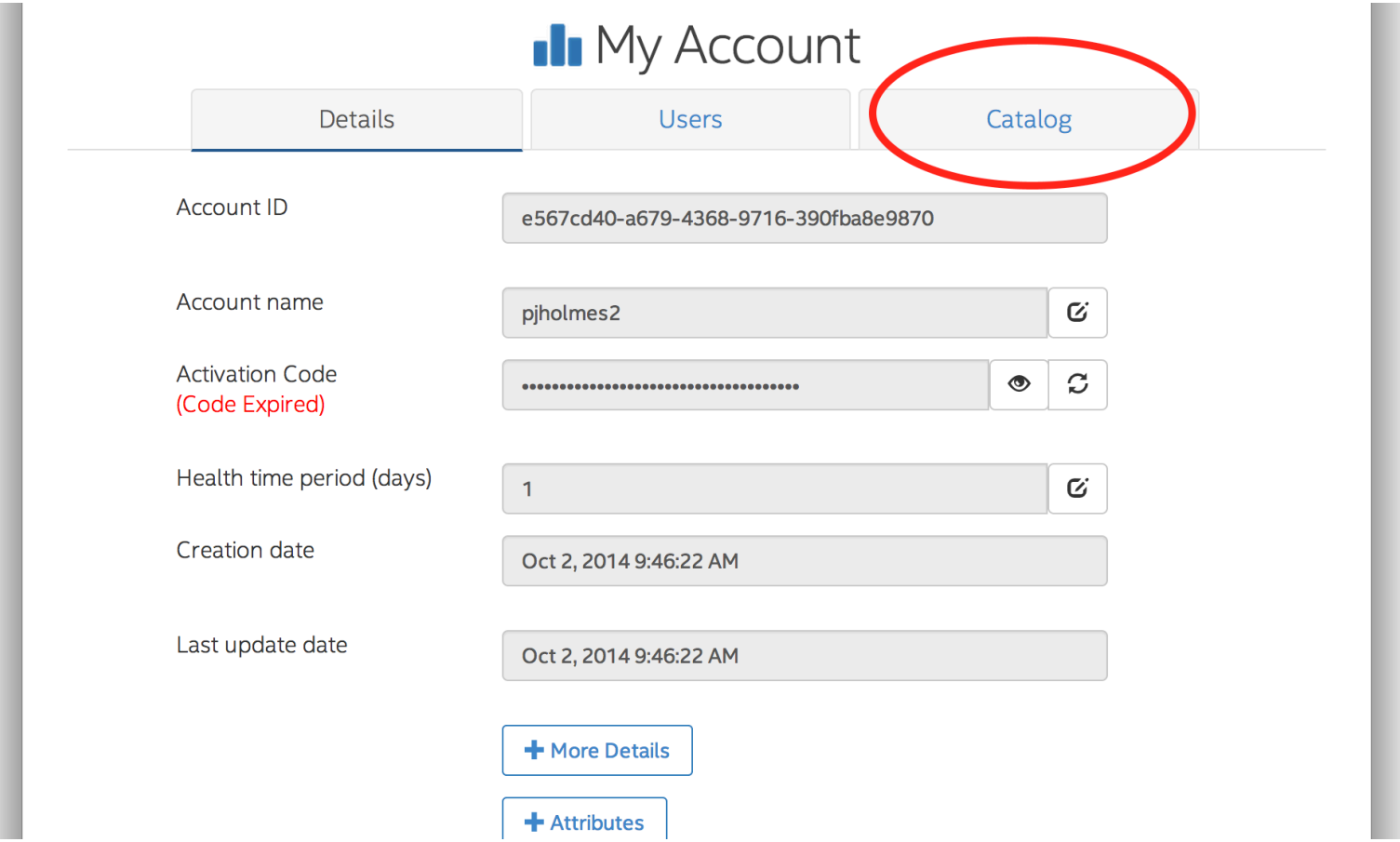
- Github enableiot
- See samples/api for sample code
  - Python
  - Node.js
- See API Wiki for API Documentation

Advanced Topics

Component Types



Create your own Component Type



Time in the REST API

- All times are milliseconds from 1-Jan-1970 00:00:00.000
- Python: time.time() * 1000
- Node.js: new Date().getTime()

Sending Data

- Use a REST client
- Include header “Authorization: Bearer <token>”
  - Get token from the file:
  - /usr/share/iotkit-agent/certs/token.json

POST https://dashboard.us.enableiot.com/v1/api/data/:deviceId

```
{
   "accountId": ”<accountId>",
   "data": [
      {
         "componentId": ”<componentId>",
         "on": 1412456872000,
         "value": "1.23"
      }
   ],
   "on": 1412456872000
}
```