# Developing Simple NDN Applications

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https://named-data.net/icn2016-tutorial

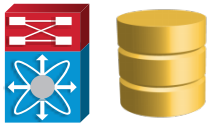
# Demo Setup

## Will use Google Cloud VMs

| Name | Zone | Machine type | In use by | Internal IP | External IP | Connect |
|---|---|---|---|---|---|---|
| kyoto-client-1 | asia-east1-a | 1 vCPU, 0.6 GB | | 10.0.2.3 | 107.167.179.186 | SSH |
| kyoto-hub-1 | asia-east1-a | 1 vCPU, 0.6 GB | | 10.0.2.2 | 107.167.179.209 | SSH |
| kyoto-sensor-1 | asia-east1-a | 1 vCPU, 0.6 GB | | 10.0.2.4 | 104.199.184.137 | SSH |
| la-client-1 | us-west1-a | 1 vCPU, 0.6 GB | | 10.0.1.3 | 104.198.12.164 | SSH |
| la-hub-1 | us-west1-a | 1 vCPU, 0.6 GB | | 10.0.1.2 | 104.198.15.188 | SSH |
| la-sensor-1 | us-west1-a | 1 vCPU, 0.6 GB | | 10.0.1.5 | 104.198.7.244 | SSH |
| ndnsim-1 | us-central1-b | 1 vCPU, 3.75 GB | | 10.128.0.2 | None | SSH |
| news-1 | us-east1-c | 1 vCPU, 0.6 GB | | 10.0.3.3 | 104.196.22.250 | SSH |
| other-net-hub-1 | us-east1-c | 1 vCPU, 0.6 GB | | 10.0.3.2 | 104.196.177.138 | SSH |

# Demo Setup

/demo/news/page/<date>/<version>/



/demo/news/KEY

"Web" Server

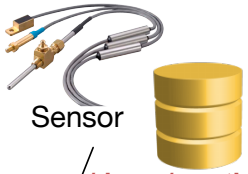
/demo/weather/sample/LosAngeles/<time>

/demo/weather/sample/Kyoto/<time>

Sensor

/demo/weather/KEY

/demo/news/hub
NDN Network



Sensor

/demo/weather/KEY

NDN Network (Los Angeles)

NDN Network (Kyoto)

/demo/la-hub

NDN Hub

/demo/kyoto-hub

NDN Hub

ssh demo@107.167.179.186

ssh demo@104.198.12.164

# Coding Demo

- Writing trivial news server based on skeleton app
- Showing code of trivial sensor app
- Demo news server and sensor using ndnpeek. Demonstration of
  - ndndump
  - wireshark with NDN dissector
  - ndn-dissect
- Writing a trivial NDN.js based app and demo it
  - var face = new Face({host: "107.167.179.209"});
  - var face = new Face({host: "104.198.12.164"});