
แนะนำการใช้งานด้าน IoT บนบริการเมฆา (MECAs)

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Agenda

- MECAs Introduction
- MECAs new features walkthrough
- Benefit of MECAs on IoT Application
- IoT Overview
- IoT Processing pipeline
- IoT DIY
- WeConnect (WoT)

MECAS Introduction

- Container as a Service
- Resources: CPU, RAM, Disk, IP
- HTTP/HTTPS with subdomain
- Built-in Load balancer
- Quick start with Recipe

MECAs New Feature

<https://portal.meca.in.th/>



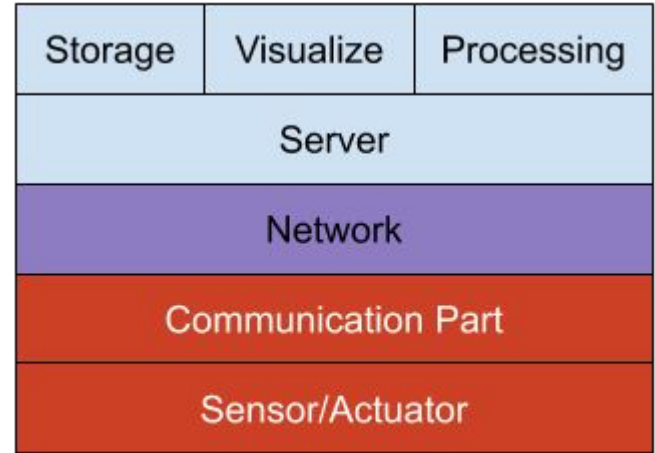
Benefit of MECAs for IoT Applications

- Cloud solution
 - Generic Computing Container Application Platform
 - Network: Public IP address with port range
 - Storage: Block storage, Network File Server, *Elasticsearch as a Service*
- Container Tools

Protocol Server	<ul style="list-style-type: none">- Eclipse Mosquitto (https://hub.docker.com/_/eclipse-mosquitto)- EMQX (https://hub.docker.com/r/emqx/emqx)- NodeRED (https://hub.docker.com/r/nodered/node-red)
Storage	<ul style="list-style-type: none">- Mariadb (https://hub.docker.com/_/mariadb)- Postgres (https://hub.docker.com/_/postgres)- Influxdb (https://hub.docker.com/_/influxdb)
Visualize	<ul style="list-style-type: none">- Grafana (https://hub.docker.com/r/grafana/grafana)- Chronograf (https://hub.docker.com/_/chronograf)

IoT Overview

- Network
 - ZigBee, LoRa, NB-IoT, WiFi, 3G
- Topology
 - Wireless Sensor Network with Gateway
 - Internet Connected Device
- Protocol
 - TCP, UDP, HTTP, MQTT, CoAP, AMQP
- Dataflow
 - Push / Pull model



IoT Processing pipeline

Storage	Visualize	Control
Event processing		
Preprocessing/Parsing		
Ingress		
Protocol		

InfluxDB	Grafana	Node-RED
Node-RED		
Mosquitto MQTT		

Example Tools

IoT DIY

- MECAs Document: 2020-01-10-Demo-IoT-DIY.pdf
- ESP8266 Document: 2020-01-10-ESP8266-Manual.pdf

WeConnecT (WoT)

- Web Things: An open platform for monitoring and controlling devices over the web.
- Smart home application with gateway architecture.
- Compatible devices: Philips Hue, Yeelight, Chromecast
- SDK: NodeJS, Python, Rust, Arduino