Fast modelling & deployment of IoT applications from the cloud

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Digital problem solvers...
A hyperconnected world.

An emerging new world where people, systems and things are connected via digital processes, transforming work and life everywhere.
An innovation subsidiary of Fujitsu providing a High productivity cloud platform for building connected, process-centric apps

- Focus on modelling
- UX, Process, Integration, Data
- Library of connectors for on-premise, cloud
- One-click global deployment
- Extended to IoT with additional connectors
Challenges of building digital systems with IoT

- From a selection of projects we learnt that connectivity is not enough

- Need more intelligent devices

- Need faster Development progress

[RunMyProcess logo]
An increasingly complex problem

Cloud-centric

IoT-centric
Our goal

Enable fast, agile modelling & deployment of IoT applications from the cloud.
Main components

Cloud Platform
- Device Registry
- Modelling Canvas
- DSL Deployment

Model concepts
- Domain Meta-model

Device Platform
- Device Registration
- DSL Deployment
- DSL Execution
Building a consistent meta-model

- Reading
- Thresholding
- Polling
- Timers
- Gateways
- Expressions
- Variables
- Communication

- Abstracted from concrete use cases
- Leveraging LWM2M & IPSO smart objects
Solution architecture

Cloud modelling & execution

- Cloud based behaviour modelling
- Open LWM2M registry
- JS generation & deployment

Communications

- End to end secure communications

Open IoT platform

- Javascript execution engine
- Access to underlying RIOT APIs
- Easy (re)deployment

Shared Metamodel
**Benefits**

**Simplified development**
Non-specialised developers can easily build, deploy and test IoT applications

**Flexible deployment**
Business logic can be built and flexibly deployed to both the cloud & devices

**Easy integration**
Devices easily integrated into wider systems using web protocols e.g. CoAP

**Power optimized**
Approach does not require expensive firmware updates and distribution
RunMyProcess.

a Fujitsu company