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QIoT Suite Lite

Your Private IoT Cloud platform

RD Jarvis Chung

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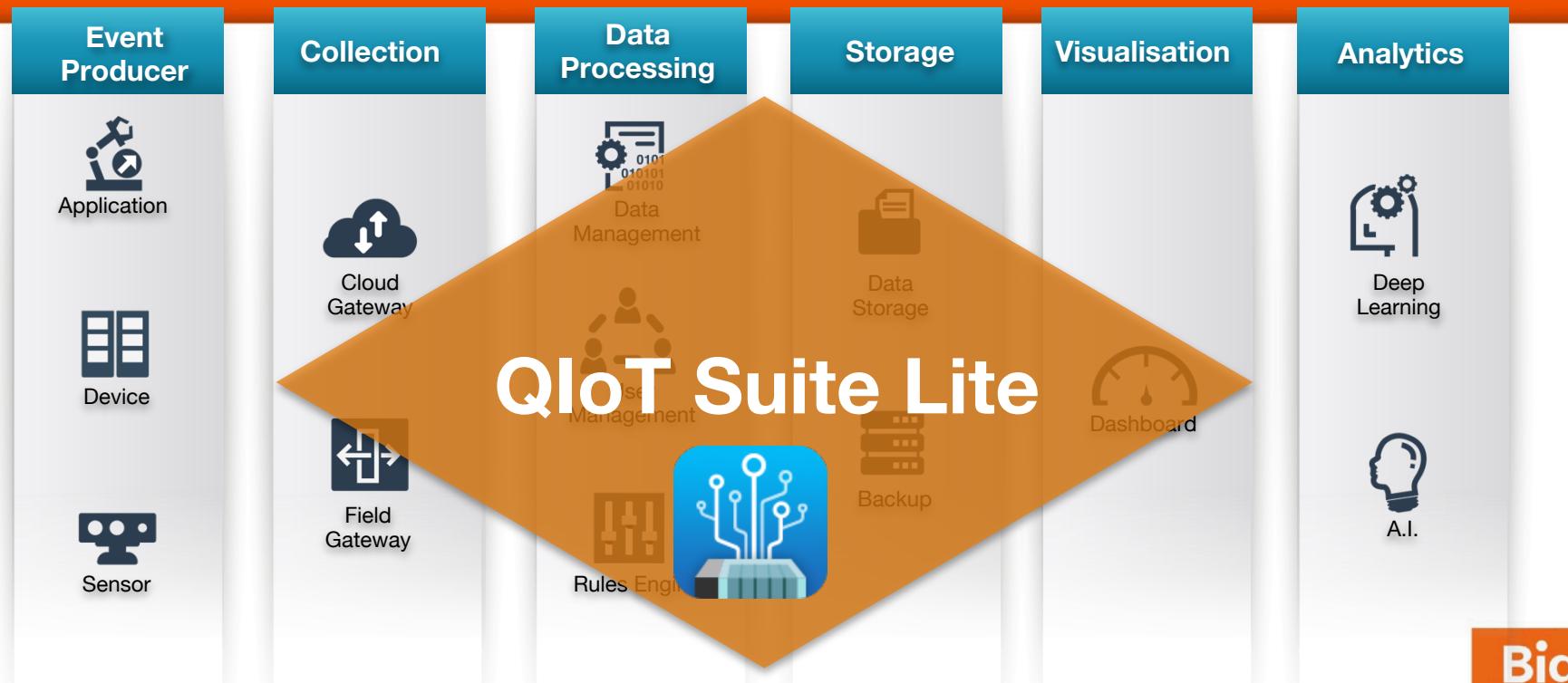
QIoT SDK and Tutorial



<https://goo.gl/n0Cgs6>

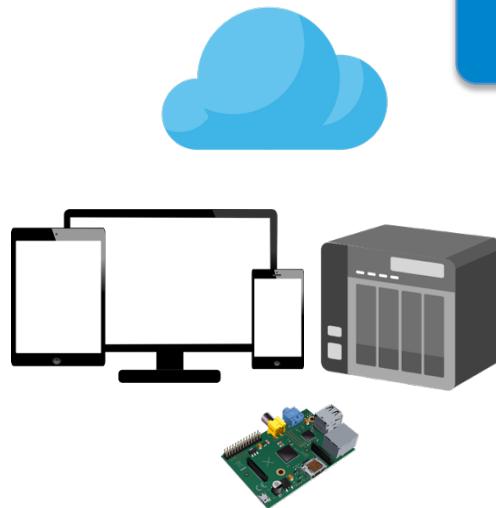


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**Big
ThinK**

Architecture



Application

3rd party service



Container Station

QTS

Wireless

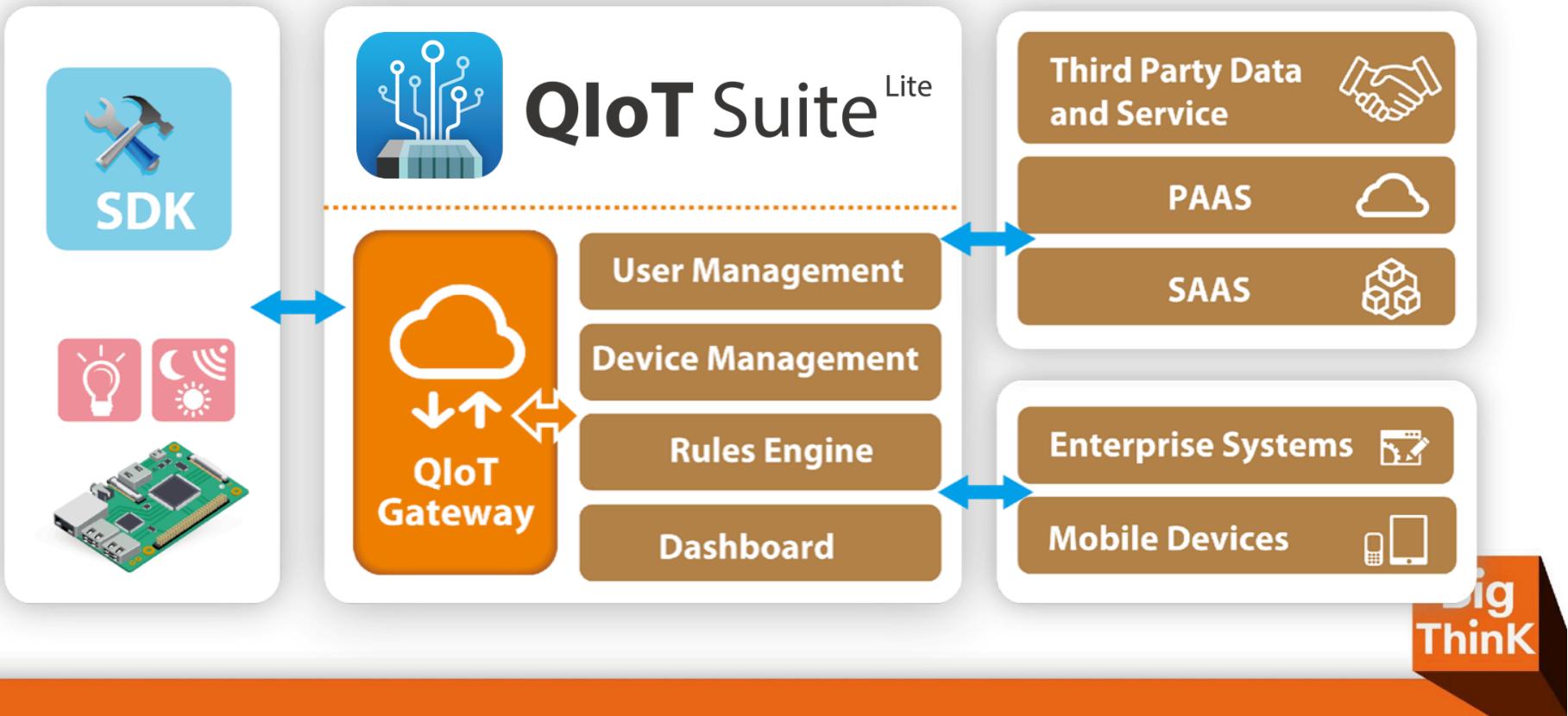
Ethernet

USB

The key component in
QNAP IoT - a complete
solution for entering IoT
world.



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User management and device management

QIoT Suite Lite

admin

Home IoT Applications Things Thing Types Users Settings

Home QIoT Quick Setup

IoT Applications 5

Things 8

Thing Types 10

NAS(Server) Performance Monitor 1

Jarvis-3F

Firmware: 4.3.3
Model: TS-251
Processor: Intel(R) Celeron(R)
CPU: CPU J1800 @ 2.41GHz
Memory: 7865.7

37.3% CPU

44% Memory

eth0
↓ 27 KB/s ↑ 75 KB/s

The screenshot displays the QIoT Suite Lite interface. On the left is a sidebar with icons for Home, IoT Applications, Things, Thing Types, Users, and Settings. The main area shows a dashboard with three cards: 'IoT Applications' (5), 'Things' (8), and 'Thing Types' (10). Below this is a section titled 'NAS(Server) Performance Monitor' for a device named 'Jarvis-3F'. It shows the device's specifications (Firmware: 4.3.3, Model: TS-251, Processor: Intel(R) Celeron(R), CPU: CPU J1800 @ 2.41GHz, Memory: 7865.7), two circular performance indicators (37.3% CPU, 44% Memory), and a network traffic graph for 'eth0' showing download (27 KB/s) and upload (75 KB/s) speeds.

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QIoT Suite Lite Setup Wizard

The screenshot shows the QIoT Suite Lite interface. On the left is a sidebar with icons for Home, IoT Applications, Things, Thing Types, Users, and Settings. Below the sidebar is a section for 'NAS(Server) Pool' showing 'Jarvis-3F'. In the center, a modal window titled 'QIoT Suite Lite Setup Wizard' is open. The title bar of this modal has a yellow rectangular box around the 'QIoT Quick Setup' button. The main content of the modal includes a welcome message, a description of the platform's components and supported protocols (HTTP, MQTT, and CoAP), and a diagram illustrating the architecture. At the bottom of the modal are 'Cancel' and 'Next' buttons. To the right of the modal, there are three cards: 'Thing Types' (3), a network traffic graph for 'LAN 1' (down 5 KB/s, up 34 KB/s), and a 'Big Link' card.

Home QIoT Quick Setup

QIoT Suite Lite Setup Wizard

Welcome to QIoT Suite Lite. QIoT Suite Lite is QNAP's Private IoT Cloud Platform, which provides a complete solution to create your IoT Applications on QNAP NAS.

QIoT Suite consists of major components such as Device Gateway, Rule Engine, Dashboard etc. You may use various starter kits like Arduino, Raspberry Pi, Intel Edison or others along with multiple sensors and start pushing telemetry data on QIoT Suite through Device Gateway. Device Gateway supports multiple protocols such as MQTT, HTTP or COAP. This data could be processed and using our robust Rule Engine and appropriate actions could be taken. Dashboards help you to monitor and control your IoT sus-system from single state of the art interface.

Let's get started and create your IoT Application...

Welcome to QIoT Suite Lite

Device Gateway Rules Engine Dashboard

HTTP, MQTT and CoAP

NAS

Cancel Next

Thing Types 3

LAN 1

↓ 5 KB/s ↑ 34 KB/s

Big Link

IoT Applications

QIoT Suite Lite

admin

IoT Applications

An IoT Application is a combination of multiple Things, single Rule and single Dashboard.

+ Add IoT Application Action

Application Name	Description	Status	Created On	Actions
LASS4U	LASS Project	Running	2017/3/24 09:13:48	Edit Delete
氣象站	Jarvis 家中的氣象站	Running	2017/3/23 14:23:22	Edit Delete
水族箱	Jarvis 的水族箱	Running	2017/3/23 13:31:39	Edit Delete
水塔蓋	台大創創計劃	Running	2017/3/23 13:28:13	Edit Delete
JarvisAPP	測試	Running	2017/3/17 17:54:04	Edit Delete

Search Name or Description

Home IoT Applications Things Thing Types Users Settings

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Rule Engine provide more possibility

The screenshot shows the QIoT Suite Lite interface, specifically the Rule section. A rule named "Rule_LASS4U" is displayed, created on 2017/3/24 09:13:48. The flow starts with a "LASS4U_FT2_0118" node connected to a function node (orange). This is followed by a "split" node, which then connects to a "Process Sensor Data" node. The output of this node is split into five separate streams, each leading to a "Temperature", "Humidity", "CO2", "PM2.5", and "PM1.0" node respectively. A callout box highlights the "Process Sensor Data" node with the text: "Customize NodeRED easy to build trigger and action !".

```
graph LR; LASS4U_FT2_0118[LASS4U_FT2_0118] --> f1[function]; f1 --> split[split]; split --> PSData[Process Sensor Data]; PSData --> Temp[Temperature]; PSData --> Hum[Humidity]; PSData --> CO2[CO2]; PSData --> PM25[PM2.5]; PSData --> PM10[PM1.0];
```

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ThinK**

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Dashboard transfer data into useful information

The screenshot shows the QNAP QIoT Suite Lite interface. On the left, a sidebar menu includes Home, IoT Applications (selected), Things, Thing Types, Users, and Settings. The main area displays a dashboard for a 'LASS4U' project, created on 2017/3/24 09:13:48. The dashboard contains four circular gauge charts: 'Temperature' for 新竹 LASS4U (23.71 °C) and JARVIS LASS4U (26.17 °C), and 'Humidity' for both locations (64.64% and 59.54% respectively). An orange callout box with the text 'Freeboard provide customized visualization of the Internet of Things.' points to the top right corner of the dashboard area.

Freeboard provide
customized visualization
of the Internet of Things.

admin

Dashboard Rule Things

Dashboard_LASS4U Created on 2017/3/24 09:13:48

Home

IoT Applications

Things

Thing Types

Users

Settings

LASS4U LASS Project

Temperature

Humidity

Temperature

Humidity

Elite solutions for developer

Support protocol:

MQTT, MQTTs, HTTP, HTTPS and CoAP

Quick setup guide:

- Arduino Yun - Python, Arduino
- Raspberry Pi - Node.js
- Intel Edison - Node.js

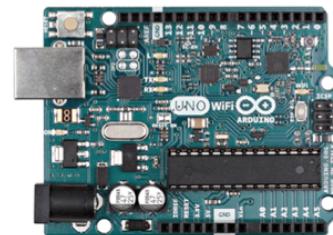


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Other Support Devices



Pycom



Arduino UNO WIFI



The World's First
\$9 Computer!



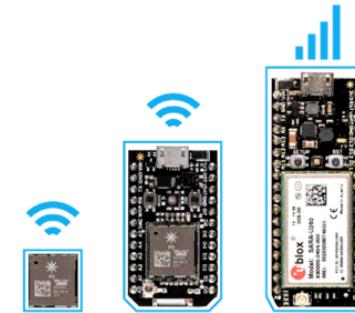
The C.H.I.P. GR8 Upgrade is in Progress!



Espruino WiFi



LinkIt 7688

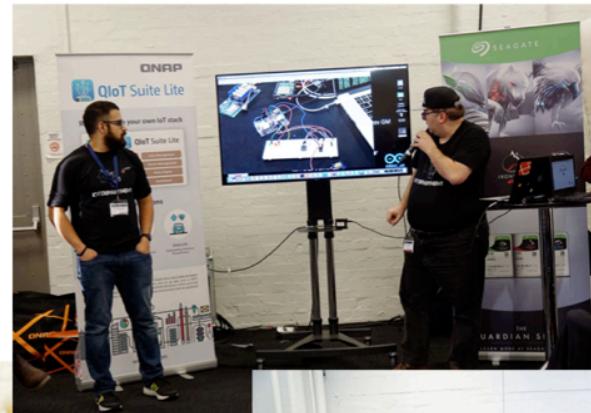


Particle Family



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QIoT Suite in London Hackathon





QNAP WiFi Info

SSID: QNAP_Secutech_Hackathon
Password: 1234qwer



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<https://goo.gl/n0Cgs6>

Thank you.