

# RhioT

The overview

Brought to you by Henryk Konsek

# Henryk Konsek @hekonsek



TWEETS  
2,673

**Henryk Konsek**  
@hekonsek

Engineer at Red Hat. Open source hacker (Apache Camel, JBoss Fabric8, JBoss Hawt.io). Keen on the marriage of the Internet Of Things, messaging and the cloud.

📍 Poland  
[about.me/hekonsek](https://about.me/hekonsek)  
🕒 Joined January 2009

📷 62 Photos and videos



- engineer at Red Hat
- open source contributor
- focused on the IoT

# http://rhiot.io

5] <https://github.com/rhiot/rhiot>

readme.md

## Rhiot - the messaging platform for the Internet Of Things



Rhiot is the messaging platform for the Internet Of Things. We are focused on the adoption of the [Red Hat JBoss middleware portfolio](#) to provide the solutions to the common IoT-related challenges.

Rhiot comes with the following features:

- [IoT gateway software](#)
- [Camel components for the IoT](#)
- [Backend cloud services \(Rhiot Cloud\)](#)
- [Web console for managing the devices, gateways and Cloudlets](#)
- [IoT deployment utilities](#)
- [Performance Testing Framework for the IoT gateways](#)

**Messaging as the first-class citizen.**

# Gateway



- Camel and Kura
- glued by Vert.x
- non-OSGi

# Extra IoT components for Camel



- extra Eclipse Kura integration
- GPIO
- CoAP (Californium)
- Tinkerforge
- BU353 GPS

# Deployment & Performance



- simple TCP device scanner
- utilities to deploy to devices
- performance benchmarks frameworks

# Cloudelets



- backend microservices
- extensible building blocks for IoT backend
- Camel and ActiveMQ are first-class citizens
- non-OSGi, Docker-friendly fat-jar

# Cloudlet example - device management



- based on Eclipse Leshan
- clustering friendly
- LWM2M/REST/MQTT APIs
- support for virtual devices



# Spiffy UI!

The screenshot shows a web browser window with the URL `rhio.net/devices/devices?main-tab=cloudlet-device&sub-tab=cloudlet-device-devices`. The page title is "RHIOT" and the user is logged in as "Henryk Konsek". The navigation menu includes "Geofencing" and "Devices". The main content area is titled "Devices registered in the cloud" and features a "Create virtual device" button. Below this, two devices are listed: "device1" and "myVirtualDevice", each with "Deregister" and "Send heartbeat" buttons. A table displays the metrics for "myVirtualDevice".

Devices registered in the cloud

Create virtual device

♥ device1 Deregister Send heartbeat

♥ myVirtualDevice Deregister Send heartbeat

**myVirtualDevice**

Device metric	Metric value
firmwareVersion	1.0.0
manufacturer	Rhiot
modelName	Virtual device
serialNumber	Serial-d3b11e07-3684-485b-9e30-bc6e75de47aa

# Eclipse IoT platform and Rhiot?



- reinventing the wheel is bad
- we would like to reuse instead of writing everything from scratch
- generic IoT platform at Eclipse, RedHat-specific extensions in Rhiot

A screenshot of a Twitter profile for Henryk Konsek. The profile picture shows a man with dark, curly hair and a beard, wearing headphones, looking upwards. To the right of the profile picture, it says "TWEETS 2,673". Below the profile picture, the name "Henryk Konsek" is displayed in bold, followed by the handle "@hekonsek". The bio reads: "Engineer at Red Hat. Open source hacker (Apache Camel, JBoss Fabric8, JBoss Hawt.io). Keen on the marriage of the Internet Of Things, messaging and the cloud." Below the bio, it says "Poland", "about.me/hekonsek", and "Joined January 2009". There is also a link for "62 Photos and videos". A grid of six small images is shown below the bio, including a bicycle, a Raspberry Pi box, a table with food, a horse's head, a hoodie, and a room with many chairs.

Thank you!

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