Subject: IBM Cloud Platform: IoT and Watson

1. **Title**: IBM Cloud platform: Visual recognition and Internet of things with a Raspberry PI

2. **Duration**: Half day

3. **Abstract**
This tutorial demonstrates a Raspberry PI device connected to the Watson IoT IBM Cloud platform. This system could, for example, be used as a domotic system: the Raspberry PI is a MQTT client receiving message to take pictures and these are then stored on the IBM Cloud platform and sent to the Watson visual recognition service hosted by the IBM Cloud platform. The half day is decomposed in 2 steps. In a first step, a presentation and demonstration of the IBM Cloud of an existing system connecting a Raspberry PI and, in a second step, a hands-on session where the participants creates on their own IBM Cloud platform account an extension of the existing system using a NodeRed editor calling the Watson visual recognition service.

4. **Motivation and interest for the SAC community**
Cloud application using Internet of Thing and Cognitive services to demonstrate the IBM Cloud platform in a domotic context.

5. **Overview/Description/Structure**
Introduction

This tutorial demonstrates how to connect a Raspberry PI device to the Watson IoT IBM Cloud platform, visualize pictures taken by the Raspberry PI and store them into a database to finally leverage Node-RED tool for writing extension calling online services.
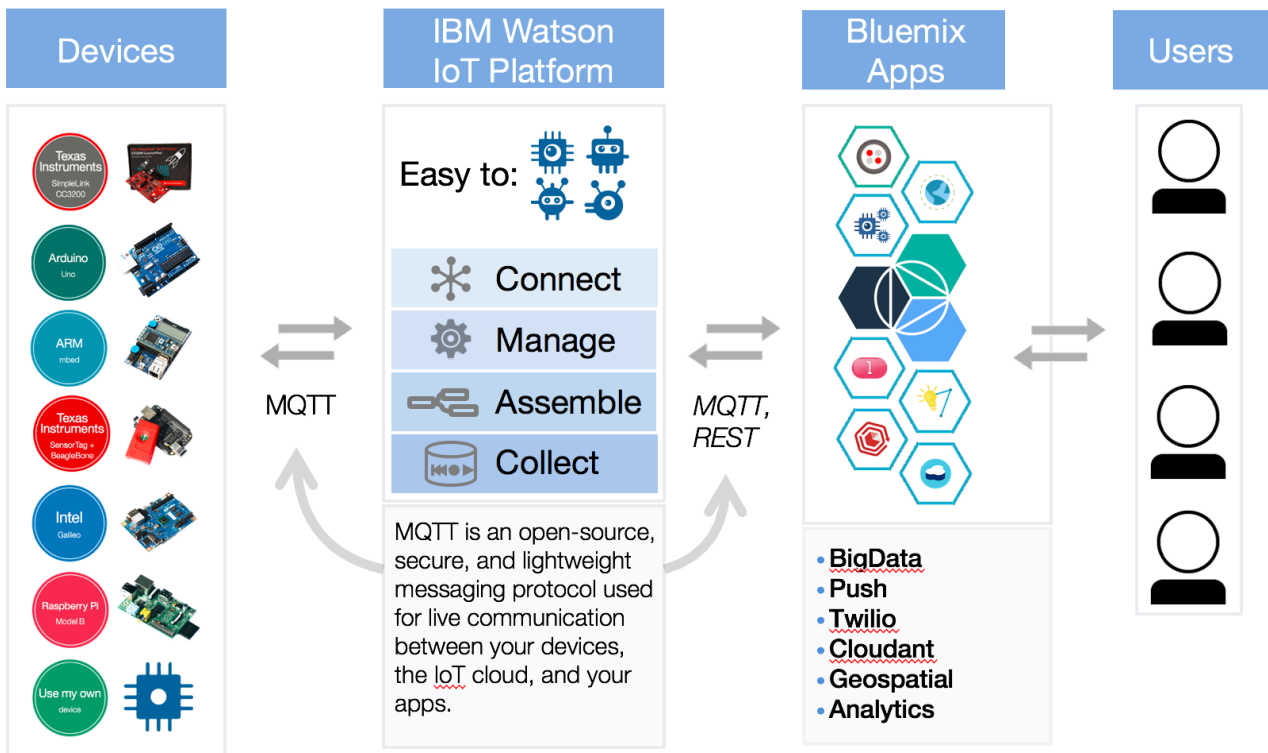
Objectives
You will have a presentation of the IBM Cloud platform
You will see a demonstration of an existing system connecting a Raspberry PI device
You will leverage Node-RED to create an extension calling Watson services for visual recognition
Pre-Requisites
A Bluemix account (provided during the tutorial)

6. **BIO**

Yves Holvoet
IT Architect
Bilingual French/English
Dual citizen France/New-Zealand

Software Engineering Specialist with Engineering diploma and a major in languages theory. I Did some applied research on formal specifications and formal proof of programs before joining Rational in 1989 where I worked on methods, processes and tools, participated in task forces defining the UML (Unified Modeling Language) and did some consulting in large companies (telecom, aviation, finance) all over the world in 16 countries on 4 continents.

Education

ENSIMAG 1982, Grenoble, France
Engineering Diploma
Major in Software Engineering.

DEA 1982, Grenoble, France, Equivalent to Master
Major in Languages Theory and Compilation.
http://cv.yvesholvoet.eu (cv hosted on IBM Cloud Platform)

Key Skills

Software Engineering
Real-Time
Rational portfolio
UML
Cloud, Bluemix, Big Data
Web Development
C/C++/Ada/Java