

# Introduction

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# Objectives

# Objectives for the course

- Understand the **generic** concept of “**Web Service**”.
- Understand that “**RESTful APIs**” are **one way** to expose web services.
- Be able to explain the **core principles** of the REST architectural style
  - Resource identification & URLs
  - HTTP verbs
  - Content-negotiation & resource representation
- Learn how to **implement** a RESTful API
  - in Java
  - in JavaScript



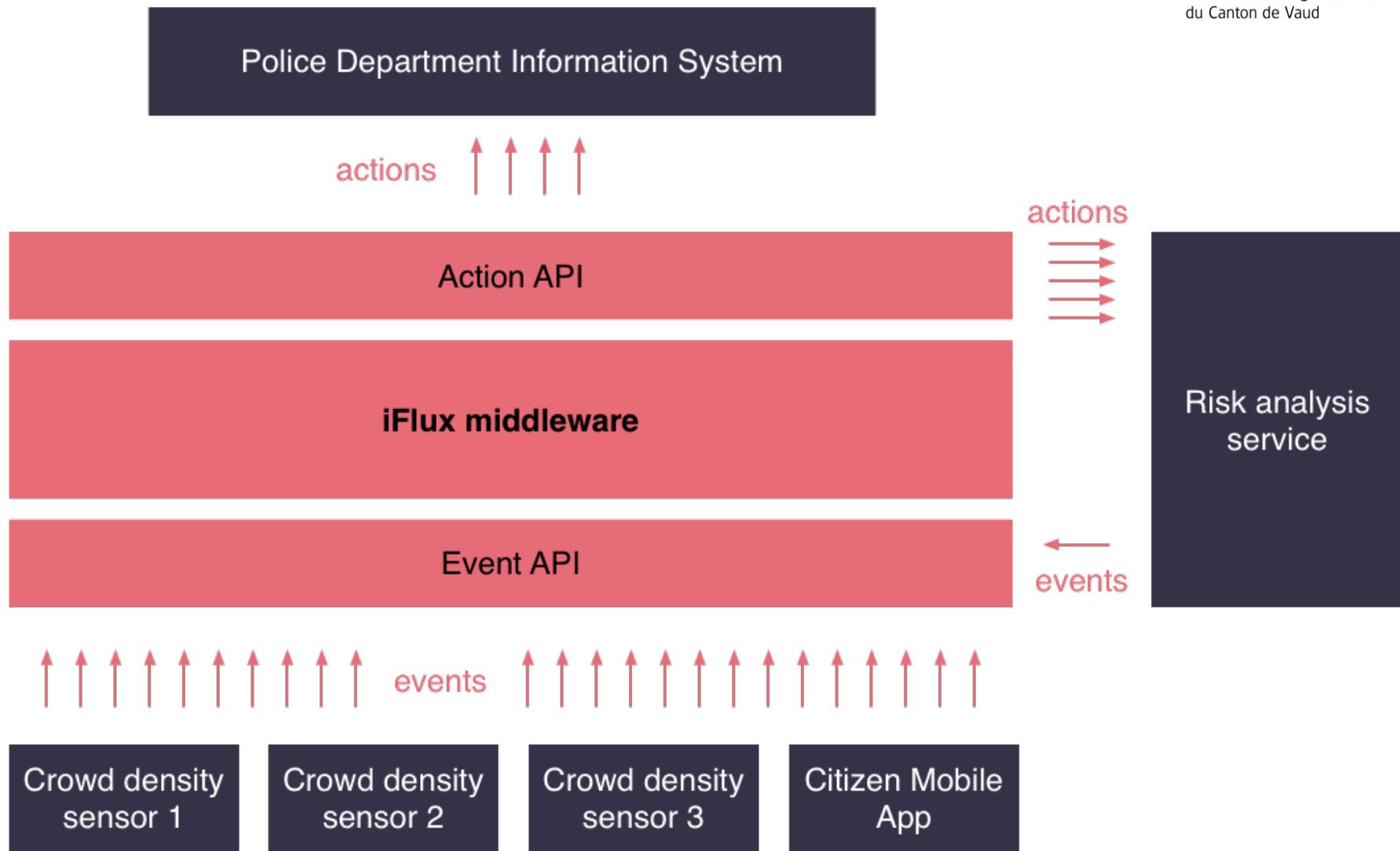
# Theme

# IOT MIDDLEWARE FOR REACTIVE CITIES

IF my city breathes THEN I can feel its pulse

## CONTEXT

iFLUX is an ongoing project, conducted in the broader context of the iNUIT research programme at the University of Applied Sciences Western Switzerland. Whereas iNUIT intends to create a complete **IoT stack for smart city applications**, iFLUX focuses more particularly on the **middleware layer**. Our goal is to build an event-driven, rule-based environment that will make it easier to integrate the various iNUIT components and to automate urban workflows.



## How to report a problem

- 1** Enter a nearby UK postcode, or street name and area
- 2** Locate the problem on a map of the area
- 3** Enter details of the problem
- 4** We send it to the council on your behalf

**3,831    5,276    575,445**

reports in past  
week

fixed in past  
month

updates on reports

## Recently reported problems

**Large tree branch fallen**

*11:06 today*



**Misaligned bus lane road signs**

*10:46 today*



**Rubbish strewn over alley**

*10:42 today*



**Broken wooden fence post**

*10:33 today*



**Fly tipping**

*10:22 today*



## The FixMyStreet App



Powered by **FixMyStreet** Platform

Are you a developer?

Would you like to contribute to  
FixMyStreet? Our code is open source  
and available at [fixmystreet.org](http://fixmystreet.org).

Are you from a council?

Would you like better integration  
with FixMyStreet? [Find out about  
FixMyStreet for councils](#).

Stamford Street Safety    Olivier

openplans.org/demo/street-safety/ Gestion

Share a street safety issue.

**Double Parking** **Crosswalk Timing**

**Long Distance to Cross** **Red Light Running**

**Jaywalking** **Poor Visibility** **Speeding**

**Failure to Yield** **Cyclist Behavior**

Provide more information about the issue.

Description...

Your Name

Your Email  optional

Please provide some optional/private information about yourself.

Okay Decline

# Stamford Street Safety

Share your observations

Stamford residents deserve and expect safe streets. But too many people are seriously



# Planning & Guidelines

	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
AM	Concepts	REST with Java EE	REST with Javascript	Coding
PM	API Design & Doc (RAML)	Java Coding	Javascript Coding	Coding & Demo

Today	
08:30 - 09:00	Introduction
09:00 - 10:00	Big Web Services vs REST Core REST concepts and principles
10:30 - 12:00	Introduction to API design, documentation Introduction to RAML
13:00 - 13:30	Domain modeling: identify the resources
13:30 - 14:00	API design: define URL structure and semantic of HTTP verbs
14:00 - 14:30	API design decide how to handle references pagination, filtering, sorting
15:00 - 16:30	Document your API with RAML / api doc seed

# Web Services

## Course

# Mobile App

## Course

