

# ACTIV-IOTY

## AN IOT PLATFORM FOR SPORTS TOURISM

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# GLOBAL SPORTS TOURISM

to grow at a compound **annual growth rate of 41.45%**  
during 2017-2021

(source: Technavio, 2017)

# ATHLETICS & RUNNING

**Most followed** discipline at Summer Olympic Games

- USA: 30,000+ running **events**; 47 million runners
- Denmark: **31% runners**
- Germany: 25% runners

*Source: Statista (2017); and Running across Europe The Rise and Size of one of the Largest Sport Markets (2015)*

# ACTIV-IOTY

## Sports Timekeeping and Management System

- To promote **healthy** and **competitive** sports
- Offers challenging **personal incentives** to engage runners
- Enabling **emergency** features
- Compatible with **third-party applications** (e.g., social networks)

# ATHLETES + CHECKPOINTS



# LOW-COST OPEN IOT PLATFORM

- Based on **RFID**
- **Easy to develop and deploy**
- Open Data compliant (**open, standard** formats)

# 1..N CHECKPOINTS

on existing courses



0:27:28

KEYBOARD-2		X
Carl Carlson	0:17:52	
Kent Brockman	+00:14	
Hans Moleman	+00:20	
Waylon Smithers	+00:51	
Martin Alvarez	+01:05	
Ned Flanders	+01:26	

# INFINITE APPLICATIONS

KEYPAD-1		
1	Kent Brockman	0:04:52
2	Hans Moleman	+00:13
3	Troy McClure	+00:18
4		
5	Ralf Wiggum	+01:05
6	Waylon Smithers	+01:13
7	Ned Flanders	+01:22

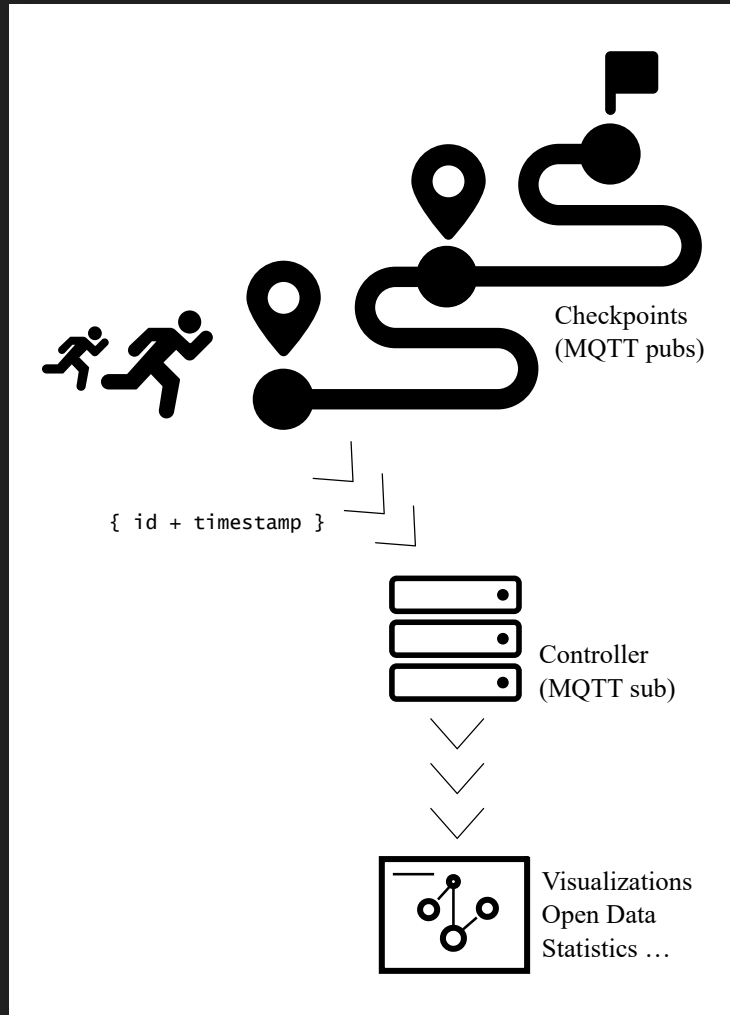
```

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  bId": "002",
  ("checkpoint":
    bId": "001",
    ("checkpoint":
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17", "timeSt
{"checkpoint":
  , "epc": "E2
11", "timeSt
{"checkpoint":
  , "epc": "E2
40", "timeSt

```



# MQTT 3.1.1



**Checkpoints:** [1..n] Publishers

**Controller:** Subscriber

**QoS 1** (At least once delivery)

```
//topic: +/checkin
{
  "checkpoint" : {
    "id" : "...",
    "geo" : { "..." }
  },
  "bibIdentifier" : "...",
  "epcIdentifier" : "...",
  "timestamp" : 0000000,
}
```

# RESULTS IN JSON-LD

```
{
  "@context": "http://w3c.github.io/opentrack-cg/contexts/op
  "@id": "http://activioty.ddns.net/race/ucGQA3quqyuhnYfQ",
  "@type": "UnitRace",
  "name": "Trail Race in the Woods 18 Kms",
  "results": [
    {
      "@id": "http://activioty.ddns.net/race/ucGQA3quqyuhnYfQ
      "@type": "Result",
      "name": "Result #0 of Trail Race in the Woods 18 Kms",
      "rank": 0,
      "performance": {
        "@type": "Performance",
        "competitor": {
          "@id": "http://activioty.ddns.net/race/ucGQA3quqyuhn
```

# + INFO

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[github.com/espinr/activioty](https://github.com/espinr/activioty)

[CTIC.es](#) / [W3C.es](#)

[w3c.github.io/opentrack-cg/](https://w3c.github.io/opentrack-cg/)