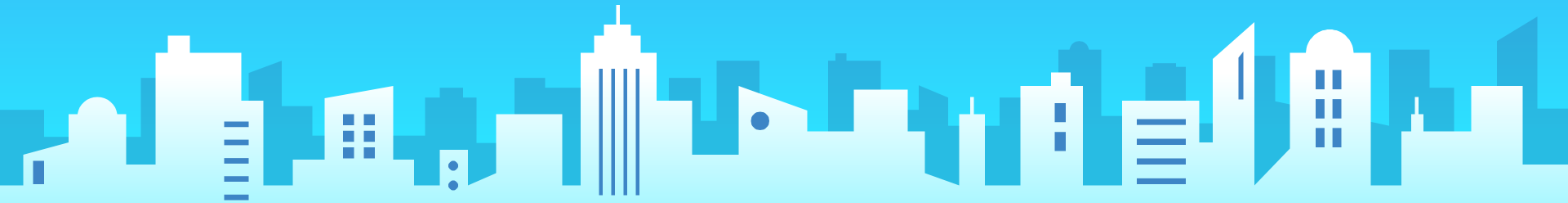


Cómo no morir usando Android Things

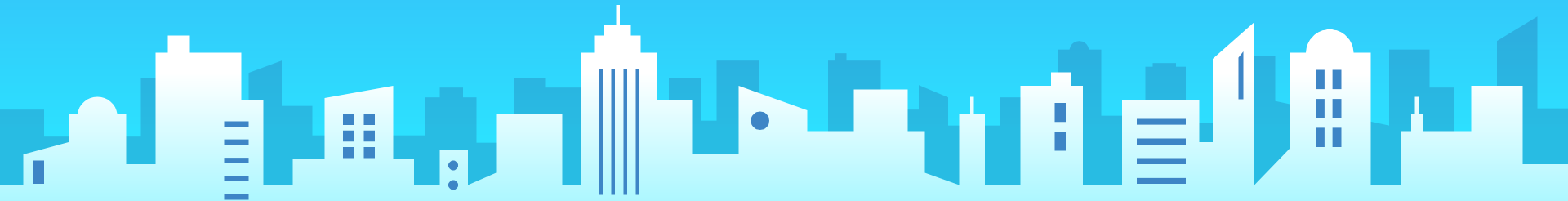




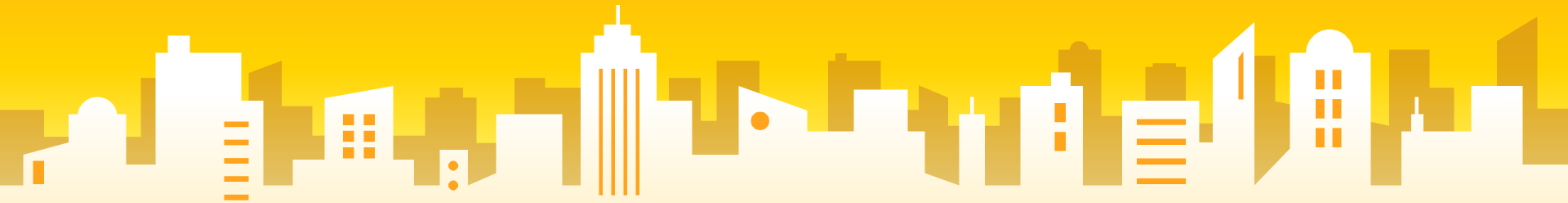
¡Holi!

Yeffri J. Salazar

IoT Developer, Xibalba Hackerspace, Comunidad Arduino
Guatemala, Open-Source



Internet De Las Cosas



“

Es el término que se utiliza para describir la interconexión de objetos de la vida cotidiana, formando una red (wan, lan, 6lowpan, lpwan, pan), teniendo o no salida hacia internet.



Historia



Bill Joy

Sun Microsystems

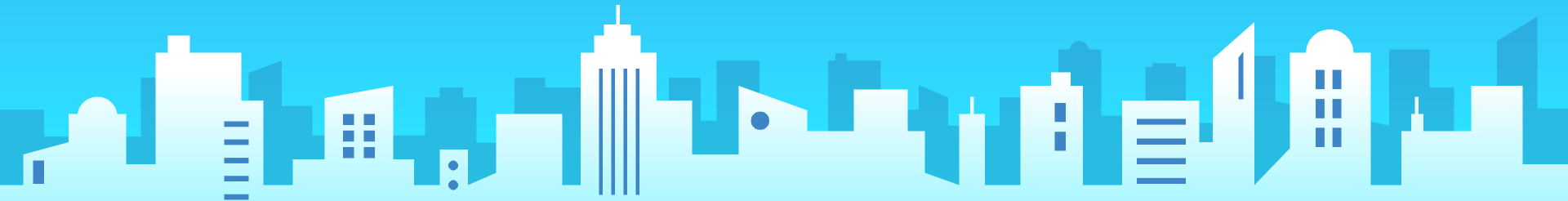
6 webs



Kevin Ashton

Auto-ID Center

RFID



Aplicaciones

Consumidores

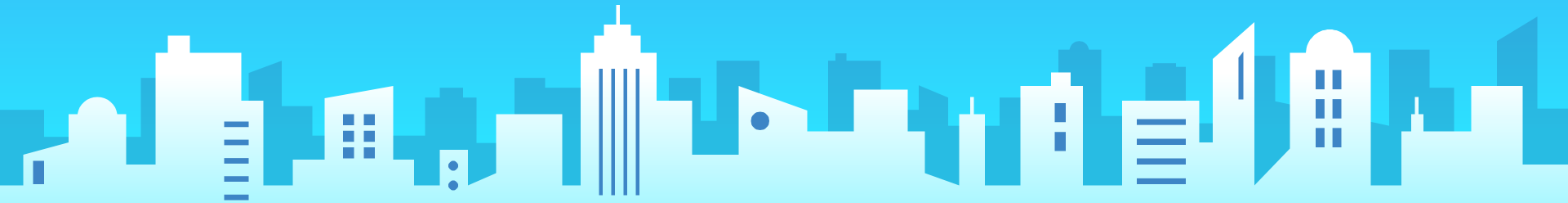
Nest, Uber, Tesla.

Empresarial

Sistemas de seguridad, Sensores, automatizacion.

Infraestructura

Puentes, Cultivos, carreteras.





Conectividad

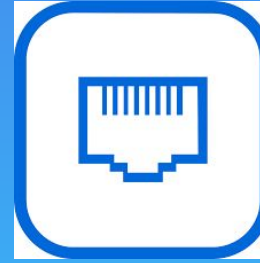
5G velocidades de descarga mínimas de 20 Gbps y 10 Gbps de subida, y una latencia de 4 ms



Protocolos actuales

Bluetooth™
4.0 
Low Energy

 **zigbee**



GPRS 
GENERAL
PACKET
RADIO
SERVICE

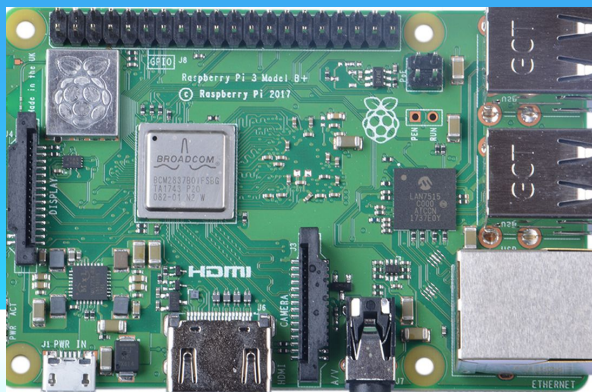
WiFi™

 **LoRa®**

 **sigfox**


GSM™

Cosas



Lenguajes y plataformas

Ensamblador

C/C++

LUA

MicroPython

Python

Nodejs

Javascript

Java

Bare metal

Arduino

Android-things

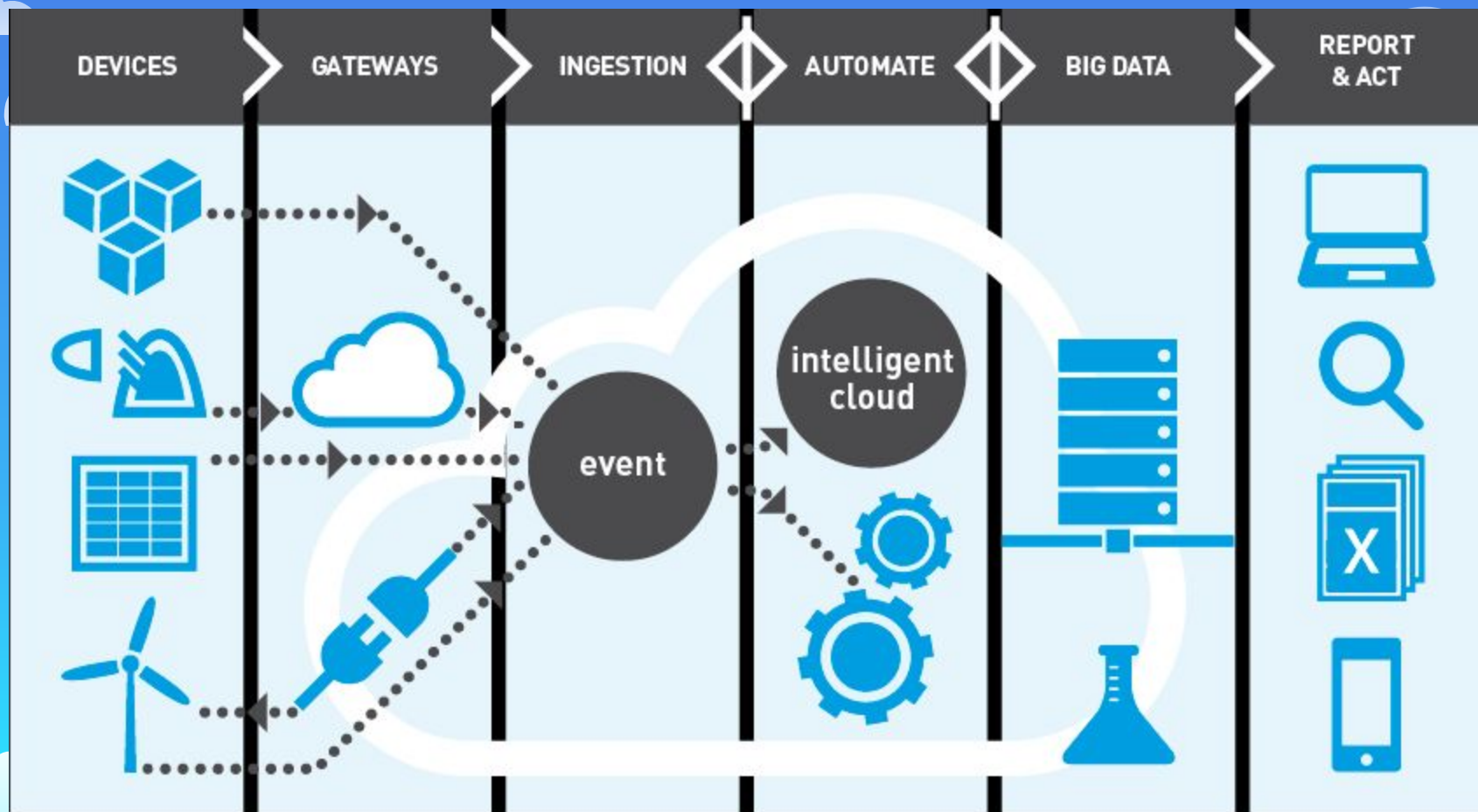
Node-red

Jhony five

Amazon rtos

Microsoft IoT

Mozilla lot



Android Things

V1.0 Google IO 2018

Conectividad

BT

LoWpan

Periféricos

IO

User-space Drivers

Date/Time**



Demostración

blink [C:\Users\ZENBOOK\AndroidStudioProjects\blink] - ...app\src\main\java\com\zenbook\blink\bl...

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

java com example zenbook blink app

Project

- blink C:\Users\ZENBOOK\AndroidStudioProjects\blink
- .gradle
- idea
- app
 - build
 - libs
 - src
 - androidTest
 - main
 - java
 - res
 - AndroidManifest.xml
 - test
 - .gitignore
 - app.iml
 - build.gradle
 - proguard-rules.pro
- gradle
 - .gitignore
 - blink.iml
 - build.gradle
 - gradle.properties

Logcat

No Connected Device No Debuggable Proc .. Q- [x] Regex Show only selected a

Build Variants

2 Favorites

TODO Logcat Terminal Build

Event Log

Gradle sync finished in 3s 803ms (from cached state) (moments ago) 11:28 CRLF UTF-8 Context: <no context>

Blink Arduino 1.8.5

Archivo Editar Programa Herramientas Ayuda

Blink \$

```
1 void setup() {
2   pinMode(LED_BUILTIN, OUTPUT);
3 }
4 void loop() {
5   digitalWrite(LED_BUILTIN, HIGH); // turn the LED on (HIGH is the voltage level)
6   delay(1000); // wait for a second
7   digitalWrite(LED_BUILTIN, LOW); // turn the LED off by making the voltage LOW
8   delay(1000); // wait for a second
9 }
```

4

Arduino/Genuino Uno



¡Por fin terminamos!

¿Preguntas?

Yeffri@pm.me

Credits

Special thanks to all the people who made and released these awesome resources for free:

- Presentation template by [SlidesCarnival](#)
- Photographs by [Unsplash](#)

