

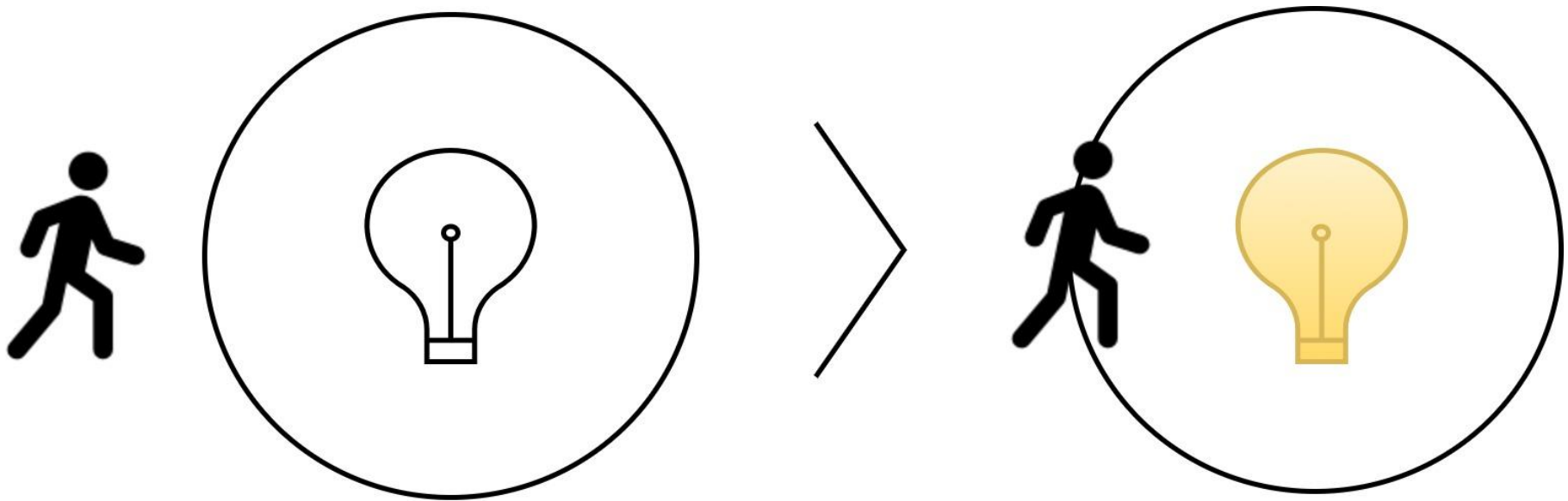
# **Team Number: 6**

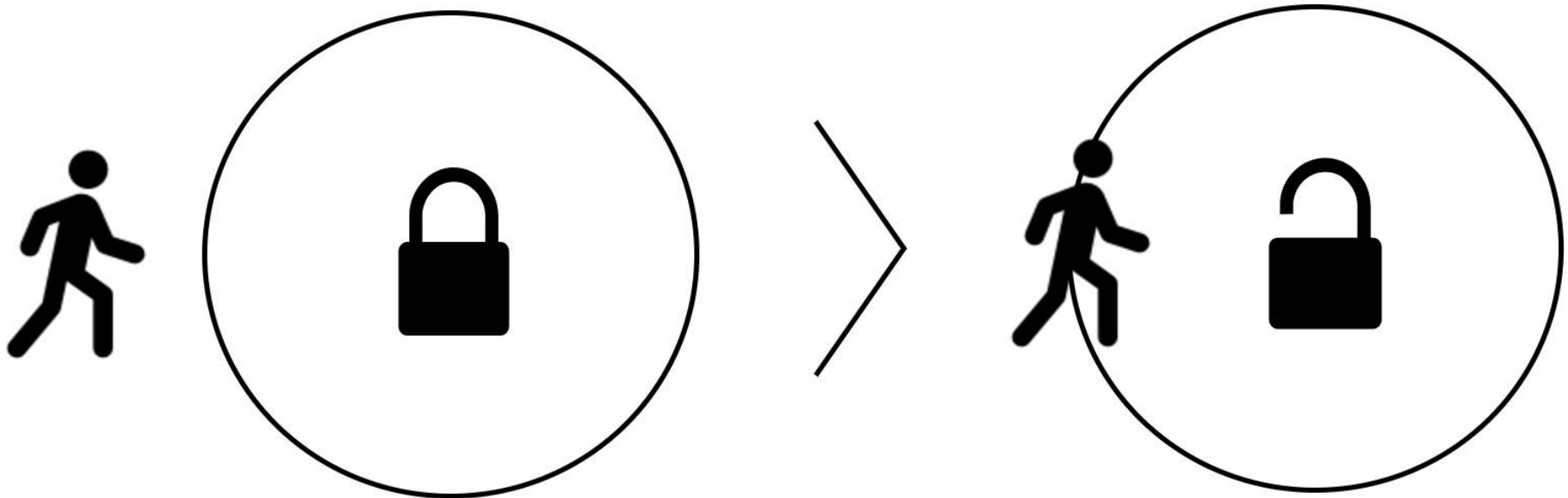
# **Distance Based Application Trigger**

Mehdi Yosofie & Philipp Schlieker, 25.01.2019

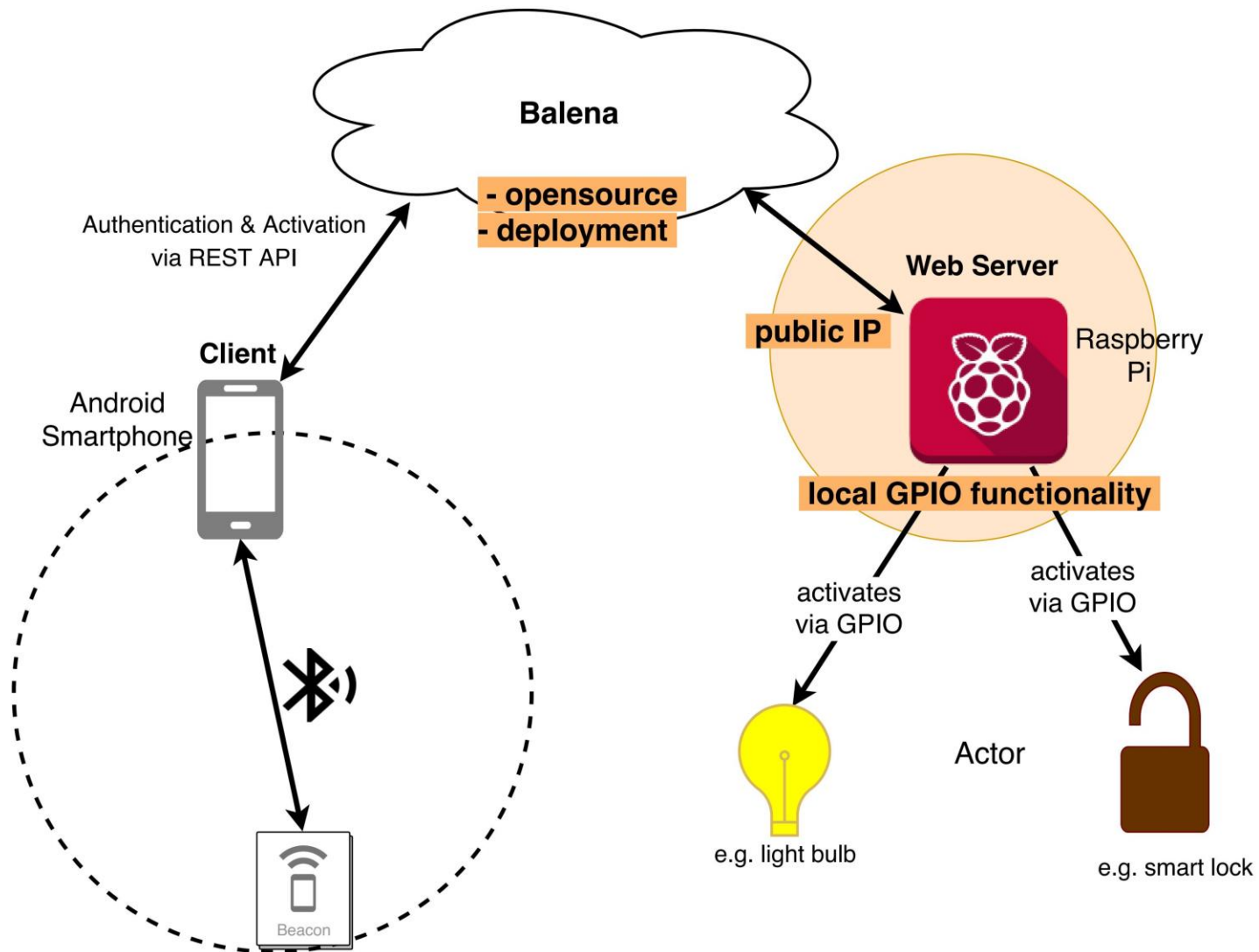
Software- and Systems Engineering Research Group  
Fakultät für Informatik  
Technische Universität München

[www4.in.tum.de/](http://www4.in.tum.de/)





# Conceptual approach





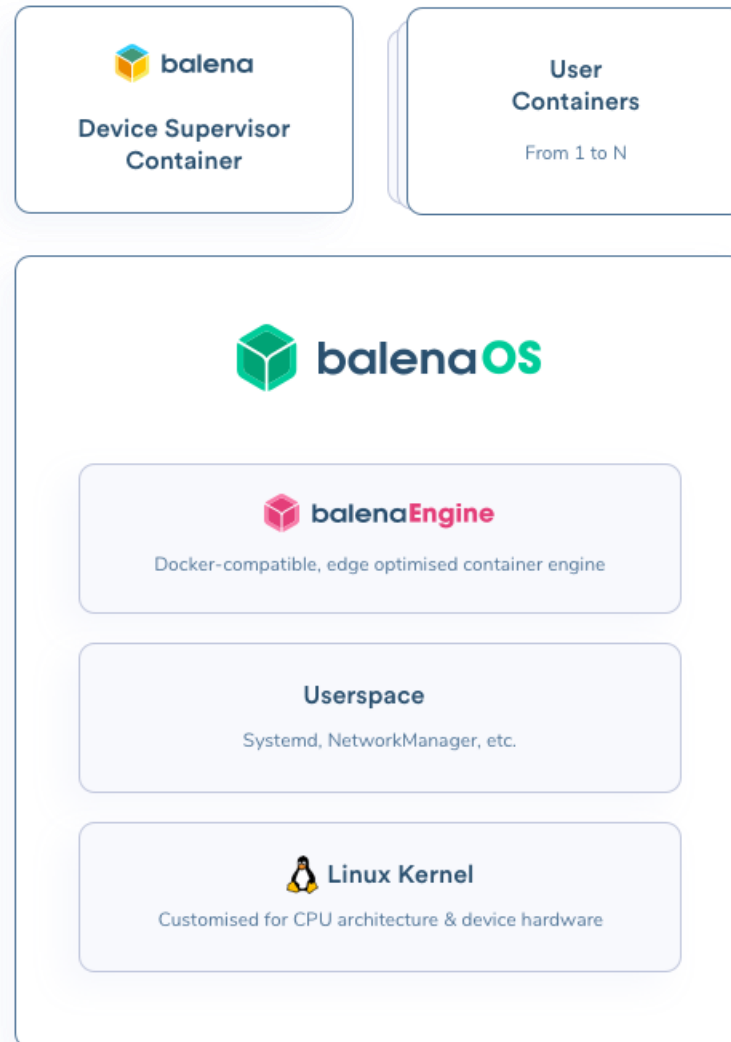
Bluetooth Low Energy (BLE)



Beacons


- Android Implementation
  - Missing Permissions
  - Background Detection on Android 8+

# Used technology | Balena & Docker



<https://www.balena.io/what-is-balena/>


# Used technology | Balena & Docker


 **balenaCloud**


[Getting Started](#) [Docs](#) [Forums](#) [Status](#)


Philipp Schlieker **PS**

Want more devices, private support and more? You can upgrade your plan from the [dashboard](#).

 [BACK](#)


Applications >  DoorPi Starter > red-violet


 SUMMARY

 DEVICE CONFIGURATION

$D(x)$   
DEVICE VARIABLES

$S(x)$   
DEVICE SERVICE VARIABLES

 LOCATION


 ACTIONS


DEVICE

red-violet

Reboot

Restart







STATUS

Online

UUID

f9e644f 


TYPE

 Raspberry Pi (v1 or Zero)


LAST ONLINE

Currently online (for 5 minutes)

HOST OS VERSION

balenaOS 2.26.0+rev1 


SUPERVISOR VERSION

8.0.0 


RELEASE

4bb4e07

IP ADDRESS

131.159.218.130 





PUBLIC DEVICE URL



NOTES

Add device notes...

SERVICES

Service	Status	Release	
main	Running	4bb4e07	   

Logs

UTC ☐ Timestamps ☒

Add filter

Search entries...

Views

24.01.19 12:21:23 (+0100) main Switching off!

24.01.19 12:21:23 (+0100) main GET /off 304 450.622 ms - -

24.01.19 12:21:23 (+0100) main GET /stylesheets/style.css 304 6.381

24.01.19 12:21:26 (+0100) main Writing 1 to GPIO

24.01.19 12:21:27 (+0100) main Switching on!

24.01.19 12:21:27 (+0100) main GET /on 304 480.242 ms - -

24.01.19 12:21:27 (+0100) main GET /stylesheets/style.css 304 6.452

24.01.19 16:52:06 (+0100) Service is already running 'main sha256:47a4632ae4d4f68f60f0a51ef66bae3'

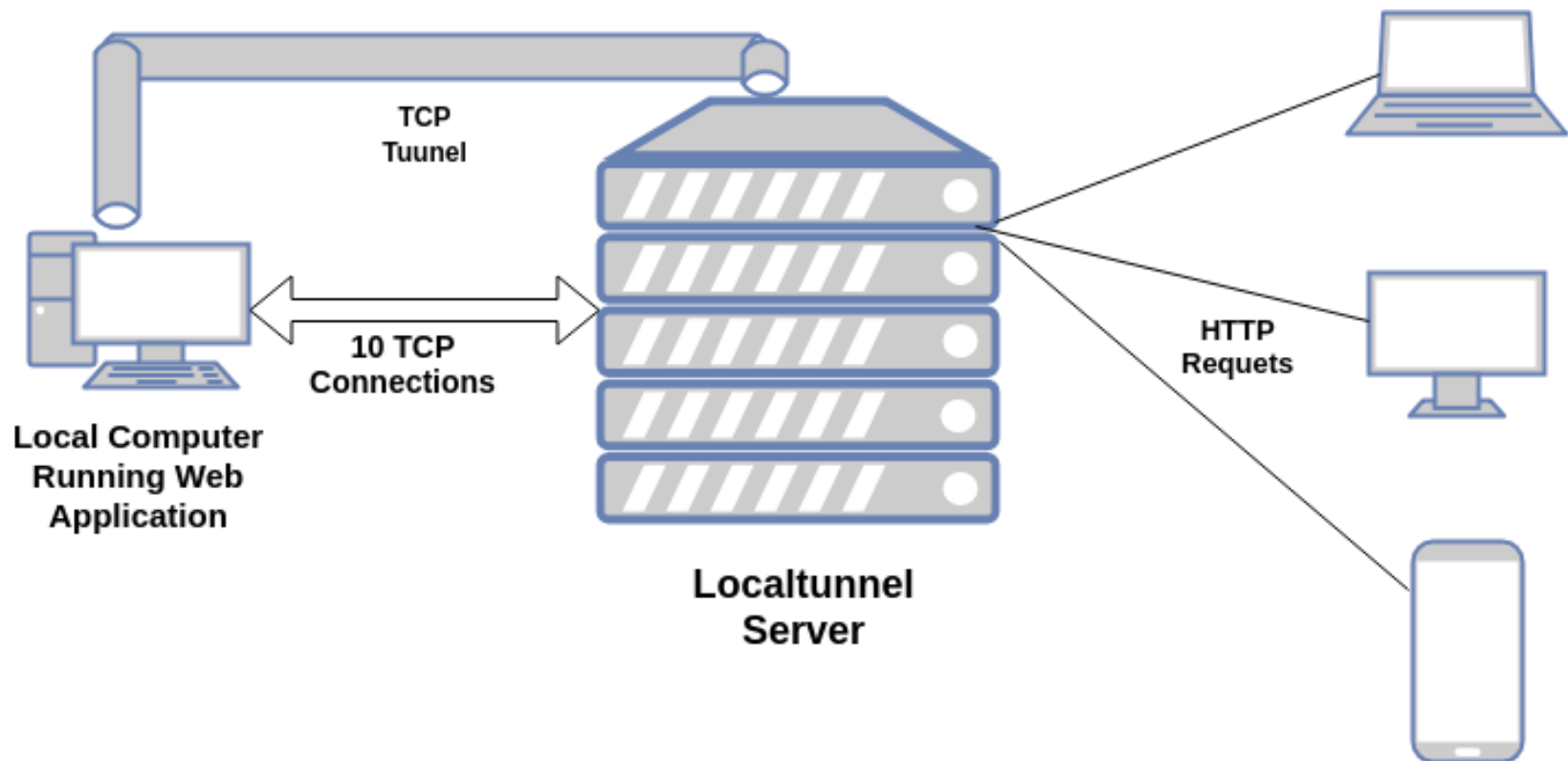
Terminal

Select a target

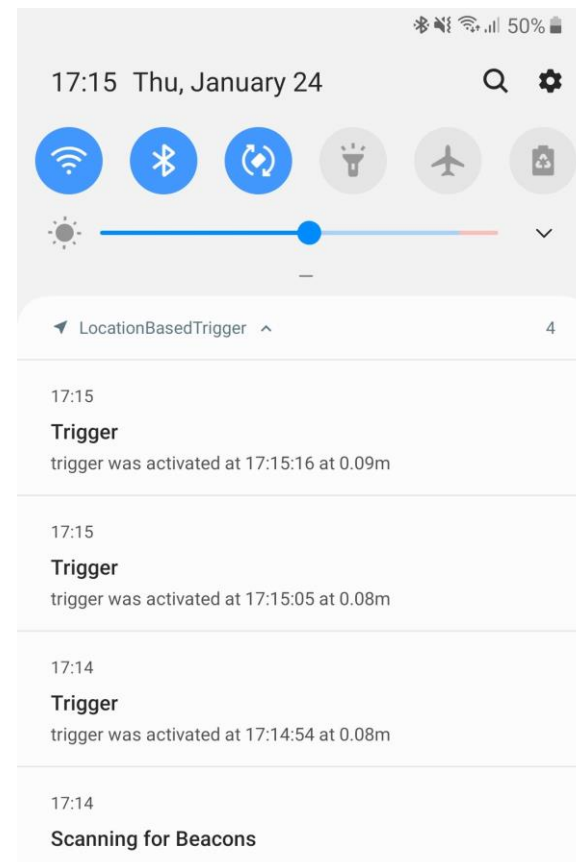
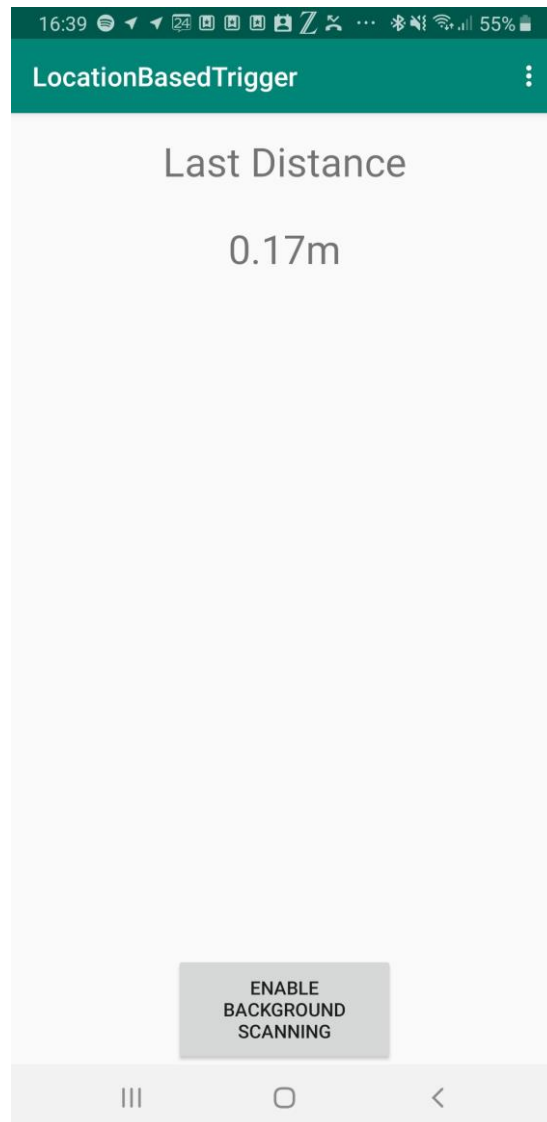
Start terminal session

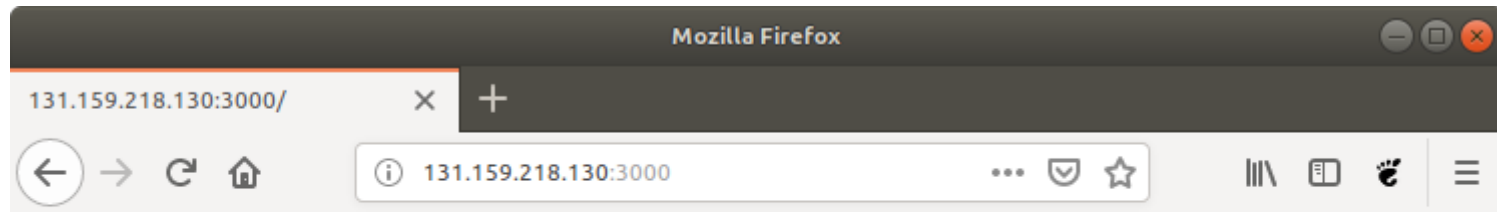
Need help





# Demo | Final Android Application





## Welcome to Location Based Trigger

Current status: off

The API provides the following options:

Endpoint	Action
/trigger?timeout=	Switch the device on and after the timeout (default 6000ms) off
/on	Switches the device on
/off	Switches the device off