

Zero Overhead Pub/Sub Store/Query Compute



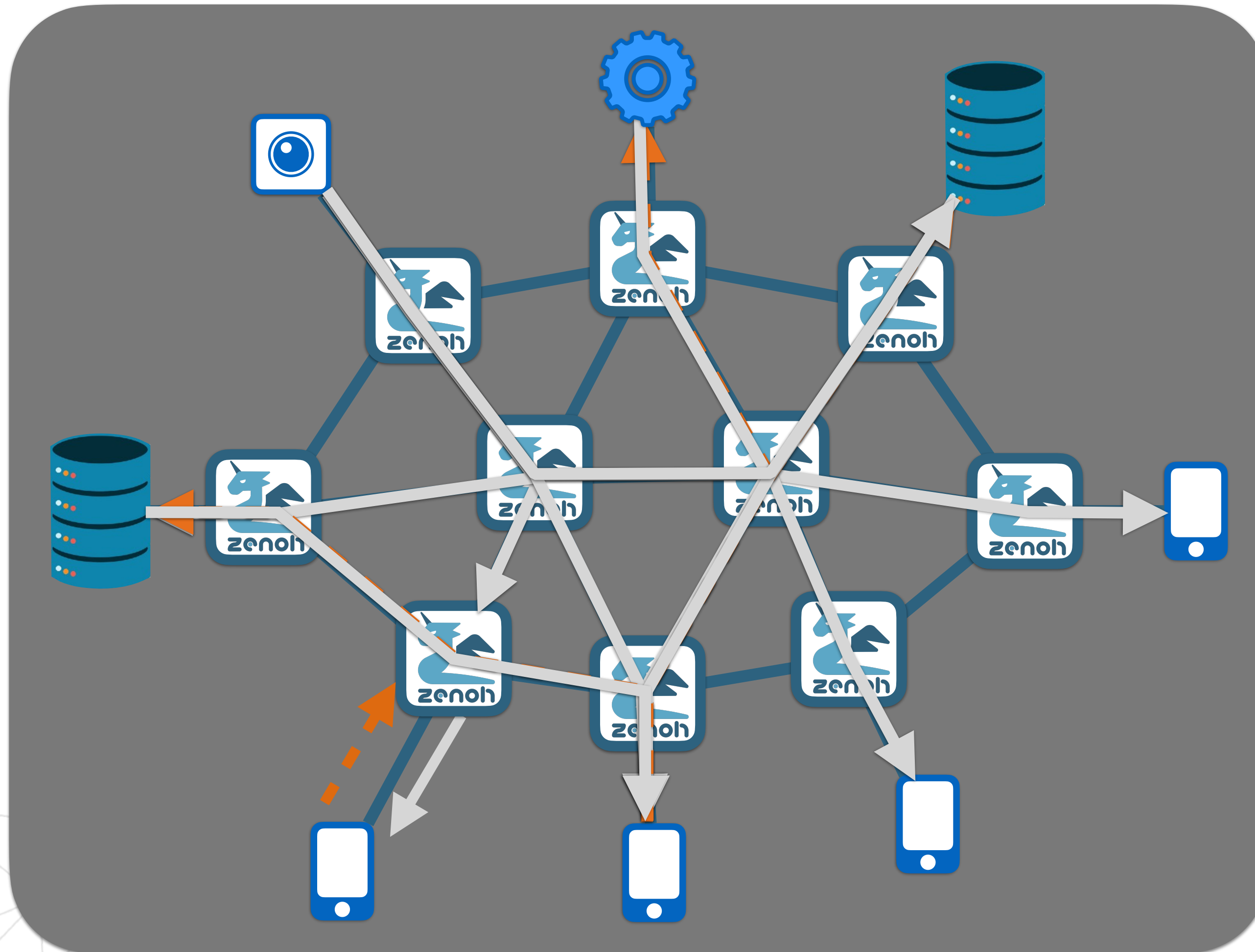
Unifies data in **motion**, data **in-use**, data at **rest** and **computations**

It carefully **blends** traditional **pub/sub** with **distributed queries**, while retaining a level of **time and space efficiency** that is well beyond any of the mainstream stacks

It provides built-in support for **geo-distributed storages** and **distributed computations**



Push, Pull and Query your data



Status

Last Release



Zenoh Aithusa -- Full Rust rewrite of zenoh infrastructure

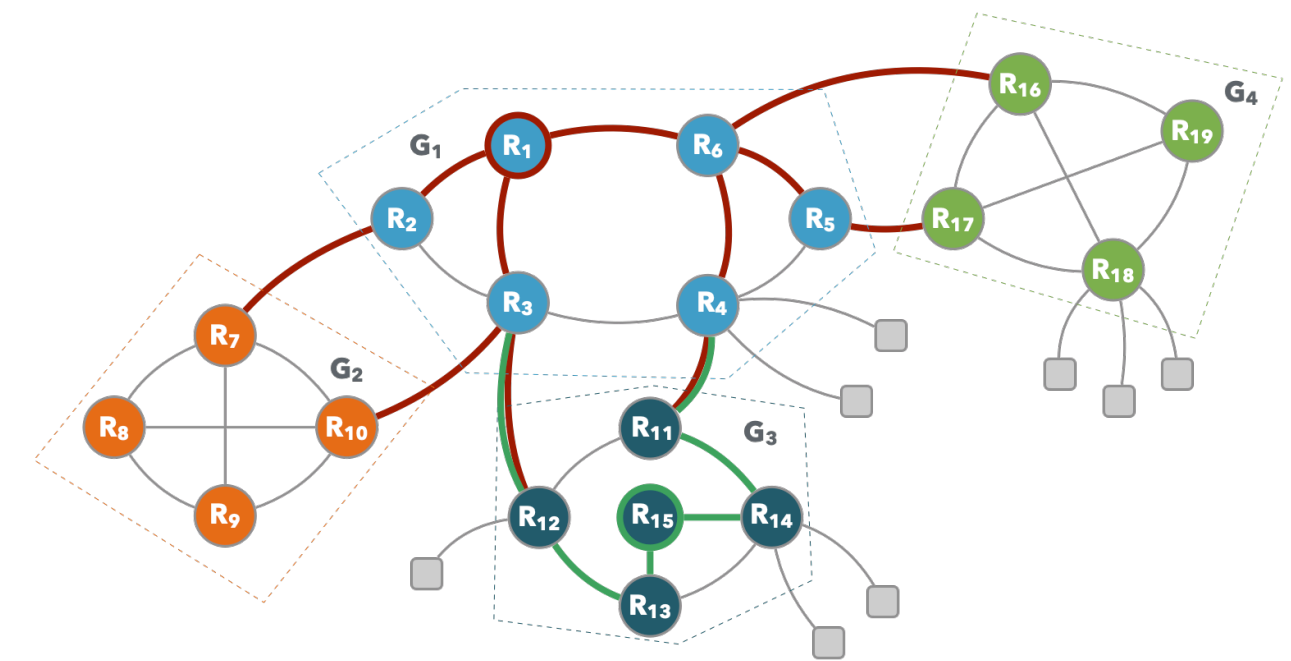
Generalised Peer-to-Peer and Client-to-Router/Peer communication

Improved link and routing algorithm

DDS / ROS2 Plugin for zenoh router

APIs for **Rust**, **C/C++**, **Python**, **REST**

Amazing Performances



ROS 2

zenoh So Incredibly Easy!

Publish :

```
ws = Zenoh.login().workspace()  
ws.put('/demo/hello', 'Hello world')  
ws.put('/house/livingroom/temp', 25.5)
```

Subscribe :

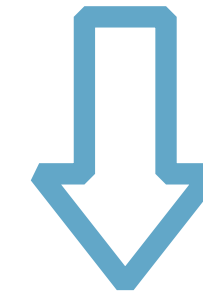
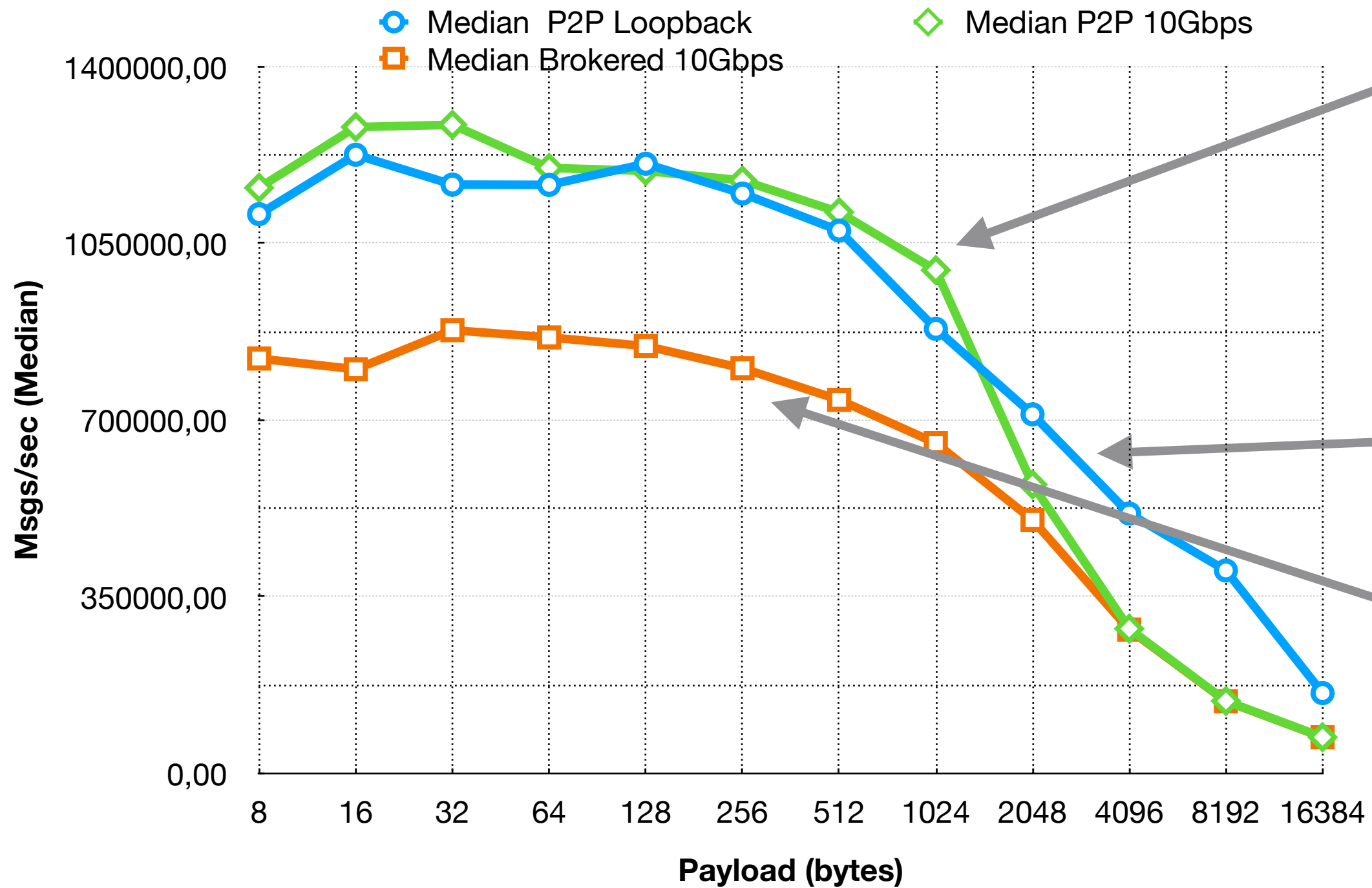
```
ws = Zenoh.login().workspace()  
ws.subscribe('/demo/**', lambda data: print('received {}'.format(data)))
```

Query :

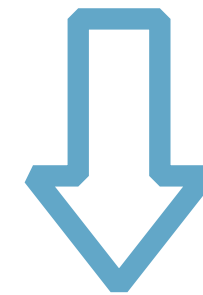
```
ws = Zenoh.login().workspace()  
result = ws.get('/demo/hello?(name=World)')
```


Performance

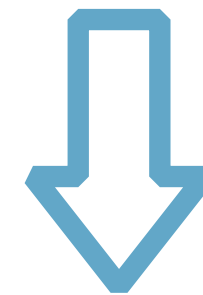
Test ran on 07/10/2020 on
Ubuntu Linux Desktop
AMD Ryzen
16GB RAM
10Gbps ETH



10Gb ETH



10Gb ETH

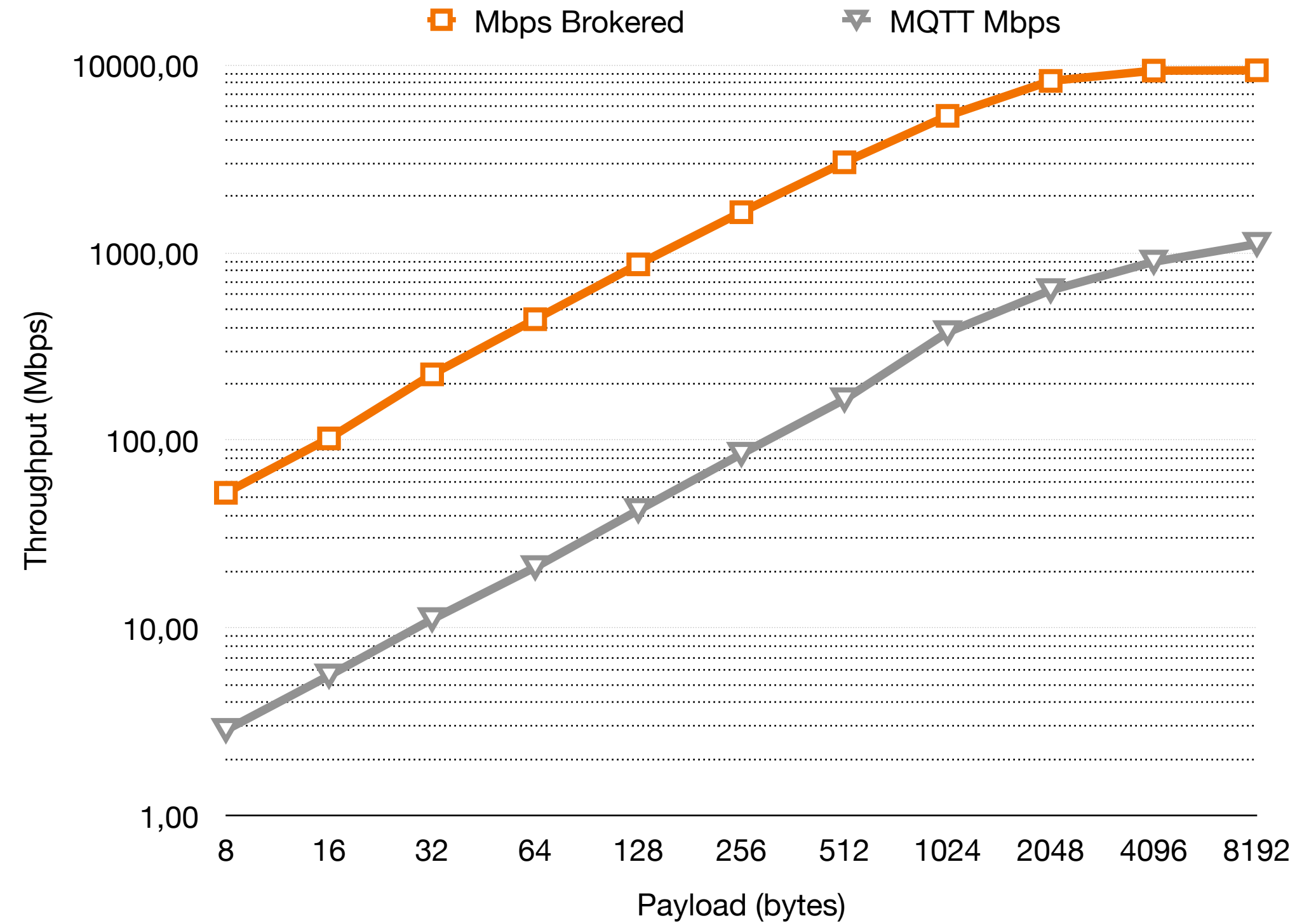
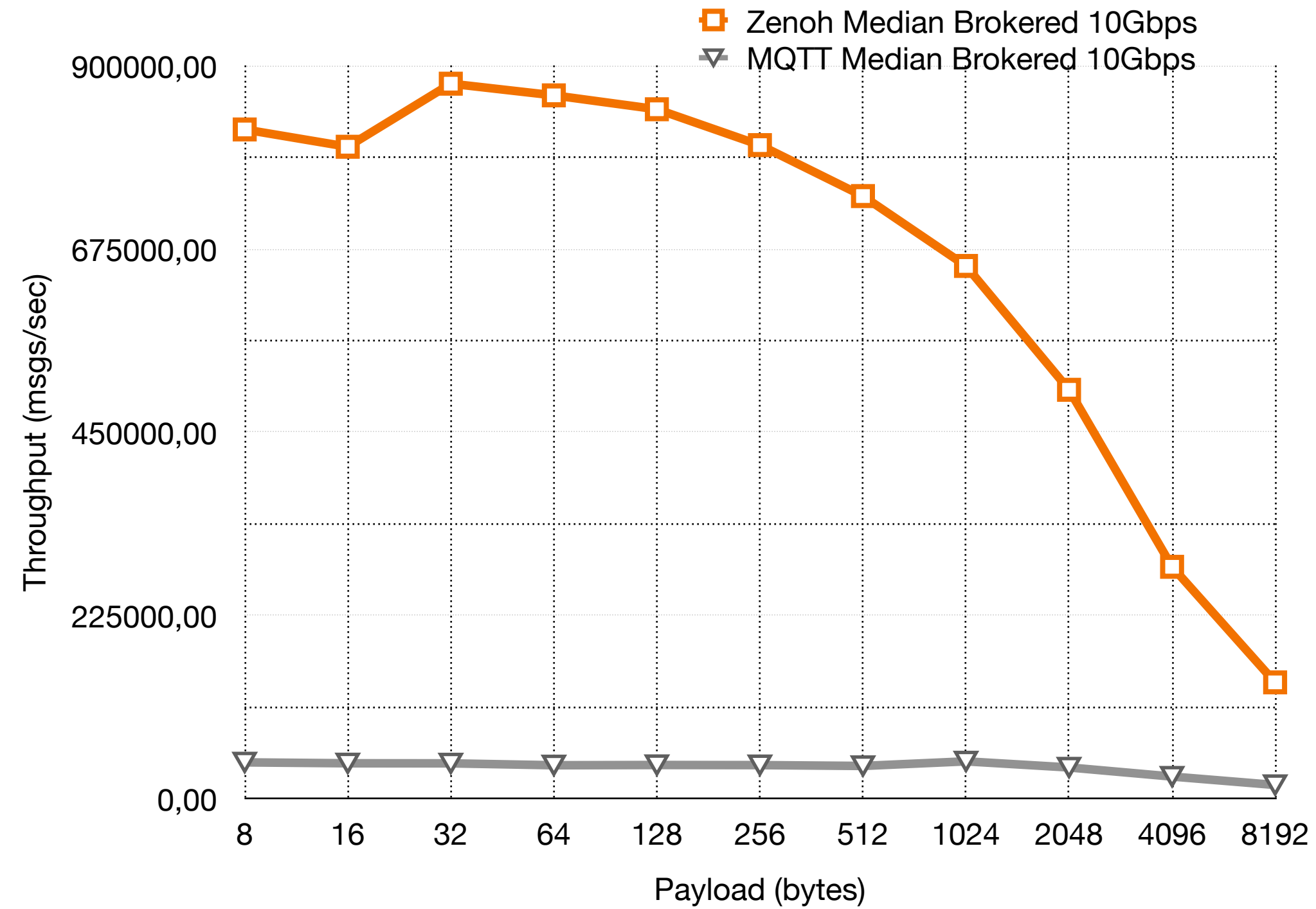


10Gb ETH



Zenoh vs MQTT

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Coming Up

zenoh-pico: C-based stack for pico-devices

APIs for **GoLang, Java**

TLS

More storage backends: **InfluxDB, filesystem**

Zerocopy and ICEOryx Integration



Live infrastructure



Example:

- Put data: `curl -X PUT -d 'Hello World!' http://us-west.zenoh.io:8000/demo/eu/test`
- Get data: `curl http://ap-southeast.zenoh.io:8000/demo/*/test`

zenoh Thank you!

Website: <http://zenoh.io/>

Github: <https://github.com/eclipse-zenoh/zenoh>

Gitter channel: <https://gitter.im/atolab/zenoh>





Angelo Corsaro, PhD
Luca Cominardi, PhD

ADLINK Tech. Inc.
angelo@adlink-labs.tech
luca@adlink-labs.tech



Innovating Together

