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Bretagne-Pays de la Loire
École Mines-Télécom

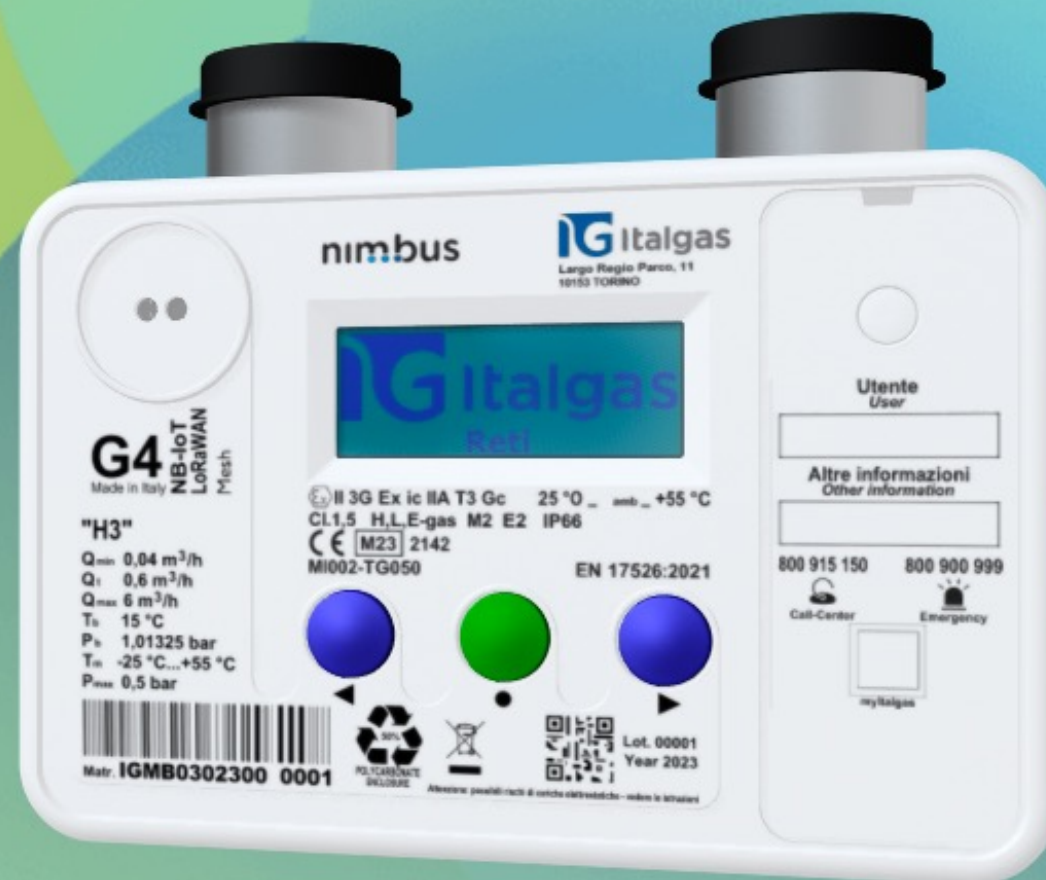
SCHC: A NEW ERA OF INTEROPERABILITY

**LAURENT TOUTAIN
JAVIER ALEJANDRO
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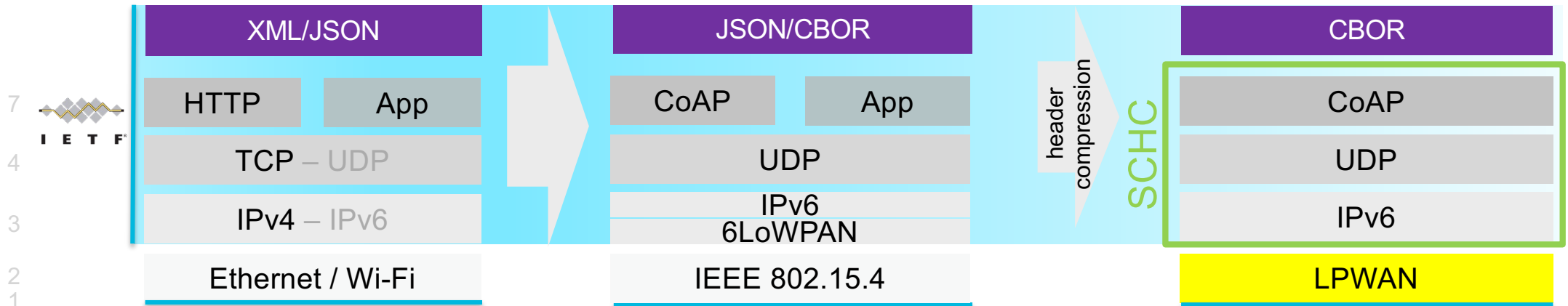
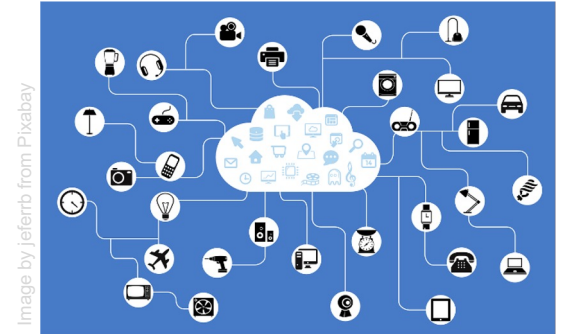
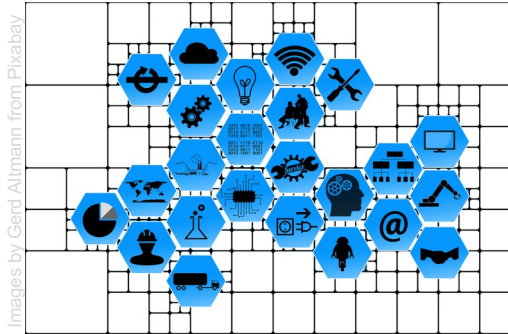
LPWAN

500 000 000 000 devices in 2030



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COMPUTER CULTURE EXTENDED TO IoT



OSI layers



Throughput : Gbit/s
MTU : ~1000 Bytes

Throughput : 100 Kbit/s
MTU : ~100 Bytes

Throughput : < 10 Kbit/s
MTU : ~10 Bytes

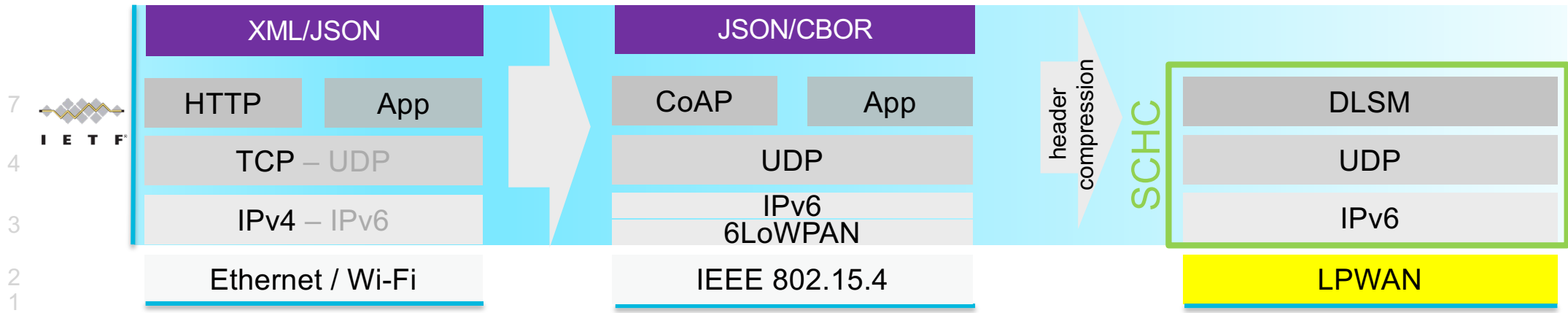
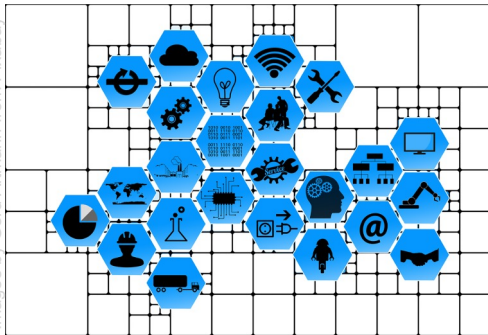
23/07/2024

COMPUTER CULTURE EXTENDED TO IoT

Images by Gerd Altmann from Pixabay



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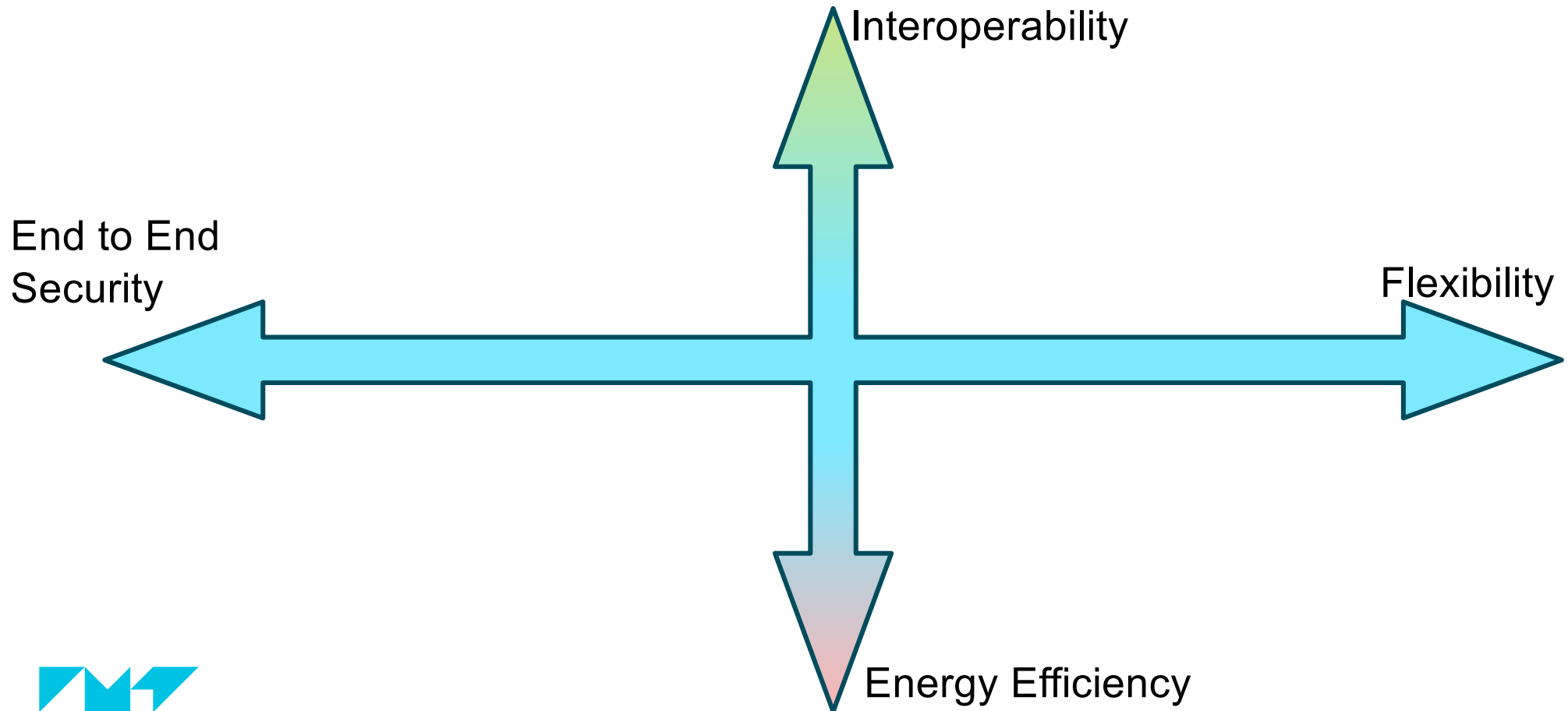


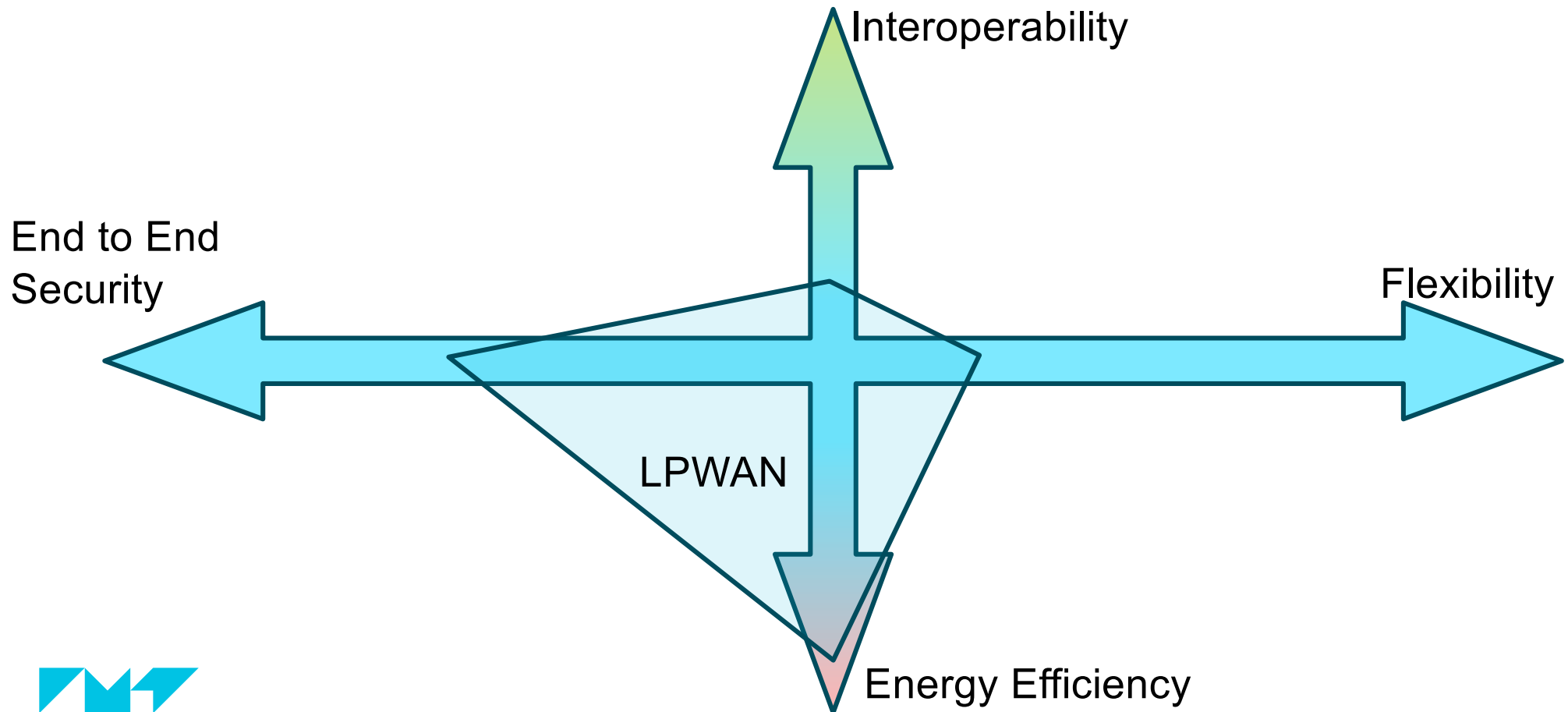
LPWAN

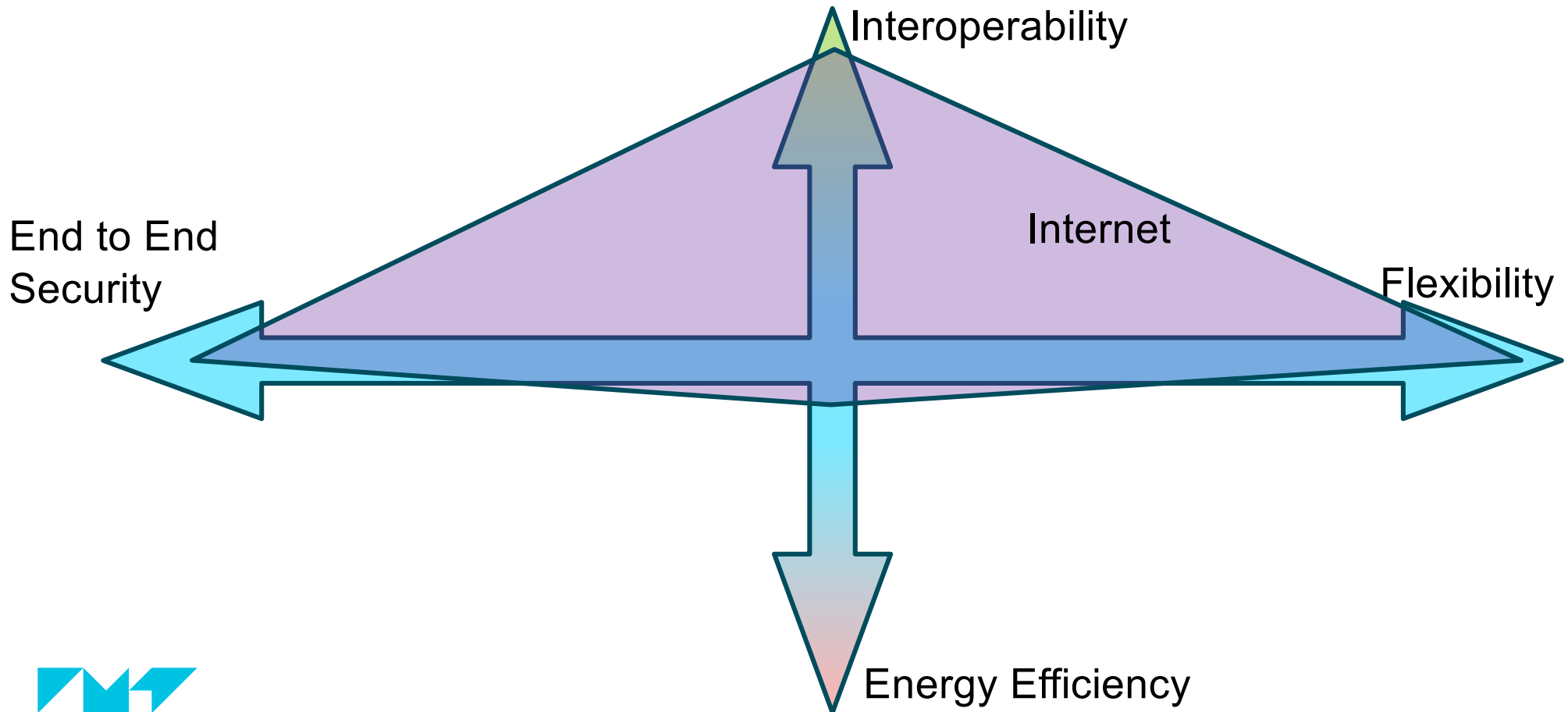
500 000 000 000 for devices in 2030

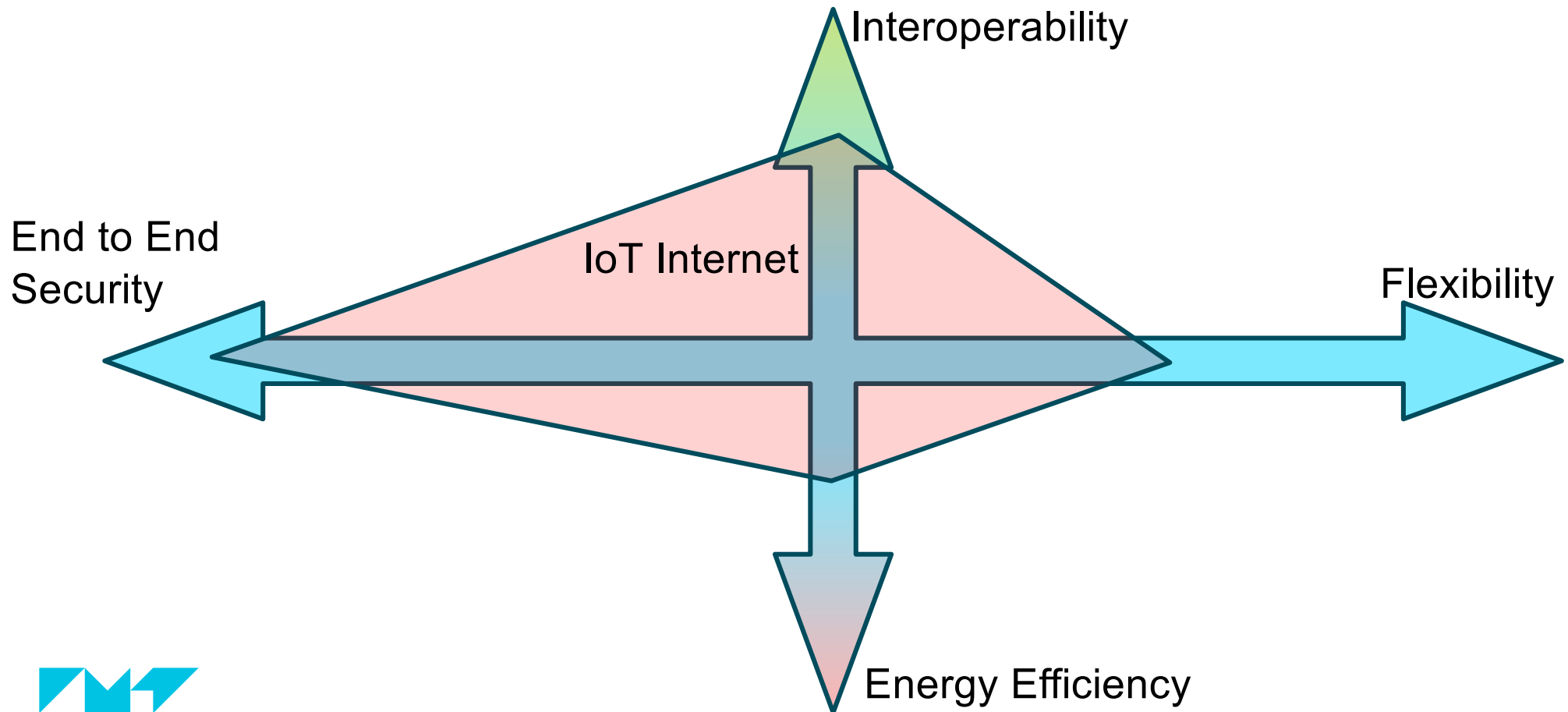


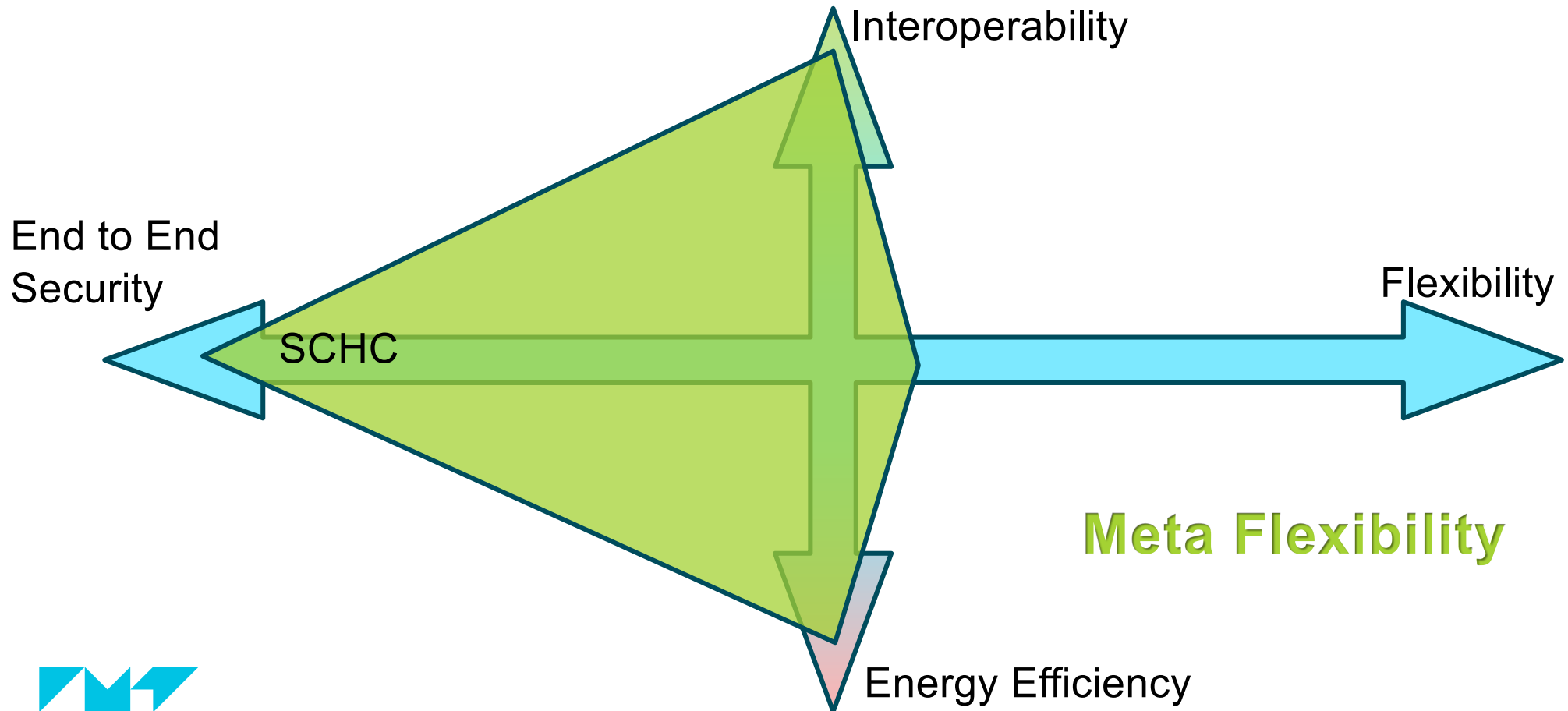
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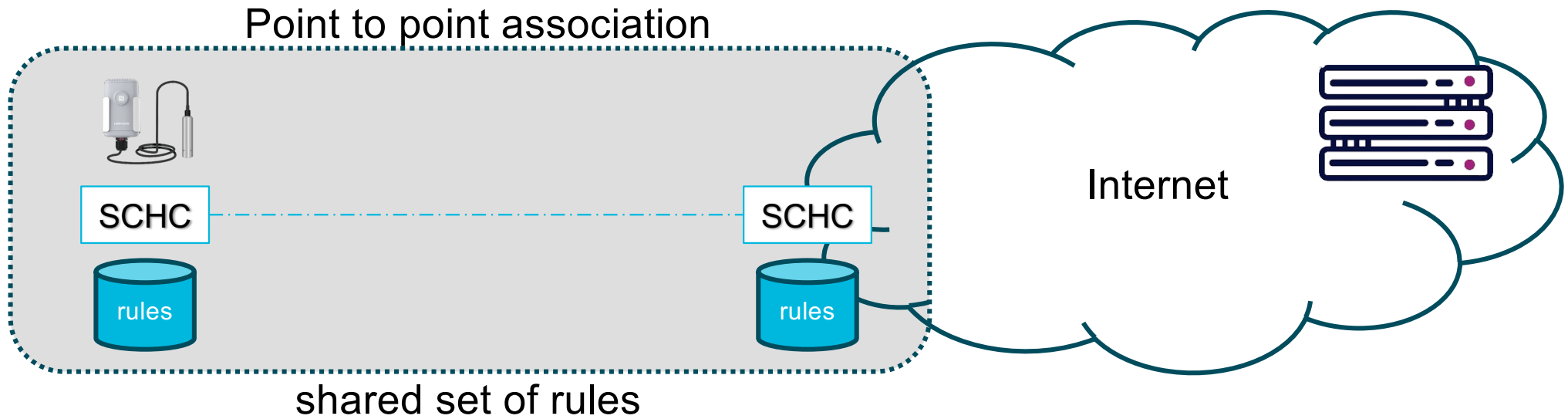


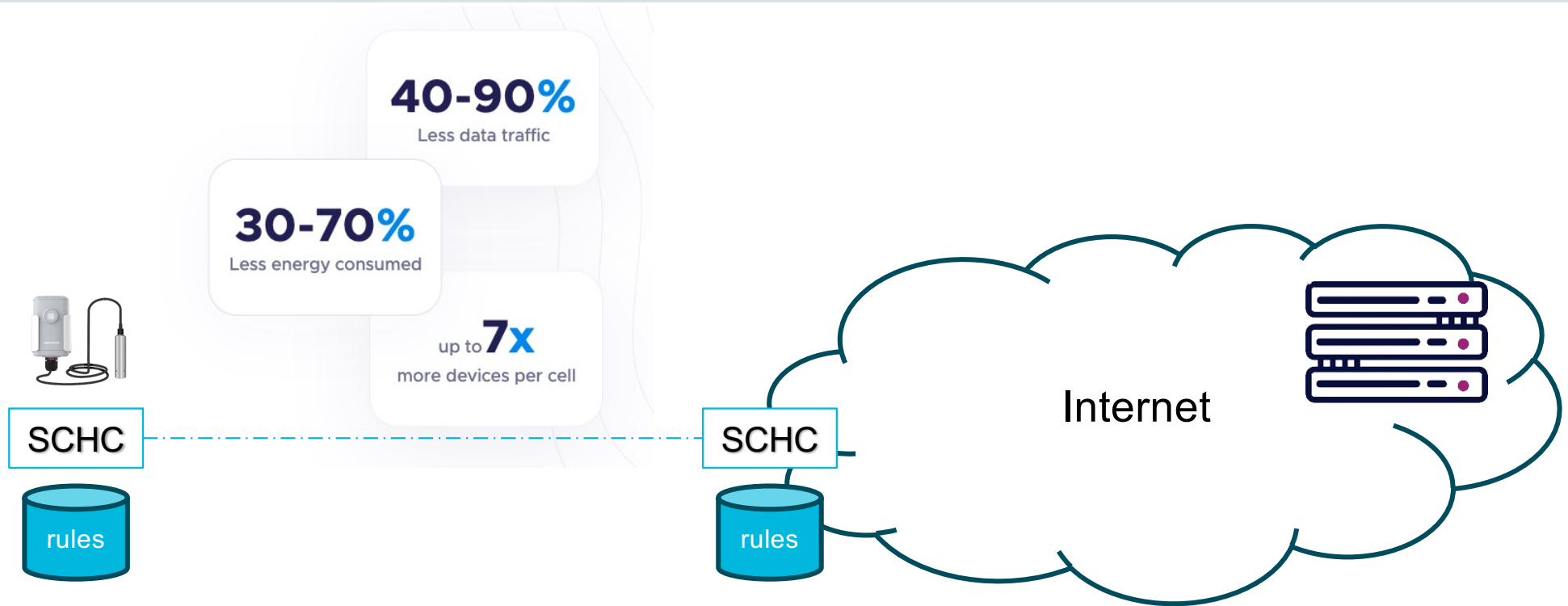










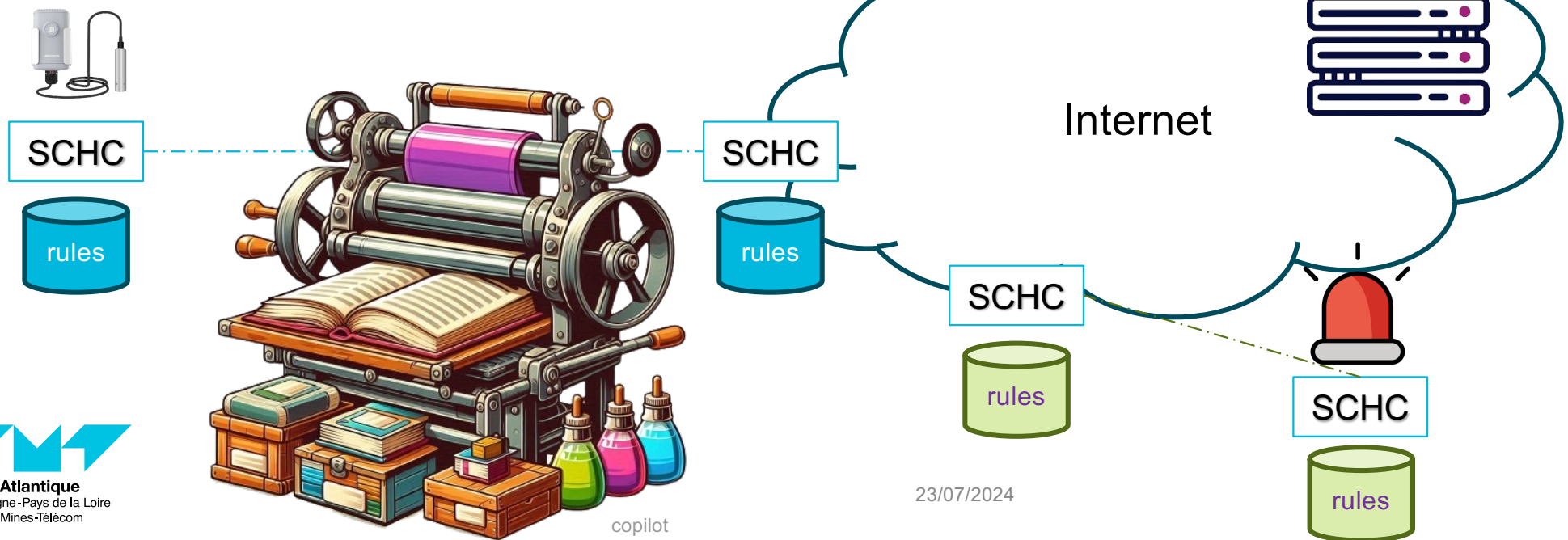


INTERNET ARCHITECTURE EVOLUTION

16

- Datagram
- ~~Same packet format~~

- Datagram
- Same packet format



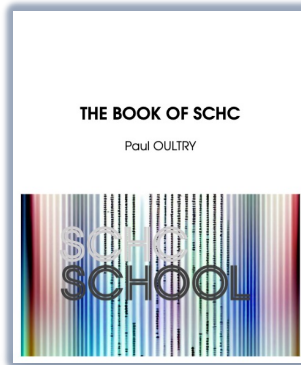
SCHC SCHOOL



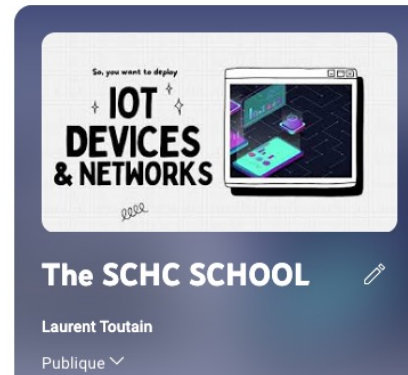
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coursera

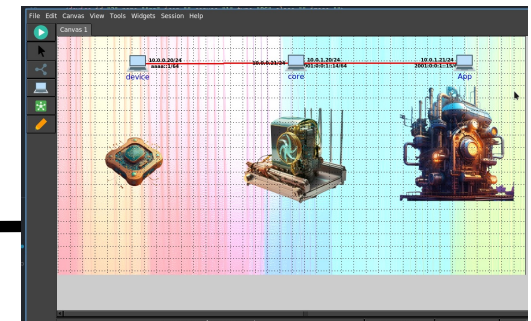
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<http://video.openschc.net>



Virtual machine



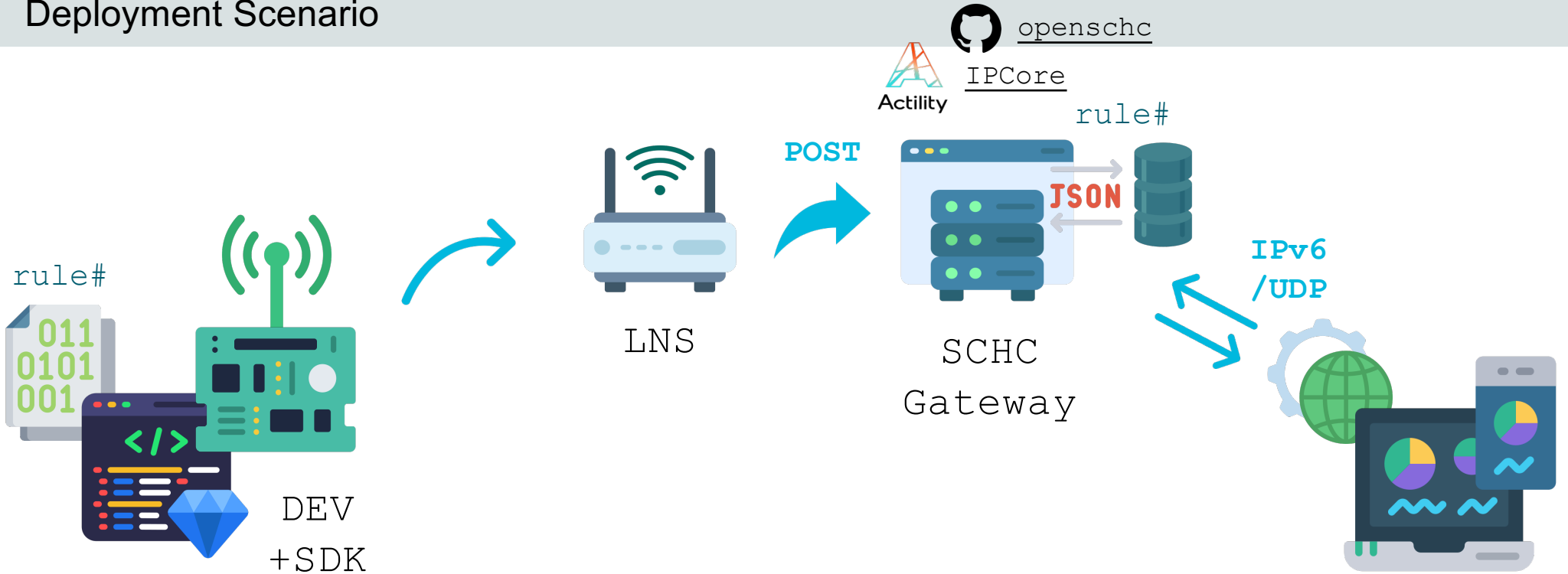
LAB.SCHC SDK DEMO



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SCHC IRL

Deployment Scenario



New work on SCHC

- Enhance Fragmentation (FEC, limited feedback,...)
- Generic SCHC Architecture
- SCHC over IP networks, over 6lo
- SCHC in 6G



contact@lab-schc.fr

