IoT challenges

State of the art

Aghiles DJOUDI

LIGM/ESIEE Paris & SIC/ECE Paris

June 7, 2019

Outline

Context

What I am talking about ?

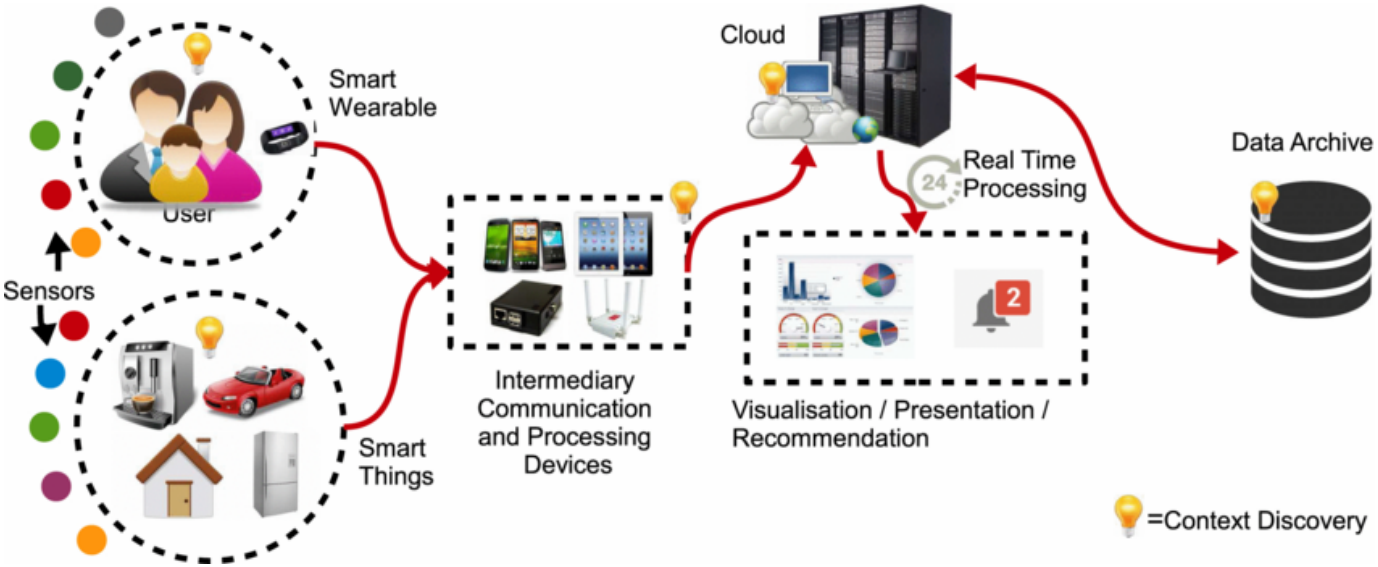

Figure 1: The IoT platform.

1. [1] Connect sensors to the gateway[1].
2. Connect the gateway to the infrastructure.
3. Store & Analyze sensors data[2].

[1] Musa Ndiaye, Gerhard Hancke, and Adnan Abu-Mahfouz. " Software Defined Networking for Improved Wireless Sensor Network Management: A Survey ". In: 17.5 (May 4, 2017). 00053, p. 1031.

[2] Pascal Thubert, Maria Rita Palattella, and Thomas Engel. " 6TiSCH Centralized Scheduling: When SDN Meet IoT ". In: *2015 IEEE Conference on Standards for Communications and Networking (CSCN)*. 2015 IEEE Conference on Standards for Communications and Networking (CSCN). 00033. Tokyo, Japan: Oct. 2015, pp. 42–47.

Problematic

Where is the problem ?

- lake of quantitative tools
- How to select the **best** access point

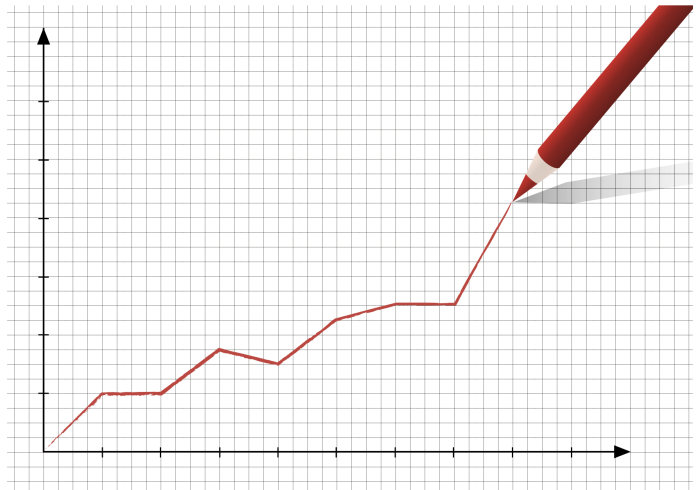

Figure 2: tets.

Motivations

Why should we deal with seach problems ?

1.
2. QoS Analysis
3. Threats

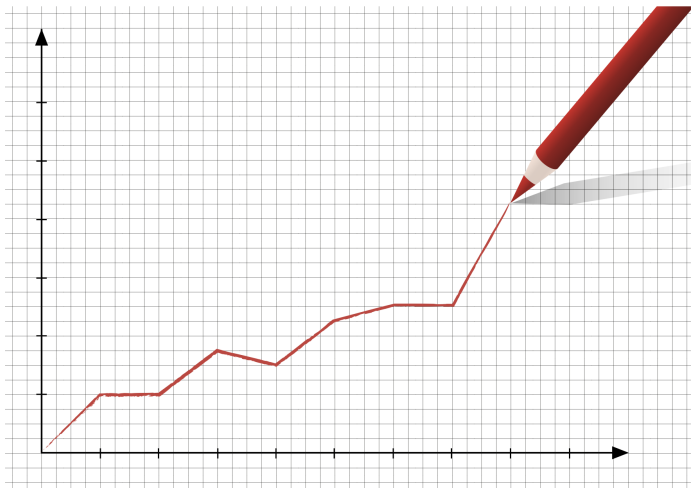

Figure 3: tets.

Goals

Is it specific, measurable, achievable, réalistic, for 3 years ?

1. Allow heterogeneous network to communicate
2. QoS Analysis
3. Threats

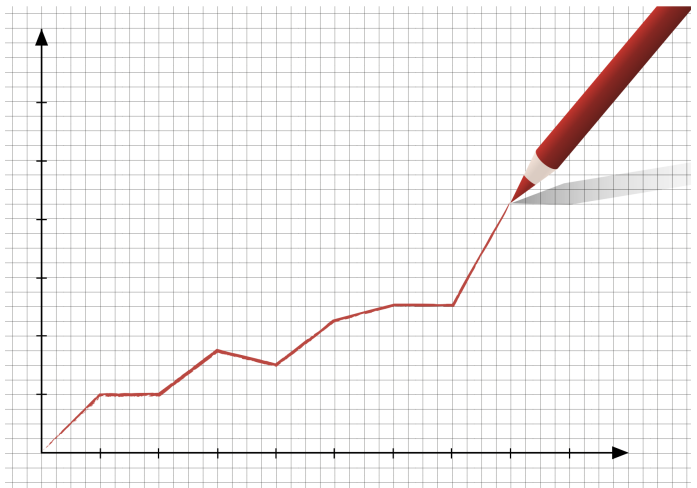

Figure 4: tets.

Challenges

Where is the difficulty ?

1. Challenge 1
2. Challenge 2
3. Challenge 3

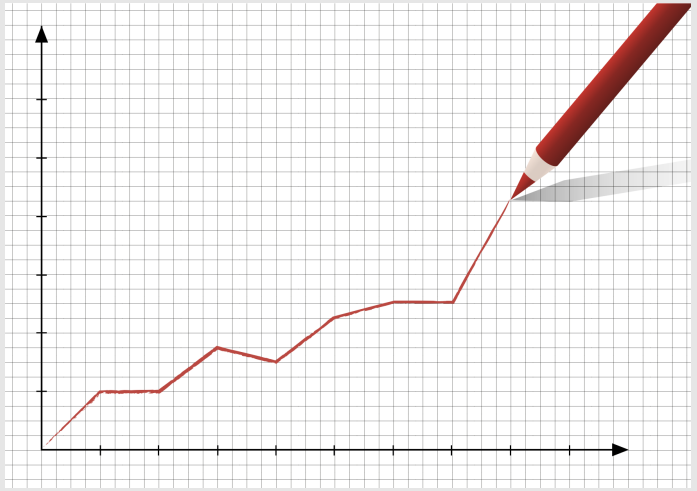

Figure 5: tets.

Contributions

How could be addressed ?

1. Contribution 1
2. Contribution 2
3. Contribution 3

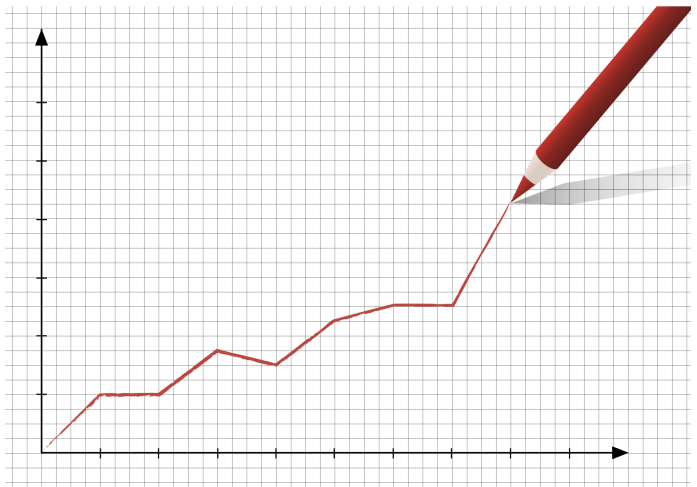

Figure 6: tets.

Outline

Outline

Outline

Related work

Comparison

Paper	A1	A2	A3	A4

Table 1: An example table.

Related work

Comparison

Paper	A1	A2	A3	A4

Table 2: An example table.

Outline

... (step 1)

Methods

... (step 2)

Methods

... (step 3)

Methods

... (step 4)

Methods

Results

Comparison

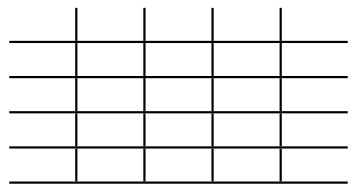

Table 3

Outline

Experimentation

Experimentation

- a
- b

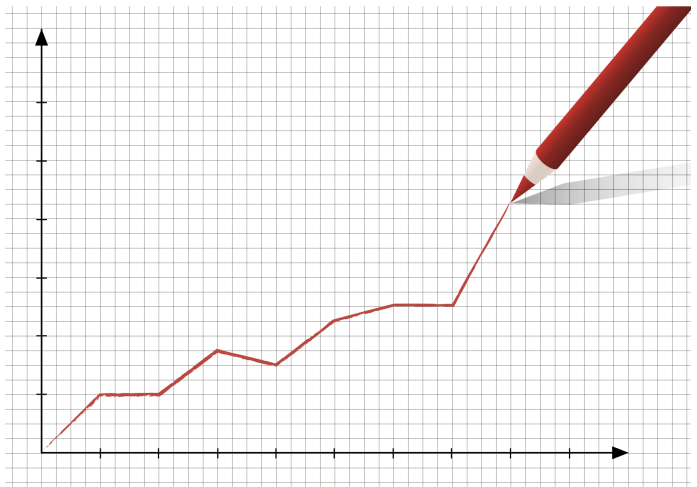

Figure 7: .

Outline

Results

Comparison

- a
- b

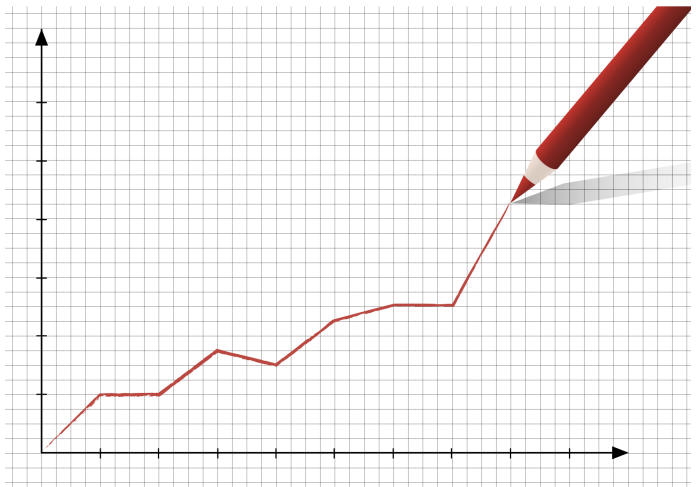

Figure 8: .

Outline

Conclusion

- a
- b

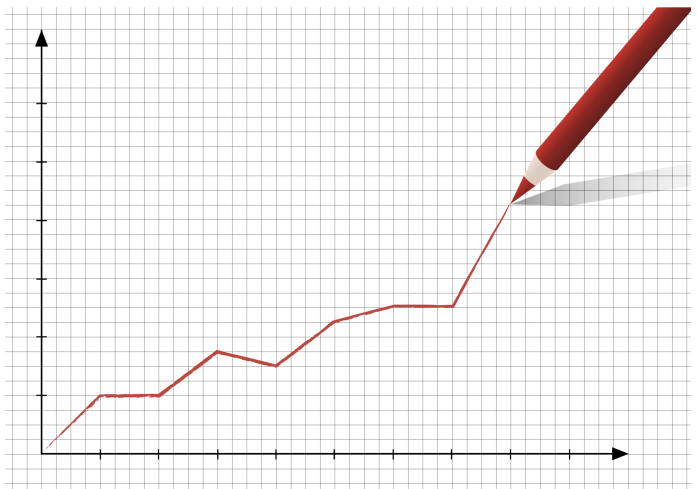

Figure 9: .

Outline

Conclusion

Our main goal was

-
-

Our main contribution was

-
-

Our main results was

-
-

Future Challenges

Conclusion

Our future goal was

Future Challenges

Conclusion

Our future goal was

-
-

Thank you !

References

[1] Musa Ndiaye, Gerhard Hancke, and Adnan Abu-Mahfouz. “ Software Defined Networking for Improved Wireless Sensor Network Management: A Survey ”. In: 17.5 (May 4, 2017). 00053, p. 1031 (p. 3).

[2] Pascal Thubert, Maria Rita Palattella, and Thomas Engel. “ 6TiSCH Centralized Scheduling: When SDN Meet IoT ”. In: *2015 IEEE Conference on Standards for Communications and Networking (CSCN)*. 2015 IEEE Conference on Standards for Communications and Networking (CSCN). 00033. Tokyo, Japan: Oct. 2015, pp. 42–47 (p. 3).