

KAA Platform

IoT Lab @ AUT

Amirkabir University of Technology

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- ▶ What is Kaa ?
- ▶ Where is Kaa ?
- ▶ What does Kaa do for us ?

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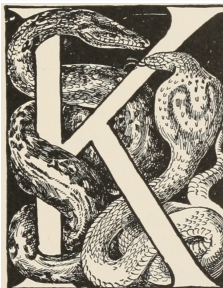
Kaa ?!

What is Kaa...

[Kaa]: 100% open-source Internet of Things middleware platform for everyone.

What is Kaa...

[Wikipedia]: Kaa is a fictional character that Rudyard Kipling describes him as an exceptionally long, yellowish Indian rock python.

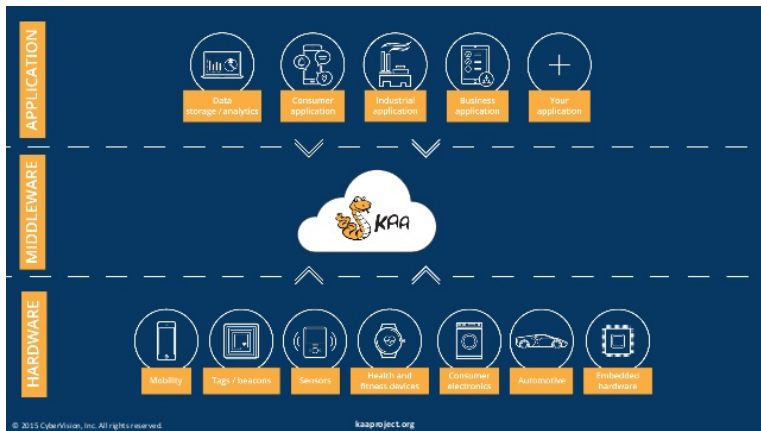


What is Kaa ?

Kaa is a middleware platform for rapid creation of IoT solutions.

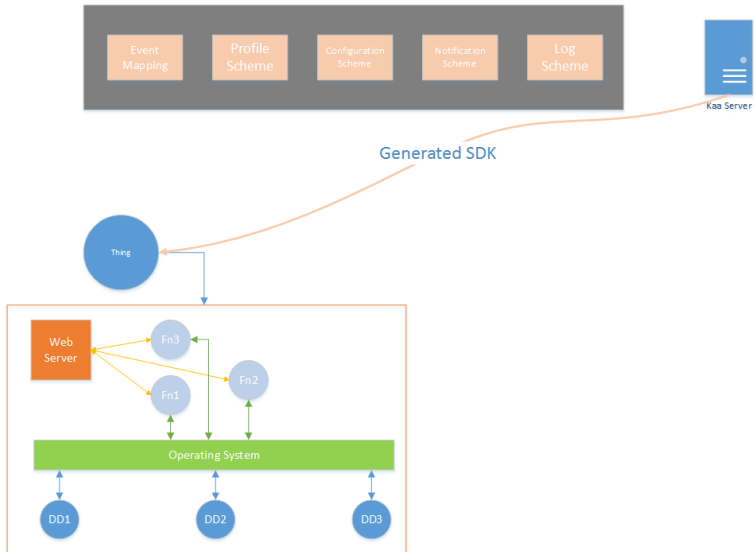
- ▶ Reliable foundation for developing your connected products.
- ▶ **Transport-agnostic** link between the hardware and application worlds.
- ▶ Much more than just a message bus.
- ▶ **Customizable** middleware that implements necessary functional patterns for the IoT.
- ▶ **Cloud enablement** software for your hardware products.

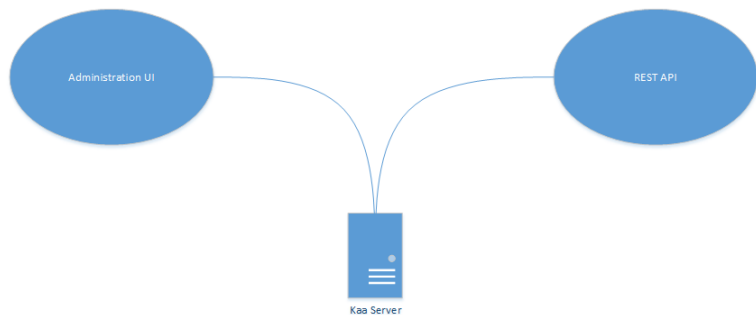
What is Kaa ?



- ▶ What is Kaa ?
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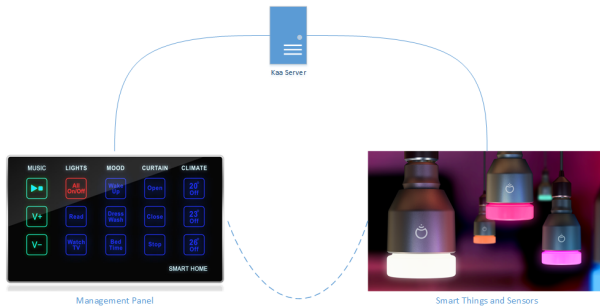
Thing Side





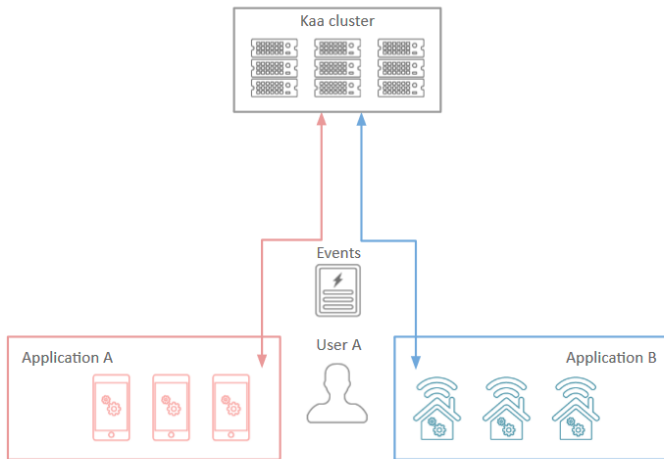
Application Side

- ▶ In Kaa model things could be a **sensor** or **application**
- ▶ In a room we have management panel and smart things and all of them managed by Kaa.



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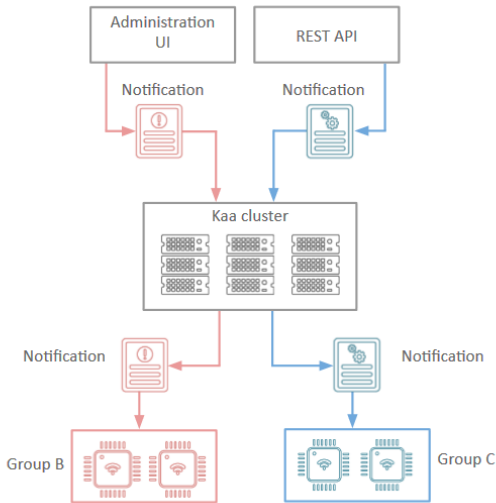
Messaging across endpoints



Messaging across endpoints

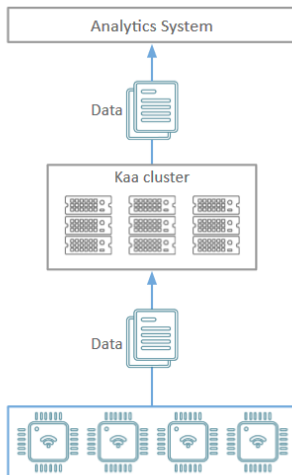
- ▶ Kaa allows for delivery of events, which are structured messages, **across endpoints**.
- ▶ The event class family can be used by one or multiple applications, thus the **event can be shared between applications**.

Notification



- ▶ Kaa uses notifications to distribute structured messages, posted within notification topics, from the **server** to **endpoints**.

Collecting data from endpoints



Collecting data from endpoints

- ▶ Kaa provides rich capabilities for **collecting** and **storing** structured data from endpoints.