



Introduction to Kuzzle

INTERNATIONAL UNION OF RAILWAYS
First UIC Digital Awards - 2016



Part 1

What is Kuzzle?

What Kuzzle does?

Kuzzle benefits

How to use Kuzzle?

Industrial strenght

Use cases

Not only start-up friendly



WHAT IS KUZZLE?

A back-end



A **BACK-END** SOFTWARE
SELF-HOSTABLE & READY TO USE
TO POWER MODERN APPS



BACK-END

The server side of a rich application, handling data, searches and notifications



WHAT IS KUZZLE?

A back-end self hostable

A BACK-END SOFTWARE
SELF-HOSTABLE & READY TO USE
TO POWER MODERN APPS



SELF-HOSTABLE

On cloud services, hosting, intranet, IoT hardware, anything compatible with **Linux** or **Docker**.



WHAT IS KUZZLE?

A back-end self hostable & ready to use

A BACK-END SOFTWARE
SELF-HOSTABLE & **READY TO USE**
TO POWER MODERN APPS



READY TO USE

All the features you need to build a **Web**, **mobile** or **IoT** substantial project (SDK).



WHAT IS KUZZLE?

A back-end self hostable & ready to use to power modern apps

A BACK-END SOFTWARE
SELF-HOSTABLE & READY TO USE
TO POWER **MODERN APPS**



MODERN APP

Multi-device
applications and/or
real time applications
(collaborative,
notifications...)





Part 2

What is Kuzzle?

What Kuzzle does?

Kuzzle benefits

How to use Kuzzle?

Industrial strength

Use cases

Not only start-up friendly



WHAT DOES KUZZLE DO?

FEATURES

KUZZLE MANAGES ALL YOUR APPLICATIONS DATA WITH:



REAL-TIME

Synchronizes data on multiple devices, notifications, collaborative features...



STORAGE

Schema-less or schema-full database.



SEARCH

Fulltext search, stemming, geo-search, filtering, faceting...



WHAT DOES KUZZLE DO?

FEATURES



The 3 features
converse among
themselves



WHAT KUZZLE DOES?

SECURITY

ADMINISTRATE YOUR APPLICATIONS
AND YOUR USERS WITH
RIGHTS MANAGEMENT





Part 3

What is Kuzzle?

What Kuzzle does?

Kuzzle benefits

How to use Kuzzle?

Industrial strength

Use cases

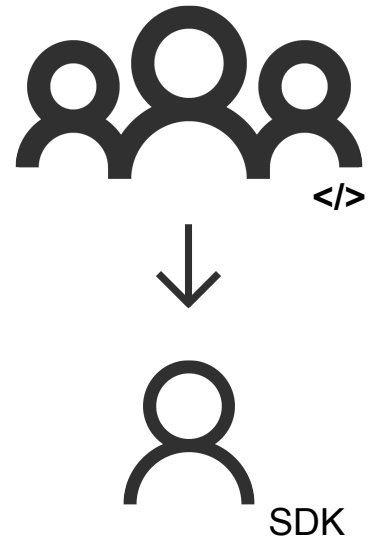
Not only start-up friendly



KUZZLE BENEFITS

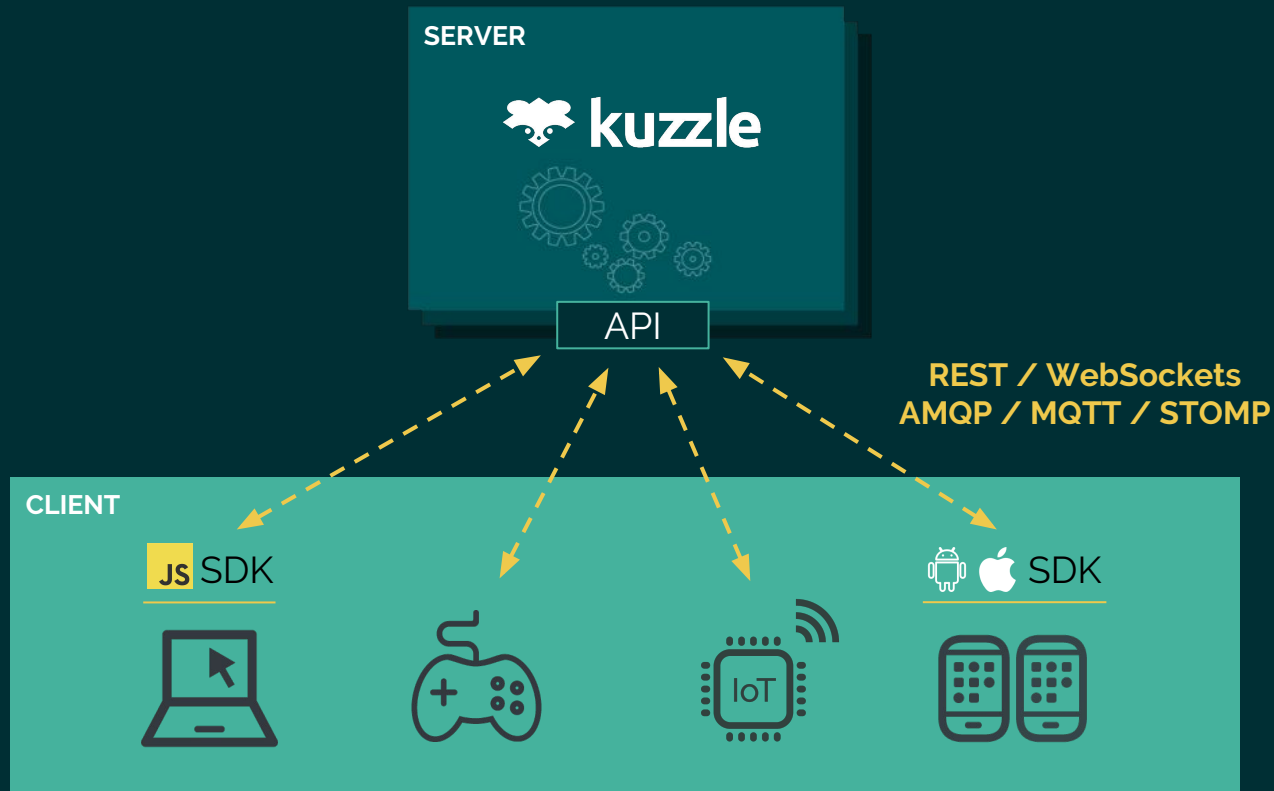
ALLOW FRONT-END/UI TEAM
TO BUILD MODERN APPS
WITHOUT ANY BACK-END GURUS

YOU JUST NEED A
KUZZLE **SDK**



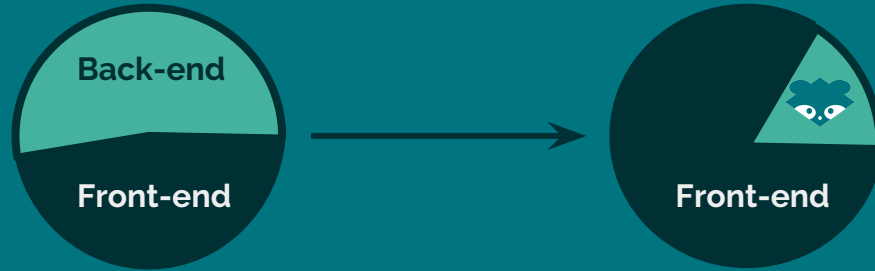
KUZZLE BENEFITS

CONNECT EVERYTHING WITH API/SDK



KUZZLE BENEFITS

Reduce the back-end development



Save time



Reduce cost



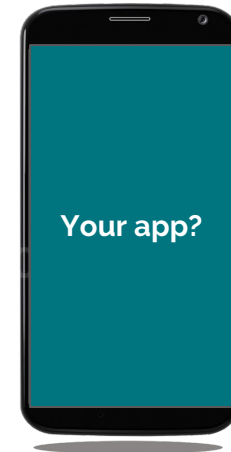
Focus on the
user-interface



KUZZLE BENEFITS

Dare digital innovation

KUZZLE ALLOWS YOU TO ACHIEVE DIGITAL PROJECTS YOU THOUGHT WERE UNREALISTIC!



COMPETITORS

For now not really competitors

Kuzzle is a breakthrough innovation that's why there is only one competitor:
=> the brake on change

the fear of innovation and new way to develop apps





Part 4

What is Kuzzle?

What Kuzzle does?

Kuzzle benefits

How to use Kuzzle?

Industrial strength

Use cases

Not only start-up friendly



HOW TO USE KUZZLE?





Part 5

What is Kuzzle?
What Kuzzle does?
Kuzzle benefits
How to use Kuzzle?

Industrial strength

Use cases
Not only start-up friendly



INDUSTRIAL STRENGTH

TRANSPARENCY AND QUALITY

OPEN SOURCE

EVERYONE CAN
READ THE CODE
AND CONTRIBUTE



TEST DRIVEN CI

SOURCE CODE
ALWAYS TESTED

dependencies up to date

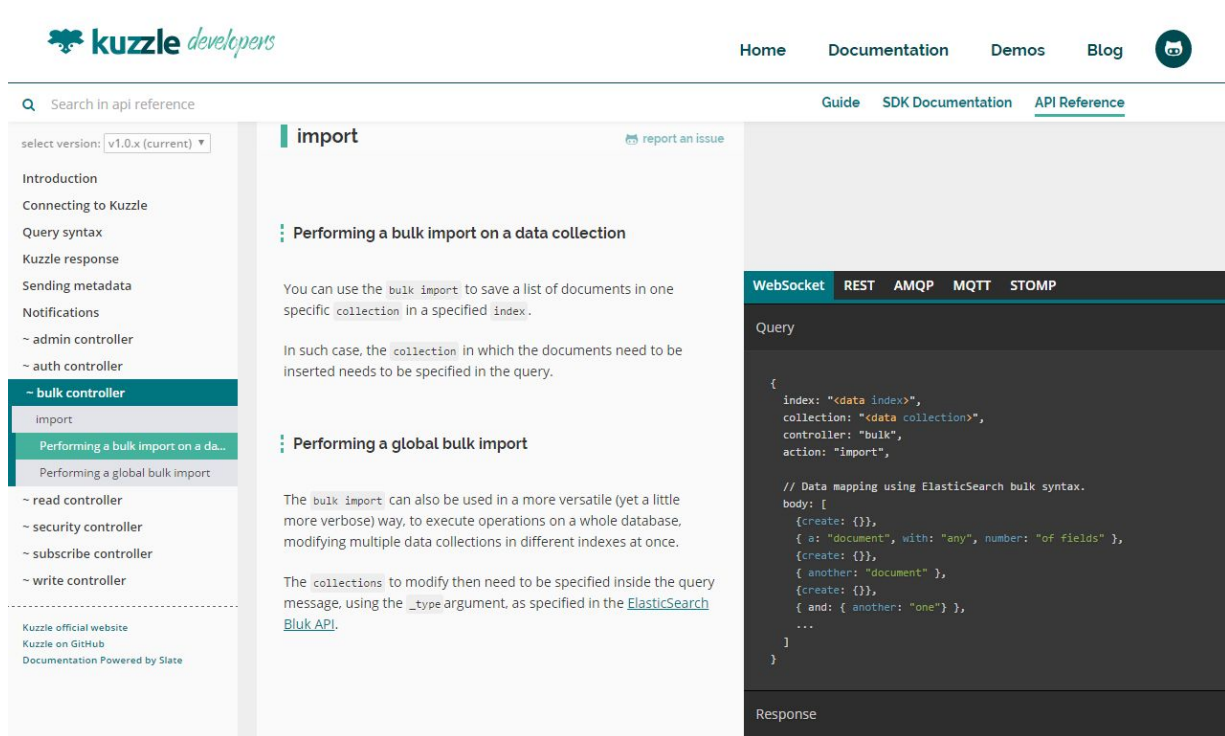
Codecov 91%

build passing



KUZZLE DOCUMENTATION

Kuzzle SDK and API
are documented
on our website :
<http://kuzzle.io/guide>



The screenshot shows the Kuzzle Developers website's API Reference section for the `import` endpoint. The page layout includes a top navigation bar with links for Home, Documentation, Demos, and Blog, along with a GitHub icon. A search bar is located below the navigation. On the left side, there is a sidebar menu with a tree view of the documentation structure, including sections like Introduction, Connecting to Kuzzle, Query syntax, Kuzzle response, Sending metadata, Notifications, and various controllers. The main content area is titled `import` and features a 'report an issue' link. It contains two sections: 'Performing a bulk import on a data collection' and 'Performing a global bulk import'. The first section explains that the `bulk import` is used to save a list of documents in a specific collection in a specified index, and provides an example query. The second section explains that the `bulk import` can also be used in a more versatile way to execute operations on a whole database, modifying multiple data collections in different indexes at once, and provides an example query. On the right side, there is a tabbed interface for different protocols: WebSocket, REST, AMQP, MQTT, and STOMP. The REST tab is selected, showing a 'Query' section with a JSON example and a 'Response' section.

import [report an issue](#)

Performing a bulk import on a data collection

You can use the `bulk import` to save a list of documents in one specific `collection` in a specified `index`.

In such case, the `collection` in which the documents need to be inserted needs to be specified in the query.

Performing a global bulk import

The `bulk import` can also be used in a more versatile (yet a little more verbose) way, to execute operations on a whole database, modifying multiple data collections in different indexes at once.

The `collections` to modify then need to be specified inside the query message, using the `_type` argument, as specified in the [ElasticSearch Bulk API](#).

Query

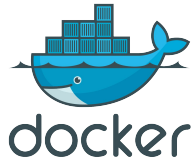
```
{
  index: "<data index>",
  collection: "<data collection>",
  controller: "bulk",
  action: "import",

  // Data mapping using Elasticsearch bulk syntax.
  body: [
    {create: {}},
    { a: "document", with: "any", number: "of fields" },
    {create: {}},
    { another: "document" },
    {create: {}},
    { and: { another: "one" } },
    ...
  ]
}
```

Response



INDUSTRIAL STRENGTH

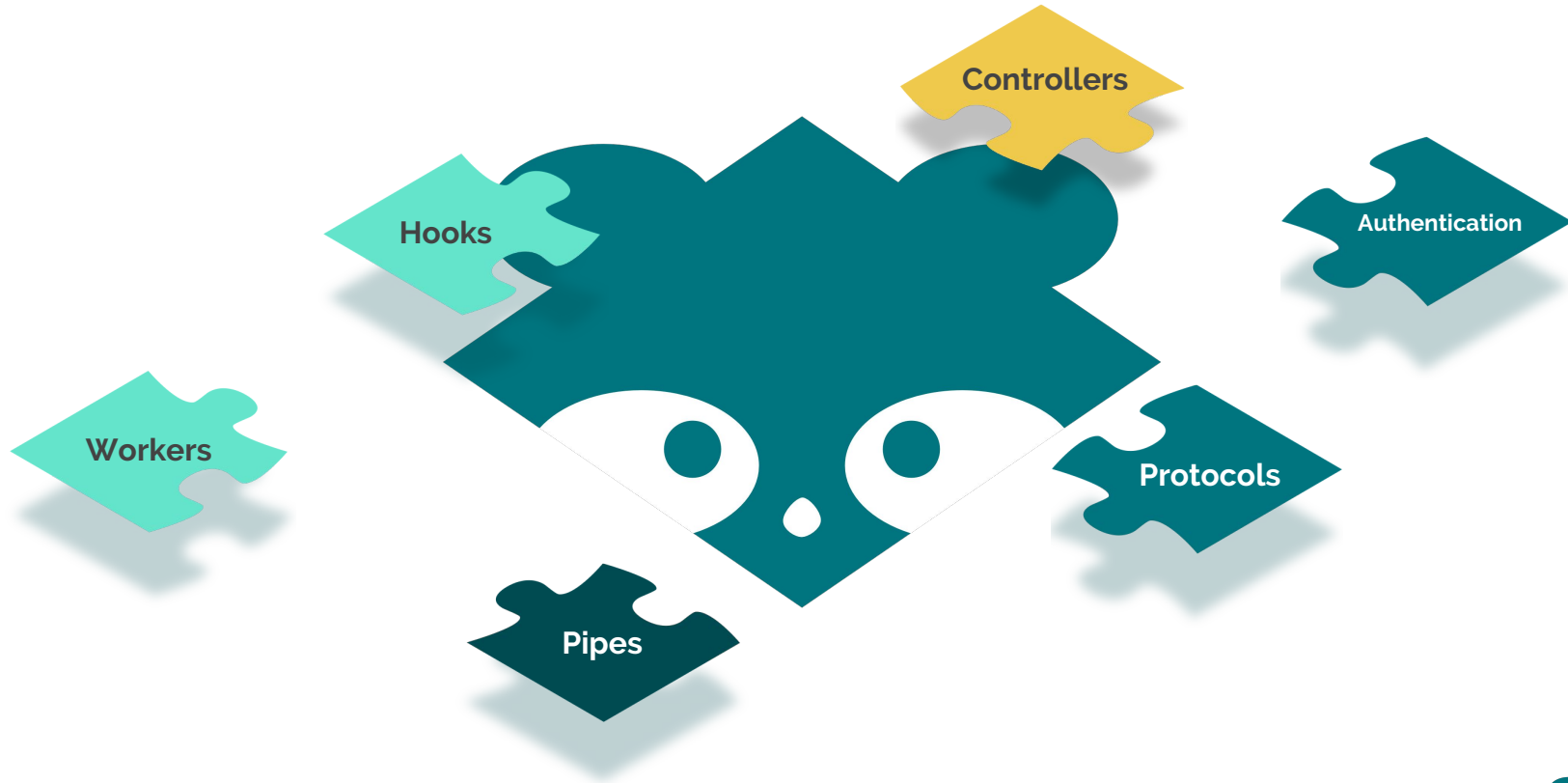


KUZZLE IS BUILT
ON CUTTING-EDGE
TECHNOLOGIES



INDUSTRIAL STRENGTH

FULLY EXTENDABLE WITH PLUGINS



AN ENTERPRISE EDITION FOR BUSINESS CRITICAL APPLICATIONS



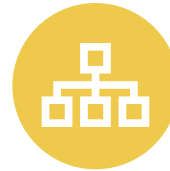
High availability

If a Kuzzle server fails, your app still works with other Kuzzle(s).



Data metrics

4 types of probes to collect data and re-inject it to your dashboard provider



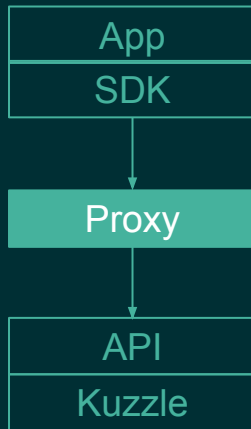
Scalability

Scale up Kuzzle to follow your business growth.



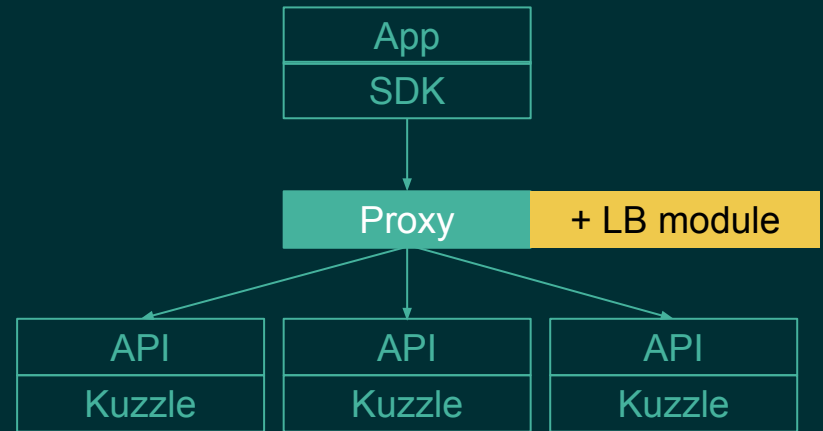
Loadbalancer sur les différentes versions

Community



If 1 Kuzzle fails, the app fails...

Enterprise

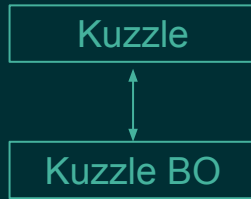


If 1 Kuzzle fails, still works with other Kuzzle(s)

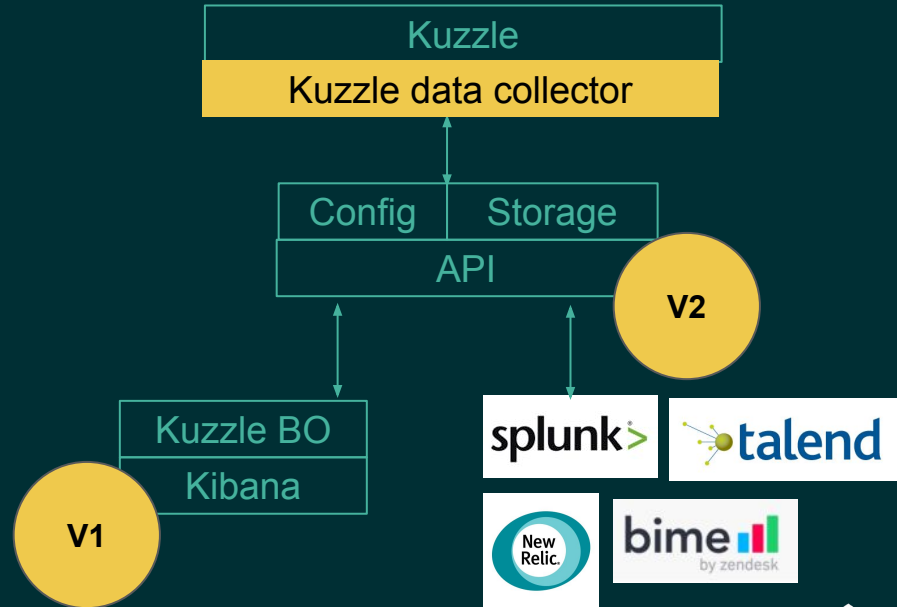


Dashboard sur les différentes versions

Community



Enterprise



INDUSTRIAL STRENGTH

Kuzzle in figures

12

Employees in a
R&D team.

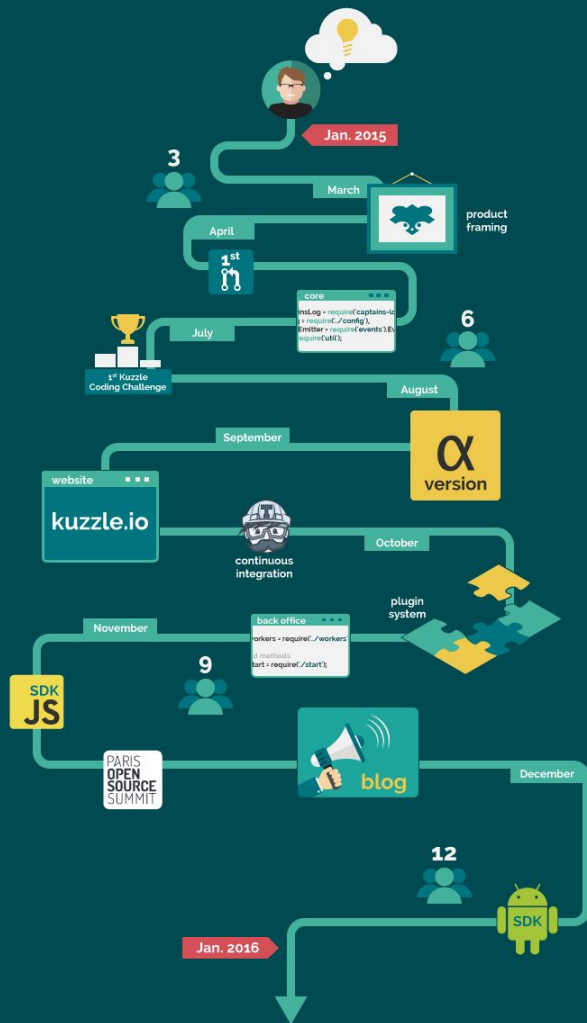
800 000

Euros of funding
by Kaliop Group.

1000+

Integration and
unit tests.





KUZLE IN RETROSPECT



A large, light-colored wireframe sphere is positioned on the left side of the slide, partially cut off by the edge. It consists of a network of interconnected lines forming a spherical shape.

Part 6

What is Kuzzle?

What Kuzzle does?

Kuzzle benefits

How to use Kuzzle?

Industrial strength

Use cases

Not only start-up friendly



USE CASES

Tinder



“ Notify Justin if a 22 year old + brunette is less than 500 meters around

- ✓ Event subscription
- ✓ Geo-event subscription
- ✓ Notification feature
- ✓ Real-time data sync
- ✓ Database storage
- ✓ Search & geosearch



USE CASES

Uber



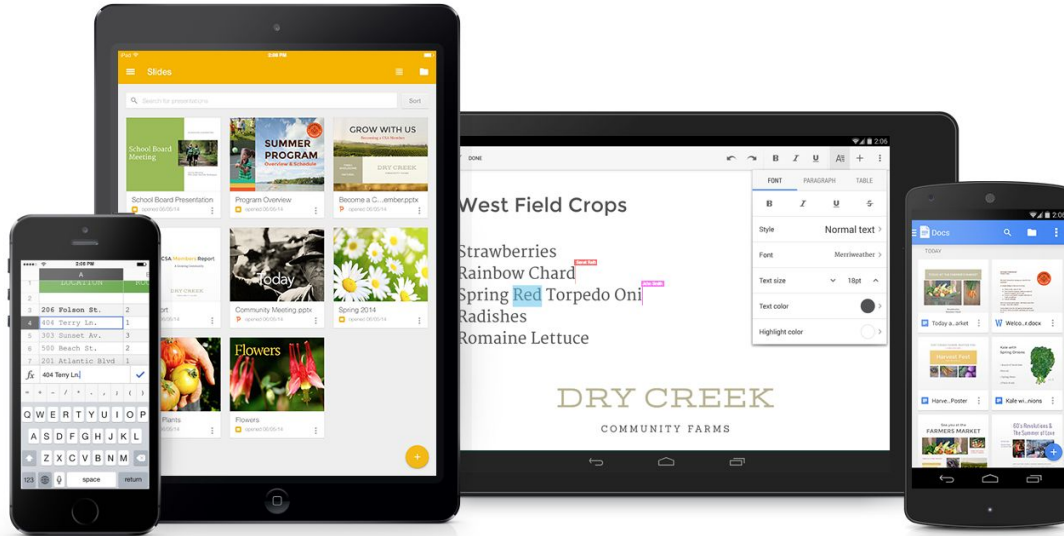
“ Display on the map all the taxis available, ready to pick me up right now

- ✓ Geo-event subscription
- ✓ Notification feature
- ✓ Real-time data sync
- ✓ Database storage
- ✓ Search & geosearch
- ⊗ Payment on travel duration
- ✓ **Plugin to push the trip data to a payment solution**



USE CASES

Google docs like



Docs, Sheets, and Slides on the go

“ Synchronize all real-time actions & cursor moves on documents

- ✓ Notification feature
- ✓ **Real-time data sync**
- ✓ Database storage
- ✓ Search
- ✓ **Multi-device**
- ✓ Plugin to manage user login & policies



USE CASES

Connected house



“ Show me all the electric stuff still on in the house & turn them off

- ✓ Event subscription
- ✓ Notification feature
- ✓ Real-time data sync
- ✓ Database storage
- ✓ Search
- ✓ **Drive IoT actions**
- ✓ **Multi-device / IoT sync**



USE CASES

Connected plants



“ Notify me if I need to water one of my plants

- ✓ Event subscription
- ✓ Notification feature
- ✓ Real-time data sync
- ✓ Database storage
- ✓ Search
- ✓ **Drive IoT actions**
- ✓ **Multi-device / IoT sync**
- ✓ Plugins to make some IoT protocols compatible



USE CASES

TV Box & apps



“ From my phone, add this show to my favorite list... I will watch it later on my tablet

- ✓ Event subscription
- ✓ Notification feature
- ✓ Real-time data sync
- ✓ **Database storage**
- ✓ Search
- ✓ **Multi-device sync**
- ✓ Plugin to import TV program feeds



USE CASES

Smart City



“

Notify the maintenance teams if something is wrong near their location.
Aggregate all the energetic data and push them to Big Data storage.

- ✓ Geo-event subscription
- ✓ Event subscription
- ✓ Notification feature
- ✓ Real-time data sync
- ✓ Industrial MQ protocol
- ✓ Plugin to push data on Big Data storage engines



USE CASES

Online Games



“ Synchronize all the visible events to online players

- ✓ Event subscription
- ✓ Notification feature
- ✓ **Real-time data sync**
- ✓ Database storage
- ✓ **Plugin to push scores to facebook / mails**



A large, light teal wireframe sphere is positioned on the left side of the slide, partially cut off by the edge. It consists of a complex network of interconnected lines forming a spherical shape.

Part 7

What is Kuzzle?

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Not only start-up friendly



Kuzzle can be used in Kaliop's projects

KUZZLE CAN PROVIDE COMPLEX FEATURES, MADE EASY TO DEVELOP, ON TOP OF EXISTING PROJECTS.

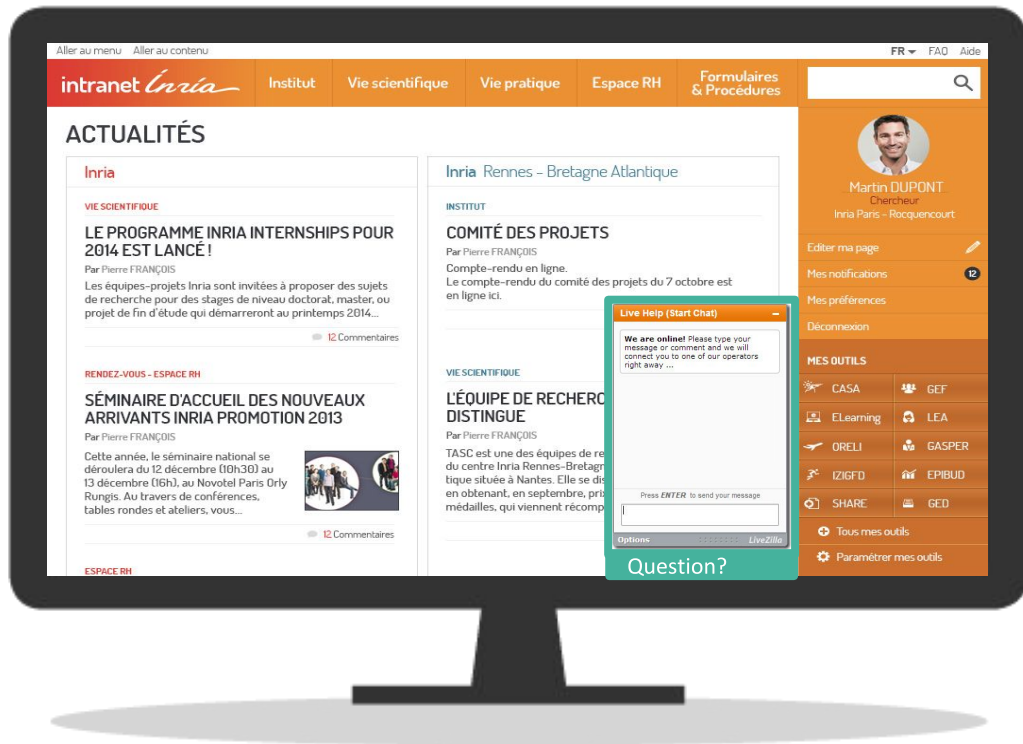


eZ



Kuzzle can be used in Kaliop's projects

Example: live chat add-on



kuzzle



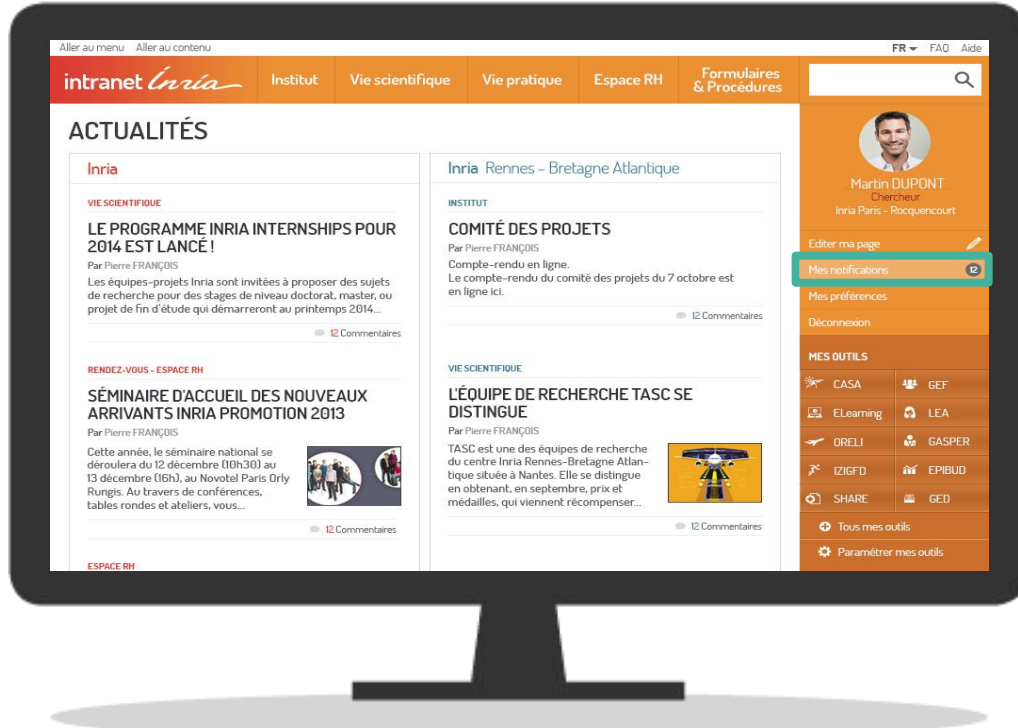
“ Kuzzle provides the private chat feature ”

- ✓ Event subscription
- ✓ Notification feature
- ✓ Real-time data sync
- ✓ Database storage
- ✓ Search
- ✓ Plugin to use existing SSO & connect to CMS



Kuzzle can be used in Kaliop's projects

Example: notification feature



 kuzzle



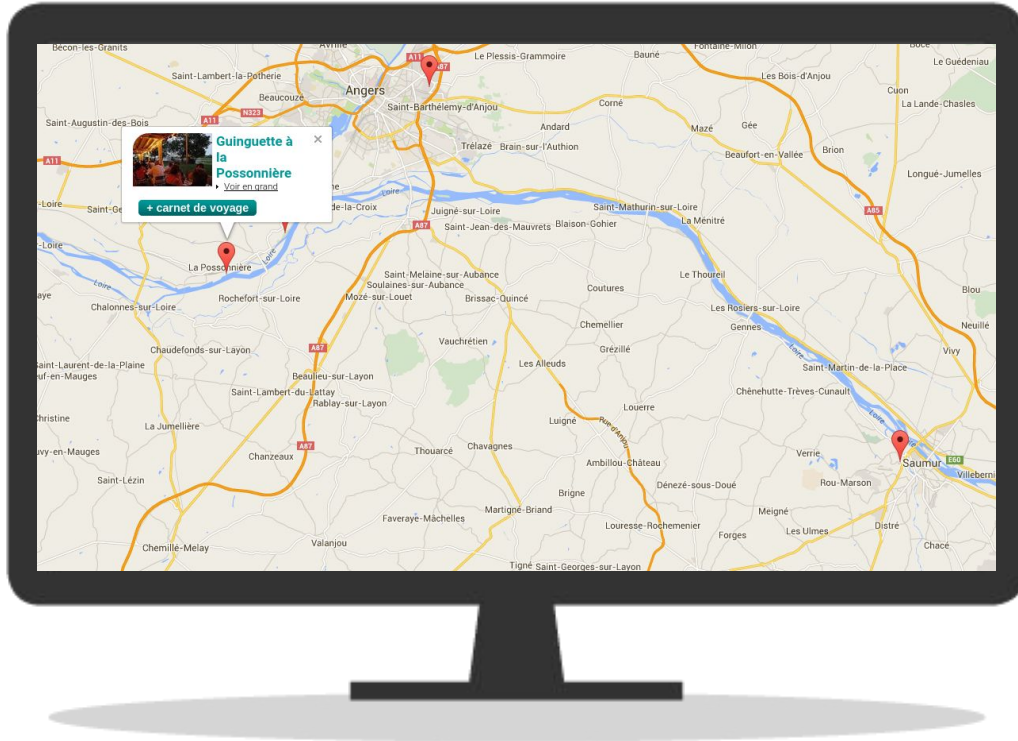
“ Kuzzle provides the notification feature ”

- ✓ Event subscription
- ✓ Notification feature
- ✓ Real-time data sync
- ✓ Database storage
- ✓ Search
- ✓ Plugin to get the business logic behind the notifications



Kuzzle can be used in Kaliop's projects

Example: Geo-search feature



 kuzzle

+



eZ



“ Kuzzle provides the
geo-search / match
preferences feature

- ✓ Event subscription
- ✓ Notification feature
- ✓ Real-time data sync
- ✓ Database storage
- ✓ **Geo-event subscription**
- ✓ **Plugin to get the business logic behind the notifications**



