ebikemotion®
BACKEND
The perfect platform to deploy your APP services

In ebikemotion® we are very concerned about the safety and integrity of the data that users generate in our platform, besides trying to give the best possible service trying to meet these 3 principles:

- Speed
- Security
- Availability

Protection systems consist of two levels of firewall so that we can filter all connections made to our platform, all of which are encrypted using SSL certificates. In addition, our platform has IPS systems (Intrusion Prevention System) that block attacks on infrastructure and notify administrators for investigation.

IT for Server & Services

ebikemotion® Service Backend

Target Applications:

Infrastructure Protection
Protection of private data
Connection protection
speed Access
High availability
Scalability

There is something more important to do things and it is do them well, thought of an economy of scales on a platform that can grow with the number of users. So we built our backend, a solid and secure solution

The speed and system availability is achieved through the use of services for load balancing to distribute the requests to different datacenters available. This system also allows us to have a disaster protection so as to ensure service availability because if one of the datacenters experiencing problems, requests are routed to another node available.

HEADQUARTERS ⌂

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RESEARCH CENTERS ⌂

BISITE R+D Group
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(Valencia - Spain)

STAGEMOTION SL
(Palencia - Spain)

PRODUCTION CENTER ⌂

NAGARES S.A.
(Motilla del Palancar - Spain)

GRUPELEC (NAGARES)
(Valladolid - Spain)

ebikemotion® Backend is based in open source software platforms to reduce the cost of licenses and maintenance

Integrated software platforms

- **firewall**
- **web server**
- **ips**
- **database server**
- **backup server**

ebm
♡ bikes

Product Features & Specifications

Activity Summary

By using two CPD in different geographic areas we increase the security of our backend even disaster to physical level, meteorological, fire, power outages, etc. If one of the platforms has a problem , all traffic is automatically redirected to another CPD keeping the service active until the problem is resolved.

Connection protection

All connections made on the platform are encrypted using SSL certificates with 2048-bit signatures and encryption level of 256 bits. By using TLS 1.2 protocols get better protection against attacks by protecting the data of our customers.

Infrastructure Protection

The infrastructure is designed to have two levels of Firewall that will help us to implement different protection measures in various layers of the OSI model. In addition to Firewall, the backend has an IPS service for detection and prevention of unauthorized access to infrastructure and the different VLAN's that make services are isolated from each other in case of being engaged, trying to fulfill the principle of minimum exposition.

Monitoring

The entire infrastructure can be monitored to detect faults in it, so that we can detect problems proactively avoiding falls in service with the savings that this entails. Also, thanks to the monitoring systems we can receive reports of use of infrastructure to help us to size our service.

Scalability

The platform designed allows us to deploy more nodes in a short space of time and be able to add to the infrastructure already available, increasing the capacity of data processing, at the same time growing your business.

Access speed

The distribution of requests to the EBM platform through a load-balancing system makes the speed of access to it is less, taking full advantage of all available resources in infrastructure and providing a better user experience.

Architecture of the Hardware and Service Infraestructure involved in the ebikemotion® Backend

Internet

ISP ROUTER

ISP FIREWALL

Router — IP LOAD BALANCING — Router

SERVER A

SERVER B

SECOND LEVEL FIREWALL
NAT - PROXY - IDS - IPS

WEB SERVER 1

WEB DATABASE 1

BACKUP SERVER

SECOND LEVEL FIREWALL
NAT - PROXY - IDS - IPS

WEB SERVER 2

WEB DATABASE 2

BACKUP SERVER

DATABASE CLUSTER

data center 1

data center 2

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