beSharp. | KALPA
we make IT run.

Internet of really big things

OVERVIEW

Kalpa is an Italian design and consultancy company for embedded systems. It boasts a team of experts able to follow the design, development, testing and certification phases.

Thanks to a strong focus on innovation, many medium-sized and large multinational companies have turned to Kalpa to develop new products/devices connected with the IoT and Industry 4.0 sectors.
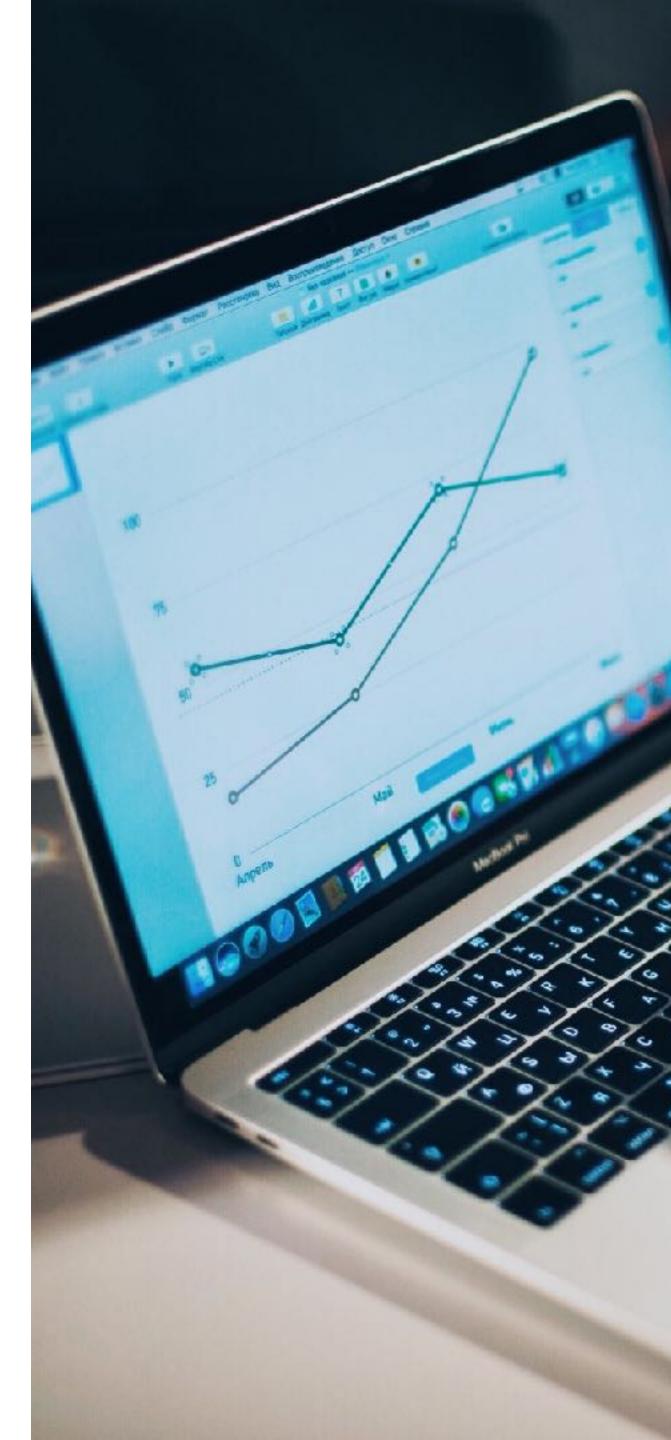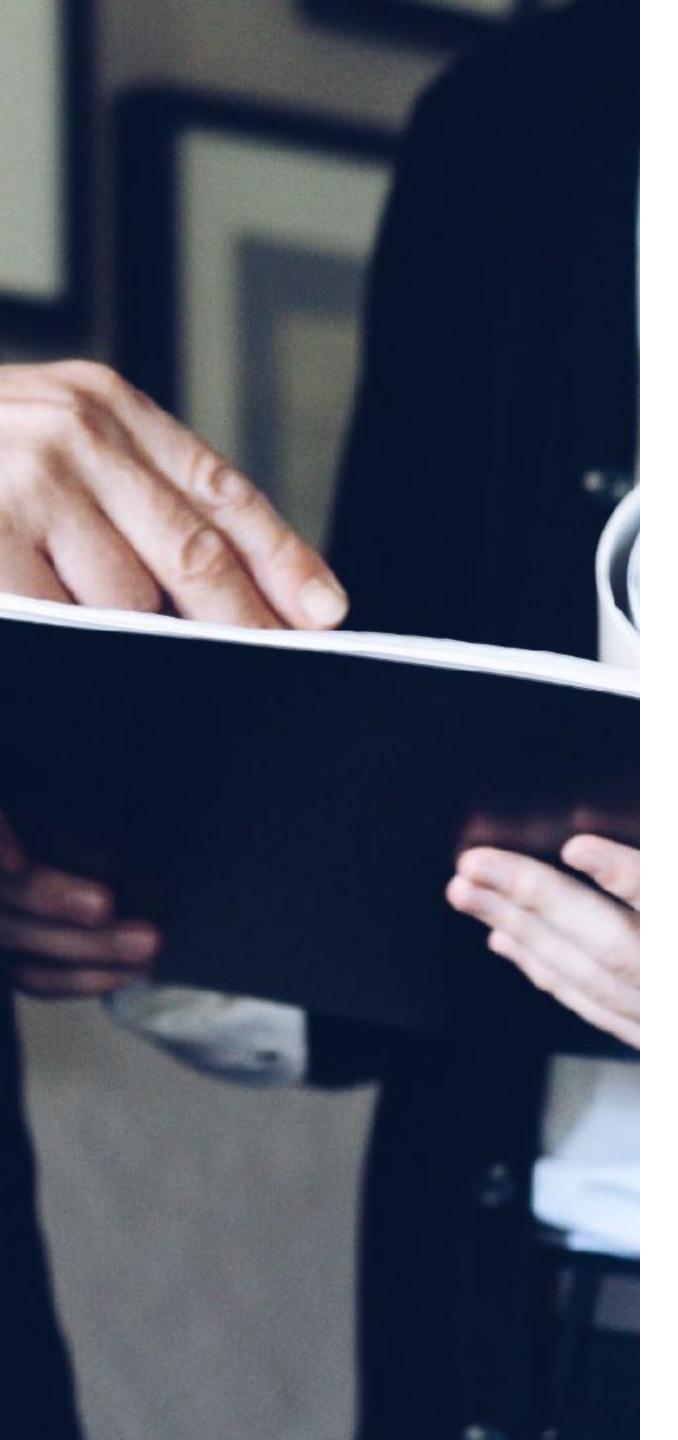
THE CHALLENGE

- Obtain a versioned, documented and automated infrastructure in order to overcome the limitations of a manually created and managed infrastructure.

- Improve and automate the workflow of developers, reduce the management effort of testing infrastructures, build and deploy by minimizing the direct access to the infrastructure.

- Centralize the resources and applications logs along with the audit logs of the AWS API calls in a single dashboard to speed up the identification and resolution of errors or malfunctions.

THE SOLUTION

- Through the use of AWS CloudFormation and, therefore, the implementation of the Infrastructure-as-code paradigm, Kalpa obtained documented, versioned and unvaried development environments, useful to fully test the integrations between code and infrastructure.

- Introduction of multiple Continuous Delivery Pipelines based on AWS CodeCommit, AWS CodePipeline, AWS CodeBuild, AWS CodeDeploy, AWS CloudFormation, AWS Lambda, Amazon S3 and AWS Fargate services each one for every development need, from front-end to back-end.

- Centralization of resource and application logs using the combination of AWS services and features such as AWS Kinesis Firehose streams for uploading data to an Amazon Elasticsearch Service cluster and Amazon S3 for long-retention, with a Kibana dashboard on-top for their consultation. Furthermore, by integrating AWS CloudTrail with AWS CloudWatch and Kinesis it is also possible to send AWS account call history logs to the Amazon Elasticsearch Service cluster.

THE BENEFITS

- **Control**

  Thanks to the implementation of the Infrastructure-as-Code , Kalpa obtained control and management autonomy over the architecture.

- **Agility**

  The creation of a CI/CD pipeline allowed Kalpa to go from weekly deployments to daily deployments, minimizing direct access to the infrastructure by the development team.

- **Efficency**

  The centralization for the monitoring of resources and logs has made it easy to identify the causes of malfunctions thus allowing for effective and timely resolution interventions.

ABOUT BESHARP and AWS

beSharp and Kalpa have collaborated in the creation of a model infrastructure, an infrastructure that is modular and which can be specially configurable based on the different environments.

With an on-the-job training, beSharp's Cloud Experts formed the Kalpa developer team on the concepts underlying the Cloud paradigm. As a technological partner, beSharp works alongside them to implement the most innovative services and the most value-added developments for the company.

beSharp team also handled the design of the new architecture in line with the best practices of the AWS Well-Architected Framework.

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SaaS

Well Architected Program

APN Training Partner

AWS Solution Provider Program

aws 50 certified

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