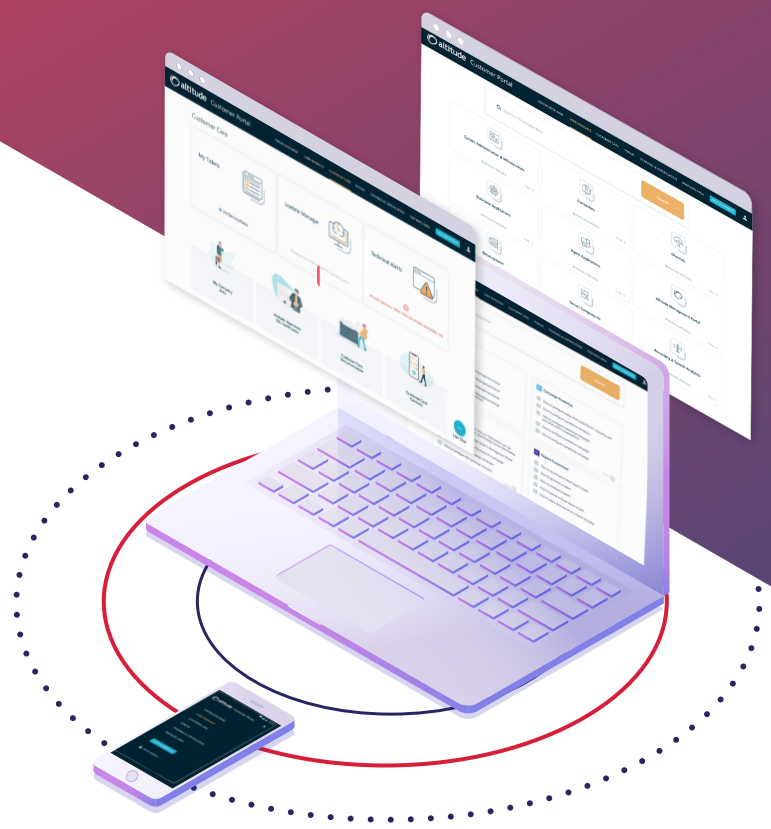
xpand it

Altitude Software

How to leverage integrated access to information for customers and partners



altitude

Altitude Software is a Portuguese IT company that focuses on software development in complete solutions for contact centres. Their products cover a diverse range of areas, from email to social media, bot implementation, audio scripting, and even analytics, among many others.

With over 25 years of experience in the product area, and offices in 18 locations (including the United States of America, Canada, Brazil, the United Arab Emirates and Great Britain), Altitude Software have over 1,100 customers in 80 countries, which is equivalent to about 250,000 users of all their solutions.

Technology focuses on the agility and flexibility that their products can offer customers, highlighting the customer experience as the focal point of its business.

With the ISO 9001 certification achieved for the support and assistance services they provide worldwide, they have also received more than 50 awards presented across a variety of industries.

The challenge

Altitude Software wanted to **unify the way they communicate with their customers and partners**, simplifying the entire support process as well as the documentation of their product releases. The main requirement was the **implementation of agile, scalable solutions**, which could work as a single point of access to their entire information/application universe.

In addition, this bet on a solution was also intended to encourage collaboration between helpdesk operators, making producing content an easier task for employees. And so, the challenge presented itself to Xpand IT in two distinct but complementary ways:

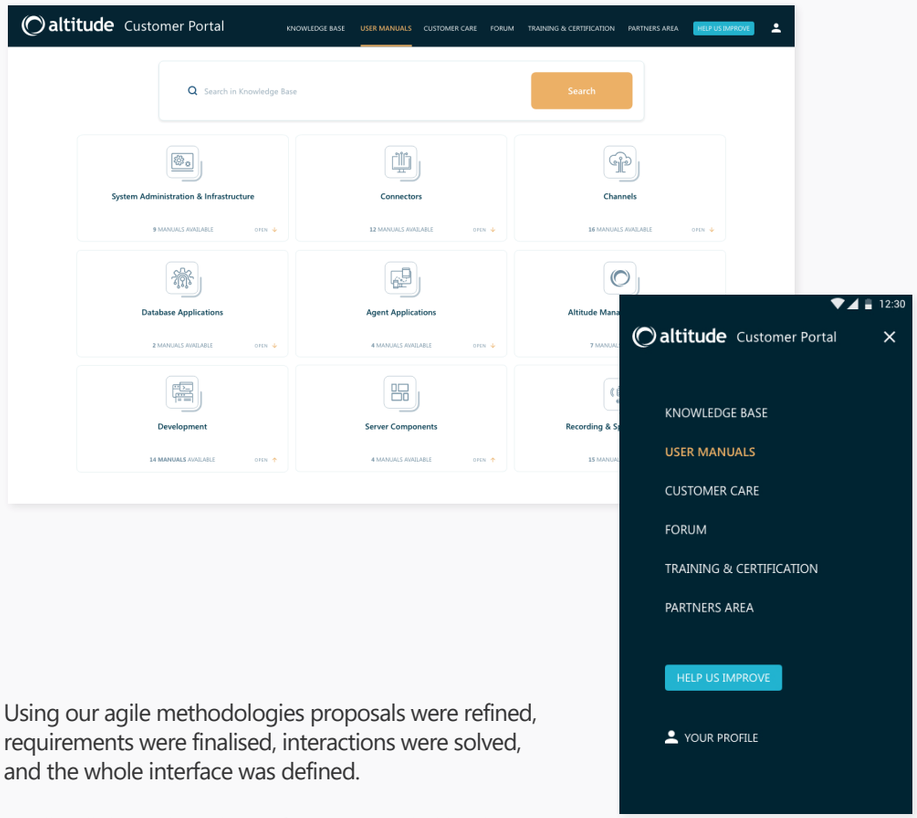
- **Implementation of a Knowledge Base:** with access to information collected through the solutions used - Jira Service Desk and Confluence

- **Development of a new customer portal** using scalable architecture, with the objective of providing access to the Knowledge Base, but also to technical and institutional information, such as:
  - User manuals;
  - General customer information (contacts, *product releases*);
  - Access to live chat support;
  - o Access to other applications from the Altitude universe, available through single sign on (Jira Service Desk or Altitude University Knowledge Hub).

The Solution

UXUI & functional analysis

The UXUI team started by **gathering the needs, motivations and goals of the platform users** in order to deconstruct the challenge and discover the essence of the product.



Meanwhile, the **functional analysis** focused on collecting business requirements, identifying new needs based on them, identifying risks, adding suggestions and describing functionalities in a way that was understandable to everyone.

We then moved on to the **creative phase:** designing ideas and creating solutions with the help of various functional prototypes, which allowed us to test the previously developed concepts and communicate with the client in a manner very close to the final product.
By exploiting this tool, valuable user experience was gained and it is now possible to produce a final UXUI solution.

Using our agile methodologies proposals were refined, requirements were finalised, interactions were solved, and the whole interface was defined.

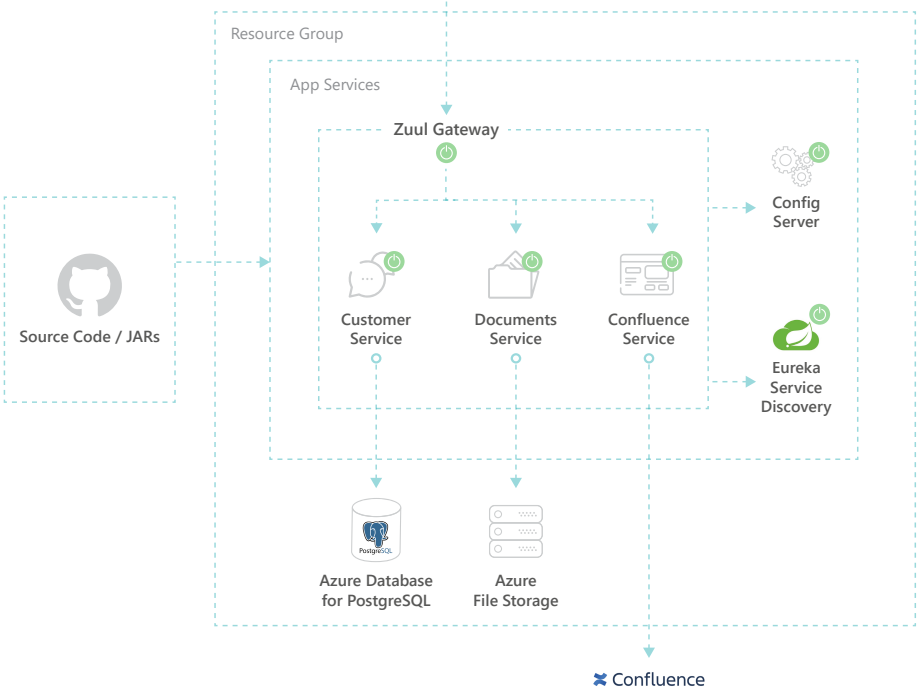
Finally, all the technical specifications needed by the development team were prepared, and **the UXUI team followed the entire implementation to ensure the consistency of the validated design system.**

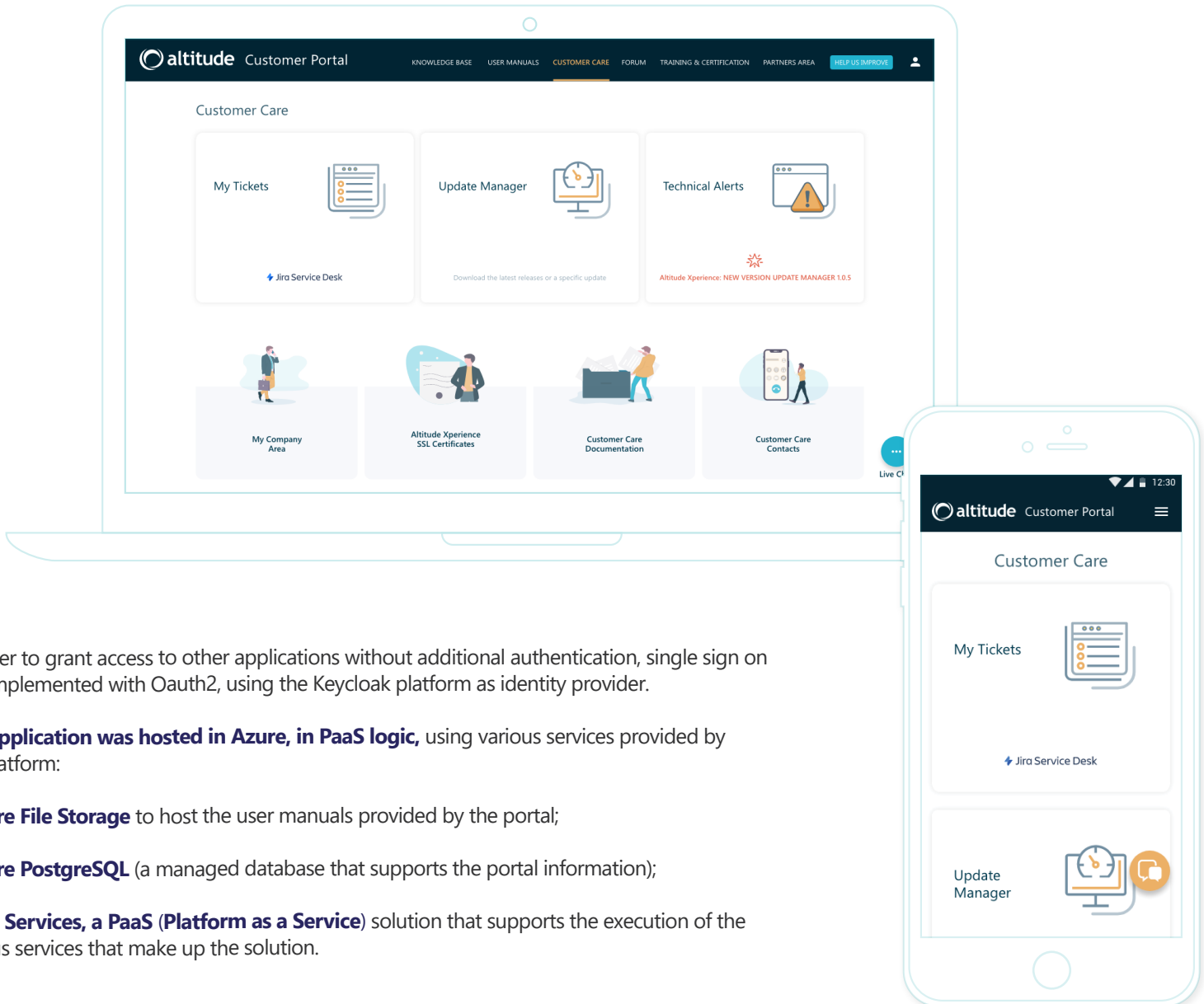
Developing the customer portal

In partnership with Altitude, Xpand IT began by surveying existing needs in the business, and a review of the architecture of the systems involved. The solution needed to allow for **growth and scalability over time**, in order to match the potential for use.

The applications executed in the standard of micro services architecture aim to **simplify the development, deployment and maintenance.** The decomposed nature of the application allows the teams responsible for development to focus on one problem at a time, and the necessary improvements to be implemented individually, without affecting other parts of the system.

Considering the variety of information sources, Xpand IT chose to bet on **an architecture based on micro services**, developed on the Spring Cloud framework, being the front end developed in Angular.





In order to grant access to other applications without additional authentication, single sign on was implemented with Oauth2, using the Keycloak platform as identity provider.

The application was hosted in Azure, in PaaS logic, using various services provided by the platform:

- **Azure File Storage** to host the user manuals provided by the portal;

- **Azure PostgreSQL** (a managed database that supports the portal information);

- **App Services, a PaaS** (**Platform as a Service**) solution that supports the execution of the various services that make up the solution.

The technology

A framework that facilitates the development of cloud-based applications, providing solutions to some common, inherent problems when moving to a distributed environment.

It is a set of cloud services in constant expansion, which helps organisations to face business challenges. It allows the freedom to create, manage and implement applications on a large-scale global network, using tools and architectures that best fit businesses.

ANGULAR

A JavaScript framework indicated for front end development. Angular allows the creation of single-page apps with a very high quality.

KEYCLOAK

An open-source product, oriented to modern solutions/applications and facilitating single sign on with identity/access management.

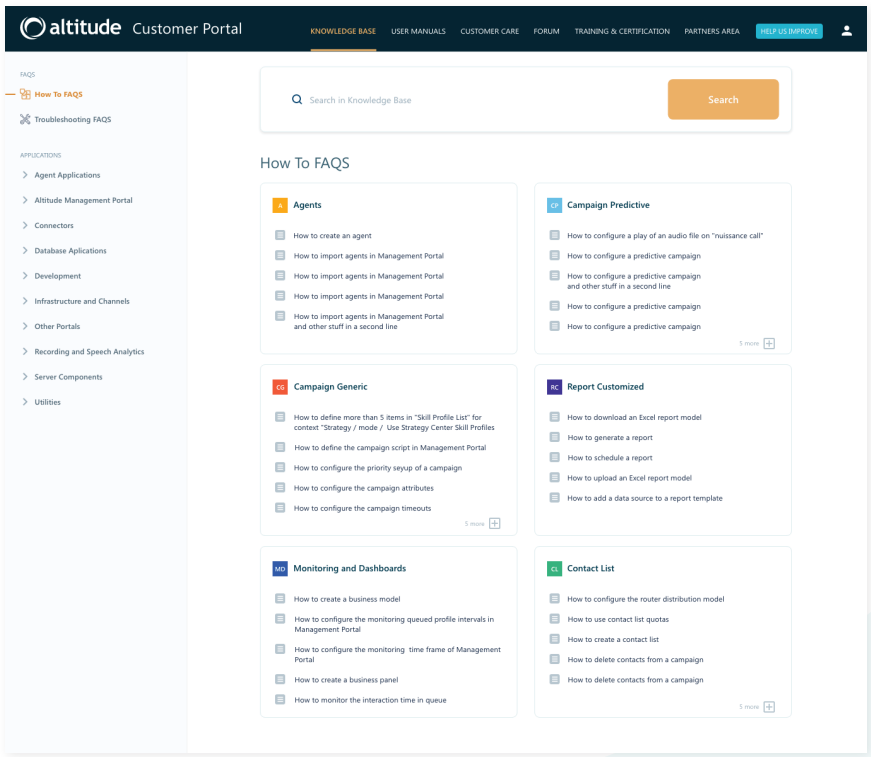
Knowledge base implementation

A **knowledge base** was created that integrated with the Jira Service Desk solution, **allowing customers to quickly access manuals, articles and technical alerts.**

The knowledge base has allowed a greater **sharing of knowledge** between helpdesk agents, as they can now create articles from the Jira Service Desk, sharing later with other employees.

The functionalities inherent to the Knowledge Base created also allow the use of **predefined templates**, as well as all **content approval control.**

By browsing the knowledge base it is possible to optimise over time the results presented to the end customer, offering **more relevant suggestions.** This functionality is enhanced by the built-in machine learning mechanism (the Smartgraph).



The technology

Confluence

Collaborative platform for content management. When integrated with Jira Service Desk, it allows the suggestion of articles based on the details of the requests.

Comala Document Management

App for workflow management, directly integrated in Confluence, allowing the definition of the approval cycle.

Benefits

With the Azure microservices architecture

Scalability and elasticity, allowing the ability to easily increase or reduce the number of instances in every service.

The use of Azure PaaS services led to reduce costs of managing infrastructure and to improve ease of integration of the various services.

Implementation of the knowledge base facilitates

Increased capacity to resolve support issues autonomously, by consulting the suggestions made

Optimisation of the content production and approval process, delivering consistent content effectiveness through the reports provided

Through the development of the customer and partner portal

Guarantee of proximity to customers and partners through a solution that offers intuitive, simple navigation

All the information is now concentrated in a single portal, guaranteed on a single aggregating platform, with a functional design planned for ultimate ease of use

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