



Implementation of Camunda BPM at Zalando

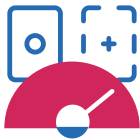
Find out why Zalando chose Camunda BPM to handle online order process for over 16 million active customers



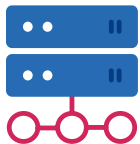
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Handling of all online orders for over 16 million active customers



Deployment of a high availability runtime environment



Sharding strategy for processing high amounts of order data

Zalando is Europe's largest online platform for fashion. The extensive range for men, women and children's fashion as well as accessories and sporting goods ranges from global brands, local and fast-fashion brands to self-designed private labels – altogether Zalando works with more than 1,500 brand-name manufacturers.



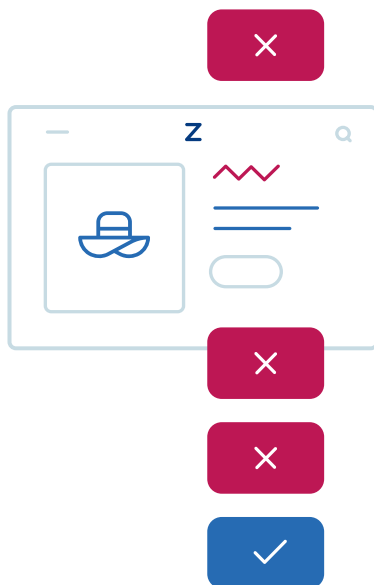
Zalando is using Camunda BPM platform for the execution of its customer orders since 2014



This includes the creation of accounting data, checking of coupons, communication with payment service providers, holding of articles in the logistics centers, sending order confirmations, fraud check and communication with the ERP system.

The following case study is based on interview conducted with André Hartmann and Jörn Horstmann. Both are Java developers at Zalando SE.

The company's problems before the implementation of the BPM platform



Zalando's received orders are processed via the so-called "Take order process". This business process includes business logic, as well as numerous service integrations, such as the coupon service, the stock service, the payment service, the partner service and integration with the logistics system and SAP.

The logic of this process is extremely complex and covers many special cases, which depend, for example, on the location of the customer, the method of payment or shipping address.

The process had initially been automated via a self-developed "process framework". This was, however, not optimally designed and difficult to understand for the product managers. The process documentation and the actual code diverged again and again and the process logic was spread across multiple systems.

As a result, it was almost impossible to understand the actual operation of this strategically important core process.

Why did Zalando choose Camunda BPM?

Several BPM products were evaluated. The final decision for Camunda was motivated by the following aspects:



Simple configurability



Easily embeddable into the existing infrastructure due to its Java orientation

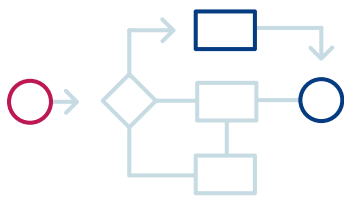


Good technical scalability, with which the rapidly growing order volume can be mapped

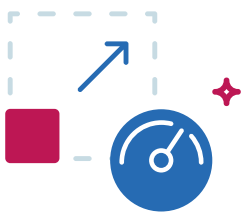


Good consultation and cooperation with Camunda, for example, in terms of feature requests

Project procedure and implementation challenges



On the technical side the organically grown process had to first be completely understood and displayed in BPMN. On this basis, test scenarios were developed for all business transactions with Cucumber, as well as integration tests for end-to-end process.



Scalability and performance were critical for the successful execution of orders of more than 16 million active customers. A synchronous processing, for example, had to take place in less than 300ms. In addition, a high availability runtime environment with frontend nodes for load balancing and backend nodes to perform the jobs had to be put in place. Due to the amount of data, the order data is distributed to eight structurally identical databases

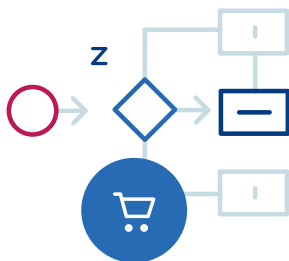
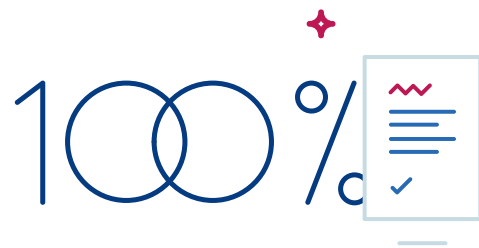


The key to finding the information is the email of the customer. To implement this sharding strategy one Camunda process engine per shard was established.

Results with Camunda BPM



Thanks to the introduction of Camunda BPM, the professionally documented process now 100% corresponds to the technical reality.



Most questions regarding the process can be instantly answered by a quick look at the BPMN diagram. This is an important foundation for the continuous improvement of the process and thus also the further growth of Zalando.



All orders run through the process synchronously as part of the shop checkouts.

The next step is the migration of the succeeding, asynchronous processes.

Interested in implementing Camunda BPM in your company?

Let's talk!



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