

“Lee & Ally”

Challenge:

As part of their continual innovation in the legal field **deJuristen** wanted to build a virtual chatbot (Lee & Ally) that gives an understandable answer to legal questions 24 hours a day 7 days a week.

Solution:

Cloudar designed a system on **AWS** that **scales** elastically with the number of users. The setup was **automated** to reduce the lead time for changes using **continuous integration and deployment**. Due to the **global reach** of **AWS**, **deJuristen** will also be able to deploy the solution in **other regions** as and when required with **minimal start-up time**.

Result:

Lee & Ally was released to the public, with significant media attention. **deJuristen** benefitted from Amazon’s **Elastic Infrastructure** and its **high security standards**, being able to serve **exponential increases in traffic** with **optimum performance**.

Customer Profile

deJuristen is the Flemish subsidiary of **theJurists Europe** a an-European legal firm specialized in ICT focussed, intellectual property & corporate law. They provide legal advice to medium and large sized organizations while creating innovative tools

The Challenge

- ◆ **deJuristen** required an infrastructure solution that would enable them to serve the Lee & Ally application to a **wide public audience**.
- ◆ The solution was required to be **able to scale** with the increase or decrease of end user traffic.
- ◆ The developers needed to be able to **deploy at any time** in a controlled and repeatable manner with simple rollback possibilities.
- ◆ The solution needed to adhere to **security best practises**, due to the systems public nature and the legal nature of the information being handled by the system.
- ◆ The system must be setup in an **automated** manner in case the solution needs to be rolled out to other **AWS** regions.

AWS Services :

- Amazon EC2
- AWS Elastic Beanstalk
- AWS Cloudformation
- AWS Identity and Access Management
- AWS Certificate Manager
- Amazon Cloudfront
- Amazon EC2 Auto Scaling
- Amazon S3
- Amazon EC2 Elastic Load Balancer
- Amazon VPC
- Amazon Cloudwatch
- AWS Cloudtrail

AWS Technical partners :

- Cloudcheckr©
- Cloudbees©
- Site24x7©
- GitHub©

Cloudar Services :

- Managed Service offering
- DevOps Consultancy

“Forget about lawyer lingo and other incomprehensible jargon: Lee & Ally answers your questions to the point and in normal speak”

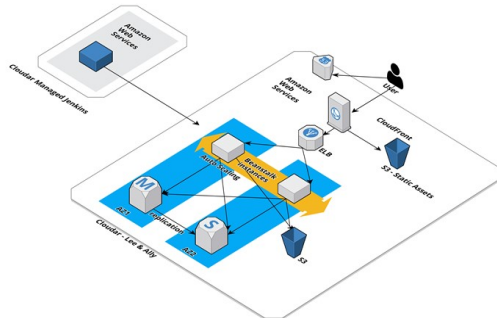
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The Solution

The solution designed by **Cloudar** for "Lee & Ally" was developed with **High-Availability** and **scalability** in mind:



- ◆ **AWS Elastic Beanstalk** managed **Amazon EC2 Auto Scaling Groups** spread across 2 **Availability Zones** for **scalability** and **maximum fault tolerance**.
- ◆ **Amazon ELB** is used to balance traffic across the instances.
- ◆ **Amazon RDS** DB Backend, spread across **multiple availability zones** for high availability.
- ◆ **AWS Certificate Manager** to remove the heavy lifting from managing SSL certificates.
- ◆ **Amazon S3** object storage for static files.
- ◆ **Amazon Cloudfront** for edge caching, to reduce overall load on the system by caching where appropriate.
- ◆ **AWS Cloudtrail** to monitor the API actions taking place on the account.

We also made use of a number of **AWS technical partner solutions**:

- ◆ **Cloudcheckr**© was used to ensure the setup complied with **AWS best practises** and to ensure ongoing compliance once the solution was in production.
- ◆ **Site24x7**© was used in conjunction with **AWS Cloudwatch** to ensure **optimal performance** across all environments.
- ◆ This infrastructure was managed using **AWS Cloudformation**. This was deployed to **AWS** using **Jenkins Pipelines** with **CloudBees**© **Jenkins plugins**.

And off course, we worked together with several other partners that helped turning this project into a success story :

- ◆ **Xplore Group** took care of the overall project management
- ◆ **Craftworkz/XT-i** were responsible for the development and machine learning technology of the AI chatbot
- ◆ **Refleqt** handled all quality assurance and performance testing
- ◆ **Monkeyshot** positioned the product in the market

The Result

- ◆ The successful launch of the first Legal Advice Robot in Europe.
- ◆ The use of automation allowed for repeatable deployments of both infrastructure and code which encouraged fast iterations in both the development and operations aspects of the project.
- ◆ Though the use of elastic infrastructure components the solution was able to scale to meet demand where needed thus ensuring that money spent on infrastructure is spent only when its being used.
- ◆ Through co-operation with other AWS Technology Partners we were able to ensure continued compliance with AWS best practises and keep the application under a high state of monitoring in an environment with continuous changes and deployments.

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