

CASE STUDY



ClickIT
SMART TECHNOLOGIES



Pepper leaf is an e-commerce web application that works in Symphony (Php Framework). It allows its clients to buy fresh and delicious ingredients to prepare exquisite recipes.



PEPPER LEAF

Pepperleaf needed to migrate their application to AWS and reduce their IT costs. The web app was previously hosted on Rackspace and it needed to optimize its processes. That's why they decided to migrate to AWS; to acquire its services and maximize their potential.

The application had two web servers along with an NFS server and two load balancers which were around \$1500 USD on Rackspace. After migrating the whole application to AWS, the billing reduced an 80% and the app performance improved.

Business needs:

1. Migration of development and production environments to AWS.
 - 1.1 Server and app Discovery.
 - 1.2 AWS dev environment creation.
 - 1.3 Documentroot migration.
2. Migration of databases that lived in common servers to RDS service of AWS.
3. Assurance of servers and infrastructure.
4. Creation of automated backups.
5. Migration of DNS.
6. Cost optimization on AWS.

Technologies:



Amazon Route53



AMAZON EFS



AMAZON EC2



AMAZON ELB



AMAZON RDS



AMAZON S3



Symphony



The Process:

1 Server and App discovery. Our technical team made an evaluation of the environment in which Pepper leaf was hosted. We found lots of servers and just few of them were needed. At this point, we identified the app key components:

- **Services**
- **Code**
- **Media Files**
- **Database**

1.1 Dev environment creation on AWS. After identifying the app key components, we proceeded to create instances for the servers located in Rackspace. Namely, by using the AWS services and creating the necessary resources for Pepper leaf.

1.2 Document Root migration to EC2 Servers. Having the development and production environments with their corresponding services previously created, we started with the code migration. This code was in Rackspace with all the media file.

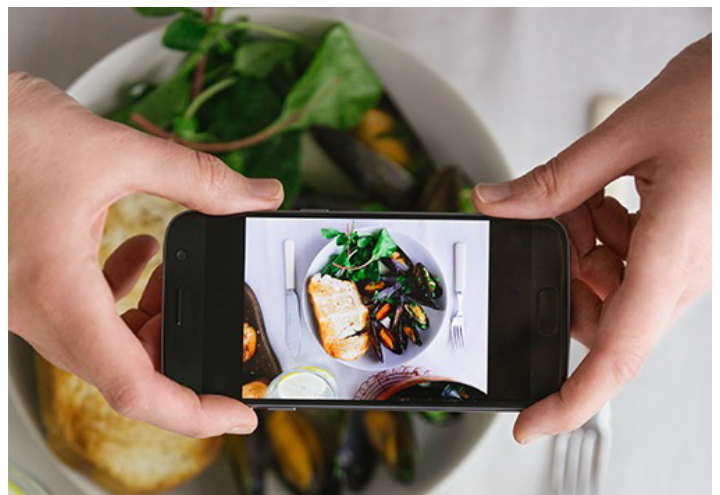
1.3 Database Migration to RDS. Pepper leaf used dedicated servers on Rackspace, this used to cause troubles with the optimization of connectivity and database management. The database migration to Amazon RDS made more efficient and optimized the system since it is a complete managed service.

2 SSL Installation. Since it is an e-commerce, Pepper leaf must count with its own information and encrypted users, that's why we recommended using an SSL certification to ensure the app security.

3 Infrastructure Security. The app security is a priority; it manages confidential info about users, transactions, credit cards, and much more. To secure the server, we carefully protected the site for any malware, adding key authentication, protecting passwords and phrases. We changed every server access port and implemented further security measures on the AWS Security Groups. At last, in an app level, we hide versions of services like Apache, MySQL and PHP.

4 Backup plan implementation. Every site must count with a great backups strategy in case of emergency, in Pepper leaf we created and strategy that allows us to recover for any contingency in less than an hour. We add:

- I. **Server backups (daily and monthly).**
- II. **Code backups.**
- III. **Database backups.**



5 Database Resync. After having the environment ready and the functionality tests completed, we proceeded to resynchronize all the database to avoid losing data or users.

6 DNS Migration. Once the client approves it, we proceeded to migrate the Rackspace DNS to Amazon Web Services.



Pepper leaf obtained an 80% cost reduction. It has now an infrastructure in AWS at the forefront; it uses managed services like RDS and has all its services versions updated. The web app became efficiently than ever before for all its clients.

About us:

ClickIT is a leading interactive development agency that implements “open source” tools and Cloud solutions to deliver high-value web and mobile application development for Startups and SMB business. We are Based in Saltillo, Mexico that implements AWS managed services, DevOps, and high-quality development to transform your online business. Our continuous expertise makes companies be successful following our rapid development, agile processes and superior solutions.

Security



Hardening and malware removal. Ask for a security assessment, ethical hacking and penetration testing.

Development



Web and Mobile Development for Ecommerce sites, Startups, Mobile and SaaS Applications.

Migrations



Migrate your application to the Cloud, or move your site to the hosting that suits you best.

DevOps



Continuous integration and Accelerate you Development productivity whit IT automation.

Optimization



Accelerate your application and CMS using caching layers, CDN technologies and tuning your LEMP services.

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