Elastisys AB

Delbart Case Study

Scalable WordPress deployed with Elastisys cloud automation platform

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Delbart

- WordPress® site initially deployed on shared hosting, later on a single cloud server that was made larger as site became more popular. Poor performance during peak hours even with largest server size offered by the cloud provider.

- Peak popularity so far: up to 2 million monthly page views.
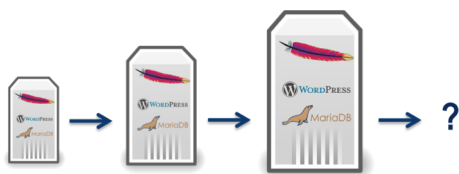
Summary

- Delbart now relies on fully automated deployment of Scalable WordPress® servers to handle visitor fluctuations.

- Delbart's servers respond faster than ever, with costs reduced by 60% **and** the site is able to transparently cope with significantly larger numbers of visitors than ever before, due to automation.
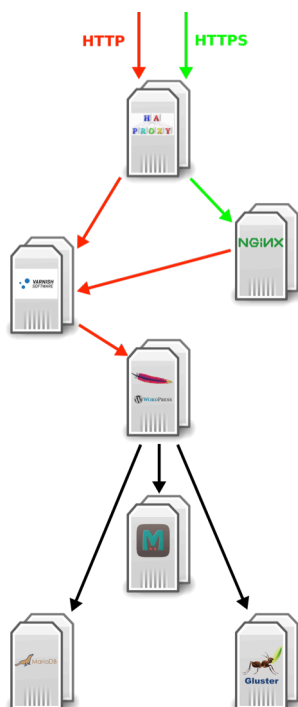
Background

Delbart was founded in 2014 with the mission of making interesting online content available to its visitors, gaining revenue from online advertising in the process. For simplicity and ease of use, Delbart chose the WordPress® content management system to deliver their content, a solution that powers hundreds of millions of web sites. Like many WordPress® sites, Delbart was initially deployed on shared hosting. It outgrew the performance offered, and moved to a single-host Linux-Nginx-Mysql-PHP stack. When visitor counts increased further, the site was unable to keep up with the load and response times lagged. As a stopgap solution, Delbart repeatedly increased the size of its single server, going from a modest size to the largest its cloud provider could offer. By always using the largest possible machine the performance issues appeared less frequently, but did not stop completely – peak load was still too great to be handled by the single host. And at maximum size, vertical scaling was no longer an option. A more permanent and scalable solution was needed.

It was time to make full use of the elastic nature of the cloud, and make a scalable deployment of Delbart that can grow and shrink in size based on the number of visitors.

Delbart was looking for a partner with expertize in auto-scaling and deep understanding of WordPress® deployment to make performance worries a thing of the past.

Delbart turns to Elastisys

Elastisys Scalable WordPress combines the Elastisys Cloud automation platform with a best-of-breed collection of software for deploying WordPress®, configured with caching, load balancing, SSL-termination, etc. according to industry best practices. Instances of all components of the deployed system can be scaled up and down as needed. Service discovery and reconfiguration are performed automatically as instances are added and removed. This makes the environment highly dynamic, and easy to scale according to any metric. Combined with the Elastisys predictive auto-scaling technology, the deployment is always kept at just the right size required by the current website visitors.

In Delbart's case, the site had grown organically, without much attention paid to performance. It relied on more than three dozen WordPress® plugins to function, including several plugins custom made for Delbart. The use of these plugins and their associated cookies made every browser request unique, and thus impossible to cache properly. Elastisys stepped in and identified two of the worst performance offenders, and created alternative solutions that provide the desired functionality, but in a cache-friendly manner. Page view performance increased greatly, reducing the time to obtain the page HTML from the server by factor 10 which means significantly faster rendering.

Delbart now uses four more moderately sized virtual machines deployed in the cloud - costing less than the large server Delbart was deployed on previously and being more responsive than the previous solution. The new Delbart architecture can scale out to meet performance demands in a manner of minutes. Downtime and performance slumps are now avoided thanks to auto-scaling. Elastisys' predictive auto-scaling ensures that sufficient server capacity is allocated and operational as needs arise, rather than starting the scaling out process in response to under-provisioning.

Outcomes

The outcomes from Elastisys work with Delbart were a **responsive and scalable system** with a **performance safety net** for dealing with high load situations, and a **60% reduction in cloud expenditures** for the average case when load was moderately low. As more servers are needed, they are added, and the site is able to cope with large amounts of concurrent visitors. When demand decreases, so does the deployment size. Automated dynamic reconfiguration keeps site maintenance low, which enables Delbart to spend time on what matters most: generating content of interest to its viewers.

About Scalable WordPress

Scalable WordPress is a packaged solution that combines industry best practices for deploying and configuring WordPress® with modern technologies and industry-leading auto-scaling. Scalable WordPress® enables you to achieve high performance and scalability in one deployment.

It includes load balancing, SSL termination, a networked file system, a clustered database, HTTP acceleration caching, and database offloading via caching. The Elastisys Cloud Platform ensures that there is just the right number of each component deployed by using our patented predictive auto-scaling engine. Performance is optimized for WordPress® sites of all sizes, and administration is as simple as for a single-server deployment.

About Elastisys

Elastisys provides products and services for scalable and responsive IT services, with an emphasis on auto-scaling with multi-cloud capabilities. Elastisys products and services extend on decades of internationally leading research in distributed systems, high performance computing, and autonomous management of virtualized resources. Elastisys was founded in 2011 in Umeå, Sweden, and is a startup spin-off company from the renown distributed systems research group at Umeå University. For more information, please visit http://www.elastisys.com/ or contact Elastisys via email at contact@elastisys.com