Sanoma Media Belgium builds popular media websites on a private cloud provided by Combell

Popular media brands such as Flair, Humo, Libelle and Story increasingly often reach their readership online. For a large publishing house like Sanoma Media Belgium, which is the market leader in magazines, online publishing is a strategically crucial growth market. As a matter of fact, advertising campaign websites, online games, online TV guides and e-commerce are becoming increasingly common. For better availability, flexibility and performance of its websites, Sanoma chose a private cloud infrastructure provided by Combell.

SanomaMedia

Since September 2010, Sanoma Media has transferred all its public websites to Combell. The migration of over 30 servers was completed without a single glitch. The new infrastructure – a private cloud shared over two physical data centres – combines excellent performance with a great quality-price ratio and a higher level of protection.

The new infrastructure provided by Combell hosts all of Sanoma Media's media websites, several marketing websites, brand-related sites, an e-commerce platform and a personal mailing platform. "Among those are, for instance, high-

traffic sites like Libelle, Flair and Zappy Baby. Humo is the largest one and, although the title isn't strictly considered exclusively ours anymore but also belongs to De Vijver Media and Corelio, the website still runs on our website infra-structure", says Marc Engrie, ICT infrastructure manager for Sanoma Media Belgium. "Currently, our infrastructure also hosts niche sites from our sister company Sanoma Regional, like Compleet Wonen, Attitude, etc., or specialized media like Loving You and De Communiekrant".

"The media is a fast-moving industry. At the moment, things are thrilling and captivating at

Sanoma's ISSUE

- Solid, fault-tolerant web infrastructure
- 20,000,000 page requests per month
- Traffic peaks of 2,000 or 3,000 simultaneous visitors
- Seamless expansion or reduction of server and storage capacity
- Migration of existing infrastructure for web, e-commerce and e-mail marketing
- Reduce web pages' loading times
- 24/7 proactive support

Combell's SOLUTION

- Private Cloud environment
- Multi-data centre architecture
- Virtual servers on dedicated hardware
- Shared storage infrastructure (SAN)
- Managed open-source solutions (Linux, Apache, MySQL, PHP)
- Varnish Caching
- Combell hardware with service warranty

COMBELL'S ASSETS according to Sanoma

- High availability
- Scalable environment
- Flexible allocation of virtual servers and storage
- Efficient back-up and restore
- 24/7 proactive monitoring and technical support

Combell
Your host on the internet

> "Combell's degree of knowledge really is what we expected. They have to be more competent than us, otherwise we have to get in-house infrastructure and manage things on our own."

the same time. One has to be prepared to invest during times like these, if one aims for success. It's no secret that paper media consumption is declining, even though Libelle and Story still perform well", says Marc Engrie. Online and TV are now at the heart of this rapid evolution.

Impressive traffic peaks

The Sanoma websites need a solid infrastructure to cope with traffic peaks. "The largest sites in terms of traffic are Humo, Flair, Libelle and a few online forums. During traffic peaks, e.g. when campaigns or popular contests are running, this can seriously increase our average stats", says Marc Engrie. "Peaks of 2,000 or 3,000 simultaneous visits are no exception at those times." Every month, over 2.5 million unique visitors find their way to one of our online media (CIM numbers, without duplicates). Every month, Sanoma Media's web servers process approximately 20 million page requests.

At times like those, downtime is to be avoided at all cost. With the previous infrastructure partner, this nevertheless happened a couple of times. "When the Pukkelpop disaster occurred, we have been unavailable for a whole night. The entirety of our previous hosting partner's data centre had been thrown offline because of a lightning strike. The storage infrastructure went down several times then, which entailed several hours of downtime for us each time", Marc Engrie admits. "That is rather painful. And if it happens several times, it's a bad thing for a media company's image."

Smooth migration to a solid infrastructure

"Now, we have a setup that involves several data centres. That's the only way to further reduce the risk of being unavailable", Marc Engrie continues. "When we went in search of our new infrastructure partner, we drew up a list of criteria. We had a couple of ideas ourselves. My technical colleagues know exactly what they are doing. But one has to be able to discuss those ideas with another party to decide if they make up the best solution or if there are alternatives. If one goes about things this way, one attains a satisfactory collaboration and, in most cases, the best solution."

"We won't deny that the current architecture includes compromises. It holds ideas of our own, but definitely also of Combell's. That way, at least, we know exactly why we made that compromise. It comes down to making a conscious choice and identifying all the pros and cons. One learns to live with the cons. Negative sides are unavoidable anyway. And our budgets aren't limitless. At this point in time, we are not Google or Twitter."

"In the end, the decision to sign the contract came quite late in the process. But we still got the material at our disposal very quickly after that. That was a first pleasant surprise. Also, the collaboration during the first migration went very smoothly, even with our previous hosting partner. Everything has been managed correctly."

"Of course, there were some hiccups, but nothing really went wrong. These aren't simple migrations. Having a website migrated is not a problem. But when it comes to an e-commerce platform, for instance, it's a whole different story, which involves a lot of parameters: links to our internal systems, databases, web services that need to be rerouted, etc. If any problems arose, those were quickly tackled and solved. We have no complaints whatsoever on that front."

Caching for better performance

Combell provides a 'private cloud' to Sanoma Media: "A 'shared' environment including connectivity, firewall protection and a storage network, on which we host our servers on dedicated hardware in a separate portion of the network. Thanks to visualization, adding server and storage capacity is made very easy", Marc Engrie explains.

"In total, Combell currently hosts about thirty servers for us. Three 'high-end, high-volume' servers and two 'low-end' servers work as web servers. We also have database servers. The web environment is largely based on Linux-Apache-MySQL-PHP. We developed the content management system (CMS) ourselves with PHP. Only our mailing platform based on Messagent runs on Windows servers. And our e-commerce environment was built using InterShop – it's not really open source, but still based on Linux. We

"One has to be able to discuss one's ideas with another party to decide if they make up the best solution or if there are alternatives. If one goes about things this way, one attains a really good solution that, naturally, also always involves compromising."

"Now, we have a setup that involves several data centres. That's the only way to further reduce the risk of being unavailable".

Combell
Your host on the internet

completed the migration of all this system, including the underlying storage. We are talking about approximately 5 TB of data. The Humo site especially has an important image archive. We use a central SAN (storage area network) storage infrastructure on which we can define data volumes per server."

"To make our sites perform optimally, we use caching technology – Varnish Cache to be precise. This is an open source web accelerator that was installed by Combell. Before that, we also used Varnish, but that setup wasn't as well-balanced and fine-tuned yet. When we had our talk with Combell during our call for tenders, we immediately felt that the company had the know-how we were looking for. We know our way around technical stuff too, but the added value of Combell certainly lies with fine-tuning."

Once the migration to Combell was complete, the Libelle site for instance could benefit from an initial loading time that was 20 % faster for detail pages, or even 50 % faster for a refresh of the same page. "Yet, it is difficult to assess to what extent one can compare numbers. After the migration to Combell, things also improved at the level of applications. So, this may provide a distorted image. On the Humo site, where no other optimisation process was performed, we observed an improvement of 20 % for the loading times with caching."

Self-managed DNS infrastructure
Sanoma Media also transferred all its domain names and DNS management to Combell. "These services too are very satisfactory", says Marc Engrie. "You have a single point of contact for everything. We decide which domain names have to be transferred and Combell takes care of the entire procedure. And if we have to take care of something, it is clearly indicated by them and subsequently, they take over again."
"We now manage our 'entries' ourselves, which allows us to save a great deal of time. We have to make DNS changes every week, e.g. because a new online campaign or micro-site goes 'live'. Things like this are often last-minute procedures. Why? Because creative professionals don't think about technical aspects. That's not their thing

either. It would be handy if we could know about every change two days in advance, but things most often have to happen 'right away' with the e-mail campaign already waiting. Now, we can change the records ourselves. That's a really pleasant way to work."

Safe from attacks
Popular sites are often targets for malicious visitors. "We went through this a couple of times in the past and also learned from our mistakes. We were attacked via SQL injections, for instance", Marc Engrie reveals. "This problem has now been solved... until someone else uncovers a new vulnerability of course."

"Generally, our websites are entirely separated from our back-office. Hence our choice to keep all our websites externally. We use a parallel development/ staging environment from the inside. From there, we publish to our production environment with a single click. The server then synchronizes the content and after a few seconds, the new content is active on the production environment. The databases too are kept in a separate portion of the network. This approach was suggested to us by Combell and provides a good protection, which we are very happy with."

Proactive approach
While the ICT organisation of Sanoma Media Belgium has considerable autonomy in managing its systems, Combell takes care of an important part of the technical management and proactive monitoring. "We manage the content on the machines, but Combell manages the underlying infrastructure up to the operating system", Marc Engrie explains. Even though there have never been any serious incidents since the migration, there are regular meetings on infrastructure management. "We already received many proactive calls from Combell: a disk that was about to reach its quota, a server that was having a hard time… Every week, there's some technical hitch somewhere and it always gets neatly solved. Meanwhile, we already had to order an extension of server capacity as well as storage, not because the size requirements for infrastructure had been underestimated but because new business was created. When extra resources are

Marc Engrie, Sanoma Media Belgium: "The decision to sign the contract came quite late in the process. After that, we got the material at our disposal very quickly. That was a first pleasant surprise."

available, we just create extra virtual machines. But in this case, we added extra hardware and included it in our 'farm'".

"Combell promised us a proactive approach and that, evidently, is very helpful." Where needed, Combell reacts right away and then discusses the chosen solution with Sanoma. "My collaborators have gained a lot of insight thanks to the meetings with Combell. That's a nice plus. If you know more about technology than your partner, you know it's not a good partner because you will have to solve any occurring problem yourself. Combell's degree of knowledge really is what we expected. They have to be more competent than us, otherwise we have to get in-house infrastructure and manage things on our own."

More info about this solution?
Contact one of our account managers on
0800-8-567890