

Minoc Business Press builds popular ICT websites on Combell's Mini Cloud

The Belgian publisher of popular specialised websites such as ZDNet.be, ITProfessional.be and Clickx.be has been relying on Combell for years now for efficient hosting solutions. With a private Cloud environment, they support a wide range of customised integrated processes, including a personal Content Management System (CMS), a subscription and mailing system for newsletters sent through e-mail, and an e-commerce solution for ordering magazines in a secure electronic form, etc.



The media have been going under major changes since the end of the past century, and Internet has become the dominant factor. As a specialised publisher with a readership showing great interest in ICT, a high quality online offer is crucial. User-friendliness should be optimal, because the readership is largely composed of returning visitors. And an efficient architecture should ensure that pages continue to load fast even during traffic peaks, without overinvestment in bandwidth and server capacity.

"People want us to constantly reinvent ourselves. Publishing has definitely not become a buoyant market over the past decade. So, we must innovate and carefully consider the costs involved", says Minoc Business Press' technical director Johan Vantomme. The recent acquisition of Minoc by Dutch publishing group HUB will undoubtedly lead to more synergy and the associated economies of scale. An expertise and best practices in ICT sharing system is also in development.

Mini Cloud

Minoc became a Combell customer via their former hosting supplier Easyhost, which has been absorbed into Combell Holding in 2008. Since then, the basic architecture has been entirely redesigned, with a view to better standardisation, greater efficiency and more effective management. "We have been active online since 1998. We took care of most of the development of the websites and the underlying systems in house.

Minoc's ISSUE

- Migrating the existing ColdFusion code to an efficient platform
- Heterogeneous hardware environment
- Limited manpower for system management outside office hours
- 10,000,000 page requests per month
- Unpredictable traffic peaks
- Saving money on the ICT infrastructure and software licences

Combell's SOLUTION

- Cloud environment
- Customised system architecture
- Managed open source solutions (Linux, Apache, Resin, RAILO, SendMail)
- Combell hardware with service guarantee and replacement hardware on-site

COMBELL'S ASSETS according to Minoc

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

The screenshot shows the Minoc Business Press website interface. At the top is a navigation menu with links: Minoc, Magazines, Online, Krantenbijlages, BMIT, Target Media, Technische specificaties, and Contact. The main content area is divided into three sections: 'home' with the Minoc logo and a brief description; 'Magazines' featuring covers for 'Shoot', 'Discovery', 'Privacy', and '3 TOP-TV'; and 'Online' listing services like Clickx, ZDNet, and ITProfessional. A sidebar on the right contains a menu with links: BE-nl | BE-fr | NL-nl, MEDIAKIT, REDACTIONELE KALENDERS, PREVIEWS, SALESNEWSLETTER, TECHNISCHE SPECIFICATIES, and CONTACT.

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What you get ten years later is an infrastructure with servers of different ages and from different manufacturers, in an unstaffed location. We had to restart some archaic Windows servers remotely with the help of an intelligent power switch”, remembers Johan Vantomme.

Finally, in 2009, Minoc decided in close collaboration with Combell to completely renew its ICT infrastructure, based on the Private Cloud model. “Initially, we had planned to renew our hardware ourselves. Ultimately, we chose Combell’s fully managed servers, connected to a Storage Area Network (SAN). And we built a private Mini Cloud including virtual servers and our own network environment. Flexibility, combined with Combell’s excellent support service, tipped the balance for us.”

“You keep growing. And you want your servers to be available 24/7. To make this possible, you need staff. Of course, you can answer phone calls and act when you get alerts via SMS yourself for some time. But you cannot keep on doing that forever. You need a team you can rely on at any time, for both monitoring and system management.”

Open Source ColdFusion hosting

Popular websites such as ZDNet.be, ZDNet.nl or Shoot.be and the associated community BelgiumDigital.com run on a private web server (Debian Linux, Apache). They are fed by means of a content management system (CMS) that Minoc has been developing in house over the years based on ColdFusion. In order to save money on licences, the publisher went in search of an alternative to Adobe’s paying version.

“CFML (ColdFusion Markup Language), the scripting language behind ColdFusion, is available for free in Open Source form. Besides the commercial ‘engine’ developed by Adobe, Open Source alternatives are available, such as BlueDragon, based on the .NET framework, and Java-based Railo. We

ultimately chose Railo, which is developed by a Swiss company, combined with Caucho Resin as a Java applet server.”

“Then, in consultation, we designed a customised hardware platform. Combell had already experience with ColdFusion hosting, but not with Railo. Upon our request, they also learned to master Railo. Thanks to the good arrangements, we still have some control over our servers: we e.g. rely on Combell for updates to Microsoft SQL Server, but when we need to create a new table in the database, we do this ourselves. On Linux systems, they are in charge of ensuring that all the services are available, whereas we handle everything related to scripting.”

Minoc’s web servers have to process up to 10 million page requests per month. In order to simplify the task of the underlying SQL database, the CMS generates all pages in multiple HTML blocks that are loaded individually. “This way, each page is assembled like a puzzle. This was the answer to a performance issue that has been solved in the meantime. Loading times are now very short.” Thanks to the Cloud approach, it is very easy to add extra servers when very large numbers of visitors are expected, e.g. during the ‘Site of the Year’ annual competition run by Clickx.be. During this period, dozens of high traffic Belgian websites invite their readers to vote online. “Then, Combell takes care of temporarily adding extra servers, so that our sites remain available to everyone, even during traffic peaks.”

E-mail campaigns

Minoc controls its web servers from its own CMS. But business processes such as subscribing and unsubscribing to e-mail newsletters, ordering subscriptions or single issues, managing profile information on the different websites, and even lay-outting the printed magazines, are all linked to it. “We have one registration module for all the sites. Everything is linked. The data for e-mail

MINOC'S IDENTIKIT

As a publisher of specialised media about ICT and digital lifestyle, Minoc Business Press has been one of the market leaders in Belgium for almost two decades. With printed publications such as PC Magazine, Shoot, FWD, Clickx and Smart Business Strategies, Minoc prints over 160,000 magazines every month. And the online media ZDNet.be, ZDNet.nl, ITProfessional.be and Shoot.be attract more than a million unique visitors each month.

Minoc Business Press has been part of the Dutch publishing group HUB (Haarlems Uitgeef Bedrijf) since 2012.

More info on: www.minoc.com

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campaigns are retrieved from the CMS too, including profile information such as current subscriptions, preferences, participation in competitions, etc.” Minoc’s Cloud environment includes a separate (virtual) server for sending e-mail campaigns, based on the Open Source software package Sendmail. “This is not spam. These are all people who subscribed through the double opt-in principle. In total, we send our electronic newsletters to about 550,000 unique addresses. On a monthly basis, this represents about 2 to 3 million regular HTML newsletters.”

E-commerce and electronic publishing

How can you let your visitors pay swiftly for electronic content? This is a fundamental question that every online publisher has to face. Minoc has a payment module that allows visitors to purchase both electronic and printed media.

“Our online shop is linked directly to the CMS like it was before. So, you can e.g. order a back issue online. You will then instantly receive a secure PDF version in your mailbox. The next day, the printed version of that same issue is sent by regular mail. For us, it is a way to compensate for the generally declining sales of single issues in bookstores. Moreover, it is an extra service that we provide to our readers who missed an issue or who are interested in a specific issue.”

What is more, thanks to the integration of the CMS, back issues are offered based on keywords. “An article containing the keyword ‘landscape’, for instance, is linked by the CMS to an issue of ‘Shoot’ that features a special report on landscape photography. We now sell up to 1,500 single issues per month.”

DDoS attacks

Minoc’s availability of web services does not only depend on the proper functioning of hardware and software. People with malicious intent may cause trouble too. “Our web servers are very often the target of cyber attacks. This is closely linked to the name ‘ZDNet’. The title has become incredibly successful worldwide in the ICT world and is therefore a popular target.”

According to Johan Vantomme, DDoS attacks (Distributed Denial of Service) are the most common problem. The attacker then establishes a huge number of connexions from lots of infected computers, until the targeted web server crashes. “The impact is usually very limited. When traffic becomes very heavy, Resin, the application server that processes all the requests, will simply ignore a few connections. In the meantime, Combell’s monitoring team keeps an eye on this problem and malicious connections are shut down on the level of the network. Restarting the Resin services takes 2 seconds at the most.”

Other ill-intentioned people try to fill in the fields of the SQL database with malicious content. “Think of the Chinese who flood your online forum with Spam: Rolex for sale, Viagra... That sort of things. This is actually not real hacking. They do this manually on a very large scale.”

“In this respect, the fact that we are hosted on an exotic platform such as Railo and Resin is yet another great benefit. Many people are not familiar with it. So, there are very few known flaws. If you use PhpBB, vBulletin or Drupal like most developers do, flaws are much easier to find and chances are higher that, sooner or later, you will be under attack.”

Working together in a spirit of trust

According to Johan Vantomme, Combell’s strength lies in the flexibility and the confidence with which the ICT management is shared by Combell and Minoc. “Combell took care of the initial setup and makes sure that all main services are up and running. The migration to our Cloud environment went very smoothly. It only took us three hours to be back online. At the same time, we still have some control over our servers. But, of course, we will not do anything without asking Combell for their advice first.”

Some members of the Combell support team have been appointed to know everything about Minoc’s Cloud environment. “In case of doubt, we can always get in touch with them and benefit from their expertise. At any time. This 24/7 service is worth its weight in gold.”



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More info about this solution?
Contact one of our account managers on
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