OpenCredo

mesosphere

woorank

The Client

Belgian-based start-up business, WooRank launched as a marketing automation service in March 2011. Its online tool set is utilised by marketers to analyse website performance for organisations of all sizes – ranging from individual bloggers to large corporations such as Deloitte and Fiat. WooRank's own website now handles approximately 1.5 million visits per month and has active users in more than 100 countries worldwide. All of this is managed by a team of just 20 developers and marketers.

The Challenge

With such a small team, there has always been a huge emphasis on operational efficiency at WooRank. Growing demands had, however, seen its infrastructure sprawl out to over 100 servers. With a team of just eight technical staff tasked with managing its infrastructure, WooRank needed to reduce its server complexity "With so many moving parts that always had to be up, it had become a real burden to manage this number of servers. We needed to find a way to be more efficient in the way we operated," said Nils De Moor, WooRank CTO.

WooRank also needed a solution that allowed its developers to introduce new website features quickly, by pushing new code to servers easily.

WooRank identified a solution to their problem in Mesos - an open source cluster-management solution which is used by companies such as Twitter and Netflix. This is a relatively new technology, and WooRank realised if they were to implement this solution and port more than 100 servers over to this system they would need assistance.

"If we did everything ourselves, it would takes us months to implement Mesos - you have to think about the potential for mistakes along the way. This would have also been a big distraction for us when what we really want to do is focus on introducing new features to WooRank," said Nils.

The Solution

By deploying Mesos, WooRank would be able to simplify its infrastructure and make better use of the resources available on fewer servers. As Mesos supports Docker containers - which allow for the automatic deployment of new code - WooRank would also help reduce the time it takes to introduce new features to these servers. In order to implement such a major change to its infrastructure, WooRank invited OpenCredo to work with its team onsite over a two week period.

OpenCredo is a European partner of San Francisco-based Mesosphere - the start-up company behind the commercialisation of Mesos. As such, OpenCredo was able to advise WooRank on the best method of porting workloads. It also advised on such things as which complimentary technological solutions would ensure smooth installation and operation. OpenCredo also provided a handover of knowledge and training to the WooRank team, so they were able to operate independently going forward.

Benefits

WooRank is now enjoying numerous benefits - above and beyond its original objectives. In addition to achieving greater efficiency and the ability to deploy new features faster, WooRank is also making significant cost savings on its server costs. By working with OpenCredo, WooRank also realised these benefits much faster than would have been possible without consultative support

Reduced Complexity and Costs

WooRank has increased the productivity of its technical team by reducing the number of servers it maintains from more than 100 small servers to 15 larger servers. This is not just improving efficiency, WooRank expects the reduced server-base to deliver an overall cost saving of between 40% and 45%.

"Implementing Mesos has improved the speed our technical team operates by making it easier to monitor the servers and get the metrics we need. Also, by going from 100 plus to 15 servers, it is easier to maintain them as it is much easier to grasp what is happening," Nils said.

Better Performance

The ability to use Docker containers with Mesos is now allowing WooRank to reduce the time taken to introduce new features on its servers, from hours, to minutes and even seconds. The speed with which new features can be deployed is now encouraging greater experimentation from the development team. "We can try things and if they don't work, throw them away. The ability to play with these things has really improved and is now much easier," Nils said

As the new servers are now larger, with bigger CPUs and more memory, WooRank is also getting better performance 'out of the box'. Nils said: "This is an added bonus of using Mesos which I had not initially anticipated."

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Speed of Deployment

By working with OpenCredo's consultants, WooRank was able to port its existing servers to the new infrastructure within two weeks. By transferring knowledge to the WooRank team, OpenCredo has also enabled WooRank to manage this new infrastructure without the need for additional assistance.

"If I had said when we set out on this project, 'we are going to have an entirely new infrastructure and the old infrastructure ported within weeks', people would say thought I was crazy. But by working OpenCredo we got what we wanted much faster," Nils said.

"I would have never predicted that it could be done in that time period, so a big 'thank you' goes to OpenCredo for saying where things should go and how things should be done."
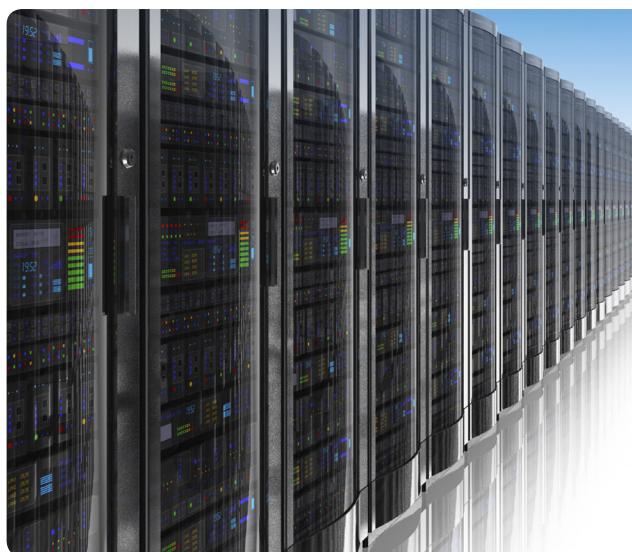
Open Credo

OpenCredo believes great consultancy is founded in deep and broad real-world experience. Our highly capable and experienced people provide applied knowledge of the latest technologies and best practices to all our blue-chip clients. These capabilities stretch across the entire spectrum of the development process from architecture through software engineering to dev ops.

Transparent, objective driven and pragmatic, OpenCredo acts as a trusted advisor to its clients. It is a company founded on excellence in software engineering, and our approach is to lead and support through deed and example - delivering tangible value, not slide decks or fluff.

Mesosphere

Mesosphere is a significant contributor to the Apache Mesos project and is the primary organization writing open source services for Mesos, such as Marathon and Chronos. Mesosphere is a complete software solution designed to provide application fault tolerance, effective resource utilisation, scaling elasticity and provides easy consoles to manage the deployment and scale of your applications. Mesosphere believes that the traditional way of managing the datacenter servers is broken. We help customers manage their clusters in an agile and automated way.

Challenge

WooRank wanted to become more efficient by reducing the complexity of its sprawling server-base. It identified open source cluster management solution Mesos as an ideal way to achieve this, but needed assistance with the implementation.

Solution

- OpenCredo spent two weeks onsite with WooRank advising on the best way to implement Mesos and porting existing workloads onto the platform.
- OpenCredo also provided training to ensure a transfer of knowledge to the WooRank technical team.

Benefits

- WooRank reduced its infrastructure from more than 100 servers to 15 servers. This has increased efficiency and resulted in savings of up to 45% on server costs.
- WooRank has reduced the time needed to introduce new features to its servers, from hours, to minutes or even seconds.
- By working with OpenCredo, WooRank was able to implement Mesos and begin realising the benefits within just two weeks.

"I would have never predicted that it could be done in that time period, so a big 'thank you' goes to OpenCredo for saying where things should go and how things should be done."