Müller

The German drugstore chain Müller is monitoring hundreds of stores across Europe with Icinga. At Müller, the primary objective of the Icinga monitoring platform is to assist the user helpdesk in tracking down issues, rather than simply alerting them.

With approximately 900 branches and new openings in the double-digit range every year, the Müller drugstore chain is continuously gaining ground both at home and abroad. To consistently offer a pleasant shopping experience to its millions of customers, Müller relies on Icinga to oversee all of its store IT.

Müller Handels GmbH & Co. KG is a German drugstore chain with about 37,000 employees. Present in 7 countries, Müller has a turnover of about 5 billion Euros and ranks among the biggest drugstore companies in Europe.

The Challenge

Monitoring Heterogenous Infrastructure

Müller has an expanding network of about 900 stores in Europe and the big challenge is to monitor the heterogenous IT equipment in the stores to ensure perfect availability and functioning for the customer. On-site there is no server infrastructure, but only some workstations, desktop PCs and POS systems as active components. In addition, they have lots of printers and switches and time recording terminals, and various other network devices that vary from store to store.

The subsidiaries are pure online branches and everything that employees do on site is actually done in the web browser. To operate all this, Müller has three datacenters in their headquarters in Ulm, Germany.

The Wild Time Before Icinga

In each store there was a main PC that also functioned as a kind of depot for software installations. This means that packages that were installed on the cash registers, for example, were first buffered there so that they didn't have to be transferred to the stores 20 or 30 times, but only once. They also used this system as a monitoring host, and then copied dumps of the entire database at regular intervals to their headquarters.

Müller had willy-nilly come to terms with the conditions under Nagios. Yet, when in 2009 Icinga presented their new Web UI, the operations team convinced the management of Icinga 1. To them, it seemed like not just a consequent but also a significant evolution of what they already knew.

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It was a pretty wild time, before Icinga

Jens Schanz
Team lead IT Store and
Network Solutions / IT SOC
Müller Holding GmbH & Co. KG

The Solution

The Days of Icinga 1

After migration, Icinga 1 accompanied Müller faithfully for a couple of years and they were not among the early adopters of Icinga 2. But when they redesigned their images for the branch systems, they jumped on the opportunity to roll out Icinga 2, thus enabling them to advance and make substantial progress in their monitoring strategy.

Stepping up – Migration to Icinga 2

Jens Schanz states that Icinga2 was an excellent fit for Müller and propelled them significantly forward: "First of all, it allowed us to scale across the board. We could actually operate each branch without hardware, without dependencies. And with the satellites we also had the advantage of redundancy. In the past, if the main PC in a branch broke down the entire history of the store was broken, too."

The team then rolled this out on a larger scale, setting up and managing separate satellite systems for each country with its own zones. Each branch was then a zone with n systems. The whole transition went like a breeze. "You can do it pretty well on the side if you have a high level of automation." Following the migration, they discovered that maintaining Icinga on their own was straightforward and they never needed any external consultation or assistance to resolve any issues.

Currently, there are 3 people in the team who take care of Icinga, just to maintain a bit of redundancy and to spread it out.

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> Icinga2 took a giant step forward with the concept of satellites, zones and redundancy. This helped us enormously at that time.

Jens Schanz
Team lead IT Store and
Network Solutions / IT SOC
Müller Holding GmbH & Co. KG

Intelligent Monitoring Architecture

Besides its vast store network in Germany, Müller has branches in Austria, Switzerland, Slovenia, Croatia, Hungary and Spain. All of the approx. 14,000 systems are administered and managed centrally for all countries from the headquarter in Ulm.

There is a pair of 2 satellites for each country and the agents are then attached to the satellite, which in turn passes it on to the core. In addition, there are independent satellites that are not connected to a country. These perform SNMP checks, especially those which are relatively CPU intensive in order not to interfere with the country satellites which run the checks for the cash registers.

In total, Müller has around 14,000 systems, including approximately 5,000 point of sale (POS) systems located in their stores. The most intelligent devices in the stores are the desktop PCs where employees work and the POS systems. An Icinga 2 agent is installed on them, which gets its config via the director. There are basic checks and then special checks for different devices in the stores, so that the helpdesk can quickly help employees when there are problems.

There are numerous peripheral devices at the cash registers that require inspection, such as verifying the correct operation of the cash drawer, monitoring the duration of its opening, ensuring that the thermal printer has enough paper, and so on. Everything runs together in the core and further into a database. The performance data is retrieved with InfluxDB and then vizualized with Grafana.

Facilitating the Work of the User Help Desk

At Müller, the primary objective of the Icinga monitoring platform is to assist the user helpdesk in tracking down issues, rather than simply alerting them. Jens Schanz explains that "The employees in the store often have no idea what the problem is, they call the user helpdesk and then the big troubleshooting starts." Having the ability to promptly identify issues and provide informed responses is extremely beneficial for the helpdesk.

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> And then managing all the systems with Icinga Director, that's massively moved us forward and ensured I could run it as a one-man show.

Jens Schanz
Team lead IT Store and
Network Solutions / IT SOC
Müller Holding GmbH & Co. KG
ING-DiBa AG
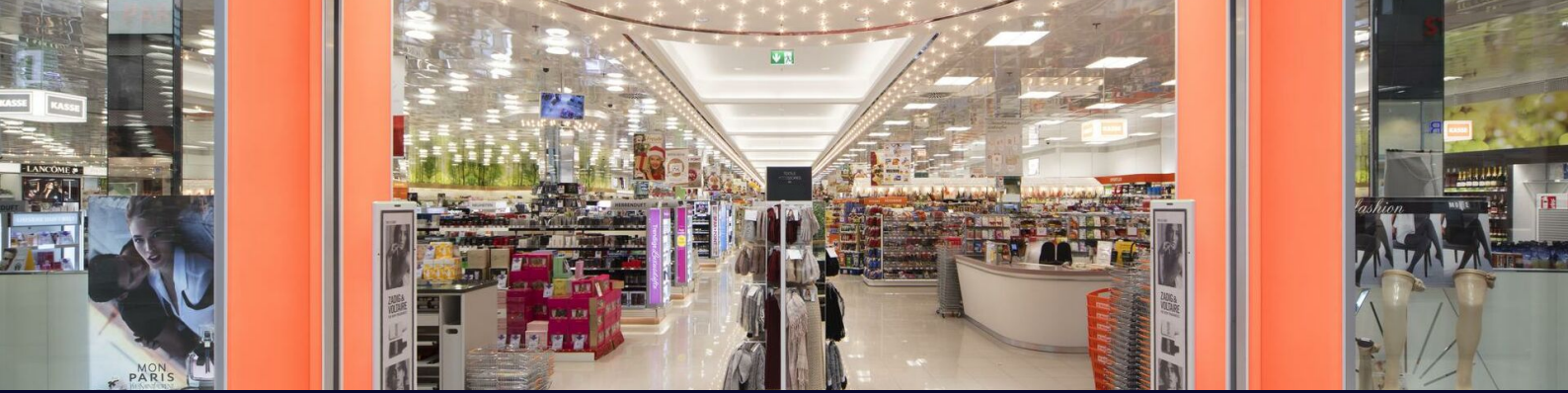
Success

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> Working with service sets is great. Icinga doesn't need as much maintenance anymore and we work much more efficiently.
>
> Jens Schanz
> Team lead IT Store and
> Network Solutions / IT SOC
> Müller Holding GmbH & Co. KG

Trusted Monitoring Solution

Over the past years, Icinga has greatly benefited Müller. "The most significant advantage for us was the master-satellite agent structure, which completely transformed the system. It turned the whole thing around 180 degrees."

And Jens Schanz appreciates a lot the stability and continuity of Icinga. There were never the big breaks that made something completely new. "We see many important and good changes in the core, but you kept the plug-in structure. We always had the security that what we build today will work for a longer time. Simply because many others have also jumped on this plug-in architecture."

Potential for the Future

Müller is expected to continue expanding, and the platform will need to be further enhanced – with no doubt that they intend to remain loyal to Icinga. They value having a reliable monitoring system where in case of problems they can look into the source code and fix things quickly by themselves.

Jens Schanz concludes "We have benefited massively from Icinga and will certainly stick with it in the future. It has brought us a lot of added value in the past but also has a lot of potential in the future through further developments."

Outcomes

- ☑ Transforming monitoring with master-satellite agent structure
- ☑ Future-proofing the monitoring system
- ☑ Scalable and redundant set-up
- ☑ Facilitating the work of the user helpdesk
- ☑ Efficient work and less maintenance

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Do you also have excellent experiences with
Icinga and would like to share them?
We'd be happy to make your story come out big
on our website!

Please get into contact with us at:

info@icinga.com

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