



Case Study

# Checkmk aids Zynstra in providing a superior retail user experience

## THE CLIENT

**Company:** Zynstra, an NCR Company

**Size:** 120 employees




**Location:** Bath, Great Britain

**Website:** [www.zynstra.com](http://www.zynstra.com)



Zynstra virtualizes back and front office store technology, enabling retailers to deliver a superior customer and employee experience. As a leading retail software provider, Zynstra provides retail edge solutions to shift existing hardware-centric retail store infrastructure to an intelligent software-focused architecture.

## KEY POINTS

-  Zynstra needs a monitoring tool for its software solutions that run on the IT infrastructures of various retailers around the world. As a SaaS provider the company must ensure that its software always runs at peak performance.
-  The monitoring has to be deployed automatically in the Zynstra customers' infrastructures. Within these specific retail environments, the monitoring has to perform with minimal resources. At the same time, the distribution of monitoring has to be scalable over a wide field with many remote monitoring sites.
-  Zynstra currently monitors around 25,000 hosts with Checkmk in a distributed monitoring set-up. All comply with industry standards such as PCI-DSS and are centrally managed by just a single Checkmk central site.

## EMPOWERING THE EDGE FOR RETAILERS

Retailers today are under relentless pressure. To be able to keep up with online competitors and e-commerce platforms, they are facing an urgent need to digitize their physical stores to provide the modern experiences customers expect while also operating more efficiently. Zynstra is helping retailers to transform their businesses and overcome the limitations of legacy IT infrastructures without having to replace existing hardware. The virtualization solutions from Zynstra enable retailers to turn hardware-bound applications or even their entire store into software-defined edge infrastructures for the hosting of modern retail applications.

Zynstra was looking for monitoring software that could be deployed within minutes on a customer's infrastructure to ensure that its applications hosted at the edge are performing smoothly. On the one hand, the monitoring had to be extremely lightweight, since Zynstra has to work with limited on-site hardware resources. On the other hand, the monitoring must support automation and remote control mechanisms.



Figure 1: Zynstra helps retailers to modernize their IT environment

Zynstra was looking for a modern enterprise monitoring tool that is suitable for distributed monitoring and edge computing. In 2014 Zynstra implemented the Checkmk Raw Edition and soon realized its potential. After later switching to the Checkmk Enterprise Edition Standard Edition, Zynstra decided to integrate Checkmk deeper into its portfolio and in 2019 switched to the Managed Services version of the Checkmk Enterprise Edition. Among other benefits, this improves the ability to create reports, in case Zynstra customers need more detailed insights.

## THE CHALLENGE

Most retailers use legacy hardware resources and cannot afford to maintain large IT environments in their shops. The software solutions from Zynstra enable them to modernize and streamline their existing technology by decoupling hardware from software in their stores. To be successful in its mission, Zynstra needs a monitoring tool that is lightweight, supports distributed monitoring and is highly scalable. The monitoring also has to be extremely reliable, even in hostile environments with legacy infrastructure and limited connectivity.

Most retail infrastructures do not support the deployment of modern enterprise IT hardware, but the monitoring has to be deployed locally to ensure the optimal performance of the edge solutions. Since Checkmk can work with minimal resources, Zynstra only needs two small hardware servers to host its software and Checkmk. Besides that, there is no need for changing the network infrastructure.



*With Checkmk, we ensure that our customers provide a great user experience, even if their local IT infrastructure is not designed for modern retail applications.*

**James Pullen**, Director of Product Management at Zynstra

## AUTOMATED DEPLOYMENT IN RETAIL INFRASTRUCTURE



Figure 2: IT resources in retail environments are very limited

In each customer environment, Zynstra deploys two Checkmk remote sites to ensure high availability. The deployment and configuration of the monitoring runs fully-automated over a deployment tool that also installs other applications. Zynstra monitors his software and the hardware of the host servers, but also checks the health of the local network. This proactive monitoring helps to find and solve issues in the network environment. If necessary, Zynstra can share the relevant monitoring data with the customer.

## THE SOLUTION

Checkmk allows Zynstra to monitor edge environments with minimal hardware resources. Checkmk's small footprint is important, because hardware resources in the local environment are very limited. Since 2019 Zynstra has run a distributed monitoring environment with the Checkmk Enterprise Managed Service Edition.



Nowadays Zynstra runs a distributed monitoring environment with more than 25,000 hosts and up to 750,000 services in total. A Checkmk remote site can monitor up to 900 systems. All of the remote sites monitor edge environments and rely on the official Checkmk plug-ins. Checkmk mostly serves as an internal monitoring tool for Zynstra to ensure service level agreements, but some of the monitoring metrics are shared with customers, if needed.

The Checkmk central site to control all remote sites is hosted in Zynstra's private cloud. Thanks to the architecture Zynstra can be compliant with various industry standards such as PCI-DSS. The monitoring is also resilient to interruptions. If the connection to the central monitoring site is interrupted, for example, the local monitoring at the customer site will still continue to function.



Figure 3: Zynstra helps retailers to provide a unique customer experience



*Checkmk is great: We have full visibility and the licensing structure is well suited to our needs.*

**James Pullen**, Director of Product Management at Zynstra

## NEW MONITORING CHALLENGES AHEAD

Zynstra mostly operates in external IT infrastructures, and each environment comes with its own challenges. With Checkmk, Zynstra is always able to adapt. The detailed monitoring data and the flexible graphic engines in Checkmk provide detailed information for solving upcoming issues.

## THE ADVANTAGES

With Checkmk Zynstra can ensure that its software runs reliably and exceeds customer expectations. Thanks to this monitoring solution, with very limited hardware resources Zynstra can meet service level agreements in even the most hostile IT environments. The scalability and automation features of Checkmk reduce the manual workload for the IT teams and help them to gain full visibility from as soon as Zynstra has deployed its software in the customer's environment.

The Checkmk architecture allows full scalability in various dimensions. On one side, with very few resources Checkmk monitors large edge environments and processes the monitoring data on the customer's premises. On another side, the monitoring team can manage a globally-distributed monitoring from a single central Checkmk site.



*User experience is everything, and as a retailer you can only excel in this field if you are able to use state-of-the-art technology. Thus, we aim to provide the most modern platforms to our customers.*

**James Pullen**, Director of Product Management at Zynstra

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