How IONOS automates network monitoring for 29 global data centers with Checkmk





Challenge

- Heterogeneous infrastructure of 29 global data centers complicated network monitoring
- Rigid monitoring solutions resulted in high time and personnel costs
- Limited visibility hindered swift root-cause analysis and issue resolution

Why Checkmk?

- Easily scalable and adaptable to evolving demands
- Out-of-the-box support for numerous manufacturers via over 2,000 plugins
- Automated functions for configuration, operation, and maintenance

Results

- Reduced complexity and increased agility for efficient market expansion
- Relieved the network operations team and minimized operational effort
- Improved availability due to faster fault detection and reduced mean time to resolution (MTTR)

About IONOS



Industry

IT (Cloud-Infrastructure, Cloud- and hosting-services)



Headquarters

Montabaur, Germany



Employees

around 4.000



Monitored hosts/services

12.000 / 670.000



Solution

Checkmk Enterprise



Challenge

Reducing effort, increasing agility

The IONOS Group, with over 6.30 million customers, is Europe's leading digitization partner and a reliable cloud enabler for small and medium-sized businesses. Its business volume, growing over 10% annually, is supported by a scalable infrastructure spanning 29 geo-redundant data centers. To manage this growth and meet high availability expectations, IONOS employs ITIL-compliant IT service management and a 24/7 centralized service desk for event and incident handling. Robust monitoring is crucial for the network department to oversee approximately 10,000 network components from various manufacturers and 2,000 servers across 29 global data centers in real-time.

Previously, IONOS relied on an in-house Java-based monitoring solution, which could not keep pace with the growth. The solution was inflexible, required maintenance-intensive custom software development for changes, and could only compare desired and actual states, raising alarms for discrepancies without enabling direct root-cause analysis or resolution. To alleviate these limitations, IONOS used additional monitoring systems for specific cases, which reduced pressure but increased overall complexity. This necessitated a new, comprehensive network monitoring solution.



With Checkmk, we have a highly automated, flexibly expandable, and scalable monitoring solution that grows with our increasing demands. This positions us well for further market expansion.

Daniel Heinze – VP Networks at IONOS



Solution

Consolidating and automating global monitoring

After extensive market evaluation and a thorough proof of concept, IONOS selected Checkmk Enterprise. Key reasons included its high automation features, such as API functionality and auto-discovery, alongside scalability, high availability, and support for multi-vendor environments. Checkmk's customizable front-end with dashboard features offered excellent usability. IONOS had also previously implemented Checkmk Raw to monitor its network management servers and product platforms, gaining positive operational experience. Additionally, Checkmk was cost-effective.



Over six months, IONOS built two high-availability clusters across Europe to monitor live and pre-live environments. Twelve remote instances in different company locations reduced network traffic and enhanced scalability and fault tolerance. Setting up monitoring was straightforward, as Checkmk Enterprise supported most components out-of-the-box, requiring minimal custom checks. To build expertise and ensure optimal implementation, IONOS leveraged Checkmk's training, best practices, and consulting team support.



Results

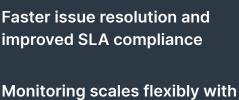
Reduced effort and enhanced availability

Using Checkmk as a global monitoring platform, IONOS monitors approximately 12,000 hosts and over 670,000 services seamlessly across all 29 data centers. Configuration and operation are largely automated using the Checkmk REST API. Tasks like onboarding or offboarding hosts are automated, while autodiscovery identifies relevant components and promptly integrates them into monitoring. Checkmk automatically provides thresholds and monitoring metrics for new devices, reducing workload on the network team. The platform's 2,000+ plugins cover nearly all network components within the data centers.

Checkmk's almost limitless scalability and flexibility support IONOS's future growth. Rule-based configurations allow new components to be added as hosts with a few clicks, swiftly integrating new requirements. This eliminates dependency on software development resources, saving time and effort, especially in large, complex environments like IONOS.

All teams in the Network Business Unit access Checkmk dashboards tailored to their metrics, offering constant visibility of the network's health. Metrics are exported to the IONOS Metric Store and visualized using Grafana, with flexible dashboards and granular notifications speeding up issue detection and resolution, reducing MTTR. This enhances SLA compliance and high availability. With Checkmk, IONOS is wellequipped for further market expansion. The platform's automation, flexibility, and scalability create operational relief and facilitate meeting growth objectives.







growing infrastructure



IONOS

The IONOS Group, headquartered in Montabaur, Germany, is Europe's largest web hosting provider, serving over 6.30 million customers across 22 million domains in 18 European and North American markets. As a cloud enabler for SMEs, IONOS achieved €1.423 billion revenue in 2023 with approximately 4,300 employees.

See it yourself
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Free trial



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