THE ZIS SYSTEM: A HOLISTIC MONITORING TOOL

An overview of all functions and disciplines
THE ZIS SYSTEM AT A GLANCE

Dependencies between business processes and IT are increasing constantly making a powerful IT infrastructure indispensable. A holistic monitoring tool is the solution. You can use our ZIS System to monitor and analyze your complete system landscape and services/processes.

FIG 1: THE ZIS SYSTEM

Portfolio ZIS System

The LeuTek ZIS System is a modular monitoring solution covering all monitoring disciplines, from systems management to umbrella monitoring (centralized monitoring) up to business service monitoring. The entire spectrum is extended by end-to-end monitoring, capacity monitoring and cloud monitoring; thus, our ZIS System offers a holistic view of the IT environment.

Core functions within all disciplines of the ZIS System:
• Automation
• Alarm Management
• Reporting
• Multi-tenant dashboarding
• Event management
• Performance and availability management

The ZIS System focuses both on minimizing the administration effort in IT operation and optimizing existing IT infrastructures and services levels.

Since the ZIS System provides open structures and a large number of interfaces, it can collect many different data types. Full automation is - in combination with an ITSM suite - a big benefit when it comes to implementing the ZIS System.

Examples are status information from server monitoring and upstream management tools, monitoring data from mainframes or information of other third-party systems, such as building control systems and fire panels.
Systems Management

The ZIS System acts as systems management administering and controlling the IT resources in a company from a central point and automating administration tasks.

Key facts:
- Your servers and applications are actively monitored – approx. 650 plug-ins available out of the box
- Centralized versioning and distribution using integrated agent administration. In addition, simple integration of custom scripts in versioning and centralized distribution.
- Powerful event correlation: logical weights and status correlation
- High degree of automation (process restart, etc.)
- Fast and simple error analysis
- Multi-tenant and user-friendly dashboards with cutting-edge HTML5 interface
- Comprehensive reporting
- Automated alarms

Fig. 2: Systems management dashboard: Web server monitoring – all system information at a single glance
Capacity Management

Capacity management ensures that available IT capacities meet current and future requirements. This reduces downtimes and increases the availability of IT services. LeuTek capacity management allows to measure and monitor capacities based on services, systems and applications; based on forecasts and trends, it also allows to prioritize, optimize and plan capacities.

Key facts:
- Business transparency for services, systems and applications
- Forecast/diagnosis of capacities using trends and top views
- Optimizing server and hardware resources
- Proactive information in case of imminent bottlenecks
- Qualitative and quantitative basis for KPI reports
- Clear dashboards by and for service owners, departments, control centers and management
**Umbrella System**

In this function, the ZIS System collects many different types of data, such as critical statuses and operating information from server monitoring, information from upstream management tools, from mainframe monitors or information from other third-party systems, such as building technology and fire panels. This renders the ZIS System by LeuTek a universal umbrella system that combines information from infrastructure with that of classic IT. The ZIS System is where everything converges.

**Key facts:**

- 360° overview of your complete IT
- Large number of interfaces to connect to your existing systems (multi-system consolidation)
- Integrating building technology, UPS and air condition
- Powerful event correlation
- Comprehensive automation (CMDB, etc.)
- Combining incident process and monitoring for an efficient process flow under ITIL®
- Adding all relevant information for sound decisions (change, solution database ...)
- Efficient error analysis for reduced repair times
- Clear dashboards for different user groups
- Integrating cloud providers

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*Fig. 4: Dashboard umbrella system: View on all events*
Cloud Monitoring

The ZIS System solution provides a comprehensive overview of the cloud infrastructure. The new cloud connector is used to monitor private, public and hybrid clouds of a cloud provider.

This allows to monitor the performance and availability data of cloud services in an efficient and automated way. This provides overall monitoring that includes all your cloud providers. The data are used for evaluating availability and performance of your IT and business services. It depends on the web service API of the cloud provider what metrics can be monitored. Secured communication to the cloud provider is ensured using a DMZ.

Key facts:
- Web service APIs per cloud provider
- Long-term archive for performance and availability data
- Including cloud services in service (level) calculation
- Measuring performance data and availabilities of cloud applications
- Analyzing resource load and performance of virtual environments
- Checking available cloud storage
- Large number of indicators: number of users per application (e.g. Office 365), data in/data out, usage time, usage volume, etc.

Fig. 5: Dashboard cloud monitoring with the ZIS System
Container Monitoring

The ZIS System solution provides automatic monitoring of your orchestration tools Kubernetes and OpenShift.

A container environment can be very dynamic; a query template supplied with the ZIS System recognizes any modification automatically. Therefore, such dynamic environments do not cause any additional costs in the ZIS System. The ZIS System monitors both the logical and the physical Kubernetes and OpenShift infrastructure.

Key facts:
- The ZIS System as central monitoring solution for container orchestration software whether it is cloud based or on premises
- Web service APIs per orchestration tool
- Detecting container infrastructures
- Measuring performance data and availabilities of microservices
- Transparent container environment including their nodes, pods and namespaces
- Long-term archive for performance and availability data
- Microservices are taken into account for calculating total service
- Integrated E2E management allows holistic view on end-user experience
- Transparency whether agreed SLAs are met
- Integrated alarm management
- Central dashboards over all containers

Fig. 6: Dashboard container monitoring with the ZIS system
IT- / Business Service Monitoring

Dependencies between business processes and IT are increasing constantly making powerful IT infrastructure indispensable. Substantial and automated business service monitoring in real time is the solution.

Key facts:
• Automated creation and update of monitored service structures
• Evaluating, correlating and aggregating events to result in meaningful service statuses
• Multi-tenant dashboards including all relevant information
• Automated root-cause analysis for faster error handling
• Service impact analysis to view impacts of component downtimes efficiently

Fig. 7: Dashboard of business service monitoring
One of the main issues of state-of-the-art business service monitoring is monitoring the agreed service and operation levels (SLAs/OLAs). Service level agreements are economically very important. They allow to compare different service providers, and the are used to objectively assess internal IT services. An additional point is IT compliance.

**Key facts:**
- Real-time calculation of service level availabilities
- Clear dashboards
- Tamper-proof corrections/comments
- Customizable service times, consideration of holidays and scheduled maintenance times
- Proactive alerting in case of threshold value violations
- Drill-down feature for root-cause analysis and analyzing service structures
- Comprehensive out-of-the-box reports
- Automated alarms
End-to-End Monitoring

The end-to-end monitoring solution of the ZIS System offers a complete information workflow from application monitoring from the point of view of end users to service level monitoring. If the violation of the defined thresholds is imminent, integrated alarm management informs the system administrators at an early stage.

Key facts:
- Monitoring availability and performance of applications/services from the point of view of an end user
- Easy setup and customization of workflows using intelligent script recorder
- Supporting all available and proprietary applications (e.g. Citrix, SAP, web portals)
- Tamper-proof logging and archiving of data
- Multi-tenant dashboards
- Automated alerting and reporting

Fig. 9: End-to-end monitoring sample dashboard: Checking user login process
Infrastructure Monitoring

In holistic business service monitoring, the data center infrastructure should be monitored as well in addition to the classic ITIL® disciplines. As a comprehensive monitoring system, information from infrastructure monitoring can be combined with those from business service monitoring to be displayed on a central dashboard. Factors such as temperature in a data center, power consumption, dropping performance of air condition, imminent overload of power rails, or UPS malfunction influence service availability, too. For example, temperature sensors, mains analyzers, and RCM devices can be connected directly to the ZIS System. As an alternative to directly capturing readings and evaluating status messages, the ZIS System can poll or retrieve data from upstream systems such as building control or fire panels. It is self-understood that automatic responses can be triggered, such as alarms, in case of threshold violations.
THE ZIS SYSTEM

Comprehensive and easy integration in existing management systems using interfaces

Complete and fully integrated alarm management and connection to incident management

Multi-tenant and user-friendly dashboards with cutting-edge HTML5 interface, also for smartphones and tablets

Simple on-call and maintenance planning

Powerful event correlation (evaluation, aggregation of events)

Automatic root-cause, impact and risk analysis of services

Out-of-the-box evaluation and reporting features (forecasts, trends etc.)

Real-time service (level) monitoring

Complete systems management with more than 650 plug-ins (best practices)

Monitoring popular cloud providers and container clusters

Integrated end-to-end monitoring that monitors availability and performance of services from the point of view of end users

PINK ELEPHANT CERTIFICATION

• Availability Management
• Capacity Management
• Event Management

LEUTEK – A PART OF USU

LeuTek GmbH, based in Leinfelden-Echterdingen (greater Stuttgart), has been a leading manufacturer of IT monitoring solutions in German-speaking countries since 1984.

The company covers the entire development and implementation of the monitoring solution, the know-how transfer to the pertaining IT departments as well as support and maintenance of the software. Based on its longstanding experience, LeuTek can factor in individual customer requirements and offer tailor-made solutions.

Since 2006, LeuTek GmbH has been member of the USU group. As part of the group, LeuTek provides a product and system portfolio covering all ITIL® disciplines. In the areas of event management, availability management and capacity management, the ZIS System has been awarded the PinkVerify™ certification. Thus, we ensure standardized and service-oriented IT service management.