

Predictive Analytics dramatically reduces IT configuration-related Incidents in Data Centers

‘Predictive Analytics’ has arrived in many areas of life. The goal is always to make a prediction for the future from available data.

For example, the police in several major cities worldwide is using this method to fight criminals like thieves and car burglars.

For this type of analysis, historical as well as current data are necessary. The volume of this data is usually large, complex, fast-paced and not well-structured: we call them Big Data.

The example of the police gives a hint of the background process: the collected data must first be stored in order to be structured and analyzed. Only afterwards, knowledge can be gained from it.

Of course, IT plays the decisive role here.

The Benefits at a Glance

- Cost Reduction 4 – 8%
- Reliability Increase 5 – 15%
- IT Services Quality Improvement
- Very High Time Saving

Data centers are hosting the IT, which comprises servers with operating systems and software, networks and storage systems.

Furthermore, the use of server, network and storage virtualization layers is today’s common standard.

IT as ‘Big Data Generator’

What prevents us from applying the same schemata of predictive analytics to data center computing?

All appliances – servers, network devices, storage systems and virtualization – are containing configuration parameters and data related to their own operating mode.

In addition, so-called monitoring data can be provided: data from software products which are

collecting for example information about the performance.

Log data also plays an important role. Taking everything into account, the IT can be considered as ‘Big Data Generator’.

From now on it will not be easier, but the way to go ahead becomes clearer.

Difficulties in Data Collection and Analysis

First of all, the appropriate data has to be collected from IT devices and the monitoring software products to store it in one place. Afterwards the data has to be converted from unstructured to a structured format: this process is called homogenization.

A specialized analyzing software is necessary to perform the **target-actual comparison against market standards and vendor-dependent best practices as well as interoperability requirements.**

The configuration of each system, the cross-system configurations, but as well designs like the overall IT architecture, high availability, disaster recovery and backup/restore have to be included.

Otherwise we don’t get the full picture.

The Cornerstones of an excellent Data Center

By using the analysis results and by following the recommendations, the most important characteristics of a data center can be fulfilled:

Stability, reliability, performance and cost-efficiency.



Sven Bittlingmayer

CEO
KnowledgeRiver GmbH

„Without analysis a crucial puzzle piece is missing.“

The overall analyzing concept is designed to avoid data center incidents pro-actively:

Performance issues, access loss, data loss as well as partial or complete outages.

‘Predictive Analytics’ concept = ‘Root Cause Analytics’ concept

But the concept can do more: even currently pending issues can be investigated in the same way (‘Root Cause Analytics’).

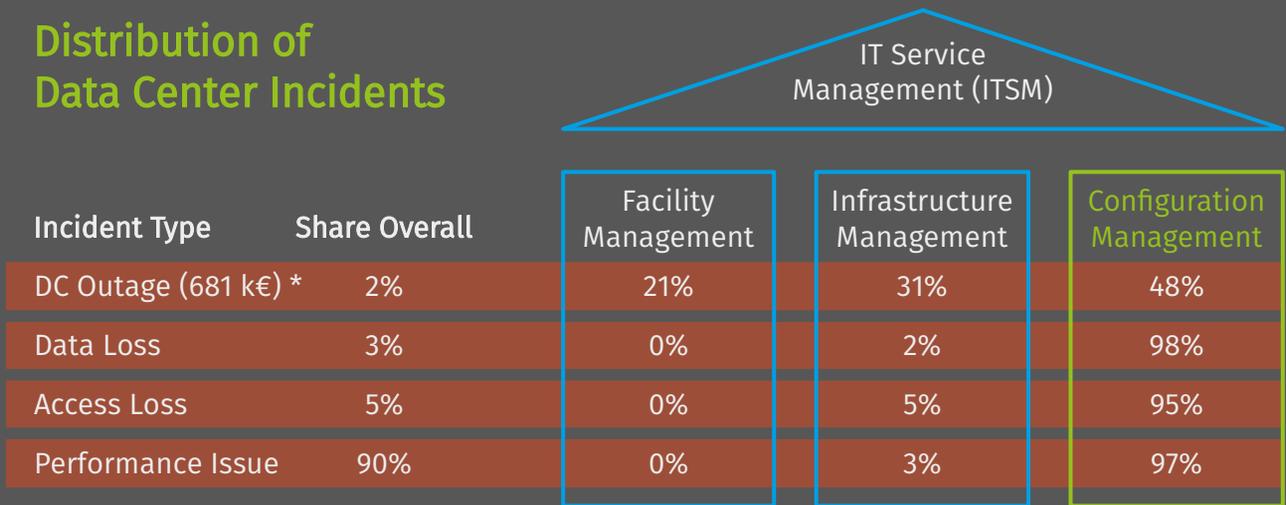
The advantage is, that the process of data collection is always the same.

The same process of data collection and analysis can be used even for more simple evaluations like inventory listings or configuration overviews. ■

The Main Features at a Glance

- Vendor-independent with large system coverage
- Industry-independent
- Prioritized and detailed report with action recommendations and instructions
- Analysis against to best practices and interoperability requirements
- Very high ROI value (Return of Investment)
- Simple implementation
- Very fast data collection and analysis by automated processes
- Individual, personal support

Distribution of Data Center Incidents



* Source: Ponemon Institute | Study “Cost of Data Center Outages“ | January 2016



Knowledge River
Data Center Optimization Services

The company KnowledgeRiver GmbH has been concentrating on the disciplines **Data Center Configuration Management (DCCM)** and **Data Center Systematical Analytics (DCSA)** since its founding.

The primary concern is to prevent data center incidents to ensure smooth operation.

www.KnowledgeRiver.com
contact@KnowledgeRiver.com