

## Blog entry

An	Knowledge Management
CC	
Von	CSC, FHA, MWA, GST
Datum	February 19, 2016
<b>Thema</b>	New Blog Entry on the potential of new business intelligence technologies for Big Data Analytics with insurance companies, time to enter November 2015 <b>Attention! The source has a release date 10/11/2015 Please consider when temporal sorting</b>

TITLE:

### Modern business intelligence architectures provide high potential for Analytics in Insurance Company

KEY FACTS:

- German insurers have recognized Big Data Analytics as a field of action
- The evaluations are currently widely supported on host and SAN infrastructures. These business intelligence infrastructures, however, offer little scalability, and they are limited in their performance and stability with soaring amounts of data
- The use of modern, x86-based components business intelligence architectures provides insurance the opportunity to make data analysis more effectively and efficiently

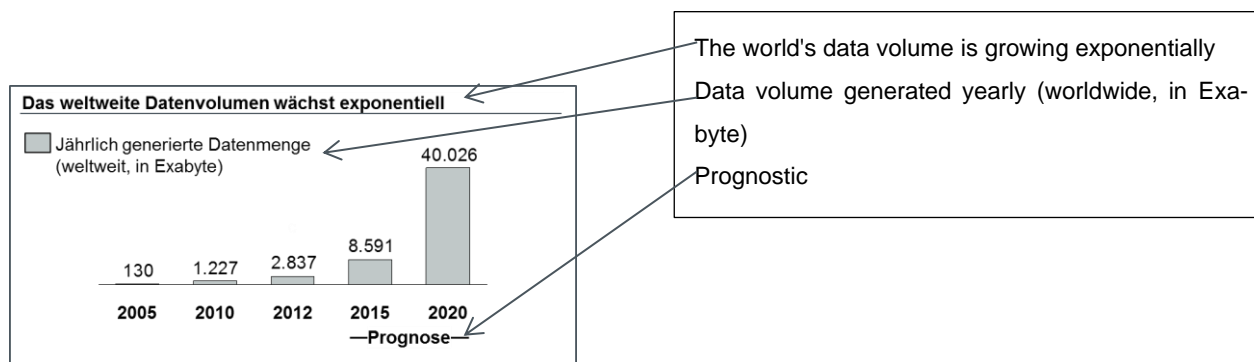


Figure 1: Development prognostic of the data volume, worldwide (Statista (Publisher), Dossier Big Data)

The amount of data in the network increases exponentially. The importance of the evaluation of these large amounts of data - Big Data Analytics - plays especially for insurance a major role.

In Germany, the insurance companies have already recognized the opportunities of Big Data Analytics: 21% of insurers are already using big data, a further 13% seriously plan to introduce

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it. Thus, the industry is taking a leading position in Germany (<https://de.statista.com/infografik/3973/big-data-im-finanzdienstleistungssektor/>).

Priority is given to the information about their own company as well as the sales or broker organizations for insurers. The analyzed business data spans the entire value chain: from product development and marketing, through sales control, and finally to claim/benefits processing. Moreover, information gained in inside sales forms the basis for corporate governance and compliance.

The evaluations are carried out mainly in mainframe architectures and Storage Area Networks (SAN). The processing is carried out in batch runs via dedicated caches.

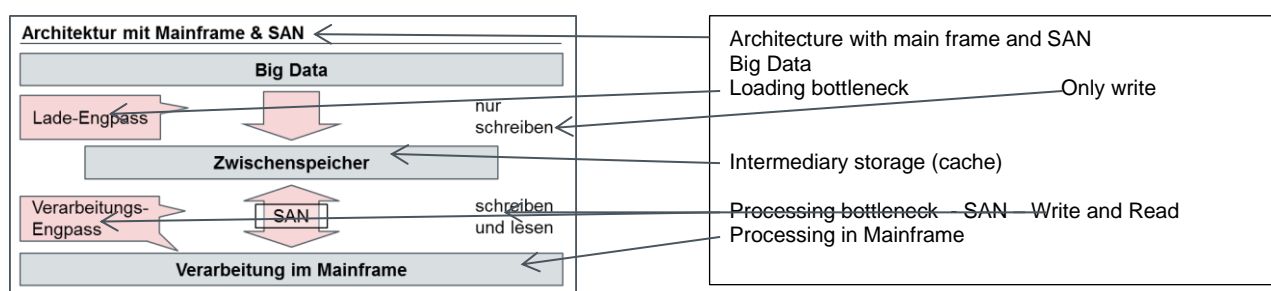


Figure 2: Traditionelle Business Intelligence-Architektur unter Nutzung von Storage Area Networks (eigene Darstellung)

Digitalization with the opening of new channels (Omnikanal initiatives, especially in sales) for customer contact caused a massive growth of data volumes. Thus, when using the existing architecture two crucial bottlenecks emerge:

- In the extraction of data and its storage on caches, a **loading bottleneck** occurs, the caches must be multiplied in volume
- With the monolithic calculations by the mainframe, a **processing bottleneck** occurs that still further increases the processing time - parallel loading into the cache is usually not possible

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Thus, the rapidly growing amounts of data lead to performance and stability issues due to the bottlenecks inherent to this architecture. The cost of the host and SAN operations cannot be

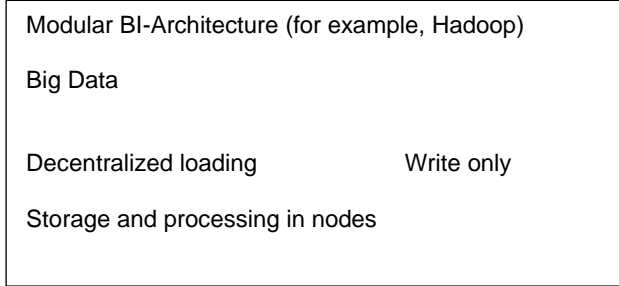
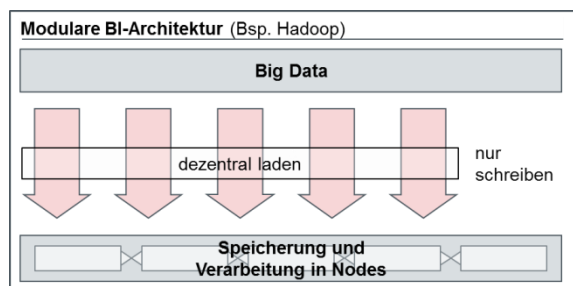


Figure 2: Decentralized Business Intelligence Architecture example taken from Hadoop (own representation)

influenced much due to the widespread licensing models costs and also often fixed-step costs.

For these reasons, business intelligence architectures consider it now crucial to have scalable, distributed processing of large data.

The processing is thereby performed in parallelization and largely on x86 data cores. In this context, both specific hardware such as mainframes as SAN infrastructures can be omitted.

This new architecture foundation for Business Intelligence thus provides potential for increasing productivity in the insurance field:

- **Strengthening the delivery capability** of Analytics: rapid deployment with ever increasing data magnitudes and uniformity of the information through detachment from multiple storages and evaluations. This significantly contributes to peripheral benefits collection of Omnikanal initiatives.
- **Optimization of costs** through the use of standardized industrial components in the data center. The solution of the binding to suppliers of mainframe infrastructure and the associated licensing models allows new degrees of freedom in the cost structure
- **Improving sustainability** with a higher infrastructure scalability

The growing awareness of the business benefits of Big Data is increasingly shared at the level

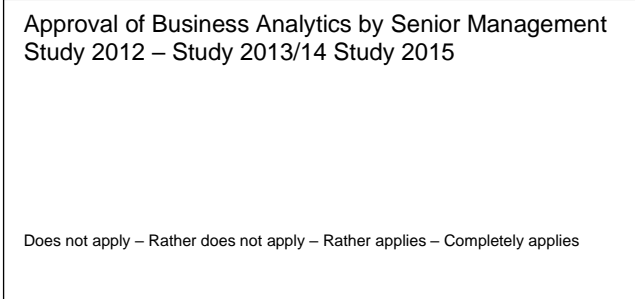
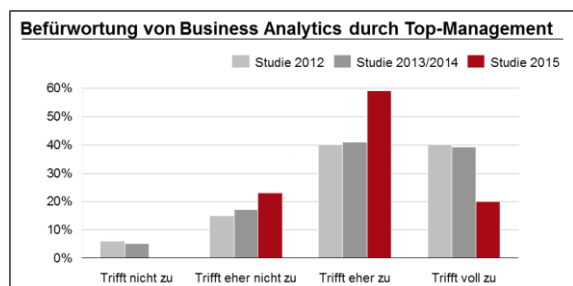


Figure 4: Approval of Business Analytics by Senior Management (N. Gronau, Competitive Factor of Analytics, S. 5)

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of senior management.

An essential prerequisite for the implementation of the technologies described is the use of a robust access and authorization management, possibly partial anonymization of data and the guarantee of the collection and documentation of the informed consent.

### SOURCES:

Statista (Publisher): *Big Data in the Financial Services Sector*, Hamburg 2015  
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Norbert Gronau (Publisher): *Competitive Factor of Analytics, University of Potsdam, Potsdam 2015* ([http://www.sas.com/de\\_de/whitepapers/ba-st-wettbewerbsfaktor-analytics-index-2012-2015-2390691.html](http://www.sas.com/de_de/whitepapers/ba-st-wettbewerbsfaktor-analytics-index-2012-2015-2390691.html) last 10.07.2015)