



The revolution for your Enterprise Data Warehouse

EXASolution takes your data warehouse to a new level: with “EXA-class” high-end technology

FLEXIBLE SCALABLE IN-MEMORY CLUSTERED DBMS

EXASolution

- BI analyses up to 100 times faster
- More confidence for decision-making
- Wider range of analyses
- Up to 50% reduction in IT costs

EXASolution – key features

- Relational database management system
- Standard hardware cluster
- In-memory query processing
- Massively parallel data processing
- Intelligent and innovative compression algorithms
- Self-learning and self-optimizing system
- Simple integration thanks to standard interfaces

This next generation database management system shatters existing business intelligence performance barriers and reduces your costs. Increase your business performance by using unique technology made in Germany.

EXASolution – a new dimension in business intelligence

EXASolution is a highly scalable database management system that applies efficient algorithmic solutions from the field of high performance cluster computing to the analytical challenges in the business intelligence environment.

EXASolution shatters existing data warehousing performance barriers via the unique combination of in-memory technology and a shared nothing architecture using innovative compression algorithms.

Intelligent algorithms distribute the data within a cluster and automatically process the necessary optimization steps on the fly.

Thanks to standard interfaces (SQL standard 2003, DB driver, BI), integrating EXASolution into the existing IT infrastructure is easy. The self-learning system automatically adapts to the user's usage habits and, together with the use of well-known business intelligence applications e.g. Business Objects, Cognos, Microsoft tools, SAS etc., this increases acceptance by data analysts.

This intelligent software allows the use of cost-effective standard hardware. With its highly adaptive data distribution algorithms, EXASolution achieves such high data throughput rates that expensive storage (SAN) becomes redundant. If the data volume, analysis requirements or number of users increases, the cluster can be easily extended by adding additional servers.

Visions become reality

Recommended for all data warehouses from 10GB to 100TB

Architecture: Shared Nothing Cluster Computing	
Server, hardware platform	x86-64
Query processing	In-memory via highly specialized algorithms
Storage	High speed cluster storage (SAN not required)
Connection network	Ethernet

DBMS: Massive Parallel Data Processing	
Database model	Relational
SQL standard	ANSI SQL 2003
SQL extensions	e.g. analytical functions, extended MERGE statement, quality assurance statements
Rights administration	Users, roles, object and system privileges
Transaction model	ACID
Schemata types	Any (e.g. star, snowflake, galaxy)

SQL Engine: Self-optimizing	
Query optimisation	Automatic (rules and cost based)
Auto-analyzing of the database	Automatic
Index generation	Automatic
Workload balancing	Automatic
Replication of small tables	Automatic

Data Layer: Self-learning	
Data storage	Automatic (vertical, element-wise in-memory access)
Data distribution	Automatic
Data organization	Automatic
Data compression	Automatic (special in-memory algorithms)

System Layer: Guaranteed High Availability & Security	
Operating System cluster	EXACluster OS 1.3 (Linux based)
Integration in IT management tools	e.g. IBM Tivoli
High availability	Guaranteed by redundant servers
Recovery	Within few seconds (automatic)
Cluster management	Centralized, remote
Security mechanisms	Integrated firewall, secure access via SSH
Cluster communication	Via proprietary high-efficiency algorithms
Backup / Restore	Secure transaction, parallel

ETL: Active Data Warehousing via Real-Time ETL	
Integration in existing ETL tools	Via standard interfaces
High speed data transfer	EXAloader
Checking data quality	Guaranteed by EXAloader
Data formats	CSV, FBV, Oracle, DB2, EXASolution

Smooth Integration via Standard Interfaces	
Standard interfaces	ODBC 2.5/3.0/3.5, JDBC 1.0/2.0/3.0, ADO.NET 2.0
Support of BI tools	e.g. Business Objects, Cognos, Microsoft tools, SAS
SQL user interface	EXAplus (console, GUI)

EXASOL at a glance:

EXASOL AG is a leading supplier of next generation high performance business solutions. More than 20 years of experience in parallel processing and more than 10 years of specialization in data warehouse solutions have resulted in the development of EXASolution – a unique product that has already demonstrated its superiority in numerous benchmarks. Our reference customers, operating in a variety of business sectors, have successfully employed EXASolution for a number of years. Because EXASolution can support a wide array of usage profiles with highly elaborate database schemas, it can be used as data warehouse for the entire enterprise. That enables our customers to boost their competitive edge and optimize their business processes.