

SAP HANA - Completely Re-Imagined Platform

SAP HANA is an object oriented in-memory, column oriented and relational database management system designed and developed by SAP AG.

HANA stands for “**High Performance Analytic Appliance**”.

SAP HANA stores data in memory instead of disc. **SAP HANA** is completely transparent database by combining database, data processing, and application platform capabilities in a single in-memory platform. SAP HANA allows high data transmission and complex query processing on the single platform. SAP HANA offers comprehensive Analytics solutions in real-time.



IT Challenges

- High Volume of data growing and challenge for real time to enterprise.
- High cost to maintain hardware to handle increasing big amount of data.
- Consume more time for analysis and processing result.
- No Real time data.

Business Challenges

- Quick access to real time operational data.
- Improve business processes.
- Need to react faster for business impacting events.

SAP HANA: Overcome IT and Business Challenges

In-Memory Platform - SAP HANA is an In-Memory Database

- Combination of hardware and software to Process voluminous data using in-memory computing
- Row and column based relational database technology
- Data resides in main memory instead of hard disc
- Best for developing and deploying real time applications and analytics
- Quick retrieval of high volumes of data
- In-memory platform to process complex operations and deal huge transactional data in real time

High Performance

Performance will be comparatively very high as it runs on multi-core processor and ten times faster than current database

Multi-Engine

HANA is a Multi – Engine platform that allows all types of data graphical as well as text in SAP.

Database System

HANA is database has the facility to connect to the multiple interfaces and can be installed in RAM

Purpose of SAP HANA

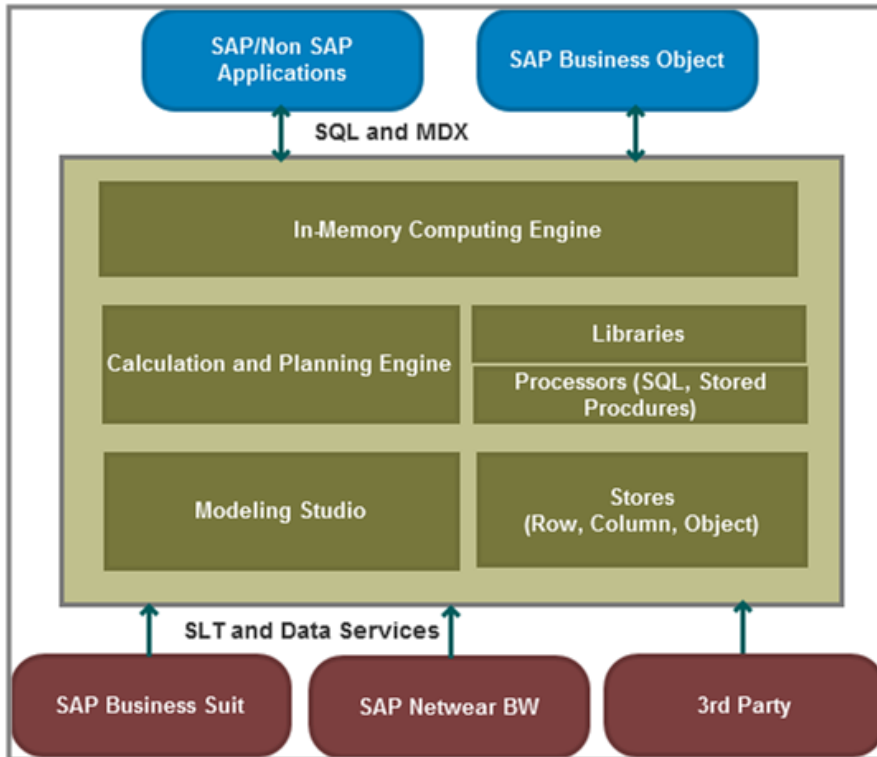
- To load data in terabytes to main memory and to analyze in-memory data in real time
- To perform speedy transactions and fast analysis
- The platform also provides libraries for predictive, planning, text processing, spatial, and business analytics - all on the same architecture.

Components of SAP HANA

- SAP HANA In memory database.
- Multiple Engines inside data computing engine for high performance.
- A massively parallel processing data store that contains row-, column-, and object-based storage techniques.
- SAP HANA Studio.
- SAP Data Services.
- SAP Landscape Transformation.

How does HANA works?

SAP HANA is designed to clone and ingest structured as well as unstructured data from SAP and non-SAP relational databases, applications, and other systems quickly. One of three styles of data replication – log-based, ETL-based or trigger-based – is used according to the source system and desired use-case. The replicated data is kept in RAM instead of loading to disk, the typical form of application data storage. Because the data is stored in-memory, it can be accessed in near real-time by analytic and transactional applications that reside on top of HANA.



SAP HANA Architecture

Data can be moved to SAP HANA using SAP Landscape Transformation (SLT) replication technology in real time. It is also possible to transfer data from SAP warehouse or any other database into SAP HANA. To build business logic and structure data modeling tool called SAP HANA studio is used.

How SAP HANA is Different?

High Speed

Manage Huge Volumes of data at high speed.

Processing Engine

SAP HANA's In-Memory Processing Engine, includes the relational, text and calculation engines and provides unprecedented big data speed and power.

Administration

SAP HANA has built-in functionality to monitor the health of the system and provides network security, the key tasks of an administrator

Dynamic Data Tiering

Dynamic data tiering optimizes the balance between data processing and data storage. Data described as frequently used is stored in memory. This dramatically reduces the cost of permanent storage and the time and effort for data movement.

Lower Cost

Enabling a dual OLTP-OLAP architecture decrease the data footprint, this reduces on storage cost. Rejecting the need for data extraction and transfer from OLTP to OLAP saves resources and time.

Flexibility

SAP HANA is a big data analytics platform for multiple structured as well as unstructured data types.

Data Compatibility and Openness

SAP HANA is open for any application whether they are from SAP or not. It supports multiple programming languages and integrates with 3rd party tools. It is data agnostic with support for spatial, structured, unstructured, document data and sparse data. It is open for any technology, cloud, hardware and software

Conclusion

SAP HANA is an ideal for in-memory data platform that is deployable on-premise as an appliance, in the cloud, or as a hybrid of the two. SAP HANA is the platform for performing advanced, real-time analytics while parallel handling real-time transaction workloads. SAP HANA is the only platform to converge database and application logic within the in-memory engine to transform transactions, analytics, text analysis, and spatial processing. SAP HANA can be used anywhere there are large volume of data.

Semaphore Software has expertise in providing world-class **SAP HANA services**, helping you fully utilize its in-memory computing technology. Our end-to-end SAP HANA services span from configuration to post-deployment support. Please call us on **+ 1 201 299 3668** or contact us through e-mail at **info@silvertouch.com** for your SAP HANA needs!!