

### What is SAP HANA?

The technology wave we are experiencing in the past years offered us tremendous innovations. Not only that our way of working has changed significantly, but also the results we gain are greater than before. One of these technologies that changed the game for many businesses is SAP HANA.

It's been some time since we started using SAP HANA technology. On most of our projects, we are offering companies the possibility to be more productive and profitable. According to a recent report from [IDC](#), the businesses that are using SAP HANA technology are more innovative and are generating business value. It has been highlighted in the same paper that building innovative applications with SAP HANA can lead to gaining an average five-year ROI of 575%.

Still, for those who are not using it yet, or haven't heard about its potential, there's always one question left: What is this technology and how can I leverage it to grow my business? Read on to find out.

#### Starting from the bottom

SAP HANA or high-performance analytic appliance is an innovative application that uses in-memory database technology to process and analyze large and complex sets of real-time data, all of that being executed in a short time. But let's dig into some more details. By using the in-memory computing capabilities, HANA can process data which are gathered and stored in a RAM, and not on a disk. What's the result of this process? Immediate results and analysis of different business operations.

The ability to process real-time data and provide analysis immediately is a great advantage for businesses operating in fast-paced industries. Keeping everything up to date and according to the market requirements is mandatory for remaining competitive.

It's essential to mention that SAP HANA is not just a database that businesses can use. It is a platform that combines multiple databases, data processes, and applications. With all these data, the platform creates separate libraries for specific types of analysis: predictive analysis, spatial analysis, planning and forecasting, and also business analytics.

### How can businesses use SAP HANA?

SAP HANA platform uses the principle of column based storage of data. This principle means that data is typically stored in a table format, but that's not entirely the case for HANA. There are, in fact, collections of columns or one field tables, stored consecutively one after another. Given these features, businesses can use SAP HANA at least in a few ways:

- **Singletenant** - the first form of usage would be as a regular database, as a single instance.
- **Multitenant** - SAP HANA can also be used as a server with several databases, allowing businesses to create only one server for the applications using the same database. This type of usage will enable applications to run independently
- **Multihost** - there's also the possibility to use several SAP HANA servers in a bundle. The combination of servers will create a stable and powerful system for businesses.

### What makes SAP HANA different from other technologies?

Of course, companies may wonder why using this platform instead of others available on the market. And that's a good question, giving the fact that usually, such implementation is a strategic business investment. So let's take a look at some unique features offered by SAP HANA.

- The platform leverages modern and innovative hardware technology. Shortly said, it uses large memories and heavy parallel processing on multi-core Central Processing Units, improving the access speed significantly and decreasing the response time.
- It stores all information in-memory in columnar format, making many activities such as aggregations to be high-speed and reducing the database footprint by up to 95%.
- The operations are carried on demand, offering businesses the opportunity to run Online Transaction Processing (OLTP) and analytics in a single instance.
- It has specific mechanisms beneficial for companies (e.g., delta storage, update performance)
- SAP HANA has continuously evolved. Since its appearance, many functionalities have been added to improve the results businesses obtain (e.g., data visualization, text analysis, geospatial features)

### Final thoughts

SAP HANA is, without any doubt, a technology to consider implementing, and now that we all know what it is and what it does, we are even more likely to consider it. But one thing is for sure: regardless of the industry, any company creates, gathers and stores valuable data about internal processes, consumers, and many more. By adequately analyzing this information, executives can make data-driven decisions and develop the business faster and smarter.

Want to find out more about what SAP HANA can do for your business?

[Get in touch](#) with SE16N team, and we'll make sure you have all the details.