



Business Case

Innovation

In-Memory Technology

Project Management

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The SAP® HANA Project Guide

▶ Delivering Innovation with SAP HANA

▶ Thinking In-Memory

▶ Creating a Business Case for SAP HANA

▶ Managing HANA Projects

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2 Creating a Business Case for SAP HANA

For the last couple of years, one of a CIO's toughest challenges has been keeping their organization focused on running IT landscapes stably and efficiently enough to meet organizational demand in the face of frequent budget cuts.

Business leaders have commonly looked to outsourcing to IT providers and consolidating landscapes and virtualization of servers to address budget cuts, while trying to sustain the level of information services the organization demands. The era of IT as the innovation engine for the entire company seemed to be over when new technology concepts began to emerge.

The promise of cloud, mobility and in-memory computing are more than just cost efficiency programs for IT. With these new technologies, IT can rise again and CIOs can once again contribute to operational effectiveness with more than simple cost reductions. CIOs should feel optimistic about providing innovative solutions that will have a significant impact on the bottom line of the entire organization.

In-memory technology, especially SAP HANA, is one of the top innovations capturing the attention of CIOs. SAP HANA has the potential to change the way that companies work with their data. The majority of companies today are data driven enterprises and changing the way a company interacts with data could change the entire way the company works. There are two main use cases for SAP HANA: optimization and innovation.

2.1 Optimization and Innovation Use Cases

The **optimization use case** brings value by reducing the time and effort that is spent on data analysis and/or reports. This is the easiest use case because it is possible to compare before and after a scenario. Reports, analysis, or even entire business processes can be optimized. For example, a report that once took 34 minutes to run was reduced to 5 seconds with SAP HANA.

While use optimization depends on the variables, it is possible to estimate the savings. To calculate the value of the case, evaluate what the time reduction is worth to the company. It is important to note that it is less the process run time optimization that brings value, than the impact that this optimization has on the company. Saving time alone potentially only has an impact on a department's coffee consumption, but using this time to increase productivity is the goal. So always keep in mind speed is "just" an enabler of value. Here a list of questions you can use to identify the value:

- ▶ Can we decrease the business process duration to deliver a higher output in the same amount of time?
- ▶ Can we accelerate follow-up processes if we optimize an existing bottleneck?
- ▶ Can we change from daily batch-driven processes to an on request/online process for higher process flexibility and more up-to-date reporting results?
- ▶ Can we use the speed to run more reports in the same time period to improve the quality of our decisions?
- ▶ Can we expand reports / analysis offerings to a broader user group, as limited server capacity is no longer an issue?

Optimization use cases are easy to estimate, and the before versus after comparisons are clear for business decision-makers to acknowledge SAP HANA's value. Most of the time, however, more value can be found in the second use case.

The **innovation use case** is a little more complicated because SAP HANA is used to deliver results that have not been produced before. The innovation use case is effective when either the performance gain was previously not technically possible, or the effort to execute a certain report, analysis or business process had such a lengthy delivery time, that it was meaningless to execute it.

Identifying these scenarios and enriching the business by delivering pure innovation is the aim of the game. Innovation use cases are challenging to create. They are best created with an interdisciplinary team from IT and the business units brainstorming without boundaries in a “value discovery workshop”. The goal of the workshop is to collect ideas on possible SAP HANA scenarios.

The workshop leader asks team members to brainstorm and discuss a list of ideas. To identify good innovation use cases ask the following questions:

- ▶ What business need can be delivered that was not possible before?
- ▶ How does the change impact the overall process?
- ▶ Can the process be handled with higher quality?
- ▶ How does the new deliverable change the business?
- ▶ Are there any similar processes that can benefit from SAP HANA?

Once the workshop team captures several scenarios, they can then validate each one, typically estimating the impact on the business and effort to implement them to establish a priority list.

Customer Example

A customer is running SAP CO-PA reporting in SAP ERP. Due to a high number of products and customers, the analysis is done by product or customer dimension, but does not combine customers and products. With a report runtime of around 6.5 hours, the organization can tell the extent to which a specific customer or an individual prod-

uct is profitable. An analysis of a specific product for a single customer is not possible. This combination of details on both dimensions would have a very long runtime and require high server resources which, even if technically possible, would not be practical. The customer developed two use cases. Here are the results:

Optimization use case: SAP HANA reduced the 6.5 hours process to 0.5 hours.

Innovation use case: Enabled by the dramatic increase in performance, developers enhanced the report to enable analysis on a granular level making it possible to look at the profitability of every single customer for any given product. Using SAP HANA for CO-PA, reporting can answer questions on how profitable a specific customer is with product X, and if that differs from product Z.

While the next chapter will take a deep dive into the way SAP HANA works, this chapter focuses on the value SAP HANA can provide. It will guide you on how to create a SAP HANA business case. We'll take a look at the main cost drivers, as well as the areas of added value.

The next section will start with the value SAP HANA scenarios can deliver by taking a closer look at the different types of scenarios in detail.

2.2 SAP HANA Scenarios

There are four kinds of SAP HANA scenarios:

1. Custom built scenarios
2. SAP HANA Accelerators
3. SAP HANA Applications
4. SAP HANA for existing SAP solutions

Custom-built scenarios are any kind of scenarios that are implemented without using pre-defined models from SAP. SAP HANA is used as a pure database – therefore data can be loaded from SAP or non-SAP sources. The data model is based on the source table structure and customized, and complemented by using BI 4.0 or other front-end tools. Most custom scenarios are initially either data mart or operational reporting scenarios. Data mart scenarios can be implemented alongside data warehouse solutions.

Special data sets are separated in order to maximize the benefit from the SAP HANA value proposition. Operational reporting scenarios directly load data from source systems like ERP or non-SAP systems and enable the user to run reports outside of existing systems to benefit from the value of SAP HANA.

The introduction of the Extended Application Services (XS) in SAP HANA SPS5 opened up new options for custom build scenarios. This service enables developers to write applications that run natively on SAP HANA without the need for additional infrastructure components like application servers. The new application services in SAP HANA provide an environment in which developers can write applications in JavaScript with HTML 5.0 as a front-end, connecting against the database layer with the in-memory power of SAP HANA. With the addition of extended application services, SAP HANA also becomes an interesting development environment for scenarios, which live completely outside the traditional SAP context. You will find technical details on the XS-engine in Chapter 3 and a deep dive into custom scenarios in section 2.3.

SAP HANA Accelerators are pre-defined scenarios that are placed next to existing SAP solutions to speed them up. Therefore, the Accelerator replicates data into SAP HANA and enables any subsequent read operation to be routed to the SAP HANA environment instead of the original source database. All business logic and write operations still operate in the classic way. This procedure helps to speed up business processes where the read-operation is a bottleneck. The SAP HANA Accelerator is placed as a sidecar and the increased speed of the process can be delivered without significant changes to