Running reports in SAP environments has always been associated with long waiting times, and that is why SAP in-memory technology was introduced, to enable real-time insights and accelerate transactional workloads. That is the theory behind the technology, but in practice the desired benefits can only materialize if the complete solution stack has been designed appropriately.

The fast track to benefits and optimization is based on PRIMEFLEX for SAP HANA® from Fujitsu. It is a pre-defined and pre-tested infrastructure solution based on Fujitsu PRIMERGY servers with Intel® Xeon® processors which makes full use of the latest in-memory architecture from SAP. This comprises new persistent main memory layers of servers (Intel® Optane™), plus just the right operating system version for effective deployment.

All components are SAP-certified so that no potential service hassles arise. Fujitsu makes sure that you get the right configuration for leveraging the full capabilities of real-time analytics and reporting.

This solution lets you

- Reduce project time and risk to fully exploit SAP HANA in-memory technology
- Accelerate analyses and reports
- Avoid costly configuration errors
- Have one partner with responsibility for the entire solution stack
- Build high-availability environments
- Design the right scalability approach to accommodate growing workloads
- Consume the system resources for larger environments on a pay-per-use basis (Fujitsu uScale*)
SAP has made the SAP HANA database its architectural centerpiece for SAP landscapes, acting as a unifying platform for transactional as well as analytical workloads. SAP HANA is based on an in-memory architecture, meaning that all processes are loaded into the server’s main memory. This matters because it can dramatically reduce the “time to business insight”. Information for which you previously had to wait – such as daily, monthly, or weekly reports – is now available in real time. While this concept provides great advantages in terms of the user experience, it also leads to substantial challenges at infrastructure level:

- Large capacities of main memory are required which can exceed the maximum configuration options of conventional servers. Traditional DRAM main memory is a large cost driver when needed on terabyte scales. It is also volatile, so whenever the server is powered down, data is lost and needs to be reloaded, which can take considerable time.
- New persistent memory technologies (PMem), in particular Intel® Optane™, can be of great help, as main memory costs can be reduced by factors and data stays there after a power-off situation.

But they pose a new challenge: It is almost an art to configure the right mix of DRAM and PMem to ensure performance and stability. There have been cases in which an improper memory configuration for a particular SAP HANA database setup made the whole IT infrastructure investment useless.

- The right versions of operating systems are key to make use of PMem.
- Furthermore, in large database and application environments, a SAP HANA Multi Node (scale-out) environment may be required, and perhaps even an external storage system, requiring advanced configuration skills.
- All components need to be certified by SAP in order to receive support at application level.
- The dimension of complexity stemming from all these factors may reach even bigger proportions if the overall design concept must ensure high availability.

In other words, deploying an IT infrastructure for SAP HANA is not just a matter of purchasing servers – it is about designing a viable overall solution.

The fast way forward

All of this complexity can be circumvented with the complete, pre-designed, pre-tested, and fully serviced solution PRIMEFLEX for SAP HANA from Fujitsu. This solution is certified by SAP. It has been developed based on experience gained from many customer projects and from the expertise of our SAP competence center experts. With the help of the optional SAP SystemInspection service from Fujitsu, highly detailed real-life workload data from an existing customer’s SAP IT is used to derive the right sizing of DRAM and PMem memory, CPU and other components for IT refresh projects. Many customers reported vast savings through avoiding oversized configurations thanks to this service option. Certified high availability and scale-out architectures can be offered along with superfast all-flash NVMe storage. The solution comes with Fujitsu Infrastructure Support* and Implementation Services* as standard, ensuring end-to-end troubleshooting and professional installation by experts in order to prevent post-deployment problems.

* For customers with extensive knowledge in sizing and operations, the PRIMEFLEX for SAP HANA Essentials version is available and does not include services and support on solution level. Availability of mentioned services and pay-per-use payment schemes depend on local terms and conditions and on configuration sizes. Please clarify details with your local sales representative.

If you are interested in IT infrastructure deployment for SAP HANA

For more Information about PRIMEFLEX for SAP HANA visit our [SAP Solutions website](#). If you think that professional assessment and advice can help you optimize your SAP infrastructure, be sure to contact us: cic@ts.fujitsu.com

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