Supercharge your SAP Applications and Databases

10 Challenges

for your SAP ecosystem and how Violin Memory addresses them

Having timely access to information is critical, and application performance is constantly under pressure to deliver. Today, transactions are processed 24/7, reports run and are generated 24 hours/day, by all business units.

In order to support your SAP ecosystem, your infrastructure needs to scale as data and users grow exponentially. It also needs to support multi-user concurrency (multiple reports run by multiple individuals concurrently) – without performance degradation, and without impact to other business functions.

Slow and complex invoicing processes

SAP offers the dunning process to collate and collect on unpaid invoices to minimize the impact on earnings. Given that this process is out of synch from the normal accounts payable process, it can interrupt the routine processing effort as it is a batch effort with a lot of data lookups.

With Violin Memory, data lookups are instantaneous and the running dunning process will not impact daily business operations.

Sub-par user experience

A dialog step is the processing needed to get from one screen to the next, including processing that occurs after the user issues a request, and the processing needed to display the next screen. The database component for this process is up to 40% of the total elapsed time.

With Violin Memory Arrays, the CPU process can be uplifted from 40% up to 65% and the database process from 40% down to 25%. This enables the user to do more dialog steps per hour, improving overall productivity.

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Slow database performance

The application performance depends on how quickly data is retrieved from the database. The guidance from SAP is 10 milliseconds for Direct Reads, 40 milliseconds for Sequential Reads and 25 milliseconds for Changes.

With Violin Memory Arrays, database access times are dramatically reduced. Direct Reads are 20 times faster at 0.5 milliseconds, Sequential Reads are 40 times faster at 1 millisecond and Changes are 25 times faster at 0.5 milliseconds.

Inefficient and mismanaged infrastructure

Automatic storage tiering renders unexpected side-effects. Data is tiered based on whether the block of data has been touched. If the data block has not been touched, it will be moved from the fastest storage tier to the lowest performing storage tier. Processes can be a daily or weekly event, whereas storage tiering moves data every few days

Violin Memory Arrays eliminates the challenge of inadvertently moving important data blocks. Processes that run on weekly timeframes can still have access to the fastest performance storage at all times.

Limited usability and scalability

Demand for access to corporate data is growing as well as the endpoint devices used to access the data. Consider Business Intelligence functions running on iPads, smartphones or other mobile devices, or mobile user expectation of faster response times from their applications.

Violin Memory Arrays maintain sustained, peak storage performance, enabling real-time data regardless of the device.

Slow reports hinder sales analysis

Detailed sales analysis can be critical in determining sales strategy. The sales analysis process within SAP pulls from large common datasets that result in long query times and report generation. This often results in the database administrator having to stop the query runs, limiting the ability to understand buying/selling patterns.

With Violin Memory, multiple and complex parallel queries can be run, supporting not only standard business operations, but also faster sales analysis queries, allowing for deeper sales insights.

Lack of cash visibility

The treasury management process comprises analysis of the Cash Under Management, Market Risk assessments, and financial accounting.   Many common datasets reside across these areas which are pulled to provide a complete view of the investment and risk profile. Because the process is batch oriented, it takes long to run and often exposes the business to higher financial risk.

Violin Memory enables any the treasury management queries to run in parallel on the common datasets without impacting standard operations, thereby reducing the risk profile.

Inaccurate demand forecasting

The demand planning process collects many large datasets, known for reading more than 100GB a time. In addition, multi-user concurrency is created, locking more data and requiring more storage and compute power.

Violin Memory supports the CPU with a better utilization rate by driving the data much faster to the CPU. The end result is a more effective supply chain and reduced financial risk.

Inefficient processing of sales orders

The sales order process is critical for revenue recognition purposes and drives a multitude of other tools and applications that impact other business functions such as CRM and ECC. If the orders are not accepted and processed fast enough, they lock up other systems down the pipeline.

With Violin Memory, each sales order can be processed nearly at the speed of memory, driving business agility and resulting in full customer satisfaction.

Not delivering on promised orders

Availability to promise accesses a large number of datasets that are also used for other business functions, like materials planning, invoicing, sales order entry. Transaction locking takes place for the system to lock down a delivery date for the customer, which in turn introduces application wait times for other business functions when this is not handled quickly enough.

With Violin Memory, each inquiry can be processed significantly faster; the transaction locking across other functions can be released much quicker, ensuring customer satisfaction.