Chapter 11

Data Intensive Enterprise Applications

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ABSTRACT

Today almost all big enterprises act globally, which results in a growing need for a new kind of data analytics. Imagine a company where data from distribution and sales needs to be combined with increasing online sales on multiple platforms and marketing across new social media channels. Here, new real-time analytics using Cloud Computing concepts can open new perspectives. SAP has had a strong presence in the Business Intelligence (BI) market. The company pioneered concepts to collect, combine, and analyze company wide information. As a result, SAP customers enjoy BI capabilities that are strongly integrated with their SAP operational systems (e.g., ERP, CRM). In recent years, companies have leveraged Cloud Computing as a means for lowering the Total Cost of Ownership (TCO) of various types of business applications that are provided On-Demand. SAP already offers products such as SAP Business ByDesign, which is offered as a Software-as-a-Service (SaaS) On-Demand product. Feature-rich Cloud storage solution such as VISION Cloud enables SAP to integrate new innovations to its On-Demand software portfolio. This chapter describes how VISION Cloud enriches SAP’s Instant Business Intelligence analytical On-Demand service.

INTRODUCTION

In the enterprise use case SAP aims to develop new concepts for on-demand analytics, which could potentially be faster, more accurate and covering many more data sources using cloud storage. The key idea is to come closer to “Instant Business Analytics” (IBI), where even very big datasets can be capture and analyzed in real-time or near real-time, thus helping to understand shifts in supply and demand better.

VISION Cloud provides various features, which enables enriching the features of SAP IBI:

• High availability of the data.
• Identity and on-boarding federation.
• Compute engine close to the data – in form of Storlets.
• Multi-tenancy support.
• Accounting and billing information.

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SAP is at the forefront of enterprise software technology, it offers a wide variety of solutions for managing business processes from large enterprises to small and medium sized businesses. In recent years, the Business Intelligence (BI) software market has gained more attention as the ability to produce meaningful insights from the collected data held by an enterprise became more productive. SAP offers its customers Business Intelligence capabilities that are strongly integrated with their SAP operational systems (e.g., ERP, CRM). Like other vendors in the enterprise software market, SAP offerings include data flows from the operational systems into departmental and organizational data warehouses, where decision support and other on-line analytical processing takes place.

SAP’s Instant Business Intelligence is an offering by SAP which provides on-demand analytical and business intelligence capabilities for SAP customers without the need of on-premise installation or integration.

In this chapter, we will explain the integration of VISION Cloud with SAP IBI and show the benefits of using it compared to other solutions offered.

**BACKGROUND**

Why is there a need for innovation in the analytics field? Since 2009, we have observed two significant trends that can become a differentiating factor in the market:

- Providing sophisticated analytical capabilities in real time on up-to-date fresh data. The availability of servers with very large main memories, along with the advancements of Main-Memory Database System (MMDBs) (Garcia-Molina & Salem, 1992), put these real time capabilities within reach. SAP has introduced a first line of products in this area of MMDBs and in particular main-memory BI in 2010.
- Leveraging cloud computing as a means for lowering Total Cost of Ownership (TCO) of various types of business applications that are provided On-Demand. Software-as-a-Service (SaaS) models are gaining significant traction in various segments of the enterprise software market. SAP already provides a complete ERP suite on-demand for small and medium businesses referred to as Business ByDesign.

This leads to several motivations:

- The issue of TCO has become a means for lowering IT costs and improving sustainability of a company’s IT infrastructure.
- Companies have recognized the benefits of SaaS models, and have developed intentions for providing new benefits for their customers by adopting the new technology.
- Companies expect high-end solutions to be available in a service oriented model, and with minimal IT implementation and cost.
- The features and capabilities of a SaaS solution can significantly impact the sustainability of a solution built on top of it on the long run.

**Multi-Tenanted Analytics On-Demand**

Multi-Tenanted Analytics On-Demand, Large scale analytics in the enterprise domain is enabled with the advances in main memory size and in MMDB technology along with the integration of new cloud based business models which now offer traditional ERP services in an on-demand service model. We are looking at providing analytics services on-demand - Instant Business Intelligence (IBI). Such a scenario is based on: