

Proper Architecture Considerations for DW Implementations

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ABSTRACT

Data warehousing is performed by many organizations to provide the information to support decision-making in their enterprise. While many companies build warehouses or data marts for their needs with many different tools, even with base SAS®, most find the ongoing and diversity of requirements placed on the warehouse design and its systems to be too overwhelming. The key issue is that anyone can build a warehouse or data mart with any tool, the first time. However, managing this ‘creation’ over time is the problem. This stems from issues such as: long-term support and maintenance of complex projects, multi-user design and development requirements, and a wide breadth of information sources, which change constantly. This paper discusses the proper architecture for building, managing and deploying warehouses in large enterprises or lines of business within an enterprise over time.

INTRODUCTION

Data warehousing and a related term, ETL (an acronym for the main functions of **Extract, Transform, and Load**) tools, have been around and functioning for a number of years. However, the management and maintenance of warehouses over time, is rarely considered, as projects tend to be driven by the users. Historically, IT projects are driven with a rigorous set of mandates and requirements, but end-user reporting and to some extent most data warehousing tools tend to forego these concerns which have worked so well for IT over the last decades. Common tools have ease of use and GUIs to make development of warehouses easier, but without the architecture behind it, it will be doomed to failure.

PROJECT REQUIREMENTS FOR ENTERPRISE DATA WAREHOUSES

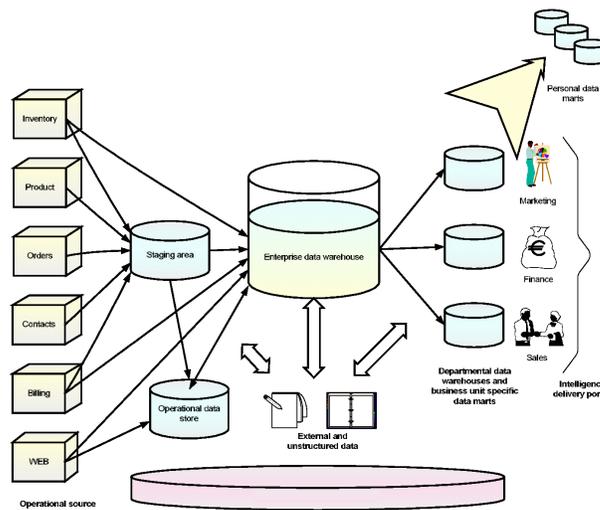


Figure 1. A Typical large data warehouse with metadata underlying the entire structure

With Version 9 of SAS® System, tools are provided to make warehousing easier to develop, easier to maintain, and easier to deploy across the enterprise. This not only includes systems and tools for the warehouse itself, but all the deployment issues, e.g. PORTAL applications, web servers, central metadata repositories etc.

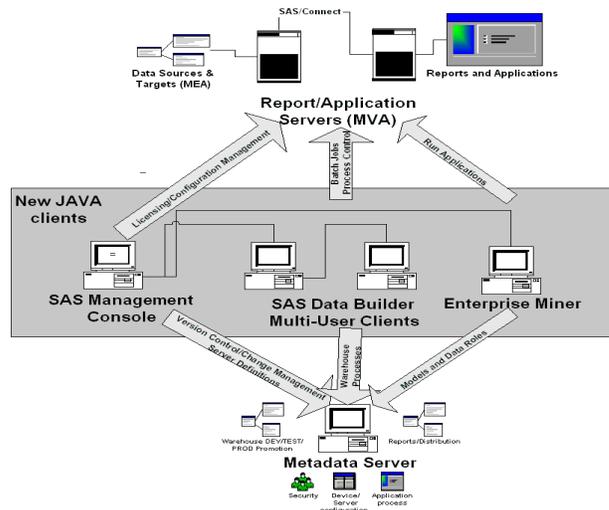


Figure 2. Version 9 overview for designing, managing, and deploying warehouses.

As figure 2 shows, new products such as SAS® Data Builder (which is new name for Warehouse Administrator under Version 9) allow multi-user development, and SAS® Management Console aids project leaders in migrating or promoting development/test/production systems throughout the enterprise,

as well as managing deployment of software and hardware.

CONCLUSION

Enterprises increasing need greater access to their information resources for a 360-degree view of their suppliers, customers, and internal resources. What is highlighted here is a new approach to enterprise level warehouse development, deployment and management.

REFERENCES

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