BI Reporting with NLS (SAND)

Applies to:

NLS(SAND), SAP BIW 3.5, SAP NetWeaver 7.0.

For more information, visit the Business Intelligence homepage.

Summary

This document talks about the BI reporting with NLS (SAND).

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Created on: 26 August 2009

Author Bio

Nilesh Ahir has completed his masters in Software System from **BITS Pilani**. He has total 4 years of SAP experience. He has been working as SAP NW BI Application consultant for **IBM India** for last one year. Prior to this he was working with **Intel India**. He has experience in ABAP, BW3.5 / BI7.0 and Data mining. He has worked on other non–SAP technologies like TIBCO and web services.

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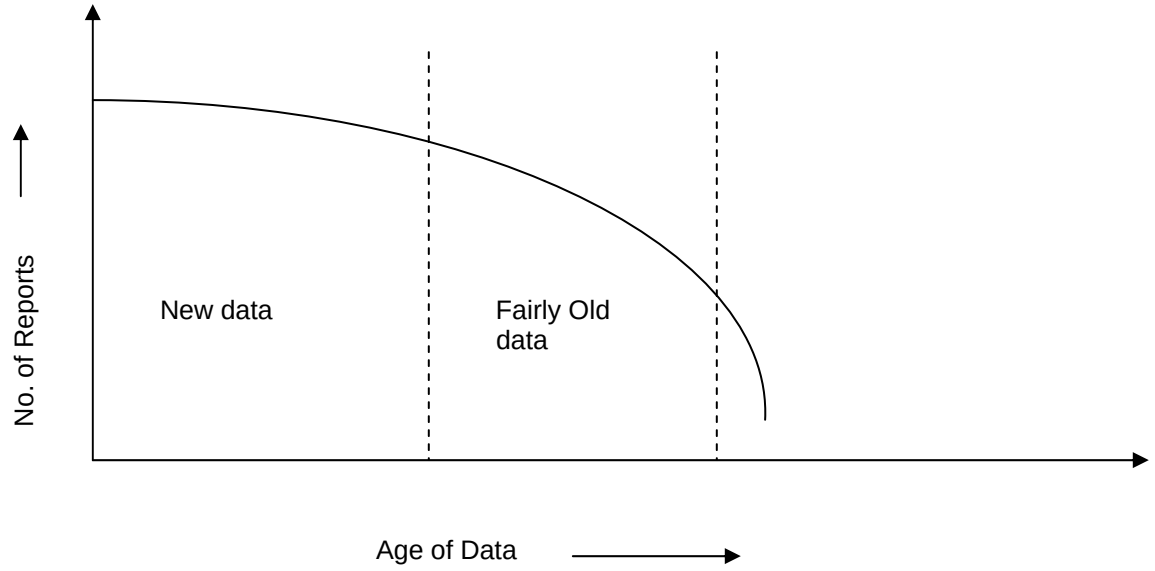
Introduction

NLS stands for Near on-line storage from SAND technologies. This is used for improving the performance of SAP BW/BI system by archiving the fairly old data. In data warehousing world, we design data warehouse for storing historic data for 5-10 years. But it is found that most of reports uses fairly new data for generating output and number of reports become lesser and lesser as data becomes old. So SAP come up with solution called Archiving. In traditional archiving method, we are purging out the old data from data warehouse into flat files or tapes. When we need this old data, we have to load this again from flat files or tapes into SAP system so that it will be available for reporting.

This method works well for new data and very old data, but not for the fairly old data that is required for reporting but not that frequently. If we keep this fairly old data set in data warehouse, it reduces the performance of system. Also query performance goes down as OLAP processor has to process larger chunk of data resides in data warehouse. If we archive this data in external storage device, then we have to load it back to data warehouse again and again which is time consuming and cumbersome process.



Therefore SAND Technologies and SAP come up with New solution called NLS. Here we are archiving fairly old data to SAND system. Thus this will reduces the bottleneck of data warehouse and increase its performance. At the same time, if we required this data for reporting then we do not have to reload this data into data warehouse. SAP provides way to access data resides in data warehouse and SAND system seamlessly and this will be transparent to end user.

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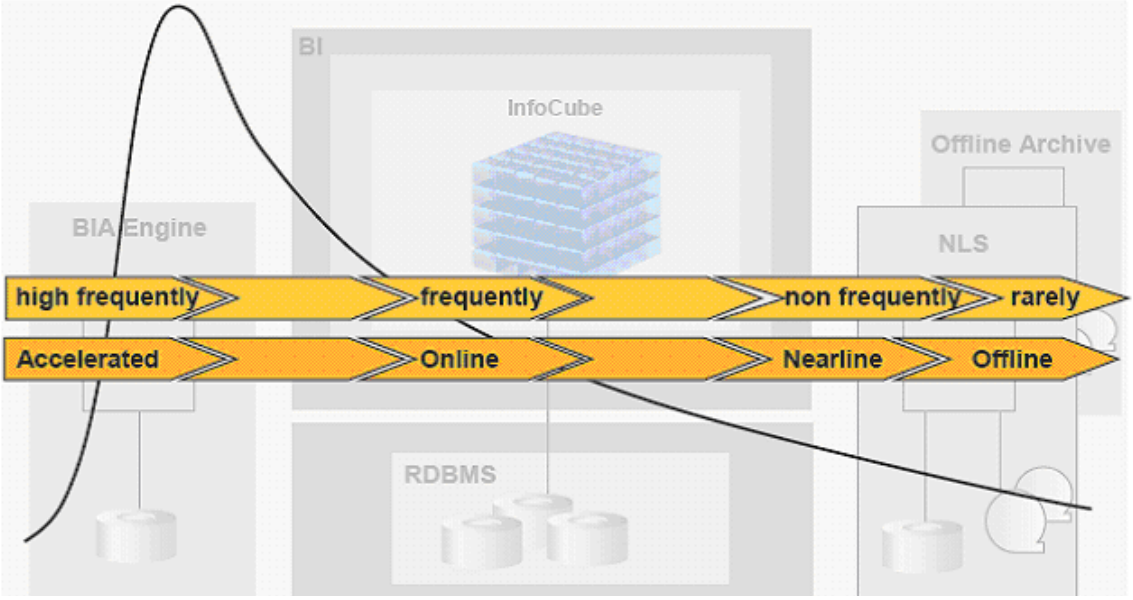

Categorizing Information According to Importance:

	Online Database	Near-Line Storage	Classic Archive
Frequently read / changed data	✓		
Rarely read data	✓	✓	
Very rarely read data	✓	✓	✓

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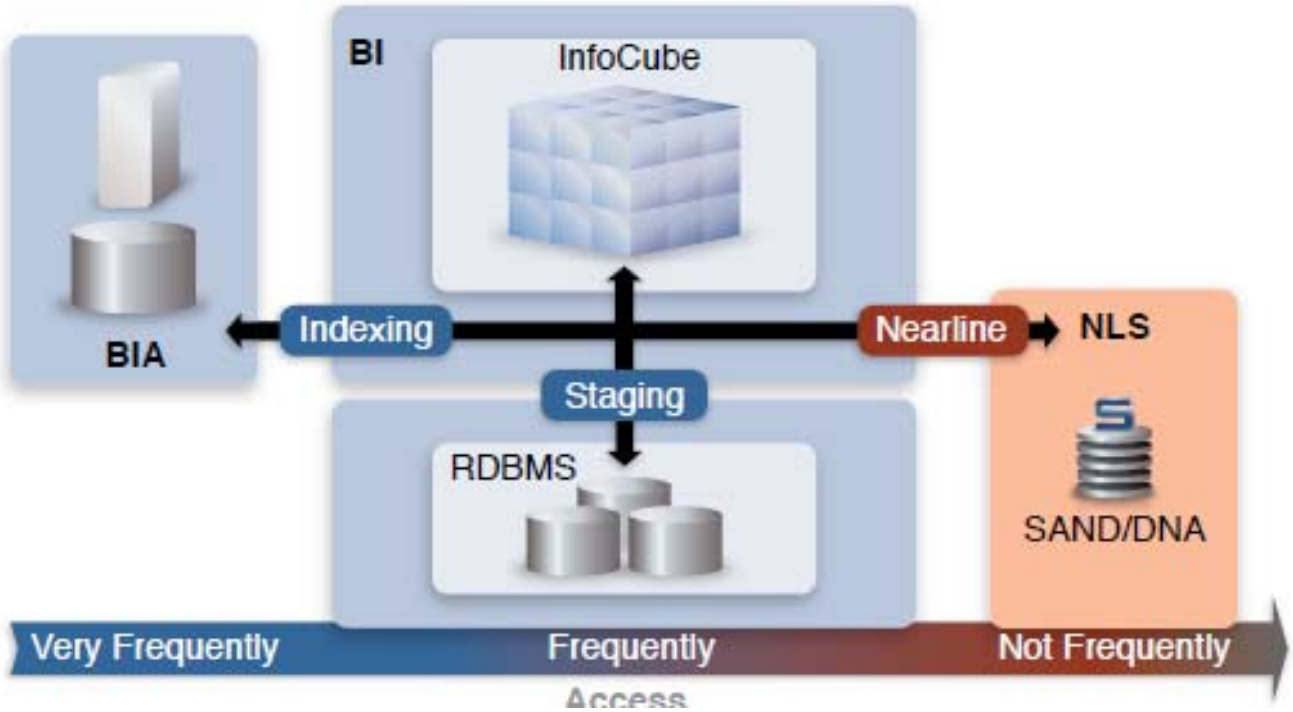
BI
InfoCube
BIA
Indexing
Nearline
NLS
Staging
RDBMS
SAND/DNA
Very Frequently
Frequently
Not Frequently
Access

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Reporting from BW/BI

In BW / BI system reports are getting generated from Info providers. Info providers are broadly classified as physical info providers and Logical info providers.

Physical info providers are those who store data persistently for example Basic Info cubes and ODS / DSO.

Logical info providers, they do not store data physically. Example Multi providers.

Therefore we will be discussing reporting with queries based on physical Info providers and with those based on Logical Info provider.

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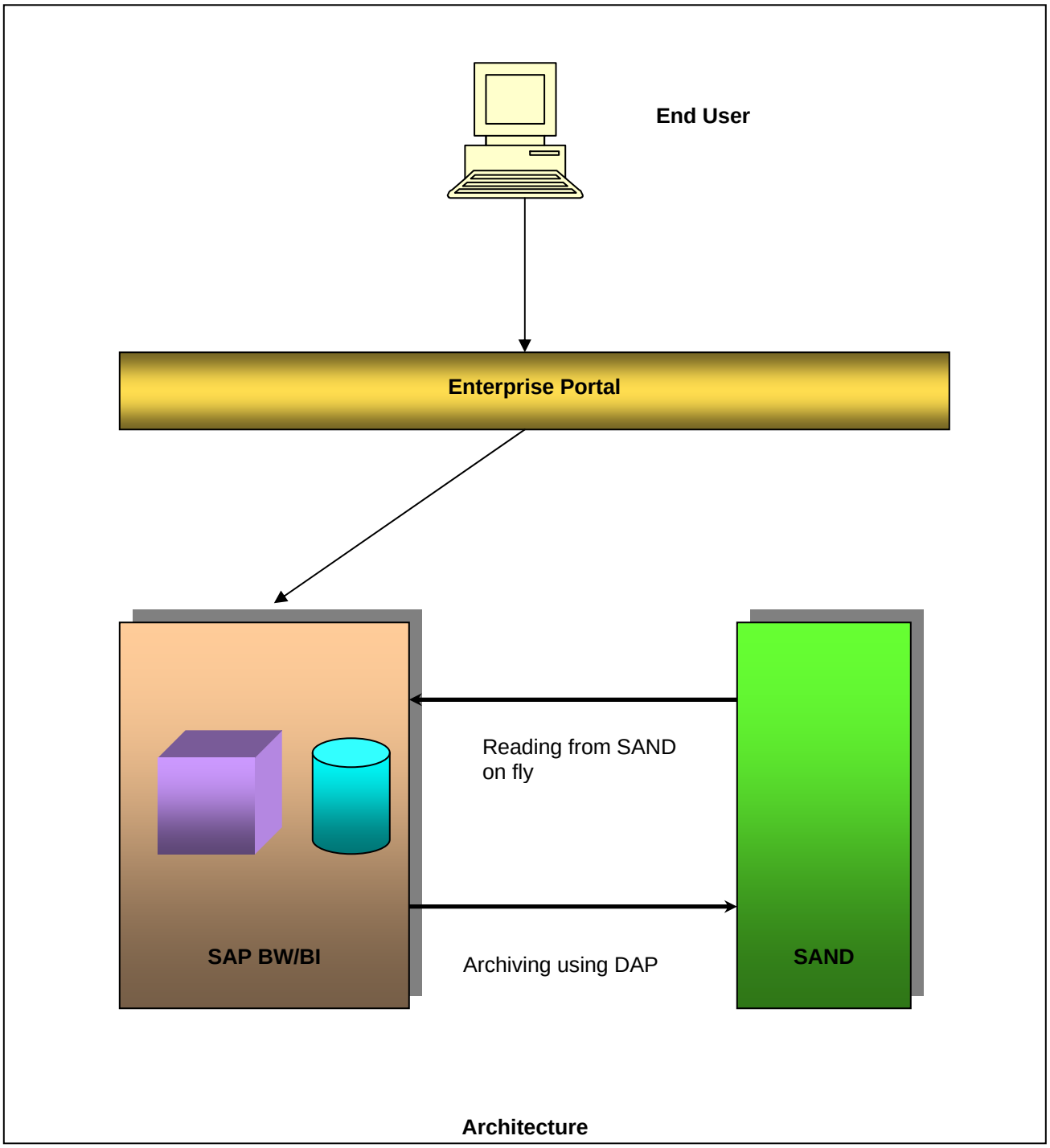
BI Reports Based on Physical Info Provider

If in your BW/BI architecture, you are genrating reports straight from physical info providers like Basic Info cube or ODS/DSO and if you have implemented the NLS archiving functionality for these Info provider then to fetch data from both SAP BW/BI system and from SAND system, you have to set following query property. After setting this query property, you will be able to fetch data from both SAP BW/BI system as well as SAND system on fly and this will be transperant (hidden) to end user.



Architecture

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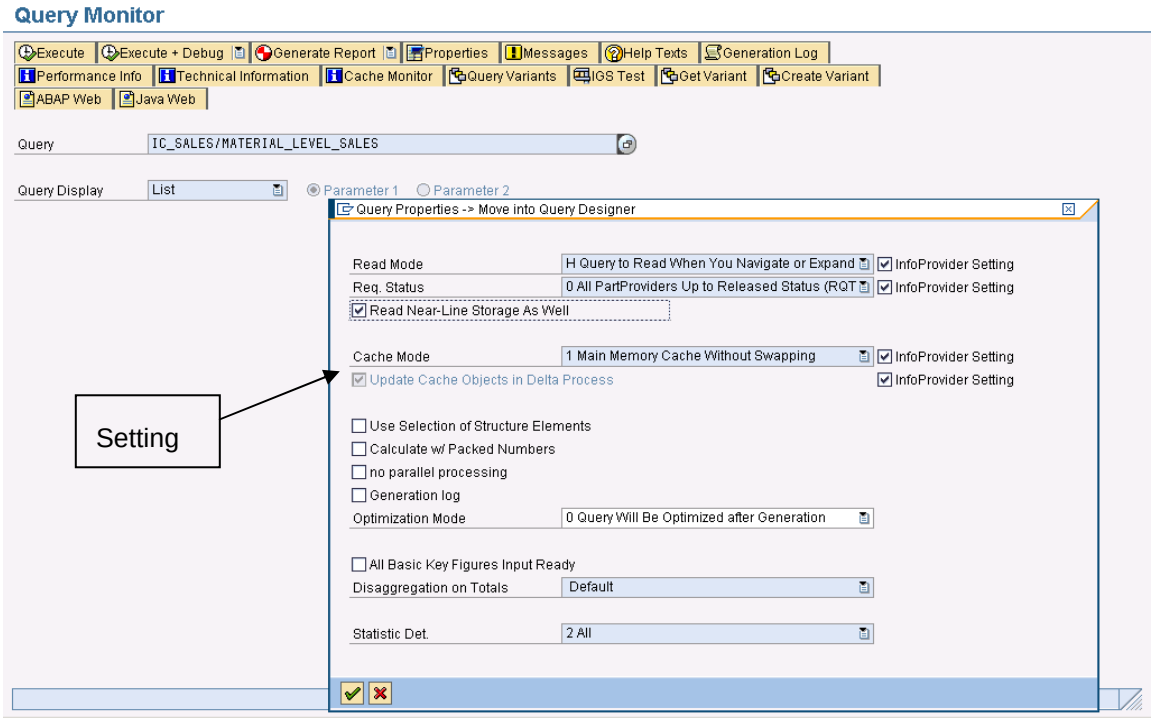
Step by Step Guide

1. Run transaction RSRT.
2. Enter the technical name of query
3. Go to query property
4. Choose setting “Read Near-Line Storage As Well”
5. Now execute the query, you will find that data is coming from both SAB BI and SAND



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BI Reports Based on Logical Info Provider

If in your BW/BI architecture, you are generating reports from logical info provider for example Multi provider which is based on physical info providers (basic info cubes and ODS/DSO) for which you have implemented the NLS archiving, above mentioned query property will not be available.

Therefore we have to use following approach for accessing data from both SAP BW/BI and SAND to generate report.

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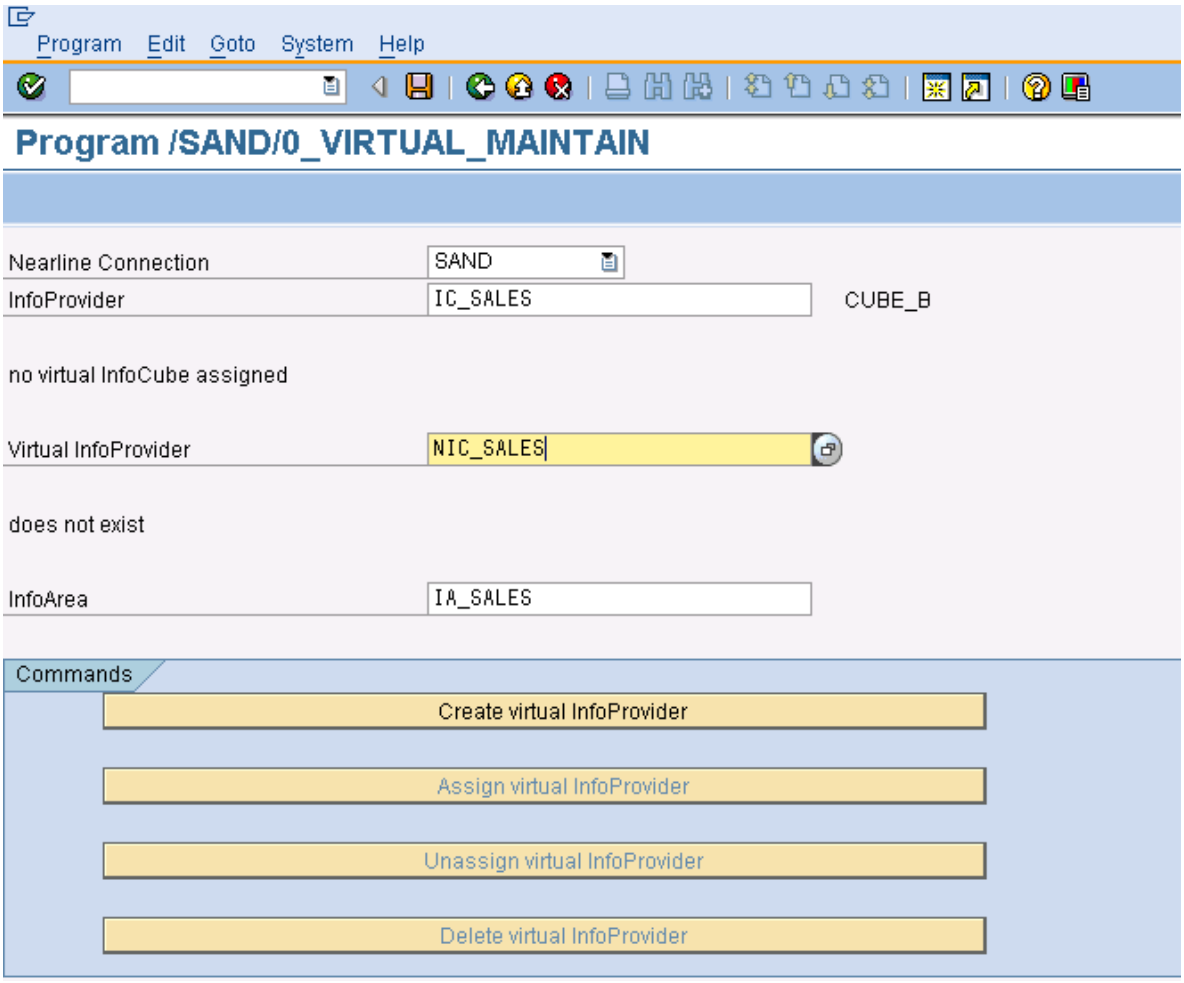
Step by Step Guide

1. Create Virtual Info cube for NLS using SAP standard program "/SAND/0_VIRTUAL_MAINTAIN" by providing the SAND connection, basic cube for which NLS is implemented by creating DAP, name of the NLS virtual cube as per your naming standards and Info Area under which you want to create this new NLS virtual cube.



2. Once your NLS virtual cube is created, you have to assign this virtual info provider by clicking the "Assign virtual InfoProvider" button.

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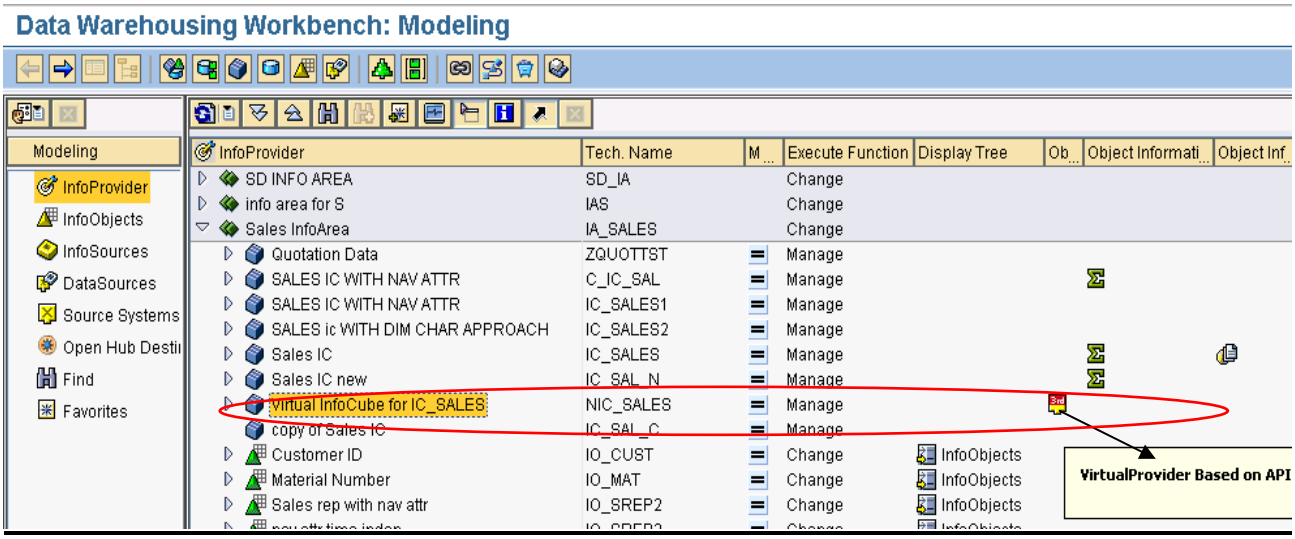
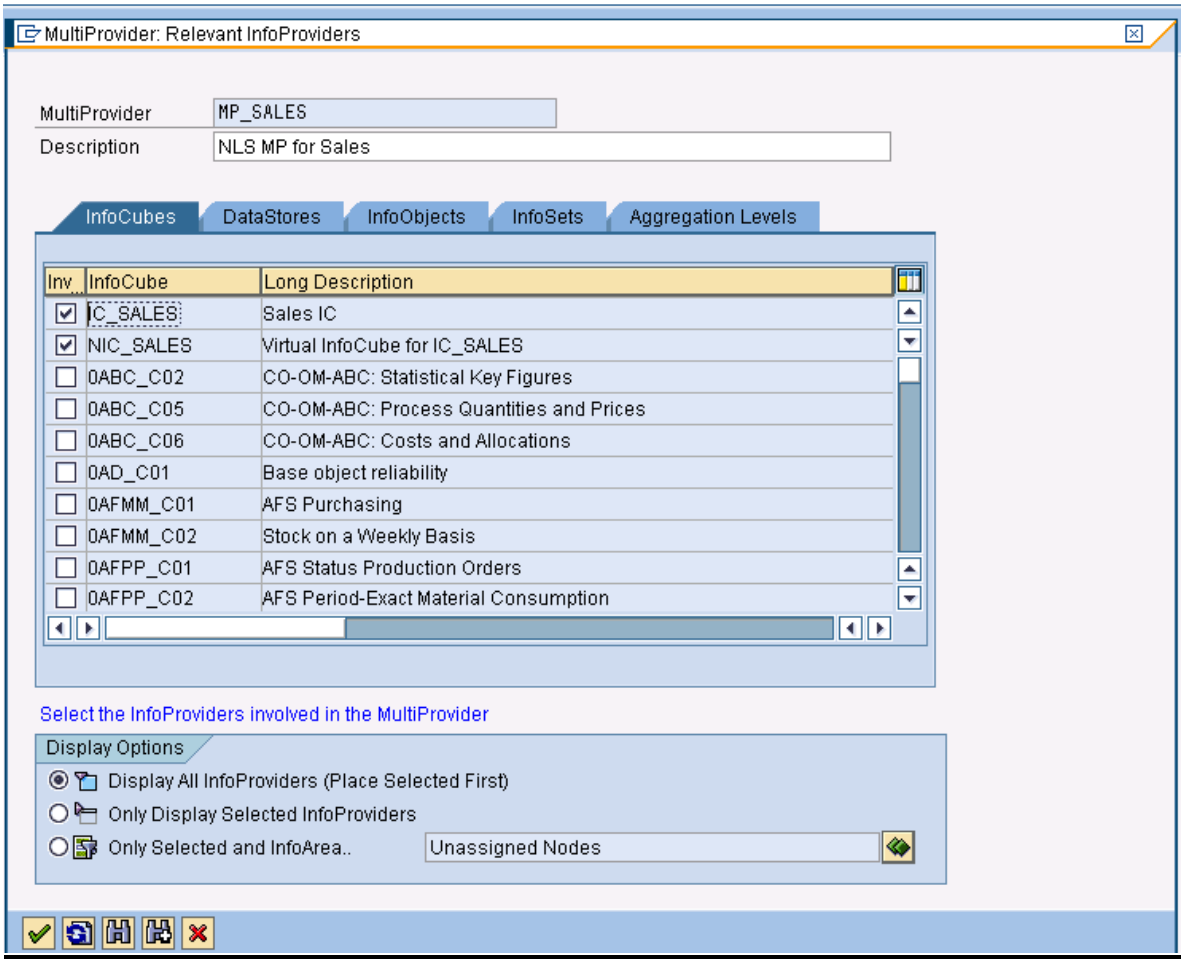
3. Run transaction RSA1 and check for the new NLS virtual info provider



4. Include basic cubes and NLS virtual info cubes in multi provider



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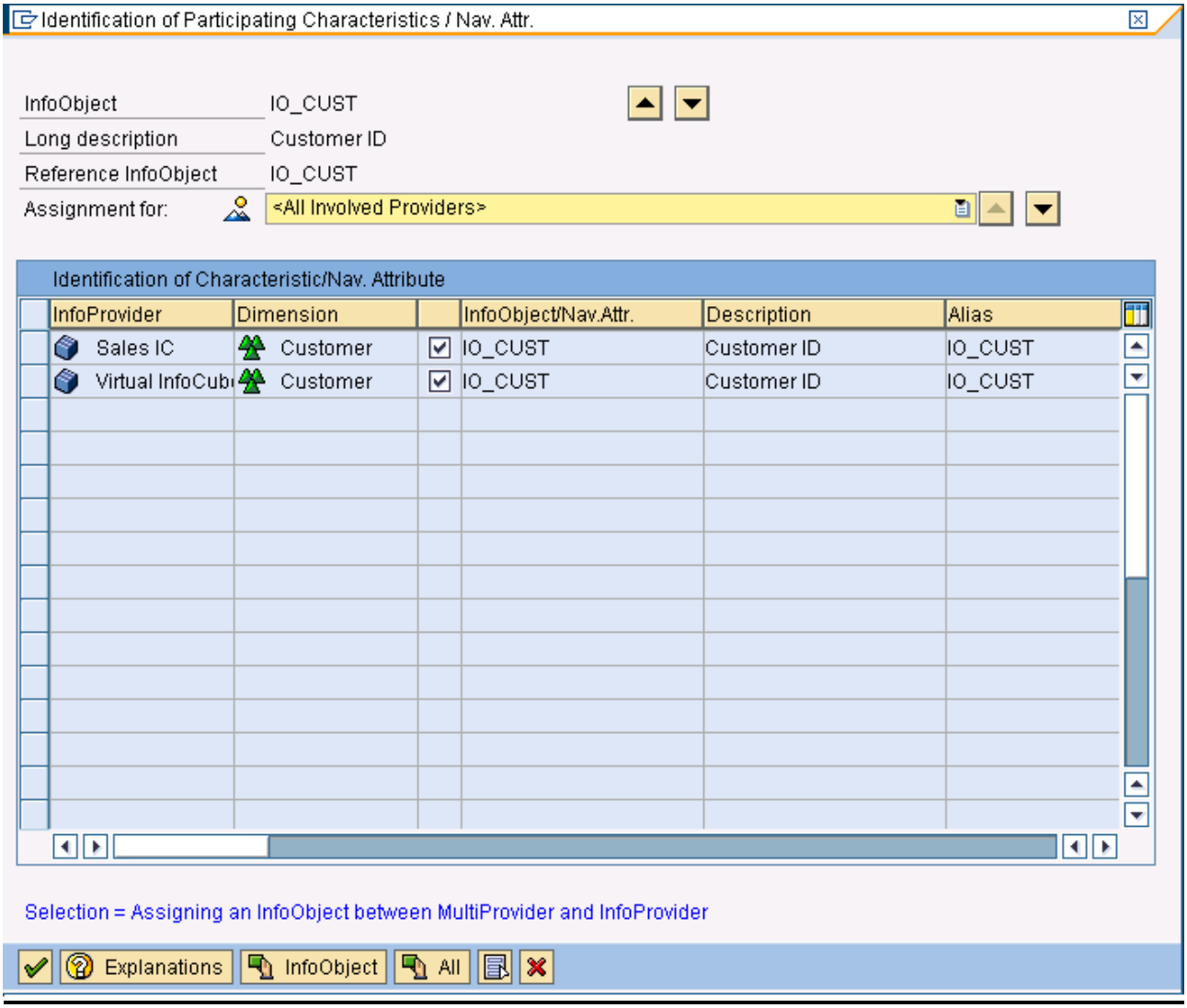
5. Do the identification of characteristics and select the key figures in multi provider



Thumb Rule: Identification for NLS cube should be same as that of basic cube

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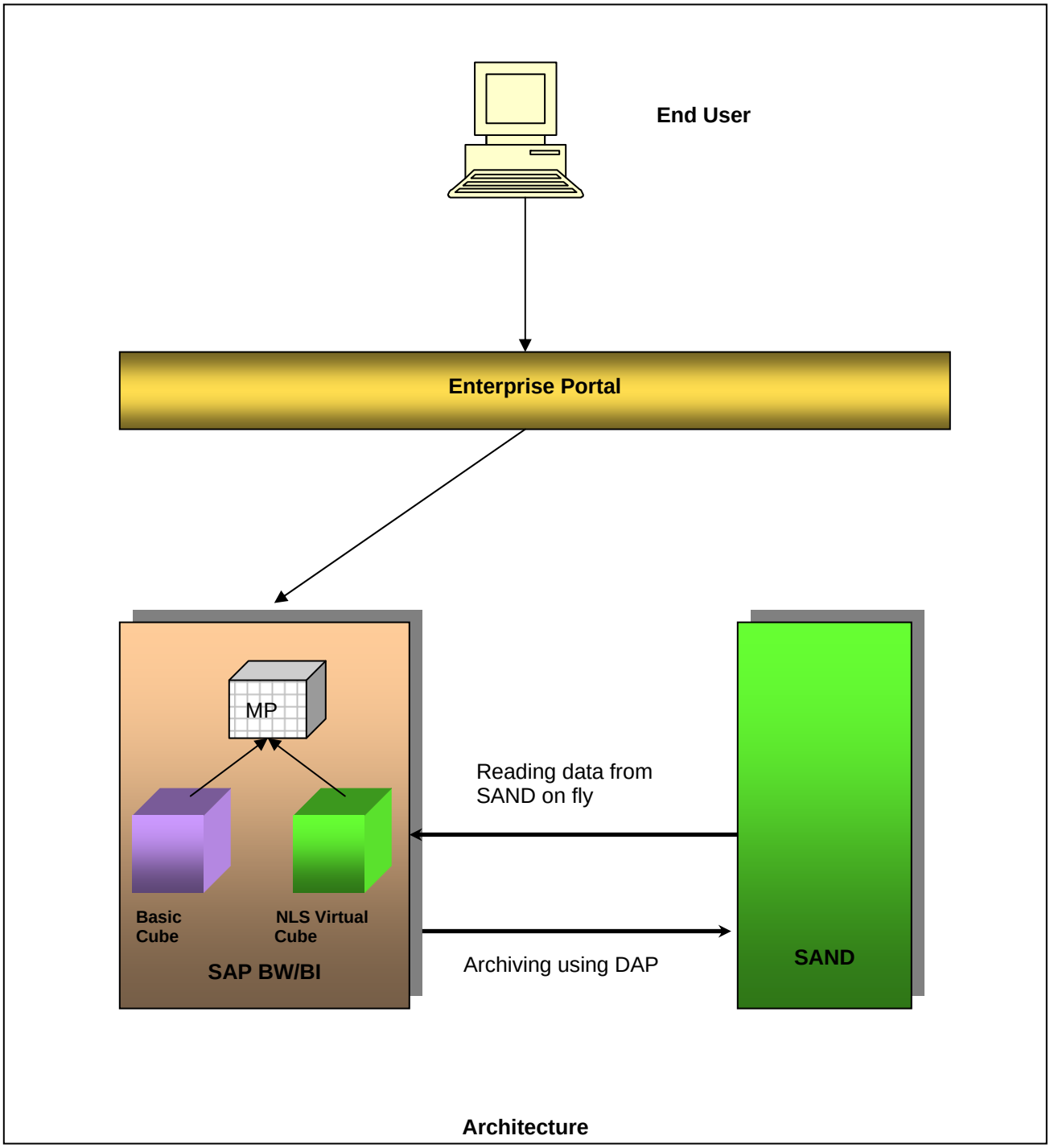
6. Now run the report based on multi provider and check the results. You will find that data is coming from both SAP BI and SAND system.



Architecture

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Related Content

SAND website

SAP BI Archiving

NLS (SAND) implementation for SAP BI FAQs

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