

ITELECT3 – IT Elective 3 (Data Warehousing)

Case Studies 3

Case Study 3.1: Copying production Data to Development

Your IT solution has been deployed to production, version one is complete, and it is now time to start the work on the next version. To keep the data in the development and testing environment as up to date as possible, your manager has asked you to design a data movement solution to be used on a regular basis to copy a subset of production data from the production data store into the development data store.

1. What method would you use to transfer the data on demand?

Ans: An SSIS package stored in the file system, in the database, or in an unscheduled SQL Server Agent Job would be appropriate.

2. How would you maximize the reusability of the solution?

Ans: At the very least, the SSIS package would have to be parameterized so that it can be configured appropriately for the specific environment in which it is going to be used. Additionally, the programmatic logic should account for merging new or modified data with existing data.

Case Study 3.2: Connection Manager Parameterization

Data warehousing maintenance solutions have outgrown your company's existing infrastructure, so new servers had to be installed, and this time all data warehousing applications will use a dedicated network. In phase 1, all of your SSIS solutions must be redeployed to new servers, and the system administrator has decided that SSIS projects deserve more network bandwidth, so in phase 2 you will be allowed to dedicate a greater share of the network bandwidth to your data movement processes.

1. How much additional development work will you have to do to complete phase 1?

Ans: A properly parameterized SSIS package can be redeployed and reconfigured as many times as needed, without the need for any additional development activities.

2. What will you have to do to reconfigure all of the connection managers to use larger network packets for phase 2?

Ans: The network packet size property of OLE DB connections is not exposed to parameterization; therefore, the entire connection string would have to be parameterized.