

Database Management Best Practices:

Best Practice 1. Segregate OLTP data and business intelligence data into separate databases for performance and manageability. Direct all information queries against data marts, not OLTP databases. Conversely, operational transactions should be directed to operational databases only, not OLAP databases.

Best Practice 2. Ensure data entry quality is built into new and existing application systems to reduce the risk of inaccurate or misleading data in OLTP systems and to reduce the need for data hygiene.

Best Practice 3. Access to the data base is from a specific web service or object class using parameter-driven procedures as permitted by the role of the web service or object class. Direct SQL statements are not to be used.

Best Practice 4. While some DBMS products (e.g., MS SQL Server 2005) can act as a web service provider, this implementation option is not permitted at present. Use of Type 4 JDBC Driver is highly recommended to allow for a direct call from the client machine and the DBMS server via network protocol used by DBMSs. This is contrasted with earlier types of JDBC Drivers that need some binary code to be loaded on each client machine.

Best Practice 5. Agencies should strongly consider initiating the development of a metadata repository to store metadata for business processes. Effective metadata management can reduce costs for data integration, data quality, enterprise information management (EIM), master data management (MDM) and other initiatives. This will provide opportunities for agencies to reuse artifacts analyze the impact of changes to a process and ensure the integrity of information.