**New Mexico State Purchasing Division of the General Services Department
Data Base Management Services Category Descriptions**

The HSD Data Services RFQ ties to standing state price agreements which specify certain data services. Those specifications (“Database Management and Business Intelligence Services”) are listed below in order to assist contractors in pricing their quote.

The first “Brief Description of Services” identifies a high-level scope of general work for either staff or organizations delivering these services to state agencies.

The second “Expected Typical Skills” further details these expectations.

Contractors should confirm their quotes are consistent with the work descriptions below.

### Database Management and Business Intelligence Services

**Brief Description of Services:** Services may include: creating logical and physical data models, planning, designing, programming, converting, installing, training, implementing security, and maintaining database systems in stand-alone, integrated, or networked configurations, database administration, modification and upgrade including system performance analysis, database upgrading and performance tuning, data extract/transform/load (ETL), stored procedure development, query optimization and data migration, managing and monitoring production databases in an N-tier environment, automated routine backups and refreshes, and data recovery.  Provide ongoing database support to help ensure operations of day-to-day functionality. Develop design documentation, test plans, user manuals, and operations plans and instructions. Developing and executing functional test plans for systems and applications, including developing test data sets and scenarios.

Business intelligence (BI) services include the transformation of raw data into meaningful and useful information for business analysis purposes. These services are capable of handling large amounts of unstructured data to help identify, develop, and otherwise create and allow for the easy interpretation of these large volumes of data. Identifying new opportunities and implementing an effective strategy based on insights can assist the State of New Mexico with policy, planning, and informed decision making.

**Expected typical skills** in, knowledge about, and experience with may include:

1. MS SQL Server, Oracle DBMS including engineered solutions and appliances (ExaData), MySQL, , DB2 and/or IBM DB2; including data modeling, stored procedures, indexes, triggers, data processing flowcharting techniques;
2. Database structures, theories, principles, and practices;
3. Managing, monitoring, designing, building, installing, configuring, and supporting database infrastructure servers;
4. Database performance monitoring, management, tuning and troubleshooting;
5. Applicable data privacy practices and  laws and appropriate data masking techniques;
6. Ability to conduct research into database issues, standards, and products as required;
7. Data entry operations including the ability to accurately enter information into a computer, accessing information from a computer, and verifying information on a screen;
8. Data entry operations including duties utilizing automated equipment, including electronic keyboard, display screen, and sorted memory to perform;
9. Data entry operations including ability to operate and understand basic scanning and imaging equipment, including pan, skew, and image correction techniques;
10. Supporting a wide range of business decisions ranging from operating to strategic business decisions. Strategic business decisions include priorities, goals, and directions at the broadest level;
11. Data derivation/Data import from external data and from internal sources;
12. Business Intelligence:  Multidimensional aggregation and allocation; de-normalization, tagging and standardization;
13. Business Intelligence:  Establishment and design of object level design tools;
14. Business Intelligence:  Real-time reporting with analytical alert; interface with unstructured data source; group consolidation, budgeting and rolling forecast;
15. Business Intelligence:  Statistical inference and probabilistic simulation;
16. Business Intelligence:  Key performance indicators optimization; version control and process management; open item management;
17. Business Intelligence:  Providing historical, current, and predictive views of business operations; or
18. Business Intelligence:  Reporting, online analytical processing, analytics, data mining, process mining, complex event processing, business performance management, benchmarking, text mining, machine learning/predictive analytics, and prescriptive analytics.