IT DATABASE ADMINISTRATION

General Summary

IT Database Administrators are responsible for managing the development, documentation, maintenance and security of databases and data management systems for an organization, including design, configuration, installation, administration, optimization, and integration. Database Administrators work closely with analysts and developers to define and resolve information flow and content issues, helping to transform business requirements into environment-specific databases.

IT Database Administrator I
Jobcode: ITDA20
Pay Band: ID
FLSA Status: Non-Exempt

Distinguishing Characteristics

Under direct supervision, configure, upgrade, administer, monitor, and maintain operationally efficient databases.

Recommended Education and Experience for Full Performance

Bachelor's degree in Computer Science, Management Information Systems (MIS), Information Technology, Engineering or similar technical degree and two (2) years of experience in data analysis, design, storage and security. Any combination of education from an accredited college or university in a related field and/or direct experience in this occupation totaling six (6) years may substitute for the required education and experience.

Minimum Qualifications

Associate's Degree in Computer Science, Management Information Systems (MIS), Information Technology, Engineering or similar technical degree and two (2) years of experience in data analysis, design, storage and security. Any combination of education from an accredited college or university in a related field and/or direct experience in this occupation totaling four (4) years may substitute for the required education and experience.

Essential Duties and Responsibilities*

1. Configure and support database management systems. Support one or more databases of low to medium complexity using entry-level database design and programming techniques, ensuring control, integrity and accessibility of the data.
2. Manage backup/recovery services for data/database systems.
3. Coordinate and monitor usage of databases, including potential security issues/vulnerabilities, and assure the integrity of database.
4. Participate in the design, configuration, and implementation of new database environments, systems, and tools.
5. Supports databases across multiple platforms.
6. Executes low level table management.
7. Conducts low level and routine monitoring of data by users.
8. Responsible for low risk and low impact tasks.
9. Maintain current knowledge of technology trends and their application in the marketplace.
10. Work independently or as a team member.

IT Database Administrator II
Jobcode: ITDA23
Pay Band: IE
FLSA Status: Exempt

Distinguishing Characteristics
Under general supervision, install, configure, upgrade, administer, monitor, and maintain operationally efficient databases.

Recommended Education and Experience for Full Performance
Bachelor's degree in Computer Science, Management Information Systems (MIS), Information Technology, Engineering or similar technical degree and four (4) years of experience in data analysis, design, storage and security. Any combination of education from an accredited college or university in a related field and/or direct experience in this occupation totaling eight (8) years may substitute for the required education and experience.

Minimum Qualifications
Bachelor's degree in Computer Science, Management Information Systems (MIS), Information Technology, Engineering or similar technical degree and two (2) years of experience in data analysis, design, storage and security. Any combination of education from an accredited college or university in a related field and/or direct experience in this occupation totaling six (6) years may substitute for the required education and experience.

Essential Duties and Responsibilities*
1. Tune database applications for optimal performance.
2. Conduct data modeling and design services.
3. Support the design of detailed conceptual data models and the translation into outline designs.
4. Install, configure, and support database management systems and related software to resolve highly complex and/or unique issues without precedent and/or structure. Work on databases using more advanced database administration concepts.
5. Maintain highly-available databases. Work closely with application developers to implement robust, scalable applications that interface with those databases.
6. Provide on-going system administration and technical infrastructure support.
7. Review the physical and logical design of databases for optimal database structures, performance tuning, security protocols, and database backup/recovery. Plan and implement pro-active and reactive performance analysis, monitoring, troubleshooting, and capacity planning.
8. Evaluate and test marketplace tools and utilities, including system integration and automation, which enhance server functionality and promote the development of database management systems applications.
9. Develop and maintain efficient and appropriate connectivity solutions between various databases to ensure necessary data is available as needed.
10. Create data flow and data lifecycle documentation.
11. Adhere to database standards and/or new development protocols.
12. Participate in the identification of continuity/disaster recovery risks and mitigation plans. Assist in the development of disaster recovery plans with service providers.
13. Develops reports and presentations for senior management, as needed.
14. Perform duties reflective of hierarchical database systems.

<u>**IT Database Administrator III**</u>
Jobcode: ITDA26
Pay Band: IF
FLSA Status: Exempt

Distinguishing Characteristics
Provide technical leadership and management for the planning, support, and administration of databases and related software. Responsible for data protection and integrity for assigned projects.

Recommended Education and Experience for Full Performance
Bachelor's degree in Computer Science, Management Information Systems (MIS), Information Technology, Engineering or similar technical degree and six (6) years of experience in data analysis, design, storage and security. Any combination of education from an accredited college or university in a related field and/or direct experience in this occupation totaling ten (10) years may substitute for the required education and experience.

Minimum Qualifications
Bachelor's degree in Computer Science, Management Information Systems (MIS), Information Technology, Engineering or similar technical degree and four (4) years of experience in data analysis, design, storage and security. Any combination of education from an accredited college or university in a related field and/or direct experience in this occupation totaling eight (8) years may substitute for the required education and experience.

Essential Duties and Responsibilities*
1. Oversee the design, performance, optimization, backup and recovery strategies, and implementation of the database systems in support of the organization's goals and objectives. Direct the scheduling of DBMS software installs.
2. Develop, implement, and lead critical projects with high consequences for success or failure.
3. Evaluate technical strategies for projects, collect hardware and software requirements, and recommend solutions to complex database problems.
4. Maintain and monitor database security, integrity, and access controls. Control privileges and permissions to database users. Provide audit trail to detect potential security violations.
5. Formulate and monitor policies, procedures, and standards relating to database management and security.
6. Introduce new tools and automation to augment and/or replace core functions. Build scripts automating the daily operations of database management.
7. Propose and implement enhancements that will improve the most complex performance issues and/or reliability of the system.
8. Troubleshoot and provide resolution of complex issues, including application performance (ex. SQL), utilization patterns, transaction volume and traffic analysis.
9. Assign and oversee the work of other DBAs and act as a consultant and advisor to management and other technical support staff.
10. Document and develop in-depth knowledge of existing IT architecture / infrastructure and technology portfolio. Collaborate with system engineer in the design of highly available and redundant storage areas.
11. Develop and manage an infrastructure capacity plan.
12. Accountable for data management security, validation, evaluation and implementation.
13. Participate in security investigations, as needed.
14. Participates in developing service level agreements.
15. Perform assigned duties reflective of expert level of skill in all aspects of database administration; information processing principles and practices; core enterprise applications; hardware and software evaluation principles and practice; system platforms; and analytical, conceptual, and problem-solving abilities.
16. Perform assigned duties reflective of significant experience in current systems software, protocols, and standards; systems design and development; project planning and management experience, including managing people; developing strategic plans; application development tools.

IT Database Administration Supervisor
Jobcode: ITDS26
Pay Band: IF
FLSA Status: Exempt

Distinguishing Characteristics
Accountable for supervision of a team who provide the development, enhancement and maintenance of databases for assigned organizational areas.**

Recommended Education and Experience for Full Performance
Bachelor's degree in Computer Science, Management Information Systems (MIS), Information Technology, Engineering or similar technical degree and eight (8) years of experience in data analysis, design, storage and security. Any combination of education from an accredited college or university in a related field and/or direct experience in this occupation totaling twelve (12) years may substitute for the required education and experience. At least two (2) years of which must be leading/supervising a data management team.

Minimum Qualifications
Bachelor's degree in Computer Science, Management Information Systems (MIS), Information Technology, Engineering or similar technical degree and four (4) years of experience in data analysis, design, storage and security. Any combination of education from an accredited college or university in a related field and/or direct experience in this occupation totaling eight (8) years may substitute for the required education and experience.

Essential Duties and Responsibilities*
1. Typically supervises a team of data management staff. Focus is on adaptation and maintenance of existing databases.
2. Accountable for the development, enhancement and maintenance of database systems for assigned organizational areas. Propose, conceptualize, design, implement, and develop solutions for difficult and complex data management. Direct the scheduling of DBMS software installs.
3. Determines technical changes, schedules projects and oversees timelines. Implements and monitors quality standards.
4. Develop, implement, and lead critical projects with high consequences for success or failure.
5. Evaluate technical strategies for projects, collect hardware and software requirements, and recommend solutions to complex database problems.
6. Maintain and monitor database security, integrity, and access controls. Control privileges and permissions to database users. Provide audit trail to detect potential security violations.
7. Formulate and monitor policies, procedures, and standards relating to database management and security.
8. Introduce new tools and automation to augment and/or replace core functions. Build scripts automating the daily operations of database management.
9. Propose and implement enhancements that will improve the most complex performance issues and/or reliability of the system.
10. Troubleshoot and provide resolution of complex issues, including application performance (ex. SQL), utilization patterns, transaction volume and traffic analysis.
11. Assign and oversee the work of other DBAs and act as a consultant and advisor to management and other technical support staff.
12. Document and develop in-depth knowledge of existing IT architecture / infrastructure and technology portfolio. Collaborate with system engineer in the design of highly available and redundant storage areas.
13. Develop and manage an infrastructure capacity plan.
14. Accountable for data management security, validation, evaluation and implementation.
15. Participate in security investigations, as needed.

16. Participates in developing service level agreements.
17. Perform assigned duties reflective of expert level of skill in all aspects of database administration; information processing principles and practices; core enterprise applications; hardware and software evaluation principles and practice; system platforms; and analytical, conceptual, and problem-solving abilities.
18. Perform assigned duties reflective of significant experience in current systems software, protocols, and standards; systems design and development; project planning and management experience, including managing people; developing strategic plans; application development tools.

IT Database Administration Manager I
Jobcode: ITDX30
Pay Band: IG
FLSA Status: Exempt

Distinguishing Characteristics
Manage staff in the day-to-day operations for functional area(s) of responsibility. Responsible for hiring and retaining staff, career coaching, personal development for direct reports and accountable for the performance of employees. Ensure work completion within schedule and constraints. Accountable for multiple data management teams.

Recommended Education and Experience for Full Performance
Bachelor's degree in Computer Science, Management Information Systems (MIS), Information Technology, Engineering or similar technical degree and eight (8) years of experience in data analysis, design, storage and security. Any combination of education from an accredited college or university in a related field and/or direct experience in this occupation totaling twelve (12) years may substitute for the required education and experience. At least four (4) years of which must be leading/supervising a data management team.

Minimum Qualifications
Bachelor's degree in Computer Science, Management Information Systems (MIS), Information Technology, Engineering or similar technical degree and six (6) years of experience in data analysis, design, storage and security. Any combination of education from an accredited college or university in a related field and/or direct experience in this occupation totaling ten (10) years may substitute for the required education and experience. At least two (2) years of which must be leading/supervising a data management team.

Essential Duties and Responsibilities*
1. Exercise full management responsibility for a technical group, including recruiting, hiring, training, developing, evaluating, and setting priorities. Consistently foster collaboration and respect among team members by addressing elements of the group process that impede, or could impede, the group from reaching its goal.
2. Coordinates and/or implements complex IT data and security audits or policy for regulatory and standards compliance.
3. Engage business and technical leaders in the identification of business solutions consistent with best practices for cross-functional implementation. Ensure work completion within schedule, budgetary, and design constraints; make decisions about analysis, design, and testing.
4. Approve technical changes, schedules, projects and oversee timelines. Implement and monitor quality standards.
5. May perform project management functions for area(s) of responsibility.
6. Manage vendor relations.
7. May conduct budget planning, forecasting, contract management, and procurement.
8. Identify potential areas of conflicting priorities and vulnerabilities in achieving standards. Put systems in place and use them to monitor and detect errors and problems.

9. Create framework for reviewing large volumes of unorganized data. Translate analytical reports into management presentations and provides guidance to resolve issues.
10. Ensure security and compliance of enterprise reflective of industry standards, trends and/or regulatory requirements for area(s) of responsibility.
11. Solicit internal and external customer evaluation of performance and devise measures for improvement.
12. Use techniques of advanced business, financial, and organizational analysis to identify, assess and report on operations, issues and potential solutions.
13. Interpret, implement and ensure compliance with agency administrative policies and procedures. Recommend new internal policies, guidelines and procedures.
14. May independently or in collaboration with human resources managers, guide supervisors in the interpretation and implementation of human resources policies, procedures and programs.

IT Database Administration Manager II
Jobcode: ITDX35
Pay Band: IH
FLSA Status: Exempt

Distinguishing Characteristics
Accountable for all data management and teams. Approve hiring and retention of staff, career coaching, personal development for direct reports and accountable for the performance of employees. Achieve goals through the management of staff and/or managerial staff. Responsible for aligning data management with organization's strategic plan. Typically reports to the agency CIO.

Recommended Education and Experience for Full Performance
Bachelor's degree in Computer Science, Management Information Systems (MIS), Information Technology, Engineering or similar technical degree and ten (10) years of experience in data analysis, design, storage and security. Any combination of education from an accredited college or university in a related field and/or direct experience in this occupation totaling fourteen (14) years may substitute for the required education and experience. At least six (6) years of which must be leading/supervising a data management team.

Minimum Qualifications
Bachelor's degree in Computer Science, Management Information Systems (MIS), Information Technology, Engineering or similar technical degree and eight (8) years of experience in data analysis, design, storage and security. Any combination of education from an accredited college or university in a related field and/or direct experience in this occupation totaling twelve (12) years may substitute for the required education and experience. At least four (4) years of which must be leading/supervising a data management team.

Essential Duties and Responsibilities*
1. Responsible for overall management of a technical program(s) within a singular IT discipline that provide critical support services to the organization. Oversee allocation of all resources.
2. Establish strategic goals and enterprise-wide priorities.
3. Conduct budget planning, forecasting, contract management, and procurement.
4. Systematically analyze relationships between apparently independent problems and issues.
5. Evaluate the performance of the organization and develop plans accordingly for areas of responsibility. Reviews and cross-reviews reports, identifying trends and isolated events.
6. Lead process improvement for immediate unit or program. Influence leadership on specific recommendations for current operations and future development.
7. Exercise full management responsibility for a technical group, including recruiting, hiring, training, developing, evaluating, and setting priorities.
8. Engage business and technical leaders in the identification of business solutions consistent with best practices for cross-functional implementation.

9. Ensure work completion within schedule, budgetary, and design constraints; make decisions about analysis, design, and testing.
10. Approve technical changes, schedules, projects and oversee timelines. Implement and monitor quality standards.
11. Champion major initiatives; lead complex, high-visibility process redesign and innovation projects; develop and implement initiatives.
12. Identify potential areas of conflicting priorities and vulnerabilities in achieving standards. Put systems in place and use them to monitor and detect errors and problems.
13. Create framework for reviewing large volumes of unorganized data. Translate analytical reports into management presentations and provides guidance to resolve issues.
14. Ensure security and compliance of enterprise reflective of industry standards, trends and/or regulatory requirements for area(s) of responsibility.
15. Solicit internal and external customer evaluation of performance and devise measures for improvement.
16. Use techniques of advanced business, financial, and organizational analysis to identify, assess and report on operations, issues and potential solutions.
17. Interpret, implement and ensure compliance with agency administrative policies and procedures. Recommend new internal policies, guidelines and procedures.
18. Collaborate with human resources managers, guide supervisors in the interpretation and implementation of human resources policies, procedures and programs.

Bargaining Unit:	**IT Database Administrator I, II, III may be covered by a collective bargaining agreement.** **IT Database Administrator Supervisor, Manager I, II not represented.**

Statutory Requirements:

Conditions of Employment:

Working Conditions: Working Conditions for individual positions in this classification will vary based on each *agency's utilization*, *essential functions* and the *recruitment needs* at the time a vacancy is posted. All requirements are subject to possible modification to reasonably accommodate individuals with disabilities.

Established: 6/23/2016   **Revised: 7/26/2016 FLSA change Database Admin I**

*Essential Duties and Responsibilities are intended to be cumulative for each progressively higher level of work. The omission of specific statements does not preclude management from assigning other duties which are reasonably within the scope of duties. Classification description subject to change. Please refer to SPO website (www.spo.state.nm.us) to ensure this represents the most current copy of the position.

** Means two (2) or any combination of full-time equivalent (FTE) status that equals at least two (2) regular or term status employees in non-temporary positions.