



Job Title: Data Systems Architect

Department: Information Technology
Reports To: Director of Applications Development
Grade: BG-11
Number of Days: 12 Months
Security Access: Education Service Center
Overtime Status: Exempt
Last Revised Date: May 30, 2017

Mission and Vision: Tulsa Public Schools is the destination for extraordinary educators who work with our community and families to ignite the joy of learning and prepare every student for the greatest success in college, careers and life. Our mission is to inspire and prepare every student to love learning, achieve ambitious goals and make positive contributions to our world.

Core Values: Our core values guide how we work and interact with each other at every level of the organization. We embrace and embody these values every day:

- **Equity:** All children deserve the opportunity to develop their full academic and social potential. Our diversity is a community treasure, and we must foster an inclusive environment by examining biases and resolving unfair practices.
- **Character:** We are honest, trustworthy and have high standards of behavior. We do the right thing even when it is hard. While we do not always agree, we treat one another with kindness and respect.
- **Excellence:** We work hard together and expect a lot of one another because high standards produce exemplary knowledge, skills, abilities and mindsets.
- **Team:** We care for one another, support the personal and professional development of one another, and work together to improve our community.
- **Joy:** Joy at school and at work makes us more productive, because when we create, innovate and imagine, our motivation grows. We want to ensure that everyone knows the excitement that comes from working deeply on a problem, task or concept and experiencing breakthrough moments.

Position Summary: Develops, implements, maintains and extends the Ed-Fi operational data store. This operational data store will facilitate the integration from multiple sources to more efficiently report data, and support its effective use across the district. This position provides technical leadership and consulting across the organization, from strategic decision making to the project planning level. It is a top level technical data expert responsible for being the focal point and providing the highest level of support for the most complex database design, performance, and problem resolution. The Data Architect provides advanced technical

planning, design and support in the research, experimentation, business analysis and use of data management corporate-wide and participates in the strategic technical planning and design to meet service levels, internal and external customer needs, company objectives, defined budgets and technological resources. They provide technical analysis, evaluations, recommendations and guidance to personnel responsible for developing applications or installing systems. This position will gain organization commitment for all high-level infrastructure plans, and initiate and participate in projects to evaluate and implement technologies to develop and maintain the high-level design plan for the overall logical and technical IS architecture.

Minimum Qualifications:

Education:

- Bachelor's Degree in an information technology field, e.g., Computer Science, Information Sciences, Information Systems, and/or technical or equivalent experience in database design and conceptual data modeling required.
- Relevant data related certifications or active memberships in organizations such as DAMA or TDWI are a plus.

Responsibilities and Essential Functions: The following duties are representative of performance expectations.

- Developing and maintaining a data architecture design plan for the operational data store
- Performing Project Management Practices (PMP) processes required for projects and activities
- Performing analysis of business requirements and the impact to the data infrastructure
- Responsible for meeting applicable service levels
- Provide mentoring and training as needed
- Work with senior management to balance cost and service objectives of the business
- Developing and maintaining an infrastructure technology capacity plan
- Collaboration with other architects
- Collaboration to determine IS standards
- Performing or consulting in the database administrative responsibilities of configuration, security, resource monitoring and reporting, trouble shooting and physical database design
- Performing or consulting in the data analysis
- Responsibilities of logical database design, data architecture design and maintenance, coordinating, leading and supporting project teams in the development of enterprise systems
- Performing or consulting in the data warehouse activities of database design, architecture design, performance monitoring & reporting, and trouble shooting
- Participate in regular calls with vendor leading the development of our Ed-Fi ODS
- Participate in requirement gathering with local stakeholders (principals, teachers, administrators, data team etc.)
- Build knowledge, skills and abilities to extend the Ed-Fi ODS based on internal needs
- Estimation of work and involve in resource planning
- Document test scenarios and define test data approach

- Develop automation utilities for testing data/test scenarios
- Manage day to day project deliverables along with team members including local stakeholders and project partners
- Review work of project partners to confirm quality and fit with defined requirements
- Update and inform district leadership as to progress
- Develop an ITIL centric support model for the ODS
- Perform other tasks, duties, or services consistent with this position as assigned

Skills and Abilities Required: The following characteristics and physical skills are important for the successful performance of assigned duties.

Knowledge

- Clear understanding of data conversion, integration, and migration in a combination of in-house and vendor package environment
- Clear understanding of ERP and Data Warehousing technologies; direct experiences a plus, but not required
- Demonstrated ability to translate business requirements through data modeling, to physical implementation, including legacy systems integration, data conversion, business rules definitions, workflow processing, and analytical reporting tools
- Clear understanding of requirements mapping and analysis, business process reengineering, data structures & software limitations
- Understanding of appropriate system environment/platform and data modeling tools
- Knowledge of Microsoft Office products and productivity tools, e.g. word processing, spreadsheet, presentation, database, project planning
- Understanding of Information Technology solutions and processes including the system development life cycle (SDLC)

Experience

- Experience designing, building and managing enterprise data warehouses and operational data stores (ODS).
- Proficiency and extensive experience in data modeling, SQL and ETL
- Experience in multiple database platforms, including SQL Server, Oracle (AWS experience a plus)
- Experience working with end users to gather requirements and build technical solutions from concept to implementation
- Experience working in Agile environment Agile environment and strong project management skills (PMP a plus)
- Information Technology Infrastructure Library (ITIL) familiarity
- Comfort working in a fast-paced and ambiguous environment
- More than five years' experience in conceptual data modeling, logical database design and physical database development & implementation
- Strong hands-on experience with vendor database integration & migration

Supervisory Responsibility:

- None

Working Conditions: Exposure to the following situations may range from rare to frequent based on circumstances and factors that may not be predictable.

- Regular office environment, including frequent use of electronic email, being able to sit for long periods of time without a break, etc.
- Must be mobile in order to attend events and meetings outside of regular work hours
- Normal effort of occasional periods of light physical activity

Tulsa Public Schools is committed to building a diverse and inclusive team of individuals who contribute to the district's mission with their talents, skills and energy. Tulsa Public Schools is an equal opportunity employer and does not discriminate on the basis of race, religion, color, national origin, sex, sexual orientation, gender expression, gender identity, pregnancy, disability, genetic information, veteran status, marital status, age or any other classification protected by applicable law.

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