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***Nothing in this job description restricts management's right to assign or reassign duties and responsibilities to this job at any time.***

**FUNCTIONAL DUTIES** This is a term position at the Metropolitan Washington Airports Authority (Airports Authority). Serves as the Manager, Data and Analytics in the Enterprise Business Innovation & Analytics (EBIA) Department of the Office of Technology (Office). Implements and integrates Business Intelligence (BI) solutions for the Airports Authority. Drives and participates in data and analytics strategy. Manages the development of BI applications. Assists the Director of EBIA with managing the Airports Authority information management program. Performs related functions.

Through subordinate organization, staff and consultants, or personally:

--Assists the EBIA Director with daily information management and BI operations. Provides technical leadership in the design, development, and implementation of strategic data initiatives, such as enterprise data warehouse, master data, data governance, data quality, meta data management, and data marts.

--Helps develop program standards, policies, and procedures to support the Airports Authority-wide metadata, data warehouse administration, and information program. Provides technical assistance and advice concerning data management and design to the application development and Enterprise Architecture project teams, the client community (Airports Authority end-users, business stakeholders, vendors, and passengers), and Office staff.

--Manages and develops the design and extension of BI applications. Assists the EBIA Director to develop and execute on a blue print to redefine and/or enhance the existing implementation of Oracle Business Intelligence Enterprise Edition (OBIEE) into an enterprise wide BI framework with user defined dashboards, Extract, Transform, and Load (ETL) platform, self-service reporting, and advanced visualization platforms, such as Tableau and Qlikview using in-memory and Online Analytical Processing (OLAP) resources.

--Manages and develops the design and ETL coding of Source Dependent Extracts (SDE), Source Independent Loads (SIL), and Post Load Processes from source to target systems for operational data stores and dimensional data warehouses using industry leading tools, such as INFORMATICA and/or DATASTAGE, preferably in a Platform as a Service (PAAS) setting and into an in-memory or Massively Parallel Processing (MPP) platform, such as Netezza, Redshift, or similar.

--Leads in the design, development, and implementation of the Airports Authority-wide metadata and information management program, such as the development of enterprise conceptual and logical data models. Provides data architecture support services to major application development initiatives in an agile environment using either the Waterfall Software Development Life Cycle (SDLC) model or the Agile/SCRUM model. Assists the EBIA Director with initiating major technology projects required to meet business objectives.

--Provides strong input into the enterprise data architecture, such as Data modeling standards and ETL coding. Develops strategies and approaches that ensure the proper integration of data and

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information management. Assesses issues that impact integration/interoperability of software and recommends solutions.

--Maintains the repository for source code. Ensures that all source code is reliably backed up and versioned to prevent disruption to the team while working to complete the stated objectives. Develops the guidelines and standards for coding in-house and ensures that the vendor supplied code is consistent with the established standards

--Communicates and interacts effectively with internal and external business contacts including, but not limited to, other members of the unit/team, other Airports Authority employees (such as executives, managers, supervisors, professionals, and support staff), vendors/suppliers/ tenants, airport users, and the general public. Communications involve functional and technical requirements and problems to both technical and non-technical personnel.

--Uses a computer and (a) modern office suite software for various applications such as, but not limited to, planning/scheduling, communicating (email), word processing, data manipulation (databases and spreadsheets), charts/graphics and presentations; (b) enterprise systems/software (such as ERP) to collect, store, manage and interpret data from business activities; and (c) specialty systems/software (such as OBIEE) used in the Office for a complete, open, and architecturally unified BI system that delivers abilities for reporting, ad hoc query and analysis, OLAP, dashboards, and scorecards.

**MANAGERIAL AND SUPERVISORY DUTIES** In the context of team functions and operations, provides:

Organizational Planning Establishes goals. Develops program plans and milestones. Assigns priorities. Develops policies and procedures. Projects budget requirements and allocates available resources.

Program Direction Communicates organizational goals. Keeps employees and other managers informed. Develops and establishes review systems to assist in achieving goals. Reviews costs, manages fiscal resources and maintains control over assigned Airports Authority resources and assets.

Human Resource Management Selects, assigns and develops employees. Delegates and assigns work. Evaluates employee performance and administers human resource management programs established by the Airports Authority. Ensures the application of EEO principles and adheres to EEO requirements. Monitors supervisory and non-supervisory staff members, as well as consultants. Provides formal and informal training for staff members.

Program Evaluation Reviews program quality and progress toward achieving goals on a periodic basis. Takes corrective actions to maintain work progress on schedule, improve employee performance or modify program goals or operations, as appropriate.

--\*Performs other duties as assigned or as determined on own initiative.\*

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***Critical features of this job are described under the headings below. They may be subject to change through reasonable accommodation or otherwise.***

### **MINIMUM QUALIFICATIONS (MQs)**

To be rated qualified for this job, an applicant must meet all of the MQs listed below at the time of vacancy announcement closure.

1. A Bachelor's Degree in Computer Science, Engineering, Mathematics, or Statistics providing a strong foundation for success in the DUTIES in this job description, or an equivalent combination of education, experience and training that totals four years.
2. Eight years of progressively responsible experience in IT business intelligence, data warehousing, and the data integration domain that includes substantive work in most of the DUTIES in this job description, including experience (a) leading a BI platform such as OBIEE, Business Objects, Cognos, Microstrategy, or Microsoft; (b) developing analytics using advanced visualization tools, such as Tableau or Qlikview; (c) with Data modeling and ETL coding; and (d) working with teams in Waterfall SDLC and/or Agile/SCRUM settings.

A master's degree in any field providing strong foundation for successful performance of the DUTIES in this job description may be substituted for two of these eight years.

3. Education, experience or training indicating the ability to perform successfully as a first level supervisor such as the ability to plan/assign/review work, deploy personnel, monitor work operations, obtain effective results and perform a full array of supervisory personnel functions.

### **PREFERRED QUALIFICATIONS**

The qualifications listed below (if any) are preferred and may be considered in the selection process, but they are not required to be rated qualified for this job.

1. A Master's Degree in Computer Science, Engineering, Mathematics, or Statistics.
2. Experience developing data using industry leading tools, such as INFORMATICA and/or DATASTAGE in a PAAS setting and into an in-memory or MPP platform, such as Netezza, Amazon Web Services AWS Redshift or similar.
3. Experience deploying Location Intelligence with geographic information system (GIS) and spatial data.
4. Experience in advanced Analytics, BI as Software as a Service (SAAS), OLAP and predictive modeling especially using Customer Relationship Management (CRM) and ERP data.

### **KNOWLEDGE, SKILLS, ABILITIES AND OTHER FACTORS (KSAOs)**

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The following KSAOs are required for successful performance of this job and are a basis for rating and ranking applicants who are found to meet the MQs. *Local, Federal, airport industry or Airports Authority specific bodies of knowledge listed below may be acquired on the job, typically; ability to rapidly acquire them is required at the time of vacancy announcement closure.*

1. Comprehensive expert knowledge of the BI and Data Warehouse industry to apply project management principles, methods, and practices for planning and scheduling the development, resource requirement estimation, milestone and deliverable definitions, activity monitoring, evaluations, and reporting for 131 and data projects.
2. Expert level knowledge of, and demonstrated skill in designing, developing, and implementing a corporate data architecture program with responsibility for enterprise conceptual/logical data modeling, data policies, standards and compliance monitoring, metadata mapping, data governance, and as-is/target data architecture to help develop program standards, policies, and procedures to support the Airports Authority-wide metadata, data administration, and information initiative.
3. Expert level knowledge of, and demonstrated skill in designing, developing, and implementing enterprise information strategy, enterprise data warehouse, master data management, data integration and transformation, data analysis, data mapping, data governance, and data quality to lead the design, development, and implementation of the Airports Authority-wide metadata, and information management initiative.
4. Knowledge of current database management systems used by the Airports Authority, such as ORACLE, Microsoft Structured Query Language (SQL), and data warehouse solutions operating within the Oracle ERP environment, including ORME to manage and develop the design, and ETL coding of SDE, SIL, and post load processes.
5. Skill in oral communication to understand verbal information (including facts, descriptions, ideas, concepts, conflicting assertions and arguments), and to express such information verbally so that others will understand, and concerning some issues, he convinced or persuaded. This includes the ability to encourage effective oral communication by others, such as senior leadership, business stakeholders, and project managers. Examples include presenting technical information, advice, findings, and recommendations to both technical and non-technical audiences during meetings and presentations, and making presentations Office management and business area leaders.
6. Skill in written communication to understand written information (including instructions, descriptions, and ideas) and to express such information, in writing so that others will understand. Examples include writing technical presentations for both technical and non-technical individuals and the review of the written work of others, such as reviewing sprint backlogs and issue logs, status reports, and documentation for new processes, policies, and procedures.
7. Skill to analyze data and established procedures within the organization to apply technology principles, methods, and practices to manage and lead staff and contractor personnel in

developing, maintaining, and enhancing the Airports Authority-wide information management program, which includes data architecture and data governance activities.

8. Skill in problem solving to select, organize, and logically process relevant information (verbal, numerical, or abstract) to solve a problem. This includes the ability to recognize subtle aspects of problems, identify relevant information, and make balanced recommendations and decisions. Examples include analyzing data and established procedures within the organization to apply technology principles, methods, and practices, and identifying areas of improvement to design effective solutions; developing relevant metrics for tracking process efficiencies and developing methods for data driven decision making.
9. Interpersonal skills to interact effectively with business contacts in a businesslike, customer service-oriented manner. This includes working well with individuals at all levels of the Airports Authority, including Office management, business stakeholders, and project managers to define and implement BI solutions and measure delivery results.
10. Skill in using a computer and (a) modern office suite software (such as MS Office) to plan, schedule, communicate, word process, prepare and develop reports, and perform research (Internet use, as in researching and keeping up with technology); (I") enterprise systems/software (such as ERP) to collect, store, manage and interpret data from business activities; (c) specialty systems/software used (such as OBIEE) in the Office for an architecturally unified BI system that delivers abilities for reporting, ad hoc query and analysis, OLAP, dashboards, and scorecards.

**RESPONSIBILITY** Is responsible for managing the implementation of BI solutions and executing data and analytics strategy that help data driven decisions. Ensures that BI tools provide value to the Airports Authority. Work supports the strategic goals of the Airports Authority to understand and analyze business performance and realize new business opportunities.

Reports to the EBIA Director (Supervisor). Most work is accomplished independently, but requires collaboration with colleagues. Other work typically results from changes in the internal and external business environments (such as regulations/standards, business opportunities, strategic initiatives), which require proactive measures or reactive responses to identify issues, solve problems, make recommendations, take action, etc. The incumbent collaborates with and keeps the Supervisor informed and typically elevates highly complex or highly sensitive issues for assistance in resolution. Work is typically reviewed in terms of quantity, quality, timeliness, customer service, teamwork adherence to guidelines, and other factors, including specific performance management requirements.

Guidelines and references include but are not limited to, Office policies, procedures, and standards (e.g. Office of Technology Standards, Change Management Process, Root Cause Analysis Procedure, Technology Advisory Committee Project Submittal Procedure, Electroni

Communications System Policy, and Enterprise Technology Management Policy); Information Technology Infrastructure Library (ITIL), PM0 best practices, etc. The incumbent uses seasoned

judgment to adjust and apply guidelines to particular situations and to recommend or develop new data and analytics policies, procedures, and processes.

**EFFORT** The work is primarily sedentary, but requires moving about to obtain work information. The incumbent may sit for extended periods while performing desk work. Regularly uses a computer, a telephone and other office equipment. Typically exerts light physical effort in opening/closing file drawers, retrieving files and otherwise moving about. Regularly reviews computer screens, printouts, contracts, and regulations containing small print.

**WORKING CONDITIONS** Works primarily in an adequately lighted, ventilated, and temperature controlled office and conference rooms.

**OTHER SIGNIFICANT JOB ASPECTS** None.