



## Director of Systems and Software Development

Exhibit E

Class Code	FLSA Status	EEO Category	Represented Status	Salary Grade	Effective Date	Resolution #
191	Exempt	Executive – Senior Level Official Manager	Unrepresented	13	7-9-14	14-132

**DEFINITION:** Under administrative direction; establishes the mid- and long-term vision for software and systems development; designs and oversees the development and implementation of software solutions to support the District's overall business strategies and technical requirements; and provides expertise for the preparation of the Information Services technical roadmap.

**REPRESENTATIVE FUNCTIONS may include, but are not limited to:**

- Develops strategic systems and software plans and objectives; and the AC Transit Development Manual, including the District's technical framework, Enterprise Database architecture, and coding standards.
- Directs the end-to-end development, launch, implementation, administration, and maintenance of all the Districts systems, applications, software products, websites, technical reports, and Key Performance Indicators.
- Provides leadership, motivation, and work direction to assigned staff, including Database Administrators and Software Engineers; monitors the progress and timely completion of work activities, ensures the completion of all required systems checks, and provides staff development and individual and group training opportunities.
- Works closely with staff to develop standards for application access to databases; and oversees the implementation of database interfaces that emphasize security and performance.
- Meets and confers with staff on a regular basis to review progress, and provide systems updates to help avoid failures.
- Collaborates with Executives, Department heads, Project Managers, development teams, and other stakeholders to collect project specifications, and ensure that software solutions and other deliverables are successfully integrated, tested, and verified; and meet critical product delivery, and customer satisfaction objectives.
- Designs systems and software solutions; develops priorities, and establishes timelines and resources required for efficient, accurate, and timely project delivery. Writes periodic progress reports, and presents briefings.
- Designs and develops specifications for application, web, and database servers and hardware to assist the Network Team in the building of servers.
- Plans and directs change activities with application developers, telecommunications specialists, vendors, and staff; tracks development issues, directs implementation and deployment; and keeps executive staff informed regarding the progress of assigned projects.
- Develops standards for database back-up; and oversees the implementation of all production applications.
- Ensures the optimization of operations performance and efficiency, and the integrity of applications and databases; and analyzes performance data and operating conditions to troubleshoot and correct current problems, and minimize future problems.
- Develops and oversees the development of performance standards, processes, and procedures to be applied uniformly throughout the department, and the District; and ensures that development systems and database documentation is accurately maintained, and released in a timely manner.
- Initiates, reviews, and monitors adherence to written procedures and contingencies for planned software changes, outages, systems integrity, and security policies and procedure; and validates and revises appropriate application access privilege standards.



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- Continuously researches and evaluates new software technologies, industry trends, and best practices to optimize the District's systems design and development process.
- Develops and maintains collaborative relationships and partnerships with vendors, independent contractors, and external web partners.
- Performs related duties as required.

### **MINIMUM QUALIFICATIONS:**

**Knowledge Of:** Software and database architecture and security; enterprise applications and their underlying databases; principles of systems and software design; software development frameworks, Object-Oriented Analysis and Design (OOA-OOD); graphical user interface design and usability; principles and practices of software engineering in an *n*-tier client-server architecture; object-oriented programming; Microsoft SQL Server, TSQL; Microsoft ASP.Net MVC, C#; HTML, CSS, DOM and Javascript; Java and J2EE; Microsoft Team Foundation Server (TFS); Extreme Programming (XP) or Agile software development; principles, methodology, and applications of relational database theory; database performance tuning and reporting; fundamentals of project management; formal change management procedures; basic mathematics and algebra; current office methods and procedures; and current software for word processing, spreadsheets, databases, and presentation at the advanced level of proficiency.

**Ability To:** Provide experience and technical knowledge to form a bridge between management vision/direction and software solutions; design and develop *n*-tier client-server applications using a variety of languages and frameworks, both native Windows and web-based; design and implement testing routines to reduce downtime; troubleshoot and resolve problems with applications; supervise, mentor, assign work,, assess individual and group training needs, and provide training to a large staff; provide motivation and work direction aimed at maximizing enterprise application efficiency and up-time; review and analyze user requirements; write documentation and user information and training materials; research and make recommendations regarding implementation of new software technologies; prepare estimates of time and resources needed; use discretion and independent judgment; keep abreast of current developments in the field; communicate effectively both orally and in writing; and establish and maintain effective working relations with those encountered in the course of work using principles of excellent customer service.

**Education/Certification:** Equivalent to either a Bachelor's degree in Computer Science, Software Engineering, or a related field; OR at least five (5) years in a Senior Software Engineer capacity. Certification as a Microsoft Certified Solution Developer (MCSD) or Microsoft Certified Professional Developer (MCPD) is highly desirable.

**Experience:** Ten (10) years of recent and verifiable experience designing and developing client-server software, five (5) years of which must include a senior role in the design and development of applications in a Windows Server environment.

**Special Requirement:** Must be willing to: (1) work outside regular business hours as required by implementation of special projects, and emergencies; and (2) travel between the various District facilities as required.

**Physical Requirements:** Must maintain the physical condition necessary to: (1) perform tasks in an office setting operating a personal computer, keyboards, and other peripheral equipment; (2) possess physical mobility in order to transport oneself expeditiously within and between District facilities.

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