

Iowa Department of Administrative Services – Human Resources Enterprise  
Job Classification Description

## Information Technology Specialist 5

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### Definition

Under limited supervision, performs senior-level professional leadership, analytical, and modification responsibilities in supporting business applications processes, application development and database management, system and network administration, technical training and reporting, project management, product management, system testing and quality assurance, mainframe/platform administration, and/or enterprise information technology security; performs related work as required.

*The work examples and competencies listed below are for illustrative purposes only and not intended to be the primary basis for position classification decisions.*

### Work Examples

Assists supervisor by performing such duties as instructing employees, answering questions, distributing and balancing the workload, and checking work; may make suggestions on selection, promotions, and reassignments.

Analyzes, as a project leader, the most complex and involved agency operations/procedures; studies system components and determines feasibility of adapting to automation; evaluates potential operational/procedural changes and prepares cost/time estimates for completion.

Leads enterprise-wide business analysis initiatives to define complex requirements for mission-critical systems; collaborates with executive stakeholders to align technology solutions with strategic objectives; develops and maintains business process models, data flow diagrams, and functional specifications for large-scale applications; provides consultative guidance on feasibility studies, cost-benefit analysis, and risk assessments; mentors analysts and technical staff, ensuring adherence to best practices and standards; drives continuous improvement and innovation across multiple agencies.

Designs, develops, and maintains complex applications and databases that support agency and enterprise functionality, ensuring scalability, security, and optimal performance; works autonomously while providing team leadership, mentoring junior staff, and offering guidance to ensure team alignment and best practices; leads strategic planning for modernization and integration of emerging technologies across multiple platforms.

Develops and leads technical training programs for complex systems and emerging technologies; creates comprehensive curricula, instructional materials, and performance dashboards for executive and technical audiences; analyzes statewide trends and produces advanced reports to inform strategic decisions; mentors staff across all ITS levels and ensures training aligns with security, compliance, and best practices; provides consultative guidance on data-driven improvements and innovation; creates detailed documentation and reporting tools to monitor system performance and compliance; acts as subject matter expert for training initiatives and provides recommendations for continuous improvement.

Leads enterprise-level procurement and vendor management for complex IT solutions; develops sourcing strategies, negotiates contracts, and ensures compliance with state and federal regulations; oversees vendor performance, service-level agreements, and risk management for multi-million-dollar

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technology investments; provides consultative guidance on cost-benefit analysis, budgeting, and lifecycle planning; mentors staff and establish best practices for procurement and vendor governance across agencies.

Leads enterprise-wide IT projects with strategic impact across multiple agencies; defines project scope, objectives, and success criteria in alignment with organizational goals; develops and manages complex project plans, budgets, and resource allocations; oversees risk management, vendor coordination, and compliance with governance frameworks; mentors project teams and ensures delivery of high-quality outcomes within time/cost constraints.

Owns the vision, roadmap, and lifecycle of enterprise-level IT products with statewide impact; defines product strategy aligned with organizational goals and customer needs; manages complex product portfolios, prioritizes features, and oversees delivery through cross-functional teams; establishes performance metrics, monitors outcomes, and drives continuous improvement; mentors staff and ensures adherence to best practices in product development and governance.

Leads enterprise-wide quality assurance strategies for complex IT systems; defines testing frameworks, automation standards, and performance benchmarks; oversees end-to-end testing for mission-critical applications, ensuring compliance with security and regulatory requirements; analyzes defect trends and implements process improvements across multiple teams; mentor QA staff and provides consultative guidance on risk mitigation and quality governance.

Provides enterprise-level leadership for mainframe and platform administration across statewide systems; designs and implements strategies for system performance, capacity planning, and disaster recovery; oversees the installation, configuration, and optimization of mainframe operating systems and platform services; ensures compliance with security and regulatory standards; mentors technical staff and leads modernization initiatives to integrate emerging technologies.

Directs incident response for enterprise-wide security breaches, including forensic analysis and remediation; develops risk management strategies and compliance programs for critical systems; oversees penetration testing, vulnerability assessments, and advanced threat detection initiatives; mentors staff and provides consultative guidance on security strategy and policy development.

Directs/coordinates system development, implementation, training and maintenance activities; monitors development projects and reports on activity schedules, progress and performance; evaluates completed systems for documentation and performance.

Evaluates alternative methods of program development and makes recommendations on platforms and programming tools to be used; performs/directs the development of complex programming code.

Analyzes system management processes (availability, change, configuration, problem, project, network and storage management, capacity planning, system performance, data modeling, charge back, service information, disaster recovery and systems security) and evaluates alternatives and potential changes.

Coordinates required system outages with customers and establishes/monitors service level agreements and system performance/availability goals.

Administers multiple system management processes including the availability/allocation of system storage space, system resources (e.g., network, data, programs, and objects) and system access.

Directs/participates in the installation/upgrade of information system components (hardware/software) and develops installation plans (configuring, tuning, placing, testing and training users).

Directs/participating in the performance tuning of hardware configurations, systems/application software and operational procedures.

Oversees/coordinates professional consulting activities.

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Oversees/performs design and customization; interprets program specifications and develops reports, templates, programming code and spreadsheets; prepares documentation to support the use of information systems in achieving the agency mission.

Develops/documents standards, policies and procedures (e.g., customer service problem resolution, administrative functions and other system management processes) for mainframe and PC based applications.

## Competencies Required

### Knowledge:

- Customer Service – Principles and processes for providing customer services, including customer needs assessment, meeting quality standards for services, and evaluating customer satisfaction.
- Computers and Electronics – Circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
- English Language – The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Engineering and Technology – The practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
- Administration and Management – Business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.
- Telecommunications – Transmission, broadcasting, switching, control, and operation of telecommunications systems.

### Abilities:

- Oral Expression – Communicate information and ideas in speaking so others will understand.
- Written Comprehension – Read and understand information and ideas presented in writing.
- Written Expression – Communicate information and ideas in writing so others will understand.
- Deductive Reasoning – Apply general rules to specific problems to produce answers that make sense.
- Inductive Reasoning – Combine pieces of information to form general rules or conclusions.
- Oral Comprehension – Listen to and understand information and ideas presented through spoken words and sentences.
- Information Ordering – Arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- Fluency of Ideas – Come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).
- Originality – Come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.

- Category Flexibility – Generate or use different sets of rules for combining or grouping things in different ways.
- Problem Sensitivity – Tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.

Skills:

- Critical Thinking – Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Active Listening – Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- Reading Comprehension – Understanding written sentences and paragraphs in work related documents.
- Active Learning – Understanding the implications of new information for both current and future problem-solving and decision-making.
- Judgment and Decision Making – Considering the relative costs and benefits of potential actions to choose the most appropriate one.
- Systems Analysis – Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.
- Service Orientation – Actively looking for ways to help people.
- Complex Problem Solving – Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

### Minimum Qualification Requirements

Applicants must meet at least one of the following minimum requirements to qualify for positions in this job classification:

- 1) Graduation from an accredited four-year college or university with a degree in any field, and experience equal to three years of full-time work in application development and database management, business analysis, systems and network administration, technical training and reporting, IT vendor and purchasing management, IT project management, IT product management, system testing and quality assurance, mainframe and platform administration, and/or information technology security.
- 2) Graduation from an accredited four-year college or university with a degree in computer science, computer applications, software engineering, computer engineering, management information systems, business analytics, or cyber security, and experience equal to two years of full-time work in application development and database management, business analysis, systems and network administration, technical training and reporting, IT vendor and purchasing management, IT project management, IT product management, system testing and quality assurance, mainframe and platform administration, and/or information technology security.
- 3) All of the following (a and b):
  - a. Three years of full-time work experience in application development and database management, business analysis, systems and network administration, technical training and reporting, IT vendor and purchasing management, IT project management, IT

- product management, system testing and quality assurance, mainframe and platform administration, and/or information technology security; and
- b. A total of four years of education and/or full-time experience (as described in part a), where thirty semester hours of accredited college or university coursework in any field equals one year of full-time experience.
- 4) All of the following (a and b):
- a. Five years of full-time work experience in application development and database management, business analysis, systems and network administration, technical training and reporting, IT vendor and purchasing management, IT project management, IT product management, system testing and quality assurance, mainframe and platform administration, and/or information technology security; and
  - b. Either of the following:
    - i. Certification from an authorized educational institution/major computer or software producer in one or more of the specialty areas listed in part a; or
    - ii. Eighteen semester hours from an accredited college or university in one or more of the specialty areas listed in part a.
- 5) Current, continuous experience in the state executive branch that includes six months of full-time work as an Information Technology Specialist 4.

*Effective date: 02/26 SA*