



STATE OF NEVADA
Department of Administration
Division of Human Resource Management

CLASS SPECIFICATION

| <u>TITLE</u> | <u>GRADE</u> | <u>EEO-4</u> | <u>CODE</u> |
|----------------------------------|--------------|--------------|--------------|
| MASTER IT PROFESSIONAL II | 44* | B | 7.909 |
| MASTER IT PROFESSIONAL I | 42* | B | 7.910 |

SERIES CONCEPT

Master Information Technology (IT) Professionals provide the highest level of professional IT expertise in an agency in one or more functional areas such as information systems project management, quality assurance, database administration, network administration, systems administration, applications analysis and development, or information security.

Positions in this series are assigned duties and projects deemed vital to the agency mission. Duties are associated with major long-term projects, which significantly impact the agency's business processes. Without the successful completion of those duties and projects, there would be significant disruption to agency operations and reduced levels of service to the citizens of the State, reduced levels of public safety, and/or substantial loss of revenue to the State. Examples of such projects and systems include:

- The Department of Motor Vehicles' Project Genesis, a business process re-engineering project designed to integrate all services provided to drivers, vehicle owners, and businesses.
- The Integrated Financial System which merges the State's automated accounting, budgetary, procurement, and personnel functions into a single system utilized by the Department of Administration, Department of Transportation, State Controller's Office, State Treasurer's Office, and the Department of Personnel. The purpose of the system is to enable the State to meet mandated reporting requirements in conformance with Generally Accepted Accounting Principles; reduce the administrative costs of maintaining multiple separate systems; streamline financial management of the State's resources; meet internal user agency accounting requirements; and provide accurate, consistent data to agencies, the Legislature, the Governor and the general public.
- The Department of Health and Human Services, Welfare and Supportive Services Division's NOMADS system that maintains all information related to child support collection/enforcement system, food stamps, temporary assistance to needy families, Medicaid eligibility, and employment and training.
- The Department of Health and Human Services, Child and Family Services Division's Unity System which provides centralized records and information concerning the contacts of children, adolescents and families with all social service and juvenile justice agencies in the State.
- The Department of Employment, Training and Rehabilitation's Insurance Benefits System which maintains all pertinent data and generates payments to provide monetary relief to unemployed citizens of the State.

Incumbents function as individual contributors who possess advanced level experience and specialized skills, and provide technical expertise in one or more of the following areas:

Information systems project management including responsibility for specialized projects of significant size, scope, and impact to agency operations. Duties include serving as the project leader; planning, organizing and directing project activities; conducting cost/benefit analyses; resolving design conflicts; data administration; resource

* **Reflects a 1-grade, special salary adjustment granted by the 2017 Legislature to improve recruitment and retention.**

SERIES CONCEPT (cont'd)

allocation; contract negotiation; timeline development; critical path tracking; justifying the need for additional resources; and coordination with other work units within and outside the organization.

Quality assurance including total oversight of one or more major IT projects from inception through procurement. Duties include ensuring deliverables meet technical and/or contract requirements within time and fiscal constraints, and in accordance with established standards of quality; analysis of system life-cycles and growth projections; developing test plan checklists and auditing project activities and processes; preparing comprehensive reports regarding project progress; and meeting with agency administrators, project committees, vendors, external contractors and others to resolve schedule and cost issues and report progress. Duties require a comprehensive understanding of technical issues regarding application design including system development methodology, computer interface, data warehousing techniques, and legal and regulatory requirements.

Systems administration including the selection, analysis, maintenance, and modification of computer, communications, mainframe, and server hardware, operating systems, and auxiliary software packages required to support various information systems, and back-up and recovery of the agency's software and data. Duties include long-range planning for both hardware and software products; conducting detailed alternative analyses, cost/benefit analyses, and determining end-user requirements; and implementation of planning strategies, departmental policies and standards to ensure short and long-term goals and objectives are achieved within fiscal and other resource limitations.

Network administration including planning, designing, implementing, performance tuning, troubleshooting and administering multi-protocol, geographically dispersed networks including local area network (LAN) and wide area network (WAN) switches, routers, multiplexers and campus switches, and integrated WAN services. Duties also involve integration of WAN topologies.

Database administration including agency data modeling, database configuration, performance tuning, and back-up and recovery of data; develop and implement standards and procedures to convert, transfer, and interface data within and between databases; maintenance of data dictionaries, repositories, and related software; control and authorized sharing of information with multiple users within and/or outside the organization; and technical consultation regarding application development and utility executions within various database environments.

Applications analysis and development including the analysis, design, development, maintenance, and modification of information systems and applications. Duties include consulting with management to determine agency needs and system requirements, constructing and programming systems, integrating new implementations with existing hardware and software, conducting detailed alternative analyses, cost/benefit analyses, and determining end-user requirements. Duties require advanced level communication with a variety of audiences such as end-users, technicians, vendors, management, and others.

Information security including security administration, operation, and oversight of information systems and data within the realm of information security responsibility. Incumbents work with management and technical staff to develop a comprehensive information security program for integrated IT systems within the agency and are responsible for six or more of the following ten security domain areas:

- Access control – centralized / decentralized / remote / federated
- Application/system development security – validation / verification / guidelines
- Continuity of operations/disaster recovery planning – business recovery
- Cryptography – transport / storage / authentication / non-repudiation
- Information security management – awareness / policies / risk management / procedural standards
- Operational security (OPSEC) – threats / hostile code / techniques
- Physical technical security – access systems / structural / environmental controls
- Security architecture and models – methods / security operational standards
- Security law, investigation and ethics – cyber crime / incident response / security regulation
- Telecommunications/network security – enclave / monitoring / virtual private network / firewall / prevention

SERIES CONCEPT (cont'd)

Incumbents may train, supervise, and evaluate the performance of subordinate staff and/or serve as a project leader as assigned.

Perform related duties as assigned.

ALLOCATION OF POSITIONS

Positions allocated to this series surpass other advanced journey level IT professionals by the requirement of advanced level knowledge and skills acquired through specialized training and certification in a designated area of IT.

Approved certifications from a nationally recognized/accredited organization require an extended period of instruction, hands-on experience, examination, and continuing education documentation or periodic reexamination. Certification requirements will be designated by the agency at the time the position is classified. The required professional certification must indicate a degree of excellence and expertise not typical of other IT professionals, but the possession of an approved certification by an incumbent is not sufficient for a position to be allocated to this series.

Training and certification must be directly applicable to assigned duties and result in significant, on-going benefit to the agency in a critical area. An evaluation process will be used to review education, required work experience, and the individual's competency in a field of expertise.

CLASS CONCEPTS

Master IT Professional II: Incumbents are technical experts in a specific IT area in which they have received the highest level of specialized training and certification from a nationally recognized/accredited organization. This training enables them to provide technical expertise beyond that which is provided by an IT Professional IV or III. Incumbents report to a manager or supervisor who may be at the same or lower grade level.

Incumbents provide the highest level of technical expertise in a specific IT area in an agency and receive no technical supervision. The incumbent's supervisor or co-workers have limited or no knowledge or experience in the area for which the incumbent has been certified.

Positions allocated to this class perform duties and assignments of a broad scope and critical nature, and the loss of the incumbent would have a critical adverse impact on the agency's operations, activities, and services if assigned duties and projects were unsuccessful. Failure typically has statewide effects. The agency considers the incumbent's job duties to be critical to continued service to users or project success.

Master IT Professional I: Incumbents are technical experts in a specific IT area in which they have received the highest level of specialized training and certification from a nationally recognized/accredited organization. This training enables them to provide technical expertise beyond that which is provided by an IT Professional IV or III. Incumbents report to a manager or supervisor who may be at the same or lower grade level.

Incumbents provide technical expertise in a specific IT area in an agency and receive limited technical supervision. The incumbent's supervisor or co-workers possess some knowledge or experience in the area for which the incumbent is certified.

Positions allocated to this class perform duties and assignments of a broad scope and high criticality, and the loss of the incumbent would have a high adverse impact on the agency's operations, activities, and services if assigned

CLASS CONCEPTS (cont'd)

Master IT Professional I: (cont'd)

duties and projects were unsuccessful. Failure could have statewide effects. The agency considers the incumbent's job duties to be critical; however, others are qualified to perform the incumbent's duties should need arise. Other projects or systems would suffer considerably should it become necessary to reassign staff to perform the incumbent's duties.

MINIMUM QUALIFICATIONS

SPECIAL REQUIREMENTS:

- * Professional certification from a nationally recognized/accredited organization, to be identified at the time of recruitment, is required at the time of appointment and as a condition of continued employment.
- * Some positions require a pre-employment criminal history check and fingerprinting.
- * Some positions are subject to call-out or call-back.
- * Some positions require statewide travel.

MASTER IT PROFESSIONAL II

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university with major course work in computer science, management information systems, or closely related field and six years of progressively responsible professional IT experience, three years of which were at the advanced journey level in a pertinent specialty area such as information systems project management, quality assurance, systems administration, network administration, database administration, applications analysis and development, or information security; **OR** an equivalent combination of education and experience. (See Special Requirements)

ENTRY LEVEL KNOWLEDGE, SKILLS, AND ABILITIES (required at time of application):

Detailed knowledge of: various systems software products and their interrelationships; performance monitoring principles and related software products; vendor procedures for applying maintenance and temporary fixes; planning, development, and implementation of backup and recovery techniques and procedures for all data and applications software; administration of large complex networks to include wide area, campus, multi-agency or statewide multi-protocol networks. **Ability to:** apply advanced level knowledge and skills to projects and assignments deemed critical to the agency's mission; analyze and resolve complex issues and problems which directly impact the agency's services to the public, collection of revenue, and/or public safety; provide the highest level of technical consultation and training to the agency in developing, enhancing, implementing, and modifying information systems which support the agency's business processes; and all knowledge, skills, and abilities required at the lower level.

FULL PERFORMANCE KNOWLEDGE, SKILLS, AND ABILITIES (typically acquired on the job):

Detailed knowledge of: State regulations related to IT. **Working knowledge of:** IT needs and resources of the agency; technological advancements in a specialty area of IT.

MASTER IT PROFESSIONAL I

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university with major course work in computer science, management information systems, or closely related field and five years of progressively responsible professional IT experience, two years of which were at the advanced journey level in a pertinent specialty area such as information systems project management, quality assurance, systems administration, network administration, database administration, applications analysis and development, or information security; **OR** an equivalent combination of education and experience. (See Special Requirements)

MINIMUM QUALIFICATIONS (cont'd)

MASTER IT PROFESSIONAL I (cont'd)

ENTRY LEVEL KNOWLEDGE, SKILLS, AND ABILITIES (required at time of application):

Detailed knowledge of: telecommunication technology and related systems software; principles, practices and procedures required to develop, design, implement, and maintain information system-based solutions; project control techniques, including cost estimating and resource scheduling; management of system software internals and system performance tuning techniques used in database management; network protocols; transport medium, transport theory and design; large, complex networks including wide area, campus, multi-agency or statewide multi-protocol networks; network protocols; network analysis concepts and techniques utilizing packet analyzers and the open systems interconnection reference (OSI) model to troubleshoot to resolution; concepts, characteristics, and capabilities of computer operating platforms; complex operating system command languages; disaster recovery, data recovery and backup concepts and techniques; system integration hardware and data communications techniques as applied to network operations; addressing and subnetting in a multi-protocol environment; large scale implementations of network services; network infrastructure design and management; dial-access servers, and multi-host services. **Working knowledge of:** various systems software products and their interrelationships; vendor procedures for applying maintenance and temporary fixes; administration of complex, large networks to include wide area, campus, multi-agency or statewide multi-protocol networks; performance monitoring principles and related software products; interdependence of software operating in a multi-functioning, multi-user data processing environment; principles, practices, and techniques used in the installation, maintenance and support of WAN switching, routers, multiplexers, and dial access servers. **Ability to:** maintain certification in information systems project management, quality assurance, systems administration, network administration, database administration, applications analysis and development, or information security; apply advanced level knowledge and skills to projects and assignments deemed highly critical to the agency's mission; provide high-level technical consultation and training; anticipate and plan for future information system technologies; translate data structures and algorithms; recommend and implement major system changes and enhancements; analyze and coordinate the resolution of database, associated software, and data dictionary/repository problems; analyze multi-protocol, multi-transport wide area network problems; use problem isolation tools and techniques to troubleshoot complex system problems; troubleshoot routing protocols, router operating system problems and WAN hardware; develop and implement task lists, timetables, and appropriate testing methodology to ensure the highest quality product; communicate effectively with various audiences including senior management, vendors, contractors, professional and technical staff, and others.

FULL PERFORMANCE KNOWLEDGE, SKILLS, AND ABILITIES (typically acquired on the job):

Detailed knowledge of: State regulations related to IT. **Working knowledge of:** IT needs and resources of the agency; technological advancements in a specialty area of IT.

This class specification is used for classification, recruitment, and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this series.

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| ESTABLISHED: | 8/10/99UC | 8/10/99UC |
| REVISED: | 7/1/05LG | 7/1/05LG |
| REVISED: | 8/11/06PC | 8/11/06PC |
| REVISED: | 7/1/17LG | 7/1/17LG |