

## INFORMATION TECHNOLOGY CONSULTANT

### KIND OF WORK

Advanced professional information systems design and strategic planning work within Minnesota IT Services (MNIT). This class represents professional work performed at the highest level of specialized expertise in information technology.

### NATURE AND PURPOSE

Under executive direction, employees at this level consult, advise, build or otherwise architect solutions to complex business problems. The focus of work at this level is on investigating new technologies, providing solutions, developing and maintaining information security, and guiding strategic and long-range planning to support and make the best technology fit for agency or statewide use.

### DISTINGUISHING CHARACTERISTICS

The IT Consultant class differs from the System Architect class because at the IT Consultant level, incumbents are working on systems that require an emerging and high demand skill set which is difficult to recruit for. Positions at this level perform work that would otherwise be assigned to external contractors due to this distinct skill set. Additionally, positions at the IT Consultant level are hired on a project basis and the work is short term in duration, with a definitive start and end point. Positions in this class are therefore appointed as temporary unclassified.

EXAMPLES OF WORK (A position may not include all the work examples given, nor does the list include all that may be assigned.)

Serve as a senior technical advisor and mentor to less experienced Information Technology Specialists to expand their knowledge of, and responsibility for mission critical information technology systems and operations. Understand and explain the entire application stack and how it interacts within and between systems.

Deliver technical solutions using cutting edge technologies and industry best practices to implement cloud platforms for internal and external customers. Engineer and automate cloud infrastructure and assist with the deployment.

Lead the development of long range information architecture plans that will be maintained so that customers' current and future requirements are met by identifying emerging technologies, identifying and recommending purchase of hardware and software, setting standards and guidelines for design and implementation activities, defining strategy for growth and development, assuring performance, reliability and security of the systems, and continually studying new trends and practices in technology.

Identify and evaluate hosting requirements, options and availability, including On-Prem, Cloud IaaS, Cloud PaaS and Cloud Native solutions. Plan and coordinate application stacks in appropriate environments so that system development, deployment and maintenance meet project needs. Work with projects to determine optimal environments for systems and how to meet cybersecurity and resiliency needs. Develop professional services project proposals and statement of work (SOWs), and work with IT Procurement and business partners to develop detailed task plans, effort estimates, and delivery timelines.

Advise on the alignment of operations with information systems, write code and scripts, and ensure the seamless deployment of software. Automate and streamline agency's operations and processes.

Work with other team members and upstream data providers to ensure efficient and accurate data ingestion solutions and support a variety of data curation and consumption patterns by various partners. Partner across cross functional teams to harden platform tools used across the environment by performing and supporting various Extract, Transform, Load (ETL) activities. Create data assets and supporting platform capabilities to allow for a more streamlined data ingestion and data consumer experience on the Data Lake.

Develop solution architectures, prepare and maintain business process, Data Model, system, sequence and process flow diagrams. Work with agile teams and methodologies and multi-distributed teams to develop solutions. For example, leverage and deploy features and capabilities provided by high demand platforms. Integrate platforms to Enterprise Resource Planning (ERP), Middleware and Web Content Management Systems, and incorporate application security best practices.

Identify and evaluate system, subsystem, and program and network requirements so that system development meet user and project needs by analyzing information requirements, determining availability of existing hardware and software or need for new hardware and software, and hardware/software purchasing.

Develop and maintain an application(s) technology roadmap with a goal of continual modernization and avoidance of technical debt.

Lead cyber security risk assessment and vulnerability management analysis activities for new and existing applications, perform security gap analysis and recommend successful mitigation strategies, advise operational teams on border and endpoint security tools and methods.

Create and review risk assessments and system security plans for agency applications, manage application security lifecycle management, prepare executive briefings and advise senior leaders on risk mitigation strategies for agency systems. Train permanent staff and facilitate knowledge transfer to elevate the security practice. Research industry best practices for cyber security and advise agency teams on recommended roadmaps for future security tools and services.

Assess systems architectures currently in place and collaborate with technical staff to recommend solutions to improve IT services. Create integration strategies and implementation plans to ensure internal and external systems effectively communicate and share information. Lead and guide development teams for seamless integration of data and release into service. Evaluate and select

commercial software systems that enable users to integrate their data and systems with State policy and governance.

Guide and lead the modernization of existing IT systems to a services-based integration model enabling IT to reduce data duplication and align IT solutions to full lifecycle management. Ensure data is available to enable real time analysis and enables spatial analysis to support informed decision making.

Partner with business and technical leadership to inform stakeholders on product development processes, investments, and budgets.

### KNOWLEDGE, SKILLS AND ABILITIES REQUIRED

Knowledge of:

Information technology architecture and practice sufficient to provide technical leadership to technical professionals, to lead the design and development of effective and reliable statewide integrated systems.

Hardware and software and capabilities of IT systems to design systems and subsystems that meet specifications, standards and assure stable and reliable technical environments. This includes knowledge of multiple academic disciplines, high demand skillsets, and emerging areas of professional specialization.

Systems concepts, topologies and protocols, standards and management tools sufficient to perform systems management, performance optimization, preventive maintenance and problem isolation/resolution to assure a stable, secure and reliable environment.

Systems infrastructure in detail to evaluate cybersecurity threats and attacks, and risk mitigation strategies for IT systems

Ability to:

Analyze hardware or software opportunities and recommend and implement strategic IT solutions that have high impact business outcomes.

Conceptualize systems and systems flows at a holistic level to ensure that all systems integrate and function to optimize business outcomes.

Lead, train and educate others on techniques such as human-centered design, frictionless customer experiences, agile project management techniques, product management, etc.

Architect, communicate, train and deliver network configuration and technologies to meet new and evolving customerservice requirements.

Powerfully and prolifically communicate with technical and non-technical staff through verbal and written communications sufficient to present clear and concise ideas and information.

LEGAL OR LICENSURE REQUIREMENTS (These must be met by all employees prior to appointment to the class.)

Employees in this class are appointed to the unclassified service under the authority of M.S. 43A.08 (Subd. 2a) "Temporary unclassified positions. The Commissioner, upon request of an appointing authority, may authorize the temporary designation of a position in the unclassified service. The commissioner may make this authorization only for professional, managerial or supervisory positions which are fully anticipated to be of a limited duration."

Furthermore, this class is only intended to staff projects of limited duration. Projects have defined starting and ending dates, clearly specified objectives which define the scope of the work to be performed and frequently have a temporary organization that will be dismantled once the project is completed.

Est.: 5/22

T.C.:

Rev.:

Former Title(s):