



Technology Engineering Career Family LEVEL DESCRIPTIONS

PURPOSE

Jobs in this family perform technology engineering work that involves the development and application of technical expertise in one or more Information Technology (IT) disciplines and significant interface with clients, vendors and other technologists to support the State of South Dakota's technology direction and infrastructure. This is accomplished through the development, test, installation, administration, and maintenance of computing platforms, data storage facilities; networking technologies; security; RF technology; data management; survivability management; configuration management; contract and vendor management; and technical consultation to clients, leaders, and other technologists. The jobs in this family are also responsible for helping to develop and advance a long-range vision of how IT will support government and government services, including enterprise-wide architecture development, research, development, and implementation of new technologies, IT standards and policy creation, capacity planning, quality assurance, security/risk management, business continuity and project management.





Technology Engineering Career Family

LEVEL 1 DESCRIPTION - Professional Track

Class Code: 806001 Technology Engineer I

T1

Summary

Performs technology engineering work that is focused on a subset of the technical infrastructure (e.g., router, edge router, workgroup switch, tower site, wireless access point, single server, single system, routine database creation) and performed within a framework of established procedures and in close cooperation with internal and external technologists. Employees in this role have a basic understanding of the principles of IT infrastructure support, working knowledge in one or two technologies, and can perform assignments of specific tasks that are limited in scope, depth, duration, and degree of skill required. To be successful in this role, employees seek guidance and advice from more experienced colleagues and are focused on gaining the knowledge and experience to perform more independently and participate in work of higher complexity.

Nature of Work

- Performs, with direction, standard technology engineering activities that develop professional skills/knowledge and provide familiarization with technology engineering staff, methods, practices, and projects.
- Works with more experienced colleagues to learn procedures, and to gain competence in technology engineering skills and their application to the State's technical environment.
- Learns BIT's technical infrastructure, with particular focus on the environmental context and processes for own area of responsibility and begins to gain an understanding of how own environmental context integrates with other technologies.
- Maintains a subset of the infrastructure to assure operational availability; documents maintenance activities; gathers data and monitors capacity and performance; and performs basic, routine backup activities to maintain continuity.
- Troubleshoots non-complex hardware and software problems by analyzing a chain of events and applying technical knowledge following established procedures and standards.
- Attends and observes experienced colleagues in client meetings and vendor interactions; applies learned knowledge and skills when interacting with clients in order to gather information and elicit details of their needs; works to resolve client needs that are relevant to assigned infrastructure subset.
- Forms productive relationships with clients by listening, clarifying, and responding effectively.
- Builds, within parameters or a predetermined process, an assigned subset of the infrastructure to meet requested needs; performs testing and installation of new subsets.
- Investigates and explores, under the direction and guidance of senior colleagues, new products and technologies relevant to assigned infrastructure subset to enhance technology engineering service value.
- Learns and applies relevant policies and procedures to comply with state standards.
- Gains an understanding of the State, agencies, and the business functions supported by assigned subset.

Competencies

- **Attention to Detail:** Shows concern for all aspects of tasks.
- **Customer Service:** Treats customers courteously and ensures their needs are met.
- **Initiative:** Sets goals and puts forth the effort required to achieve them.
- **Integrity:** Conducts work in an honest, ethical, responsible, and committed manner.
- **Problem Solving:** Recognizes and evaluates problems, and recommends sound solutions.
- **Teamwork:** Works cooperatively with coworkers and treats them with respect.

Job Knowledge (typical education/experience preferred for entry into the level)

Typically requires a degree in a technology engineering or related field.

Career Development

This role provides the opportunity to gain technology engineering experience, build competence, and develop a long-term career with the State. This is also a progression position for those employees who have at least a relevant Associates Degree and typically 2-4 years experience in another BIT job family.

Employees will gain practical application of their academic education and/or previous infrastructure support experience in a work environment that will serve as the foundation for further development.



Technology Engineering Career Family LEVEL 2 DESCRIPTION - Professional Track Class Code: 806002 Technology Engineer II

T2

Summary

Performs technology engineering work that is focused on a large subset or more than one subset that are limited in scope of impact and complexity (e.g., stable technologies; established and somewhat routine; used in non-routine critical tasks) following defined procedures, practices, and standards. This role is for a professional who has solid, fundamental knowledge in at least one technical area and independently determines and resolves most problems within that area; expands knowledge of other technical disciplines; and designs technical solutions often requiring nonlinear analysis, such as charting decision trees and tracking multiple interdependences. To be successful in this role, employees seek guidance, training, and support from more experienced colleagues and outside sources.

Nature of Work

- Learns additional or a more complex infrastructure subset; applies professional and advanced technology engineering concepts to develop an understanding of differing and variable situations that will guide thinking on ways to address/approach those situations.
- Gains working knowledge of how assigned subsets fit within the overall technical infrastructure to become more productive and achieve an effective level of service.
- Builds productive, inter and intra divisional relationships to learn how assigned subsets interact with other technologies and to develop an understanding of the roles of technology colleagues and the information and/or resources they may require.
- Maintains a large subset or more than one subset of the infrastructure to assure operational availability and process integrity; documents maintenance activities; gathers data and monitors capacity, usage, and performance; and performs moderately complex backup activities to maintain continuity.
- Recovers dynamic data elements (e.g., transactional data) and restores to a point in time, as directed.
- Interacts with clients to gather information and elicit details of their needs; provides consultation (within defined parameters) by providing direction, explaining course(s) of action to reach a resolution, and recommending a solution; presents information in a way that optimizes client understanding; works toward achieving an approved solution and implementation within assigned infrastructure subset(s).
- Interacts with smaller, non-mission critical vendors of assigned subsets for technical support within existing vendor agreements.
- Leverages knowledge to create ideas, seeks approval, and builds assigned subsets of the infrastructure to meet requested needs; performs testing and installation of new subsets. Performs quality assurance for subsets developed by less experienced colleagues.
- Observes experienced project managers to learn technology engineering project management skills and applies learned knowledge and skills by contributing to project plans, RFPs, and RFIs.
- Recognizes needs or opportunities; investigates, evaluates, and tests new products and technologies relevant to assigned infrastructure subsets to enhance technology engineering service value.

Competencies

- **Communication:** Clearly conveys information to others and checks for understanding.
- **Expertise:** Develops self to expand own knowledge, applies it, and shares with others.
- **Information Seeking:** Actively seeks, collects, and evaluates information.
- **Initiative:** Sets goals and puts forth the effort required to achieve them.
- **Organization:** Plans ahead, sets priorities, and works in an orderly manner.
- **Problem Solving:** Recognizes and evaluates problems, and recommends sound solutions.

Job Knowledge (typical education/experience preferred for entry into the level)

Typically requires a degree in a technology engineering or related field, plus 1-3 years experience equivalent to a Level 2 in the Technology Engineering Job Family; OR

Typically 1-3 years progressive experience from a Level 1 to a Level 2 to be fully proficient.

Career Development

This role provides the opportunity to gain more in-depth and involved technology engineering experience, including more growth assignments, greater interaction with clients and their business processes and mentorship from many levels of subject matter experts. Opportunities at this level involve working more independently with greater freedom to explore issues and solutions, exercising judgment and making well informed decisions.

To develop proficiently in this role, it will be important to gain an understanding of cross technologies and their impact on each other and the business and how one's role contributes to or affects the impacts; enhance knowledge of the BIT and client organization structures; work towards performing duties more independently and make decisions without consultation while maintaining an awareness of when one does not know the answer and thus seek guidance; and develop an effective communication style with clients.

For movement to the next level, an employee will need to perform responsibilities and assignments more independently, confidently, accurately, effectively, and timely; demonstrate the full range of supporting behaviors; have a thorough knowledge of subsets(s); solve problems quickly and effectively; have an understanding of how own work impacts other technologies and the business environment, including the technical architecture; demonstrate an interest in expanding responsibilities by actively participating in more complex or larger scope work; has developed effective relationships with clients and has the trust and respect of clients and other colleagues; and the desire to progress.



Technology Engineering Career Family

LEVEL 3 DESCRIPTION - Professional Track

Class Code: 806003 Technology Engineer III

T3

Summary

Performs technology engineering work requiring broad technical knowledge of multiple technologies or in-depth knowledge of one technology including its impact on other technologies. Employees in this role serve as a technical resource or as a technical lead, requiring independence in evaluating, implementation planning, maintaining, troubleshooting, and ensuring operational availability, control, and integrity of moderately complex, unified infrastructure systems; coordination of projects; the ability to exercise sound technical judgment in making decisions, and the ability to provide consultative technology guidance to the clients. While employees in this role seek advice and guidance of more senior level colleagues on complicated issues or solutions, this role is for a well-grounded professional who has seasoned technology engineering knowledge, an understanding of the architectural aspects of technology systems, and the ability to identify best practices and implement to solve problems and address challenges more effectively.

Nature of Work

- Learns multiple or gains deep knowledge of one infrastructure technology that impacts many other technologies (e.g., unified system); applies professional and seasoned technology engineering concepts to develop a complete diagnosis of most technology problems or to develop plans that capitalize on opportunities, factoring in an understanding of the architecture.
- Builds and maintains a strong working knowledge of the business area(s) supported by both assigned technologies as well as other associated technologies; gains an understanding of the historical technical context and utilizes this knowledge to identify issues and opportunities in the present and the future; makes recommendations to technology colleagues and clients.
- Maintains a moderately complex technology or multiple infrastructure technologies to assure operational availability and process integrity; documents maintenance activities; and maintains effective security/backup systems.
- Monitors capacity, usage, and performance of assigned technologies; understands performance thresholds and analyzes and interprets data to determine issues; makes recommendations for changes and may implement agreed enhancements.
- Troubleshoots most problems within assigned area, providing fault isolation and resolution that may be complicated by technology interdependency; analyzes cross-technology/platform issues; may serve as back-up for another technology.
- Implements disaster recovery and contingency plans; participates in the development of plans for own area.
- Gains an awareness and contributes to redundancy (elimination of single points of failure) and high availability (services are operational across a WAN) through routine administration tasks and factoring concepts into project planning and coordination.
- Identifies technical infrastructure requirements to support business needs; assess tradeoffs between business needs, technology requirements and costs; advises and presents resolution to client issues.
- Interacts with major providers at the technical team level to address issues of limited scope; identifies SLA situations.
- Designs, under direction of a senior colleague, basic infrastructure subsets; assists in the creation of technical standards.
- Builds assigned infrastructure systems, requiring the need for subset integration and an understanding of its purpose; performs systems testing and installation of new systems. Performs quality assurance for subsets developed by less experienced colleagues.
- Manages projects within assigned area, usually of moderate size and typically lasting a year or less (e.g., upgrading a new system); participates in the development of RFPs and RFIs, formulates project plan and goals and submits for management approval; coordinates vendors, other technology colleagues, and relevant agency staff; tracks project progress.
- Manages project related costs and other assigned expenses to budget; provides input to budget and resource planning.
- Anticipates future needs within own area; leverages historical knowledge and anticipated future direction, researches technologies/products and their impact on the infrastructure, including vendor future direction and potential obstacles (e.g., technology change, support issues); prepares a preliminary evaluation of technologies/products and associated costs; develops and presents recommendations.
- Identifies, documents, and implements best practices.
- Provides technical guidance, trains, and may review the work of junior colleagues and peers to ensure work quality, assess problems, generate alternative solutions, and to contribute to departmental performance goals.
- Develops technology training curricula; may lead and teach classes.
- Undertakes additional advanced or specialized training or identifies and engages in continuing educational opportunities to maintain and expand level of knowledge.

Competencies

- **Adaptability:** Readily adjusts to changing situations and works effectively with a variety.
- **Assertiveness:** Acts with confidence and completes work independently.
- **Creativity:** Generates and tests innovative ideas and solutions.
- **Customer Service:** Treats customers courteously and ensures their needs are met.
- **Expertise:** Develops self to expand own knowledge, applies it, and shares with others
- **Organizational Awareness:** Acts with an understanding of organizational realities.

Job Knowledge (typical education/experience preferred for entry into the level)

Typically requires a degree in a technology engineering or related field plus 1-2 years experience equivalent to a Level 3 in the Technology Engineering Job Family; OR

Typically 2-4 years progressive experience from a Level 2 to a Level 3 to be fully proficient.

Career Development

This role is a transition role and provides a wide variety of opportunities that prepare an employee for movement to the leadership career track or continued progression through the technical career track. Specially, this role provides the opportunity to manage technology engineering projects, be exposed to multiple technologies, have primary ownership of existing systems, participate in the development of standards; have greater independence in decision making; and serve as a technical resource to others. Opportunities at this level involve the ability to display technical leadership, particularly in influencing solutions; future planning within own area; researching and recommending technologies and improvements; and through technical direction, guidance and mentorship of junior level colleagues.

To develop proficiently in this role, it will be important to gain progressive knowledge and ability in project management, including interpersonal understanding of stakeholders and others involved in projects or in accomplishment of other duties and apply this understanding to communications, interactions, and in the discovery of issues/problems; and accurate planning, organization, and anticipation of problems and/or opportunities. It will also be important to develop efficiencies within own work and advance troubleshooting abilities; actively identify opportunities to develop technical knowledge; gain skill in translating needs into requirements and/or solutions; and enhance knowledge of client business.

For movement to the next level, an employee will need to have performed responsibilities and assignments independently, confidently, accurately, effectively, and timely; demonstrate the full range of supporting behaviors; and have an awareness of own strengths and will have made it known to others one's interest in either leadership or further technical progression. For leadership, an employee will need to have demonstrated some leadership capability, have organizational skills, and a solid understanding of the technology engineering area of assignment. For technical progression, an employee will need to be sought-out as a go-to person for technical guidance, demonstrated innovation and identification of new ideas for improved efficiency and/or support to the business; has solid knowledge of how multiple disciplines interact with each other from an enterprise technology standpoint; has the ability to effectively identify future issues and opportunities; and has excelled at duties beyond the average Level 3 responsibilities.



Technology Engineering Career Family LEVEL 4 DESCRIPTION - Professional Track

Class Code: 806004 Technology Engineer IV
Class Code: 806014 Exempt Technology Engineer IV

T4

Summary

Performs expert technology engineering work within complex assignments representing multiple systems that impact multiple agencies. Employees in this role are usually regarded as a specialized expert or an infrastructure architect within a discipline, requiring extensive knowledge of the capabilities and constraints of technologies supported and the cross impacts of those technologies on other business and BIT areas. Work at this level requires a strong understanding of the current and future technology architecture, including the inter-operability of technologies; and abilities to evaluate the applicability of new technologies, provide technical guidance to others, and influence future IT and/or business strategy.

Nature of Work

- Serves as a technical expert to colleagues, management, and stakeholders, providing specialized consultative advice, insights, implications, and recommendations for decisions.
- Proactively assesses the impact of changes in the business and the State government in general, on the IT infrastructure and its structure and processes; proposes new technologies, new technical and architectural strategies, and new processes to meet business challenges, in full consideration of their costs and benefits.
- Understands business trends and the goals and objectives of various agencies; anticipates business needs to effectively plan for the future of technologies supported; identifies future problems and educates senior leadership on potential impacts.
- Partners with external IT research firms and other professional organizations and finds other opportunities to gain knowledge or enhance understanding of industry trends and best practices; brings technical knowledge from external sources and incorporates ideas into approaches.
- Experiments and tests new theories and technologies within the confines of a testing environment; evaluates applicability of new theories and technologies; and utilizes evaluation to influence future IT and/or business strategy.
- Partners with others to design an internal IT solution and to gain an understanding of multiple environments; engages in other opportunities to learn enterprise-wide architecture and technologies.
- Re-conceptualizes fundamental assumptions and constantly questions the “why” behind current processes, systems, procedures, including integration intersections; develops more efficient and cost effective approaches to address technical and business issues.
- Designs multiple systems that impact more than one agency; configures systems, considering redundancy and high availability.
- Proactively performs trending analysis to look for broader, bigger issues; conducts complete diagnostics of most technology problems, including those that are mission critical or unique, factoring in a strong understanding of the technical architecture and partnering with Technology colleagues as appropriate; identifies the “why” behind problems; understands security implications and stays one step ahead; provides technical leadership during times of crisis management and develops solutions; and develops disaster recovery plans.
- Sets the overall technical direction for projects that involve multiple systems, including laying out high-level project plans; acts as a key technical advisor to project leaders, providing a broad perspective on multiple technologies; may manage projects.
- Creates complete RFPs and RFIs; negotiates contract terms and conditions with vendors and procurement.
- Interacts with major providers at the technical expert level to address mission critical issues, gains BIT approval to deploy a solution; evaluates ongoing vendor service level and enforces SLAs and penalties.
- Interacts with senior members of client organizations who understand business requirements and have decision-making authority; influence and advocate for business decisions that are based on technology capabilities.
- Provides technical guidance, training, direction and reviews the work of colleagues working on systems or subsets.
- Develops technology training curricula; may lead and teach classes.

Competencies

- **Composure:** Remains focused under pressure and controls emotion.
- **Creativity:** Generates and tests innovative ideas and solutions
- **Decisiveness:** Exercises sound judgment and makes timely, well-informed decisions.
- **Developing Others:** Plans and supports the development of others.
- **Influence:** Gains acceptance or support for ideas, projects, and solutions.
- **Relationship Building:** Builds, maintains, and strengthens relationships with others who can provide support.

Job Knowledge (typical education/experience preferred for entry into the level)

Typically requires a degree in a technology engineering field plus 2-4 years of experience equivalent to a Level 4 in the Technology Engineering Job Family; OR

Typically 3-6 years progressive experience from a Level 3 to a Level 4 to be fully proficient.

Career Development

This role provides the opportunity to focus on technology changes that impact multiple agencies; serve as the key advisor to agency level clients; set the overall technical direction for large scope projects; focus time and effort on planning for the future of technologies supported and to execute that vision; work on significantly challenging problems and take a lead role in crisis management situations; and create RFPs and RFIs. Opportunities at this level involve significant vendor interaction, collaboration with colleagues and clients, and impact on the future IT and/or business strategy.

To develop proficiently in this role, it will be important to enhance interpersonal understanding of stakeholders and others involved in the course of work and apply this understanding to communications, interactions, and in the discovery of issues/problem; focus growth on technical knowledge of multi-level technologies and business environments to maintain recognition as an expert; accept and be mindful of the risk and responsibility associated with being an expert; make decisions that make pragmatic business sense; identify methods to maintain knowledge of the business and to effectively anticipate problems and/or opportunities; and convince others of a direction or approach.

For movement to the next level, an employee will need to have performed responsibilities and assignments independently, confidently, accurately, effectively, and timely; demonstrate the full range of supporting behaviors; be regarded as an architecture expert and involved in the overall process of architecture; serve as a consultant to other government agencies; and be seen as innovative with good business sense and proposes solutions or a future vision that considers both the cost implications and value to the business.



Technology Engineering Career Family

LEVEL 5 DESCRIPTION - Professional Track

Class Code: 806005 Technology Engineer V
Class Code: 806015 Exempt Technology Engineer V

T5

Summary

Performs technology engineering work as an expert in the design and execution of well engineered, tested, and deployed enterprise-wide systems and technologies. Employees in this role act as an authority and are regarded as a statewide expert, requiring extensive knowledge of the capabilities and constraints of the technologies supported; deep knowledge in at least one discipline and proficient knowledge in one or more relevant disciplines; and strong understanding of the current and future technology architecture, including the inter-operability of technologies. Work at this level involves assisting with enterprise-wide direction, standards, methodologies, and tools for leveraging architecture principles and processes; assessing emerging technologies for applicability to the State, resolving conflicts between standardization and innovation; providing technical advice and counsel to IT project teams in the design and support of major systems of the most complex nature and which have broad implications for the IT architecture; and influencing strategic technology planning, including developing an architectural vision for BIT.

Nature of Work

- Develops a technical vision and leads strategic, statewide architecture planning as it relates to own area of expertise; communicates vision in a manner that allows others to develop specific plans and standards.
- Develops highly sophisticated technology plans that require integration of multiple technologies, addressing the interrelationships of multiple systems, and serving diverse clients; ensures plans include consideration of disaster tolerance and recovery.
- Assesses, proactively, the trends in State business functions and government in general and the impact on the IT architecture; anticipates changes and needs to effectively plan for the future of the multiple technologies supported.
- Proposes new technologies, new technical and architectural strategies, and new processes to meet business challenges, in full consideration of their costs and benefits.
- Provides both a visionary and pragmatic perspective to the technology planning process, supporting technology investments that make good business sense.
- Assesses highly complex processes conceptually to gain an abstract, broad perspective and analytically to follow end to end flow of how data travels and is used from multiple perspectives.
- Provides architectural expertise in the design of proposed solutions considering an understanding of and the impact on, the applications, data, and technical architectures.
- Solves technical problems and challenges that have never been encountered previously in BIT or South Dakota State Government, balancing the often competing needs of standardization and innovation.
- Establishes systems to monitor compliance with architectural standards and to ensure technical integrity.
- Sets the overall technical direction for projects that involve architectural efforts of large, complex technology projects typically spanning more than one year and involving multiple vendors, multiple technologies, and broad implications for the IT architecture; acts as a key technical advisor to project leaders, providing unique insights, new research and novel approaches.
- Leads the development of networks of external business providers and consultants; strengthens understanding of provider technologies and their future direction to assess alignment with BIT's direction; interacts with providers to resolve problems at a level that requires deep knowledge of the provider technologies and the ability to challenge.
- Provides technical guidance, training, direction and reviews the work of colleagues working on architectures to ensure alignment with overall architectural vision.
- Provides technical guidance and training and ensures structures are in place to develop technical expertise within the State.
- Mentors and reviews the work of others engaged in complex technical design and applications.

Competencies

- **Assertiveness:** Acts with confidence and completes work independently.
- **Communication:** Clearly conveys information to others and checks for understanding.
- **Creativity:** Generates and tests innovative ideas and solutions.
- **Decisiveness:** Exercises sound judgment and makes timely, well-informed decisions.
- **Expertise:** Develops self to expand knowledge, applies it, and shares with others.
- **Influence:** Gains acceptance or support for ideas, projects, and solutions.

Job Knowledge (typical education/experience preferred for entry into the level)

Typically requires a degree in a technology engineering or related field plus 12 or more years of progressive technology engineering experience.

Career Development

This role provides the opportunity to serve as an enterprise-wide expert and technical advisor, including exploration of new technologies, standards, and practices that could affect information technology support throughout the State of South Dakota; influence strategic technology plan and the architectural vision for BIT; develop a technical vision and carry the vision through to implementation; focus primarily on long-term thinking and planning and secondarily on day-to day-operational issues; and significant interaction with senior management.

To develop proficiency in this role, it will be important to have continued focus and identify ways to grow and broaden technical and organizational knowledge, including researching and maintaining knowledge of the latest technologies and industry trends; accept and be mindful of the risk and responsibility associated with being an expert, including accepting responsibility for recommendations that could have significant cost and benefit implications across the state; integrate BIT's vision with other areas within the state; continually revisit technical vision to ensure appropriateness and active progresses towards achievement; create challenges for self and BIT to ensure improvement in efficiencies and support of state business requirements; and communicate effectively in order to inform, educate, and influence.



Technology Engineering Career Family

LEVEL 1 DESCRIPTION - Managerial Track

Class Code: 806111 Exempt Technology Engineer Manager I

TM1

Summary

Oversees a small team or unit comprised of technology engineering staff, providing day-to-day supervision and acting as a technical resource. Work at this level requires in-depth knowledge of the technical area supervised, familiarity of all IT functions and services, an understanding of architectural issues encompassing the work carried out by assigned staff; an ability to address staff and complex technology engineering issues; an ability to make operational decisions within delegated authority; and an ability to participate in budget management and vendor and contract management. This role is the first level of supervision where the employee has both technical and full administrative responsibility for staff. This role has full technical responsibility for the results of the unit's efforts and for the effectiveness of its overall integration with other units.

Nature of Work

- Aligns work with management goals and objectives and accordingly establishes goals and expectations for team/unit; establishes best practices for team/unit managed; exercises judgment and influence on key technical decisions (e.g., standards and policies, environment selection, architecture and data flows, technical solutions) within assigned area; identifies more effective and cost efficient approaches for delivering service that may include changes in technology, structure, roles, and/or processes.
- Justifies needs for project resources and manages assigned budgets to ensure proper expenditure of funds; approves acquisition of resources within established delegated authority.
- Plans, allocates, utilizes, and integrates available resources (e.g., staff and physical and software technologies) across area of responsibility to meet identified priorities, including resources controlled by contractors, providers, etc.; adjusts resources as necessary to plan for or react to shifting priorities; allocates appropriate staff to priorities based on skills and responsibilities.
- Creates a positive work environment that maximizes the strengths of members and focuses on individual and team developmental areas in order to increase the capability of staff and to ensure work quality. Reviews work and monitors progress and performance of activities and projects, provides guidance and coaching, and motivates on an individual and team level to ensure completeness and soundness of work and achievement of goals.
- Participates and engages in effective people management activities such as recruitment, interviewing, hiring, new employee orientation, training and retention, and personnel actions such as performance reviews and discipline to ensure competent staff.
- Maintains up-to-date knowledge of technology engineering concepts and approaches; researches and evaluates the applicability of new products and technologies. Provides technical guidance to team and helps solve difficult technical problems; analyzes cross-technology/platform issues.
- Engages in individual contributor work duties and activities consistent with the level of members supervised; sets priorities and assigns or re-arranges work and projects; evaluates, reviews, and approves the technical feasibility of proposed solutions to issues, basic infrastructure subset designs, and routine production implementation recommendations.
- Manages or directs management of projects and ongoing work responsibilities; formulates project plans and develops a direction and plan for meeting identified goals and objectives; develops documentation for project planning; tracks progress and provides status reports to upper management.
- Participates in the development of RFPs and RFIs; serves as a member of the evaluation committee and recommend final approval.
- Participates in contract negotiations and manages contracts.
- Establishes relationships with vendors and interacts on a day-to-day basis to address both technical and administrative (e.g., billing) issues; gains an understanding of vendor roadmap to determine feasibility and possible direction for the State.
- Understands client needs and their impact on the technical direction of a solution; gains a deeper understanding of the client business processes.
- Collaborates and communicates across disciplines to ensure that everyone contributing to or affected by the activities of the team/unit are informed as well as to obtain information and resources for the team/unit.
- Serves as a spokesperson internal to state government to resolve issues or address challenges (e.g., disaster recovery; incident management; post mortem); implement technology change, including preparation and education; and coordination of efforts.
- Serves as a change agent and educates staff on new technologies or changes within BIT; communicates critical information to ensure compliance and advancements in methods and techniques.

Competencies

- Displays Integrity & Commitment
- Acts Decisively
- Builds Strong Alliances
- Demonstrates Astuteness
- Builds Competence
- Exercises Due Diligence
- Focuses on Customer Needs
- Achieves Successful Results
- Communicates Powerfully
- Develops Successful Teams

Job Knowledge (typical education/experience preferred for entry into the level)

Typically requires a degree in a technology engineering or related field plus 8 or more years of progressive technology engineering experience including evidence of people skills and abilities.

Career Development

This role provides the opportunity to begin a leadership career with the State through delegated authority to lead a team, to provide direction, to motivate, to mentor, to impact team performance, and to establish the culture of the team. Opportunities at this level involve impact on team and technical procedures, processes, and standards; more in-depth and regular interactions with higher level management, including participation in management decision making; increased client contact; exposure to budget and resource management; and management or direct the management of technology engineering projects.

To develop proficiently in this role, it will be important to shift focus from performing individual contributor work the majority of the time to a more balanced focus on leading a team and engaging in the work performed by team members. It will also be important to seek answers, guidance, and training to address one's gap in knowledge and abilities regarding the nuances of this role, including interpersonal skills in leading and motivating a team of diverse personalities and abilities, personnel rules and regulations, resource management, budget management, reporting, and decision making authority; develop effective communication strategies in accordance with the audience; be comfortable in an environment that presents a new challenge daily; and strengthen relationships within BIT and with clients.



Technology Engineering Career Family

LEVEL 2 DESCRIPTION - Managerial Track

Class Code: 806112 Exempt Technology Engineer Manager II

TM2

Summary

Directs multiple or a large team of technology engineers. Employees in this role have both functional and administrative responsibility for the execution and success of multiple activities and projects; future planning of assigned area(s), including consideration of technology needs; and development and execution of resource plans and budgets. Work at this level requires thorough knowledge of the technical area(s) managed, an understanding of the current and future technology architecture; working knowledge of state government areas and services; an ability to address broad operational issues; and the authority to make annual operational decisions within the context of longer-term planning.

Nature of Work

- Understands and clearly articulates technology engineering goals for assigned area as context for tactical operational planning; participates in the development of the larger BIT vision and provides input in the strategic planning process.
- Instills a sense of vision and direction in teams and creates a positive work environment that leverages the strengths of members and focuses on individual, team, and BIT technology engineering-wide developmental areas in order to increase the capabilities and ensure operational availability, data integrity, and business continuity; assigns staff to priorities based on skills and responsibilities.
- Establishes a culture of innovation, encouraging and rewarding new approaches that improve efficiencies, effectiveness, quality, and service value; identifies and implements more effective and cost efficient approaches for delivering service, that may include changes in technology, roles, and/or processes; continually improves work procedures and processes for area(s) managed to strike the optimal balance between performance, client requirements, and cost management.
- Maintains conceptual understanding of assigned technology engineering discipline(s) and strong knowledge of architectures and strategies across BIT; develops business continuity and disaster recovery plans; may research and evaluate the applicability of new products and technologies or own ideas; leads or participates in division or bureau-wide projects.
- Maintains recognition as thoroughly knowledgeable about the business areas supported including their strategies, functional processes, and dynamics; factors this knowledge into decision-making regarding technology enhancements, out of cycle production implementations; and problem resolution strategies.
- Creates and approves complete RFPs and RFIs; serves as a member of the evaluation committee; negotiates terms and conditions and manages contracts, including when to renew or not; resolves contract disputes; and approves SLA course of action.
- Partners with senior management in approval process for small projects and sets statewide prioritization; manages multiple projects, usually through supervision of project leaders, including establishing plans, prioritizing initiatives and ensuring resources and organizational structures are in place and operating effectively; anticipates and proactively resolves conflicting needs; manages organizational challenges and obstacles to success for key projects; tracks and communicates consolidated progress.
- Integrates the potentially diverse needs of many clients and stakeholders and successfully manages varying perspectives; coordinates efforts between divisions; communicates with key stakeholders to monitor and facilitate satisfaction; monitors project leader communications with clients, mentors and ensures project deliverables meet specifications.
- Serves as a spokesperson both internally and externally to resolve issues or address challenges (e.g., disaster recovery; incident management; post mortem); implement technology change, including preparation and education; and coordination of efforts. Represents the State at the national level; may provide press communications.
- Delegates supervision and/or integrates activities across teams with the aim of accomplishing goals while balancing priorities, business requirements, costs, standard practices, and staffing; creates synergies between teams; assigns staff to other BIT areas.
- Manages and engages in effective people management activities such as recruitment, interviewing, hiring, training and retention, including personnel actions such as performance reviews and discipline to ensure adequate and competent staff.
- Develops budget and rate level recommendations; manages budget(s) to achieve objectives, analyzes reports, and ensures proper expenditure of funds and cost recovery.

Competencies

- Displays Integrity & Commitment
- Acts Decisively
- Builds Strong Alliances
- Demonstrates Astuteness
- Builds Competence
- Exercises Due Diligence
- Focuses on Customer Needs
- Achieves Successful Results
- Communicates Powerfully
- Develops Successful Teams

Job Knowledge (typical education/experience preferred for entry into the level)

Typically requires a degree in a technology engineering or related field plus 10 or more years of progressive technology engineering experience, including 2-4 years experience managing others in a supervisory capacity or significant evidence of people skills and abilities, budget awareness, and effective communications.

Career Development

This role provides the opportunity to strengthen leadership abilities and make a primary commitment to management with full personnel authority; lead and build multiple effective teams or a large team of professional staff, including setting the direction and establishing the culture of the teams; gain pride from facilitating others' success and impact career development; delegate supervision; learn budget development and fiscal management, including vendor/contract management; and influence BIT vision and strategic planning.

To develop proficiently in this role, it will be important to identify what motivates key stakeholders, peers, and employees; delegate responsibility and focus primarily on leading and providing direction, including accepting that one will no longer be the "technical expert"; accept responsibility for team performance and support team needs and decisions; recognize bench strength and gaps in abilities and utilize information to develop talents and skills of the team and to effectively recruit; create an environment in which employees want to come to work; research and utilize others expertise to form decisions, exercise sound judgement, and develop a solid vision and direction; develop strategies or approaches for conflict resolution; strengthen key relationships and organizational awareness; and listen and communicate effectively in order to inform, educate, influence, and ensure understanding.