

APPENDIX D. SAMPLE JOB DESCRIPTIONS

D.1 State CVISN Program Manager

POSITION OBJECTIVE:

This position has specific delegated authority to manage the statewide deployment of separate projects identified to implement CVISN Level 1 Capabilities. This position will be responsible for accomplishing the design and development of these projects. The Program Manager also will be responsible for planning, managing, and directing the work of senior managers and private contractors in multi-disciplined design, plan review, including right-of-way plans, and review of computer system design impacts on construction projects.

The Program Manager also will be responsible for the development of program contracts, Requests for Proposals (RFP), reviewing and making effective recommendation for acceptance of scope of work documentation, and cost estimations. This position also will represent the State at meetings of regional and national ITS/CVO committees.

KNOWLEDGE AND SKILLS REQUIRED:

This position is a high level management position requiring broad experience in managing a multi-disciplined staff, strong managerial skills, and a strong command of federal, state, and local transportation policies and guiding principles. Knowledge of international policies and issues may also be required, especially at border states.

This position requires the ability to negotiate with diverse interest groups to bring about consensus with both the public and private sector partners. A broad knowledge of the transportation agencies' regulatory functions is necessary to ensure that appropriate expertise is available and utilized throughout all phases of the deliverables.

The Program Manager's specific areas of knowledge should include:

- State agency functions in the commercial vehicle arena.
- CVISN architecture and principles.
- State and federal commercial vehicle laws and regulations, industry practices, and other states commercial vehicle operations.
- Contract development and administration involving Federal cooperative agreements.
- Federal grant application/development process.
- Application of project management principles.
- State and Federal budget management, planning, and administration for inter-agency budget proposals.

- State procurement and acquisition policies, procedures, and contract management.
- State and federal legislative processes, including practical experience in working with legislative committees.
- Methods needed to create and communicate strategic and business plans for ITS-related projects.

The Program Manager should have the skills to:

- Coordinate activities of multiple projects to achieve one coordinated outcome.
- Display strategic and creative thinking regarding the deployment methods of multiple projects having long-term impacts on the state's infrastructure.
- Provide effective oversight to projects, identifying problems and constructing plans of actions to mitigate risks.
- Communicate effectively and interface with customers, private sector business executives, high level regulatory agency managers, legislators, executive management and technical staff.
- Work without direct supervision.

NATURE AND SCOPE:

The scope, authority, and impact of this position will have significant impact from within and outside of state government. The incumbent will be expected to develop policy regarding CVISN, which will have a visible impact on a substantial portion of the state's economy and which will be critical to the central business purpose of the state.

Because of the high visibility of CVISN, the Program Manager will retain full oversight for all business, administrative and technical aspects of the projects. This position will be expected to practice the full utilization of management principles in carrying out the duties of this job. This position will direct supervisors and managers from the other transportation agencies while fulfilling the goals and objectives of the CVISN program. The implementation of this program demands that this position have the ability to define the work breakdown structure and execute the work. The position will be responsible for making decisions in all matters of the design process, advising senior management of decisions, and soliciting input and alternatives on decisions of major impact to the CVISN program.

PRINCIPAL RESPONSIBILITIES:

- Develop, execute, and maintain the CVISN Program Plan.
- Identify, secure, and maintain program funding.
- Staff program leadership positions.
- Administer the CVISN Program, assisted by the Program Facilitator/Administrator.
- Provide technical, schedule, and financial/funding oversight and guidance during the design process for all state CVISN projects to ensure conformance with state and national standards.
- Ensure that the proper management and technical documentation is developed and appropriately reviewed.
- Work with the public and private sectors to develop and ensure consensus about program definition. Receive and resolve complaints or concerns from the public about program definition.
- Interface with executive level management, administrators, managers, and both program and non-program staff.
- Liaison to the CVISN Steering Committee.
- Assist with the development of strategic ITS/CVO regional business plans to ensure compatibility with adjoining states.
- Assist with testimony to the appropriate legislative committees regarding the deployment of CVISN.
- Work with industry in the deployment of CVISN.

D.2 State CVISN System Architect

POSITION OBJECTIVE:

The position has delegated authority from the CVISN Program Manager to direct the technical engineering, development, and deployment of CVISN compliant systems and networks for safety information exchange, credentials administration, and electronic screening. The engineering will involve planning for interfaces and modifications to existing statewide legacy systems, and ensuring that the State systems are compatible with the national CVISN architecture, standards, and operational concepts.

The System Architect, in addition to providing technical engineering services, will manage professional, technical personnel responsible for a variety of tasks. The technical tasks managed by the architect will include: information system design and documentation; implementation and installation of CVISN software and hardware; and communication systems development and design. The System Architect also will provide technical expertise to all CVISN partners (both state and industry) and will be responsible for monitoring the design deliverables from private sector vendors. The System Architect will represent the State at the national and international level in discussions about CVISN standards and protocols.

KNOWLEDGE AND SKILLS REQUIRED:

The System Architect's specific areas of knowledge should include:

- Information system design and documentation principles.
- CVISN system architecture.
- CVISN interface standards.
- Current and emerging Commercial Vehicle Operations practices.
- Operational and technical principles of analog and digital microwave carrier systems.
- Operational and technical principles of mobile data communication systems;.
- Operational and technical principles of wide area networks (WAN), local area networks (LAN), and their associated protocols.
- Strategic planning and organizational development.
- Identifying and managing conflict within the work environment.
- Quality management techniques.
- Problem solving using quality principles to effectively facilitate change.
- Project management principles and tools.

The System Architect should have the skills to:

- Design, develop and manage multiple technical projects simultaneously.
- Make sound technical decisions.
- Lead technical people effectively, including successful team building, coaching, mentoring, and persuasive and influential leadership.
- Work with staff at all levels within the organization including the executive level.
- Communicate effectively technical and non-technical information (written, oral, and presentations).
- Work with multiple state and federal agencies on highly technical issues and projects.
- Work without direct supervision.

NATURE AND SCOPE:

The System Architect position will:

- Report to the CVISN Program Manager.
- Provide appropriate and desirable guidance to technical and project leaders in such a manner as to strategically cause a unified approach to the program.
- Work with the CVISN Project Leaders in developing the designs for the state CVISN components.
- Assist the CVISN team in identifying, developing, implementing, and managing information system policies regarding the deployment and maintenance of the CVISN program.
- Advise managers and leaders at all levels within the state transportation agencies and private sector partners on issues of an architectural nature that might affect them.
- Identify, develop, and implement policies regarding the design, installation, maintenance and coordination of data systems supporting local, state, and federal customers.
- Consult with other state agencies, other states with their respective agencies, and federal agencies on the potential policy impacts regarding the implementation of new technologies, their associated standards, and communication system designs.
- The System Architect will have technical leadership responsibilities for the program.

Employees who may be indirectly managed by this position have responsibility for duties such as: designing and managing the implementation of statewide communication systems; providing consultation to local, state and federal agencies; and developing and implementing standards and practices for the CVISN information systems within the State.

Decision-making responsibilities brought to this position for action include:

- Information system and communication system design, implementation and maintenance decisions.
- Evaluating technical alternatives.
- Assessing the impact of problems.
- Development of Requests for Proposals (RFP) for technical projects and evaluation of responses.

PRINCIPAL RESPONSIBILITIES:

- Develop and maintain the State CVISN Top-Level Design Description.
- Monitor the design, implementation, test, and integration activities within and across projects, to ensure that the top-level design is satisfied, and that program objectives are met.
- Assist the Program Manager in establishing objectives and top-level phase plans.
- Oversee the Independent Validation and Verification process of the state's CVISN program to ensure nationwide compatibility.
- Identify, develop, and implement policies and processes having multi-agency application regarding the design, installation, maintenance, and coordination of CVISN related information systems.
- Identify, assess, and communicate to state and federal CVISN partners and private industry the impacts of current and developing technologies.

D.3 State CVISN Program Facilitator/Administrator

POSITION OBJECTIVE:

This position provides administrative assistance to the State Program Manager in managing the State CVISN Program. The Program Facilitator/Administrator implements a consistent, unified approach to project management by applying and promoting basic project management and system engineering principles to the State CVISN Program, including:

- Planning - beginning with a shared view of the objectives and agreement on priorities (prepare and maintain program plan).
- Organizing - developing clear statements of work and responsibility.
- Development - maintaining program awareness and documentation as program elements change (organize and facilitate status meetings; define templates for reports).
- Visibility - identifying what is going well, what is behind, who needs help, and what can be deferred (schedule and track milestones).
- Control - ensuring key goals and objectives are being met.

The Program Facilitator/Administrator can be a representative of a participating State agency, or a consultant working with the State.

KNOWLEDGE AND SKILLS REQUIRED:

The Program Facilitator/Administrator's specific areas of knowledge should include:

- Program organization, planning, and administration; principles and tools; application of program/project management principles, including WBS and scheduling techniques.
- Team building and facilitation for meetings, workshops, and other conferences.
- State information technology system planning and status reporting requirements.
- State procurement and acquisition policies, procedures, and contract management.
- Methods needed to create and communicate strategic and business plans for ITS-related projects.
- Basic information system design and system documentation principles.
- Awareness of CVISN system architecture and principles; awareness of State agency functions in the commercial vehicle arena.

The Program Facilitator/Administrator should have the skills to:

- Lead the preparation of program-level planning documentation.
- Organize program level status meetings and State status presentations at external conferences.
- Identify and report on activities of multiple projects to present a single coordinated status.
- Work with employees at all levels within the organization including the executive level.
- Facilitate technical and planning meetings.
- Effectively communicate both technical and non-technical information (written, oral, and presentations).
- Work without direct supervision.

PRINCIPAL RESPONSIBILITIES:

- Assist the Program Manager in developing and maintaining the State CVISN Program Plan.
- Develop, with the Program Manager, System Architect, and Project Leaders, the procurement strategy.
- Assist the Program Manager in administering the CVISN Program.
- Assist the procurement team(s) with accomplishing the procurements.
- Define and develop program status reports; prepare milestones and status summaries.
- Schedule and lead program status meetings; prepare agenda, coordinate logistics, coordinate and review presentations for accuracy, completeness, and applicability.
- Facilitate discussions at technical group meetings.