

**State of Michigan
Civil Service Commission**

Capitol Commons Center, P.O. Box 30002
Lansing, MI 48909

Position Code

1. ITPRANAN89N

POSITION DESCRIPTION

This position description serves as the official classification document of record for this position. Please complete the information as accurately as you can as the position description is used to determine the proper classification of the position.

2. Employee's Name (Last, First, M.I.)	8. Department/Agency TECH, MGMT AND BUDGET - IT
3. Employee Identification Number	9. Bureau (Institution, Board, or Commission) Agency Services MSP & DMVA
4. Civil Service Position Code Description Info Tech Prgmr Analyst-A	10. Division Agency Services MSP
5. Working Title (What the agency calls the position) IT Security Architecture Customer Support	11. Section Security Architecture Customer Support
6. Name and Position Code Description of Direct Supervisor PEDERSON, JOSH; INFO TECH MANAGER-3	12. Unit Security Architect
7. Name and Position Code Description of Second Level Supervisor DEVARAM, RAMESH; STATE ADMINISTRATIVE MANAGER-1	13. Work Location (City and Address)/Hours of Work 7150 Harris Dr., Dimondale / 8:00 am – 5:00 pm Monday – Friday (may vary)

14. General Summary of Function/Purpose of Position

This senior level position is responsible for managing and administering agency specific and enterprise agency applications and tools. Activities include the verification of the architectural integrity of the application environment, recommend solutions based on the results of technical impact analysis on all proposed infrastructure changes to ensure feasibility and cost effectiveness and develops and manages configuration management standards, processes, and policies. This position provides technical support to other team members and evaluates new agency applications and tools.

This position is responsible for the design and enhancement of highly complex, and secure, IT systems for the collection, tracking, and secured distribution of information of a very sensitive nature. This is a highly technical area of responsibility and includes, configuration, and security design of internally developed and vendor supplied IT systems used by the Michigan State Police (MSP). This position is responsible for the implementation of computers systems to ensure they meet the needs of the client, and all applicable security requirements. A high degree of knowledge of State of Michigan, and Federal, policies, laws, and standards pertaining to information technology system security, and data security, is required. A large part of the responsibilities of this position is performing network analysis and design for all in-house developed systems, vendor supplied and supported systems, and systems purchased as software as a service (SaaS).

This work involves interviewing staff and vendors to collect information required to complete analysis and documentation for IT system implementation. The information is used to complete System Security Plans (SSP) as part of the system's Authority to Operate (ATO), and to determine the network configuration required to implement the system on the SOM network or access the SaaS system from the SOM network. The information collected is also used to determine security requirements for access to the system and meeting all SOM policies as well as Federal Criminal Justice Information Systems (CJIS), and National Institute of Standards and Technology (NIST)

standards and HIPAA policies. This analysis requires a working knowledge of virtual IP addresses, network address translations, firewall rules, routing, and multi-factor authentication. A thorough understanding of MSP's network architecture, and their position within the entire State of Michigan network, is necessary.

Additionally, as SaaS systems move to cloud computing, thorough knowledge of the SOM network as it relates to security standards is necessary. Due to security requirements, MSP is separated by the rest of SOM by over 20 dedicated firewalls and retains a separate Active Directory domain. When new systems are implemented, the additional firewalls require careful planning, and results in many firewall rule requests to track. This position works closely with the Michigan Cyber Security (MCS) liaison on all firewall rules, False Positive Reports (FPRs), Enterprise Architecture Solution Assessments (EASAs), exception request submissions to the Technical Review Board (TRB) and Enterprise Technical Review Board (ETRB), and the completion of IT System Security Plans and ATO forms for all systems used by MSP.

This position is responsible for the completion of Enterprise Architecture Solution Assessment (EASA) documents, firewall rule submission and tracking, and attends meetings with the State of Michigan Enterprise Architecture group and the Solution Design Team. In addition, the security architect is a subject matter expert (SME) for the purposes of contract negotiations and may participate in Joint Evaluations Committees (JEC) for bids submitted by MSP.

15. Please describe the assigned duties, percent of time spent performing each duty, and what is done to complete each duty.

List the duties from most important to least important. The total percentage of all duties performed must equal 100 percent.

Duty 1

General Summary:

Percentage: 60

Design, develop, test, and implement adaptations and modifications to agency applications.

Individual tasks related to the duty:

Research, evaluate, and recommend selection of application environment architectures, technologies, standards, services, and tools, in coordination with other architects, by leveraging the EA Workshops and documenting through the EA Solution Assessment.

- Research, evaluate, and recommend the design of the application environment architecture, hardware, software, and license requirements
- Validate application/solution architecture design meets requirements established with the use of SUITE deliverables and through structured walk-throughs.
- Review Enterprise Architecture Solution Patterns/Reference Models for specific agency application system. Analyze EA Solution Assessments cataloged in EA SA Library for similar system design guidelines (inside.michigan.gov/DTMB/Work Resources/EA – Solution Assessments).
- Complete EA Solution Assessment for agency application system and submit through EA Core Team representative.
- Create, maintain and verify system level design.
- Verify the architectural integrity of the application environment.
- Recommend solutions based on the results of technical impact analysis on all proposed infrastructure changes to ensure feasibility and cost effectiveness.
- Facilitate/lead team members for any application environment consolidation, migration, or integration efforts.
- Assist the expert level in the planning, design, and development of the disaster recovery capabilities.
- Assist the development team with the implementation of the security design including secure coding practices, application security, network security, firewall rules, etc.
- Recommend action to increase application performance i.e., uptime, response time, throughput, reliability, scalability, etc.
- Research and develop procedures and guidelines.

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- Research, develop and recommend standards and policies.
- Make recommendations to the application developers on software integration for existing software.
- Coordinate incident management response tasks and assist facilitation of incident management response activities across multiple groups.
- Audit the software security administration access.
- Provide remediation for escalated Configuration Item (CI) issues.
- Perform scheduled configuration audits to check that the physical IT inventory is consistent with the CMDB and initiate any necessary corrective action.
- Define qualitative and quantitative Key Performance Indicators for the Change Management process.
- Design reports based on various internal and external audit requirements.
- Participate in Change Control Board meetings.
- Agrees to follow all policy, standards and procedures of DTMB.

Duty 2

General Summary:

Percentage: 20

Develops structured diagrams for the specifications of databases, communication systems, computer or storage area networks, security or network programs.

Individual tasks related to the duty:

- Create, update, or monitor System Security Plans, EA Solution Assessments, and Plan of Action and Milestones for new and existing systems for MSP.
- Advises staff and works with the client on Enterprise Architecture Solution Assessments (EASAs), submitted for MSP systems.
- Construct diagrams of MSP systems to be included in EA Solution Assessments, or as required by management.
- Analysis and submission of requests to remove firewall rules that are no longer needed.
- Assist in the design of requests for Virtual IPs (VIPs), or Network Address Translations (NATs), if required for the solution.
- Perform presentations of solutions in place or planned for MSP to educate DTMB staff or clients.
- Consult on special teams and projects as assigned. • Additionally, duties include and are not limited to special projects, attending meetings and workshops.
- Coordinate debugging efforts for systems developed, supported, or hosted by vendors, as well as systems that are developed, supported, or hosted by DTMB, or the agency.
- Participate in server, database, and system vulnerability remediation efforts for SOM hosted and vendor hosted systems.
- Perform additional duties as assigned.

Duty 3

General Summary:

Percentage: 15

Maintains records and prepares reports and correspondence related to the work.

Individual tasks related to the duty:

Works with DTMB Agency Services programming staff and managers, Project Managers, Vendors, and client experts to implement requested solutions that are hosted in the SOM environment or hosted externally.

- Analyze the design of new systems for MSP to ensure the implementation will meet all applicable SOM, and Federal, requirements, standards, and policies.
- Using the State of Michigan risk management tool, works with client agency experts, Michigan Cyber Security, and vendor experts to produce and record the necessary documentation (including a System Security Plan, and Plan of Action and Milestones) to obtain the authority to operate for MSP systems.
- Coordinates with DTMB Telecom, and Michigan Cyber Security organizations to design the proper implementation of the firewall rules, including firewall rules related to gateway-to-gateway VPN requests, and token VPN requests, Virtual IPs (VIPs), and Network Address Translations (NATs).
- Design changes to existing systems that comply with all applicable security standards, policies, and rules.
- Works with MSP to document disaster recovery plans for the agency's high priority systems.
- Ensure that disaster recovery plans for all high priority systems are properly updated and maintained as changes to the systems occur.
- Coordinates DTMB Agency Services staff members, vendors, and client staff to test firewall rules to ensure the proper implementation.
- Act as a subject matter expert, or voting member, on Joint Evaluation Committees.
- Working as a subject matter expert, review and analyze the impact of new or changed security standards, policies, and procedures implemented at the State or Federal level to determine and recommend changes required to make existing systems compliant.
- Document the network architecture for all new and updated systems used by MSP. Including internally hosted systems, externally hosted systems, and SaaS systems.
- Monitor TRB and ETRB requests to ensure compliance with the findings of the respective board.
- Monitors escalated issues with any unit or section of Agency Services to ensure timely resolution of problems related to requests submitted.
- Attend Enterprise Architecture workshop meetings, or Solution Development Team meetings, as an expert in the design of solutions implemented for MSP.
- Actively participate in EA Core Team meetings when requested by management, and report on the activities of the Core Team.

Duty 4

General Summary:

Percentage: 5

Other duties as assigned by management.

Individual tasks related to the duty:

Support and helps users to work with different client software.

- Provide ongoing customer support.
- Performs other related assignments to support the Agency Services division.
- Maintains records, prepare reports and correspondence related to work including status reports.
- Research, test and recommend new development tools and languages.

16. Describe the types of decisions made independently in this position and tell who or what is affected by those decisions.

Advises management on the following:

- Decisions involved with technical software and network architecture design.
 - Decisions involved with technology used to implement architectures.
 - Decisions involved with the best approach to resolve technical issues.
- Plan and develop procedures and documentation on system design related policies.

17. Describe the types of decisions that require the supervisor's review.

- Decisions in support of DTMB standards
- When the decision results in a business process change.
 - When the decision results in a change in direction or scope of current DTMB projects.
 - When the decision impacts matters that affect the budget.
 - When the decision impacts action to be taken in the event of a major security problem.
 - When the decision impacts the Agency's IT strategic direction.

18. What kind of physical effort is used to perform this job? What environmental conditions in this position physically exposed to on the job? Indicate the amount of time and intensity of each activity and condition. Refer to instructions.

Standard office environment. Use of personal computer using keyboard and mouse to perform trouble shooting, create and edit technical materials, communications with staff and clients, and reports. A minimum effort may be required to walk or drive to other locations. Majority of work is performed sitting at an ergonomic prepared workstation suitable for a personal computer or attending meetings in standard conference room settings. This position is subject to stress and pressure to resolve problems quickly and effectively.

19. List the names and position code descriptions of each classified employee whom this position immediately supervises or oversees on a full-time, on-going basis.

Additional Subordinates

20. This position's responsibilities for the above-listed employees includes the following (check as many as apply):

N	Complete and sign service ratings.	N	Assign work.
N	Provide formal written counseling.	N	Approve work.
N	Approve leave requests.	N	Review work.
N	Approve time and attendance.	N	Provide guidance on work methods.
N	Orally reprimand.	N	Train employees in the work.

22. Do you agree with the responses for items 1 through 20? If not, which items do you disagree with and why?

Yes

23. What are the essential functions of this position?

Design, architect, and support in-house developed, and vendor supplied information technology solutions for MSP. Plan, develop and administer design related policies and procedures. Understand, document, and diagram the architectural environment of the solutions. Work closely with the client agencies and with MCS to complete security assessments of all IT solutions. Design, and consult with staff on the testing of, firewall rules, virtual IPs, network address translations and VPNs, needed to implement solution architectures for MSP systems.

Critical Job Role: Security Architect for MSP.

Required Competencies: Customer Focus, Technical and Professional Knowledge and Skills, Communication, Decision Making, Building Strategic Working Relationships, Planning and Organizing Work, Innovation and Initiating Action.

24. Indicate specifically how the position's duties and responsibilities have changed since the position was last reviewed.

Reclassification: This position's work has come to align more closely with the work of an ITPA 12. This position works independently and has assumed responsibility for all EASA creation and updates submitted to the EA team on behalf of MSP. The position tracks the EASA through the entire document lifecycle. This position now troubleshoots firewall issues after submission of firewall rules. Required to have a strong customer relationship to support that work. The person in this position is innovative in their way of performing the duties of the position and is constantly working to create improvements and efficiencies in this process.

25. What is the function of the work area and how does this position fit into that function?

The role of DTMB Agency Services in support of the Michigan State Police, is to develop, implement, and maintain existing and new information technology systems. It performs these activities in compliance with changing State and Federal regulations, mandated legal priorities and deadlines, and changing Department policies, procedures, and standards, while maintaining operational effectiveness for the client organizations.

This position serves as the Security Architect for all information technology systems used by the Michigan State Police. It is responsible for architecting the implementation of in-house developed and vendor supplied solutions to fit within the State of Michigan network, while meeting all applicable security standards and legal requirements. Network change requests such as, but not limited to, firewall rule requests, requests for virtual IPs, network address translations, and VPNs will be completed, and tracked, by this position.

26. What are the minimum education and experience qualifications needed to perform the essential functions of this position.

EDUCATION:

Information Technology Programmer/Analyst 9

Possession of an Associate's degree with 16 semester (24 term) credits in one or a combination of the following: computer science, data processing, computer information systems, data communications, networking, systems analysis, computer programming, information assurance, IT project management or mathematics.

Information Technology Programmer/Analyst P11/12

Possession of a Bachelor's degree with 21 semester (32 term) credits in one or a combination of the following: computer science, data processing, computer information systems, data communications, networking, systems analysis, computer programming, information assurance, IT project management or mathematics.

EXPERIENCE:

Information Technology Programmer/Analyst 12

Two years of professional experience equivalent to an Information Technology Infrastructure or Programmer/Analyst P11.

Alternate Education and Experience

Information Technology Programmer/Analyst P11 - 12

Possession of an associate's degree with 16 semester (24 term) credits in computer science, information assurance, data processing, computer information, data communications, networking, systems analysis, computer programming, IT project management, or mathematics and two years of experience as an application programmer, computer operator, or information technology technician; or two years (4,160 hours) of experience as an Information Technology Student Assistant may be substituted for the education requirement.

OR

Completion of high school and four years of experience as an application programmer, computer operator, information technology technician, or four years (8,320 hours) of experience as an Information Technology Student Assistant may be substituted for the education requirement.

KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge in the analysis, design, programming, testing, implementing, and supporting web-based applications and/or client/server applications.
- Knowledge with the object-oriented design techniques and programming languages.
- Knowledge of Software Development Life Cycle (SDLC) methodology.
- Knowledge in developing systems with relational databases.
- Knowledge of application and network security issues.
- Knowledge of systems development methodology utilized in the development of new systems and enhancements.
- Knowledge in analysis and requirements gathering.
- Knowledge in development of test plans and components, and conducting unit, system, and user acceptance testing.
- Ability to prepare detailed written instructions and documentation.
- Ability to quickly learn and implement new technologies and procedures.
- Ability to establish and maintain good rapport with both department and client staff at all levels.
- Ability to communicate effectively with persons of varying levels of technical expertise
- Effective oral and writing skills.
- Time management skills.

CERTIFICATES, LICENSES, REGISTRATIONS:

Duties may involve the use of a personal vehicle and availability for on-call and overtime schedules. Additional background check is required by the Michigan State Police.

NOTE: Civil Service approval does not constitute agreement with or acceptance of the desired qualifications of this position.

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Supervisor

Date

TO BE FILLED OUT BY APPOINTING AUTHORITY

Indicate any exceptions or additions to the statements of employee or supervisors.

N/A

I certify that the entries on these pages are accurate and complete.

AMY MILLER

Appointing Authority

5/29/2025

Date

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Employee

Date