Position Code
1. INTCSPL4A74N

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)** Infrastructure & Operations
4. Civil Service Position Code Description INFO TECH SPECIALIST-4	**10. Division** Cloud & Infrastrcuture Delivery (CID)
5. Working Title (What the agency calls the position) Virtualization Architect	**11. Section** Enterprise Virtualization Services
6. Name and Position Code Description of Direct Supervisor RAYNAK, NICOLE L; STATE ADMINISTRATIVE MANAGER-1	**12. Unit** Virtualization Services-X86
7. Name and Position Code Description of Second Level Supervisor FROST, JASON W; STATE DIVISION ADMINISTRATOR	**13. Work Location (City and Address)/Hours of Work** 7285 Parsons Drive, Dimondale / Work Schedule - See Box 18

14. General Summary of Function/Purpose of Position

This position is responsible for the overall technical, architectural and administrative oversight of the enterprise virtualization core infrastructure server environment throughout the State of Michigan. It is responsible for all functions required to plan, design, optimize, implement, manage, and trouble-shoot escalated issues within the enterprise virtualization infrastructure. This position is additionally responsible for advocating the use of virtualization technologies, developing standards and procedures, promoting the usage of automated tools, and aligning practices with strategic initiatives. The position provides critical oversight for infrastructure maintenance and improvements in this highly visible and critical "red-card" application containing highly sensitive personal information; having internal and external interfaces with critical systems; and operating under strict architectural guidelines and oversight. This position requires an extremely high degree of technical skill, initiative and creativity and must keep current of new and emerging technologies in tools, software, networking; operating systems and hardware in order to provide for the needs of the department with regards to proactively ensuring organizational needs are being met. Responsibilities also include end-to-end facilitation, pilot implementation, validation, and roll out of new technologies for enterprise virtualization. As an enterprise architect position it also involves mentoring, coaching and coordination and consultation with fellow systems administrators within the team, Enterprise Architecture, Michigan Cyber Security, vendors, and other teams that interface with the enterprise environments. Must be able to communicate in business friendly terminology, to all stakeholders. Indirect reporting to Enterprise Architecture.

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:**   **85**

Research and design emerging technologies and provide technical, architectural and administrative oversight of the enterprise virtualization tools and core infrastructure for application servers.

Individual tasks related to the duty:

- Create and maintain the overall technical direction for the design of virtualization solutions, providing vision and guiding principles for the architecture of enterprise solutions, as well as consultation to state agency project teams in the integration of virtual solutions.
- Design system architecture to achieve the business, functional, and performance requirements of virtualization solutions while adhering to architecture principles, standards, software development & project management methodologies and best practices.
- Consults and researches with vendor product specialists/sales, independent research organizations, on-site support engineers and fellow administrators on best-fit technologies and also ensure compliance to department standards and technology roadmap.
- Consult with Customer Services applicable teams and business areas to make sure chosen technology meets system and application requirements as well as relevant existing licensing agreements. (add in about costs for best licensing practice)
- Determine opportunities to leverage existing solutions to meet client agency requirements.
- Coordinate with Enterprise Architecture team for technology validation or suggestions for alternative solutions. If necessary initiate Solution Assessments, Infrastructure Service Requests, and any applicable required documentation to implement the new technology.
- Produce architectural framework documents i.e., white pages, guidance documents, best practices, technical reports, etc.
- Lead technical workshops, training, seminars and conferences to expand end-to-end knowledge as well as get insight on emerging relevant technologies.
- Perform event correlation and root cause analysis (RCA) tasks as assigned.
- Research and recommend to management current regulatory requirements supported by Payment Card Industry (PCI) (Data Security Standards) DSS, National Institute of Standards and Technology (NIST), Internal Revenue Service (IRS) and other relevant security regulations.
- End to end facilitator for virtual infrastructure security compliance. This will involve communication within and across Infrastructure Operations divisions as well as across Agency Services, Michigan Cyber Security and the Office of the Auditor General.
- Create detailed architectural documentation pertaining to server security compliance processes and information.
- Design processes for virtualization security compliance of Enterprise critical applications.
- Design processes for regular testing of virtualization security controls to demonstrate and document controls are being met.
- Lead architectural design meetings that will keep the virtual infrastructure current with industry standards.
- Make continual recommendations regarding necessary upgrades through the use of capacity planning.
- Provide leadership in EA Core Team workshops to guide clients implement best-fit technologies, recommend alternative solutions and provide general technical advice.
- Leverage broad-based understanding of technology areas and end-to-end knowledge of current installations to craft architectural solutions or standards that can be applied across the board for consistency.
- Represent the Enterprise Virtualization Services in workgroups, Local Change Advisory Board, and Enterprise Change Advisory Board sessions as required.
- Regular and substantial driving to visit data centers throughout Michigan. This includes Lansing, Dimondale, Detroit and Grand Rapids.

Duty 2

General Summary: **Percentage:**   **15**

Provide operational support for the core virtualization infrastructure and server security compliance as a Subject Matter Expert. Specialist is responsible for performing Event Correlation analysis (RCA) as required. Specialist will perform SystemPerformance monitoring tasks. Other duties as necessary to support the mission of the organization.

Individual tasks related to the duty:

- Maintain the virtual host and server environment for the VCoE section that will sufficiently allow capacity for the State's current production virtual environment(s).Perform issue coordination for the VCoE interfacing and coordinating with internal and external partners as required.
- Proactively monitor, audit, review and analyze data to detect and correct operational or compliancy problems.
- Maintain processes for remediating specific audit findings for server security.
- Maintain process for control procedures for virtual infrastructure.
- Perform issue coordination for the VCoE interfacing and coordinating with internal and external partners as required.
- Provide Root Cause Analysis and Post Incident Review reports for system outages.
- Provide leadership support on special project teams as assigned by upper management regarding internal and external compliance, even projects outside of the scope of quality assurance. Communication for these projects will be not only within and across divisions, but in many cases across departments as end-to-end facilitator for implementation of major new technologies.
- Develop a broad-based knowledge of the State's existing IT infrastructure and work cooperatively in order to serve as a technical resource to the department's third-party vendors, in-house support teams and customers (internal and external).
- Attend technical workshops, training, seminars and conferences to expand end-to-end knowledge as well as get insight on emerging relevant technologies.
- Participate in premier hardware/software contracts and service contracts.
- Provide input on the policies, standards and procedures internal to Technical Services.
- Pro-actively monitor, analyze, and project capacity growth.
- These duties include, but are not limited to special projects, attending meetings, and workshops.

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

investigate suspected security risks and violations for virtual infrastructure. Report to management of violations that may affect the security posture of the State of Michigan. Resolve common problems and capacity issues that adversely affect the Department's servers. If systems become unavailable unexpectedly, determine the source of the problem, inform affected customers what steps are being taken to resolve the issue and supply the customer with a timeframe to resolve those issues. Determine when equipment is to be upgraded, patched, etc. This will need to be done in a manner that least affects production servers. Plan for infrastructure upgrades and enhancements. Schedule and inform virtual guest owners, clients, and others as appropriate of expected down time for services.

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

Supervisor review is required for decisions that are politically sensitive in nature, have a major budget or financial implication, have a resource impact, include setting work priorities or have significant impact on staff. The supervisor will also need to be engaged for problems that take a prolonged period of time and additional resources to resolve. Any corrective actions towards remediation of major security breaches must also have supervisor involvement.

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.

Extensive standing, sitting, reaching, lifting, bending, carrying, walking, kneeling and climbing steep ladders. Use of a computer extensively. The employee may be required to lift up to 80 pounds to install infrastructure equipment.

Primarily in a temperature-controlled environment when performing their duties.

The standard work schedule is 8 a.m. to 5 p.m. Monday through Friday unless an alternate work schedule or remote work agreement has been aproved by management. Overtime and/or on-call may be required for this positon. Due to the nature of technical support services, division policy requires flex scheduling for time worked in excess of 40 hours per week when advanced notice is given by management in accordance with Civil Service guidelines.

There is also the aspect of regular and substantial driving in all kinds of weather and traffic conditions.

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?

This position is responsible for the technical, architectural and administrative oversight of the Specialist is the primary subject matter expert and is responsible to manage and administer the complex Virtual Center of Excellence (VCoE) core infrastructure server environment throughout the State of Michigan. It is responsible for all functions required to plan, design, optimize, implement, manage, and trouble-shoot escalated issues with the virtualization infrastructure. This position is additionally responsible for facilitating advocating the use of virtualization technologies, developing standards and procedures, promoting the usage of automated tools, and aligning practices with strategic initiatives. The position provides critical oversight for infrastructure maintenance and improvements in this highly visible and critical "red - card" application containing highly sensitive personal information; having internal and external interfaces with critical systems; and operating under strict guidelines and oversight. This position requires an extremely high degree of technical skill, initiative and creativity and must keep current of new and emerging technologies in tools, software, networking; operating systems and hardware in order to provide for the needs of the department with regards to proactively ensuring organizational needs are being met. Responsibilities also include end-to- end facilitation, pilot implementation, validation, and roll out of new technologies for Enterprise virtualization. As a senior position it also involves mentoring, coaching and coordination and consultation with fellow systems administrators within the team, Enterprise Architecture, Office of Enterprise Security, vendors, and other teams that interface with the enterprise environments. Must be able to communicate in business friendly terminology, to all stakeholders. This position is also accountable to the Chief Technology Officer for ensuring solutions are aligned with the IT Strategic direction. Regular and substantial driving in all kinds of weather and traffic conditions.

Critical Job Role: Configure, install and manage host server operating systems. Install and support applications on these servers. Configure, install and manage the disaster recovery solutions for virtual servers.

Competencies: Technical and Professional Knowledge, Initiating Action, Customer Focus, Communication, Planning and Organizing Work and Adaptability.

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

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

The function of the unit is to provide technical expertise to all the users of servers in the Enterprise virtual server infrastructure as well as other virtual installations throughout the State of Michigan. It includes implementation, maintenance, and enhancements of the Department's virtual host operating infrastructure. This position is the primary solution architect supporting the Director to provide architectural solution direction and technical oversight. In addition, this position is also accountable (through a dotted-line reporting relationship) to Enterprise Architecture to ensure solutions are aligned with the IT Strategic direction. Responsibilities include all aspects of virtual administration, installation, scripts development and maintenance, and software packaging creation, deployment, and testing.

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

EDUCATION:

Possession of a bachelor's degree with at least 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 Specialist 14 - 15
Three years of professional experience equivalent to an Information Technology Infrastructure or Programmer/Analyst P11 or one year equivalent to an Information Technology Infrastructure or Programmer/Analyst 12.

KNOWLEDGE, SKILLS, AND ABILITIES:

This position requires the understanding of the business context for virtualization technologies. An end-to-end knowledge and understanding of critical system(s) environments, customer business and applicable technologies. It requires a high degree of technical skill, initiative, creativity and broad-based understanding of technology areas. All activities require strict adherence to department policies and procedures as well as industry best practices. As a senior position it also involves mentoring, coaching and constant coordination and consultation with fellow systems administrators within the team, vendors and other teams. Also required is a thorough understanding and working knowledge of VMWare ESXi and Windows Operating systems; the ability to install and test host and guest operating system patches; the ability to analyze problems i n the environment and provide solutions; and the ability to develop automation scripts. Develop a thorough understanding of peripheral technologies e.g., UNIX, Windows, compliance and networking and their interfaces into the virtual environment. Present complex technical solutions in a business friendly manner, to stakeholders, executive management, vendors, etc.

CERTIFICATES, LICENSES, REGISTRATIONS:

- Valid driver's license
- FTINPRINT Subclass code - The position has access to Federal Tax Information (FTI).
- TSSECPOS Subclass code - Due to having access to Michigan Department of State information, position requires the incumbent be a United States citizens and pass a thorough Secretary of State background investigation in accordance with the Public Act 7 of 2008, Public Act 23 of 2008, and the Memorandum of Agreement between the State of Michigan and the Department of Homeland Security.
- Additional Michigan State Police background check is required.

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.

STACI ERICKSON	8/21/2025
Appointing Authority	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