

**State of Michigan  
Civil Service Commission**  
Capitol Commons Center, P.O. Box 30002  
Lansing, MI 48909

**Position Code**

1. DEPTALTAG06Y

## 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.

|                                                                                                                             |                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2. Employee's Name (Last, First, M.I.)</b>                                                                               | <b>8. Department/Agency</b><br>Tech, Mgmt. & Budget - MB                                                                                                                  |
| <b>3. Employee Identification Number</b>                                                                                    | <b>9. Bureau (Institution, Board, or Commission)</b><br>State Facilities Administration                                                                                   |
| <b>4. Civil Service Position Code Description</b><br>Departmental Analyst-A (12)                                            | <b>10. Division</b><br>Building Operations                                                                                                                                |
| <b>5. Working Title (What the agency calls the position)</b><br>HVAC Control Specific Systems Integrator                    | <b>11. Section</b><br>Bldg. Automation and Specialty Services                                                                                                             |
| <b>6. Name and Position Code Description of Direct Supervisor</b><br>Weller, Robert; Departmental Manager-14                | <b>12. Unit</b><br>Building Intelligence System                                                                                                                           |
| <b>7. Name And Position Code Description Of Second Level Supervisor</b><br>Kimball, Arthur; State Administrative Manager-15 | <b>13. Work Location (City and Address)/Hours of Work</b><br>Stevens T Mason Bldg.<br>530 W Allegan St.<br>Lansing, MI 48909 /<br>8:00 a.m. – 5:00 p.m. or some variation |

**14. General Summary of Function/Purpose of Position**

This is the advanced level. The employee is responsible for maintaining communication within the internal network, between devices and the server, and for maintenance of critical configuration design specifications with respect to infrastructure design, installation and functionality. This individual will also have full access to energy consumption information, trends and efficiencies, and critical system servers requiring extraordinary levels of system specific administrative responsibility. The HVAC Control Specific System Integrator (CSSI) functions as a key member of a team that supports the integration of over 40 unique facilities' HVAC control, lighting control, and utility metering systems into a single unified Niagara central monitoring system. The CSSI is an individual with hands-on experience in WEB application software development of large-scale building control projects. This individual has experience building WEB applications in an object-oriented development environment. The CSSI possesses relevant experience with Tridium Niagara AX / N4 framework and other building automation software commonly supplied by leading HVAC industry manufacturers. The CSSI has a strong background in building control systems, and experience translating HVAC system specific requirements and functionality into application design. Knowledge of common data structures and structured program design principles is required. The CSSI also has experience / knowledge of SQL. The CSSI shall possess aptitude and experience with Java, JDBC, XML, HTML, and Java Server pages.

### **Duty 1**

#### **General Summary:**

**% of time: 50**

Responsible for maintaining communication within the internal network, between devices and the server. Responsible for maintenance of critical configuration design specifications with respect to infrastructure design, installation and functionality. This individual will also have full access to energy consumption information, trends and efficiencies, and critical system servers requiring extraordinary levels of system specific administrative responsibility.

#### **Individual tasks related to the duty:**

- Participate in the creation and evolution of a functional, unified end-user interface that brings all manufacturer BAS/building systems into a single, consistent viewing platform.
- Maintain current, standardized owner bid specifications for areas impacted by this infrastructure, such as mechanical, electrical and general HVAC as directed by management.
- Function as support for all end-users as system specific consultant.
- Assist in training lower-level analysts (CSSI).
- Assist and support BOD Technicians with installations, advanced programming and troubleshooting.
- Check, test, troubleshoot and maintain host server and client hardware/software, and any other systems, to maximize utilization and functionality.
- Work independently and in partnership with managers, utility providers and operations staff to deliver necessary information and data as requested and necessary.
- Identify and gather information to perform comparative evaluations of energy consumption in real-time and present recommendations for energy savings and efficiency development to zone leadership.
- Perform equipment analysis and make recommendations for ongoing operational efficiency improvements.
- Create reports, develop trending and information gathering techniques as applicable.
- Maintain clear, concise and organized system documentation, consistent with manager-approved master plan.
- Help identify, develop projects and implement projects in the areas of HVAC, metering, energy and automation.

### **Duty 2**

#### **General Summary:**

**% of time: 20**

Develop, support and maintain a central monitoring system that integrates daily operation of building mechanical systems and monitors utility usages.

#### **Individual tasks related to the duty:**

- Coordinate and establish network communication between central monitoring systems and building environmental, energy, and lighting control systems.
- Develop common object models for data transmitted via industry specific protocols including LON, BACNet, Niagara / Fox and Modbus.
- Develop and support graphical user interfaces across multiple vendors' HVAC software platforms.
- Define, develop, and maintain alarm, event, and user role classifications.
- Structure, organize, and maintain system database.
- Maintain connection to State Of Michigan SQL Database.
- Ensure accuracy of system database information.
- Maintain prioritization to eliminate any conflict between building level and network level functionality

### **Duty 3**

#### **General Summary:**

**% of time: 10**

Develop, compile, maintain and document configurations of hardware, software, data and records.

#### **Individual tasks related to the duty:**

- Documenting distributed computer and server configurations.
- Maintaining a library of standard graphical elements for use in future integrations.
- Maintain IT required network connected device information spreadsheets.
- Documenting device configuration files
- Maintaining library of custom programming files.
- Maintain graphical standards and point naming convention as established.
- Contribute to the creation and maintenance of a system-wide "body of knowledge" with the goal of detailing the entire building control network

### **Duty 4**

#### **General Summary:**

**% of time: 5**

Create or modify application programs as required to produce desired functionality.

**Individual tasks related to the duty:**

- Uses Java, XML, and HTML programming to produce desired results within WEB applications.
- Write, compile, and modify application programming to produce desired functions within various vendor-specific building control system devices.
- Develop and run tests to evaluate accuracy and repeatability of program logic to produce desired results.
- "De-bug" and revise programs based on test results.
- Maintain certificate management and security protocols with IT server environment.

**Duty 5****General Summary:****% of time: 5**

Support and maintain HVAC vendor-specific and workstation software applications through the application of manufacturers' updates and the performance of routine backup operations.

**Individual tasks related to the duty:**

- Monitor application update status for each application in use.
- Install, test, and prove application updates.
- Maintain proper and effective software and data backup at all times.
- Maintain consistent, logical, available, and well-communicated electronic file structure.
- Maintain team communication tools to ensure uninterrupted resource availability

**Duty 6****General Summary:****% of time: 5**

As a key component in ongoing renovation projects, this position shall have project inclusion as follows:

**Individual tasks related to the duty:**

- Examine engineering submittals and control system shop drawings to ensure compliance with sound practices and established standards
- Provide coordination and direction to field personnel in the networking, commissioning, and addressing of field installed building controls and intelligent metering devices.
- Conduct periodic inspections of work in progress and advise construction project managers and contractors on interpretation of plans and specifications.
- Evaluate and make recommendations concerning changes in construction documents and ensure that implemented changes are in accordance with sound engineering practices and established standards.

**Duty 7****General Summary:****% of time: 5**

Organize, structure, and maintain data within existing applications and databases to interface various vendor-related programs and produce relevant reporting.

- Individual tasks related to the duty:
- This reporting may be included in executive directive energy management reporting requirements and mandates.
- Develop and deliver reports related to energy usage and efficiency, nuisance alarm traffic, occupied and unoccupied conditions and other parameters as requested.
- Develop and maintain effective version control for software and data.
- Maintain IT security documentation requirements.

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

Organization of tasks to satisfactorily deliver required results and meet schedule.

Decides when and how to verify accuracy of work and automated results.

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

Changes in process or procedure.

Decisions having significant or widespread effects on others.

The organization and content of the master plan.

**18. What kind of physical effort is used to perform this job? What environmental conditions in this position are physically exposed to on the job?**

High percentage of time spent working with computer equipment in typical office environment. There are times when work is in the field, mechanical spaces, rooftops, basements, penthouses, in and/or near operating rotating machinery and other automatic equipment.

**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):**

- |                                                             |                                                            |
|-------------------------------------------------------------|------------------------------------------------------------|
| <input type="checkbox"/> Complete and sign service ratings. | <input type="checkbox"/> Assign work.                      |
| <input type="checkbox"/> Provide formal written counseling. | <input type="checkbox"/> Approve work.                     |
| <input type="checkbox"/> Approve leave requests.            | <input type="checkbox"/> Review work.                      |
| <input type="checkbox"/> Approve time and attendance.       | <input type="checkbox"/> Provide guidance on work methods. |
| <input type="checkbox"/> Orally reprimand.                  | <input type="checkbox"/> 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?**

To develop, manage, and support the Michigan Building Intelligence System (MI-BIS). This position is responsible for the entire building automation system on the user-side of the network switches (routers). This position works with other divisions, agencies and/or contractors to deliver and enhance system functionality. Maintain energy metering and monitoring capabilities. To deliver 99.9% uptime of life-safety critical systems that may be dependent on the network, such as emergency warning or communication systems.

**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?**

This work area maintains system administration on all energy metering and building automation controls for all facilities managed by the Building Operations Division. This position is responsible for such things as data communications, software development, graphics, data integrity and user profile management on the building-side of the I.T. network firewalls. The employee is responsible for maintaining communication within the internal network, between devices and the server, and for maintenance of critical configuration design specifications with respect to infrastructure design, installation and functionality. This individual will also have full access to energy consumption information, trends and efficiencies, and critical system servers requiring extraordinary levels of system specific administrative responsibility.

**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 in any major.

**EXPERIENCE:**

Default experience not available

**KNOWLEDGE, SKILLS, AND ABILITIES:**

Knowledge and experience with the application and use of a CMMS system.

**CERTIFICATES, LICENSES, REGISTRATIONS:**

This position requires possession of a minimum of two technical certifications from any of the five following companies: Honeywell, Johnson Controls, Siemens, Trane, and/or Tridium.

*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.***

MICHAELA FABUS-MAIN

\_\_\_\_\_  
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