

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

Position Code

1. DEPTTREN37N

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. & Budget - MB
3. Employee Identification Number	9. Bureau (Institution, Board, Or Commission) State Facilities Administration
4. Civil Service Position Code Description Departmental Analyst Trainee 9-11/Trainee	10. Division Building Operations
5. Working Title (What the agency calls the position) HVAC Control Specific Systems Integrator	11. Section Bldg. Automation and Specialty Services
6. Name and Position Code Description of Direct Supervisor Weller, Robert; Departmental Manager-14	12. Unit Building Intelligence System
7. Name And Position of Second Level Supervisor Kimball, Arthur; State Administrative Manager-15	13. Work Location (City and Address)/Hours of Work Stevens T Mason Bldg. 530 W Allegan St. Lansing, MI 48909 / 8:00 a.m. – 5:00 p.m. or some variation

14. General Summary of Function/Purpose of Position

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 a position with hands-on experience in WEB application software development of large-scale building control projects. This position will have experience building WEB applications in an object-oriented development environment. The CSSI shall possess relevant experience with Tridium Niagara AX / N4 framework and other building automation software commonly supplied by leading HVAC industry manufacturers. The position requires 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. This individual should also have experience / knowledge of SQL. The CSSI shall possess aptitude and experience with Java, JDBC, XML, HTML, and Java Server pages.

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

Duty 1

General Summary:

% of time: 50

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.
- Assist and support BOD Technicians with installations, advanced programming and troubleshooting. 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 2

General Summary:

% of time: 15:

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.
- Documenting device configuration files.
- Maintaining library of custom programming files.
- Contribute to the creation and maintenance of a system-wide "body of knowledge" with the goal of detailing the entire building control network.

Duty 3

General Summary:

% of time: 10

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.
- Run tests to evaluate accuracy and repeatability of program logic to produce desired results.
- "De-bug" and revise programs based on test results.

Duty 4

General Summary:

% of time: 10

Assist IT with supporting and maintaining 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 uninterruptable resource availability.
- Develop and maintain effective version control for software and data.

Duty 5

General Summary:

% of time: 10

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 (DTMB, DIT, Industry)
- 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 6**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.
- Maintain certificate management and security protocols with IT server environment.

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.

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 include 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?

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 BOD technicians as well as other divisions, agencies, and/or contractors to deliver and enhance system functionality. Maintain energy metering and monitoring capabilities.

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.

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 related to industrial / commercial controls or automation.

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.

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