About the City of Hamilton

Contribute to the City of Hamilton, one of Canada's largest cities - home to a diverse and strong economy, an active and inclusive community, a robust cultural and dining scene, hundreds of kilometres of hiking trails and natural beauty just minutes from the downtown core, and so much more. Join our diverse team of talented and ambitious staff who embody our values of sensational service, courageous change, steadfast integrity, collective ownership and being engaged empowered employees. Help us achieve our vision of being the best place to raise a child and age successfully. **#BeTheReason**

JOB POSTING

JOB ID #: 30980

SCADA Programmer Technologist
Public Works / Hamilton Water
700 Woodward Avenue

NUMBER OF VACANCIES: 1

UNION/NON-UNION: CUPE Local 5167

HOURS OF WORK: 35

GRADE: L

SALARY / HOUR: $43.480 - $49.409 per hour
Note: See appropriate Collective Agreement or the Non Union Salary Range for details.

STATUS / LENGTH: Full-Time Permanent

JOB DESCRIPTION ID #: 5598

SUMMARY OF DUTIES

Reporting directly to the Superintendent of SCADA, the successful candidate shall support the safe, efficient and effective delivery of water/wastewater treatment, distribution and collection for City of Hamilton Water as a technical resource under Plant Maintenance and Technical Services – SCADA.

This individual will be responsible for day to day software support and development, troubleshooting, monitoring, preventative maintenance and installation/repair work performed on SCADA systems and related network communications equipment supporting the successful operation of water and wastewater treatment plant(s), municipal wells, water/wastewater pumping stations, reservoirs and CSO tanks within the City of Hamilton. In addition, this position is required to oversee, coordinate and implement ongoing maintenance pertaining to the City's SCADA system hardware and software as required in the division.

The SCADA Programmer, shall ensure that the water and wastewater treatment SCADA programs meets all legislative requirements and is consistent with the City's standards and software applications.

The SCADA Programming Technologist will assist and advise Plant Operations sectional staff and project teams in the operation, maintenance and implementation of SCADA systems. Individual shall be capable of performing tasks that include on-call operational support, technical analysis, design, programming, troubleshooting, preventative maintenance, provide solutions and implement fixes associated to SCADA application, PAC programming, networking, security and monitoring applications and related hardware.

GENERAL DUTIES

The SCADA Programming Technologist must work as part of a team to deliver and support technology solutions to all parts of the City's Water & Wastewater section.   As a member of that team the individual will be required to openly communicate plans and strategies to overcome system specific problems so potential impacts to other systems can be mitigated. The duties to be performed in this position include:

Responsible for all SCADA / industrial automation programming and related integration services, this shall include, however not limited to device level (IED), PLC, PAC, OIT, HMI, Reporting and IoT software development.

Maintain and troubleshoot controls related hardware typically found within SCADA related PAC panels, network access closets, wide area network panels as well as gear located in core SCADA datacenters which includes plant fibre/Ethernet physical layer.

Provide onsite operational/process programming/technical support as required to support capital, operational and maintenance work related activities.

Provide field service for SCADA Data Centers, Network Campus Layout / physical layer and other SCADA components, including however not limited to servers, firewalls, routers, gateways, switches, UPSs, View Nodes, OITs and associated equipment. Conduct routine preventive maintenance, emergency service, diagnosis and repair to systems and equipment.

Identify, investigate, document, research, diagnose, troubleshoot, repair, patch and resolve problems and/or deficiencies related to SCADA system / software, network performance/stability and SCADA equipment impacting production and/or operations ability to remotely monitor and control water/wastewater infrastructure.

Utilize the Computer Maintenance Management System to maintain equipment records and work order history.

Assist ongoing development, implementation, maintenance, management of and enforcement of City of Hamilton SCADA standard.

Evaluate on an ongoing basis the SCADA System overall performance, review and document hardware logs, events, alarms, key indicators and metrics etc.

Consistently explore opportunities that will increase SCADA system reliability and improve overall system performance, plant/process efficiency etc.

Install, operate, maintain, troubleshoot, repair and test various network communication types, devices and topologies associated to full scale industrial fiber Ethernet LANs.

Review in detail SCADA system programming (PAC, HMI, OIT, Switch Configuration) performed internally as well as externally by contractors or consultants for compliance with City's standards and provide direction when necessary.

Responsible for the delivery and compliance of all Water and Wastewater treatment mandates as they relate to the operations of the City's water and wastewater SCADA systems.

Plan, implement, monitor and oversee the delivery of ongoing/existing or new capital programs to ensure adherence to City's SCADA Standard.

Participate in SCADA FAT (Factory Acceptance Test) and pre-SAT/SAT (Site Acceptance Test) as required.

Assist Consultant Engineers in the preparation of contract specifications including, electrical, instrumentation, integration, network, control, start-up, commissioning and maintenance.

Advise the Superintendent SCADA of continuing abnormal conditions, breakdowns, malfunctions or similar problems that may become evident from time to time.

Provide technical training and guidance to Water & Wastewater Operation staff on related matters.

Provide occasional on-call support and emergency response services for the SCADA systems monitoring, control, data and/or equipment/hardware failures.

Ensure the plants' operating conditions, data, records, etc. are maintained in accordance with established procedures.

Prepare and review daily, monthly, annual and ad hoc operational and technical reports using "As-Installed" reporting / data mining software, custom SQL queries, scripts and applications where required.

Monitor and analyze changes to plant operating conditions on the basis of available SCADA data, computational analysis, plant and laboratory operational data. Communicate findings/recommendations and/or potential corrective action(s) to appropriate Plant Operations and Maintenance personnel.

Assist City of Hamilton Capital and Planning sections supporting their mandate by reviewing and participating in various studies and capital project initiatives that require EI&C and SCADA programming/system integration technical support.

Maintain and manage SCADA documentation, change request logs and records.

Support and oversee corporate user SCADA access as well as corporate reporting / data mining privileges and associated security.

Perform other duties as assigned, which are directly related to the major responsibilities of the position.

Work in accordance with the provisions of applicable Health and Safety legislation and all City of Hamilton corporate and departmental policies and procedures related to Occupational Health and Safety.

QUALIFICATIONS

1. Must be able to demonstrate a level of expertise related to the duties described above, normally acquired through a College Diploma or university degree in Electrical, Controls Technology or Computer/Network Engineering Technology with progressive work-related experience including industrial PLC Controls, Programming and Networking.
2. Proven experience configuring and programming industrial database servers, industrial field devices using GE iFix, Proficiy Historian, Proficiy Machine Edition, Rockwell Automation (ControlLogix Platform) and Inductive Automation Ignition platforms, along with knowledge of configuring databases using Microsoft SQL Server and other software.
3. Must be proficient in various industrial communication protocols such as Modbus TCP/IP, Modbus RTU, DeviceNET, Profibus, Ethernet/IP, DNP3, IEC 61850 etc.
4. Proficient in 1 or more programming languages (Java, C++, Python, PHP, SQL etc), solid understanding of data structures, coding standards, best practices, software design, architecture. Experience in designing and developing large scale, distributed enterprise business solutions and/or experience with implementing data services in the cloud considered an asset.
5. Demonstrated knowledge of configuring/programming networked hardware/devices such as switches, routers, firewalls, relevant network certification such as Cisco CCNA considered an asset.
6. Capable of working with a wide variety of electrical/electronic devices and network communication equipment, specialty network test equipment/devices such as OTDR, LSPM or OLTS etc. considered an asset.
7. Extensive field experience pertaining to EI&C, competent applying various troubleshooting techniques to resolve SCADA related issues.
8. Must have extensive demonstrated knowledge of electrical/mechanical systems that interface with PAC/HMI software for effective SCADA deployment and implementation. Broad range as well as depth of knowledge to augment water and wastewater treatment process knowledge required.
9. Demonstrated ability to support process optimization/improvement initiatives by performing technical analysis against process control parameters/variables in order to determine operational efficiencies, document findings and feedback to appropriate stakeholders.
10. Ability to assist in the preparation and/or review of: specifications, network block diagram and other related technical documents.
11. Experience reading and interpreting engineering drawings (P&IDs, Control Panel / Loop Drawings etc.) and accompanying technical documents such as process control narratives, contracts, technical memorandums, datasheets, installation and operation manuals, procedures etc.

12. Working knowledge of computer operating systems such as Windows Server 2008/2012, Windows 7, Linux etc, software applications such as MS Office, Word, Excel, Visio, MS Project, Visual Basic, SQL Server.
13. Proven knowledge of, and professional experience working in virtualized server / datacenter environment, must be a competent user of VMware, virtualization certifications considered an asset.
14. Must be self-motivated and capable of working independently and as part of a team, must excel at planning, organizing and supporting projects.
15. Demonstrated ability to work amongst multi-disciplinary staff in a results oriented unionized environment.
16. Highly effective communication, presentation, interpersonal, organizational and multi-tasking skills.
17. Experience working in a water and wastewater treatment environment would be an asset.
18. Must be able to handle multiple changing priorities.
19. An effective communicator (verbal, written and presentation), honed through practical experience.
20. Must hold valid Class "G" Driver's License.

Disclaimer:

Be advised that Human Resources frequently audits resumes of internal/external applicants to ensure/validate information provided is consistent and trustworthy. Falsification of information provided at any time throughout the recruitment process may be grounds for disqualification, and for internal applicants, subject to discipline up to and including termination.

Terms:

The City is an equal opportunity employer that is committed to inclusive, barrier-free recruitment and selection processes. Consistent with our Values and Corporate Culture Pillars, the City of Hamilton is committed to providing equitable treatment to all with respect to barrier-free employment and accommodation without discrimination. The City will provide accommodation for applicants in all aspects of the hiring process, up to the point of undue hardship. If you have an accommodation need, please contact Human Resources as soon as possible to make appropriate arrangements.

We invite you to visit the departmental webpage to obtain further information on the culture and business of this department.

The incumbent shall comply with all Health and Safety Policies and Practices for this position and the workplace.

It is the responsibility of the applicants to ensure that their application reaches Human Resources by the closing date or they may not be considered. It is also the responsibility of applicants to supply qualifications, licenses and related experience relevant to the qualifications outlined above for this competition as directed. On the basis of the criteria set out above, this posting is open to all applicants

The statements made by me are true, complete and correct to the best of my knowledge. I understand that any falsification of statements, misrepresentations, deliberate omission or concealment of information may be considered just cause for discipline, up to and including termination for internal applicants and disqualification for external applicants.

Please apply on or before: Wednesday, April 30, 2025 at **4:00pm** at www.hamilton.ca/careers and reference Job ID: **30980**.