

CITY OF NANAIMO

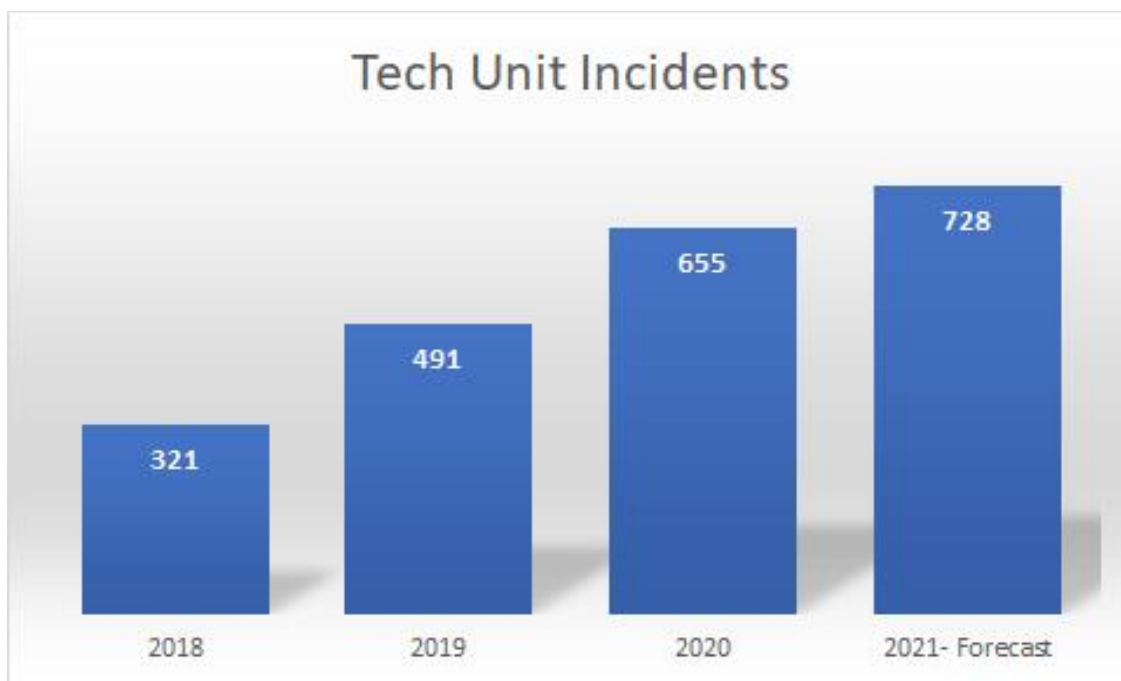
BUSINESS CASE – Information Technology Department: Supervisor, Technical Support Position

CURRENT OVERVIEW

Reporting to the Manager, IT Technical and Client Services, the Technical Services Unit in the Information Technology (IT) department oversees critical systems and IT services for the City including all hardware infrastructure and 120 applications across 22 facilities. It also ensures the security and integrity of the City's network is maintained. As Nanaimo rolls out its Cloud Strategy, this unit will provision and secure technology like MS Azure and Office 365, to name a few.

There are five staff in the Technical Services Unit including three Senior Technical Support Specialists, one Programmer/Network Analyst, and one Technical Support Specialist. Previously, the group was overseen by a Supervisor, Technical Support position. In 2019, this supervisor position was repurposed to a Technical Support Specialist role to address growing demand on the Client Services Unit which operates the City's IT help desk function.

Since 2018 service incidents have doubled (as reflected in the graph below), and staff are currently unable to keep up let alone take on new projects to address the ever-growing amount of technology solutions to support the City's operations.



BUSINESS ISSUE

In recent years, the quantity and scale of IT infrastructure projects has increased. The Technical Services Unit is challenged to prioritize and keep up with daily operations work, and current/future infrastructure projects which continues to increase as more technology is adopted. This has resulted in the following areas requiring additional attention:

IT Security

Due to the growing concerns of Cyber Attacks on City operations, focus needs to be placed on security and privacy by design. This includes security assessments, vulnerability scans, maintaining the security risk register, disaster recovery plans, privacy impact assessments and more. Cyber-attacks can result in services outages, reputational damage, and privacy breaches, as seen recently by other municipalities that have been devastated by these attacks.

Project Management

This Unit is engaged in multiple significant projects simultaneously that has been difficult to manage effectively on top of operational responsibilities. Overall IT project management and a primary contact for consultants and contractors would provide time and structure to manage infrastructure projects effectively.

IT Infrastructure Change Control, Problem Escalation and Incident Management

Unplanned changes to technology in production has impacted service availability and reliability. This is layered with no central point of contact for problem escalation. Having a position that is fully aware of technology in-place, and past/current/future projects and initiatives, will better allow for identification of potential technological and resource conflicts and challenges to avoid unexpected service disruptions. In addition, City infrastructure must be available 24x7 and patched and secured in-house. The proposed position will be responsible for leading the Unit's IT security and system availability response.

Intelligent City Network Operations and Evolution

Nanaimo requires strategic technology planning to expand systems that support our evolving City. There is a growing convergence of traditional information technologies (corporate networks, servers, storage, etc.) and operating technologies (Supervisory Control and Data Acquisition - SCADA, Sensors, Internet of Things - IoT, Smart Traffic, etc.) This evolution requires an innovative approach to plan and manage networks. Experience and practical systems knowledge to guide Nanaimo's Intelligent City transition, supported by next-generation wireless and fibre networks is required.

Cloud Technologies Operations

IT infrastructure is migrating off City servers to the cloud. This transition must be planned and executed in a controlled manner. These new technology platforms have hundreds of components that will require training and leadership for Nanaimo to use this technology effectively. Also, while technology is migrating to cloud environments, a hybrid mode is required to support asset management and GIS systems installed on servers onsite.

Technology Planning

While more technology is migrating to cloud environments, Nanaimo will continue to run in a hybrid mode to support asset management and GIS systems installed on servers onsite. This infrastructure must be available 24x7 and patched and secured in-house. Whether on premises or in the cloud, this

position is responsible leading the Unit's IT security and system availability response. The incident response plan will be augmented with accurate configuration documentation, and tabletop exercises are conducted periodically. The Supervisor will carry a go-bag to support incidents regardless of location

EXPECTED OUTCOME

The addition of a Supervisor, Technical Support would provide the IT Technical and Client Services section with the capacity and adequate oversight to:

- Address security risks
- Coordinate project management
- Manage change and transitions to new technologies effectively (including convergence with traditional infrastructure)
- Coordinate incident management
- Support technology planning

OPTIONS

Option #1 – Recruit a Supervisor, Technical Support Position

Create a permanent full-time Supervisor, Technical Support position that reports to the Manager, IT Technical and Client Services Manager.

Benefits:

- Improved information security posture by focusing on information security operations throughout the lifecycle of technologies in use.
- Better focus on IT compliance processes.
- Improved team cohesion and coordination of work with other supervisors within IT
- Improvement of Nanaimo Intelligent City infrastructure support.
- Improved employee wellness and resiliency with less potential of burnout.

Weaknesses:

- Permanent increase to the operating budget of the IT Department.

Financial Analysis:

- The position is level 16, with an annual salary of \$102,250. 2022 budget impact including benefits is estimated at \$96,100 based on an April 1st start date. The 2023 budget impact is estimated at \$130,700.
- Additional annual costs are anticipated at \$3,500 for professional development, annual memberships, computer network charges, and a cell phone.
- One-time costs are projected at \$2,850 for the purchase of a cell phone, desk phone, and laptop for remote access. The department has a workstation for the position.

Option #2 – Status Quo

Benefits:

- No increase to operating budget for IT Department

Weaknesses:

- Continued IT security risks related to no dedicated resource focusing on information security.
- Continued communications and collaboration challenges between the Technical Services Unit and other IT units.
- Low resource levels cause project delays and service outages.
- Lack of one central resource to coordinate Unit work.
- The continuation of unplanned changes to production without following best practices for change management creating service disruption risks.
- Project work in the Unit will continue in an ad hoc fashion without effective controls and oversight.

RECOMMENDATION

Option #1 – Create a Supervisor, Technical Support Position.