The Information Technology (IT) department provides leadership in innovative application of computer technology, geographic information system (GIS) services, the City’s website, desktop and mobile computing, networking and telephone technology. A 24-member team collaborates with City departments to deliver business IT and GIS solutions for City programs and services. They manage the overall investment in IT and GIS, and optimize and ensure alignment with business objectives.

The department consists of two primary sections:

• Technical & Client Services manages the core IT Infrastructure for the City and provides front line service desk support.

• Application Services consists of three business units, supports complex business systems, and GIS services for the City.

DEPARTMENT’S SHARE OF CITY’S OPERATING EXPENDITURE BUDGET

Operating Expenditure Budget:

$ 4,223,342

INFORMATION TECHNOLOGY 3.0%
REMAINING CITY BUDGET 97.0%
Information Technology

KEY SERVICES

- Manage and support 22 sites and facilities distributed over 90 sq. km
- Support over 900 users and contractors
- Deploy, support, and maintain over 600 desktop computers
- Deploy and provide front-line support for over 120 applications and services used throughout the City by staff and public
- Design, build, manage, and leverage network infrastructure to support a wide range of corporate services.
- Manage the spatial assets for the City in the GIS unit

Applications Support Services

Manages the public facing website, FDM (911 Fire Dispatch software), SharePoint (intranet collaboration sites), Fleet maintenance software, as well as technical support for HubMap, NanaimoMap, and all other web applications at the City.

Client Services

Deploys and provides front-line support for over 120 applications and services used throughout the City, by staff and public.

Financial Systems & Reporting Services

Manages the SAP and Tempest systems to support payroll, financials, asset management, utility billing, land management and property taxes.

Geographic Information Systems Services

Manages the geographic data the City uses to track and maintain assets and make business decisions. Provides tools and training to view and analyse business data spatially.

Technical Services

Provide technical leadership and technical support to design the IT infrastructure running the City’s applications and systems.

Over the past decade, the requests by both the public and internal staff to be able to use technology to perform business tasks has increased. People are asking for more integration between systems, and easier access to information. The majority of the public now accesses the City of Nanaimo’s website via a mobile browser.

2018 ACHIEVEMENTS

Seventy projects completed (annual average) including:

- Parks & Recreation system replacement – PerfectMind. Completed a 4 year project to replace an end of life recreation system with a cloud based, modern application.
- 2018 Air Photo Renewal – Acquired new high resolution vertical aerial photography covering the City to assist staff with application review, asset management and to support the enforcement of the City Tree Protection Bylaws.
- RFI for Enterprise Resource Program (ERP) systems – invited vendors through an open process to demonstrate their ERP software so the City would have an understanding of what functionality is available and should be requested in a future RFP for our ERP system which will not be supported after 2025.
- Digital agendas and minutes software – eSCRIBE -Implemented cloud-based eSCRIBE meeting management software solution to enable Legislative Services to prepare and publish Council and Committee meeting documents and livestream Council and Committee meetings to the City website. Migrated 18 years of Council documents and videos into the new system.
- Garbage Automation software – InnovaSuite -Implemented InnovaSuite waste management software solution to allow Public Works to track and manage their automated collection truck fleet and the RFID-chipped garbage/recycling/organics carts. The new system includes hardware and software in the new automated collection trucks, web-based management software for office staff, and integrates with Tempest and the City website.
- IT Servicedesk software – Cherwell - Implemented Cherwell Service Management software known as Service Desk to replace the previous Help Desk software that was no longer supported by the vendor. The system is used to manage and track incoming service requests and incidents, as well as all of the organization’s IT assets.
- Capital Project Management System (CPMS) Revamp – Applications Support team worked with Engineering and Public Works, and Parks and Recreation and Facilities to enhance and revamp the aging, but heavily depended upon CPMS application that was originally developed in-house over a decade ago.
2018 ACHIEVEMENTS (CONT’D)

• Cemetery management software – Stone Orchard - Implemented Stone Orchard cemetery system, which allows Revenue Services staff to track and manage cemetery burial plots and interments.

• FDM System Enhancements - Performed a multitude of system enhancements and upgrades to Nanaimo Fire Rescue’s FDM 911 system

• GIS Technology Plan Implementation - Completed a re-organization of staff engaged in GIS service delivery as recommended by the City of Nanaimo GIS Technology Plan.

• Waterfront Walkway Story Map - Published a website of geographic information about the Waterfront Walkway implementation plan.

• CheckPoint Firewalls upgraded and migrated to physical appliances

• Critical Infrastructure Seminar with various stakeholders including local government

• Councillor hardware refresh

• Server hardware refresh including VMware servers, Domain Controllers, and Print servers

• Implemented email archiving system

• External fibre infrastructure audit and assessment

• External Network Design Audit

• Multifunction Printer RFP development and release

• Skype for Business implementation and integration

• Upgrade remote facility VPNs to provide secure connection back to City infrastructure

• Windows 10 rolled out to various facilities

• Varonis network/file/Active Directory auditing tools implemented

• VMware Horizon implemented and set to replace Citrix for remote access to City applications

KEY CHALLENGES FOR 2019

• IT security: As systems become more integrated and complex, the security necessary to protect the systems also keeps increasing. Cybercrime poses a real and persistent threat to business and government. Ongoing work is needed in order to adequately protect the City’s systems.

• Capacity to innovate and enable change: The pace of change in technology keeps increasing every year. The demand internally and externally for business solutions is growing which puts pressure on the IT department to build out the infrastructure.

• Citizen and staff expectations: The expectations from the citizens of Nanaimo and City staff to be able to access information and conduct business with the use of technology continues to grow.

• Resourcing requirements: External and internal business requests to be able to expand the use of technology continues to increase and it is expected that this trend will continue.

• Citizens want to be able to conduct business with the City of Nanaimo using the internet without having to call someone or come to City Hall in person.

• The preferred device for the public to access the internet, maps or applications is now the smartphone instead of a pc.

• Internal staff are bringing forward requests to automate paper-based processes and want the ability to access, and edit business data while out in the field.

• Improved technology and greater utilization means that there is greater need for IT infrastructure and IT support to manage the increase in number of requests
Information Technology

KEY INITIATIVES FOR 2019

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
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<tbody>
<tr>
<td><strong>GIS</strong></td>
<td>Ongoing: Mobile GIS data collection capabilities for field workers. Provision staff with mobile geographic information viewing and data collection tools.</td>
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<td></td>
<td>Improve Public Access to GIS Resources. Publish a new public facing Park Finder application to enable citizen and visitor access to information about City Parks using smartphones, tablets and other mobile computing devices.</td>
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<tr>
<td><strong>Financial Systems</strong></td>
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<td>Content Management System (CMS) software pilot for HR, Legislative Services and IT.</td>
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<tr>
<td><strong>Applications Support</strong></td>
<td>Lifeguard scheduling software</td>
<td>City Portal Intranet SharePoint Upgrade - Upgrade the existing City Portal intranet software to SharePoint 2016 from SharePoint 2010 to ensure we are running a vendor supported product.</td>
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</table>
# Information Technology

## KEY INITIATIVES FOR 2019

### Technical Services

- Frank Crane Area fibre optic network extension
- Network Security Assessment and external network Penetration Testing

### Financial Systems/GIS

- RFI for computerized maintenance management system

### GIS/Application Support Units

- NanaimoMap Replacement - Upgrade public facing NanaimoMap GIS web map to enable citizen and visitor access using smartphones, tablets and other mobile computing devices. NanaimoMap is the City’s most utilized web application, and is relied upon by citizens and businesses.

### Q1

- Microsoft Exchange 2016 email messaging platform upgrade
- Microsoft Enterprise Agreement licence renewal
- Network security enhancements
- Creation and alignment of a integrated security program
- Upgrade virtual infrastructure backup tools

### Q2

- Mobile Device Management tool implementation
- Critical Infrastructure security assessment/audit

### Q3

- Mobile Device Policy development and rollout
- Reconfigure City telephone system and handsets to be better prepared for an emergency (DR)

### Q4

- Signs software upgrade or replacement
- Traffic software upgrade or replacement
## PROPOSED OPERATING BUDGET

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*Restated budget reflects allocations of committed contingency as a result of CUPE contract settlement*
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PROPOSED CHANGES

The 2019 – 2023 Draft Financial Plan includes the next two phases of Content Management System pilot. A business case for this project was prepared as part of the 2018 – 2022 Financial Planning process.

**Content Management System (CMS) pilot**

Implement a new CMS over a three year period. The rollout would be iterative with the initial pilot departments being IT, HR and Legislative Services in 2019. Upon completion of the pilot rollout, the system would be rolled out to the whole organization.

**Budget impact:**

- $221,000 in 2019
- $656,500 in 2021
- Once fully implemented annual maintenance costs will be $75,000