

# Information Systems Specialists

A guide for newcomers to British Columbia



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## 1. Working as an Information Systems Specialist

### [NOC 2021: 21222]

#### *Job Description*

Information systems specialists are experts in electronic management of data. You work to improve the performance of computer networks and ensure the security of databases.

Your duties include:

- Analyze, test and manage information systems used to collect, organize and distribute data
- Design and develop new systems
- Ensure that the information stored in systems is protected
- Create and carry out the plans, policies and procedures for the company's information systems
- Check for and fix any problems that could come up in these systems

With education and experience, you may specialize in specific types of systems such as systems security, quality assurance planning or systems auditing.

Source: **WorkBC Career Profile for Information Systems Specialists**

<https://www.workbc.ca/career-profiles/information-systems-specialists>

## **Industry Overview**

WorkBC identifies this as a high opportunity occupation. Information Systems Specialists are in high demand, especially workers with experience, technical skills and business knowledge.

12,735 people are currently employed as Information Systems Specialists in BC. More than 75% of these jobs are located in the Mainland/Southwest region of BC.

## **Job Outlook in BC**

### **Information Systems Specialists**

#### **Forecasted Job Openings (2023-2033)**

**9,370**

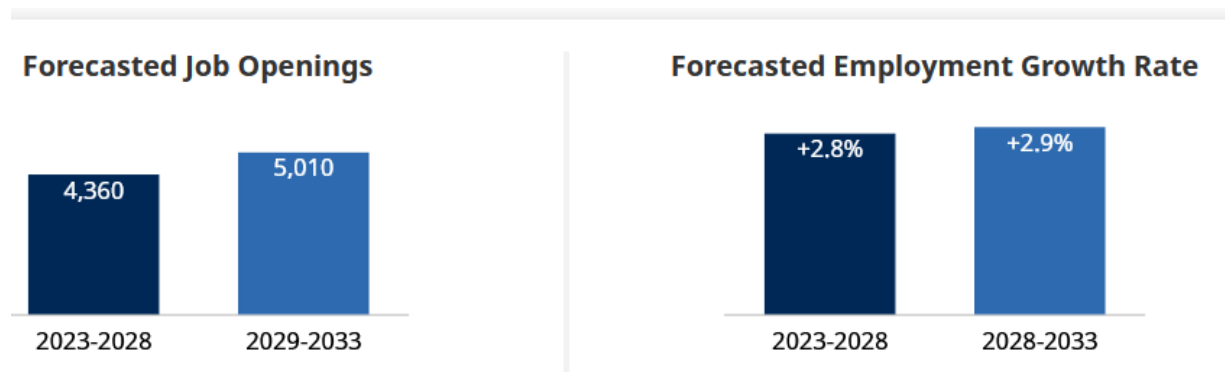


Chart from WorkBC

WorkBC provides job openings in BC regions from 2023-2033:

<b>Region</b>	<b>2023 Estimated Employment</b>	<b>Avg Annual % Change, 2023 to 2033</b>	<b>2023-2033 Estimated # of Openings</b>
Vancouver Island	1855	2.5%	1270
Lower Mainland / Southwest	9725	3.0%	7450
Thompson-Okanagan	745	2.5%	500
Kootenay	145	1.3%	80
Cariboo	175	0.6%	50

## Information Systems Specialists

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North Coast & Nechako	60	4.8%	30
Northeast	30	n/a	n/a

Related careers also in high demand include:

- Cybersecurity Specialists [NOC 21220]
- Business Systems Specialists [NOC 21221]

You can learn more about working as an Information Systems Specialist in BC from:

- **WorkBC Career Profile for Information Systems Specialists**  
<https://www.workbc.ca/career-profiles/information-systems-specialists>

### ***Types of Employers***

Information Systems Specialists work in information technology (IT) consulting firms and telecommunications businesses, financial institutions such as banks and credit unions, and IT departments in both the private and public sectors. You may work for hardware and software developers, manufacturers, retailers, IT companies, government agencies, and insurance companies. You may also be self-employed and consult with several companies.

### ***Salary***

In BC, the annual median salary is \$87,595; the provincial hourly median rate is \$42.00.

Earnings depend on many factors. The more experience and education you have, the more money you can make. People with more responsibility also earn higher salaries.

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Specialists who work full time usually get benefits as well as a salary. These often include extended health care, paid vacation time, and sick days. Some specialists get performance bonuses, too.

Job Bank Canada provides hourly wages for information systems specialists in BC regions:

Community/Area	Low (\$/hour)	Median (\$/hour)	High (\$/hour)
<a href="#">British Columbia</a>	26.00	42.00	62.37
<a href="#">Lower Mainland–Southwest Region</a>	26.00	43.08	71.43
<a href="#">Thompson–Okanagan Region</a>	26.00	42.00	62.37
<a href="#">Vancouver Island and Coast Region</a>	28.50	40.50	55.38

Sources:

- WorkBC Career Profile for Information Systems Specialists
- Career Cruising – Profile for ‘Business Systems Analysts’  
<https://www.vpl.ca/digital-library/career-cruising>  
Available from the VPL Digital Library
- JobBank Canada – Wage Reports <https://www.jobbank.gc.ca/marketreport/wages-occupation/22490/BC>

### ***Working Hours***

Because information systems must be always available, work may sometimes take place outside of regular office hours. System maintenance and upgrades, for example, often occur at night and on weekends. During the implementation of a new computer system, trouble-shooting critical applications, or times of problems, you may be required to work long hours.

Depending on your position, you could be on call 24 hours a day to helping solve problems. Work can be stressful, especially when setting up new systems or dealing with urgent issues.

## 2. Skills, Education and Experience

### ***Skills***

- exceptional communication, research and planning skills
- problem solving and decision making
- good with people
- critical thinking
- project management

### ***Education and Experience***

Completion of a bachelor's degree or college program in computer information systems, information technology, computer science, computer engineering, software engineering or a related area is required.

Experience as a computer programmer is often required. Skills in IT infrastructure, security operations, network support, software development or DevOps may also be required. An understanding of project management is an asset. Due to the rapid changes in information technology, ongoing continuing education is essential.

### ***Qualifications***

**This occupation does not require certification in British Columbia.**

However, some employers look for workers with certification as a *Certified Information Systems Auditor* (<https://www.isaca.org/credentialing/cisa>) or *Certified Internal Auditor* (<https://www.theiia.org/en/certifications/cia>).

Experienced systems specialists can apply for the *Information Systems Professional (ISP)* designation through the Canadian Information Processing Society.

- For more information on the ISP designation see: <https://cips.ca/isp/>

Source: WorkBC

### 3. Finding Jobs

You'll find job advertisements in local newspapers, trade journals, and electronic sources, as well as through professional associations' publications.

#### ***Local Newspapers***

You can look at the *Vancouver Sun & The Province* at Vancouver Public Library for free. Check the job postings daily, the careers section in the *Vancouver Sun* on Wednesdays and Saturdays and in *The Province* on Sundays.

#### ***Online Job Postings***

- **Indeed.com**

<https://ca.indeed.com/>

Find jobs posted on a multitude of company career sites and job boards.

- **T-Net British Columbia**

<https://www.bctechnology.com/jobs/search.cfm>

- **Talent.com**

<https://ca.talent.com/>

#### ***Professional Associations' Career Resources***

- **Canadian Information Processing Society (CIPS) Job Board**

<https://cips.ca/jobs/>

- **eTalent Canada (ICTC)**

<https://etalentcanada.ca/>

employment programs, job market information, employment data

#### ***Identifying the Right Position***

When you browse job advertisements, you'll find a range of different job titles that are relevant.

For information systems specialists, look for these related job titles (from NOC):

- IT (Information Technology) Consultant
- Computer Systems Analyst
- Information Systems Quality Assurance Analyst
- Management Information Systems (MIS) Analyst
- Systems Auditor
- Systems Consultant
- Informatics Consultant

### ***Creating a List of Potential Employers***

You can use directories to produce lists of employers who work in the computer programming and software industry in Vancouver or the Lower Mainland. Contact them directly to find out if they're hiring.

- **BC Tech 2023**

Includes the top 100 tech companies in BC and more

<https://www.biv.com/magazines/bc-tech-2023-8273649>

Also Available at the Central Library, 380 EL3CBh

- **BC Tech Association**

<https://wearebctech.com/members/member-directory/>

- **T-Net – Member Directory**

[https://www.bctechnology.com/scripts/members\\_only.cfm?t=directory&dstr](https://www.bctechnology.com/scripts/members_only.cfm?t=directory&dstr)

Free membership required to access

- **Reference Canada**

<https://www.vpl.ca/digital-library/reference-canada>

Click on "Start Search" beside Canadian Businesses, then select the "Advanced Search" button. Select both "Keyword/SIC/NAICS" under Business Type and "City" under Geography. In the top search box enter "computer systems" and click SEARCH. Select the appropriate headings. Lower down, select the Province, choose the cities, and click the "View Results" button.

*Available from the VPL Digital Library*



**NOTE:** You can access this database from a Library computer. If you are using a computer from outside the Library, you will need a Vancouver Public Library card to login to this database. After clicking on the database name, you will be asked to enter your library card number and PIN (usually last four digits of your telephone number).

## 4. Applying for a Job

In Canada, employers usually expect to receive a resume or curriculum vitae and a cover letter that identifies the position you are applying for and summarizes your relevant experience.

Use the library catalogue, <https://vpl.bibliocommons.com/> to find books on writing resumes and cover letters specific to your industry.

To learn about applying for jobs in Canada, use the following guides which are available in print at the Central Library or online at <https://www.vpl.ca/siic/>.

- **Writing Resumes and Cover Letters**  
<https://www.vpl.ca/siic/guide/job-search-resources/writing-resumes-and-cover-letters>
- **Getting Canadian Work Experience**  
<https://www.vpl.ca/siic/guide/job-search-resources/getting-canadian-work-experience>
- **Networking for Employment**  
<https://www.vpl.ca/siic/guide/job-search-resources/networking-for-employment>
- **Learn More About Working in BC and Canada**  
<https://www.vpl.ca/siic/guide/job-search-resources/learn-more-about-working-in-bc-and-canada>

## 5. Getting Help from Industry Sources

### *Industry Associations*

Associations and organizations for information technology in BC and Canada provide information and assistance. Some require paying a fee for membership.

- **BC Tech Association**  
<https://wearebctech.com/>
- **Information and Communications Technology Council ICTC**  
<https://ictc-ctic.ca/>
- **Technation.ca**  
<https://technationcanada.ca/en/>
- **Association of Professional Canadian Consultants (APCC)**  
<https://www.apcconline.com/>  
The APCC is a Canadian not-for-profit professional association designed for the independent IT consultant.
- **Canadian Information Processing Society (CIPS)**  
<https://cips.ca/>
  - **BC Chapter CIPS**  
<https://bc.cips.ca/>
- **Information Systems Audit & Control Association (ISACA)**  
<https://www.isaca.org/>
- **IEEE Computer Society Vancouver Chapter**
  - Vancouver <https://site.ieee.org/vancouver-cs/>
  - International <https://www.computer.org/>

### *Industry Journals*

Search for journals related to your profession. Examples at the Vancouver Public Library and online include:

- **BC Tech Association - Newsletters**  
<https://wearebctech.com/research/tech-news/bc-tech-newsletters/>

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- **BC Tech** (A division of Business In Vancouver)  
Available at VPL Central Library, 380 EL3CBh and online  
<https://www.biv.com/magazines/bc-tech-2023-8273649>

***Questions? Please ask the Information Staff in the Central Library,  
Vancouver Public Library or telephone 604-331-3603.***

*Please note that the information in this guide is also available online through the  
Skilled Immigrant InfoCentre website at <https://www.vpl.ca/siic/>.*