

**You said:**

What are in Canada the options for internet access in big Cities?

**ChatGPT said:**

In big cities across Canada—like Toronto, Vancouver, Montreal, Calgary, and Ottawa—residents have access to a wide range of internet service options. Here's a breakdown of the main types and providers:

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## **Types of Internet Access Available**

### **1. Cable Internet**

- **Speed:** High (up to 1.5 Gbps in many areas)
- **Common Providers:** Rogers, Videotron, Shaw (now part of Rogers)
- **Best for:** Streaming, gaming, households with multiple users

### **2. Fibre Optic Internet**

- **Speed:** Very high (up to 8 Gbps in some locations)
- **Common Providers:** Bell Fibe, Telus PureFibre, Allstream, Beanfield (in select areas)
- **Best for:** Heavy users, businesses, tech-savvy households
- **Note:** Availability may vary even within cities

### **3. DSL (Digital Subscriber Line)**

- **Speed:** Moderate (up to 100 Mbps, typically lower)
- **Common Providers:** Bell, TekSavvy, Distributel
- **Best for:** Budget-conscious users, basic needs

### **4. Fixed Wireless**

- **Speed:** Varies (typically 25–100 Mbps)
- **Common Providers:** Xplore (formerly Xplornet), rural-focused ISPs
- **Best for:** Urban edge or semi-rural areas

### **5. 5G / Mobile Internet**

- **Speed:** Fast (theoretical speeds >1 Gbps with 5G)
- **Common Providers:** Bell, Rogers, Telus, Fizz (in Quebec)
- **Best for:** Temporary use, mobile users, small households



## 6. Satellite (e.g., Starlink)

- **Speed:** Decent (50–250 Mbps)
- **Best for:** Rural or remote edge of big cities; generally not used in urban cores due to better options

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### Major Providers in Big Cities

Provider	Technology	Coverage Notes
<b>Bell</b>	Fibre, DSL, 5G	Major cities, expanding fibre footprint
<b>Rogers</b>	Cable, Fibre, 5G	Strong in Ontario, now coast-to-coast
<b>Telus</b>	Fibre, 5G	Dominant in western cities (Vancouver, Calgary)
<b>Videotron</b>	Cable, Fibre, 5G	Quebec-focused
<b>TekSavvy</b>	DSL, Cable	Independent provider using other networks
<b>Distributel</b>	DSL, Cable	Also resells Bell and Rogers services
<b>Beanfield</b>	Fibre	Urban-focused, strong in Toronto, Montreal (condos especially)

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### Typical Costs (2025 Estimates)

- **Budget DSL:** \$35–\$60/month (up to 50 Mbps)
- **Cable or Fibre:** \$60–\$120/month (100 Mbps to 1 Gbps+)
- **Unlimited data:** Usually standard now, but some budget plans may cap usage

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### Tips for Choosing

- **Check availability by address** – Fibre might be on one block but not the next.
- **Watch for promos** – First 12-month discounts are common.
- **Avoid overpaying for speed** – 300–500 Mbps is more than enough for most homes.
- **Independent ISPs** – Like TekSavvy or Start.ca offer good service and customer support, often at lower prices.

Would you like help comparing options for a specific city or postal code?

**You said:**



What equipment is required for house fibre connection?




**ChatGPT said:**

To set up a **household fibre internet connection** in Canada (or generally anywhere), you'll need a few specific pieces of equipment, some provided by your Internet Service Provider (ISP) and some potentially purchased or rented by you.




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## Required Equipment for Fibre Internet at Home



### 1. ONT (Optical Network Terminal)

-  **What it does:** Converts the incoming fibre optic signal into an Ethernet signal your home network can use.
-  **Where it's installed:** Usually on an interior wall close to where the fibre line enters your home (basement, utility room, etc.)
-  **Provided by ISP?** Yes, this is almost always installed and maintained by the ISP (e.g., Bell, Telus).

### 2. Router (Wi-Fi Router)

-  **What it does:** Distributes the internet connection wirelessly (or via Ethernet) to your devices.
-  **Wi-Fi 6 or Wi-Fi 6E** is recommended for modern high-speed fibre plans.
-  **Buy or rent?**
  - You can **rent** from your ISP (common, easy support)
  - Or **buy your own** (better long-term value and performance)

### 3. Ethernet Cables (Cat 5e, Cat 6, or Cat 6a)

-  **What it does:** Connects your ONT to your router, and optionally from the router to wired devices (PC, gaming console, etc.)
  -  **Recommendation:** Use **Cat 6 or Cat 6a** to support Gigabit+ speeds
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## Optional but Useful

Item	Use Case
Wi-Fi Extenders / Mesh System	For larger homes or weak signal areas
Battery Backup (UPS)	Keeps ONT and router running during power outages



Item	Use Case
Network Switch	If you need more Ethernet ports than your router provides
Wall-mounted cabinet	For neat installation of ONT, router, etc., in a utility room

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### Installation Process Overview

1. **Fibre Drop Installed:** Fibre optic line brought to your home from the street (a technician usually does this).
  2. **ONT Installed:** Mounted indoors where the fibre enters.
  3. **Router Connected:** Connected to the ONT via Ethernet.
  4. **Wi-Fi Setup:** Name your network and set passwords.
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### Example: Bell Fibe Setup

- **ONT:** Installed by Bell technician
  - **Home Hub (modem/router):** Can be rented or replaced with your own compatible router
  - **Wall jack / Fibre termination box:** Installed on exterior and interior wall
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Would you like a diagram or a shopping list of recommended routers compatible with Bell or Telus fibre?

**You said:**

What about POTS over Fibre?

**ChatGPT said:**

Great question — **POTS (Plain Old Telephone Service) over Fibre**, also known as **VoIP over fibre** or **POTS replacement**, is an increasingly common setup in Canada as traditional copper telephone lines are phased out in favor of fibre infrastructure.

Here's how it works and what you need to know:

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### POTS Over Fibre in Canada – Key Concepts

#### What Happens When Fibre Replaces Copper?

- Traditional copper-based POTS lines (analog) are being **decommissioned**.



- When fibre is installed, your phone service becomes **digital**, delivered over IP via the **ONT (Optical Network Terminal)** or a **VoIP adapter**.
- This is usually referred to as **“Fibe Home Phone”** (Bell), **“Digital Phone”** (Rogers), or **“Home Phone with Fibre”** (Telus).

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### Equipment for POTS over Fibre

Equipment	Description	Provided By
<b>ONT (Optical Network Terminal)</b>	Converts fibre to Ethernet and provides phone jacks for analog phones	ISP
<b>Battery Backup (UPS or BBU)</b>	Ensures phone service works during power outages (critical for 911)	Sometimes provided, or optional
<b>Analog Phone / Cordless Base Station</b>	Plugs into ONT or ATA (see below)	You
<b>ATA (Analog Telephone Adapter) (if used separately)</b>	Converts VoIP to analog for phones (used by 3rd-party VoIP providers)	3rd-party or included in modem/router

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### How the Phone Line Works Over Fibre

1. **Phone signal is carried digitally** over the fibre line.
2. **ONT has a phone port (RJ11)** where you plug in your house wiring or a phone directly.
3. ISP provides a **VoIP service** that mimics the functionality of a traditional landline — including:
  - 911 calling
  - Call display
  - Voicemail
  - Call forwarding, etc.

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### What About Power Outages?

**This is critical.** Fibre-based phone services **do not work** during a power outage unless you have a **battery backup** for the ONT and modem/router.

- Bell and Telus sometimes offer a **Battery Backup Unit (BBU)** that gives 4–8 hours of power for emergency use.



- You can also use a standard **Uninterruptible Power Supply (UPS)** for both ONT and router.
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### **Pros and Cons of POTS over Fibre**

#### **Pros**

Often cheaper when bundled

High call quality

Keeps your home number and 911 access

#### **Cons**

Doesn't work during power outages without backup

Requires ONT or ATA

May need rewiring if whole-house phones are used

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### **What About Using 3rd-Party VoIP Instead?**

If you don't want to use the ISP's voice service, you can:

- Use a service like **Ooma, VoIP.ms, MagicJack, or Fongo**
- Get an **ATA device** (e.g., Grandstream, Obihai) to connect your regular phones

These services may be cheaper, but:

- You manage 911 registration manually
  - Reliability may depend on your own router and internet connection quality
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Would you like a specific setup recommendation for Bell, Rogers, or Telus fibre home phone service? Or a battery backup setup to keep your fibre phone working during blackouts?

#### **You said:**

yes - With Telus

#### **ChatGPT said:**

Great — here's a complete breakdown of **POTS over fibre with Telus**, including what you need, how it's set up, and how to ensure it works during power outages.

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### **Telus Home Phone Over Fibre – How It Works**

When you get **Telus PureFibre**, your **home phone service is delivered digitally** over that fibre connection (VoIP). This replaces traditional analog POTS lines and runs through Telus equipment in your home.

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## Equipment Required (Telus)

### 1. Telus ONT (Optical Network Terminal)

- Installed in your utility room or near where the fibre line enters the home.
- Has **RJ11 phone jacks** for analog phones.
- One jack usually connects to your home's internal phone wiring (if needed).

### 2. Telus Wi-Fi Hub / Modem (optional for phone service)

- Required only if bundling with internet; the phone service connects directly via ONT.
- May have a phone jack as well, depending on the model.

### 3. Analog Phone or Cordless Base Station

- Plugs into ONT or wall jack.
- Can distribute dial tone to all phone jacks in the house (if rewired properly).

### 4. Battery Backup (UPS or BBU)

- Not included by default.
- Required to keep phone line working in power outages (for 911 access).
- Can power:
  - ONT (critical)
  - Wi-Fi Hub (optional unless VoIP goes through it)
  - Cordless phone base (if not using an old-style wired phone)

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## Battery Backup Options

Telus no longer includes a dedicated Battery Backup Unit (BBU) by default. Instead, they recommend you **install a UPS (Uninterruptible Power Supply)** if you want backup phone service.

### Recommended Setup:

Device	Model Example	Runtime Estimate
UPS	APC Back-UPS 550 / 650VA	3–6 hrs for ONT only
Wired Phone	Old analog wall phone	Works on low voltage from ONT
Cordless	Base + UPS	Needs its own backup power

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## **Telus ONT Phone Port Setup**

- Telus tech will plug your phone line into a jack labeled "**TEL 1**" on the ONT.
  - They can also connect the ONT to your home's phone wiring if you want to use phones throughout the house (legacy jacks).
  - You **don't need** a separate VoIP box or ATA — Telus manages the conversion at the ONT.
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## **Important Notes About 911 and Power Failures**





- **911 does not work** if power is out and your ONT/router/phone don't have backup power.
  - Telus recommends using a **corded phone** (not cordless) for reliability in emergency situations.
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## **Suggested Shopping List (if buying your own gear)**

Item	Why It's Needed	Example
UPS battery backup (650VA)	Keeps ONT and phone working during outages	APC Back-UPS 650
Corded phone	Works without power on ONT	AT&T Trimline or similar
Phone splitter (optional)	If connecting multiple devices	Any RJ11 splitter
Telus Wi-Fi Hub (included)	Needed only for bundled services	Provided by Telus

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## **TL;DR – Quick Setup Summary**

-  **Fibre installed → ONT installed → Telus plugs phone into ONT**
  -  **Use any analog phone (corded preferred for emergency)**
  -  **Add UPS if you want service during power outages**
  -  **No need for ATA or special VoIP gear with Telus**
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Would you like a visual diagram of how this setup looks, or help picking a UPS for a specific budget or runtime target?

**You said:**



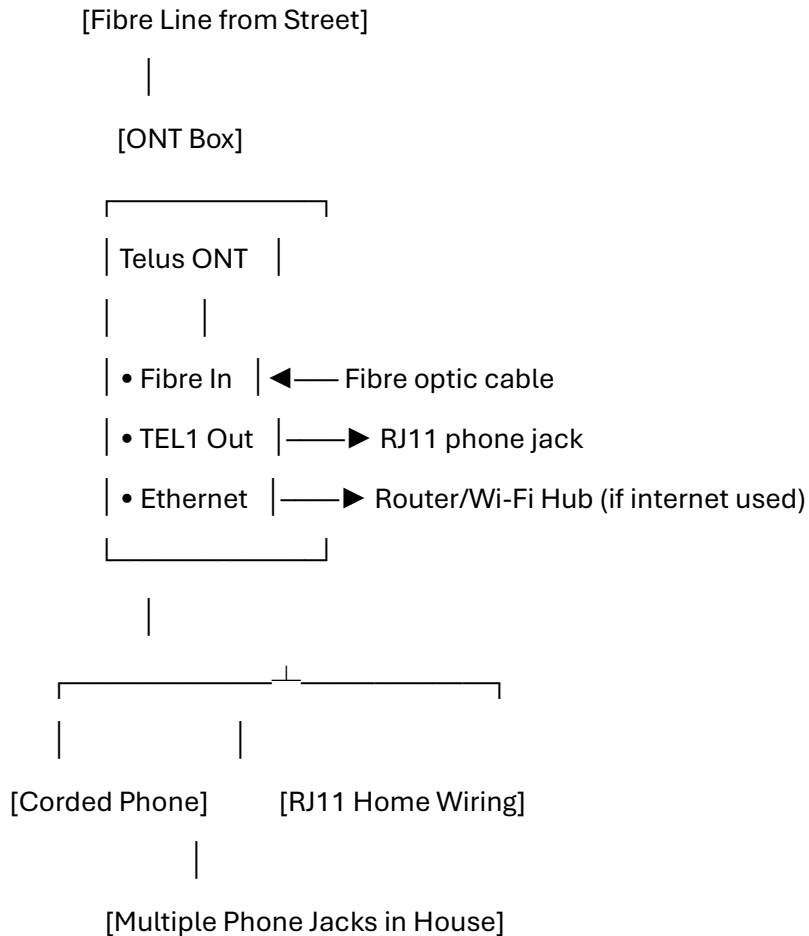
yes

**ChatGPT said:**

Great! Here's both a **visual diagram** of a typical **Telus Fibre Home Phone setup**, and a **UPS (battery backup) recommendation** based on runtime and budget.

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#### **Diagram: Telus PureFibre Home Phone Setup**






If you're using a **cordless phone base**, plug it into the ONT or a home jack and make sure the base is also connected to a **UPS**.

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#### **UPS (Battery Backup) Recommendations for Telus Fibre Phone**

Here are three options based on your needs and budget:



Use Case	Model	Approx Runtime (ONT only)	Price (CAD, est.)	Notes
 <b>Basic Backup</b>	APC Back-UPS 425VA (BE425M)	2–3 hours	~\$75	Compact, good for ONT + 1 device
 <b>Mid-Range</b>	APC Back-UPS 650VA (BX650MI)	4–6 hours	~\$110	Ideal for ONT + cordless base
 <b>Long Runtime</b>	CyberPower 1000VA (CP1000AVRLCD)	6–10 hours	~\$150–\$170	Good for ONT + router + phone

**Where to Buy:** Best Buy Canada, Amazon.ca, Staples, or Telus themselves (for router power packs).

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### Setup Tips

- Plug your **ONT's power adapter** into the UPS.
- Also plug in your **corded phone** or **cordless base station** if needed.
- Don't overload the UPS with things like TVs or computers — it's for essential telecom use only.
- You can test by **unplugging power** to your house briefly — the UPS should keep your phone line active.

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Would you like a printable version of this setup (e.g., PDF), or help choosing a UPS based on your devices and square footage?

**You said:**

yes

**ChatGPT said:**

To generate the printable PDF, you'll need to **log in to ChatGPT** with Python enabled, as the PDF creation feature uses code execution. But no worries — here's the **Python code** you can run yourself on your computer (with [Python](#) and the `fpdf` library installed):

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### Python Code to Create the Telus Fibre Phone Setup PDF

```
from fpdf import FPDF
```



```

class TelusFibrePhonePDF(FPDF):

    def header(self):

        self.set_font("Arial", "B", 14)

        self.cell(0, 10, "Telus PureFibre Home Phone Setup Guide", ln=True, align="C")

        self.ln(5)


    def chapter_title(self, title):

        self.set_font("Arial", "B", 12)

        self.cell(0, 10, title, ln=True)

        self.ln(2)


    def chapter_body(self, text):

        self.set_font("Arial", "", 11)

        self.multi_cell(0, 8, text)

        self.ln()


pdf = TelusFibrePhonePDF()

pdf.add_page()


pdf.chapter_title("Overview")

pdf.chapter_body(

    "This guide explains how to set up Telus PureFibre home phone (VoIP over fibre) and keep it
    running during power outages."

)


pdf.chapter_title("Setup Diagram")

diagram = ""

[Fibre Line from Street]

|

```



```

graph TD
    ONT[Telus ONT]
    FibreIn[• Fibre In]
    TEL1Out[• TEL1 Out]
    Ethernet[• Ethernet]
    FibreOptic[Fibre optic cable]
    RJ11[RJ11 phone jack]
    Router[Router/Wi-Fi Hub (optional)]
    CordedPhone[Corded Phone]
    RJ11Wiring[RJ11 Home Wiring]
    MultipleJacks[Multiple Phone Jacks in House]

    ONT --- FibreIn
    ONT --- TEL1Out
    ONT --- Ethernet
    FibreOptic --> FibreIn
    TEL1Out --> RJ11
    Ethernet --> Router
    RJ11 --- CordedPhone
    RJ11 --- RJ11Wiring
    RJ11Wiring --- MultipleJacks
  
```

[ONT Box]

Telus ONT

- Fibre In ← Fibre optic cable
- TEL1 Out → RJ11 phone jack
- Ethernet → Router/Wi-Fi Hub (optional)

[Corded Phone] [RJ11 Home Wiring]

[Multiple Phone Jacks in House]

'''

```

pdf.set_font("Courier", "", 9)
pdf.multi_cell(0, 5, diagram)
pdf.ln()

pdf.set_font("Arial", "", 11)
pdf.chapter_title("Required Equipment")
pdf.chapter_body(
    "1. Telus ONT (installed by Telus)\n"
    "2. Corded or cordless phone\n"
    "3. Optional Telus Wi-Fi Hub (if bundling internet)\n"
    "4. UPS (battery backup) to keep phone line working during power outages"
)

pdf.chapter_title("UPS (Battery Backup) Options")
  
```



```
pdf.chapter_body(
    "• APC Back-UPS 425VA (~$75 CAD): 2–3 hrs runtime for ONT\n"
    "• APC Back-UPS 650VA (~$110 CAD): 4–6 hrs runtime for ONT + cordless base\n"
    "• CyberPower 1000VA (~$150 CAD): 6–10 hrs for ONT + router + phone\n"
)

pdf.chapter_title("Tips")
pdf.chapter_body(
    "- Plug ONT into UPS to maintain phone service during outages\n"
    "- Use a corded phone for 911 access even during blackouts\n"
    "- Avoid plugging unnecessary devices into the UPS"
)


pdf.output("Telus_Fibre_Phone_Setup_Guide.pdf")
```


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### **To Run This:**

1. Install the fpdf package:

 pip install fpdf

 Save the code as telus\_guide.py

 Run it with:

3. python telus\_guide.py

- 4.

It will generate a PDF file named Telus\_Fibre\_Phone\_Setup\_Guide.pdf in your current directory.

Let me know if you want a downloadable version emailed or linked from cloud storage instead.

### **You said:**

Great. Thanks

### **ChatGPT said:**

You're very welcome! 😊



If you need help setting up the UPS, wiring phones, or comparing ISPs again, just let me know. Enjoy your Telus PureFibre setup — and stay connected, even during outages!

Have a great day! 📞⚡🌐

ChatGPT can make mistakes. Check important info. See [Cookie Preferences](#).