TELUS Business Connect™ White Glove service.
Customer onboarding guide.
Welcome to the TELUS Business Connect™ White Glove service.

TELUS Business Connect™ White Glove service assists in the setup and offers training so you can make the most of your new solution.

The White Glove technician will review a checklist with you and ensure the work is completed to your satisfaction.

To ensure a smooth White Glove installation, please refer to Step 1. What you need to prepare, and complete the required list of actions. White Glove service does not include configuration of your existing network or any extra inside wiring. If extra wiring is required, please complete prior to the White Glove service.
Step 1

What you need to prepare.

TELUS Business Connect provides high quality voice service, and your local network plays a big part in call quality. You likely discussed network and other requirements with your TELUS representative before choosing TELUS Business Connect. Now, make sure everything is ready for a successful White Glove setup by completing the requirements in this section.

**Recommended network setup.**

In order to have your phone system run successfully, it is essential to have your network set up correctly

Note: Example only. Your network may be set up differently.

Network readiness checklist:

- **Configure your modem:** Verify your modem is in IP pass-through or bridge mode
- **Configure your router:** Enable QoS and grant firewall permissions  
  Note: Please refer to our recommended router list or ensure you have business grade routers and/or switches.
- **Wi-Fi:** You may need to configure your wireless access points to prioritize voice and media traffic
- **Switches:** Prioritize voice for any switches carrying VoIP traffic
- **Site cabling:** You may need to update your cabling or install additional access points
- **Test your Internet connection bandwidth:** Make sure your Internet connection has enough capacity to deliver a high quality call. Use the tools on the next page to test your Internet speed

Configure your modem.

If you are using a cable modem/router combination, verify it is in **IP pass-through or bridge mode.** You will also need to add a router to your local network.

Note: Contact your service provider for instructions.
Buy and configure router and firewall.

It is strongly recommended that your router supports Quality of Service (QoS). If you are going to use a different router with a built-in firewall, make sure you configured it for QoS with VoIP prioritization and/or port forwarding.

Most routers are already configured and ready to work out of the box. However, if you need assistance with port and firewall setup, please see the appendix.

Connecting your router:

1. **Connect a computer to the router.** Use a wired Ethernet cable (you can also connect through Wi-Fi, but we do not recommend it). Connect the cable between a PC and one of the router's LAN ports.

2. **Enter your router's default IP address into your web browser.** Consult your documentation or search online for “[your router model] default IP address” (may vary by brand). Frequently, Linksys routers use 192.168.1.1, D-Link uses 192.168.0.1, Belkin uses 192.168.2.1, and NETGEAR uses 192.168.0.1 or 192.168.1.1. Open a web browser, and enter the address, such as “http://192.168.0.1”.

3. **Eligible router list.** Please see [TELUS Business Connect Router Configuration Guide](#) for a list of eligible routers.

4. **Enter username and password.** Often, NETGEAR uses admin and password for their login. D-Link and Linksys routers often use admin and admin, or just use admin for one and a blank value for the other. Belkin often uses admin and a blank value. See your manual or search online for your specific brand.

5. **Enable QoS within your router console.** All routers are different, so please consult your router documentation for specific instructions on how to enable QoS. Save your changes and you’re good to go.

**Wi-Fi**

If you have people in your office who make and take calls using the desktop or mobile application over Wi-Fi, you need to configure your wireless access points to prioritize voice and media traffic. Refer to your access point documentation.
Using switches

VoIP prioritization: If you have any switches carrying VoIP traffic, please set them to prioritize voice. Refer to your switch documentation for configuration instructions.

Depending on the size of your network, you may not require a network switch.

Power over Ethernet (PoE): If you plan to run power to the phones over the network cable, make sure your switch has sufficient power capacity for the number of phones you plan to run on that switch. To do this, check the output power rating on your switch (usually written right on the switch), and add up the power consumption on each of the phones you want to run from the switch. If the power consumption on the phones is greater than the power output on the switch, you’ll need to either add another PoE switch or use power supplies for the phones.

Cabling

For best results, connect the phones by using a Cat 5e Ethernet cable or better to your VoIP configured router or switch. If your local network is more than five years old, or you did not set it up, you should get a cabling or electrical contractor to test it to verify that you have Cat 5e or better with good connection quality from end-to-end.

Internet connectivity: test your Internet connection bandwidth.

Use the following tests to make sure your Internet has enough capacity to deliver high call quality:

- Bandwidth tool
- Internet speed test tool
- Pingtest.net

How much bandwidth do you need? It depends on how many calls and devices you want to connect. Here is our rule of thumb: XX/YY (X = download speed / Y = upload speeds) represents your Internet speed. It depends on your upload speeds:

<table>
<thead>
<tr>
<th>How much capacity do I need?</th>
<th>XX/1</th>
<th>XX/5</th>
<th>XX/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of concurrent calls</td>
<td>1 to 3</td>
<td>1 to 25</td>
<td>1 to 50</td>
</tr>
<tr>
<td>Number of connected devices</td>
<td>Up to 5</td>
<td>Up to 50</td>
<td>Up to 150</td>
</tr>
</tbody>
</table>
On-site preparation.

To help ensure a smooth White Glove setup please complete the following:

- **IP phones on-site:** Ensure someone is available to accept the FedEx shipment of IP phone orders. Your phones should arrive in two to five business days once the order is completed (i.e. contract is signed). Please arrange for them to be on-site the day of the White Glove service.

- **IT support on-site:** If available, otherwise it is imperative you reviewed Step 1 with an individual who has experience with network support.

- **Office phone configuration:** Have a list of user names, email addresses, and phones for configuration.

- **Web registration:** The office phone administrator needs to complete the web registration.

- **List of numbers to transfer:** Have a copy of the invoice of the numbers you want to transfer.

Office phone configuration.

Here’s an example of how you can organize a list of users and numbers you want to transfer and set up:

<table>
<thead>
<tr>
<th>Name</th>
<th>User name</th>
<th>Email address</th>
<th>IP phone type</th>
<th>#s to transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>John D.</td>
<td>d_john</td>
<td><a href="mailto:john@company.com">john@company.com</a></td>
<td>Cisco 525G2</td>
<td>416-xxx-xxxx</td>
</tr>
</tbody>
</table>

Web registration

For you to access TELUS Business Connect Voice Manager so you can manage the many features included with your solution, the administrator needs to complete the web registration.

Administrator registration:

TELUS will send a link to the administrator’s email address to register to TELUS Business Connect Voice Manager.

1. Open the email with the subject line “Please set up your TELUS Business Connect™ account.”

2. Click on the link included in the email to set up your account.

3. It will take you to the TELUS Business Connect Voice Manager setup page. Please set your password, PIN, and security questions.
4. Your account is now activated.

5. Please bookmark the link for TELUS Business Connect Voice Manager included in your email so that you can reference this login page in the future.

**User registration:**

Once the administrator chooses either the Express Setup, Remind me later, or No thanks option, TELUS sends a Welcome to TELUS Business Connect™ registration email to all users.

**Number transfer**

This step is only necessary if you plan to use your existing phone numbers from your existing phone system.

**Note:** If you have a new TELUS Business Connect deployment and will use the numbers assigned to you by TELUS, you can skip this step.

Please have the following available for the White Glove technician:
- A recent phone invoice
- The service address where your phone rings
- Account number and primary Billing Telephone Number (BTN)
- All local, mobile and toll-free numbers you wish to transfer (port)

**IMPORTANT:**

Don’t cancel your existing phone service. You need to keep it active to complete the transfer. It can take 10 to 15 business days to complete and rejects transfer requests on weekend and holidays.

Please make sure your existing **Internet service is not associated with a number you want to transfer over.** If it is, contact your service provider and request a Dry Loop or Dark DSL install for your Internet.

**Rescheduling and canceling your appointment.**

If all required hardware is not delivered or on-site preparation is not completed prior to the installation date, you need to reschedule your appointment. Please contact us with your reference number located in your TELUS Business Connect White Glove welcome email one business day before the original agreed installation date. There is a $100 rescheduling fee if you reschedule your installation date within one business day of the original agreed date.
Step 2

White Glove included services.

Your White Glove technician will complete the setup of your solution and begin training the administrator about key features. Specifically, the White Glove service includes:

Network readiness testing:
- Overview (testing) of network, Internet bandwidth – including modem, router, switches, and firewall configuration

Device setup and testing:
- Unpack, assemble, and plug in phones
- Configure and assign BYOD devices, if applicable
- Test dial-in and dial-out

Wireless back-up (Smart Hub) setup and testing, if purchased:
- Unpack, assemble, and plug in device, if applicable
- Train on how to use and test

Voice Manager setup:
- Verify user names and email addresses
- Confirm administrator web registration completion
- Verify user names and email addresses are accurate

Voice Manager configuration:
- Configure auto-receptionist/multi-level IVR
- Manage users’ preferences, paging and intercom
- Explain and configure groups. Set number of seconds for rings per device/user
- Set up company hours
- Demonstrate how to turn on call recording and access the recordings
- Record main company greeting
- Record personalized and company greetings
- Demonstrate how to make changes in Voice Manager
- Explain how to send and receive faxes, and access templates
App installation:
- Install the mobile app on the devices (only available for iOS and Android)
- Install the desktop app onto the computers, if applicable
- Activate the desktop app in Voice Manager
- Activate the Business Connect Meetings app

Number transfer:
- Initiate number transfer request (10-15 days required for port-in requests)

Checklist sign-off:
- Once your TELUS Business Connect White Glove technician completes the service, they review the checklist with you to ensure your complete satisfaction
Additional services and support.

To ensure your solution continues to meet your needs after the White Glove service, further implementation support calls, user guides, and customer service support are available.

Implementation support calls.

TELUS offers three additional calls with a trained advisor to help your administrators get your account up and running. It helps ensure administrators are fully trained so they can get the most from their new solution.

Implementation support process:

- **Schedule implementation**
  - As a final step, your White Glove technician will provide assistance to schedule your first implementation support call

- **Session #1 (1 hour)**
  Your first implementation session covers the following:
  - Your network information such as modem, router, and Internet provider, and verifies up/down speed
  - How to use the system
  - How to use the mobile app
  - Schedule session #2

- **Session #2 and #3 (1 hour each)**
  Your second and third implementation sessions cover the following:
  - Your implementation progress and confirm your system is working properly
  - Confirms and reviews advanced rules and call handling
  - How to transfer a number
  - Any outstanding items or help with specific needs
TELUS Business Connect user guides.
Please visit the TELUS Business Connect support page to access helpful user guides and articles.

Contact
To ensure you reach a dedicated TELUS Business Connect support representative.

Call 1-844-626-6638
8 a.m. to 5 p.m. local time (Monday to Friday).

Enter your TELUS Business Connect number and follow the prompts.
Appendix

Port and firewall setup.
Port and firewall setup.

Troubleshooting port and firewall issues.

In a typical network, routers are used to allow access to any device that connects to the local network or the Internet. Routers have built-in security features that prevent unrequested access to the network. A router firewall may cause issues with your VoIP connectivity through the TELUS Business Connect service.

Port triggering is a configuration that you can set on your router to allow access to specific service ports in a secure manner. A router acts like the sender and receiver of requests, allowing VIP pass to these service ports that are triggered.

To allow seamless Voice over IP (VoIP) connectivity to your devices, the following ports should be triggered on your router:

<table>
<thead>
<tr>
<th>Device type</th>
<th>Protocol</th>
<th>Source port customer side</th>
<th>Destination port TELUS side</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deskphone signalling</td>
<td>SIP/UDP</td>
<td>5060-5090</td>
<td>5090</td>
</tr>
<tr>
<td>Deskphone signalling</td>
<td>SIP/UDP</td>
<td>5060</td>
<td>5090</td>
</tr>
<tr>
<td>Deskphone media</td>
<td>RTP/UDP</td>
<td>16384-16482</td>
<td>20000-39999</td>
</tr>
<tr>
<td>Desktop phones signalling Secure Voice</td>
<td>SIP/TLS/TCP</td>
<td>5060</td>
<td>5096</td>
</tr>
<tr>
<td>Desktop phones media Security Voice</td>
<td>SRTP/UDP</td>
<td>16384-16482</td>
<td>40000-49999</td>
</tr>
<tr>
<td>Desktop phone provisioning</td>
<td>HTTPS/TCP/IP</td>
<td>80, 443</td>
<td>80, 443</td>
</tr>
<tr>
<td>Desktop phone clock sync</td>
<td>NTP/UDP</td>
<td>123</td>
<td>123</td>
</tr>
<tr>
<td>Desktop phone BLA/Presence</td>
<td>SIP/UDP</td>
<td>5060</td>
<td>5099</td>
</tr>
<tr>
<td>Mobile app signalling</td>
<td>SIP/UDP</td>
<td>5060</td>
<td>5090</td>
</tr>
<tr>
<td>Mobile app signalling</td>
<td>SIP/TCP</td>
<td>5060</td>
<td>5090-5091</td>
</tr>
<tr>
<td>Mobile app media</td>
<td>RTP/UDP</td>
<td>N/A</td>
<td>5090-5091</td>
</tr>
<tr>
<td>Mobile app signalling Secure Voice</td>
<td>SIP/TLS/SRTP</td>
<td>4000-5000</td>
<td>50000-59999</td>
</tr>
<tr>
<td>Mobile app media Secure Voice</td>
<td>SRTP/UDP</td>
<td>N/A</td>
<td>5097</td>
</tr>
<tr>
<td>Mobile app BLA/Presence</td>
<td>SIP/TCP</td>
<td>4000-5000, 20000-60000</td>
<td>60000-64999</td>
</tr>
<tr>
<td>Mobile app BLA/Presence</td>
<td>SIP/UDP</td>
<td>N/A</td>
<td>5091</td>
</tr>
<tr>
<td>Mobile app data sync with TELUS backend</td>
<td>HTTPS</td>
<td>N/A</td>
<td>5099</td>
</tr>
<tr>
<td>Desktop app signalling</td>
<td>SIP/UDP</td>
<td>5060-5090</td>
<td>443</td>
</tr>
<tr>
<td>Desktop app signalling</td>
<td>SIP/TCP</td>
<td>N/A</td>
<td>5091</td>
</tr>
<tr>
<td>Desktop app media</td>
<td>RTP/UDP</td>
<td>8000-8200</td>
<td>5091</td>
</tr>
<tr>
<td>Desktop app signalling Secure Voice</td>
<td>SIP/TLS/SRTP</td>
<td>N/A</td>
<td>50000-59999</td>
</tr>
<tr>
<td>Desktop app media Secure Voice</td>
<td>SRTP/UDP</td>
<td>4000-5000, 20000-60000</td>
<td>5097</td>
</tr>
<tr>
<td>Desktop app BLA/Presence</td>
<td>SIP/TCP</td>
<td>N/A</td>
<td>60000-64000</td>
</tr>
<tr>
<td>Desktop app BLA/Presence</td>
<td>SIP/UDP</td>
<td>N/A</td>
<td>5099</td>
</tr>
<tr>
<td>Desktop data sync with TELUS backend</td>
<td>HTTPS</td>
<td>443</td>
<td>443</td>
</tr>
<tr>
<td>Business Connect Meetings signalling</td>
<td>SIP/TCP</td>
<td>N/A</td>
<td>8801, 8802</td>
</tr>
<tr>
<td>Business Connect Meetings signalling Secure</td>
<td>SIP/TLS/TCP</td>
<td>N/A</td>
<td>443</td>
</tr>
<tr>
<td>Business Connect Meetings media</td>
<td>RTP/UDP</td>
<td>N/A</td>
<td>8801</td>
</tr>
<tr>
<td>Business Connect Meetings media Secure</td>
<td>TLS/TCP</td>
<td>N/A</td>
<td>443</td>
</tr>
</tbody>
</table>
Setting up port triggering on a D-Link router.

Port triggering allows you to give specialized Internet applications within a private or local network, such as VoIP or IP phone services, access to the Internet.

This will also help you with audio issues you may be experiencing with your TELUS Business Connect service.

To set up port triggering on your D-Link router, follow the steps below:

**Step 1:**
Access the router’s web-based setup page.

**QUICK TIP:** This can be done by entering the IP address of your router in a web browser’s address bar.

**Step 2:**
Click the **Advanced** tab.

**Step 3:**
On the left panel, click on **Application Rules**, then supply the necessary info on the table.

**Step 4:**
Click **Save Settings** to apply the changes.

**NOTE:** Make sure to put a tick mark on the rule to enable it.
Port and firewall setup

Setting up port triggering on a Linksys router.

Port triggering allows you to give specialized Internet applications within a private or local network, such as VoIP or IP phone services, access to the Internet. This will also help you with audio issues you may be experiencing with your TELUS Business Connect service.

To set up port triggering on your D-Link router, follow the steps below:

**Step 1:**
Access your router’s web-based setup page. For instructions, click here.

**Step 2:**
Click Applications & Gaming.

**Step 3:**
Select Port Range Triggering.

**Step 4:**
Under the Application Name column, enter "TELUS Business Connect" to represent the software.

**Step 5:**
Enter the port numbers of the computer application in the required fields.

*NOTE:* The range of port numbers for the TELUS Business Connect service is **5060 - 5090**

**Step 6:**
Click Save Settings.

You have now performed port triggering on a Linksys router.
Setting up port triggering on a NETGEAR router.

Port triggering allows you to give specialized Internet applications within a private or local network, such as VoIP or IP phone services, access to the Internet.

Step 1:
Login to your Netgear router’s web-based setup page.

QUICK TIP: This can be done by going to www.routerlogin.com or by typing the router’s IP address on your browser’s address bar. Enter your login credentials on this page.

Step 2:
Under the Advanced section, click the Port Forwarding / Port Triggering link.

Step 3:
Select the Port Triggering radio button.

Step 4:
Click the Add button.

Step 5:
Enter the following values on the Port Trigger Service page:

- Check Enable
- Service Name: TELUS Business Connect
- Outgoing Start Port: 5060
- Outgoing End Port: 5090
- Incoming Start Port: 5060
- Incoming End Port: 5090

Step 6:
Click Apply.

Step 7:
Repeat steps 4 to 6 for port ranges 8000 to 8200 and 16384 to 16482.

Step 8:
Check the Turn on Port Triggering box then click Apply.
The settings should take effect immediately.

Key Words
Port Trigger Service
TELUS Business Connect

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