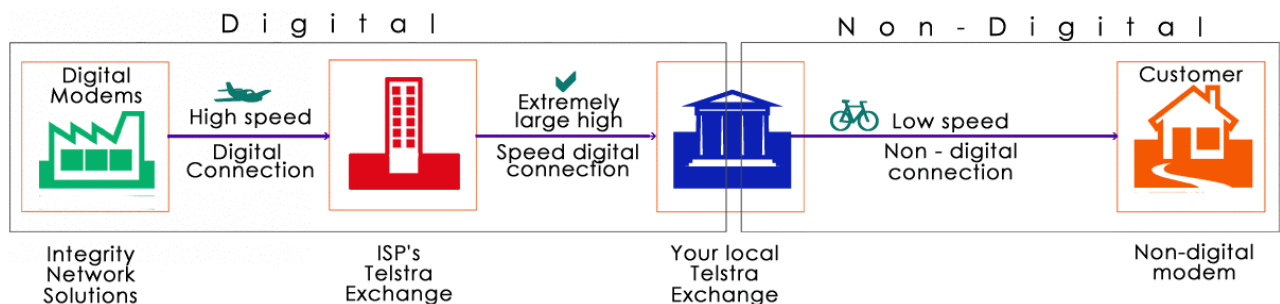


Disconnection's and Drop-outs

At Integrity Network Solutions, we work hard to give you the fastest and most reliable Internet Connection possible. However hard we try problems can arise because we do not have control over all facets of your Internet connection. If you suffer from constant disconnections and drop-outs, which at the best of times can be highly frustrating, this article may help you sort out these problems and explain what makes them happen.

Here at Integrity, we run completely digital modems in a large dial-in system similar to ISPs across the world. Each modem is built for highly reliable connections. These modems are connected via high speed digital links to the Telstra exchange. This is a completely digital connection and as such it can run reliably at speeds up to 64kbps. The non-digital part of the connection is between the Telstra exchange and the customer's modem. This is the part of the connection that has the most effect on speed and reliability depending on the quality of the telephone line and the distance from the local exchange. The maximum speed practically possible on this part of the connection is 56kbps. For these reasons the latest 56kbps modem technology allows the customer's modem to monitor and control the connection since it is connected directly to the telephone line and can "see" the condition of the line. The customer modem tells the ISP digital modems what speed to use, when to change speed and when the error rate is too high it tells the ISP modem to disconnect. This means that when you connect to us, the cause for drop-outs is usually somewhere between your local Telstra exchange and your computer.



There are quite a few different reasons for disconnections, the most common causes and solutions are as follows. If you follow all of these and still experience drop-outs, please feel free to call us on **(02) 4337 8888** or E-Mail our technical support staff on support@integritynet.com.au

Causes and Solutions:

1. Call Waiting – If you have Telstra Call Waiting enabled on the phone line that the modem is connected to, you will experience problems with your Internet Connection when someone tries to call you. To minimise this problem, turn off call waiting before you dial the Internet by picking up a phone and typing '#43#' after which you will hear a confirmation of turning it off. You can turn it back on after the phone call by typing '*43#'. The reason for this is that the little beeps that you hear are not familiar to a modem and will cause it to either disconnect or re-train its connection to a lower speed. Please note that if you use a telephone company other than Telstra the codes may be different.
2. You may have another phone or appliance plugged into the same phone line as the modem that is interfering with the modem. Telstra Touchtone 200 and 400 series phones cause the most problems (these are the standard phones you get with a phone line). Try removing all appliances, and use a process of elimination to see the appliance at fault. The reason for this is that the phone pulls electrical current from the phone line to keep its internal memory updated. Modems don't like these current changes and will either disconnect or re-train to a lower speed. The best thing to do in this case is to remove everything apart from the modem from the phone line.
3. You may have noise or static on the phone line. If your phone line is of poor quality, your Internet Connection will also be of poor quality. If you hear noise in the background during conversations, this can usually be attributable to phone line noise, however some line noise is not audible to the human ear. A 'Moulds Test' from Telstra will determine the quality of your phone line. Any type of phone line noise will either cause your modem to drop in speed, or disconnect.

4. You are using an extension cord from your modem to the phone socket. Any extension cord over about 2-3 meters can cause problems. If you are not using the cord that was supplied with your modem, try using that cable instead. Extension cords bought from the shop are built for voice transmission and not for data transmission and may result in disconnections or lower speeds. It might be a good idea to get Telstra to install an additional socket near your computer.
5. You may be on poor quality phone lines, which is hard to tell through voice transmissions, but when a modem is using the line, it will notice it. In certain areas where there is a shortage of phone lines, phone lines are split and many houses are using the one line. This is called a Pair Gain system and is *very* unreliable for Internet usage. Ring Telstra up and ask them about this. They may be able to replace your phone line with a new one.
6. If you have an internal modem, these are prone to more drop-outs than external modems, mainly due to their structure and how they are built. Most internal modems use the computers processor to run. If you have a slow processor, or your computer is under heavy load, this may cause these modems to drop out. Especially if there is some interference on the phone line.
7. You may have a program configured incorrectly that is causing your computer to hang up the connection without you being notified. The most common cause of this problem is Microsoft Outlook Express (your E-Mail client). If you notice that each time you are checking your e-mail, your modem hangs up then try the following:
 - Open up Outlook Express.
 - Go into the Tools menu and select Internet Options.
 - Click on the Connection tab.
 - There will be a tick box that is titled 'Hang up after sending and receiving' this should **NOT** be ticked.
8. You may have a virus that is causing your modem to disconnect. See if you can get the latest virus scanners and completely check your system.
9. Some cheaper internal modems have troubles keeping a reliable connection even under excellent line conditions. The only suggestion we can make in this instance is to buy an external modem. You get what you pay for. Usually higher price means higher quality.

If all of the above fails, then please call us and we will work through everything with you to determine the cause of the problem, our support staff will be available between
9am – 5pm Monday to Saturday.