



Redundant Internet

Since many of our clients are working from home, we thought it might be helpful to make some recommendations and observations to while away your hours. In a previous message, we took a look at using backups as part of a disaster recovery solution. Continuing with that thought, today's article is about Internet redundancy. Sounds like fun, doesn't it?

What is Internet Redundancy?

In a nutshell, Internet Redundancy is how you keep your access to the Internet up and running if your Internet service provider, or your network router, goes down.

Today's Internet is not just used for surfing the Web. Besides being used for email, research, downloading files, interactive games, friendship and dating, electronic newspapers, job hunting and shopping, it also allows us to communicate with our homes and businesses security systems, cameras, phones, and so much more. This week we even saw a TV commercial that was selling kitchen faucets that could be controlled by Amazon's Alexa. Alexa will also stream music over the Internet, deliver news and sports scores, tell you the weather, etc.

With so much depending on the Internet, it makes sense to consider having a fallback solution ready to kick in if your Internet goes south. Although you may want to apply these suggestions for home use, business owners will probably find this most beneficial.

Businesses get internet redundancy by installing a secondary connection that runs on a different backbone than their primary connection. If there's an internet outage on the primary connection, the secondary connection will kick in to keep your business humming along. Think of it as having a generator for backup electricity. If someone downs a power line on the next street over, your generator kicks in and keeps the juice flowing. The process that keeps your access to the Internet running is known as auto-failover, the automatic transfer of the network so no work is lost, and no disruptions are made to your business. It can also be managed manually with just the switching of a cable.

What You Need for a Redundant Network

The first thing you need is, of course, a secondary internet service provider. It's important that this provider is not the same as your primary provider. This improves the chances that an outage on your primary network won't affect your backup connection.

Besides the secondary service provider, you will need either

- A second router or

- A router that can handle multiple Internet connections (called a multi-WAN router)

Using a second router

Let's say that Comcast is your primary service provider. They have a cable coming in from outside that connects to router 1.

Verizon is your secondary service provider and they have a cable coming from outside that connect to router 2.

Right now, the only router connected to your network is router 1 (Comcast). Router 2 is just sitting there, waiting to go into action.

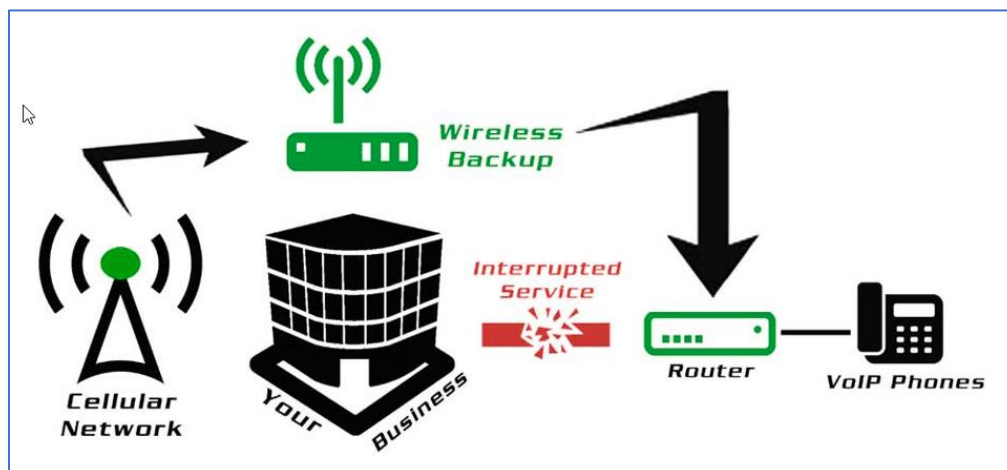
One day, Comcast has an outage and you lose your Internet. You would just pull router 1's network cable out of your network switch and plug router 2 into the switch. Service restored! It only takes seconds to make the change.

Using a multi-WAN router

Multi-WAN routers, as the name suggests, are routers that come with two or more WAN Internet ports so you can connect to multiple Internet ISPs. These routers are also called dual-WAN routers, especially when they have only two ports. In this setup, both Comcast and Verizon cables would be connected to the router. The router itself would conduct regular connectivity checks (you can set this for a specified number of seconds for each check), and if it detects your primary service (Comcast), is down it will automatically switch the secondary service (Verizon). There are also other ways to configure a multi-WAN router, such as load balancing, but we won't cover that here.

Wireless failover

There are numerous ways to get Internet into your building: cable, fiber, DSL, wireless, cellular, and satellite Internet access. Of these, the most common are cable and DSL. We typically think of wireless as a means of connecting our laptops and mobile devices to our network, however, more and more Internet providers are offering wireless as a means of connecting your business to the Internet, in lieu of DSL or cable. To that end, the service provider provides a managed router that automatically recognizes an Internet failure and seamlessly switches the connection to a 4G LTE wireless connection. During the failure, the service provider and the customer are notified of the switch and the provider has a real-time view of the data consumption. When the failure is over, the router automatically switches back to the primary internet connection.



Comcast offers this service in a plan they call Comcast Connection Pro.. [Here's a video](#) that demonstrates how it works. Simply, this method would continue to use your normal Comcast Gateway (connected to the Internet with a cable) and, in addition, Comcast would install an ancillary device they call Cradlepoint. Cradlepoint provides the wireless connection back to Comcast if your regular Internet service is interrupted.

If you think a redundant Internet solution is right for you, TekResults is eager to assist you with answers to your questions and to help you get started. Just email or call.

Referrals

TekResults owes much of our success to our loyal and enthusiastic clients. It's those of you who tell your friends about us that keep our company growing, and we'd like to say thanks. Just telling someone about us is all it takes. Just let us know you dropped our name and we'll drop a gift card in the mail for you to enjoy a great meal at a [Dante's restaurant](#). See... who said talk is cheap!

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