Preparing Your Home for Next Gen NBN Services
ARE YOU READY FOR THE FAST LANE?

With the launch of ultra high-speed residential broadband plans of 100Mbps and beyond over the Next Generation Nationwide Broadband Network (Next Gen NBN), home owners can now enjoy faster downloads and uploads, as well as services such as high-definition on demand video over their fibre Termination Point (TP).

Home owners may wish to consider how to share the high-speed fibre connection among multiple users and devices in the home. One way is to set up a home network. This guide presents an overview of the more commonly available options for such home networks.

There are multiple ways of setting up and connecting to a home network. Structured cabling is generally recommended for bandwidth-intensive activities or those which require reliable connections such as Internet Protocol TV (IPTV). Nevertheless, the solution to use will ultimately depend on your budget, home layout and usage preferences.

Home owners should also check with their service providers on preferred home networking options with respect to the subscribed services. The good news is that you can also use two or more networking options to build your home network accordingly.

Apart from this guide, IDA’s iExperience also offers free guided tours and home networking consultation on Next Gen NBN.

Contact us for more information:
Web: www.iExperience.sg  Hotline: 6820 6880
**What is it**

Wireless technology (Wi-Fi) transmits data over the air. Thus, a wireless local area network (WLAN) is suitable for portable devices such as mobile phones and tablet devices. Wireless-N Residential Gateways (RGs) and routers can connect Wi-Fi devices at speeds over 100Mbps, an improvement over the 54Mbps Wireless-G standard.

**Tips**

If possible, the wireless router should be placed near the central location within the home to maximise the coverage.

<table>
<thead>
<tr>
<th><strong>Pros</strong></th>
<th><strong>Cons</strong></th>
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<tbody>
<tr>
<td>Additional trunking and new cables are not required</td>
<td>Wi-Fi is susceptible to interference from other nearby Wi-Fi networks and tends to weaken when it passes through obstacles such as concrete walls</td>
</tr>
<tr>
<td>Wi-Fi is a standard feature in Residential Gateways, routers and portable devices</td>
<td>Wi-Fi network is shared among all users. The speed that each user experiences will reduce as the number of devices in the network increase</td>
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**Recommendation**

This option is appropriate for Wi-Fi-enabled devices, and if you wish to enjoy greater mobility without being tied to physical wires.
OPTION 2: STRUCTURED NETWORK CABLING

What is it
Network cables are laid to different rooms within the home, and then terminated into network access points. These cables can be laid on wall surfaces and covered by plastic trunking, or concealed within walls, false ceilings and cornices. Cat5e and Cat6 network cables are commonly used, which allow transmission speeds of up to 1,000Mbps and 10,000Mbps respectively.

Tips
For new homes, this could be done together with your renovation plans while existing homes could plan this as a separate upgrade. It is recommended that the Residential Gateway be placed near to the Network Distribution Panel.

<table>
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<tr>
<th>Pros</th>
<th>Cons</th>
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<tbody>
<tr>
<td>No equipment configuration and power required; just plug your device into the network access point</td>
<td>Plastic trunking is visible if network cables not concealed. Incurrence of one-time installation cost</td>
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<tr>
<td>Reliable and dedicated high speed connection</td>
<td>Access to the network is restricted to areas near to the network access points</td>
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Recommendation
This option is appropriate for services which require highly-reliable connections, such as IPTV, video streaming and real time Internet gaming, and is a future-proof option.
**OPTION 3: COAXIAL HOME NETWORKING**

**What is it**
Existing coaxial cables can be used to transmit data within the home. Coaxial adapters can be used to connect the Residential Gateway and computers via TV points.

This option can achieve transmission speeds beyond 100Mbps and may provide connections to most rooms for basic usage.

**Tips**
In order to ensure minimal impact to your existing coaxial services, you will need to engage a qualified installer through your service provider, who will determine the suitability of adopting this option.

The coaxial adapter will use certain fixed spectrum channels within the coaxial cable network. TV programmes, if any, carried by your provider over the same spectrum channels used by the coaxial adapter, will not be received by you. Your service provider will advise you accordingly.

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**OPTION 4: POWERLINE NETWORKING**

**What is it**
Existing electrical cables can be used to transport data within your home. Powerline adapters can be used to connect the Residential Gateway and computers via power outlets. Powerline networking can be susceptible or cause interference to home appliances and electronic devices, resulting in lower speed and reliability.

This option can achieve transmission speed beyond 100Mbps but may not be suitable for services that require reliable connectivity such as IPTV services.

**Tips**
Powerline adapters may only connect over the same power phase. For homes with multiple power phases (e.g. landed properties and some condominiums), it is important that adapters are plugged into power outlets from the same phase/power switch box.

Do verify with your service provider if they support this option for their services.
USEFUL CONTACTS

More information on Home Networking is available online at:
www.NextGenNBN.gov.sg/HomeNetworking

Next Gen NBN Retail Service Providers
You are encouraged to contact your retail service providers on the preferred home networking options that support their Next Gen NBN services.

M1
Web: www.m1.com.sg/homenetworking
Contact: 1627

SingTel
Web: www.singtel.com/exstream
Contact: 1688

StarHub
Web: www.starhub.com/hubtroopers
Contact: 1800 333 8888

SuperInternet
Web: www.super.net.sg/ngnbn
Contact: 3125 8500

Viewqwest Pte Ltd
Web: www.fibernet.sg
Contact: 6723 8100

MyRepublic Pte Ltd
Web: www.myrepublic.com.sg
Contact: 6877 6966

Home Network Cabling Services
Looking for home network cabling providers? NTUC Income Home Services is one of the channels you can approach to find network cabling providers for homes.

Web: www.income.com.sg/HAN
Email: referralsvc@income.com.sg
24-Hour Hotline: 6788 8788

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