

Mesh Routers

AND WHY YOU NEED THEM

With mesh routers, you can now convert your entire home – even multiple floors – into a hotspot with no dead zones. Ashutosh Desai and Savio D'Souza tell you why you need to consider these new type of routers and even suggest some of the devices you can use along with them to make your home so much smarter...



WHAT ARE MESH ROUTERS?

Mesh routers comprise a master router that is linked to an internet line via its Ethernet (RJ45) port, and two or more satellites or nodes that interconnect with each other to create a wireless “mesh”. The nodes can be placed in different rooms to increase coverage area while maintaining signal quality and overall bandwidth (measured in Mbps).

Mesh routers are ideal for covering areas over 1,000 to 5,000 square feet. In practise, they work better than range boosters because you are promised the same signal strength with each node. Boosters, on the other hand, relay the original signal which tends to degrade over a larger spread. You should consider a mesh router in places where concrete walls, glass doors and home appliances like microwave ovens weaken the wireless signal to result in dead spots around the house.

Physically, the master and nodes look identical, require a power source, and usually have the same number of wired network ports (RJ45). These ports in each hub can be used to connect desktop computers or network storage devices that do not come with built-in Wi-Fi.

Mesh routers transmit and receive data over two frequency bands: 2.4GHz and 5GHz. In the case of tri-band routers, data is handled over one 2.4GHz band and two 5GHz bands. Dual-band compatible devices – like smartphones, streaming devices and laptops with support for the “802.11ac” standard – will connect to either of these bands auto-



matically, thereby reducing over-crowding on a single band.

BUT ARE THEY TOUGH TO SET UP?

Mesh routers are easy to set up and require you to connect and power up the routers (master and satellite) in a particular sequence that is illustrated in their manuals. In most cases, you can visit the brand's website, and follow onscreen instructions on how to make the nodes sync with each other.

Alternatively, you can use their companion apps (for Android and iOS) to set up your mesh router. The mobile app also makes it easier to manage the routers. It clearly shows you the status of the routers on the network, along with the devices that are connected to each node/satellite.

When you create an online account via the app, you will be able to remotely control and configure your wireless network from anywhere.

Mesh routers come with management features like parental controls, scheduling and a guest mode for restricted access to the home network. The can also be updated, over-the-air via the app.

WHICH MESH ROUTERS SHOULD I BUY?

- Tenda Nova MW3 | ₹8,000 | 2 nodes | Dual-band | Coverage: 3,500 sq ft
- D-Link Covr-1203 | ₹12,900 | 3 nodes | Dual-band | Coverage: 5,000 sq ft
- Tenda Nova MW6 | ₹16,000 | 3 nodes | Dual-band | Coverage: 6,000 sq ft
- Netgear Orbi RBK40 | ₹22,999 | 2 nodes | Tri-band | Coverage: 4,000 sq ft

Mesh routers are scalable, so you can add more nodes to increase the coverage area, or opt for a model that is better suited to cover a larger area. As an alternative, look at the...

- Asus AiMESH router | ₹9,000 onward | 1 node | Dual-band | Coverage: NA
- Its proprietary AiMesh system allows you to buy a single router and mix-and-match with any other AiMesh router in its range.

MEDIA PLAYERS

With mesh routers, you can now guarantee data coverage for all your smart TVs in different rooms. If you don't own a smart TV, you might want to consider the Apple TV box, Amazon Fire TV Stick and Google Chromecast 2 that connect to the HDMI and USB port of your television to allow you to browse the web via pre-loaded apps, and even stream music and movies.

Apple TV (₹17,430 for 32GB, ₹19,480 for 64GB) allows you to install apps and games from its app store. This includes *Apple Movies* and *Music*, *YouTube*, *Hotstar*, *Facebook*, *Netflix*, *Jio Cinema*, *Vimeo*, *Prime Video*, *Eros Now* and *TED Talks*.

You get a rechargeable Apple TV remote that connects to the box via Bluetooth to let you search for content with spoken commands. You can stream content from an iPhone or iPad to your TV via the Apple TV's *AirPlay* feature, and even play games like *Real Racing* and *Asphalt 8* on your TV screen while using the remote as a steering wheel, thanks to its built-in accelerometer and gyroscope.

Amazon Fire TV Stick (₹3,999) can connect to more than one wireless network to stream video content to your television. Like with Apple TV, you get a remote control with a built-



in mic that lets you search for movies by simply speaking to it.

You get access to streaming services like *Netflix*, *Hotstar*, *DittoTV* and *Sony LIV*. You also get the *Amazon Prime Video* service for ₹129 per month or ₹999 per year. Plus you can install games like *Red Ball 4*, *Hungry Shark Evolution* and *Tetris*. However, it lacks the official *YouTube* app and you get just 4GB of storage on the device.

Google Chromecast 2 (₹3,399) lets you view photos, stream videos, and even run apps from your Android handset, tablet, iPhone, iPad, Mac and Windows laptop. You will, of course, need to install the *Google Home* app on your smartphone or tablet.

You can use Chromecast 2 to watch *YouTube*, *Netflix*, and other video services on your TV; just tap the Cast button in these smartphone apps. Apart from streaming video content from the web, you can use Chromecast 2 to mirror your phone and tablet screen, as well as the browser tabs from your laptop.



SMART LIGHTING

For illumination, you can consider smart lights that connect to your Wi-Fi router. These can then be operated remotely from your smartphone. Here, you might want to look at the Philips Hue Mini Kit (₹7,000) that comprises a single 10W E27 multi-colour bulb and a connector hub/bridge. Or you could opt for the three-bulb + hub setup (₹13,550).

Setting up this light system is easy, and a single hub can control up to 50 smart bulbs over the 2.4GHz band. If you want to control your Hue lights when you're away from home, you'll need to create an account on the Philips website. You can then turn them on or off, dim or brighten, and even change colour from practically anywhere in the world using your smartphone app.

Network specialists TP-Link also have a range of smart lights—white and multicolored—known as the Kasa Smart Wi-Fi LEDs (starting at ₹1,499). Install the bulbs in your home, and then use the free KASA mobile app for Android and iOS to set up (no hub required). After this, you can use the app to schedule the time the bulb goes on and off, and even preset a specific color and illumination intensity for each bulb.

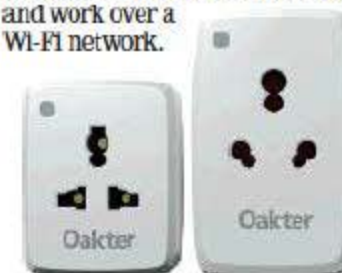


PLUGS & SENSORS

Just like wireless lights, you can control appliances like TV sets, air conditioners and geysers wirelessly from your smartphone. The Oakter Basic Smart Home Kit (₹5,800) comprises a Hub, a 6-Amp, as well as a 16-Amp plug point (aka “Leaf”). The Hub acts as the wireless link between your handset and the plug points and can be controlled by up to five users. You can assign schedules to the points, to manage power consumption better even when you are not around. You can buy more plugs and accessories like a smart thermostat to change your AC's cooling levels. You also get a 25A Oakter Leaf (₹2,340), which is meant for heavy-duty appliances like large ACs and freezers. This requires

minor rewiring, so it should be handled by a trained technician.

Then there is the Port Multi Sensor (₹8,300), which comprises an IR transceiver that functions as a universal remote control, a temperature sensor to adjust your AC's cooling, a luminosity sensor to detect brightness levels and a gas sensor that will immediately alert you of leakage. All these functions are accessible via its mobile app and work over a Wi-Fi network.



SMART SPEAKERS

Amazon and Google have a range of speakers that are powered by internet-enabled virtual assistants. Amazon has the Echo Dot (₹2,999), Amazon Echo (₹7,999), Echo Spot (₹12,999) and Echo Plus (₹14,999), while Google has its Home Mini (₹4,499) and Home (₹9,999).

All you need is a single app on your phone, and you can connect multiple devices from the same ecosystem—one in each room—to your Wi-Fi mesh network.

You can use voice commands to get the Echo and Home devices to stream songs from the internet; both brands can be queried for news, weather forecasts, and answers to general knowledge questions. The



virtual assistants can be used to set alarms, appointments, reminders, and create shopping and to-do lists.

The Echo Dot and the Home Mini are tiny devices that are best paired with Bluetooth speakers for a fuller sound. The Amazon Echo, Echo Plus and the Google Home are a great alternative to home Bluetooth speakers, so you might want to give these a serious dekho.

The Echo Spot is the only gadget that comes with a 2.5-inch screen. You can use this to display clock faces, photos, weather forecasts, videos from *Amazon Prime*, *NDTV*, *Times Now*, *ESPN Cricket* and *Aaj Tak*; check out your calendar and more. The Spot can also be used for video calls with folk who have the *Alexa* app installed or a compatible Echo device, and is best suited for your bedside table.

WI-FI CAMS

There are many reasons for installing Wi-Fi cameras at home: To watch over kids; even for security and surveillance reasons. Here, take a look at the Godrej Eve PT (₹7,999). Plug this device into a power source, and you can connect it to your router wirelessly.

Using the *Eve* app on your smartphone that's connected to the same wire-

less network, you can configure multiple cameras. The Eve PT comes with a microSD slot to store the footage.

With its app, you can remotely control the camera to tilt up to 90 degrees and pan from 0 to 355 degrees. A two-way speaker and mic set-up on the device even lets you speak into your phone and be heard in your home/office through the Eve PT. Over and above, it

is also equipped with a motion sensor that alerts your phone the second it detects movement on your premises.

The TP-Link NC150 (₹5,500) has similar features: Motion and sound detection, a microSD slot, and two-way audio communication; you can pan up to 360 degrees and tilt 150 degrees, all of which can be accessed and controlled via the *tpCamera* app.

