

Deliver Great Residential Wi-Fi Subscriber Experiences

QUICK LOOK

A great subscriber experience leads to lower support calls and new revenue opportunities. Empower your technicians and customers with self-service Wi-Fi tools that deliver the experience your customers desire.

The most likely internet connection today is through Wi-Fi. Wi-Fi is used to stream movies, watch live television and sports events, connect to home IoT devices, and even make phone calls.

Broadband service providers report that 63% of subscribers call with Wi-Fi questions, and 31% of trouble calls are related to the Wi-Fi router – a critical part of the network that the service provider may have no way to control. Trouble ticket management costs time and money and dispatching a technician costs 9 times as much. Making trouble calls go away increases end-customer satisfaction and removes the cost of troubleshooting and repair.

10 of the most frequent issues causing trouble reports are related to the Wi-Fi router.
- Assia-Inc 2019

Self-Service Empowers the User

First and foremost, broadband customers want the technology in their home to just work. Self-service tools let the subscriber easily do the things they want to do. But that doesn't mean the customer is cut off from the service provider. When self-service tools are linked to the service provider, it becomes a communication channel that connects the subscriber to their service delivery. Satisfied subscribers are more likely to recommend the service provider to friends and neighbors.

Self-Service Tools Help the Help Desk

Whether checking the consolidated view of all the subscribers, proactively monitoring performance metrics, or reacting to a support call, the help desk support person is critical to the customer experience. Easy-to-understand tools that clearly show the proper context and severity empower the help desk diagnostician to find the issue and resolve it quickly.

Great subscriber experience cannot be assumed by merely buying a new Wi-Fi router or upgrading to the fastest or most expensive box on the shelf. As long as new consumer devices and new IoT devices are installed in the home, issues and questions will arise. Networks will need to be upgraded. Unlike traditional router manufacturers, Cambium Networks' service provider solution leverages multiple information sources – including the customer – and cloud-based analytics to quickly identify an issue and monitor performance to ensure the resolution is effective and reliable.



How the Home Router Solution Changes Residential Broadband Business

1. Reduce customer trouble calls
2. Reduce field dispatches
3. Reduce time per field dispatch



of consumers called their ISP for help with a Wi-Fi issue in 2021

RV22 Wi-Fi 6 Home Router	Subscriber Application

Value Delivered

- Easily find and fix (sometimes automatically) common issues that typically trigger trouble reports
- Reduce the time to locate and fix network issues
- Automatically set up router or mesh in residential subscribers
- Prioritize technician activities by severity
- Automatically schedule testing functions for compliance reporting

Solution

Improving the AP in the home is always a good thing to do, but it's simply not enough. With Cambium's solution, the RV22 Wi-Fi 6 Home Router and Subscriber Application work together. The Home Router has a lot of information about the subscriber and all of the connected devices. The Subscriber Application also has configuration information and test results.

Delivering the Great Subscriber Experience Is Easy

1. The Router

The RV22 Wi-Fi 6 Home Mesh Router has a highly efficient antenna to provide better coverage and higher throughputs at range. It provides faster mesh connections and better connectivity to small IoT devices that are working their way into homes. Great Wi-Fi signal strength and low noise create a high signal-to-noise ratio (SNR) for each subscriber client device. With great signal performance, homeowners can easily support multiple HD video streams AND web browsing AND security cameras on the same system.

RV22 Wi-Fi 6 Unique Capabilities

- Frequency Coordination
- RF Optimization

Frequency Coordination

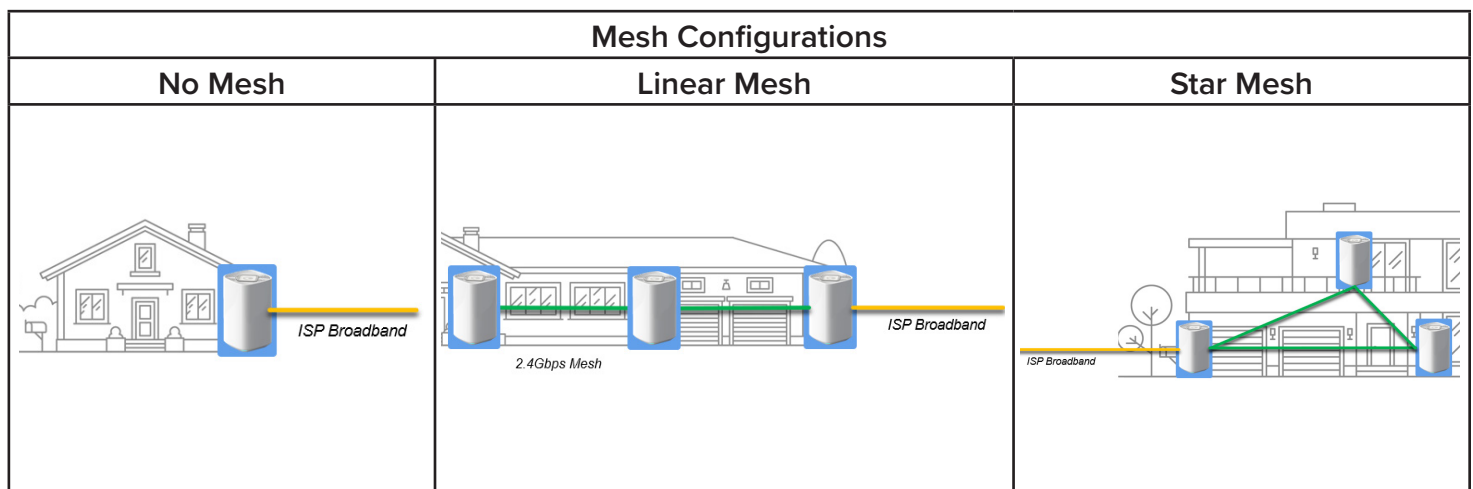
The RV22 Wi-Fi system automatically coordinates with the Cambium wireless subscriber module mounted on the roof of the home. This allows each system to maximize its performance without degrading the other device. Some of the fixed wireless broadband from Cambium Networks use the same 5 GHz band as Wi-Fi within the home. To avoid interference between the 5 GHz subscriber module and the home Wi-Fi, the cnMaestro™ cloud management system coordinates the frequency allocation and priority between the RV22 Home Mesh Router and the subscriber module. Technicians will be able to monitor the frequency selection and interference using cnMaestro Wi-Fi quality metrics.

RF Optimization

Upon boot up and anytime the Optimize Wi-Fi command is executed, the RV22 will scan channels, measure channel utilization, and decide whether a channel change is required. Optimize Wi-Fi is an easy-to-find dashboard tool on the Subscriber Application for both customers and help desk technicians. Optimizing Wi-Fi by selecting a lightly used channel will provide reliable and high-performance Wi-Fi within the home.

Automatic Mesh Configuration

cnMaestro NMS informs the RV22 to look for mesh nodes at the residence. Node discovery and the type of mesh configuration (linear or star) is performed automatically. A blinking LED on the mesh node and a notification in the Subscriber Application guide the subscriber to the optimal site location for the mesh node – not too close and not too far from the mesh router. The result is multi-gigabit mesh links delivering a great experience throughout the home.



Brand It!

Service providers can easily brand the RV22 with their company logo, name, and/or other information under the clear plastic window on the top of the AP.

2.Subscriber Application

The Subscriber Application gives your subscribers easy access to manage their home network. Using the app, the subscriber can change the network name, create a guest Wi-Fi, and manage internet access for devices within the home.

APP DASHBOARD

- Key performance metrics
- Recent speed test results
- 24-hour data graph.
- Easy access to frequently used tools

RUN SPEED TEST

- App-to-internet test, followed by router-to-internet test
- Speed test results shown on the app and retained on the dashboard
- Same results/data, along with client-side analytics that become available during the test, will be collected by cnMaestro Response Center

START FAMILY TIME

- Quickly pause internet use for a profile of devices or for specific times (dinner, bedtime, etc.)

OPTIMIZE WI-FI

- Accessible to subscribers on the appOptimize Wi-Fi any time a subscriber suspects that other Wi-Fi or RF signals may be causing an issue (before an important work call, for example)

PROFILES

- Easily create groups of client devices, including Adults, Kids, IoT, etc.
- Put all the IoT devices into the same profile so that, for example, your thermostat and doorbell do not disable when the kids go to bed
- Configure web content filter and/or set a weekly bedtime schedule

WEB CONTENT FILTER

- For use at subscriber's discretion
- Enable to monitor blocked events on the Dashboard security widget
- cnMaestro never collects data or knows about this selection; it cannot be enabled, disabled, or monitored from cnMaestro

BEDTIME SCHEDULE

- Set up a weekly schedule for internet access
- Apply to specific profiles to manage and control internet access



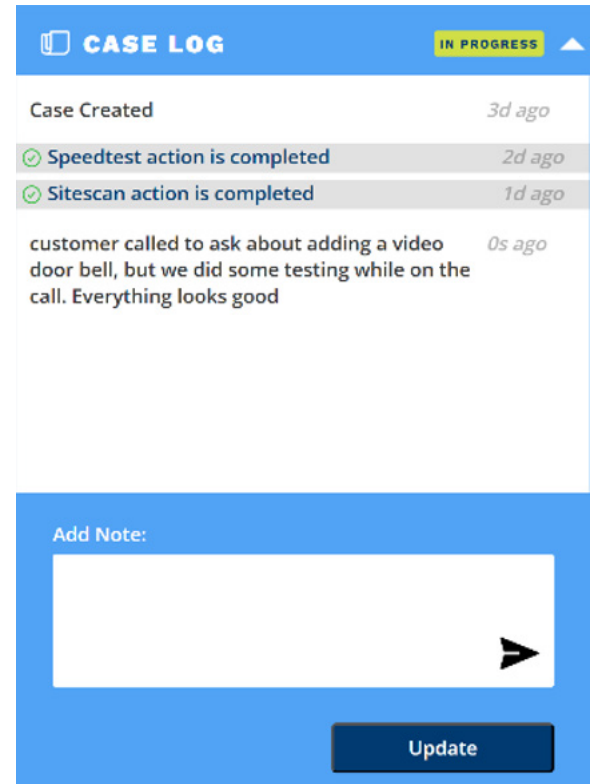
Business Value and ROI

The cost of the new solution includes a new Wi-Fi 6 Router, optional mesh nodes, and device subscription on cnMaestro to enable the use of the Subscriber Application. The investment in the RV22 will reduce customer trouble calls, decrease maintenance dispatches related to homeowner-supplied routers, and increase customer satisfaction. Given the cost of time and equipment, the new router could be paid for by saving one dispatch to the home during the life of the router.

On average, a dispatch to a home costs 9 times more than a tech support call. Resolve problems with a level 1 support technician and have more time and money to invest in network expansion or to increase revenue with new service packages.

Better Wi-Fi for Residential Subscribers, Better ROI for Service Providers

The home router solution will require a replacement of the existing router. However, the cost of the equipment will be saved by preventing one technician dispatch to that home over the life of the router. During the life of the router, both the subscriber and the service provider will have fewer trouble reports because of a consistently reliable service to the home building, in the home network infrastructure and the access point.



About Cambium Networks

[Cambium Networks](#) enables service providers, enterprises, industrial organizations, and governments to deliver exceptional digital experiences and device connectivity with compelling economics. Our ONE Network platform simplifies management of Cambium Networks' wired and wireless broadband and network edge technologies. Our customers can focus more resources on managing their business rather than the network. We deliver connectivity that just works.