

## Course Description

Stay ahead of the growing trend of wireless devices in the connected home. Learn about the various Wi-Fi technologies and how the Calix GigaFamily and Cloud applications leverage the technologies to enhance the overall subscriber experience.

You will learn best practices for installing the GigaFamily, connecting services, using Wi-Fi analytics tools to optimize the wireless network, and identify possible issues and resolve them before leaving the site. At the end of the class, you will have the opportunity to demonstrate your knowledge by taking a test to become a Calix Wi-Fi Technician Specialist.

### Objectives

- Describe the basic attributes of wireless home networking.
- Recognize deployment considerations and best practices around a wireless home network with Calix GigaFamily, such as 800G, 844GE, 844E and 804Mesh.
- Manage premises equipment and Wi-Fi configurations using Calix Support Cloud.
- Diagnose and troubleshoot common home network issues.

### Who should attend?

- Field Technicians

### Recommended Prerequisite

#### Training and Skills

- Wi-Fi Fundamentals
- Calix 800G (844/854) GigaCenter Overview
- Calix 844E Overview
- 844GE Active Ethernet Overview
- Calix 804Mesh Satellite Overview
- Introduction to Calix Support Cloud

### Training Resources in My Calix

- [Learning Solutions](#)
- [Certifications](#)

## Delivery Mode

This instructor-led course consists of learning content delivered by an experienced Calix instructor in a virtual classroom or at a physical location.

Lessons	Topics
<p><b>01</b> Introduction to Wireless Home Networking</p>	<p>Why is Wi-Fi important?</p> <p>Benefits and Limitations of the Wireless Network</p> <p>Increase in Wi-Fi Enabled Devices</p> <p>What is Wi-Fi?</p> <p>Radio Frequency and Regulations</p> <p>IEEE 802.11 Standards</p> <p>What is Radio Frequency?</p> <p>2.4 GHz and 5 GHz Bands</p> <p>Advanced Technologies in 802.11 Standard</p> <p>Single-User MIMO vs. Multi-User MIMO</p> <p>User MU-MIMO</p> <p>Dynamic Beamforming</p> <p>Steering to Better Performance</p> <p>Characteristics of Carrier Class Wi-Fi</p>
<p><b>02</b> Wi-Fi Performance Considerations</p>	<p>Know Your Physical Environment</p> <ul style="list-style-type: none"> <li>• Building Materials Impact on the Wireless Network</li> <li>• Obstacles Impact on the Wireless Network in the Home</li> <li>• Proper Placement GigaFamily devices</li> <li>• Orientation of GigaFamily devices</li> </ul> <p>Know Your Wi-Fi Environment</p> <ul style="list-style-type: none"> <li>• Using Site Scan</li> <li>• Know Electronic Device Capabilities</li> <li>• Viewing Customer Devices in the Wireless Network</li> <li>• Using Calix Wi-Fi tools in Calix Support Cloud</li> </ul> <p>Wi-Fi Security and Common Threats</p>

<b>03</b>	<b>Calix GigaCenters and 804Mesh Overview</b>	GigaFamily and 804Mesh Satellite Overview New GigaFamily Members Topology Examples Accessing the Embedded Web Interface of the Calix GigaFamily Accessing Calix Support Cloud
<b>04</b>	<b>Deploying a Calix Home Network</b>	WAN and WLAN Topologies Preparation Before Deployment Physical Installation Connecting and Verifying Services Wi-Fi Setup Connecting Devices
<b>05</b>	<b>Troubleshooting Common Home Network Issues</b>	Troubleshooting Installation Scenarios Troubleshooting Wi-Fi Scenarios
<b>Test</b>	<b>Calix Wi-Fi Technician Specialist Test</b>	Total Test Questions: 30 Test Duration: 90 minutes Passing Score: 70