

How to Market Managed Wi-Fi

Real-world opportunities for service providers looking to 'own the home'

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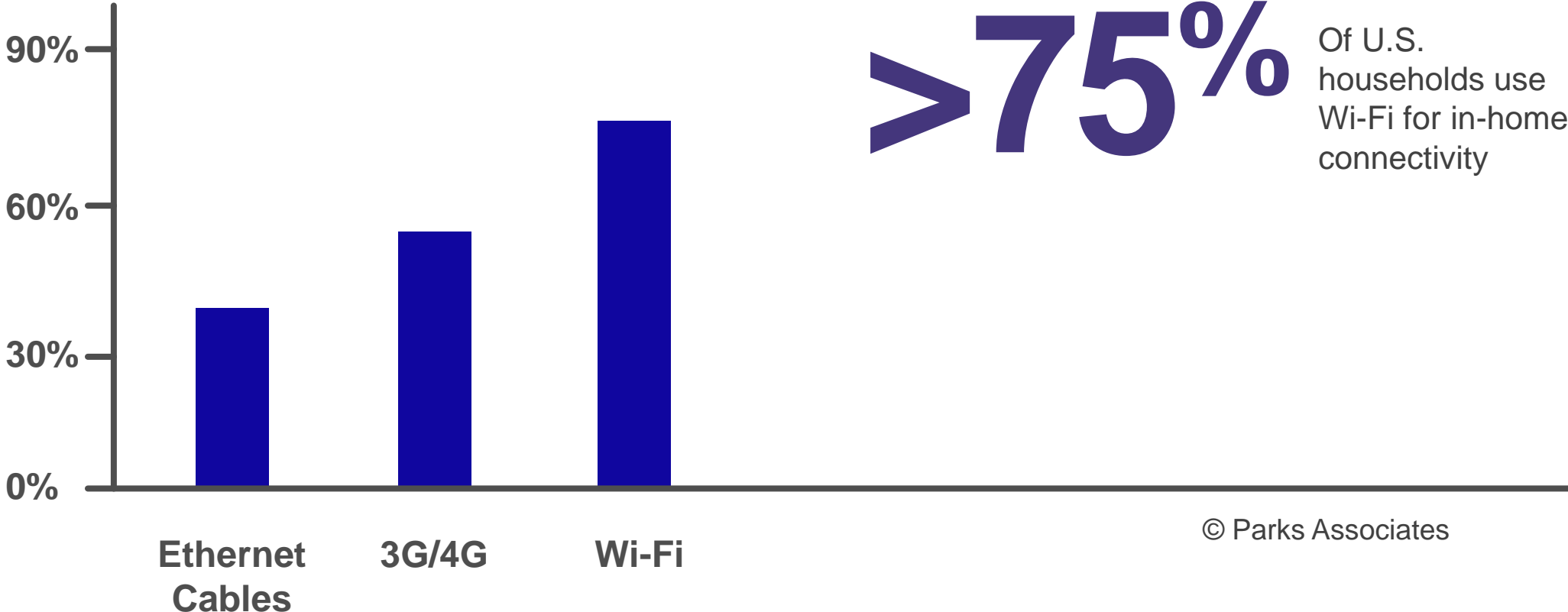
- **The Importance of Wi-Fi**
- **Steps to Successful Marketing**
 - Start with Managed Wi-Fi
 - Add Whole Home Coverage
 - Marketing Best Practices
 - Prepare for Smart Home
- **Discussion/Q&A**

The importance of Wi-Fi



Home Networking Method used to Access Internet in the Home

U.S. Broadband Households

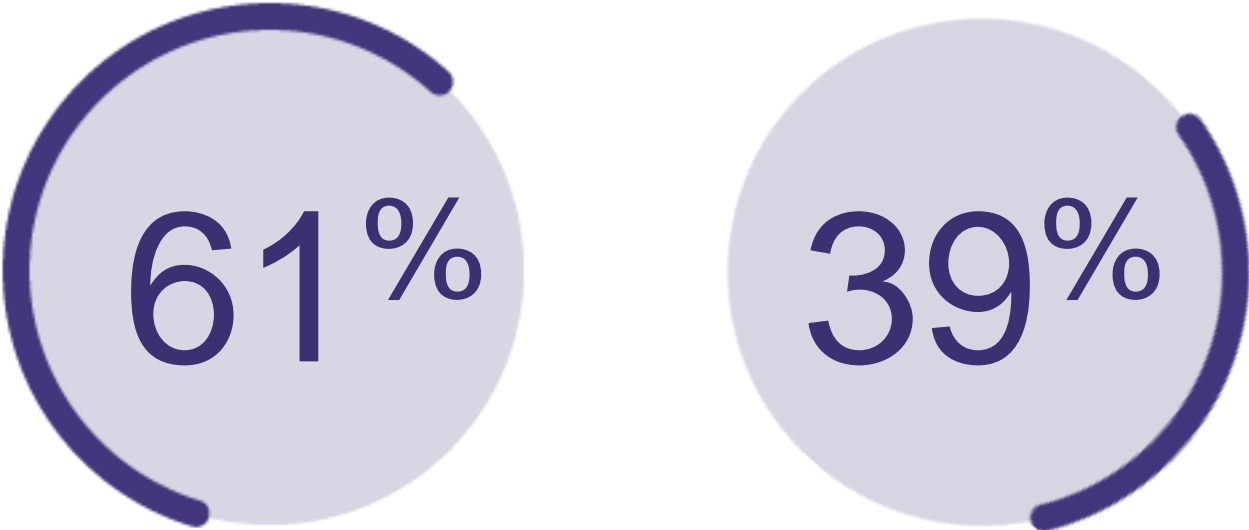


© Parks Associates

Most households use a Wi-Fi Gateway provided by their ISP

Home Network Routers Obtained from Broadband Service Providers

Owners of Networking Routers in U.S. Broadband Households



Purchased from broadband provider

Purchased from other source

The 39% of consumers that are looking elsewhere for cutting edge technology...



NETGEAR®
orbi™
Better WiFi. Everywhere.

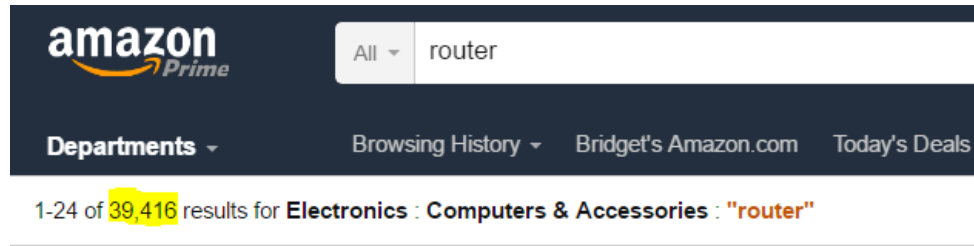
Whole Home

How does orbi™ work?

-  **Better WiFi. Everywhere.**
Take any WiFi device from room to room and Orbi follows the fastest WiFi speeds possible.
-  **Your Home. Covered.**
A single Orbi covers up to 2000 sqft and a kit of two Orbi covers up to 4000 sqft. More Orbi satellites can be added for more coverage.
-  **Max Internet Speeds.**
Orbi uses AC3000 Tri-Band WiFi to keep your Internet running at max speeds no matter how many devices connect.
-  **Just Plug In.**
With simple setup from your mobile device, your secure WiFi network is ready in just minutes.



... are going to find a dizzying array of options



Surveys tell us that nearly 80% of consumers would rather purchase the router/gateway from their service provider; a company whose recommendation they trust.



Retail providers are cross-selling installation and support services

BUSINESS

Best Buy expands Geek Squad's role with nationwide rollout of 'Total Tech Support'

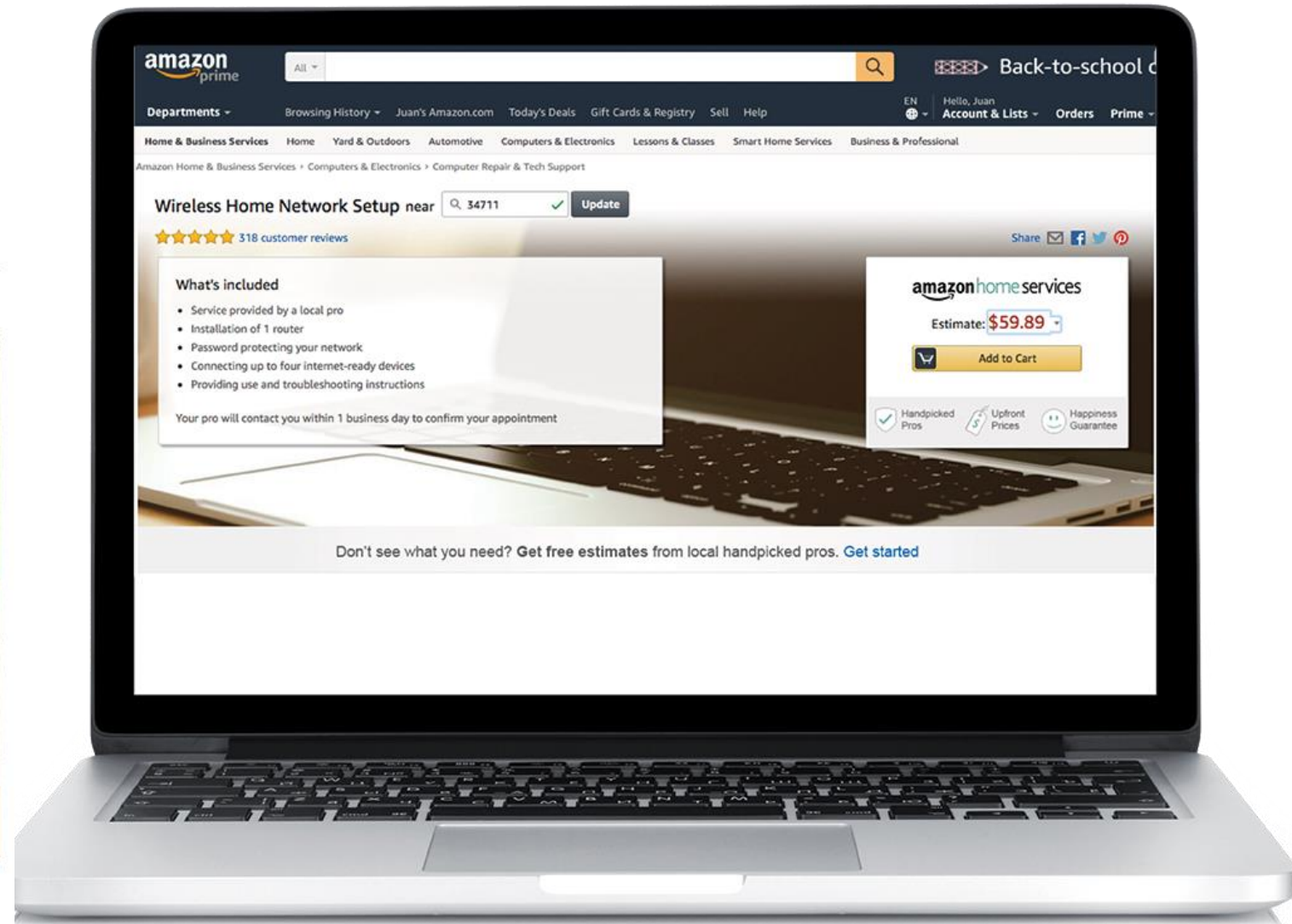
Best Buy is launching a subscription service that applies to all devices.

By Kavita Kumar Star Tribune | MAY 22, 2018 — 5:37AM



CONTRIBUTED PHOTO

Best Buy's Total Tech Support costs \$200 a year and offers unlimited phone and online support and discounted in-home visits.

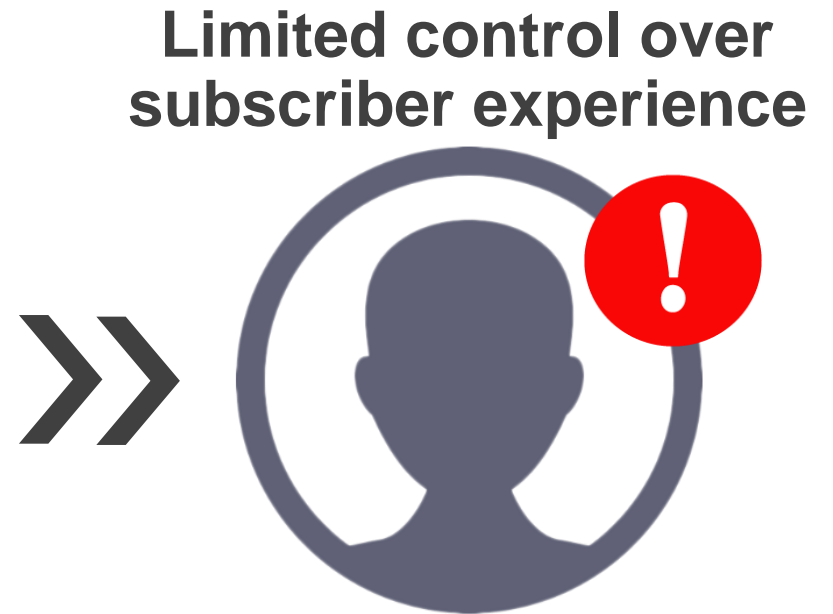


It all starts with Managed Wi-Fi

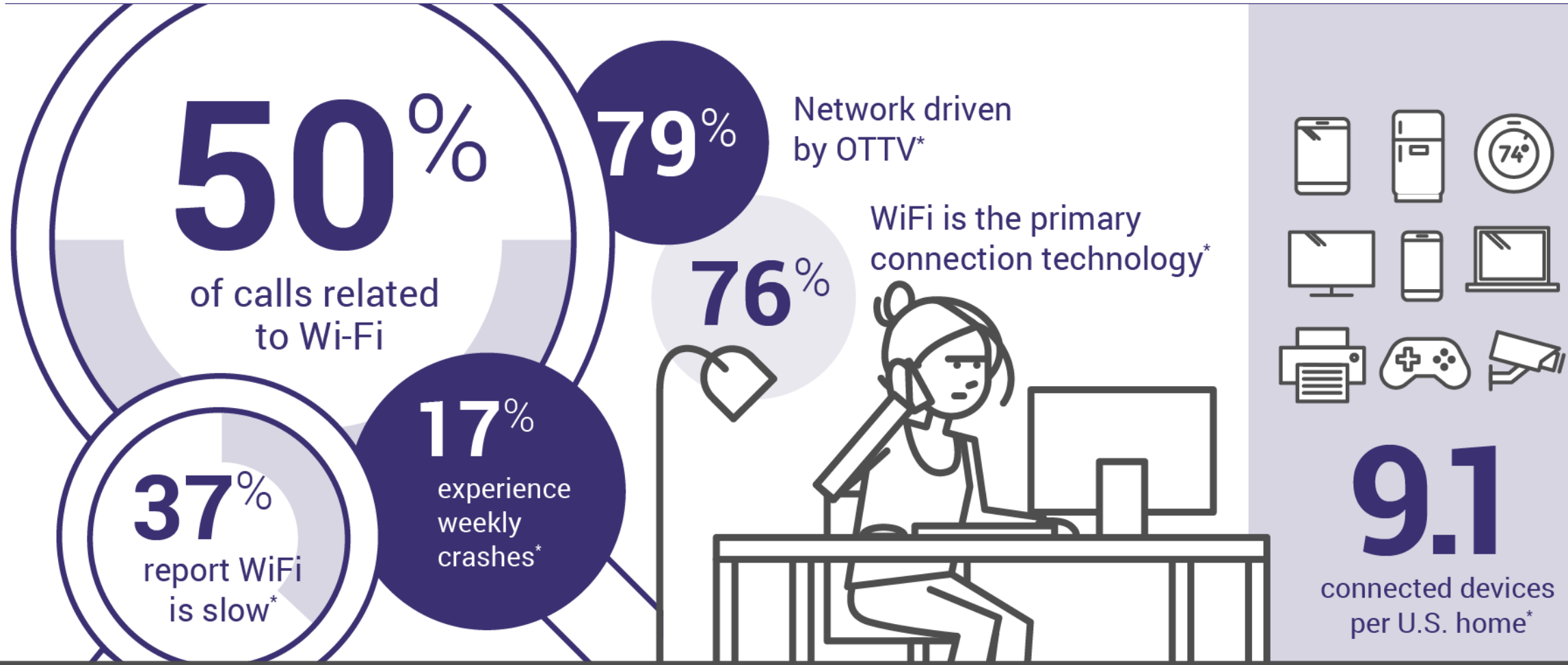


Off-The-Shelf-Routers

- Buying at Retail → Lost revenue
- Buying 3rd party → Undercuts your brand → Enhances the 3rd party's
- Zero control & visibility → Dismal FCR/First Call Resolution → Low NPS/Net Promoter Score
- Lack of Manageability → High cost of troubleshooting
- (For the subscriber) Staying current on latest technology → higher cost than what it might cost them to lease a router from you



Subscriber Experience in 2018



25% Wi-Fi coverage issues caused by:**



signal blockage within the premises



interference from nearby access points



Interference from non-wifi signals

*2016 Cisco VNI Complete Forecast **2018 Stake a Claim in the Connected Home: Parks Associates

A better alternative: 'Managed Wi-Fi'

Managed Wi-Fi means providing:

1. The 'strategic point of presence' (WAP/Wireless Access Point), and
2. Effective, phone-based tech support (with remote troubleshooting capabilities);



Calix Support Cloud – Overview

Main Use Cases:

- Automate reactive broadband care via SmartCheck
 - Improve support metrics: Volumes, escalations, AHT, Truck Rolls
- Increase visibility inside the home leveraging Netflow & Wi-Fi Analytics
- Make customer care proactive via Call Avoidance features and reports

Experience Management Edition

Back to Search

Clyde Moen
8783312
202-555-0138
cmoen443@mv-mail.com

No address

Data: High-Speed 10Mb
Video: Premium package
Voice: SIP Basic package
Net/Net: ---

SmartCheck | Configuration | System Tools | Troubleshooting | Traffic Reports

- WAN** (Warning): 1 of 2 tests passed 2 minutes ago. Observation: Frequent high bandwidth usage. Recommendation: Consider upgrade to higher tier service.
- Gateway** (Success): 1 of 1 tests passed 2 minutes ago.
- Wi-Fi** (Warning): 0 of 3 tests passed 2 minutes ago. ISSUE: Channel 40 has 61% interference. Recommendation: Improve Wi-Fi experience by switching 5 GHz radio to channel 124. Fix Now.
- Client Devices** (Warning): 1 of 3 tests passed 2 minutes ago. Observation: Legacy Devices present in the network.

Experience Management Edition

Back to Search

Clyde Moen
8783312
202-555-0138
cmoen443@mv-mail.com

SmartCheck | Configuration | System Tools | Troubleshooting | **Traffic Reports**

Real time Reports

RATE (Up/Down) Interval: 1 sec. 1.22Mbps / 4.05Mbps

PACKET (Up/Down) Interval: 1 sec. 5Mbps / 13pps

Top 5 Endpoints Interval: 15 sec

Endpoint	Up Rate (100.00% of Total)	Down Rate (100.00% of Total)
74.119.76.128	199,200.48.98	74,119.76.128
199,200.48.98	54,255.98.98	199,200.48.98
54,255.98.98	74,119.76.128	54,255.98.98

Top 5 Applications Interval: 15 sec

Application	Up Rate (100.00% of Total)	Down Rate (100.00% of Total)
Facebook	199,200.48.98	Hulu
Hulu	54,255.98.98	Amazon
Amazon	74,119.76.128	Facebook

Experience Management Edition

Edit Report

General

Name: Signal Strength

Description: One Time report on subscribers with Signal Strength below threshold.

Report Format: CSV

Query Attributes

Type: Wi-Fi Report

Observation Period: At least 10 % of time, over the past 20 day(s)

Query Logic: And / Or

Rule Type: Gateway / Client Devices

Rules: Signal Strength (RSSI) Greater Than or Equals [] dB

Email Schedule

Recurrence: One Time / Daily / Weekly / Monthly

Report Attributes

Account: [] []

Client Device: [] [] [] [] [] []

Experience Management Edition

Historical Active Analysis

Chart showing Signal Strength (RSSI) over time for various channels.

Site Scan

Chart showing Signal Strength (RSSI) for multiple sites over time.

Managed Wi-Fi generates revenue

Current Managed Wi-Fi Annual Recurring Revenue (Consolidated, ND): **\$241K**.

Based on **29% penetration rate** (~5,000/16,500 subscribers).

80% of new Internet customers take Managed Wi-Fi.

Current Managed Wi-Fi Annual Recurring Revenue: **\$250K**.

Based on **25% penetration rate** (~4,000/16,000 subscribers).

50% of new Internet customers take Managed Wi-Fi



Managed Wi-Fi generates significant cost savings

Benefits/cost savings for customers with Managed Wi-Fi vs BYOD (Consolidated, ND):

- **95%** first call resolution;
- **60%** less likely to roll a truck;
- **85%** faster resolution = appr. \$20 saving per trouble ticket; and
- reduced installation times.

Benefits/cost savings for customers with Managed Wi-Fi vs BYOD (All West, UT):

- **40%** first call resolution;
- **30%** less likely to roll a truck;
- **44%** faster resolution = appr. \$20 saving per trouble ticket; and
- reduced installation times.



The screenshot shows a website advertisement for Consolidated's Managed Wi-Fi Router. At the top left is the Consolidated logo with the tagline "Reach the World, from here." Below the logo is a green, fluffy cat character holding a tablet that displays a "Lost Internet Connection" error message. To the right of the cat, the text reads: "You **need** Consolidated's Managed Wi-Fi Router!" followed by "Contact us today to get setup with Managed Wi-Fi Router Service for only **\$4.99/month!**". At the bottom, there is a contact number "www.ctctel.com • 483-4000 • 888-225-5282" and the Consolidated logo again.

A blue service card for Managed Wi-Fi. The top section is dark blue with the text "Managed Wi-Fi" in white. Below this, the price "\$9.95 PER MONTH" is displayed in white, with a green "ORDER" button to the right. The bottom section is white with blue text: "High-functioning router Troubleshooting and support included" and "+ Available in ALL Fiber areas".

Best Practices: What are SPs charging for Managed Wi-Fi?

Cost for Managed Wi-Fi solution ranges from \$4.95/month to \$13.95/month, depending on what is included:

- Some SPs are moving toward ‘tiered’ tech support and/or differentiating based on number of in-home devices (e.g., SCTC \$8.95/month for “on-site connection of up to five, simple devices”; \$13.95/month to “synch up to ten, simple devices at time of installation”)

\$4.95/month



\$7.95/month



\$8.95/month



\$9.95/month



Promoting Managed Wi-Fi



HASSLE-FREE MANAGED WI-FI

We create a seamless Wi-Fi network in your home.

Contact Arvig for details.



WORRY-FREE WI-FI

Easily share your Internet connection throughout your home.

See Arvig for details.



888.99.ARVIQ | arvig.com



Promoting Managed Wi-Fi

Get the coverage of Managed WI-Fi + Inside Wire Maintenance for just \$8.95 per month

Midstate Communications has paired up two of our services — Managed Wi-Fi and Inside Wire Maintenance — for one low monthly cost. This combination covers virtually all of your connectivity, both wireless and wired, so you can focus on using the technology and leave the troubleshooting and repair to us.

Here's what you get for \$8.95* per month:

- Managed Wi-Fi including installation (with a separate guest network if requested), router, connecting up to four devices, and ongoing account management
- Inside Wire Maintenance including service repair appointment and repairs of covered inside communications wiring

To get started, call Midstate Communications at 605-778-6221.



‘Whole Home Wi-Fi’



Survey says...

- 80% of consumers prefer to buy their networking equipment from their ISP
- Nearly 70% of consumers of broadband services would be willing to pay \$5-10/month for small Wi-Fi Access Points (WAPs)



Prefer to purchase from
broadband provider



Willing to pay for small
WAP device

*PR Newswire

Some subscribers are turning to Consumer Mesh Wi-Fi for 'better Wi-Fi'

Revenue is lost to retail...



While you get stuck with the support costs...



You call that a 'Best Buy'?

A better approach: 'Whole Home Wi-Fi'

Whole Home Wi-Fi means providing:

1. The 'strategic point of presence' (WAP/Wireless Access Point), and
2. Effective, phone-based tech support (with remote troubleshooting capabilities); and
3. Extended/whole home coverage.



Best Practices: What are SPs charging for Mesh Wi-Fi?

\$3.95/unit



\$6.95/unit



\$4.95/unit




WIRELESS INTERNET

Hassle-Free **Managed Wi-Fi** starts at **\$7.00 per month.**
 Create a seamless network in your home and let the experts at Arvig® manage it for you.

The benefits of Arvig's Managed Wi-Fi:

- Easily connect to the internet from almost anywhere in your home.
- Wi-Fi password recovery.
- Help for connecting wireless devices to your network.
- FREE router replacement, if needed.

Experience Managed Wi-Fi now!

888.99.ARVIQ | arvig.com

Based on Arvig service area, some restrictions apply. ©Arvig 2016. This invitation is an equal opportunity provider and employer.



Marketing Best Practices

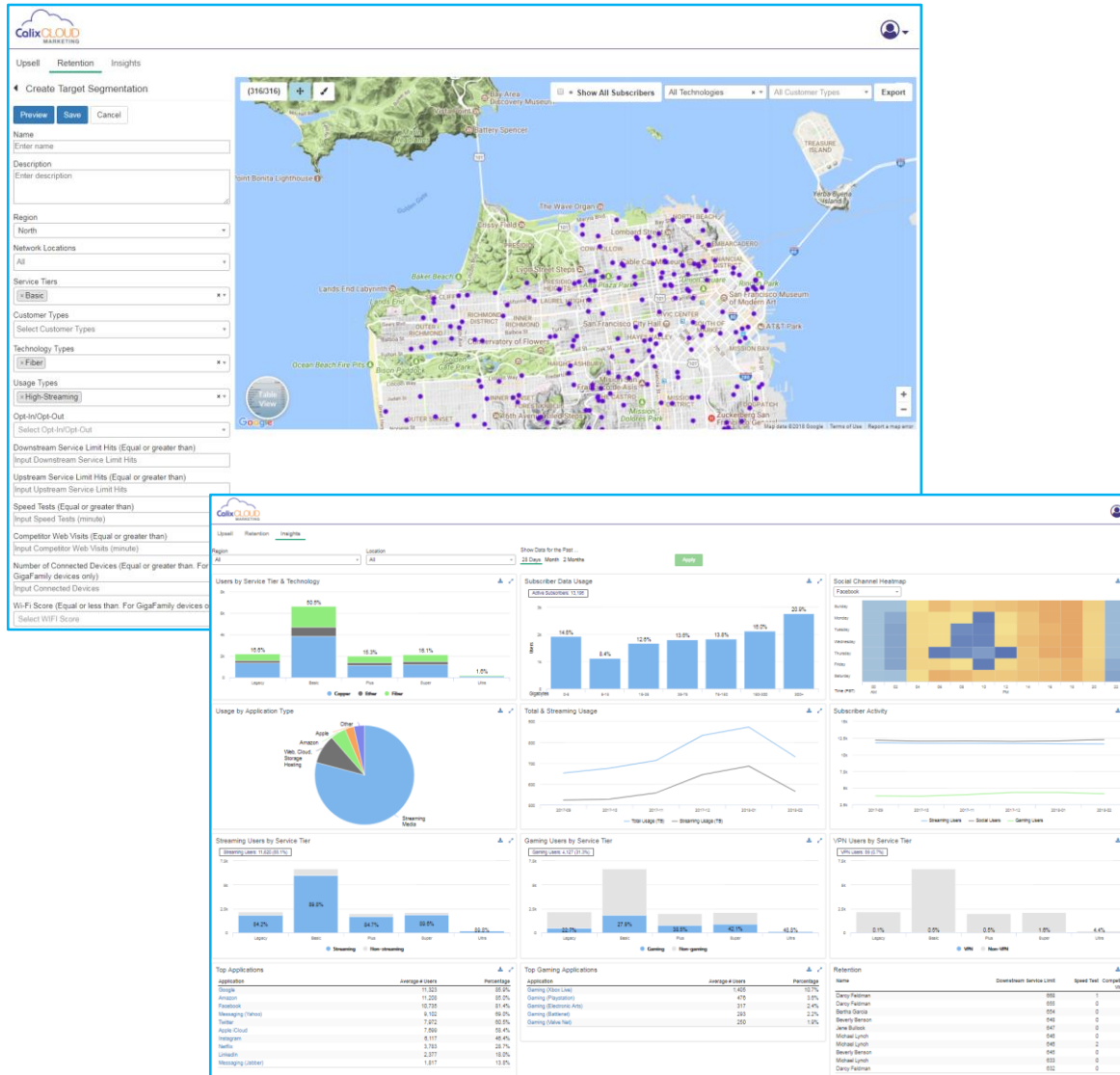


Observations from our customers

- Lead with your brand
- Don't re-invent the wheel – Calix can help with creative content
- Leverage data/micro-segmentation to identify high potential subscribers → Marketing Cloud is AWESOME!
- Choose the right channel → Consider increasing social media
- Find the right price-value balance – one that results in highest adoption and drives most cost savings
- Personalize/Inform/Educate → videos, FAQs, product details, etc.

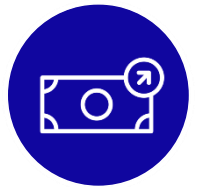


Gain insights into your subscribers like never before



Use Cases

- Actionable Subscriber Insights
- Data usage
- Social Channel heatmap/usage
- Subscriber types
- Retention/Satisfaction monitor
- Segmentation filters
- Micro Targeting for Campaigns
- Focused upsell



Increase ARPU



Reduce Churn



Boost Marketing ROI

“Organizations that leverage customer behavior data... outperform peers by 85% in sales growth and more than 25% in gross margin”

- McKinsey, March 2017

Better Wi-Fi is a great service differentiator for service providers

**Imagine powerful Wi-Fi
in every nook and cranny
of your home,
even your backyard.**

No upfront costs
& only pennies a day.



Ask about our Whole Home
Wi-Fi Support Plan!

ITSFiber



**Offering better Wi-Fi
presents an opportunity**

**Premium Wi-Fi = better coverage,
less congestion, and faster speeds**

**Better Wi-Fi
made easy.**

How to get superior coverage
throughout your home –
even your yard.



**Whole Home
Wi-Fi Support Plan**

For ITS Fiber customers with GigaCenter gateway

ITSTelecom
Always here. Always clear.

**Imagine powerful Wi-Fi in every nook and cranny
of your home, even your backyard.**



**No upfront costs
& only pennies a day.**



**Ask about our
Whole Home Wi-Fi
Support Plan!**

ITSFiber

Calix can help you get started on your journey

Marketing Materials



Welcome to the mesh-enhanced game room.

Welcome to the best in-home gaming experience.
With our GigaCenter and mesh satellites you can experience the world's most advanced managed mesh Wi-Fi experience in every corner of your home and beyond – for just pennies a day.



Welcome to the **connected backyard.**

Experience extended Wi-Fi coverage for only pennies a day.
With our GigaCenter and mesh satellites, now you can experience whole-home coverage in every corner of your home – and beyond.

We're working with dozens of service providers to help them build their go-to-market strategies. Download materials that you can use in your marketing campaigns in many formats and themes. Or schedule a free consultation with the Calix Marketing team.

Educational Materials



Colix

Colix

Optimizing your home Wi-Fi network to get the best coverage and performance

Having Wi-Fi problems?
Make sure your router is up to date!

We've created a series of short documents that use very simple language to describe and define some of the technical terms that we use when talking about Wi-Fi. Please feel free to post these directly to your web site or repurpose in any way that you like.

Dedicated site for marketing and educational materials (<https://go.pardot.com/l/2172/2018-03-05/3nb85p>).

Marketing Starter Kit



WELCOME TO
**CONNECTED
GENERATIONS**

**FOR ONLY
PENNIES A DAY**
Experience extended
Wi-Fi coverage.

With our GigaCenter and mesh satellites, now you can experience whole-home coverage in every corner of your home – and beyond.

Ask about a better Wi-Fi experience here!

YOUR LOGO HERE

Brought to you by Calix



Calix Mesh-Enhanced Wi-Fi
Sponsored · 🌐 Like Page

Play anywhere. For just pennies a day, the world's most advanced mesh Wi-Fi makes your gaming experience sensational. With our GigaCenter and mesh satellites, you'll enjoy an exceptional Wi-Fi experience anywhere in your home and beyond. Welcome to the mesh-enhanced game room.

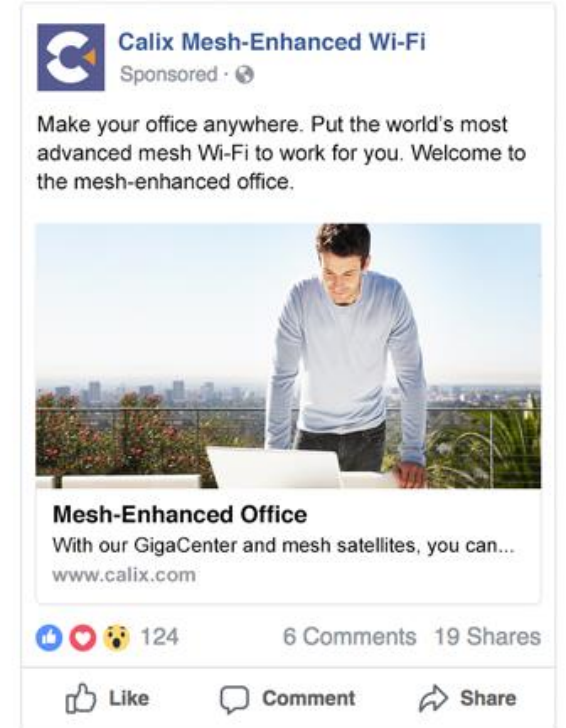


Mesh-enhanced gaming
With our GigaCenter and mesh satellites, you can enjoy the best in-home gaming experience.

WWW.CALIX.COM


124 Reactions 5 Comments 19 Shares

Like Comment Share



Calix Mesh-Enhanced Wi-Fi
Sponsored · 🌐

Make your office anywhere. Put the world's most advanced mesh Wi-Fi to work for you. Welcome to the mesh-enhanced office.



Mesh-Enhanced Office
With our GigaCenter and mesh satellites, you can...
www.calix.com

Like Wow 124 6 Comments 19 Shares

Like Comment Share

Toolkit Keeps Expanding - More Personas and Content Coming...

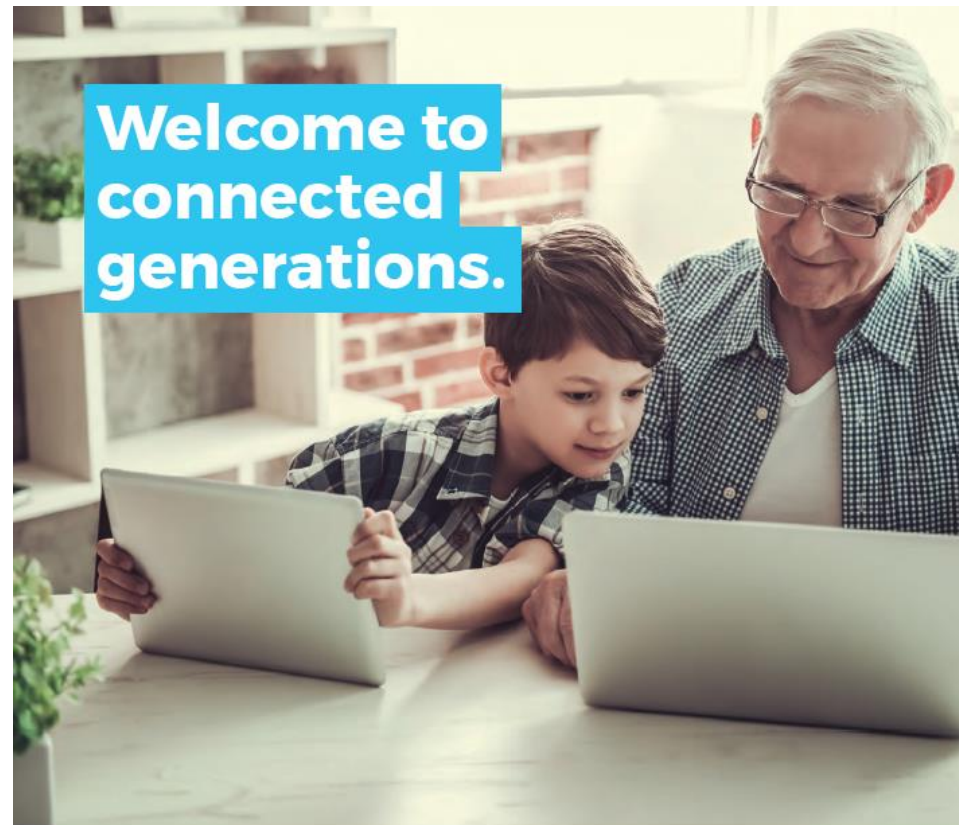


Welcome to
connected
quality time.

For only pennies a day. Experience extended Wi-Fi coverage.
With our GigaCenter and mesh satellites, now you can
experience whole-home coverage in every corner of your home –

Ask about a better Wi-Fi experience here! **YOUR LOGO HERE**

Brought to you by Calix



Welcome to
connected
generations.

For only pennies a day. Experience extended Wi-Fi coverage.
With our GigaCenter and mesh satellites, now you can experience
whole-home coverage in every corner of your home – *and beyond.*

Ask about a better Wi-Fi experience here! **YOUR LOGO HERE**

Brought to you by Calix

Wi-Fi Educational Materials

Better Wi-Fi, made easy.

HOW TO GET GREAT COVERAGE THROUGHOUT YOUR HOME— EVEN IN YOUR YARD.

Inside your home, your Internet signal is delivered using a cable connected to a small box. This box is known as a gateway, a router, a modem or an "access point", because it's the point in your home that your devices access in order to connect to the Internet. Access can be delivered using an Ethernet cable connected directly from your device into the box (most common with desktop computers), or via Wi-Fi. The brand name of the gateway we installed in your home is "GigaCenter", one of the best on the market.

Here are answers to some questions you may have about Whole Home or Wi-Fi in general.

HOW CAN YOU IMPROVE MY WI-FI COVERAGE?

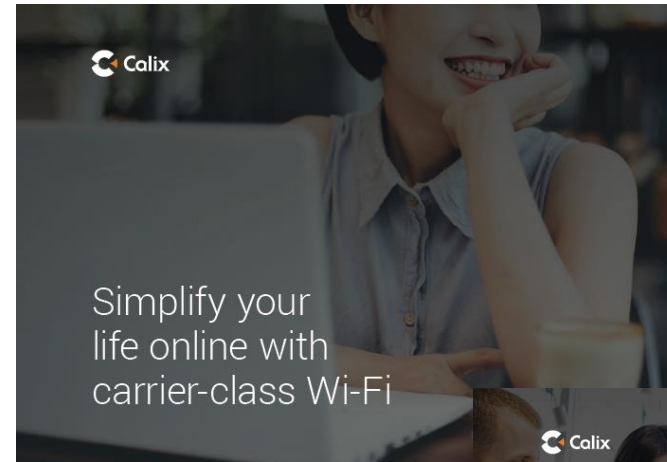
The easiest way to get a strong Wi-Fi signal throughout your home, and even in your yard, is by creating a bigger Wi-Fi network. Your GigaCenter is already transmitting the strongest signal allowed by Federal regulations, so we can't "turn it up". However, we can provide you with additional access points, called satellites, that work seamlessly with your GigaCenter to enlarge your network and provide you with what has become known as Whole Home Wi-Fi. These satellites "mesh" with your GigaCenter to do this, which is why these bigger networks are technically called "mesh networks".

EASY TO USE.

With Whole Home, you aren't creating any new Wi-Fi networks. You're simply enlarging your existing network. That means:

- Your devices already "know" your network, so you don't have to change or add any new settings, passwords or configurations.
- As you move around, your GigaCenter will seamlessly (and automatically) switch you to the access point (or satellite) that gives you the best connection for where you are in or outside the house. ("Seamlessly" means you won't notice it. All you will notice is better Wi-Fi coverage everywhere.)
- If the channel or frequency of your access point gets too crowded, or encounters interference from other devices or your neighbors' Wi-Fi network, the GigaCenter will seamlessly (and automatically) switch you to a different frequency.

Here are answers to some questions you may have about Whole Home or Wi-Fi in general.



Simplify your life online with carrier-class Wi-Fi

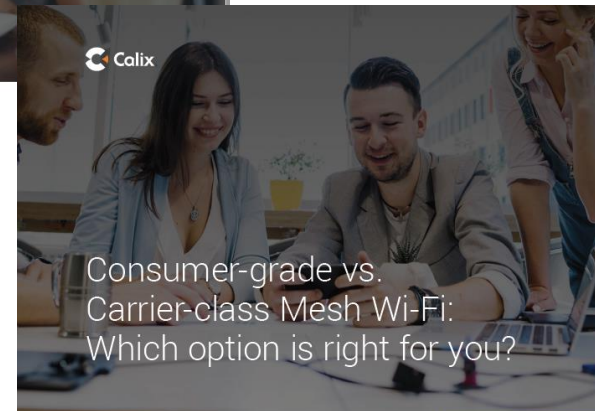
In today's increasingly connected homes, a fast, reliable Wi-Fi connection is no longer a luxury. We depend on Wi-Fi in so many ways: communicating with friends and family, sharing photos and videos, streaming movies and music, and interacting on social media. More and more, we also rely on Wi-Fi to connect a whole array of smart devices to manage mission-critical systems in our homes—such as smart locks, smart thermostats and smart security systems.

When it works the way it's supposed to, Wi-Fi is an amazing technology. When it doesn't—when we experience poor performance or can't connect at all—it has a big impact on our daily lives. For most of our devices, connecting over Wi-Fi is the only option. So when it's not working, it can be extremely frustrating.

As a result, many people are rethinking the logic of relying on consumer-grade Wi-Fi systems to manage something that's so important to their daily lives. Instead, they're looking to their service provider for a hassle-free Wi-Fi experience that makes their online lives better.

What is managed, carrier-grade Wi-Fi?

With managed, carrier-grade Wi-Fi, your service provider delivers the latest Wi-Fi technology and takes care of managing it within your home network. Your service provider offers a variety of Wi-Fi service levels, depending on your needs, including Mesh Wi-Fi solutions that use satellite units placed in different rooms to extend a strong Wi-Fi signal throughout your home.



Consumer-grade vs. Carrier-class Mesh Wi-Fi: Which option is right for you?

When it comes to home Wi-Fi, the most important thing is that it works—so you never have to think about it. Unfortunately, with many home Wi-Fi networks this is not always the case. Poor connectivity, slow speeds and dropped connections are all too common.

There are some steps you can take to improve Wi-Fi performance in your home. However, such as moving your router to a different location, making sure its settings are optimized, or even upgrading to a newer model. But when these actions don't result in any noticeable improvement, it may be time to consider a different type of Wi-Fi solution.


Enjoy a superior experience with Mesh Wi-Fi

Fortunately, there is an exciting new alternative to conventional home Wi-Fi networks. Called a Mesh Wi-Fi network, this new technology combines a Wi-Fi router with one or more satellites, which are small wireless devices you place in different rooms in your home. These satellites communicate with the router and provide you with a strong Wi-Fi signal everywhere, whether it's your bedroom, your home office, or even your backyard.

Consumer-grade Mesh Wi-Fi: convenient but expensive

Once you've decided a Mesh Wi-Fi system is for you, there are two options for making the jump. The first is to pay a visit to the nearest consumer electronics store and purchase your own Mesh Wi-Fi system. These systems typically consist of a router and one, or sometimes two, satellites.

Marketing Starter Kit



Welcome to the
Greater Outdoors

For only pennies a day. Experience extended Wi-Fi Coverage. With our GigaCenter and mesh satellites, now you can experience whole-home coverage in every corner of your home – and beyond.

Ask about a better Wi-Fi experience here:

YOUR LOGO HERE

1-800-123-1234 www.websitegoeshere.com/vanity

Brought to you by Calix


Posters, Bill Inserts, Door Hangers and Social Media

For further assistance


Contact: Greg Owens

Email: greg.owens@calix.com

Voice: 613.804.1978



Welcome to the
connected backyard.



Ask about a better Wi-Fi experience here:

YOUR LOGO HERE

Scheduled Your Free Marketing Consult



SCHEDULE FREE CONSULTATION

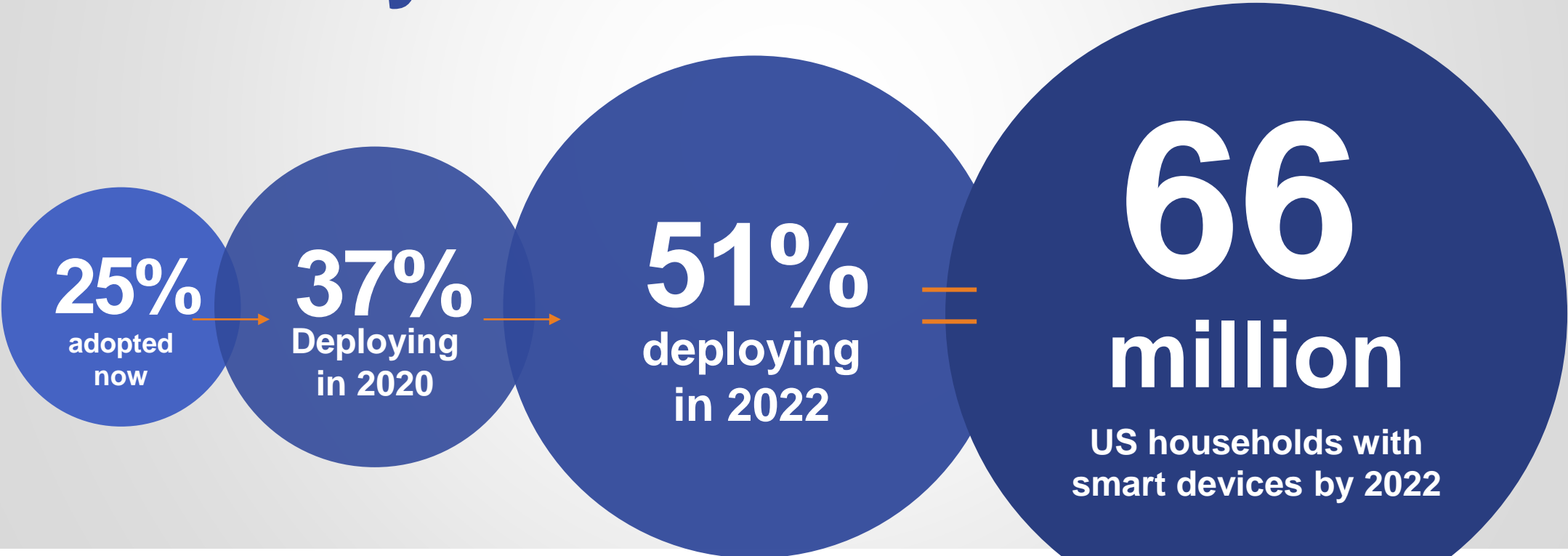
- We're working with dozens of service providers to help them build their go-to-market strategies.
- If you'd like to discuss the business case and learn about some of the best practices that exist in the market, get in touch today and schedule a free consultation with a Calix executive or product expert.
- 100+ marketing consults completed to date.
- Schedule a free consultation (<https://go.pardot.com/l/2172/2018-02-26/3mzdjf>). Links also available from the GigaCenter, 804Mesh and EXOS web pages.

The End Game is Smart Home



IoT Growth has finally hit the home

The war for the
Smart Home is NOW



Internet Giants

Looking for New Markets



amazon
MARKET CAP
~\$830B



Google
MARKET CAP
~\$796B



No Compromise Smart Home System

Brand Worthy Game Changers

6 Gb/s WiFi

First Service Provider Offered 8x8 11ax Wi-Fi

Universal IoT

All IoT technologies

Voice Command Services

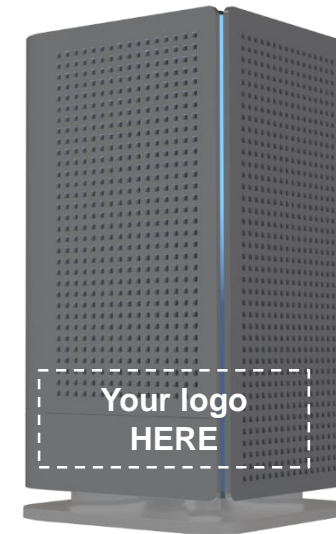
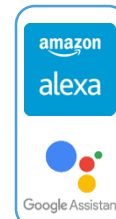
AVS voice recognition technology

World first - three configurations

11AX | 11AX-Voice | 11AX – Voice - IOT

Configurable as Gateway or Satellite

11AX backhaul or ethernet



Set-Up YOUR BRANDED Smart Home

YOUR BRAND

SMART HOME AND BUSINESS





**Marketing & Branding
Enablement**



**New Business Models
& Revenue Streams**



**Manage Costs &
Speed Time to Market**

NOW REAL.

2018 **CALIX** **CONNEXIONS**

**INNOVATION AND
USER CONFERENCE**

**WYNN LAS VEGAS
OCTOBER 27-30**

ONCE IMAGINED.

Register today at www.Calix.com/Connexions

**Use code CalixWebinar to get
\$50 off Early Bird Registration****

****Applies only to full conference registration.
No guest passes may use this code for discount.**

Is Your Brand Ready to Dominate?



The Time To Start Is Now

- 1. The essential first step: Embrace Managed Wi-Fi**
- 2. Offer Whole Home Wi-Fi: Extending coverage throughout the subscriber's home**
- 3. Smart Home: Evolution requires a transformation; creates opportunities**

Discussion/Q&A



Thank you

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