Wi-Fi and the Connected Home: A Service Provider Opportunity

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The world has gone digital

By 2021
58% of the population will be using the Internet up from 44% in 2016.

By 2021
61 GB of internet traffic per month, per user up from 24 GB in 2016.

By 2021
3.5 networked devices and connections per person up from 2.3 in 2016.

By 2021
80% of all Internet traffic will be video up from 67% in 2016.

By 2021
53 Mbps average broadband speed up from 27.5 Mbps in 2016.

By 2021
20 Mbps average mobile speed up from 6.8 Mbps in 2016.
117 million households in North America have broadband—87% market penetration. 76% of broadband households use Wi-Fi as their primary connection technology.

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50% of customers care calls are related to Wi-Fi issues and typically caused by:

- Signal blockage within the premises
- Interference from nearby access points
- Interference from non-Wi-Fi signals

Subscribers want a better experience
Wi-Fi Frustrations? You’re Not Alone.

<table>
<thead>
<tr>
<th>Wi-Fi Network Technical Problems</th>
<th>% Experiencing Specified Technical Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wi-Fi network seems slow</td>
<td><img src="image.png" alt="Graph" /></td>
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<tr>
<td>Wi-Fi coverage problems</td>
<td><img src="image.png" alt="Graph" /></td>
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<tr>
<td>The Wi-Fi network stops working for some reason almost weekly</td>
<td><img src="image.png" alt="Graph" /></td>
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<tr>
<td>Difficulty getting other devices to connect to the Internet using Wi-Fi</td>
<td><img src="image.png" alt="Graph" /></td>
</tr>
<tr>
<td>Difficulty getting devices to connect to each other using Wi-Fi</td>
<td><img src="image.png" alt="Graph" /></td>
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<tr>
<td>Problems at initial setup and configuration</td>
<td><img src="image.png" alt="Graph" /></td>
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<tr>
<td>Difficulty setting up network security</td>
<td><img src="image.png" alt="Graph" /></td>
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<tr>
<td>Difficulty managing passwords/access credentials</td>
<td><img src="image.png" alt="Graph" /></td>
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<tr>
<td>Other issues</td>
<td><img src="image.png" alt="Graph" /></td>
</tr>
<tr>
<td>No technical problems</td>
<td><img src="image.png" alt="Graph" /></td>
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</tbody>
</table>

- 37% of households report that their Wi-Fi seems slow
- 20% reported Wi-Fi coverage problems in the past year
- 19% report that their Wi-Fi network stops working almost weekly
Consumer Wi-Fi is a Double-edged Sword: You Need to Provide the Best Experience

• Wi-Fi is the foundation of the connected home; but represents a source of frustration for many.

• Troubleshooting Wi-Fi issues presents an opportunity for service providers.

• Premium Wi-Fi = better coverage, less congestion, and faster speeds → Happy Customers

• Reliability and support that are the hallmark of service providers.
Subscribers are creating their own Wi-Fi experiences in their home.
Are you ready to support the demands of your subscribers?
What you currently know from the incoming call

- Susan (MOM)
- Lily (DAUGHTER)
- Anthony (SON)
- Pearl (GRANDMA)
- William (DAD)
What you really need to know

- VPN 40 hpw
- Shops online 2 hpw
- Video Calls 30 hpw
- Prints and Scans daily

- Streaming 12 hpw
- Homework 10 hpw
- Video Chat 2 hpw
- Chat 15 hpw

- Gaming 18 hpw
- Homework 8 hpw
- YouTube 4 hpw

- Video Calls 40 hpw
- Shops online 3 hpw
- Gaming 3 hpw
- Streams cooking shows 3 hpw

- Streams music 10 hpw
- TV 15 hpw
- Internet Research 3 hpw
- Keeps grocery list
Access gateways and Wi-Fi mesh devices must collect and expose proper Wi-Fi statistics to a BBF TR-98/TR-181 model

- Today’s Wi-Fi chipsets all support statistics collection – signal strength, interference, airtime analysis, …

Support for TR-69 to collect the data

Going forward TR-369 USP

Standards support is key for service providers deploying access gateways from multiple vendors
Real-time troubleshooting with access to intelligent analytics & automation

- Focus on customer interaction
- Increase First Call Resolutions
- Reduce Average Talk Time
Calix Support Cloud

Faster remediation with advanced diagnostics & simplified workflows

- Get insight into subscriber experience
- Shorten overall duration of wireless calls
- Reduce escalations
Next step: Automation

Solve their problems before they become problems!

The key to fast and efficient problem determination is instrumentation, automation, and analytics.
Let your CSRs pay attention to the customer.
While your tools pay attention to the problem!
What’s next? The upcoming deluge of connected home devices
Are you ready for this?
What if you could…

Manage the complexity of a connected home?

Monetize the connected home, offer security and managed Wi-Fi?

Reduce subscriber complaints?

Personalize subscriber experiences?
Universal Connected Home Support Puts Service Providers at Center of Home Control
Wi-Fi is the foundation of connected home; but also a source of frustration for subscribers.

Smart home devices drive help desk calls; households that have problems with Wi-Fi or connected home devices typically contact their service provider for help.

Helping your subscribers with Wi-Fi issues presents an opportunity.

Support for standards – TR69/369, TR181, …
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June 2-4, 2020
Den Haag, The Netherlands

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