MARAVEDIS
Wireless Infrastructure Analysts

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MANAGED HOME Wi-Fi NETWORKS TO ENABLE THE CONNECTED SMART HOME 2020-2025

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1. Executive Summary

Service Providers' Strategies

In this edition we provide the highlights of a unique and extensive survey of service providers about their views of managed home Wi-Fi trends. We also provide detailed operator profiles from one-on-one briefings. Managing quality of broadband experience in the home is a priority for most service providers, and Wi-Fi is at centerstage of that effort. Quality of experience now goes beyond speeds to include lower latency required to support 4/8K, gaming, and VR applications. Most operators are motivated by the reduction in opex and improvements of their NPS score, while a few in the minority attempt to monetize it or include it as part of their premium packages. As a result, service providers are now increasingly taking ownership of the Wi-Fi experience, and are on a mission to build a foundation for the connected home.

Technology Trends

Innovation for a more robust connected home Wi-Fi and IoT is ongoing at a furious pace. There are a number of ongoing initiatives to create a more agile CPE, one with an open-source, agnostic, middleware between the cloud and the home devices. The benefits of making code available to others include faster development time, faster time to market, and more cost-effective implementation. Despite these efforts and the popularity of Easy Mesh, many service providers consider proprietary solutions as superior, and will continue deploying these until standardized solutions gain momentum. Other large service providers with sufficient resources prefer to develop their gateways and software internally, rather than buy them from external vendors. This is a crowded and challenging market for solution vendors, and some will not survive the long and complex service provider sales cycle.

IoT and Security Trends

Connected and IoT devices are built with no or poor security, giving intruders access into the home network and possibly personal data. Since these devices connect and interconnect from the router/gateway provided by the operator, the solution is an added layer of security embedded in the middleware and SDK app. Vendors are developing solutions using AI and ML to detect intrusions and abnormal activity, such as a camera wanting access to the smart lock. Nevertheless, the majority of service providers are still at the early stage of any comprehensive cybersecurity offering and will face an uphill battle to educate their subscribers about the benefits of protecting their connected home if they hope to monetize new services beyond parental control. For the majority of smaller service providers, the battle of the connected home is already lost to OTTs, while the few large ones are still hoping to control the home play.

Forecasts 2020-2025

Managed Wi-Fi is a fast-growing market. We forecast that, by 2025, over 294 million broadband lines in the top thirty-four countries worldwide will have service provider managed Wi-Fi. This represents a 27% penetration of the total broadband lines in service in 2025.

Select Key Findings from the Survey

The online survey took place during the September and October 2019 timeframe and gathered 218 responses, 42% of which were from service providers worldwide.

Home Usage

- By 2021, the average number of devices in the home will be around XX.
- Wi-Fi Gateway (Integrated Router and Modem) is the most deployed infrastructure in the home, followed by XXX.
- Legacy 802.11 n (or Wi-Fi 4) is still very much present in XX% of homes, followed by Wi-Fi 5 (XX%).
- Video streaming services will continue to be the most valued services by 2021, followed by virtual assistants and IoT sensors.

Wi-Fi KPIs

- Slow Wi-Fi speed is the #1 reason triggering service calls (XX%), followed closely by unstable Wi-Fi (XX%).
- Poor access point placement is the number one cause of poor Wi-Fi performance.
- Thirty-one percent (XX%) of inbound support calls are related to Wi-Fi.
- Seventeen percent (XX%) of inbound support calls result in a truck roll.
- The average cost of a service call is $XX (USD).
- The average cost for a truck roll is $XX (USD).
- The majority of service providers (XX%) want to solve the coverage issue and provide a good quality Wi-Fi experience throughout the home.
- However, XX% of operators surveyed still do not provide home-managed Wi-Fi service.
- Sixty-five percent (XX%) of service providers will not charge for managed Wi-Fi, but rather use it to reduce churn and increase their Net Promoter Score.
- Fifty-five percent (XX%) of service providers indicated they want to support EasyMesh program.
- Twenty percent (XX%) of operators have a multi-vendor strategy.

Connected & Secure Home

- A majority of service providers indicated that by 2021 they envision selling services related to connecting appliances (XX% of service providers) in the home and all related smart home services (XX%) such as smart lighting, monitoring, and security.
- IoT interoperability issues is ranked the #1 challenge by XX% of respondents followed by a lack of IoT standards.
- Operators indicated that protecting their network from new threats and protecting their network from abuse and unnecessary traffic (D/DoS, serving malvertising, serving spam) were equally important (XX%). This comes ahead of protecting their customers from new threats and privacy.
- Seventy percent (XX%) of operators place a priority on understanding internet threats their customers are facing.
- Seventy-four percent (XX%) of service providers have not selected their home security platform provider yet.
- Seventy-five percent (XX%) of service providers indicated that the lack of consumer awareness about cybersecurity and lack of willingness to pay more for cybersecuring their home was their #1 challenge.

Standards

- The WFA remains the most influential industry group for implementing home Wi-Fi standards.
- Thirty-six percent (XX%) of service providers won't let third parties develop software on top of their home Wi-Fi gateway, while XX% would let agents build into the firmware.