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Huawei launches the iFTTR OptiXstar F50 to drive smart home use cases

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FTTR technology is a key tool in the delivery of a guaranteed 5-star broadband experience. By the end of 2023, 19% of all consumer broadband subscriptions were at speeds of 1Gbps or above. This percentage is set to increase to just under 45% by 2028. Getting such capabilities to people's homes is irrelevant, however, if such speeds can't be delivered reliably and consistently to every corner of the home. Broadband service providers are fully aware that if they don't achieve this, then customer dissatisfaction, swiftly followed by customer service calls, will quickly escalate.

To counter this, traditional home networking technologies such as Wi-Fi have seen significant advancements in recent years. Nevertheless, such technology can still have a detrimental impact on the end-to-end experience. Centralized FTTR architectures have been proven to optimize the home broadband experience by bringing the fiber network into every room of the house.

Market update

Although currently FTTR technology is mainly focused on the higher end of the market, subscriptions are growing steadily with more than 25 operators around the world now offering commercial packages, serving just under 14 million end users. By the end of 2028 Omdia predicts that this figure will increase to over 140 million, pushed by the continued increase in FTTH and gigabit subscriptions—where FTTR makes for an obvious upsell. The decreasing cost of the solution and the advent of DIY installation solutions will also contribute to FTTR's growth over the next five years.

Commissioned Research

The push to increase value in top broadband tiers

China has rapidly become one of the most advanced broadband countries in the world and is a leader in FTTR adoption. With rapid customer take-up, the technology is already filtering down into the middle broadband pricing tiers. Home networking technology, however, has become a vital point of differentiation between tiers. Therefore, if FTTR solutions are now entering mid-tier offerings it is critical for the service provider's tiering strategy that there are more advanced offers to flow into the top-tiered services to continue to attract customers to those higher-end services.

Service providers in China therefore have been calling for more advanced solutions that not only continue to deliver an exceptional broadband experience, but also have added features that help them create and sell new smart home use cases.

Enter the iFTTR OptiXstar F50

Huawei is a leading vendor in the FTTR market and has been quick to launch new, more advanced FTTR solutions to continue to drive the market. Quick off the heels of its OptiXstar F30 FTTR solution, which was only launched in 1Q23, comes the iFTTR OptiXstar F50 (see Figure 1), which not only continues to drive innovation around enhanced broadband connectivity and experience, but also adds new application features to the FTTR portfolio for the first time.

Figure 1: The Huawei iFTTR OptiXstar F50

Source: Huawei

The enhancements of the F50 include:

- Connectivity upgrade: By converging FTTR and Wi-Fi 7 technology Huawei's F50 is capable of offering speeds up to 3000 Mbps to every room in the home, supporting up to 256 (double that of the F30) concurrent devices. The gateway device also provides 2.5GE or 10GE network ports to implement 10 Gbps to the room.

- Experience upgrade: To further enhance the experience, the F50 virtualizes the entire Wi-Fi network into a super Wi-Fi hotspot, shortening the roaming handover latency from the industry average of 100ms, and the previous F30 time of 20ms, to 10ms through precise clock synchronization, and ensuring zero packet loss during handovers, achieving imperceptible roaming.

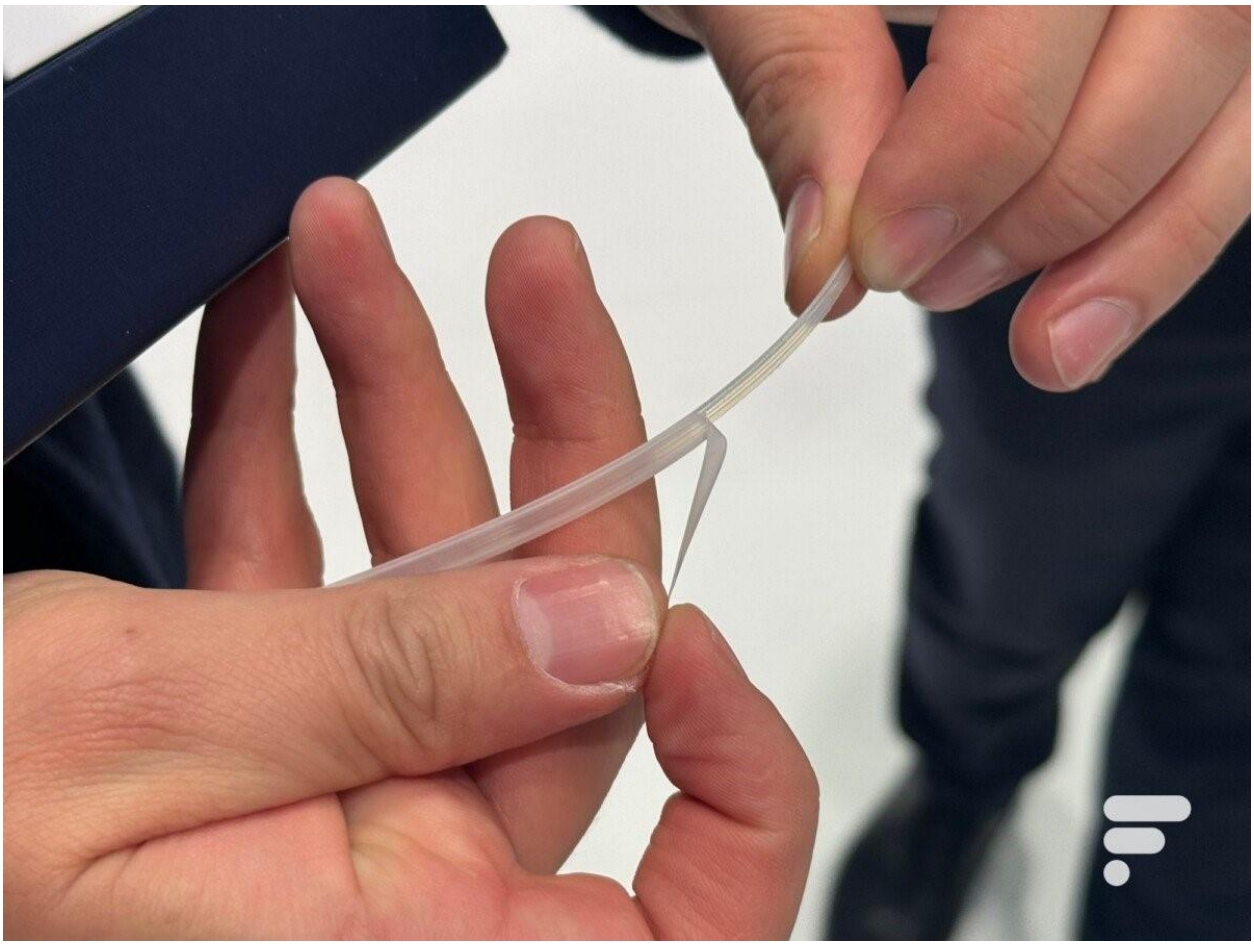
- Smart applications: The F50 includes built-in storage and computing capabilities enabling new smart home applications. This includes 8TB of private home storage with additional cloud backup, that allows users to back up, as well as share with the rest of the household, files such as photos and videos without having to purchase a separate network attached storage (NAS) device. The F50 also incorporates Wi-Fi sensing capabilities that can be used, for example, in smart home security and assisted living applications.

Self-installation cabling speeds up installation

Although Wi-Fi Mesh is not perfect, one major advantage is that it is simple to install and, in most cases, can be done by the customer. One of the downsides of FTTR is that installing optical cable has, at least traditionally, required engineer installation and therefore been a more costly option for service providers to deploy.

Huawei has been a leader in developing solutions that speed up this installation time and thus minimizing such costs. Transparent adhesive fiber and zero splicing connections initially reduced it to an average of 30 minutes per room. However, Huawei has now introduced a new unique self-bonding transparent fiber solution, which, as it does not rely on professional tools but can be simply and quickly deployed like adhesive tape, see Figure 2, shortens the deployment time per room from 30 minutes to 15 minutes. In addition, self-service installation by users is now supported, helping operators reduce FTTR installation and maintenance costs.

Figure 2: Huawei's self-bonding transparent fiber solution



Source: Huawei

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