

# Application of FTTR in household information consumption

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# China Unicom FTTR Operation Profile

## 1. Product layout

- Issued the "Notice of Gigabit Optical Network Trial "
- Issued "China Unicom New-Generation Optical Home Network solution and Construction Suggestions"

**11/2021**

Release enterprise standard in April 2022  
Expected: initiate the C system adaptation test in June 2022  
Expected: complete the launch of the C system version in September 2022

**04/2021**

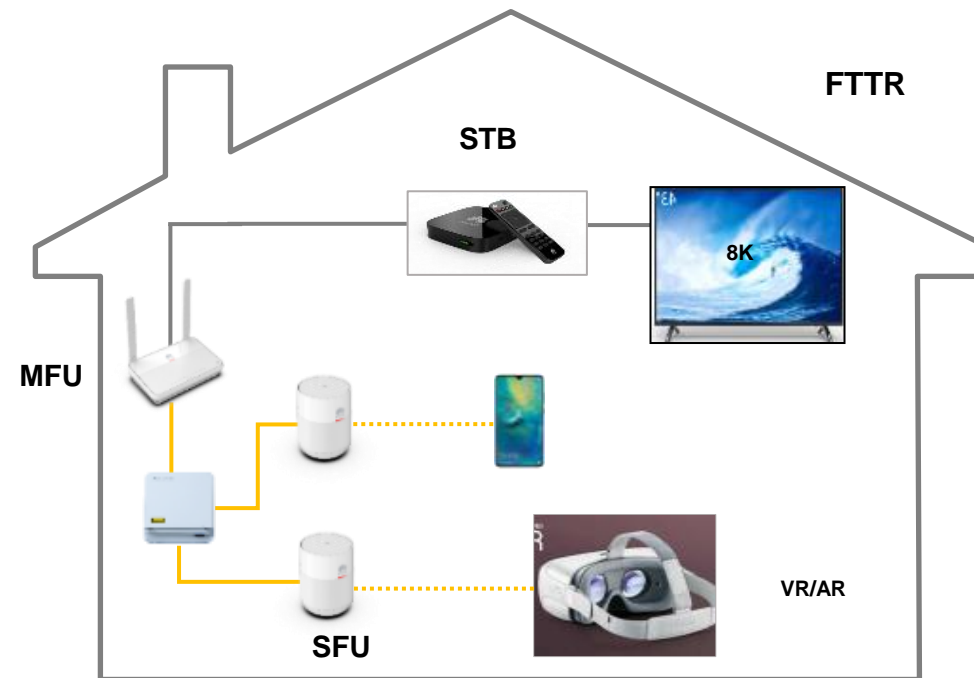
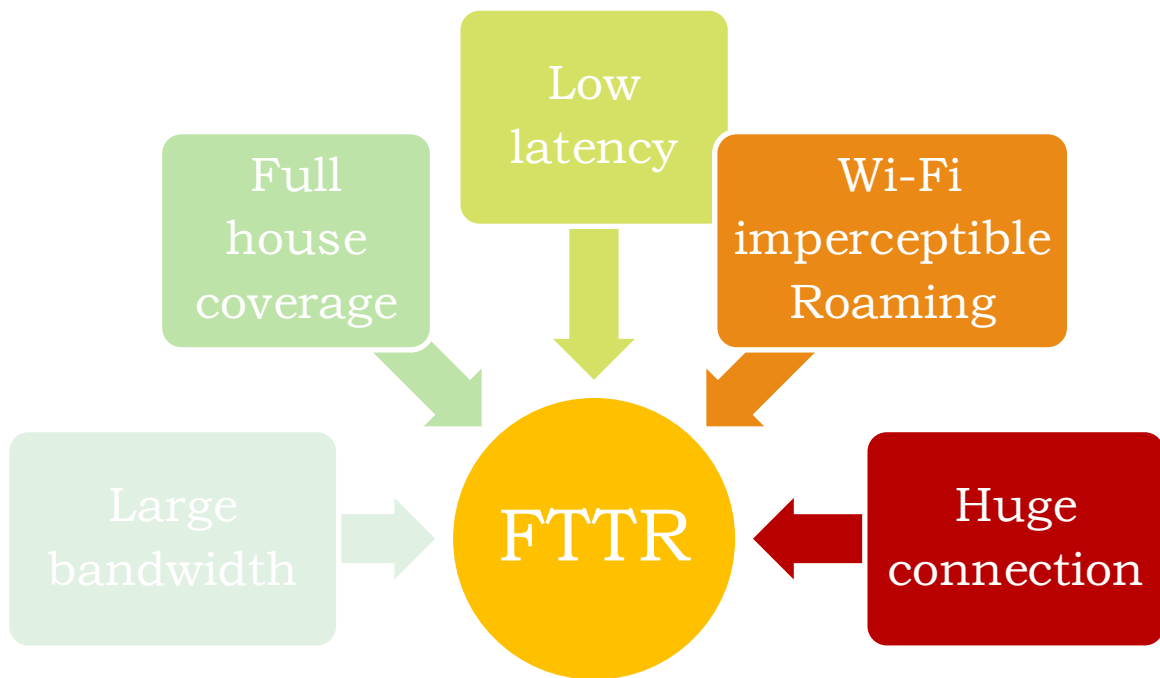
**2022**

- Issued the "Notice on Launching the Marketing and Promotion of FTTR Optical Broadband Products"
- Issued the "China Unicom New Generation Home Optical Network Solution and Construction Suggestions "V2.0"
- By the end of 2021, all northern key cities and part of key cities of southern provinces launched FTTR
- By the Mid 2022, all northern cities and southern cities have launched FTTR products

## 2. Business progress (End of March 2022)

- A total of **110,000+** users in **7** provinces including Shandong, Beijing and so on.
- FTTR service have been released in the remaining provinces including: Shanghai, Jilin, Hubei, Hunan, Fujian, Tianjin, etc.

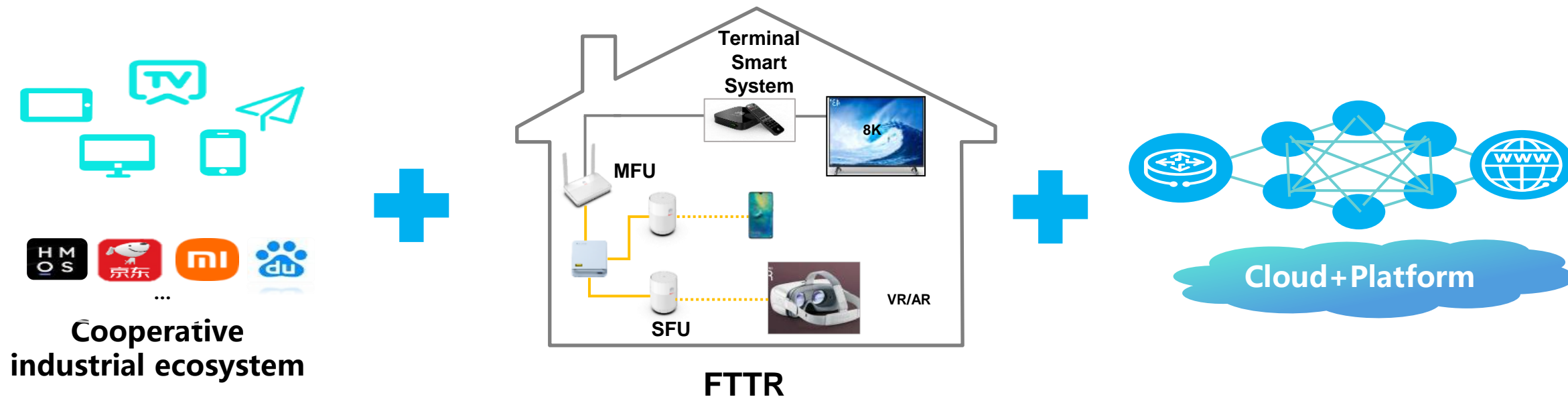
# Overview of FTTR



- Basing on the FTTR, the optical fiber is extended to every room to completely solve the problem of link limitation and coverage, and improve the stability of indoor wired and wireless connections. FTTR is the another great update after FTTH.

| Item        | FTTR          |
|-------------|---------------|
| Speed       | >1G           |
| Ratio       | 1:16          |
| Connections | Max 256       |
| Roaming     | Imperceptible |

# Overall architecture

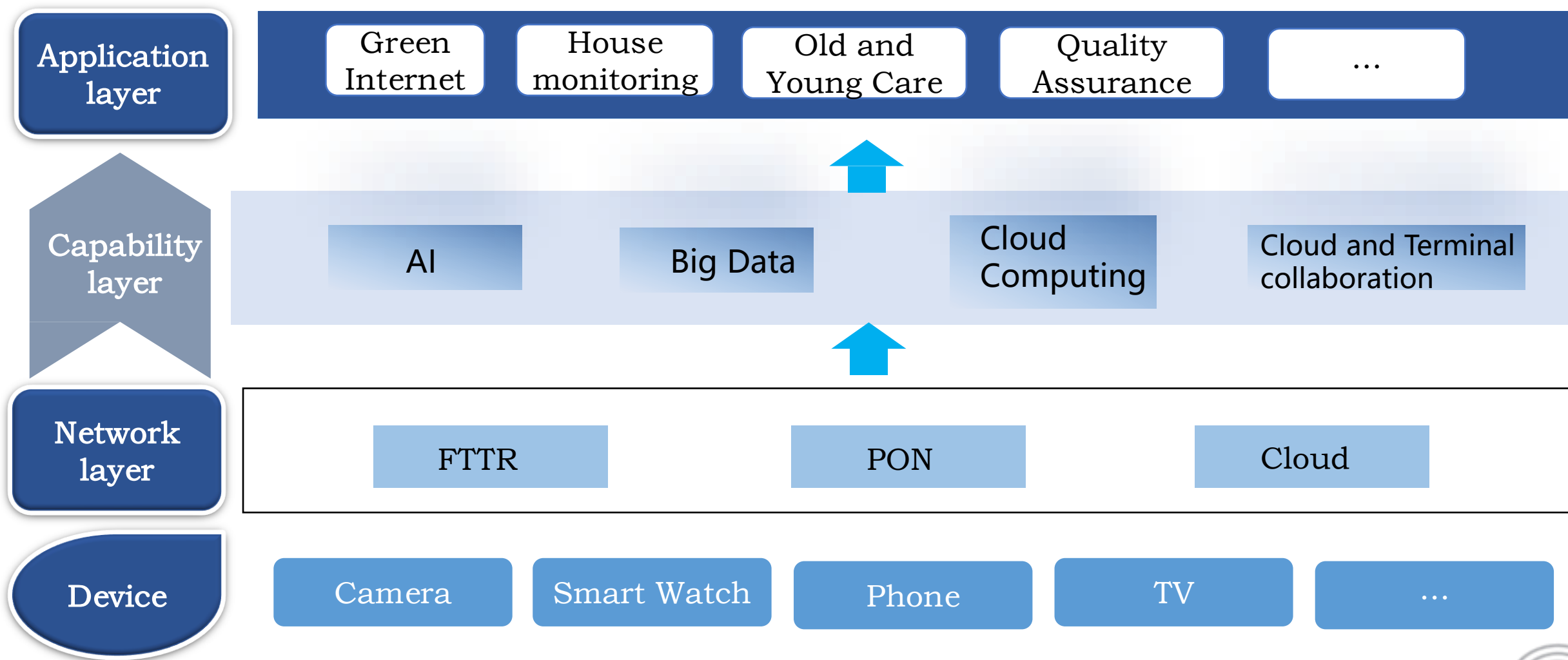


A network/Multi scenario support

Whole house intelligence

Cloud and Terminal collaboration

# Architecture of FTTR application



# Application of FTTR: Service quality assurance

Online education



Online games



Video conferencing



**Service identification**

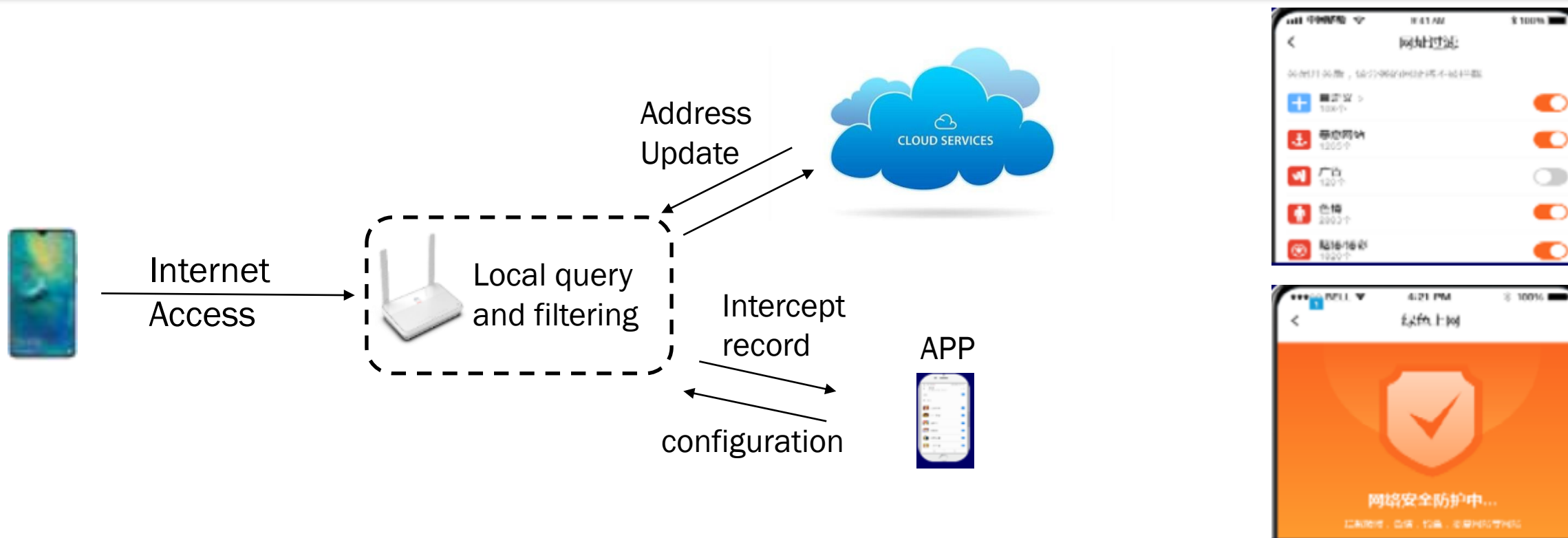
**QoS**

**Network acceleration**

**Intelligent routing**

- Based on the cooperation of gateway intelligent system and network open capability, QoS and low delay plane technology are adopted to achieve end-to-end assurance for specific applications and meet various scenarios.

# Application of FTTR: Parental control & Green Internet



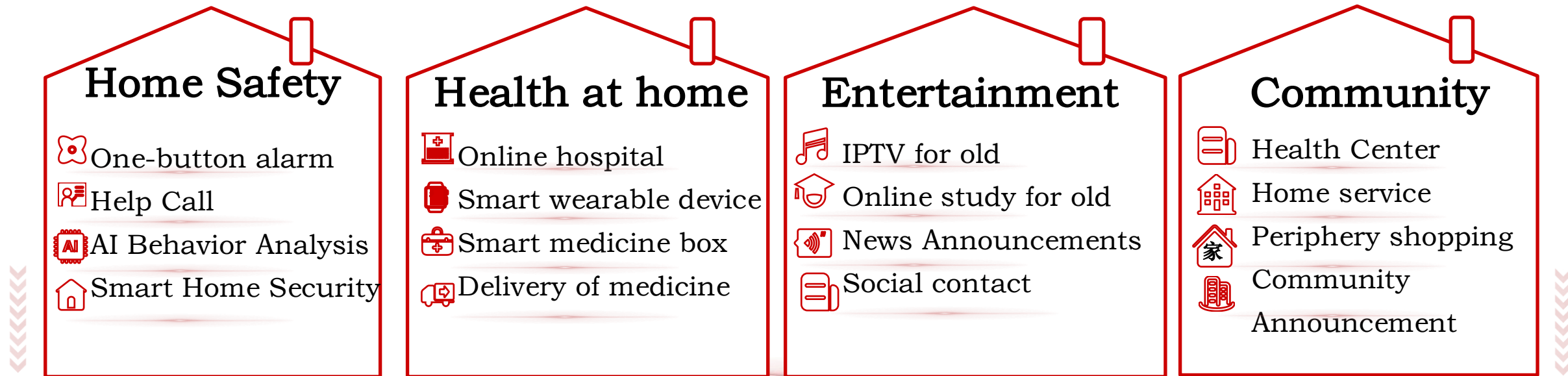
## ➤ Parental control:

- Manage the time of Internet access to prevent children spend too much time on game;
- Control the APP/address of Internet access to help children focus on study especially online courses time;

## ➤ Green Internet:

- Prevent website with virus;

# Application of FTTR: House monitoring & Old and young care



## ➤ Home safety:

- Smart Home Security, AI analysis of critical behavior or situation, One button alarm/call in case of emergency;

## ➤ Health at home:

- Online hospital consultation, health monitoring by Intelligent wearable device, reminder by Smart medicine box, Delivery of medicine to home;

## ➤ Entertainment:

- Proper IPTV/NEWS/Study for the old, Video call;

## ➤ Community:

- Health Centers, Home service, information of Periphery shopping/ Community



# Application of FTTR: Network awareness

## Self network diagnosis

- Provide users with 7 \* 24 hours network diagnosis service
- Intelligent customer service process
- significantly improves user perception



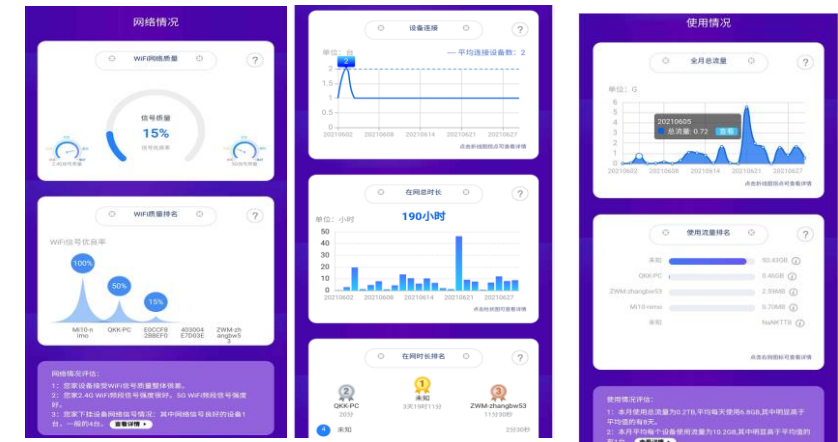
## Network speed test

- One click network speed test service
- Network problems are maintained by specially assigned personnel



## User Reports

- Visualization of users' Wi Fi status and Internet access quality
- Tagging user preferences
- Precision marketing based on user behavior big data



□ Achieve the visual and refined management of network services, provide users with differentiated high-quality service experience, comprehensively enhance user perception, and extend from network service to experience service.

# Application scenarios to be discovered



## Small enterprises

Multi terminal,  
WI-FI coverage/  
roaming



## Online education

large  
bandwidth  
(up/downlink)



## Branch

Cloud access,  
Branch  
interconnection



## Zone

Multi terminal,  
WI-FI coverage/  
roaming



## Live broadcast

Stable, large  
bandwidth  
(up/downlink)



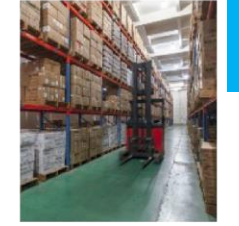
## Restaurant

Multi terminal,  
WI-FI coverage/  
roaming



## Entertainment

Multi terminal,  
Stable



## Warehouse

Multi terminal,  
WI-FI coverage/  
roaming



## Government

Security, WI-FI  
coverage/  
Roaming,  
Cloud access



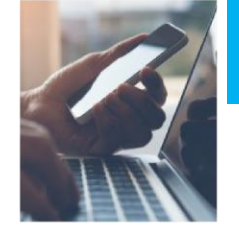
## Campus

Multi terminal,  
WI-FI coverage/  
roaming



## Industry network

Multipoint  
interconnectio  
n, bandwidth



## Exhibition

Multi terminal,  
WI-FI coverage/  
roaming

谢谢!