

Standardization of Household Appliances for Smart Life 面向智慧生活的家用电器标准化

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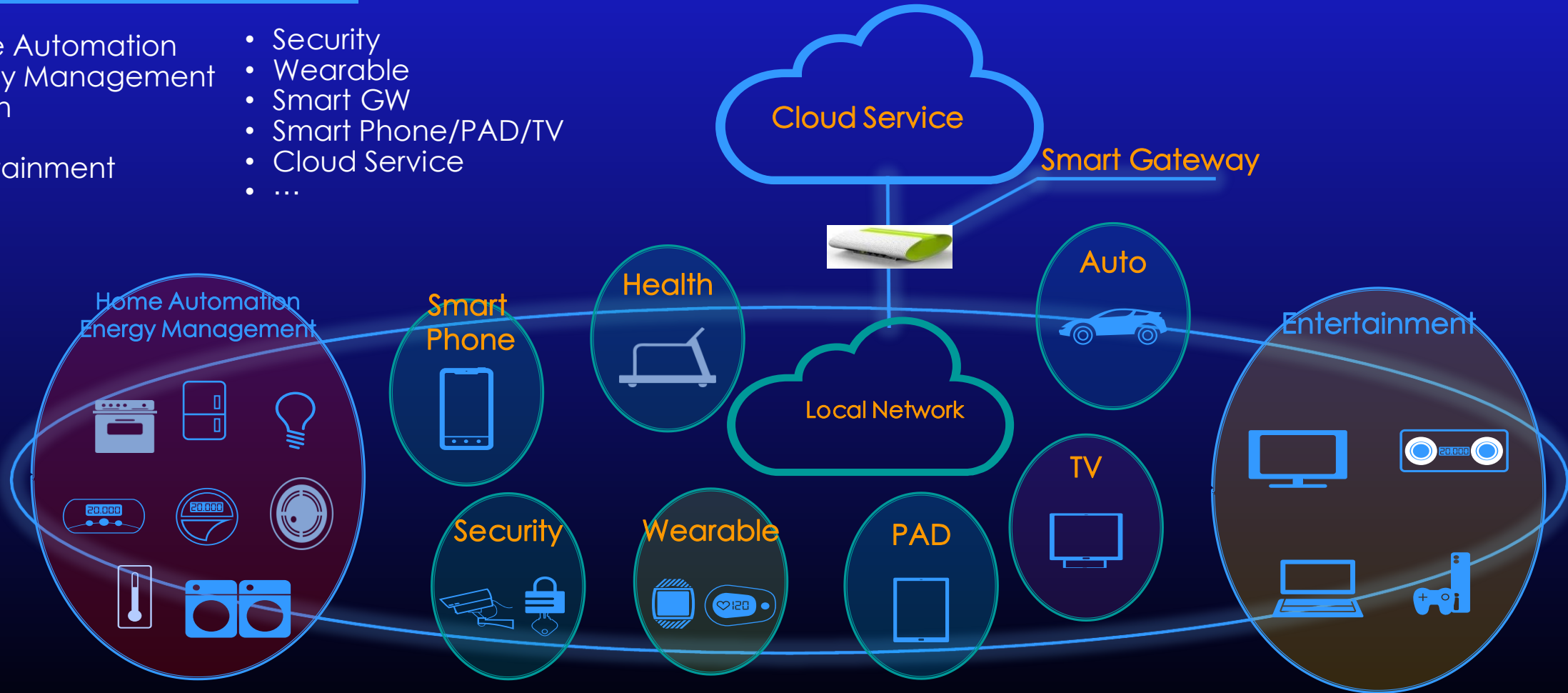
1. IoT & Smart life
2. Introduction of Haier U+
3. Standardization work in Haier U+
4. Conclusion and prospects

IoT & Smart life

物联网与智慧生活

Diversity in Smart Home...

- Home Automation
- Energy Management
- Health
- Auto
- Entertainment
- Security
- Wearable
- Smart GW
- Smart Phone/PAD/TV
- Cloud Service
- ...



Related Scenes



Away: remote control
在外：远程控制

In home: automated regulation
家中：自动化调节

Enjoy a comfortable
entertainment life
享受舒适的娱乐生活



Introduction of Haier U+

海尔优家介绍

Hardware Manufacture

1. Accelerate Smart devices upgraded
2. Cross-Vendor interconnection
3. Data sharing
4. Cost saving, reduce development time

Software Provider

Easy to develop APP and Service based on U+ SDK/OpenAPI

User

1. Device/Service Plug and Play
2. Good user experience

Content Provider

Easy to deploy services based on U+ API



U+ Overview



1 • Hardware Module: uPlug

- WIFI module
- Accelerate the upgrade from traditional devices to Smart devices
- Stable with lower cost

3 • Control Center: uGW

- Multiple protocol access, Device management
- Data management and Scenario management
- Security management

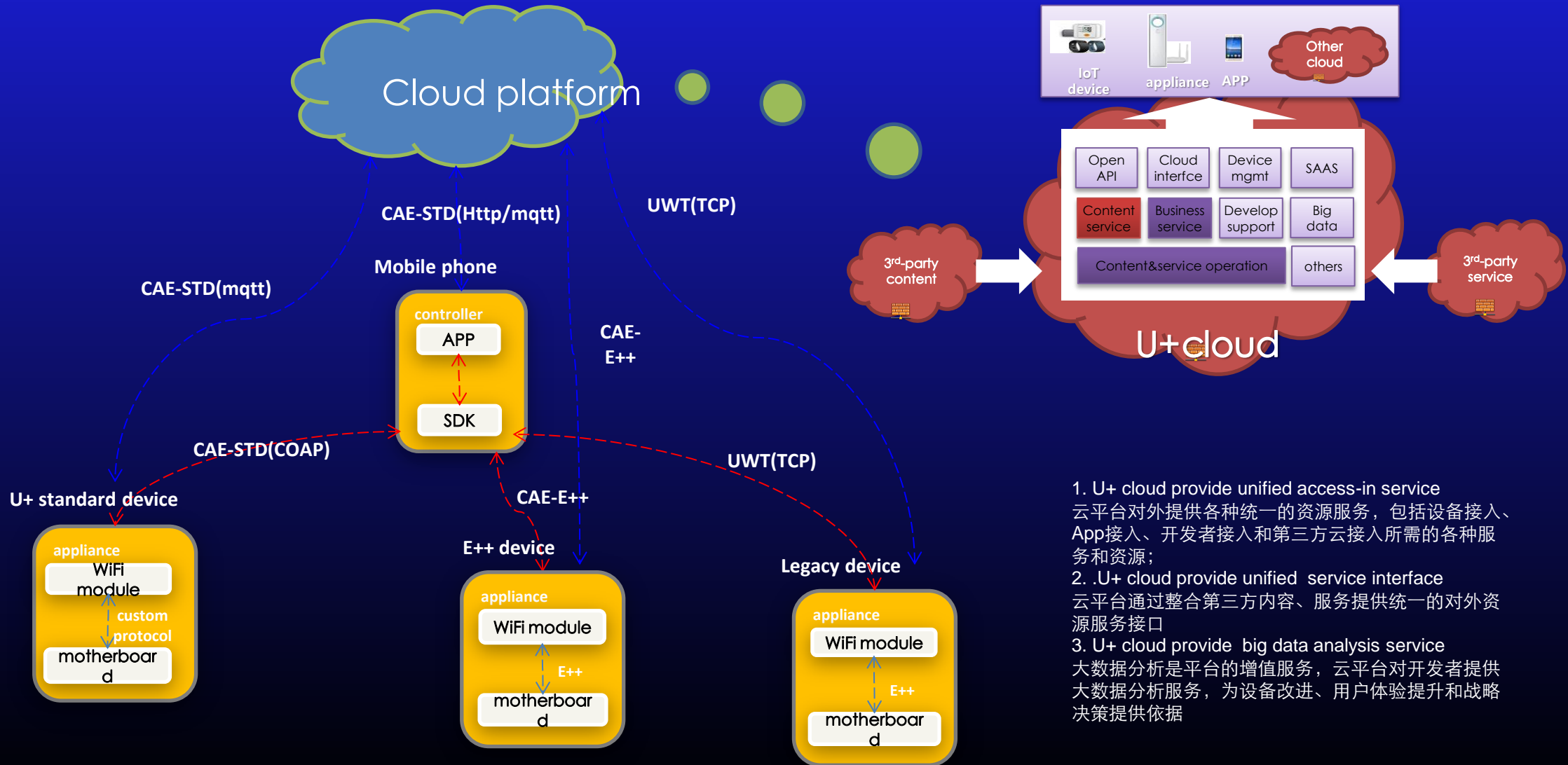
2 • Interconnection: uSDK

- Target to Smart phone/Tablet
- Support local area network and wide area network
- Stable, extendable, compatible
- Good documentation

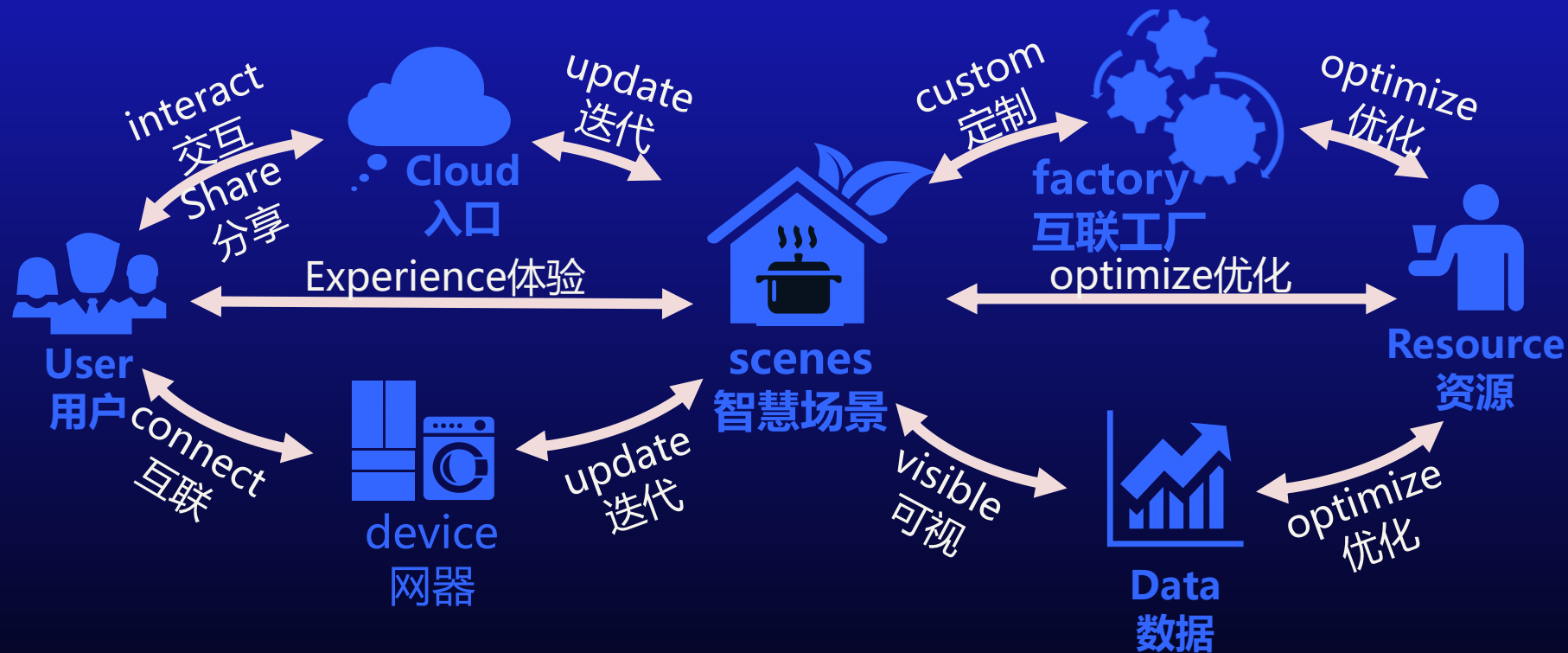
4 • Cloud Platform: uOpenAPI

- User management
- M2M
- Capability
- Operation and support
- Service support

U+ technology capability



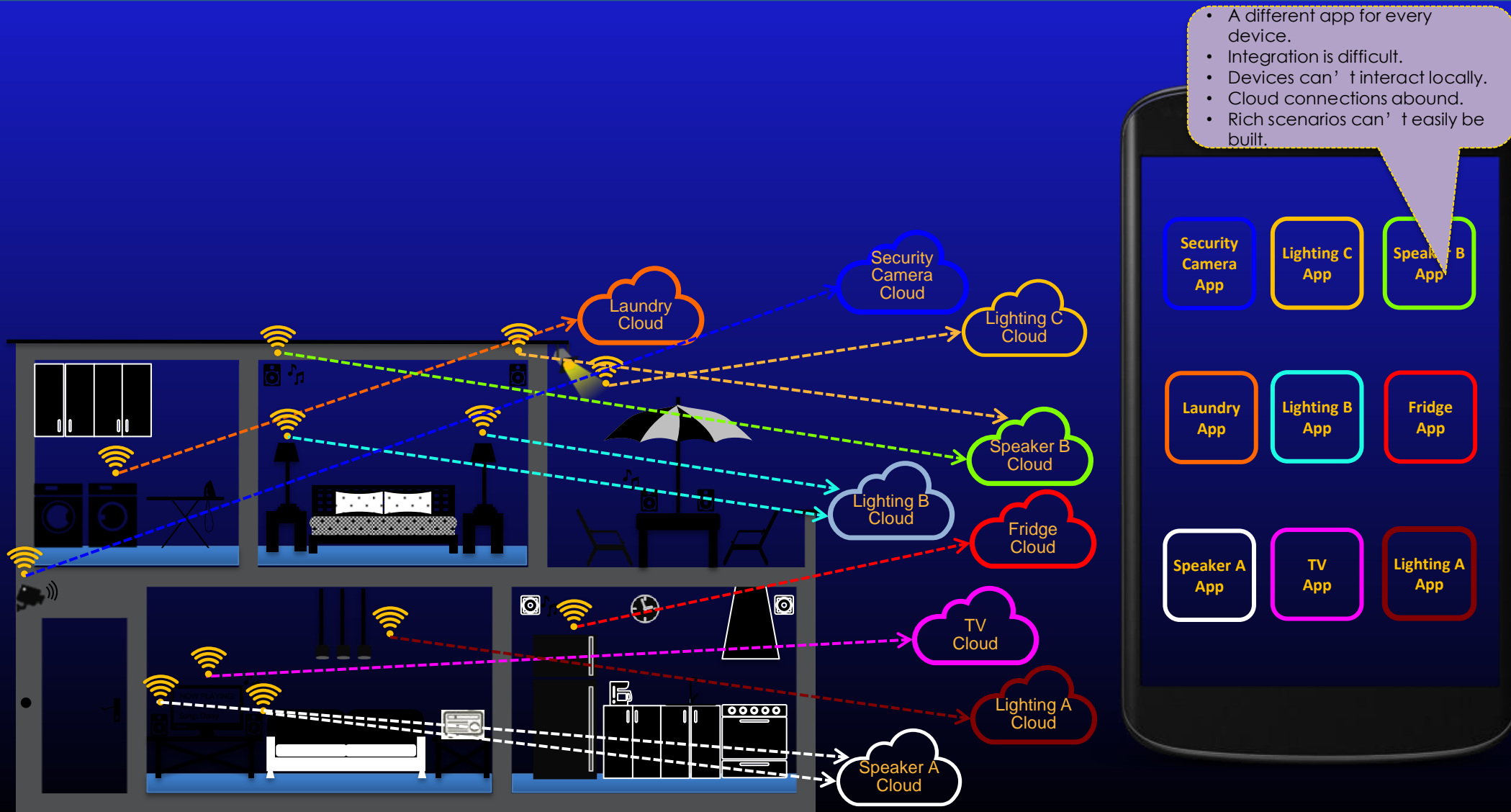
1. U+ cloud provide unified access-in service
云平台对外提供各种统一的资源服务，包括设备接入、App接入、开发者接入和第三方云接入所需的各种服务和资源；
2. U+ cloud provide unified service interface
云平台通过整合第三方内容、服务提供统一的对外资源服务接口
3. U+ cloud provide big data analysis service
大数据分析是平台的增值服务，云平台对开发者提供大数据分析服务，为设备改进、用户体验提升和战略决策提供依据



Standardization work in Haier U+

海尔优家的标准化工作

Problem of Interconnection



Solution-1
uPlug hardware module made
by Haier supports AllJoyn



Local interconnection -- U+ and AllJoyn/OCF

Solution-2
uGW SDK made by Haier supports AllJoyn

U+ device



U+ application



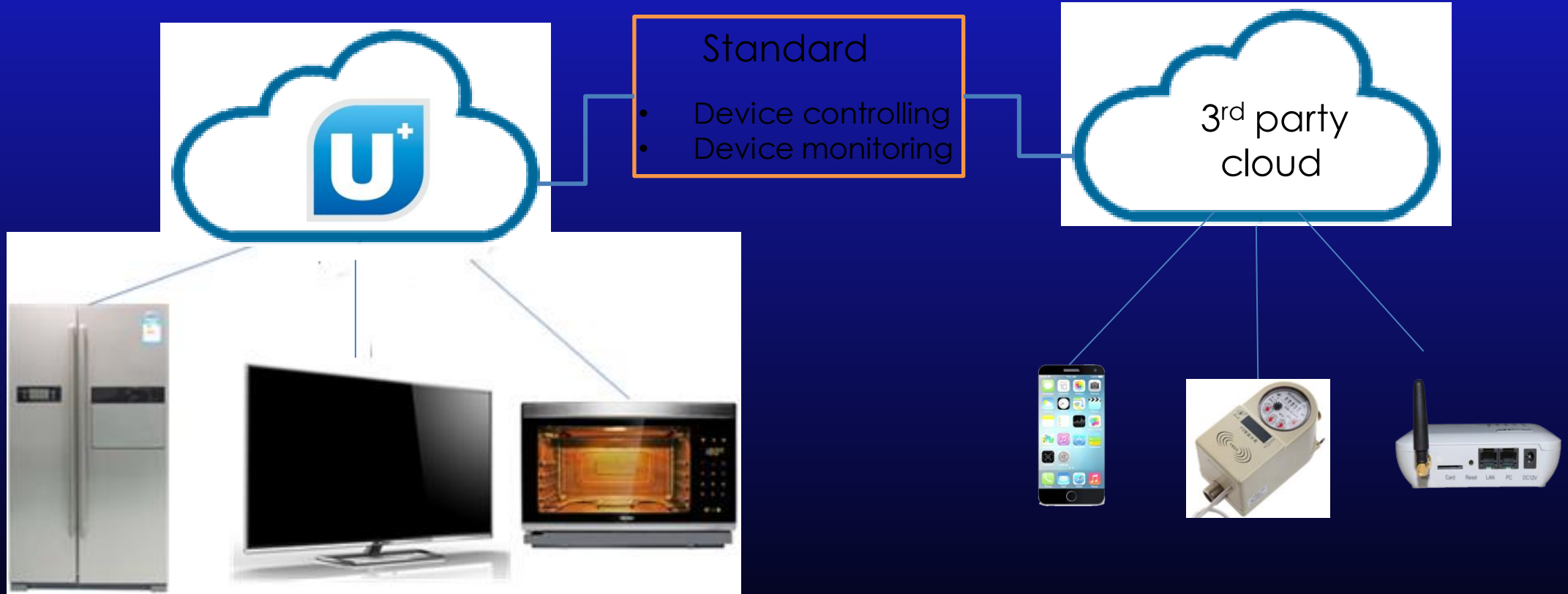
uGW

U+ connector

AllJoyn devices

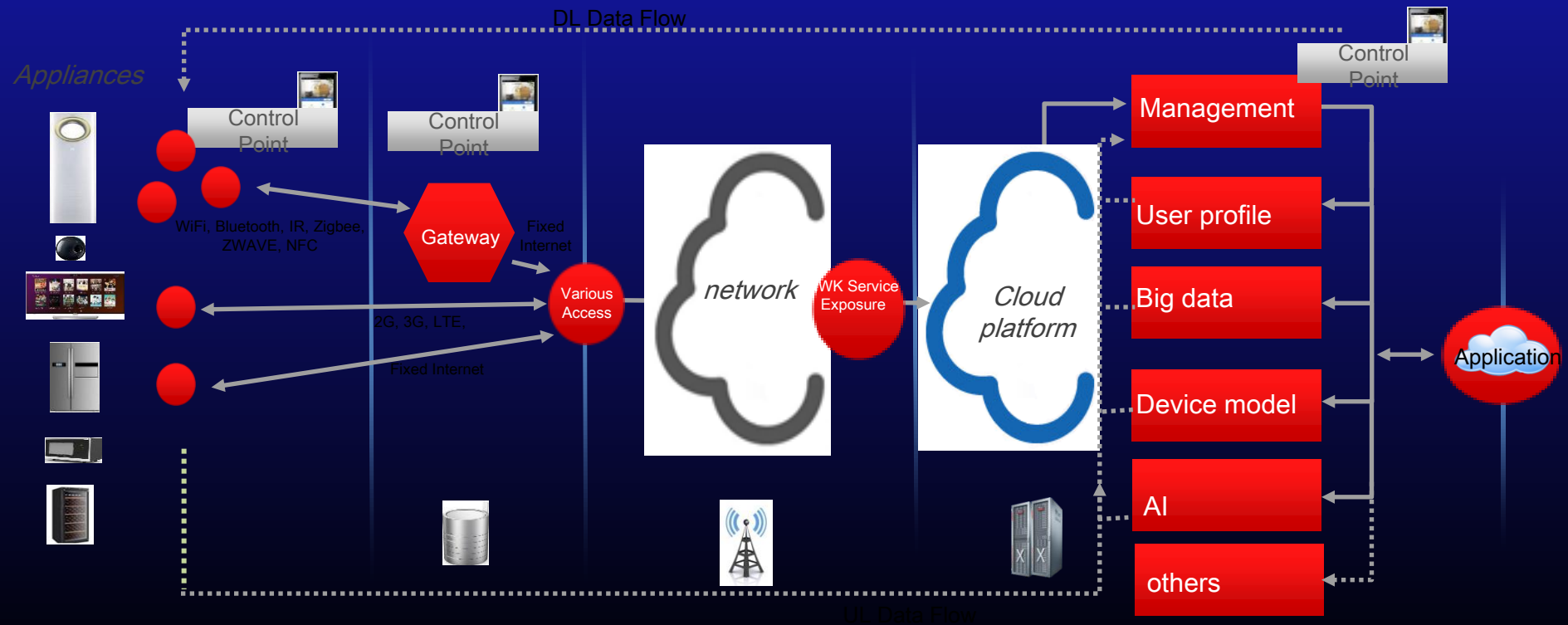


Cross-cloud interconnection

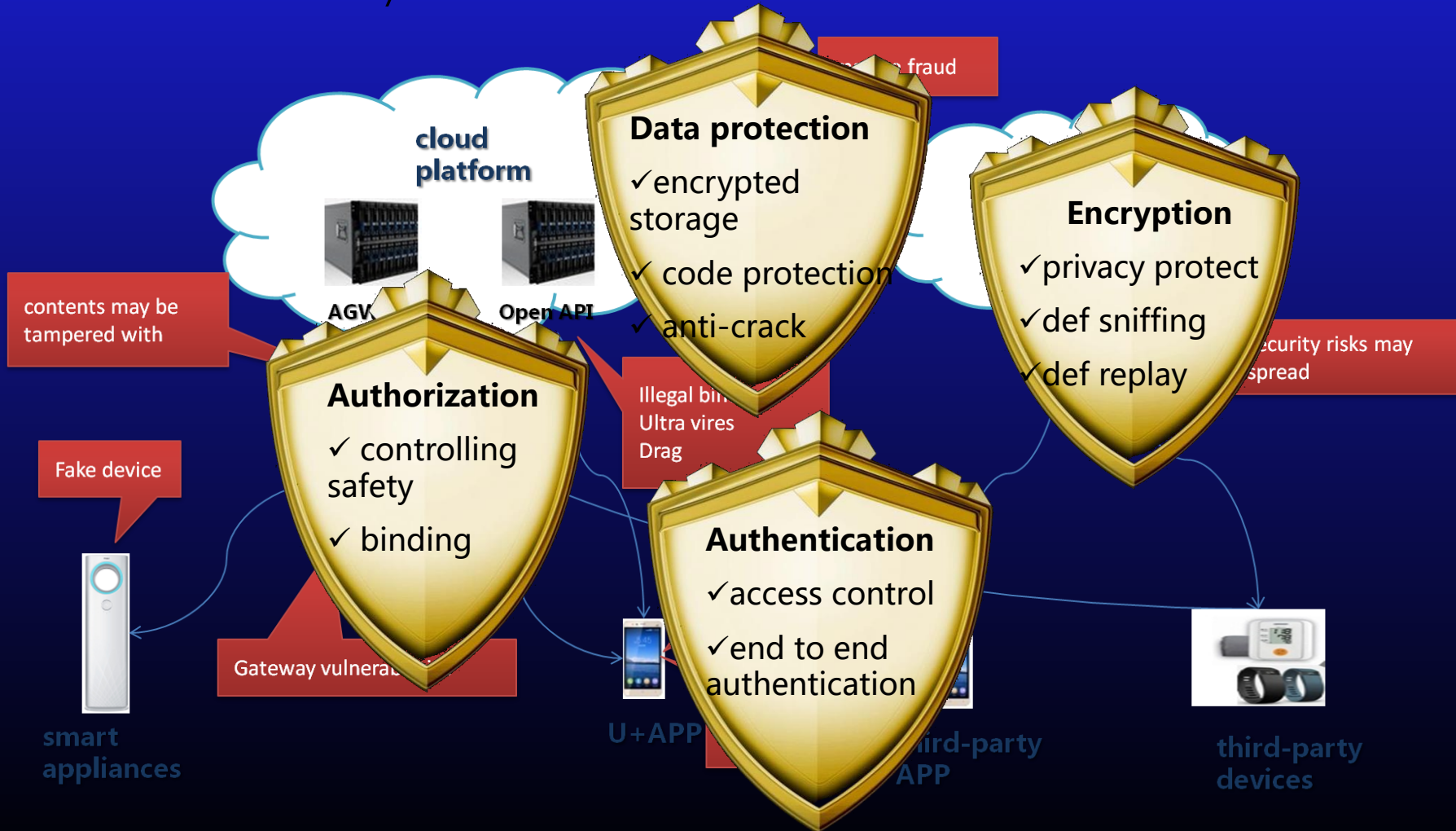


Interconnection between AllJoyn & oneM2M

- M2M standard
- Open API
- Multiple IoT protocols, including CAE, XMPP, MQTT



Security threats for smart home occurred **EVERYWHERE**





- Leading to a new era of artificial intelligence
- Distributed and natural interaction
- Thoughtful, active and attentive service

- 引领进入人工智能新时代
- 分布式、自然交互
- 思考、主动的贴心服务



Data model



Device

Attributes

Operations

Device Model

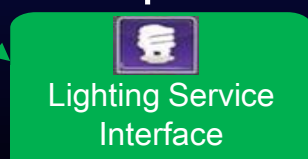
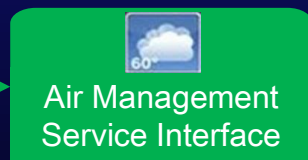
Common

Device-specific

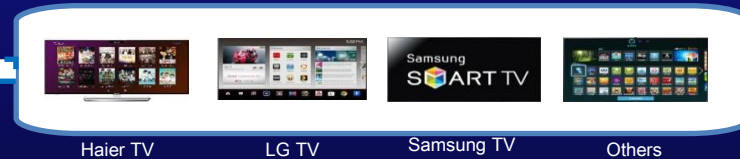


Smart Home APPS

Interface

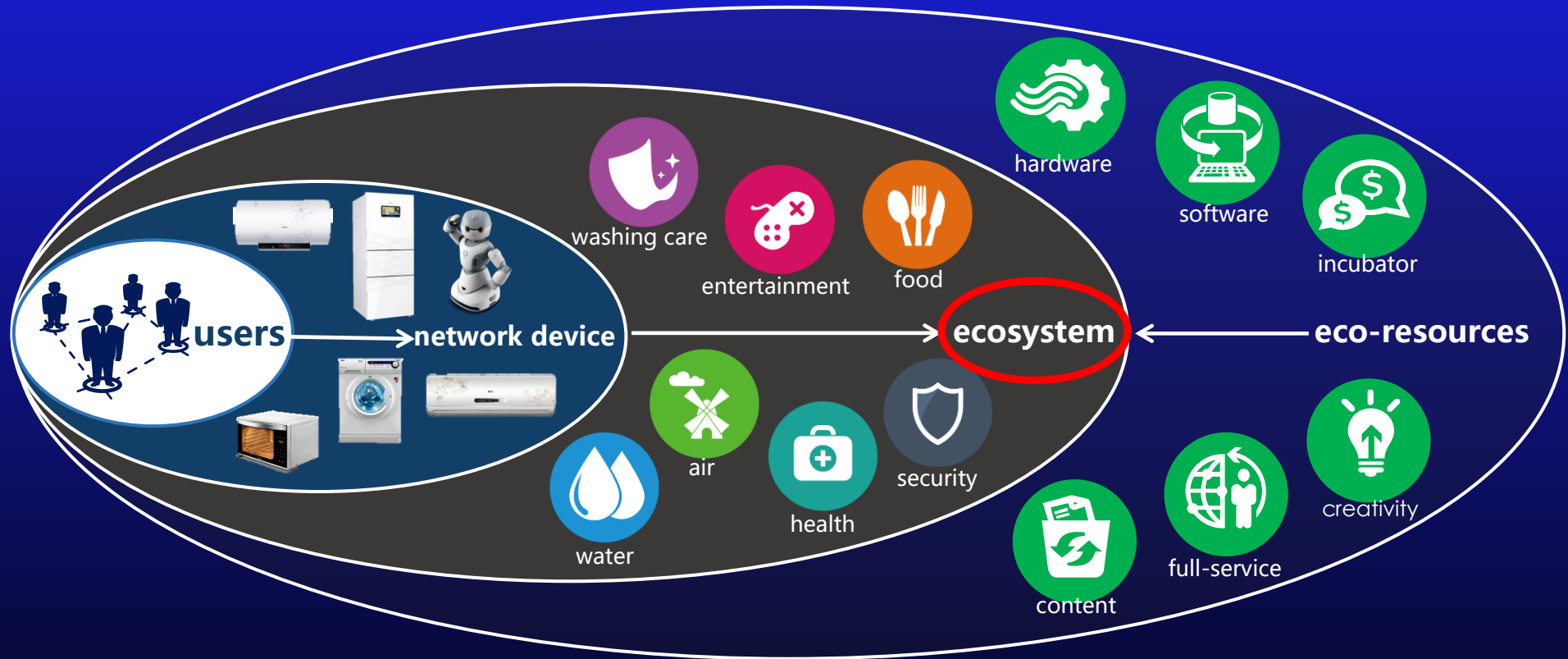


standardization



Conclusion and prospects

总结与展望



U+
Smart Life
Platform

U+APP



U+ brain



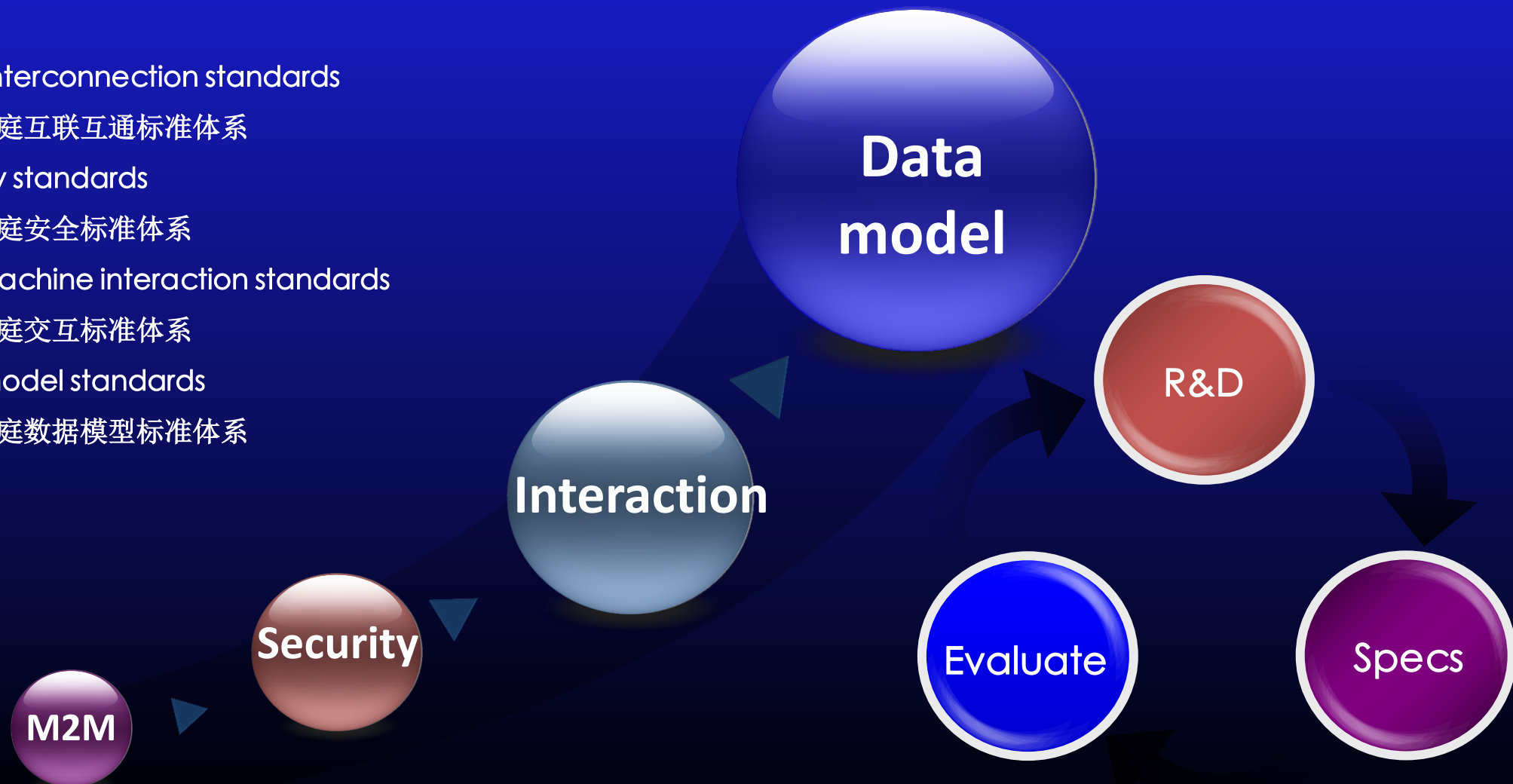
Ecosystems

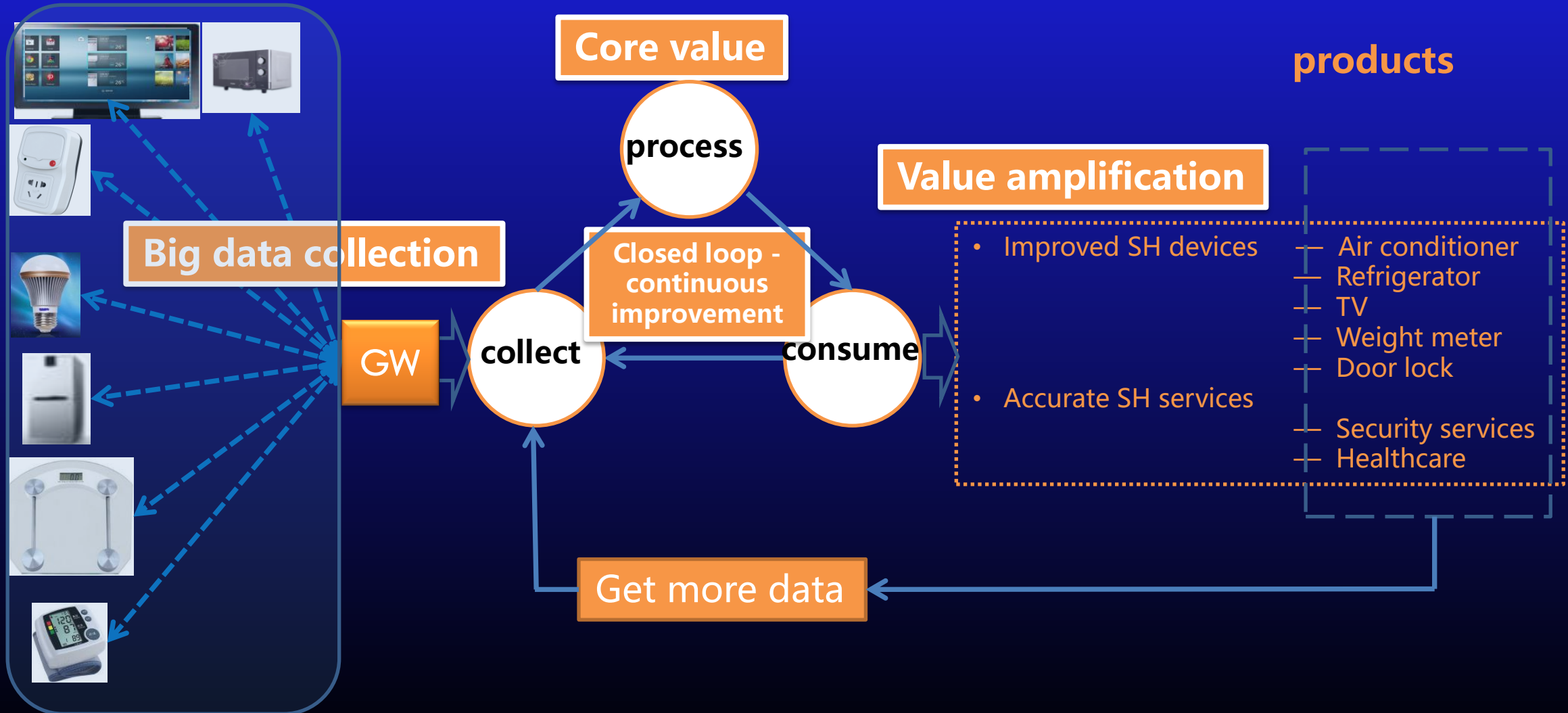


Resource open

U+ cloud(M2M/big data/Interconnect factory)

- M2M interconnection standards
智慧家庭互联互通标准体系
- Security standards
智慧家庭安全标准体系
- Man-machine interaction standards
智慧家庭交互标准体系
- Data model standards
智慧家庭数据模型标准体系





THANKS