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Event Sponsor :



Cloud X: NEW SERVICES IN 5G ERA



Cloud X Service Concept: Cloud APP, Broad Pipe, Smart Device

PC WITHOUT LOCAL TOWER

GAMES WITHOUT CONSOLE

AR/VR WITHOUT RENDERING MACHINE

5G Makes Terminals Exceeding Their Capability via Cloud

CLOUD APP

Interactive Computing



BROAD PIPE

Real-time Transmission

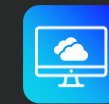


SMART DEVICE

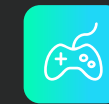
Thin & Cloud Assisted Terminal



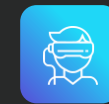
Cloud **X**



Cloud PC



Cloud Gaming



Cloud AR/VR

Cloud X Opens a \$410bn Market for Telcos

Cloud X: Poised to impact markets worth \$410bn in 2018



Cloud PC

B2B-desktop virtualization

B2C-PC as a service

PC hardware market

2018 **\$184bn**

SaaS* market

2018 **\$76bn**

End user examples

B2B: Campus & SME—SaaS instead of Capex

B2C: Mainstream consumers looking for maintenance free PC, Mobile users



Cloud gaming

B2C-gaming PC
rental/game transactions
and subscriptions

Games market

2018 **\$145bn**

End user examples

B2C: PC gamers that cannot afford the latest gaming PC, family and mainstream consumers that want access to bundle of content



Cloud AR/VR

B2B-AR/VR as a service

B2C-AR/VR as a service

AR/VR market

2018 **\$8.4bn**

End user examples

B2B: Maintenance, assemblers, supply chain, product design, location based entertainment

B2C: Ecommerce, entertainment, social media, education

Huawei's Practice in Cloud PC

Huawei R&D engineers (80,000+) are using Cloud PC since 2010



Cloud PC APP Built-in EMUI9.0 In China, From 2B to 2C Market

Around 100mn EMUI9.0 supported devices in China market



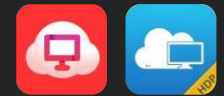
EMUI9.0 fully supports Cloud PC

Mate 10, P20, Mate 20, Pad M5, Honor Note10, V20...



Huawei Cloud PC2.0

Infinitive Computing Power on the Cloud



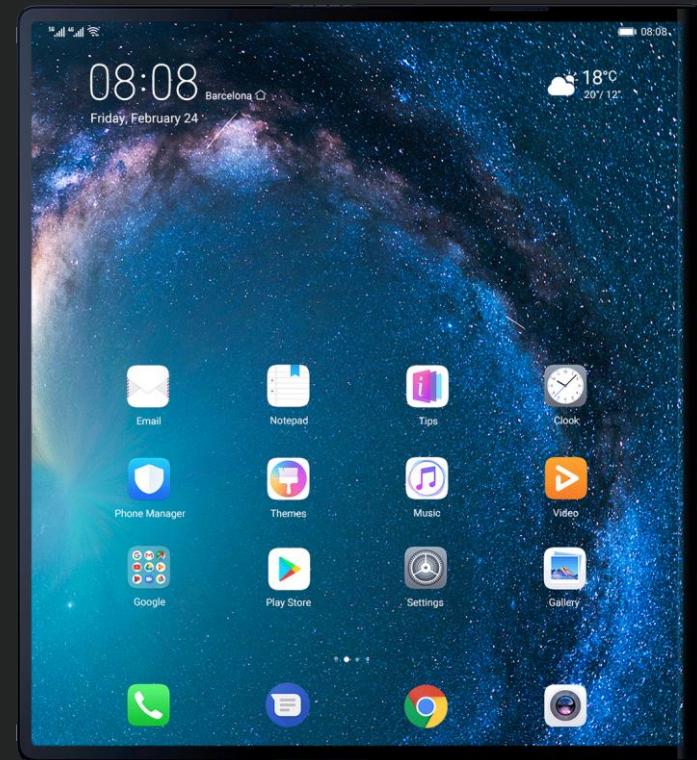
Mate X - the First Foldable 5G Device

Perfect for Cloud PC and Cloud Game



Mate X

Unfolded: 8 inches
Resolution: 2480 x 2200
Folded: 6.6/6.38 inches
Resolution: 2480 x 1148/2480 x 892



Your Phone Turn to be Cloud-based Mobile Ultrabook, Mobile Workstation and Mobile Game Console

Support Rich
Traditional Peripherals



Mouse, Keyboard, Camera, Printer...

Turn to be a Mobile
Workstation Anytime



Glasses-free 3D technology by KDX for
media and design

Get Your Game Console
with Bluetooth Joystick



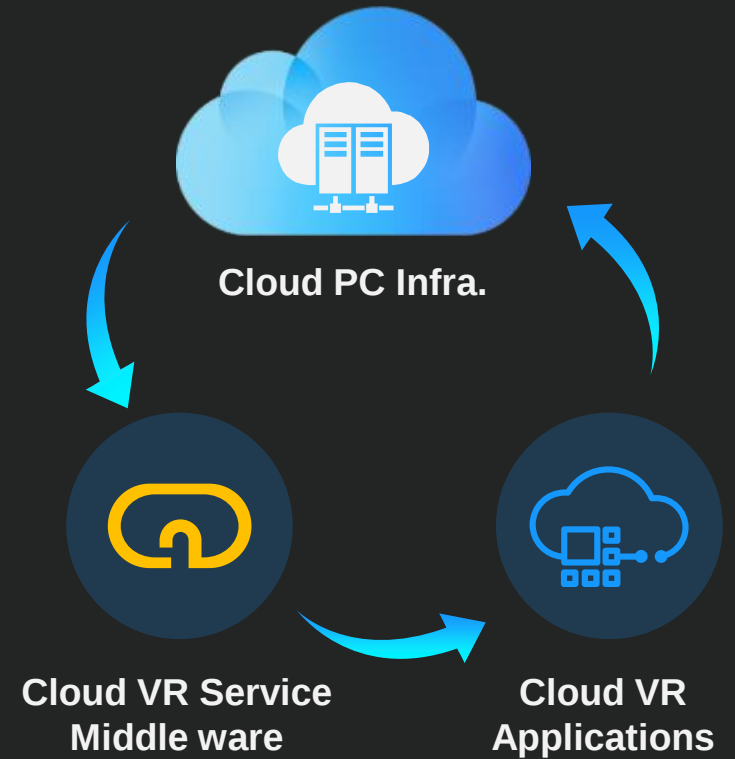
Cloud Game Video



Furthermore, Cloud PC Builds the Infrastructure for Cloud VR

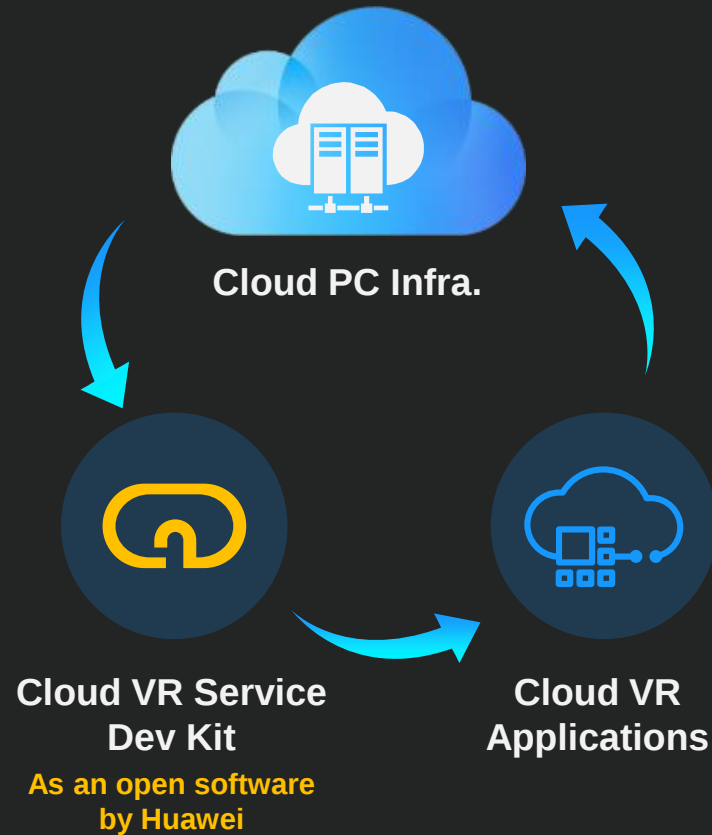


Traditional PC VR

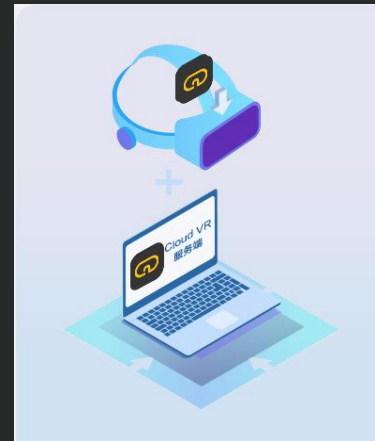


Huawei Cloud VR Service Helps Move PC VR Application to the Cloud

Huawei 5G Cloud VR service beta 1.0 launched on 25th Jan. 2019, Shanghai



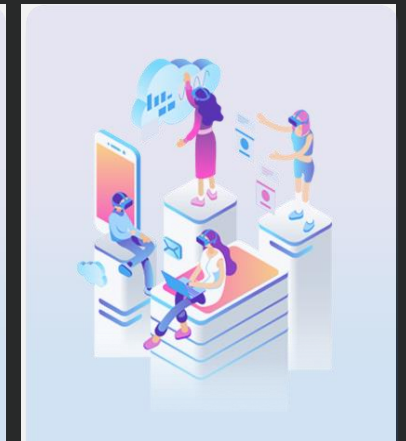
Huawei provides free Cloud VR service dev kit for all developers and operators to move their VR APP to Cloud in 3 steps



Dev kit for local developing



Huawei Cloud Machine for service operation



Telco's 5G network for service promotion

Joint Innovation with Industrial Developers

20+ developers applied for Huawei Cloud VR dev kit in **20** days



Support Huawei VR2, Oculus Go and it's partner's device



Cloud-based application development in **8** scenarios



VR Training



VR Tourism



School Education



VR Gaming



Healthcare



Animation



Virtual Design



VR Estate

Technologies Ensure 5G Cloud VR MTP << 20ms

- 1 5G: Latency <20ms, 100Mbps @3K 60fps
- 2 Motion Prediction up to 80ms

Physical Latency:
E2E latency of Cloud VR System

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Prediction Interval:
The time delay offset by motion prediction

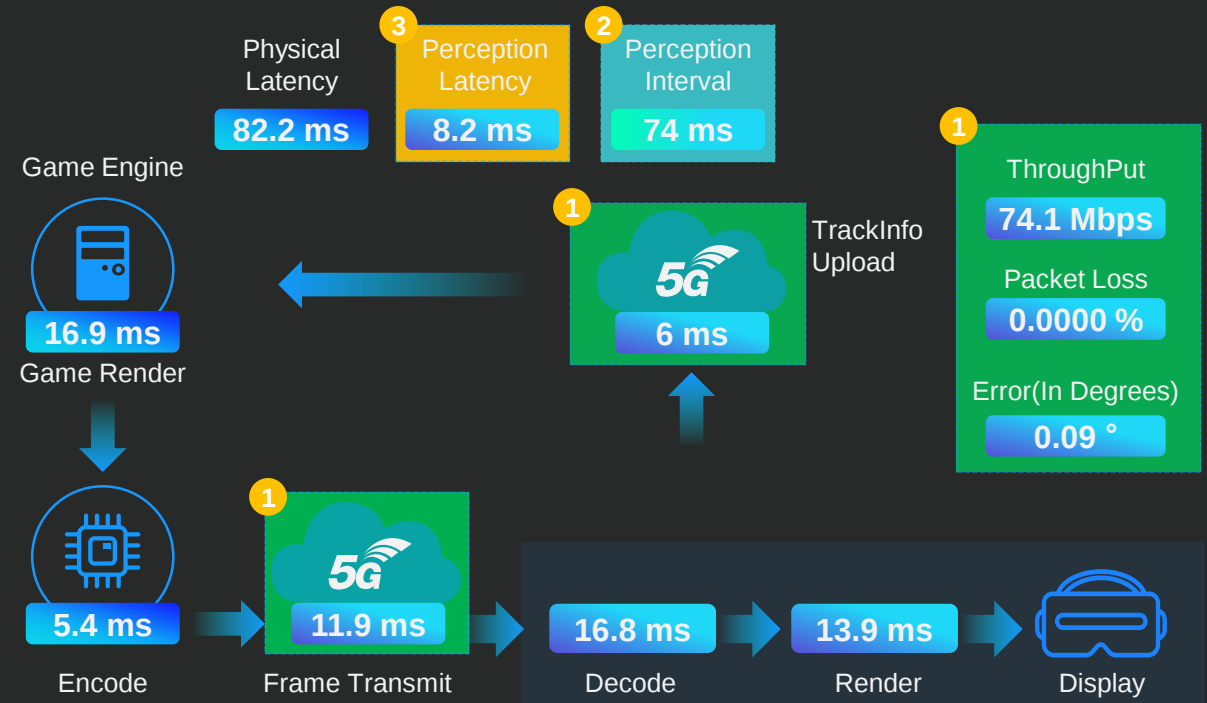
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Perception Latency:
The time delay that the user actually feels

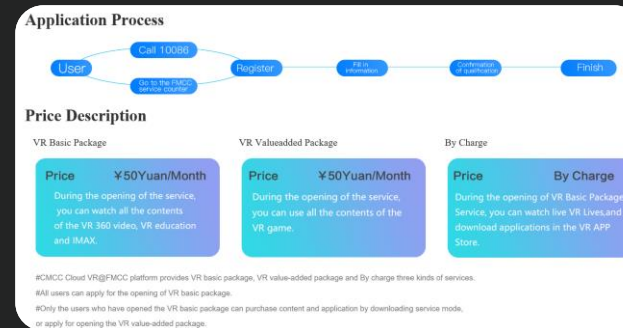
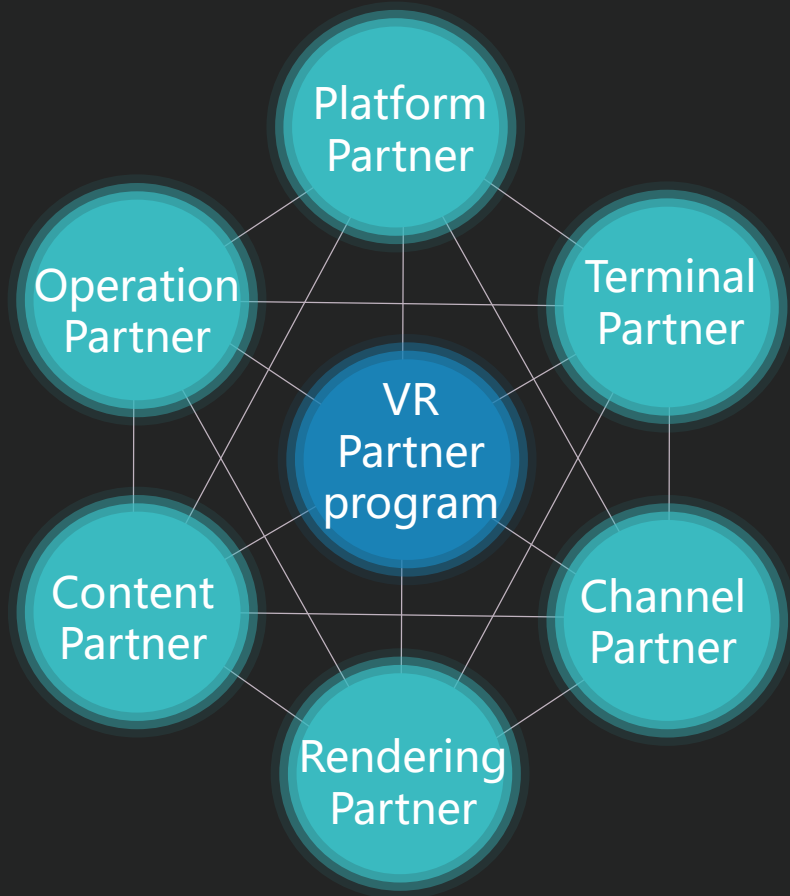
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3 20ms MTP

Huawei 5G Cloud VR Service Measurement Result



First Telco Cloud VR Service Launched in 2018



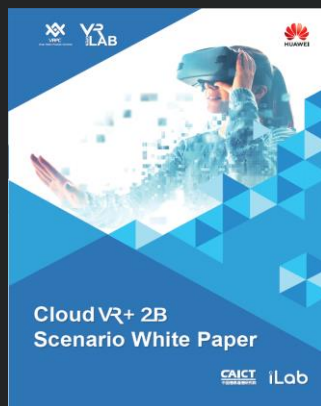
- FTTH Based
- 5 content Categories
 - IMAX
 - VR Cloud Game
 - Live
 - 360 VR VOD
 - Education

- Reach 1000 users in 2018
- DAU_(Daily Active User) : 46%
- Average user spent per day: 1 hour

Industry Cooperation Opportunities for Cloud X in 2019

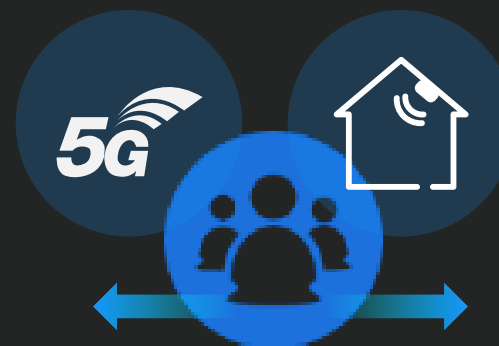


Define Cloud X
Services Architecture



Top 6 Scenarios of Cloud VR 2B
Markets *White Paper Release Today*

Build Application
Ecosystem Together



Cloud VR User Experience &
Evaluation White Paper

Define E2E User
Experience Evaluation
Model & Benchmark



Working Group for Thin
Client specifications

Thank you.

