

# China Mobile 5G Network Slicing Application Progress and Industry Slice Template Release

China Mobile  
2018.6

# China Mobile Explores 5G Network slicing Applications



What requirements for network slicing

AR/VR  
4K live  
cloud games



what kind of slices (slice capabilities) can be provided by operators  
(slice template from the aspects of deployment, network capabilities and infrastructure)

DC Resources/Networking

Function capability

Configuration(performance,etc)

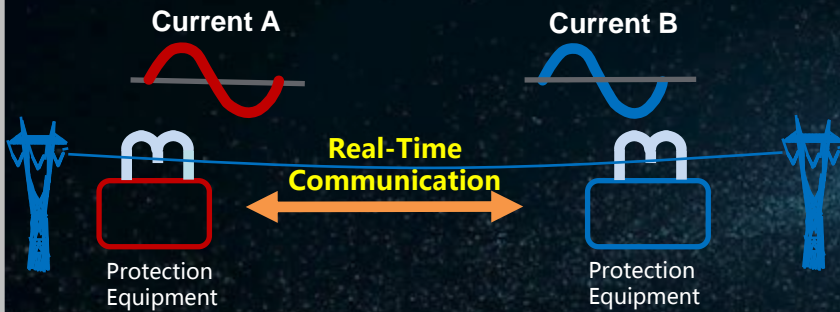
Demonstrate and system-level verify 5G network slicing applications(electric, AR/VR and gaming) **using Huawei 5G system and vertical applications**

**Explore and release three kinds of slice templates to make 5G network to support and enable 5G business**

# 5G Network Slicing Template-Power Grid

## Scenario

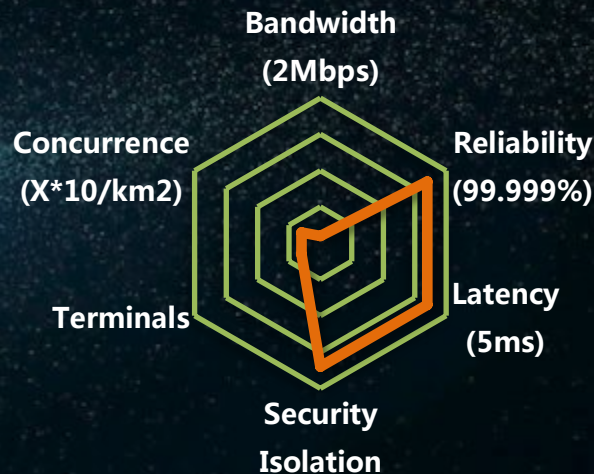
### Distributed Power Distribution



- Power Grid (Energy industry) Service
  - China Southern Power Grid
  - China State Grid

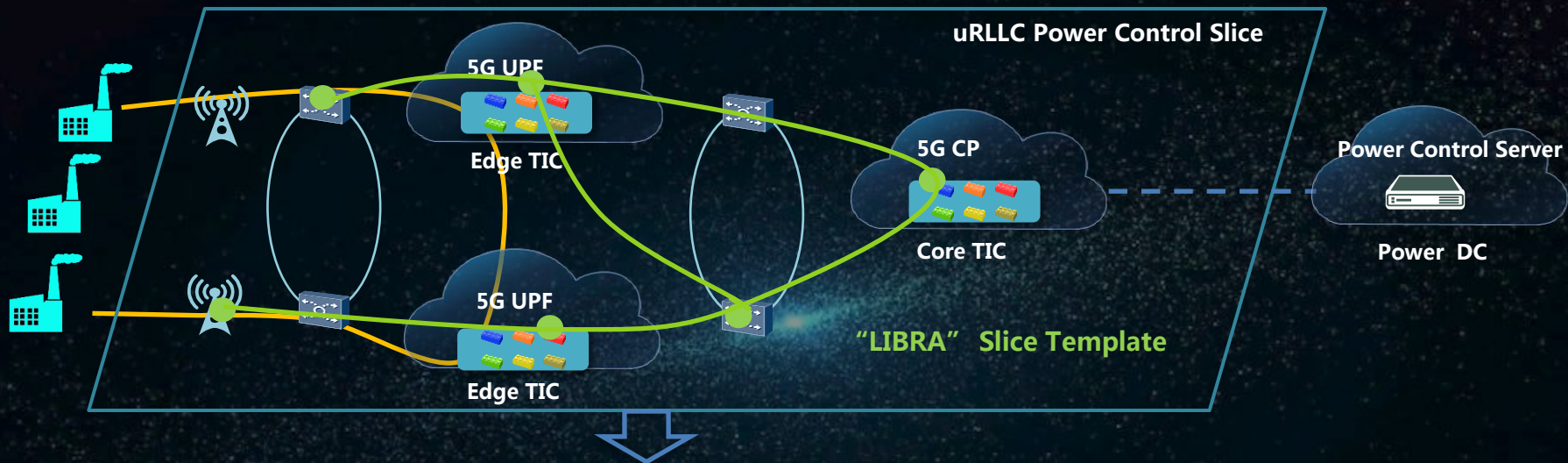
## Requirement

### Network Requirement



- Support Ethernet session and forwarding
- High isolation
- Long term slice
- Timing service by RAN
- Network management information openness

# 5G Slicing Template- Power Grid Industry



## Template

### RAN

- Timing
- Low latency

### Core

- Edge TIC+Core TIC
- Shared physical resources
- Dedicated uRLLC CN NFs/VMs
- UPF with Ethernet packet support
- QoS ( e.g., 5ms/2Mbps )

### Transport

- Flex-E hard isolation among TICs
- No connection between TIC and Power DC

Fit for

Manufactory control



# 5G Network Slicing Template-VR Live Broadcast

## Scenario

Beijing Main Meeting place



Shenzhen  
Sub-meeting place

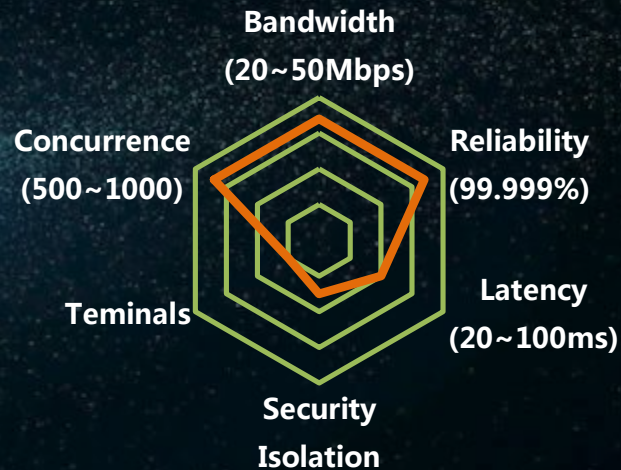


Shanghai  
Sub-meeting place

- VR live broadcast service
  - **LetinVR Digital** Technology

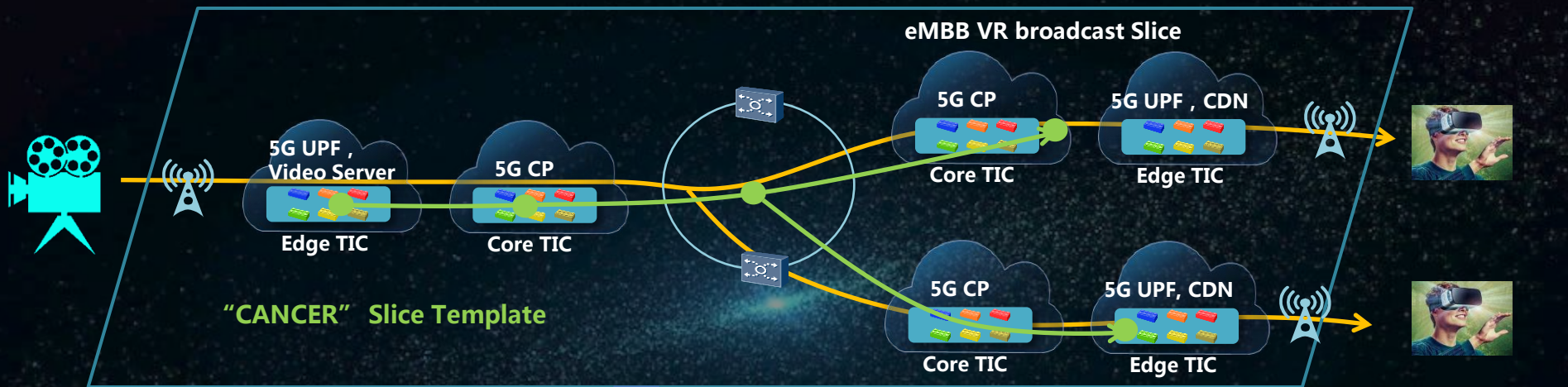
## Requirement

### Network Requirement



- BW guarantee
- High concurrence
- Dynamic on-demand Network Slice
- Edge APP ( e.g., Video processing locally )
- Low isolation

# 5G Slicing Template- VR live broadcast



## Template

### RAN

- Uplink BW
- High concurrence
- Downlink BW

### Core

- Edge TIC+Core TIC
- Edge Video Server/CDN
- Shared physical resources
- Dedicated eMBB CN NFs/VMs
- QoS ( e.g., 50Mbps )

### Transport

- Soft isolation among TICs in one province and cross provinces

Fit for

Drone patrol for oil line



Emergency video communication for energy or others



## Scenario



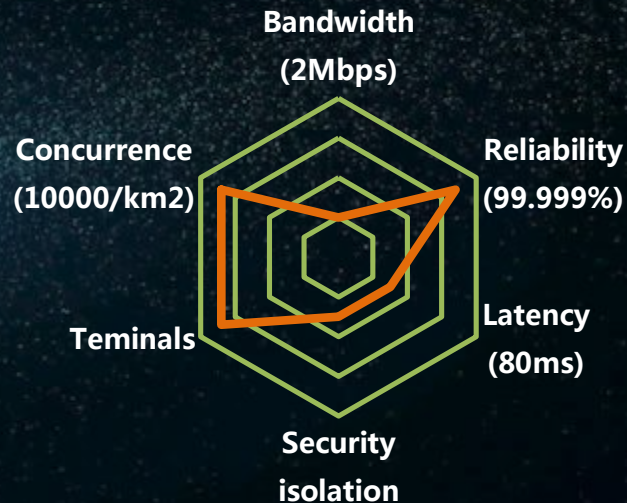
“一起来捉妖”

- Mobile AR Game service
  - **Tencent**



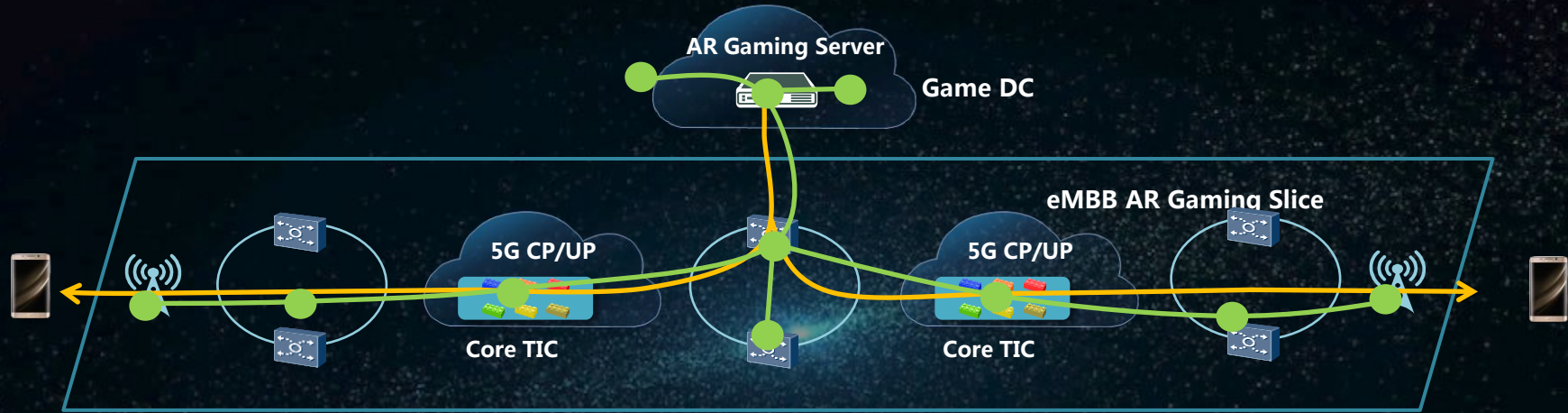
## Requirement

### Network Requirement



- Low jitter on latency
- Slice subscription openness
- High concurrence
- Low Isolation
- Mobility support and high coverage

# 5G Slicing Template- Mobile AR Gaming



“TAURUS” Slice Template

## Template

### RAN

- High concurrence
- Low jitter on latency
- Wide coverage and mobility

### Transport

- Soft isolation among TICs
- Soft isolation between TICs and Game DC

### Core

- Core TIC
- Shared physical resources
- Shared/Dedicated eMBB CN NFs/VMs
- Slice subscription openness
- QoS ( e.g., 80ms/2Mbps )
- Mobility

Fit for

Information collection for oil equipment



Assisted driving





# Working together with partners to promote the application of 5G network slicing



中国移动5G联合创新中心  
China Mobile 5G Innovation Center

Founded in February 2016, it aims to promote 4G to 5G evolution and joint with communications and vertical industry partners to promote the maturity of basic communications capabilities, incubate innovative applications and products, and build a cross-industry converged innovation ecosystem. China Mobile will rely on 5G Innovation Center and more vertical industry partners to advance the application of 5G network slicing.

Focusing on 8 major areas, launching 5G joint innovation application demonstration and research

**224** partners

**14** open labs

**1** multi-media innovation alliance

Traffic



networking  
Smart traffic  
Autopilot

Video



AR/VR  
4k live  
cloud games

Industrial & energy



Smart factory  
Smart grid

Finance



5G financial  
products

Smart city



Livelihood  
services

Education



Smart Campus

A.I. & Robot



Cloud robot  
artificial  
intelligence

Medical treatment



Mobile  
telemedicine

# 5G Network Slicing : New Service, New Life



国家电网  
STATE GRID

中国电力科学研究院有限公司  
CHINA ELECTRIC POWER RESEARCH INSTITUTE

Tencent 腾讯



中国石油

