

Summit

26 June 2024,  
10:10-10:25 CST

Speaker

# Focusing on RedCap Scale Development, Accelerating the Prosperity of Industrial Ecology

聚力RedCap规模发展，加速产业生态繁荣



Wei Yu,

Deputy General Manager of the Government  
and Enterprise Business Dept,  
China Mobile

喻伟

中国移动通信集团有限公司政企事业部副总经理

Hosted @ **MWC**  
GSMA

Platinum sponsor:



# 聚力RedCap规模发展，加速产业生态繁荣

Focusing on RedCap scale development, accelerating the prosperity of industrial ecology

中国移动政企事业部 喻伟

Government and Enterprise Business Dept, China Mobile Yu Wei

# 5G从技术引领到规模应用，中国移动全面领跑

From technological leadership to large-scale application, China Mobile leads comprehensively

## 中国移动坚持5G创新引领，携手产业开启通信产业全球领先新时代

China Mobile persists in 5G innovation leadership, partnering with industry to usher in a new era of global telecommunication's dominance

### 5G标准技术全球领先

5G standard technology leads globally

**270+** 国际标准

270+ international standards

Global Leader in Initiating 5G International Standards Projects among Telecom Operators

**5200+** 5G专利

5200+ 5G patent

Among the Top Global Telecom Operators in Patent Amounts

### 5G网络覆盖全球最大

The largest global 5G network coverage

**220万+** 5G基站

2.2 million+ 5G base station

the 5G network scale ranks first globally, exceeding 1/3 of the world

**100%** 5G覆盖

100% 5G coverage

5G coverage in urban and county areas as well as key rural towns and villages

### 5G应用规模全球最多

World's Largest Scale of 5G Applications

**5亿+** 5G网络用户

500 million+ 5G network users

world's largest user base with user penetration rate > 50%

**3.9万+** 5G行业商用案例

39000+ 5G industry commercial cases

leading globally in industry coverage and number of projects

#### Smart Factories

The world's first 5G-A application demonstration lighthouse factory

Shandong Haier  
Landed 5000+ nationwide

#### Smart Power

8 World's First Smart Grid

Guangdong CSG  
Contracted projects 700+

#### Smart Ports

The first 5G full-scene smart port in China

Port of Xiamen, Fujian  
All of the country's top 10 container ports have landed

#### Smart Metallurgy

The world's first 5G smart steel commercial product scheme

Liaoning, Ansteel  
18 A+ steel enterprises cooperate with 15

#### Smart Mines

The world's deepest mine is more than

1,100 meters underground,  
Henan PINGMEI SHENMA  
610+ seats on the floor

#### Smart Cities

The first RedCap waste classification and regulation in the country

Shenzhen Government, Guangdong  
Signing 7,500+ projects

#### Smart healthcare

The world's first 5G RedCap smart healthcare

Li HuiLi Hospital, Ningbo, Zhejiang  
Medical institutions 3000+



# RedCap是5G规模发展的重要“催化剂”

RedCap is a crucial "catalyst" for the large-scale development of 5G

RedCap应用业内领跑，全面助力5G规模化商用，为行业提供优质普惠的网络服务

Leading the industry in RedCap applications, comprehensively supporting large-scale 5G commercialization, providing high-quality and inclusive network services for various sectors

## 视联之城

The City of Vision



杭州 亚运会安防视联  
Hangzhou Asian Games Security Vision

## 工业之城

The City of Industry



苏州 华兴源创智慧工厂  
Suzhou HYC Technology Smart Factory

## 海域之城

The City of Ocean



宁德 三都澳智慧海洋平台  
Ningde Sanduao Smart Ocean Platform

## 园区之城

The City of Parks



宁波 李惠利医院园区  
Ningbo Lihuili Hospital Park

## 创新之城

The City of Innovation



深圳 城管局环卫全周期监管  
Shenzhen Urban Management and Law Enforcement's  
Comprehensive Supervision of Sanitation Lifecycle

# 加快RedCap产业成熟，全面领航规模商用

Accelerate the maturity of the RedCap industry, leading comprehensive commercial deployment

## 加速贯通RedCap网络标准、产品能力、行业应用、生态合作等产业全链条，推动RedCap在千行百业规模应用

Accelerate the comprehensive integration of RedCap network standards, product capabilities, industry applications, and ecosystem collaborations across the entire industry chain, promoting RedCap's large-scale application across various sectors and industries

### 示范带动 应用贯通

Demonstration drive, application penetration

#### 聚焦8大行业强渗透

Focus on strong penetration in 8 major industries



智慧电力  
Smart Power



智慧海洋  
Smart ocean



智慧城市  
Smart Cities



智慧工业  
Smart Industry



车联网  
Internet of Vehicles



智慧政务  
Smart Government



视频安防  
Video security



低空经济  
Low-altitude economy

### 产品升级 产业贯通

Product upgrade, industry penetration

#### 丰富终端品类强供给

Enrich terminal product categories for diversified supply



1款RISC-V自研芯片

One RISC-V self-developed chip



10+款通信模组

10+ Communication modules



100+款行业终端

100+ Industry terminals

### 网络先行 覆盖贯通

Network First, coverage penetration

#### 全国城市规模建设强覆盖

Nationwide urban-scale construction for strong coverage



300+城市网络连续覆盖

Continuous network coverage in 300+ cities



20+ 5G-A行业先锋城市

20+ 5G-A industry pioneer cities



重点客户按需建站

Personalized Station Construction for Key Customers

# 新网络 | RedCap全面融入5G专网，赋能千行百业数智化转型

New Network | RedCap fully integrates into the 5G private network, empowering the digital transformation of thousands of industries

## 发挥网络规模优势，依托“流量、园区、入驻、双域”四大专网，适配差异化场景需求

Harnessing the advantages of network scale, leveraging the "Traffic, Park, Settlement, Dual-domain" four major dedicated networks, adapting to diverse scenario demands

全国规模最大的  
RedCap商用网络

The largest RedCap commercial network nationwide



40万+  
RedCap基站

400,000+ RedCap base station



250+个  
城市连续覆盖

250+ Continuous urban coverage

### ① 流量专网

Traffic Dedicated Network



Mobile Live Streaming

Cloud Games

- High-volume data plans, high bandwidth, user-friendly
- General/purpose-specific data plan, selectable on demand, high cost-effectiveness
- Integrating the QoS and DNN network for value-added capabilities

### ② 园区专网

Park Dedicated Network



Smart Cities

Smart Finance

- Municipal shared UPF, low network construction cost
- Dedicated channels for soft and hard slicing, ensuring business security isolation
- High-frequency applications integrated with 5G edge cloud for rapid and convenient deployment

### ③ 入驻专网

On-site Dedicated Network



Smart Factories

Smart Mines

- UPF, UPF+, customized core network
- High reliability, high security, high protection
- 5G LAN, dual-broadcast selection, high-precision timing

### ④ 双域专网

Dual-Domain Dedicated Network



Smart Education

Smart Government

- Seamless access without changing cards or numbers
- Cross-province access, low latency, wide coverage
- Integrated with super SIM, national encryption technology



# 新产品 | 丰富RedCap自研硬件产品矩阵，锻造核心竞争力

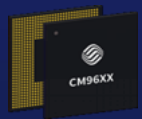
New Products | Enrich the RedCap self-developed hardware product matrix to forge core competitiveness

## 加快自研5G RedCap芯片、模组和硬件产品上市，赋能重点行业应用场景创新

Accelerate the launch of self-developed 5G RedCap chips, modules, and hardware products to empower innovation in key industry application scenarios

### RedCap芯片

RedCap Chip



CM96XX

RISC-V

reduced instruction set architecture

Dual-Mode

RedCap R17/LTE Cat4 dual-mode

Voice function

supports VoNR/VoLTE

Completing Preliminary Research on RedCap Chip

CM9610



The first RedCap chip mass production in 2024

CM9620



New RedCap chip mass production in 2026

### RedCap模组

RedCap Modules



MR880A

Low Cost

50% lower than traditional 5G

High Compatibility

LCC+LGA, M2, Mini-PCIe in various packaging

Send for testing to 30+ customers in power, industry, video, etc



MR885A



MR880X

Miniaturization

aimed at the smart wearable market

Lower Cost

cost-effective chip platform

Promoting a Reduction in RedCap Module Prices

### RedCap终端

RedCap Terminal

#### Industrial Gateway



PG03

CPE



EG3121

Dongle



RD10

Camera



S8601

Dashboard camera



R05X

Suitable for Energy, Industry, Security, Vehicle Networking

# 新应用 | 5G RedCap赋能全连接工厂，助力企业降本增效

New Applications | 5G RedCap empowers fully connected factories, assisting enterprises to reduce costs and increase efficiency

面向工业客户生产设备、生产辅助设备、传感设备、安防设备，进行设备的联网与数据采集

Providing industrial customers with production equipment, production support devices, sensor devices, and security equipment, enabling device connectivity and data collection

## 产线、车间、工厂全生产场景

Production lines, workshops, and entire factory production scenarios



智能数采

Data Acquisition



智能运配

Distribution



智能质检

Quality inspection



智能定位

Positioning

## 工业网关+OneCyber平台

Industrial gateway + OneCyber platform

网络运维

Network Operation

数据采集

Data Acquisition

连接管理

Connection Management

数据集成

Data Integration

设备接入

Device Connectivity

云边协管

Cloud-Edge Collaboration



5G工业路由  
5G Industrial Router



5G OneCyber



5G工业网关  
5G Industrial Gateway



PLC



Mechanical arm



AGV



Sensor



Camera

## 分散独立组网→全连接专网

Decentralized independent networking → fully connected private network

实现生产过程可视可控

Visibility and Control over Production Processes



@浙江喜临门

@Zhejiang Xilinmen

设备5G联网率

The 5G network connection rate of equipment

80%

数据采集点位

Data collection points

>100

一套成熟流程

A set of mature processes

一张可靠网络

A reliable network

一个安全平台

A secure platform

N个高频应用

N high-frequency applications



# 新应用 | 5G RedCap助力社会治理，实现全方位安全防护

New Applications | 5G RedCap Empowers Social Governance, Achieving Comprehensive Security Protection

面向视频安防客户，提供实时视频监控和AI智能分析，赋能行业应用

For video security customers, provide real-time video monitoring and AI intelligent analysis, empowering industry applications

## 社会治理监管场景

Social governance supervision scenarios



防溺水监管

Drowning Prevention



火灾防范监控

Fire Prevention



河湖水库治理

Water Body Governance



垃圾分类监控

Garbage Sorting Monitoring

## AI摄像头+千里眼平台

AI Cameras + Qianliyan Platform

视频监控

Video Surveillance

AI智能

AI Intelligence

媒体管理

Media Management

用户管理

User Management

大数据

Big Data

能力开放

Capability Opening

千里眼平台

Qianliyan Platform

视联网

Video Internet

摄像头  
Camera



## 人防→技防+人防+物防

Manpower approach -> AI-integrated approach

Real-time Monitoring of Ponds, Reservoirs, Rivers



@江苏赣榆水利局

@Jiangsu GanYu Water Resources Bureau

水域覆盖率

Full coverage of water bodies

100%

全年溺亡事故

Drowning accidents throughout the Year

0

## 高性价比终端

Cost-effective terminals

## 视频算力一张网

One network for video-computation

## 全网智能调度

Intelligent scheduling across the network

## AI视频智能分析

AI video intelligent analysis

# 新应用 | 5G RedCap聚焦智慧电力，提升生产管理效能

New Applications | 5G RedCap Focuses on Smart Power, Enhancing Production Management Efficiency

面向电力行业客户，提供“平台+终端”一站式双碳能耗解决方案，助力双碳目标实现和新型电力系统建设

Providing a one-stop "platform + terminal" Carbon-Energy Synergetic solution for power industry customers, empowering the achievement of dual-carbon goals and addressing new data acquisition needs in "source-network-load-storage"

## “源-网-荷-储”数采需求

"Source-network-load-storage" data acquisition demand



源-新能源场站管理

Source-new energy station management



网-智能配电房

Network - intelligent power distribution room



荷-能耗管理

Load-Wear Management



储-储能管理

Storage-storage management

## 电力网关+双碳能耗平台

Power gateway + Carbon-Energy Synergetic Platform

采集控制 Acquisition control	数据治理 Data governance	算法模型 Algorithmic models
报表管理 Report management	应用集成 Application integration	智能调度 Intelligent scheduling

### 双碳能耗平台

Carbon-Energy Synergetic Platform

### RedCap电力网关

RedCap Power Gateway



逆变器  
inverter



无人机  
drone



微机保护  
Microcomputer protection



安防监控  
Security surveillance

## 数采效率低→精细化管理

Low data collection efficiency → Refined management

光伏数采、分析诊断、自动巡检、安防管理等  
Photovoltaic data acquisition, analysis and diagnosis, automatic inspection, security management, etc



@广东华电

@Guangdong Huadian

巡检效率

Increase inspection efficiency

↑ 220%

运维成本

Reduce O&M costs

↓ 15%

## 一站式方案

One-stop solution

## 一体化运维

Integrated O&M

## 国产化程度高

High degree of localization

## 多场景适用

Suitable for multiple scenarios

# 繁荣互促，助推5G RedCap产业成熟

Prosperity and mutual promotion, help 5G RedCap industry to mature

产业成熟是商业成功的保障，我们将秉承“开放共赢”的理念，共同推进数字化转型发展

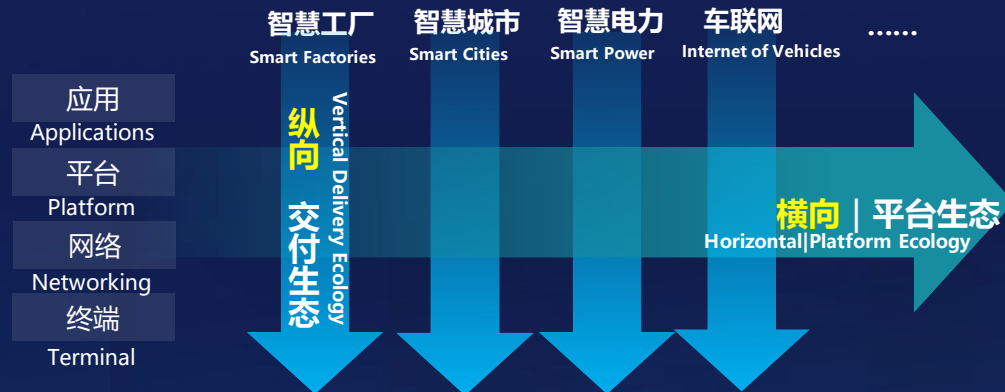
Industry maturity is the guarantee of business success, we will adhere to the concept of "open and win-win", and jointly promote the development of digital transformation

## 基于“横纵生态”体系，构筑行业应用联盟

Based on the "horizontal and vertical ecological" system, we have constructed an industry application alliance

## 一体拉通产业供需，共拓万亿数字蓝海

One body pulls together industry supply and demand, and jointly develops a trillion-dollar digital blue ocean



依托中国移动5G物联网行业应用联盟，实现产业合作

Rely on China Mobile 5G IoT Industry Application Alliance to achieve industrial cooperation

### 服务供给一体化 Integration of service provision

- 联合研发  
Joint research and development
- 产品引入  
product introduction
- 方案集成  
program integration
- 投资入股  
Investment in equity

### 市场推广一体化 marketing integration

- 商机共拓  
Business Opportunities Together
- 资源共享  
resource sharing
- 渠道共用  
channel sharing
- 宣传共推  
Advocacy for co-promotion

产品能力库

Product competency pools

解决方案库

Solutions Library

智能硬件库

Intelligent Hardware Library

合作伙伴库

Cooperative partners Library



# 中国移动愿携手产业各界 共建RedCap新生态，共创5G物联新未来

China Mobile is willing to collaborate with various industries to build a new ecosystem for RedCap, jointly creating a new future for 5G IoT