



分享美好生活

5G for verticals in the new economy

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About China Telecom

In recent years, Revenue growth of China Telecom is steadily higher than the average level in China's telecommunication industry.

China Telecom has 210 millions mobile subscribers (The percentage of 4G subscribers is over 58%)

Also, China Telecom has 137 millions fixed broadband subscribers (optical Broadband subscribers is over 90 millions).



移动用户 **2.1亿**户
4G用户占比 **58%**，行业第一

宽带用户 **1.37亿**户
光宽用户超9000万，全球第一

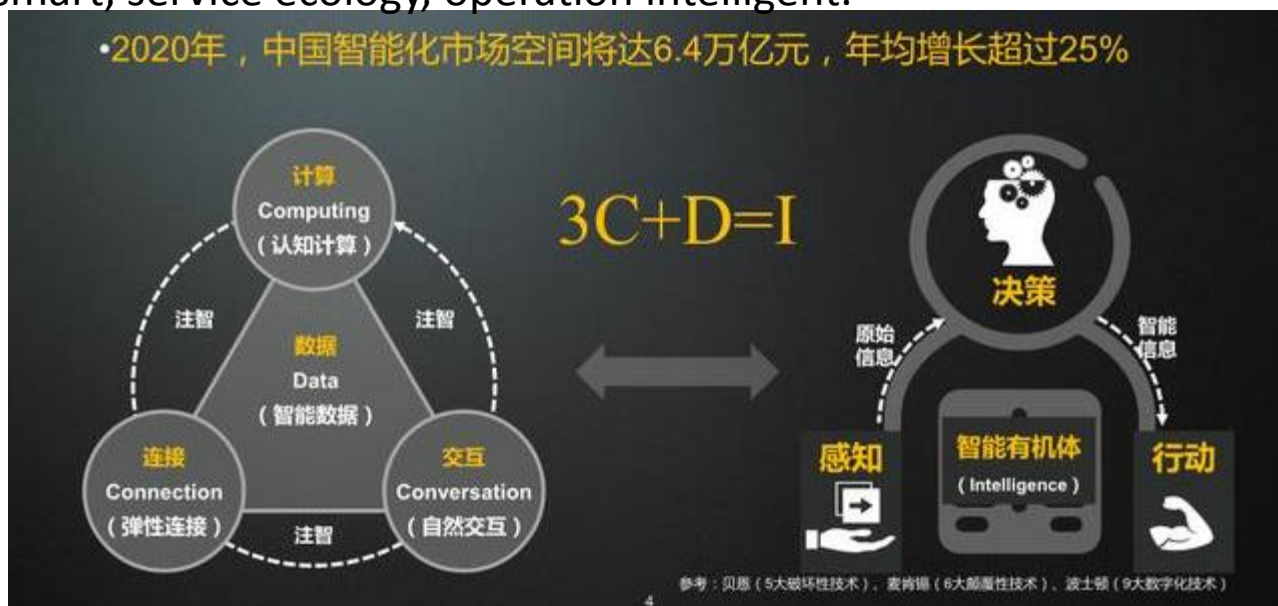
Transforming on road

Transform 1.0(2004), From traditional telecom operator to integrated information service provider

Transform 2.0(2010), De-telecom, differentiation/Internet, Dominator of Smart pipeline/provider of integrated platform/participator of content and application

Transform 3.0(2016), Integrated smart information service provider.

Network smart, service ecology, operation intelligent.



Market space of intelligent will increase from 2100 billions(2015) to 6400billions(2020) in China. The annual rate of growth will surpass 25%.

Services Ecology

Focus on service ecology cycle

1、One horizontal cycle:

Solid 4G/5G and optical broadband foundation, Forge Smart Connection
Focus on cloud, network, terminal, To intensify network ecology

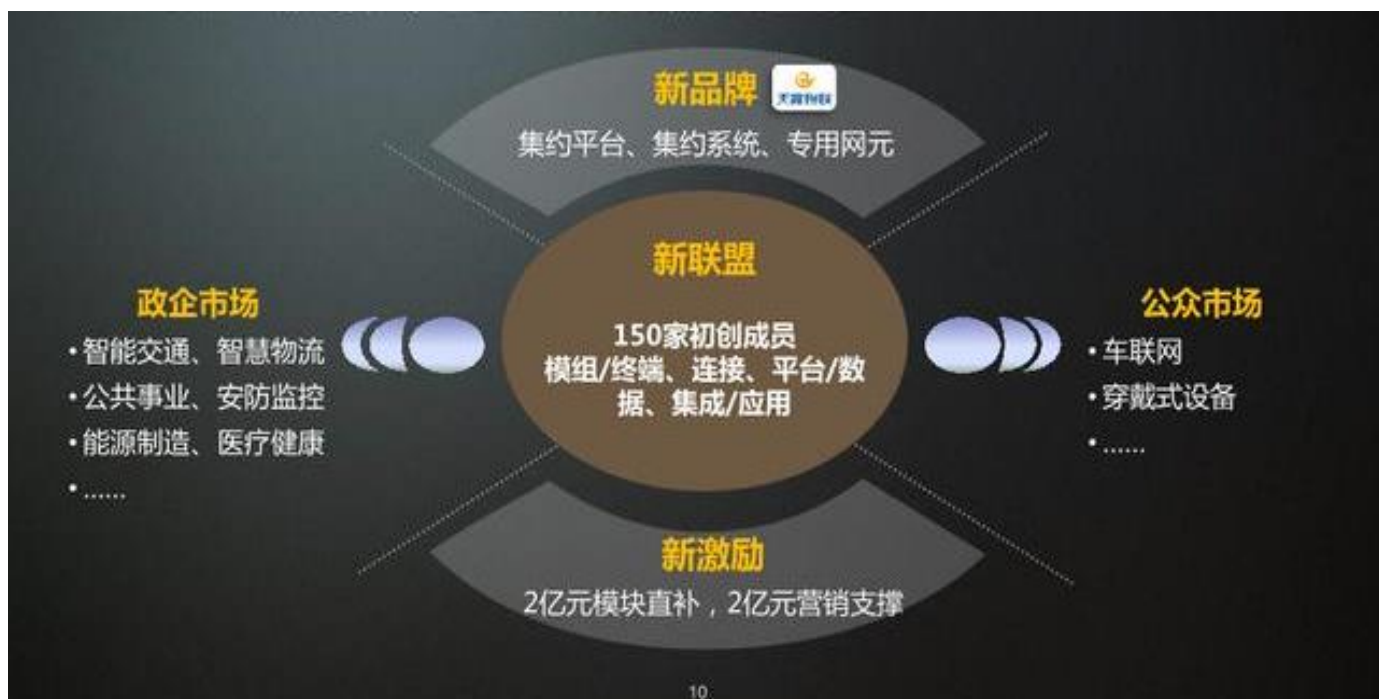
2、Four Vertical application cycle

Depend on IPTV, e-surfing pay, IoT, Cloud and Big data , Internet+, Forge intelligent family ,IoT, Internet financial and new ICT applications.



e-Surfing IoT

- 1 New Brand—e-surfing IoT , Standalone Network and service platform, intensive operation
- 2 New Alliance— 150 members ,include the different sectors, module/terminal, connection, platform/data, integration/application
- 3 New Stimulation—RMB200millions /year subsidy for module, RMB 200millions/year marketing cost, flexible tariff
- 4 Focus on ITS, intelligent logistics, Public affairs, V2X



IoT Roadmap

IoT Roadmap

Cat1: Startup from July,2016

NB-IoT: deploy nationwide 800MHz Standalone NB-IoT network in first half of 2017

Cat-M: depends on industry maturity

eSIM: first half of 2017

- Cat1：加快发展，2016年7月商用
- **NB-IoT：部署800M的NB-IoT网络，2017上半年覆盖全网**
- Cat-M：根据标准、产业成熟情况，适时引入
- eSIM：采用GSMA主流标准，提升M2M能力



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NB-IoT—Centralized model

Service and applications

measurement

parking

Agriculture

Environment

logistics

IoT platform

Service enabler

API

Data

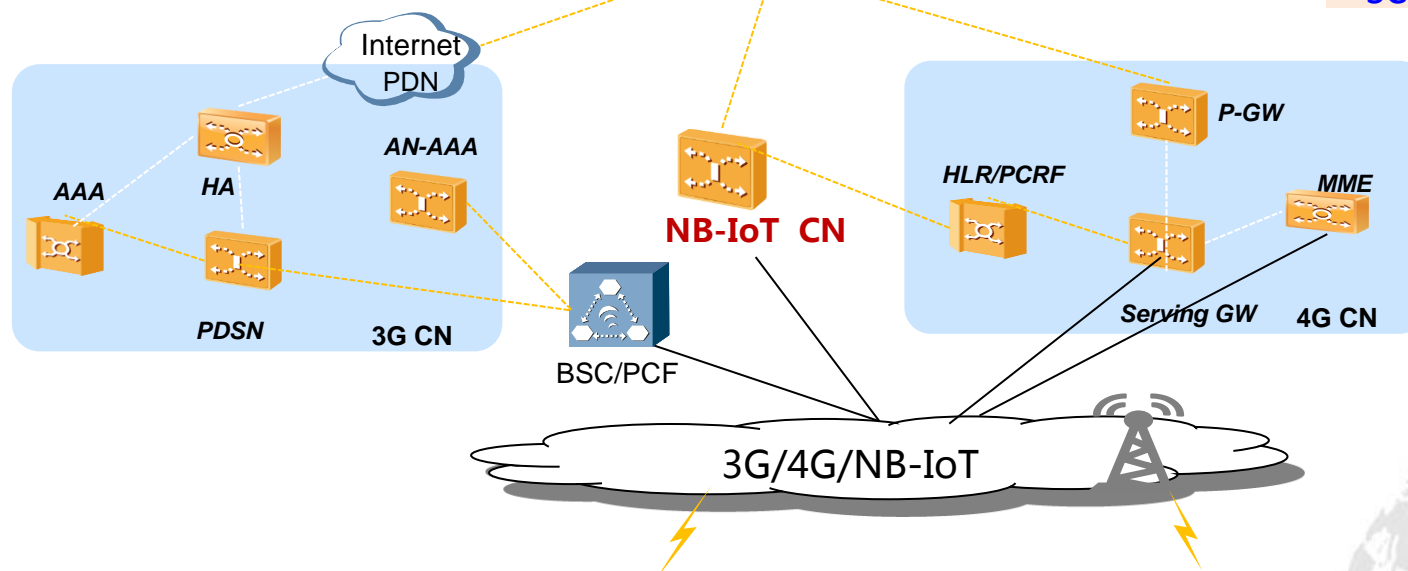
CM

P/T

sM

DM

Platform manage the connection and service enabler



1stage, support NB-IoT
2nd stage, upgrade to support MMTC

3G/4G IoT terminal

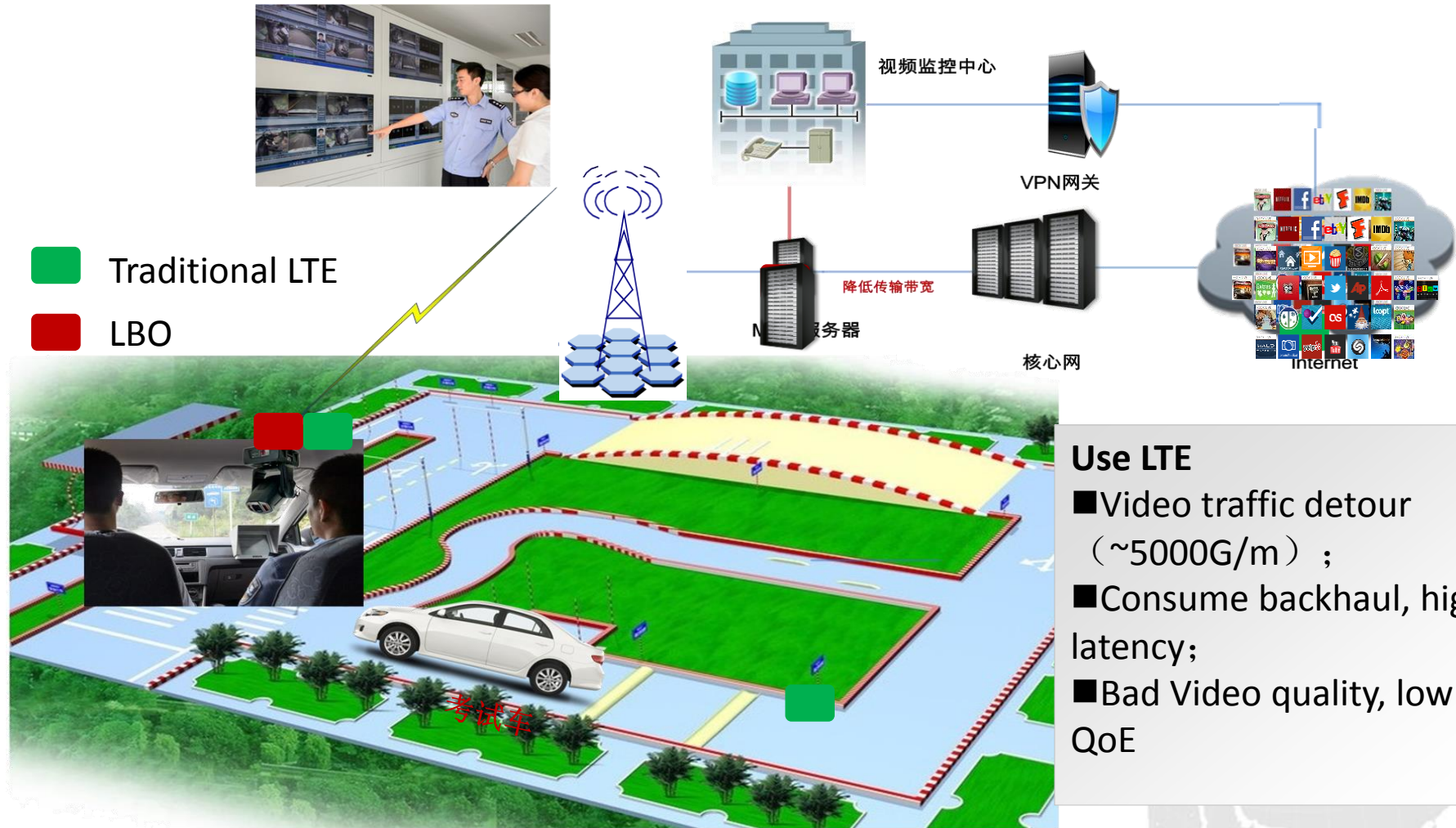
NB-IoT

Water, electric, gas, etc.



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MEC Practices



Local RAN : low latency, low cost, easy maintenance

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- Vertical applications is a new area for us
 - Network architecture
 - Business model
 - We had some experiences, but it is not enough
 - We are looking forward to work with all partners to push it.

Thank you very much