



Name : Yangming Li

Company: China National Petroleum Corporation (CNPC)

Now : Visiting Fellow, APARC, Stanford University

Bachelor: Mathematics at Xiamen University, China



Master: MBA at Qing Hua University, China



# My Background



## 1984-2001

I started my job as a computer programmer and system manager. CNPC owned the first and biggest mainframe in China and the computer was once to be the fastest one in the Asian oil industry.



## 2001-2018

I realized the big chances of IT technologies and created a small company named as **Beijing Richfit Information Technology company**. Now it has become one of the biggest IT companies in the China oil industry. Richfit has about 3000 employees and has businesses in many countries -- opening branches in Canada, Dubai, Kazakhstan, etc.





Richfit has focused on Digital/Smart Oilfield solution for many years. It performs life-cycle management of whole-space, real-time oil exploration and production so that business processes can be optimized.



CNPC's private cloud, now being run by Richfit, is one of the biggest in the world.

Smart oilfields and smart cities have the same data process: **acquisition, transmission, analysis, instruction.**

Richfit has joined tens of China smart city construction projects. On the one hand, cities are looking for comprehensive, strong companies to take the lead at projects. On the other hand, Richfit decided to expand its business outside the oil industry.

# Smart City Architecture

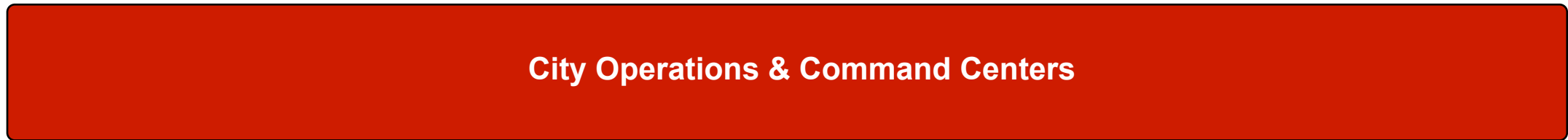


Government

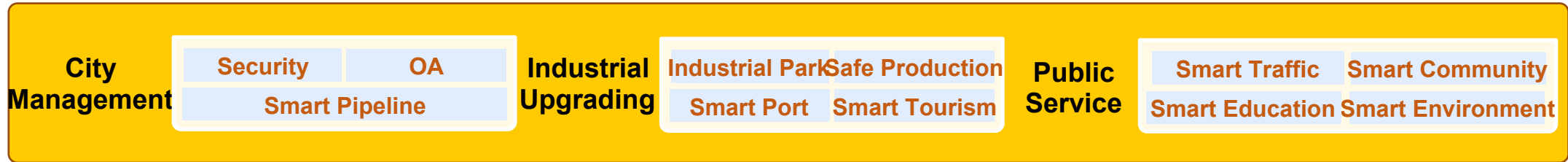
Citizen

Enterprise

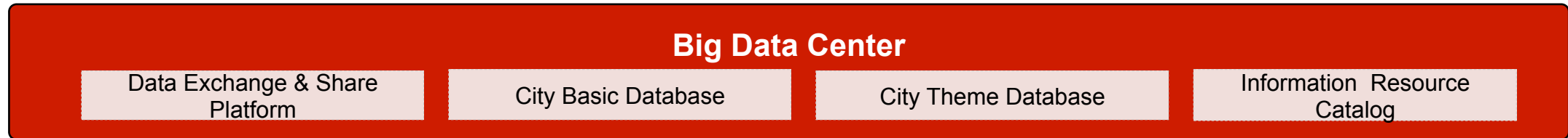
Service



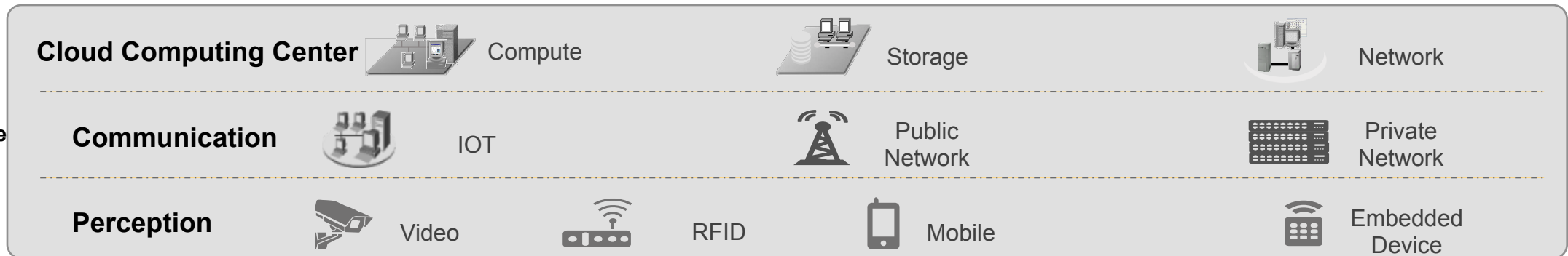
Application



Data



Hardware



Standards

# What happens in China's smart cities?



- There are more than 500 smart cities under construction. Almost every city's mayor is talking about smart city, big data, AI, cloud computing, etc. Currently, about 10 Alibaba City Brain projects are operating by using AI algorithms to monitor and control traffic signals and street cameras.
- Our Example: Richfit smart city project in **FuYuan**
  - Population 112,000; located near Russian border.
  - Richfit bid for and won the project.
  - Main deliverables:
    - Design of Smart city's IT infrastructure and plan
    - Control and command center
    - City data center (now run by FuYuan himself)
    - Some city management and service systems
  - FuYuan smart city's first step is to make a unified plan and build a unified data center and control center . In next step, with the help of integrated platforms and collected data, the smart city will come true.

