

Building a Glocal Ecosystem for Smart Cities

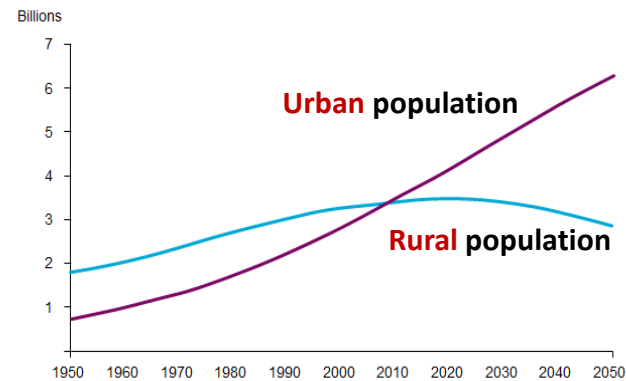
Bill Lan

Chief Network Strategist, Huawei



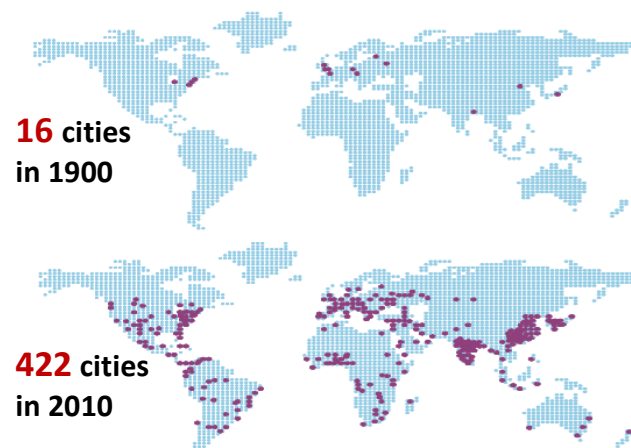
Urbanization leads challenges for city management

Growth of worldwide population



Source: United Nation, Department of Economic and Social Affairs

of cities with +1 million population



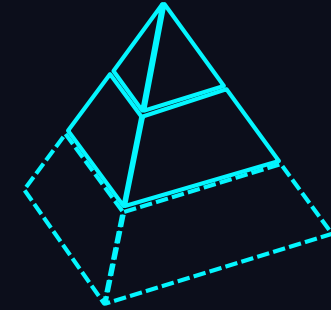
Source: National Geographic, December 2011



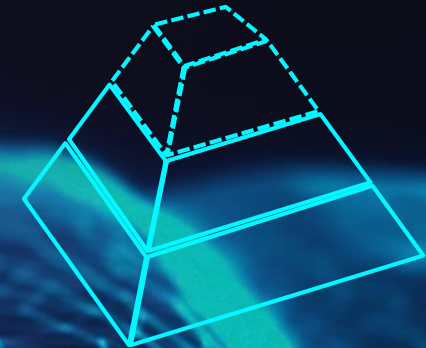
The hierarchy of needs in the digital transformation



- Digital Governance
- Industrial Digitization
- Security Assurance
- ICT Infrastructure



ECOSYSTEM



ICT SUPPLY CHAIN

Building a “Costa Rica” ecosystem enables smart city



**Making things
big rather than
making big
things**

**Fostering
cooperation
replace managing
competition**

**Sharing
benefits to all
stakeholders**

Clear KPIs lead city and economic transformation



Attached **new technologies and applications** to promote broadband usage and consumption



Enhance transparent and efficient administration management, **promote city transformation** and **support pillar industries**



Cloud computing and big data analysis **enable citizen safer**, more **convenient** and **comfortable life**

Policy

- **26** Ministries and Commissions form a **working group** to define concepts, development goals and related policies
- Central government provide guidance & support for pilot projects

Governance

- Project **led by Mayor** or major leader to coordinate resources and abilities enabling efficient rollout of smart city projects
- **KPIs** for executive performance evaluation

Technology

- **Application of emerging technologies** is major KPI of the project
- Effectively integrating **fiber optic** broadband, **IoT**, **big data**, **cloud computing** into innovative services

Business Model

- **PPP** and **BOT models** are introduced to attract Telco's investment
- Project financed by **local government subsidy** through fund raising, issuing bonds or commercial loan

Policy + infrastructure are pillars of Suzhou smart city



Modern Suzhou

Clear Objectives

- Be 1st all fiber city in China
- Improve city management
- Digitize local industries, manufacturing, trading and tourism
- Enable citizen's digital life

Rich Infrastructure

- **2.3 million** km incremental fiber length
- **1.8 Tb** backbone capacity
- **10** IDC with 980G output
- **100% FTTH** coverage 1Gbps ready network

Regulatory and financial support

- **\$1.15bn** investment since 2011
- **Free ROW, fast approval**
- Utility/municipality **infrastructure sharing**
- Mandate **10G fiber pre-deployment** in new buildings

Broadband + ICT apps create socioeconomic benefits



- **2nd** happiness city in China
- **60% ↑** GDP p.c. (2010-16)
- **2x ↑** real estate value
- **14% ↑** tourism productivity
- **70% ↑** Govt. efficiency
- **90% ↓** time saving on govt. affairs
- **30% ↓** crime rate
- **30%** digital payment as individual consumption
- **100+** public service online
- **1,000+** digital enterprises
- **3 million** FBB subs
- **1 million** 4K subs in 1 yr
- Learning anytime/anywhere

Yingtian builds a NB-IoT ecosystem to empower SMEs



HUAWEI Chipset, Base Station, IoT... Alliance

The NB-IoT ecosystem incubates new business models



- Smart water meter
- Automatic reading twice a day
- Remote management
- Monitoring water pressure



NB-IoT

Control
Exam
Inquire
Analysis
Sharing



Cloud Platform



- Water quality/pressure monitoring
- Accurately locate water linkage area and quickly repair
- Improved linkage loss rate from 20% to **11%** (2.5 million tons/year)



Monitoring
Alarming
Analysis
Management

Huawei efforts on national digital transformation



Infrastructure, Chipset, Base Station, IoT...

Huawei OpenLab achievements in Bangkok



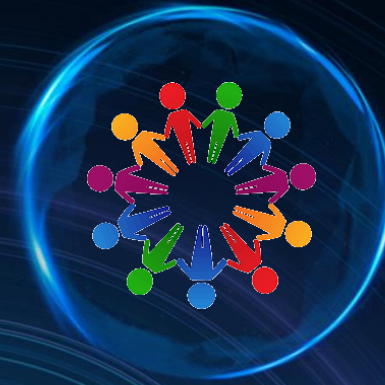
4 Labs

for smart city, public security, smart grid and joint-development



200+

Business dialogues with Thai vertical industry leaders



80+

Cooperation projects between ISVs and Huawei



25

Thai companies use joint-development solutions from OpenLab



THANK YOU

