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Mobility Enabled Smart Cities

HUAWEI TECHNOLOGIES CO., LTD.



A panoramic view of the Toronto skyline from the water, featuring the CN Tower, Rogers Centre, and various skyscrapers under a blue sky with light clouds.

1. Mobile Broadband enabled Smart City

2. Real Life Examples

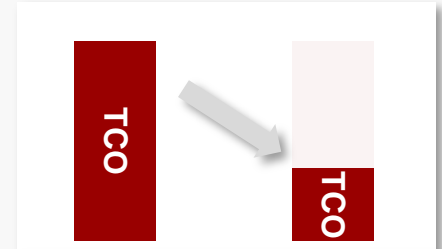
Trends of Smart Cities



Smart City



More Services



Lower Cost

- More Connected
- More Diversified
- Better Coverage
- Mobility
- Multimedia
- More Integrated



More Intelligence

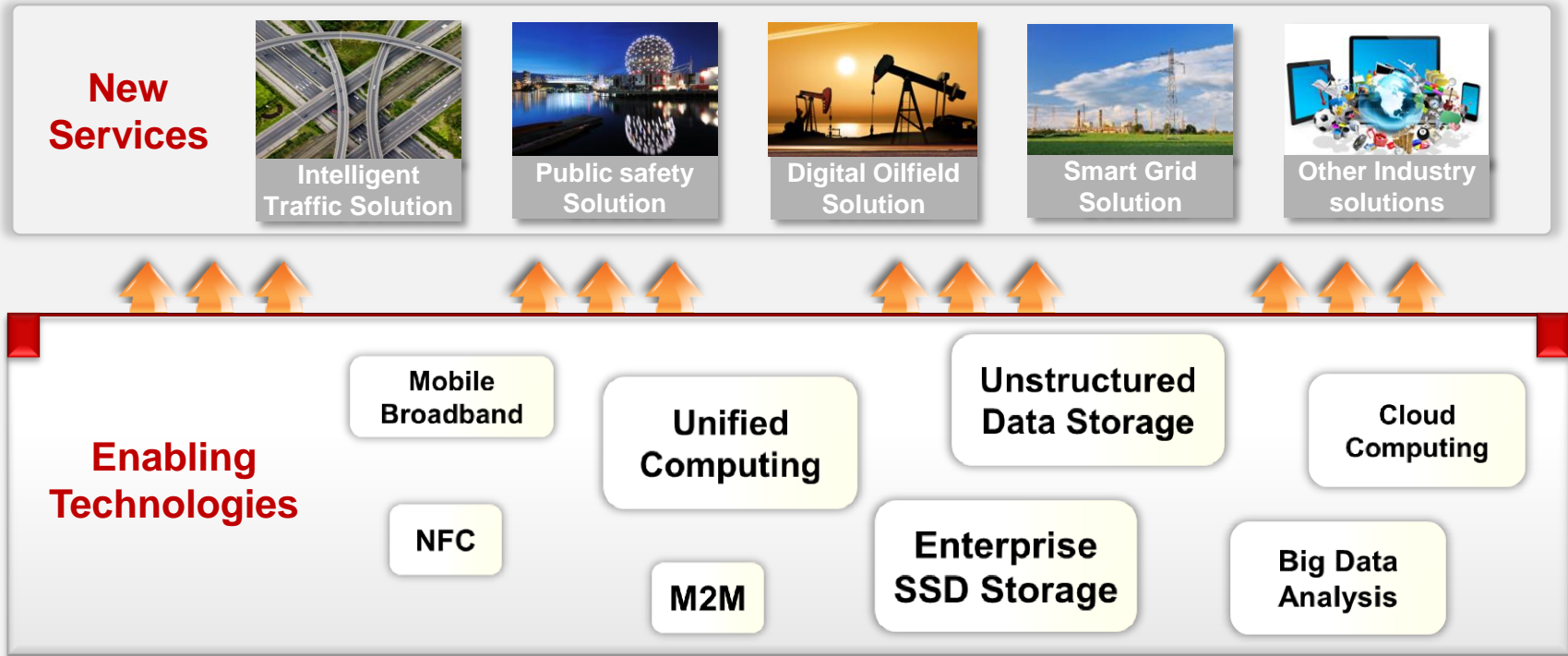


More Involved



More Efficient

Innovations Enable New Services



Demand for Service Extensions

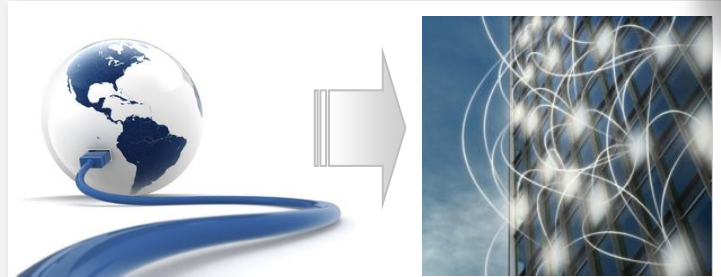


Network Convergence

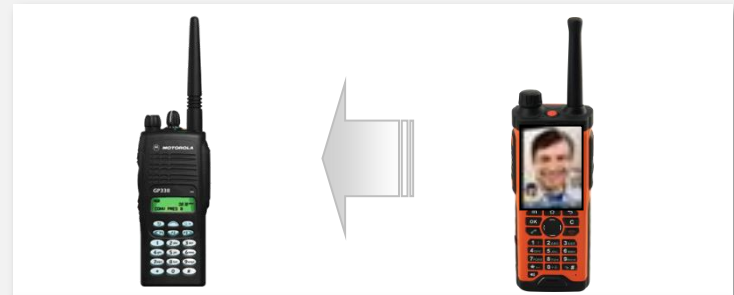


Service Convergence

Service

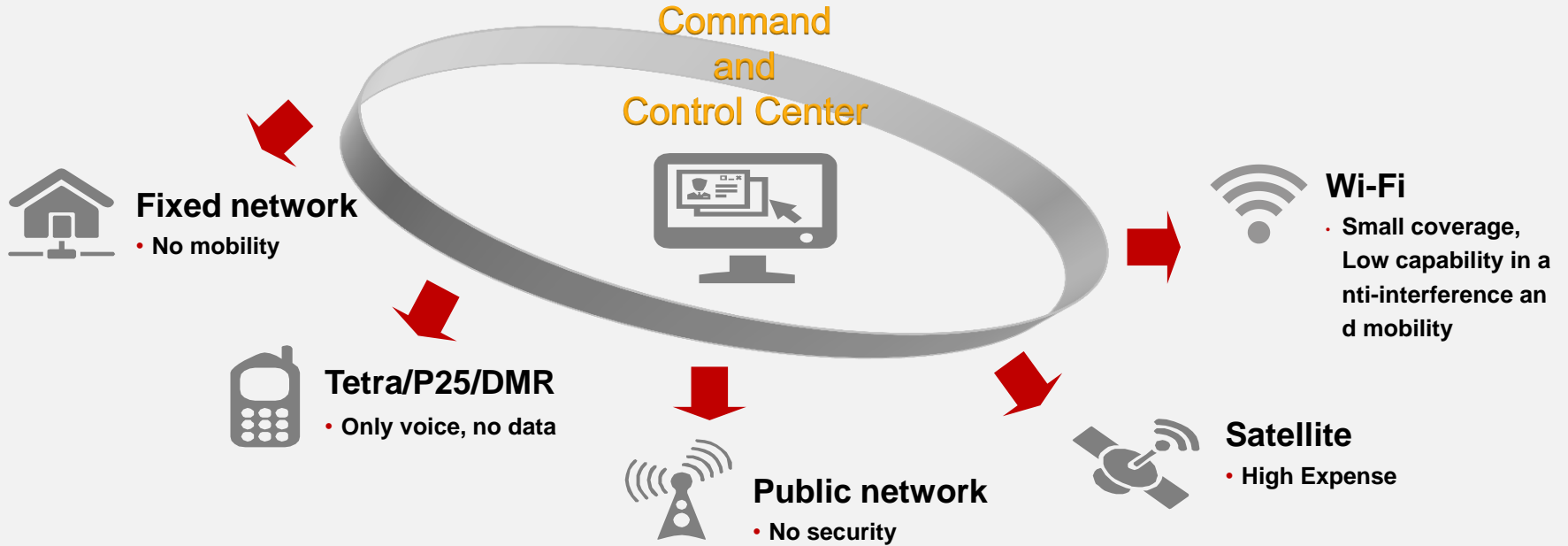


Wired Line -> Wireless



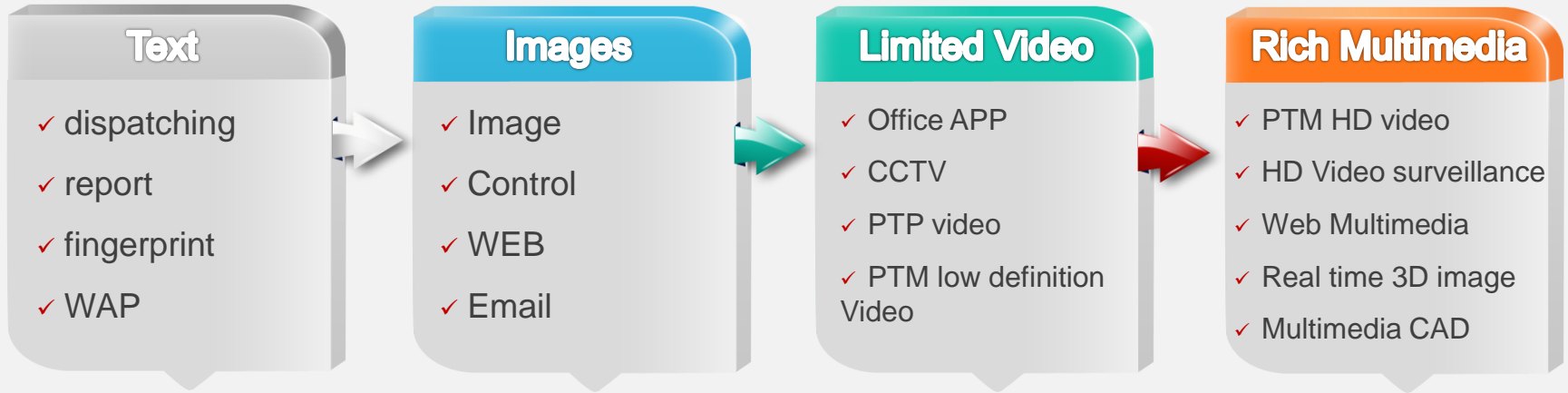
Cluster to Wireless

Limitation of 'Existing' Technologies



Demand → **Network Convergence + Service Convergence**

LTE based Mobile Broadband Fills the Gap



Tetra (3.8kbps)

Tetra Multi Slot (15kbps)

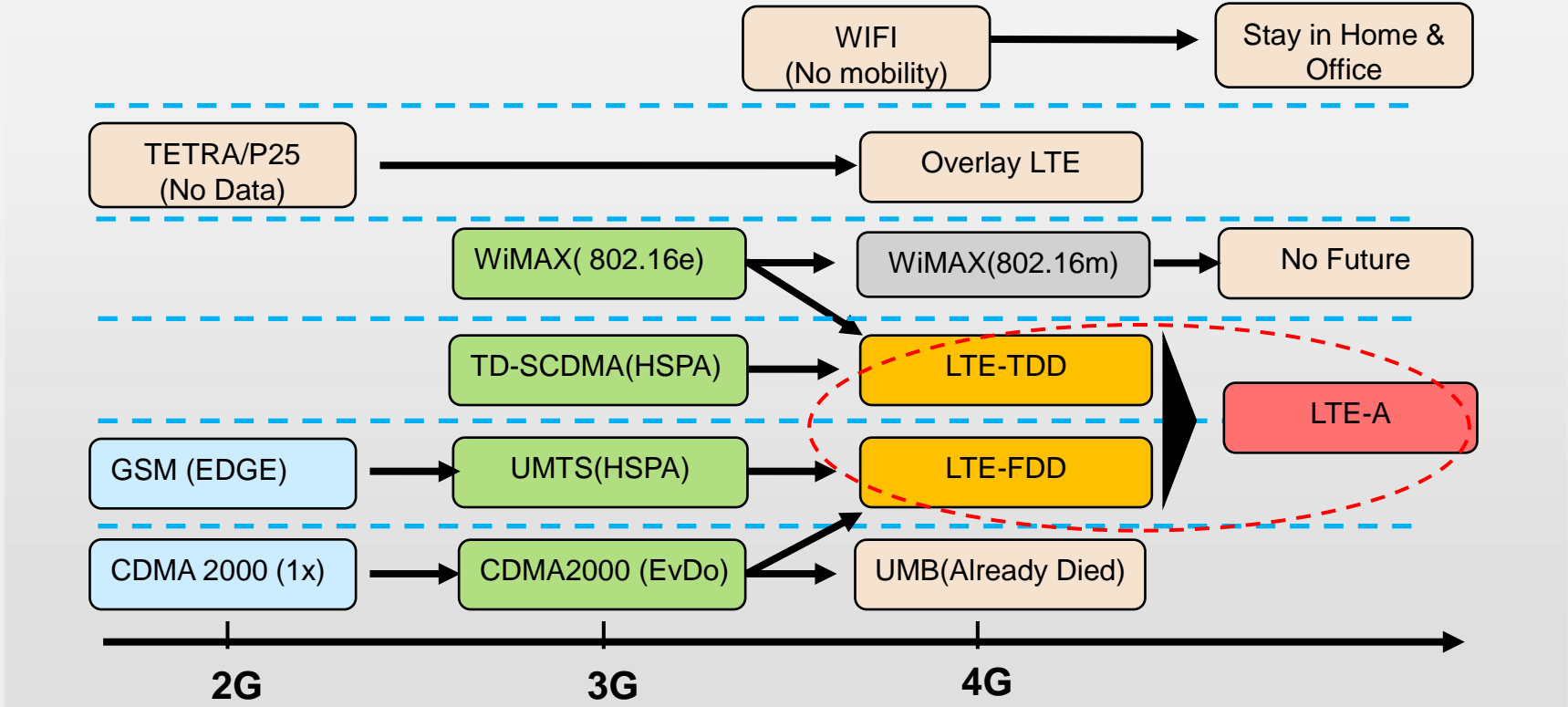
Tetra 2 (45-160kbps)

GPRS/EDGE (64-384kbps)








UMTS/HSDPA (100-2000kbps)

LTE (>100Mbps)

Professional LTE: The Only Choice of Future Wireless Network in Industry Market



Mobile Broadband Enabled Smart City Applications

Railway	Airport	Port	Government	Oil & Gas	Mining	Smart Grid
Train Control Signaling PIS + CCTV Train Dispatching	Loadsheet Transfer Parking apron Monitoring Ground Service Dispatching	TOS Data Transfer Crane Monitoring Port Dispatching	Mobile Office Border/City Monitoring Emergency dispatching	SCADA Transport Video Surveillance Pipe Maintenance/Dispatching	Production Data Video Surveillance Production dispatching	DA+AMI Data Transfer Substation Monitoring Maintenance Dispatching
						

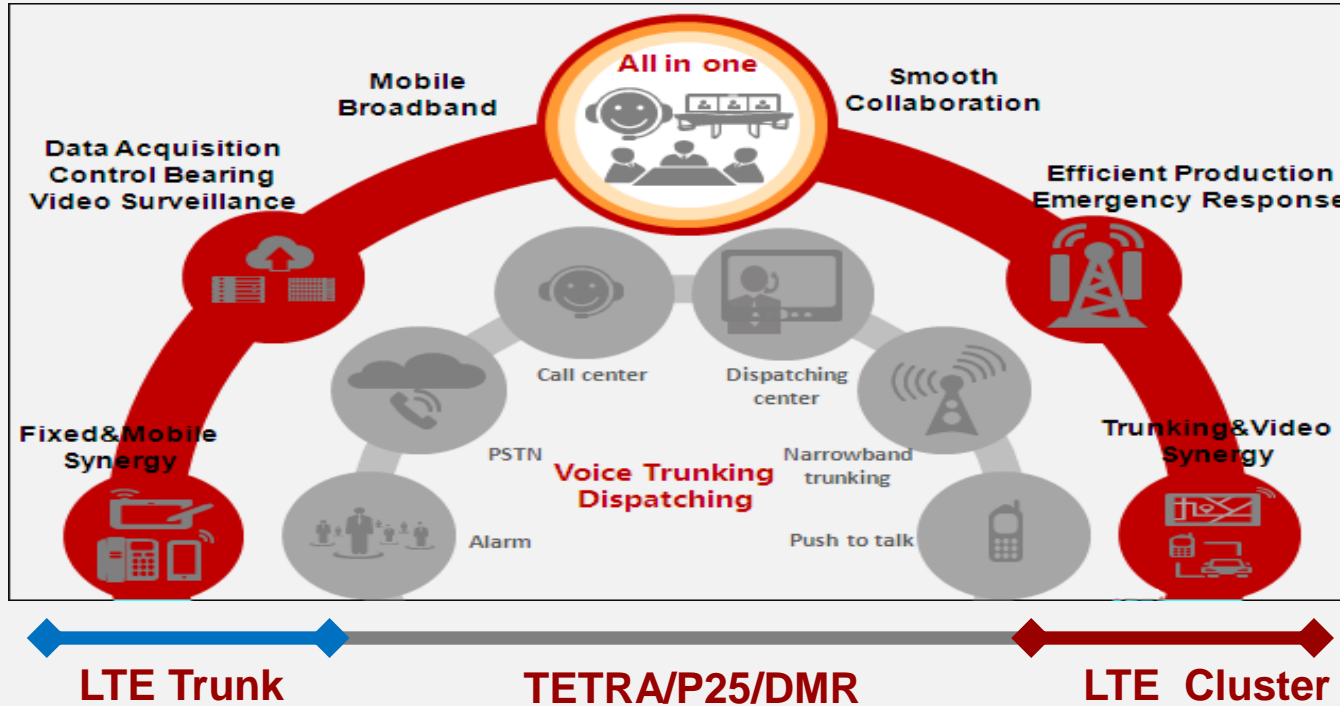
Government and Vertical Industry

Better Services

From Impossible to Possible

**Network & Service Convergence: Multimedia Services on
Wired Line/Wireless/Cluster Integrated Networks**

Huawei eLTE leading Mobile Broadband Solution

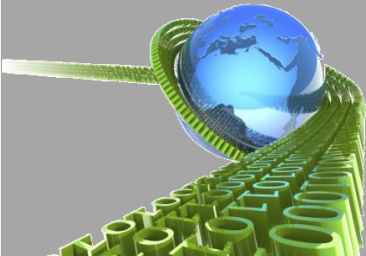


Huawei eLTE = Voice + Broadband + Video All in one in Integrated Network

Huawei eLTE Enables Smart Cities

100M Broadband Carry multi-services

- DL>100M/Cell , UL> 50M/Cell
- 1st visual multi-media PTT
- Real-time video



Industry level design works in extreme environments

- IP67
- Ex ib IIB T4
- - 40~ 65 °C
- 431KM/h train
- Etc.



Professional trunking

- Group call setup< 300ms
- pre-emptive priority call < 150ms
- Etc.

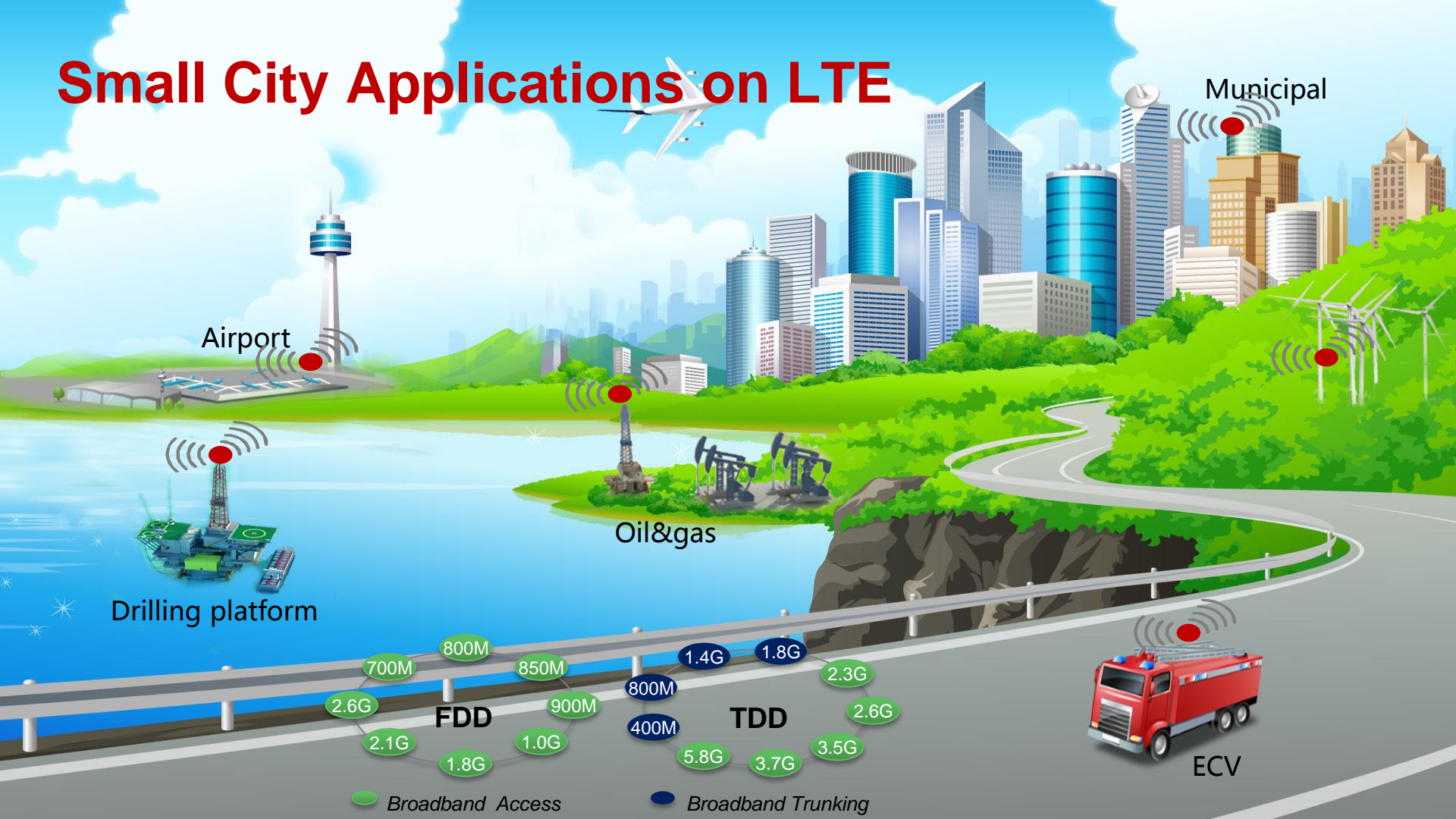


Open and interconnected

- PSTN
- PLMN
- TETRA
- PABX
- Etc.



Small City Applications on LTE



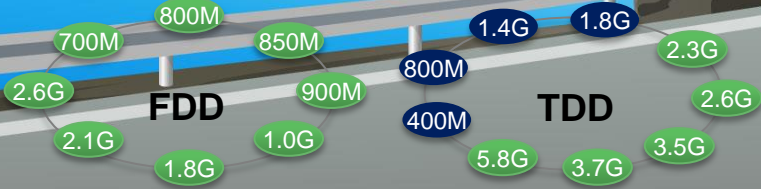
Airport

Municipal

Oil&gas

Drilling platform

ECV



Broadband Access

Broadband Trunking

A panoramic view of the Toronto skyline from the water, featuring the CN Tower and various skyscrapers under a blue sky with light clouds. The image is overlaid with three semi-transparent horizontal bars containing text.

1. Mobile Broadband enabled Smart City



2. Real Life Examples

Mobile Broadband for E-Gov

Connecting Service-Oriented Government Agencies



Tianjing - China

- **"One"** LTE network, multi-business converged communication
- Municipal affairs and public security, unified mobile broadband dispatching system, enhance work efficiency is **30%** 
- **Large bandwidth**, ensure the future M2M smooth evolution.
- Utilized resources ratio **71%** 

Mobile Broadband for Safety City Application in Li Jiang River

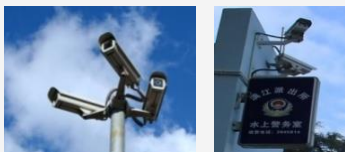
HUAWEI ENTERPRISE ICT SOLUTIONS A BETTER WAY



On-board Real-time CCTV



Video Surveillance



Broadband
Trunking Dispatch



Guilin - China

- **AAAAA tourist attraction** , World's Top 10 Watery Wonders, **Millions of tourists** every year.
- **Covered 83km travels** like a jade ribbon winding among thousands of grotesque peaks, difficult to Patrol supervise
- Emergency response efficiency **↑30%**
- Accidents caused by violation run **↓50%**

Mobile Broadband for Power Industry

Zhuhai Power Bureau



China - Zhuhai

- **The first** LTE-based distribution network
- **<100 ms** delay, To meet the needs of telecommand, telemetry, telesignalling
- **80%** construction period

Mobile Broadband for Oil Fields

Connecting Offshore Oilfields

HUAWEI ENTERPRISE ICT SOLUTIONS A BETTER WAY



Norway

- Seamless communication for offshore oilfields
- Wide network coverage: **100 km**
- Wide bandwidth: **50 Mbits/s**
- Low delay: **10 ms**
- Improve work efficiency by **10%**

Mobile Broadband for Metro

1st LTE for Metro, broadband T2G without interference

Onboard real-time video surveillance



Onboard real-time PIS



Zhengzhou • Metro

- DL **20Mbps**, UL **10Mbps**@10Mhz, Carry HD onboard real-time IVS and PIS.
- Private network with private frequency, **secure and anti-interference**.
- Support **trunking and data services**, future oriented.



LTE improves your productivity and efficiency



- **Airport Ground Handling**
- Xi'an airport
- Improve key task efficiency **500%**



- **Mining**
- One network, One terminal, One access number,
- **↓ TCO significantly**



- **Oil and Gas**
- Norway's offshore oilfields
- Coverage **up to 100 km**



- **Seaport**
- Yantai demo
- **↓ 90% equipments**



- **SME Office/Branch Office**
- One-BOX support hybrid network access, **↓ 90%** deploy duration



Waiting for your success stories.....

Huawei: A Better Partner for Your Business

Customer-centric

Enabling agile customer solutions

Global

140+ countries

Quality

2 billion users worldwide



Trusted

A fortune 500 company with 20 years' steady growth

Innovation

70,000 R&D employees, over 10% of sales revenue invest in R&D

TCO Saving

Overcome the growing TCO, not just the purchase costs

Welcome to Huawei Connected Industries Booth

Position : Hall N1, Booth N1.D120



Connected Industries Booth





HUAWEI ENTERPRISE ICT SOLUTIONS **A BETTER WAY**

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