



# The Challenge of Digitizing the Economy

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# DIGITIZATION INDEX INDICATORS

Affordability

Costs adjusted per GDP



Infrastructure reliability

Investment per telecom subscriber



Network access

Network penetration



Capacity

International internet bandwidth



Usage

Internet Retail, e-Government



Human capital



# PILLARS OF A DIGITAL ECONOMY

Once connected, the appetite for data, applications, and services grows, which in turn drives supply and investment in infrastructure and services.

Huawei Global Connectivity Index, 2016

**SUPPLY**  
4G, broadband, and investment analyze  
**AVAILABILITY**

**DEMAND**  
e-commerce and app downloads analyze national tech  
**ADOPTION**

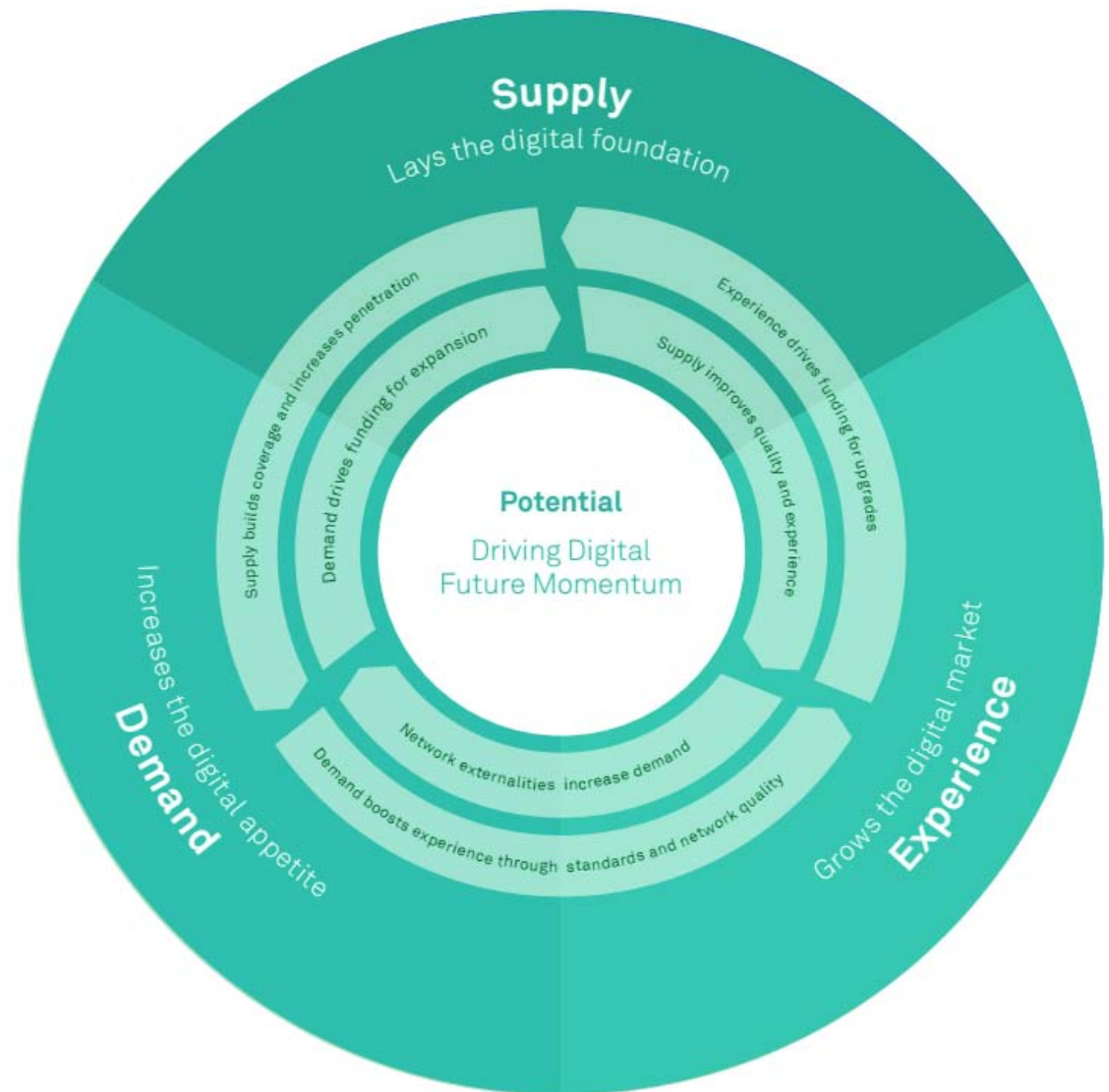
**EXPERIENCE**  
download speeds and broadband affordability analyze  
**QUALITY**

**POTENTIAL**  
patents and R&D analyze future  
**CAPABILITIES**



WHERE SHOULD THE GOVERNMENT STAND IN RELATION TO THE ECOSYSTEM DEVELOPMENT?

**BOOST**  
BUT CAN'T  
**SUBSTITUTE**



## SINGAPORE (2)

To provide better cloud services, the Singaporean government is opting for a multipronged approach. This includes opening up the broadband market so new players can deliver services over the nationwide fiber network, which has resulted in a slew of innovative broadband packages at competitive prices for cloud access.

The government has also introduced the multi-tier cloud security (MTCS) framework to provide a complete yet flexible approach for enterprises to choose the security level they need. Since its launch, 62 cloud service providers have been certified to provide a diverse range of secure-certified cloud services for enterprises.

# The SaaS Market



## According to Gartner

- Gartner sees SaaS growing 20.3% in 2016 to 37.7 billion.
- The SaaS market is poised to surpass \$112.8 billion by 2019, according to IDC research.
- The overall market will reach \$164.29 billion by 2022, according to Transparency Market Research (TMR).

## According to IDC

- The worldwide cloud software market reached \$48.8 billion in revenue in 2014, representing a **24.4% year-over-year growth rate**
- The market will surpass \$112.8 billion by 2019 at a compound annual growth rate (CAGR) of **18.3%**.
- SaaS delivery will significantly outpace traditional software product delivery, growing nearly five times faster than the traditional software market
- By 2019, the cloud software model will account for **\$1 of every \$4.59 spent on software**.

## Technologies enabling the next indispensable consumer technology

Technologies	Global	U.S.	China	Japan	ASPAC	EMEA
<b>Cloud – SaaS/PaaS/IaaS</b>	<b>11%</b>	<b>14%</b>	<b>15%</b>	<b>13%</b>	<b>11%</b>	6%
<b>Mobile - platforms and apps</b>	<b>9%</b>	9%	3%	<b>10%</b>	<b>8%</b>	<b>11%</b>
<b>Internet of things/ M2M</b>	<b>9%</b>	8%	<b>9%</b>	3%	<b>9%</b>	<b>9%</b>
Data & analytics	<b>9%</b>	<b>14%</b>	3%	10%	7%	8%
Biotech/digital health/healthcare IT	8%	<b>15%</b>	3%	3%	7%	7%
3D printing	7%	2%	4%	3%	6%	<b>12%</b>
Cyber security	6%	5%	8%	<b>10%</b>	7%	7%
Robotics	6%	5%	6%	3%	6%	8%
Artificial intelligence/cognitive computing	5%	4%	<b>15%</b>	<b>10%</b>	<b>8%</b>	2%
Digital currency platforms (e.g., Bitcoin, payment systems, etc.)	4%	2%	6%	7%	6%	5%

Source: KPMG Technology Innovation Survey 2015

Partial list of technologies shown





# ULTIMIUM

**CLOUD BASED BUSINESS MANAGEMENT**  
FUTURE OF A CONNECTED ECONOMY