Indonesia

Strengthening the National Broadband Plan to maximize the socioeconomic contribution of ICT: The Pentahelix Approach
Strengthening the National Broadband Plan to maximize the socioeconomic contribution of ICT: The Pentahelix Approach

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15th APT POLICY AND REGULATORY FORUM (PRF-15)
Singapore, 3 – 5 August 2015
Agenda

1. INDONESIA PROFILE
2. CALL FOR BROADBAND ACCELERATION
3. MAXIMIZING THE SOCIO-ECONOMIC IMPACT OF ICT
4. THE PENTA-HELIX APPROACH
5. CONCLUSION
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Indonesia

The world’s largest archipelago
- More than 17,500 islands
- Spanning the length of 3,977 miles
- Total area 1.9 million square miles

Scattered rural areas

Difficult landscape

Population*: 248.8 million

Economic Growth*: 5.8%
GDP/capita at current price*: IDR 36.5 million

34 provinces*
511 districts/city*
80,714 villages*

*2013
source: Indonesia Statistics Agency, 2014

Source: UNDP
The Archipelago Economy: Unleashing Indonesia’s Potential

**Indonesia today ...**

- 16th-largest economy in the world
- 45 million members of the consuming class
- 53% of the population in cities producing 74% of GDP
- 55 million skilled workers in the Indonesian economy
- $0.5 trillion market opportunity in consumer services, agriculture and fisheries, resources, and education

**... and in 2030**

- 7th-largest economy in the world
- 135 million members of the consuming class
- 71% of the population in cities producing 86% of GDP
- 113 million skilled workers needed
- $1.8 trillion market opportunity in consumer services, agriculture and fisheries, resources, and education

Source: McKinsey Global Institute, September 2012
FO backbone covers 72% of districts. FO systems in Maluku and Papua (the eastern part of Indonesia) will be ready for service in 2015.
Cellular BTS Coverage

2G and 3G BTS cover all provinces providing 90% coverage of cellular.

source: Kominfo, 2013
ICT Infrastructure Profile (contd)

% Household with Cellular (2013)
National: 86.09%

% Household with Computer (2013)
National: 15.62%
Warnet (internet cafe) was the main media to access the internet (57.16% in 2010).

With a high rate of mobile phone ownership, accessing internet now becomes more personal through cellular (68.76% in 2013).
Strategic Issues in Infrastructure
2015-2019

Water, Food, and Energy Resilience

National Connectivity

Urban Mass Transportation System

Basic Infrastructure

Infrastructure Funding
Call for Broadband Acceleration

**National Agenda**
- Article 28F of Constitution 1945
- Long-Term Development Plan 2005-2025 and Medium-Term Development Plan 2015-2019
- Economic Master Plan 2011-2025
- Connectivity, Competitiveness, and Economic Transformation

**International Commitment**
- MDG and WSIS
- ASEAN Masterplan on Connectivity
- Broadband Commission
- Connectivity and Broadband

**Global Trends**
- Globalization
- Shifting of Government’s Roles
- Technology Innovation
- Required Adjustment

Broadband as a driver in national development.
Need for a systematic, comprehensive, dan integrated broadband development plan
Presidential Decree Number 96 of 2014 on Indonesia Broadband Plan 2014-2019

Definition
- always-on internet connectivity with triple-play capability;
- resilient and secured information;
- 2 Mbps (fixed), 1 Mbps (mobile)

Objective
To give direction and guidance for acceleration of Indonesia broadband development in a comprehensive and integrated manner for the period of 2014-2019

Function
- A reference/guidance for ministries and local governments to prepare policies and action plans
- A reference for private sectors to invest

They are required to consult and coordinate with Minister of National Development Planning/Bappenas in doing so

Priority Sectors
2014 Targets, among others:
- FO backbone connects all big islands
- BB in 88% districts
- e-gov index: 3.0 out of 4.0

Long-term Vision 2025
Prosperous Indonesian society

2020 - 2025
TRANSFORM

- Providing broadband services to all districts, schools, and other public facilities;
- Strengthening government connectivity by improving government secured network and consolidating data center/warehouse;
- Promoting adoption and effective use of broadband
2013

Fixed Broadband: 15% HH (1Mbps) and 5% population;
Mobile Broadband: 12% population (512 kbps)

2019

Urban:
Fixed Broadband: 71% HH (20Mbps);
Mobile Broadband: 100% pop (1 Mbps)

Rural:
Fixed Broadband: 49% HH (10Mbps);
Mobile Broadband: 52% pop (1 Mbps)

Utilization:
- Broadband service price: max 5% of average monthly income
- Priority Sectors: e-Government; e-Education; e-Health; e-Logistic, e-Procurement

IBP Targets
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<td>Fixed (HH)</td>
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<td>Mobile</td>
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<tr>
<td>Fixed (HH)</td>
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<td>512 kbps</td>
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<td>1 Mbps</td>
<td>1 Mbps</td>
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<tr>
<td>Districts</td>
<td>75%</td>
<td>80%</td>
<td>85%</td>
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The Challenges:
Sosio-Economic Impact of ICT

### Indonesia ranks in the middle on most key ICT metrics.

<table>
<thead>
<tr>
<th>Country</th>
<th>Network-readiness score</th>
<th>Infrastructure and digital content</th>
<th>Affordability</th>
<th>Skills</th>
<th>Individual usage</th>
<th>Business usage</th>
<th>Government usage</th>
<th>Economic impact</th>
<th>Social impact</th>
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<tr>
<td>Singapore</td>
<td>2</td>
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<td>Vietnam</td>
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<td>88</td>
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<td>96</td>
</tr>
</tbody>
</table>

^12014 rank is out of 148 countries.
^22013 rank is out of 144 countries.

Maximizing the Socio-economic Impact of ICT

DEVELOPING A VIBRANT ICT ECOSYSTEM IN INDONESIA:
1. Develop a national ICT agenda and road map linked to Indonesia’s economic and social-development priorities
2. Work with the ICT industry to resolve major infrastructure bottlenecks and improve reach, cost, and bandwidth
3. Address the ICT digital divide between urban and rural areas with more tailored policies and alternative supply models
4. Ensure the regulatory environment can address effectively a constantly changing ICT sector

USING ICT TO FOSTER ACCELERATED, EQUITABLE ECONOMIC GROWTH:
1. Develop upstream and downstream ICT industries
2. Increase supply of skilled ICT workforce
3. Encourage ICT adoption by small and medium-size businesses
4. Use ICT to support priority sectors

USING ICT TO ENABLE SUSTAINABLE SOCIAL DEVELOPMENT:
1. Use ICT to improve citizen services
2. Improve the quality and efficiency of public service

The Strategy Map: Transforming Vision into Action

1. **BROADBAND INFRA-STRUCTURE DEVELOPMENT**
   - To endorse the ICT infrastructure to support Indonesia Broadband Plan & Digital Divide/Digitalization

2. **BROADBAND SUPRA-STRUCTURE DEVELOPMENT**
   - To endorse a skillful ICT Human Capital Development, enable policies, harmonize legislation and Convergence Regulation and establish Cyber Security & Governance

3. **NATIONAL ICT ECOSYSTEM DEVELOPMENT**
   - To endorse National ICT Ecosystem Development (Device, Network, Application/Content) through resource synergy, efficiency and local development

4. **Economic Transformation**
   - Using ICT to foster accelerated and equitable economic growth
     - Selected Priorities:
       - Upstream & Downstream Industry
       - ICT Adoption for SMEs
       - E-Financial Services

5. **Sustainable Social Development**
   - Enhance quality of life through affordable and equitable ICT
     - Selected Priorities:
       - E-Government
       - E-Healthcare
       - E-Education
       - E-KTP/KIS/KIP
       - E-Budgeting
       - E-Procurement
       - E-Services
       - Government Public Relation

6. **National Development**
   - Supporting national development priorities to contribute significant benefit for peoples and the Republic of Indonesia
     - Selected Priorities:
       - Infrastructure
       - Food Sovereignty
       - Energy
       - Maritime
       - Tourism & Creative Industry
       - HR Development
       - National Border

Connect • Innovate • Transform
The Penta-Helix Approach

1. REGULATORY AUTHORITY
   (Inter-department Implementation)

2. GOVERNMENT
   (Inter-department Implementation)

3. BUSINESS
   (ICT Industry)

4. COMMUNITY
   (ICT Communities Empowerment)

5. ACADEMIC
   (Research & Development, Technopark, Digital Valley)

A-B-G-C + R
Conclusion

1. Broadband Network/Infrastructure is very important and critical for the country, but the people expect more into the socio-economic impact.

2. To have socio-economic impact successfully, we need to strengthening the broadband foundation (infrastructure, supra-structure, national ecosystem) to support the economic transformation, sustainable social development and national development priorities through the multi-stakeholder participation.

3. The Penta-Helix Model (Academic-Business-Government-Community + Regulatory/ABCG+R) is strongly recommended to increasing the sense of urgency as well as to accelerate the national broadband implementation.
Twenty years from now you will be more disappointed by the things you didn't do than by the ones you did do. So sail away from the safe harbour. Catch the trade winds in your sails. Explore. Dream. Discover.

- Mark Twain
2 The Drivers #1: Demography Bonus

The Drivers #1: Demography Bonus

Lower Dependency Ratio → Higher productive age proportion → Higher economy productivity

Source: Economy Minister, 2010

"The Demography Bonus"
The Drivers #2 : Rise of Middle Class

The welfare of the people of Indonesia will increase rapidly in the next 8 years. It was predicted that in 2020 middle class people will increase to 250%. (Source: BCG, 2013)
The Drivers #3: Immersion of Digital lifestyle

- **Watch Youtube or read e-book**
- **Check News, Online game using WiFi**
- **Travelling to home, receive phone call on cellular or Skype**
- **Coffee Break, retrieve file from Cloud**
- **Wake-Up, take a bath, get dressed**
- **Breakfast, read online news. Powered by home broadband**
- **Travelling to campus/office while browsing through Mobile Broadband**
- **Lunch with friends, update Facebook and chatting via BBM**
- **Start campus/office activity powered by LAN**

Source: Markplus research, 2013