



Philippines' Satellite Market and Technology Trends, Industry Opportunities

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The DOST – ICTO

REPUBLIC OF THE PHILIPPINES



INFORMATION AND COMMUNICATIONS TECHNOLOGY OFFICE
DEPARTMENT OF SCIENCE AND TECHNOLOGY

- Attached agency of the Department of Science & Technology;
- Created June 2011 integrating the Commission on ICT (CICT), National Computer Center (NCC), and the Telecommunications Office (TELOF);
- Recently re-organized with 5 Core Services and 8 Field Operations Offices (FOO);
- Philippine Focal Point for the ITU

PRIORITY AREAS



E-SOCIETY

Infusion of ICT into all areas and levels of Philippine society to derive the maximum benefits that will drive socioeconomic development



E-GOVERNMENT

Catalyze the optimum use of ICT in government to expand and improve government services, operations and capabilities



E-BUSINESS

Ensure the growth of ICT and ICT-enabled industries through public-private partnerships (PPPs) with the industry, academe and civil society, and through close collaboration with partners in government.



CYBER SECURITY

Ensure the security of Philippine cyberspace, particularly that of government ICT resources through collaboration with public, private and international partner

PHILIPPINE ICT SITUATION



55.42%
cities and municipalities have broadband access (fixed or wireless) which is more often than not limited to the immediate vicinity of a municipality's center.

37% Internet User (over 39 M)

22.9% Household Internet

18.7% Households with computer

| | Primary | Secondary | Total |
|--|-------------------|-------------------|-------------------|
| No. of Schools | 38,683 | 7,915 | 46,598 |
| No. of Schools w/ Internet Connection | 5,503 (14.23%) | 4,360 (55.09%) | 8,939 (19.18%) |

Source: DepEd

Mobile Connectivity (2014):

109 million mobile phone subscriptions

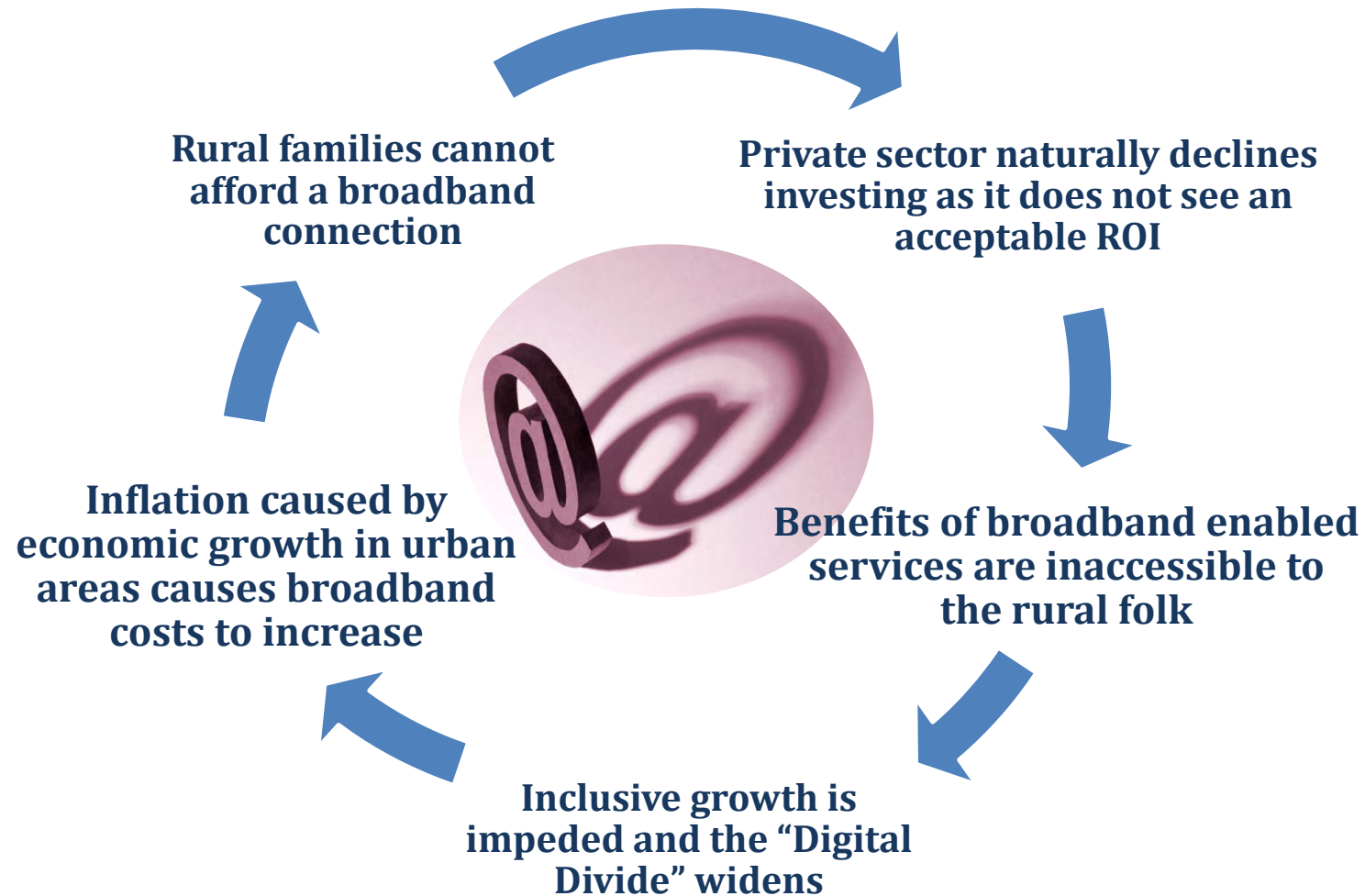
87.2% household mobile phone penetration

70.3% of total telecom revenues

| | Total PHL | % of Total TV HH |
|----------------------------|---------------|------------------|
| TV Households (HH) | 17.3M | |
| <i>TV HH with Cable TV</i> | 3.11M | 18% |
| <i>TV HH without CATV</i> | 14.19M | 82% |

Sources: National Media Landscape Study 2010
ABC5, ABS-CBN and GMA7 2011 Data

PHL Broadband Scenario



We See: Service Solution / Satellite Applications

Satellite Broadband (backhaul) particularly in the countryside:

- School Connectivity (distance learning, cloud top, etc....)
- Rural Health Units (Tele-medicine, eHealth, etc....)
- Local Government Units (governance, eGovernment, etc....)
- Community eCenters (CeCs)
- Sensors, M2M
- Public WiFi

Disaster Response/Resilience:

- Government Emergency Communications System
- ICT for Disaster Risk Reduction and Management

Satellite Television:

- Direct-To-Home Broadcasting

Research and Development:

- E.g. land-use (forest, agriculture/crop), aquatic resource assessment and monitoring, among others

Proven Solution during Disaster Response

After Typhoon Haiyan (all major communications were down)

- Deployed satellite communications (hybrid with TVWS technologies as last mile)



Solar-powered VSAT
and where the TVWS
base station was
located



Remote sites extending connectivity to
evacuation areas, schools via TVWS
technologies

Philippines' Satellite Coordination Process

Department Circular 97-01 Guidelines on the Procurement of Orbital Slots and Frequency Registration of Philippine Satellite(s)

REPUBLIC OF THE PHILIPPINES



INFORMATION AND COMMUNICATIONS TECHNOLOGY OFFICE
DEPARTMENT OF SCIENCE AND TECHNOLOGY

Administration regarding
Space Segment Coordination



Administration regarding
Earth Station regulation

Implementing Guidelines on
International Satellite Communications

Implementing Guidelines on the Domestic
Satellite Communications Policy

RECENT & CURRENT ACTIVITIES

→ ITU RRS-15-ASIA-PACIFIC

- Hosted the Regional Radiocommunication Seminar 2015 and Workshop on Satellite Coordination for Asia-Pacific (RRS-15-Asia) on May 25-30, 2015

→ Our intention to launch PHL-owned Satellites

- Study to create dedicated government agency for space/satellite technologies
- On-going feasibility studies in collaborations with different satellite operators/providers
- Continuing capability building on satellite system in close collaboration with the ITU

FIRST PHL-MICROSAT (ON GOING PROCESS)

→ Proponent

- Government: Department of Science and Technology – Advance Science Technology Institute

→ Applications

- Resource assessment, forestry, carbon management, agriculture, fisheries and aquaculture, disaster risk management, resource planning, climatology, air pollution, geography and landslide monitoring, maritime safety

→ Target Launching

- First Quarter 2016

Thank you...

