NEW, INNOVATIVE UNIVERSAL SERVICE PROVISION (USP) PROJECTS IN MALAYSIA

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Strategy & Policy Review, MCMC

ITU-USF (Pakistan) Workshop on “Internet Access and Adoption”
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COMMUNICATIONS & MULTIMEDIA OUTLOOK

32.4 million***
Population Nationwide

24.5 million **
Internet Users Nationwide
(76.9% of total population)

134% *
Mobile Cellular Penetration per 100 inhabitants

44.1 million *
Mobile Cellular Subscriptions

8.8 million *
Broadband Subscriptions

115.9% *
Broadband Penetration per 100 inhabitants

Source:
Malaysian Communications and Multimedia Commission
* Communications and Multimedia: Facts and Figures, 2Q 2018
** MCMC Internet Users Survey 2017, data as at 2016
*** Department of Statistics Malaysia
INTRODUCTION

USP is a mechanism to **bridge the digital divide**

- **Haves**
  - National obligation imposed on all licensees since 2002
  - Main objective to ensure underserved communities have access to communications and ICT facilities to build a knowledge society

- **Have-Nots**
  - Implementation of USP programme is funded through USP Fund
**UNIVERSAL SERVICE TARGET**

<table>
<thead>
<tr>
<th>Underserved Area</th>
<th>Underserved Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Broadband Access</strong></td>
<td>People with Disabilities</td>
</tr>
<tr>
<td>Any area where the penetration rate for broadband subscribers in Malaysia is below the national broadband penetration rate</td>
<td>Children under Protection</td>
</tr>
<tr>
<td><strong>Public Cellular</strong></td>
<td>Women under Rehabilitation</td>
</tr>
<tr>
<td>Any area with a population density of 80 persons per square kilometer or less, or where public cellular services are not sufficiently available</td>
<td>People living in low-cost housing area</td>
</tr>
<tr>
<td><strong>PSTN</strong></td>
<td></td>
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<tr>
<td>Any area where the PSTN subscribers’ penetration rate is 20% below that of national PSTN penetration rate</td>
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“**Underserved Area**” is defined from the perspectives of network and application services i.e. PSTN, Broadband Access & Public Cellular

“**Underserved Groups**” being groups of people in served areas that do not have collective and/or individual access to basic communications services

USP Regulations 2002 & (Amendment) 2008
USP FUND

• Established under Section 204 of the Communications and Multimedia Act (CMA) 1998

• All licensees whose weighted net revenue (from designated services) exceeds the minimum revenue threshold of RM2 million in a calendar year shall contribute 6% of their weighted net revenue to the USP Fund.

• Content Applications Services Provider (CASP) licensees are exempted

\[
\text{Contribution Amount} = \text{Weighted Net Revenue} \times \text{Contribution Rate}
\]
USP ROLLOUT MECHANISM

1. Open bidding/tender
   - All licensees
   - Submission of draft plans upon issuance of tender notice

2. Major Contributor scheme
   - Licensees' contribution to USP Fund exceeds RM20mil
   - Submission of draft plans before 30 September each year
EVOLUTION OF USP PROJECTS

- **2003**
  - Public payphone

- **2007**
  - Internet center
  - Community library

- **2009**
  - WiFi
  - Netbook
  - Mini internet centers

- **2010**
  - Tower

- **2014**
  - Tower
  - Fiberisation
  - 3G Expansion
  - LTE (850 MHz)
  - Smart Device with internet package

- **2015**
  - Rural BB
  - Suburban BB
  - Submarine cable

TELEPHONY

COMMUNITY BROADBAND CENTER

CELLULAR COVERAGE EXPANSION

BROADBAND

MOBILE BROADBAND

FIXED BROADBAND
ROLES & FUNCTIONS OF INTERNET CENTERS

**Change Agent**
Contribute towards community development, improving skills and employability, empower individuals

**Collaborative & Community Engagement Center**
Platform for advocacy and the development of a stronger ecosystem connecting leaders, stakeholders and community

**Learning Center**
A centre of lifelong learning and capacity development, activities for the communities to seek formal and informal knowledge

**Knowledge Repository Centre**
Acts as a repository of knowledge/content with various success stories, failures and lessons learned from the field.

**Center for Creative Innovation**
Entrepreneurship, creativity and innovation hubs for socio-economic development and local content development

**Center for Business & E-Commerce**
A hub for online marketing and business activities and support for e-government, e-commerce, employment opportunities, online banking, etc.

**GOVERNMENT SECTOR**

**ACADEMIC SECTOR**

**COMMUNICATIONS & MULTIMEDIA SECTOR**

**NGO/PRIVATE SECTOR**
FACILITIES & SERVICES OFFERED

OPERATING HOURS

Peninsular Malaysia

East Malaysia

SERVICES OFFERED

Internet Access
(min 8Mbps)

* Free internet access for members, i.e., students, persons with disabilities, the elderly

Free WiFi Access

Fax, Laminating, photocopying services (minimal charges)

Free Training
(ICT/IOT related, softskills & entrepreneurship modules)

20 PCs
(10 surfing area & 10 training room)

Other services offered *

* varies between Internet Centers
TYPES OF INTERNET CENTER

INTERNET CENTER
- Mostly located in rural and remote areas
- Provide broadband access up to 20Mbps at selected premises in underserved areas and for underserved groups
- Dedicated 2 supervisors
- Operation 7 days a week

MINI INTERNET CENTER
- For smaller communities, has smaller built-up area
- Provision of broadband access up to 20Mbps
- Dedicated 1 supervisor
- Operation 5 days a week
- Full facilities with 10 PCs

INTERNET CENTER
- Target group - Low cost housing areas

Figures as of Mar 2018
SMART COMMUNITY - Kota Belud, Sabah

- Smart Community committee established in 2015
- Objective is to raise the living standard, economy and communications facilities of Kota Belud
- Chaired by local district officer, members include various local departments, agencies and MCMC

Next Generation Internet Center:
- Weather monitoring & water level sensors
- Water sensors installed at a few rivers identified as flood hotspots
- 12 CCTV monitors installed around Kota Belud town connected to the police command centre
- Early warning system for local authorities and community in case of danger

### SAIFON Apps and website

<table>
<thead>
<tr>
<th>No. of downloads</th>
<th>SAIFON App</th>
<th>SAIFON Website</th>
<th><a href="http://www.saifon.my/">http://www.saifon.my/</a></th>
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<tbody>
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<td></td>
<td></td>
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<tr>
<td>190</td>
<td></td>
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Security And Integrated Flood Operation Network (S.A.I.F.O.N)

1. Water Level Sensor System

    Type 1: New Pole CCTV
    Type 2: Wall-Mounted CCTV
    Type 3: Lamp Post CCTV

    - Monitor the current affected location
    - Provide newsfeed for the media residence & agencies

2. Security Surveillance (CCTV)

    Installed Locations
    1. Sg. Kedamaian, Kg. Piasau
    2. Sg. Tempasuk, Kg. Bobot
    3. Sg. Abai, Kg. Sembirai

    Advantages
    1. Does not require manual controls
    2. Indicate early warning signs
    3. Provide information for agencies

    Indicators
    Caution, Warning, Danger

    Locations:
    1. Kota Belud public grounds
    2. TAMU market
    3. Pasar Besar (main market)
    4. Tabung Haji building
    5. Padang Kota Belud
    6. Public Bank
    7. Agro Bank
    8. Multi-purpose hall
    9. Public toilet
    10. Masjid Pekan
    11. Bus terminal
    12. Bukit Perintah (hill station)
 SMART COMMUNITY – Kemaman, Terengganu

- Population 256,000
- Area 2,535 sq km
- Economy: Oil & gas, fishery, government, agriculture

Next Generation Internet Center:

- Flood management system – an integrated system that enables the authorities to monitor floods at all times
- Project led by district officer, local assemblyman & other local community leaders

![Command center equipped with wide area CCTV monitoring](image)

![Web tool – flood forecasting](image)

Severe flooding in Kemaman
A catalyst for change in rural communities

- Authorised agent for BSN
- Opening of BSN accounts
- Savings transactions
- Cash withdrawals
- Bill payments
- Prepaid reloads
- Premium savings certificates

- Pilot initiative - Kampung by GDex
- Collaboration between MCMC, GDex and Internet Center USP providers
- Appointed 15 Internet Centers as courier agents in March 2018
- Centers located along existing routes
- Most popular product is parcel below 1 kg

- Strategic partnership with MCMC since 2016
- 36 pilot sites, target 100 by 2020
- Provide value added services, eg., sell prepaid envelopes and boxes, registered mail and stamps
- Acceptance counter for Pos courier delivery, ordinary mail and registered mail and call point for delivery service
BANKING, E-COMMERCE & FULFILMENT CENTER: OUTCOMES HAVE BEEN ENCOURAGING

- Service has been very well received by the local communities
- Internet Centers have become profitable from providing this service
- An indication of pent up demand for banking facilities in rural areas
- Possibilities for the future

- Not all pilot sites have done well but GDex is planning some improvements
- MCMC has given approval to start phase 2 but with different model
- Internet Centers will be equipped with mobile application GDEX GO which will allow customers to do all transactions online
- Customers can drop off parcels at the 50 Internet Centers for collection by the courier

- Not all pilot sites have done well, but Pos Malaysia is planning some improvements
- Sites that do not have any transactions will be transferred to other Internet Centers which have better potential
- For Phase 2, the focus would be on East Malaysia states under the Postal Transformation Plan for Sabah & Sarawak (PTPSS)
**E-HEALTH INITIATIVES**

First pilot project was conducted in 2013

- Objective: to develop an integrated ecosystem for delivery of healthcare services to rural communities through Internet Centers

- Remote patient monitoring at 12 Internet Centers

- Collaborated with a private healthcare provider

- Devices were placed at the Internet Centers to check body weight, blood pressure, glucose, bone mineral density

- Conducted promotion and awareness campaigns at surrounding communities

- Results were entered into an online portal and reviewed by a doctor before making recommendation to go to a clinic
E-HEALTH PILOT WITH MOH

- This is second pilot project
- In 2016, MOH initiated the collaborated with MCMC on KOSPEN project, whereby MCMC is the ICT partner
- MOH aims to empower rural Malaysians and promote patient independence
- Reduce costs and increase efficiency of healthcare system

Advantages of using Internet Centers:
- Basic health indicators (blood pressure, glucose, BMI) can be easily screened
- 32.8% Malaysian Internet users are from rural areas¹
- Ideal for outreach programs and as a 1st screening point
- Eases the long queue and burden on doctors at government clinics
- Generates traffic at Internet Centers

Results after 6 months:
- 5,401 new users
- 3,361 (62%) did health screening
- 2,948 referred to clinics for further check-up

Source: ¹ MCMC Internet Survey 2017
**BENEFITS OF MCMC-KOSPEN COLLABORATION**

- It allows KOSPEN to modernize their health screening processes by using ICT at Internet Centers
- It is in line with MOH’s strategic plan to create a health ecosystem geared towards promoting healthy lifestyles and disease prevention

<table>
<thead>
<tr>
<th>Pre-Collaboration</th>
<th>Collaboration</th>
</tr>
</thead>
</table>
| **Search & Screen** | **Clinical Concept**  
KOSPEN volunteers had to “venture” to rural areas to conduct screening  
Dedicated eHealth Corner set up at each Internet Center allows health screening access to rural people |
| **Health Book** | **MyHealth Portal**  
Users have to safely secure and bring health record for screening  
Users are able to keep track of all readings via dedicated app/portal |
| **Manual** | **Automatic**  
KOSPEN volunteers had to manually handwrite screening results into logbook and mail it to MOH  
Data are automatically entered via tablet and uploaded to PI database (increase efficiency) |

1) More Efficient Health Screening  
2) Digitalized Health Records  
3) “Smarter” Data Input
QUESTIONS FOR THE FUTURE DIRECTION OF E-HEALTH INITIATIVE

• MOH is keen to expand the project beyond 26 pilot sites
• MCMC also wants to expand to 5 new states
• Currently evaluating:
  o franchise requirements
  o success factors before finalizing the locations and Internet Centers
• Possibilities of having a standardized, nationwide Dashboard, use of Big Data for detection of health issues and hotspots
• MCMC will have to study policy and guidelines on privacy, use of the data collected, etc.
ONLINE RADIO AMATEUR EXAMINATION

- Radio Amateur examinations (RAE) are held every month
- In specific locations such as hotels & public halls
- With the e-RAE system, the exams are conducted online and there is no need to go to a specific location
- Pilot in 2016 at 14 Internet Centers
- Maximum of 10 persons due limited classroom capacity
- From 2019, it will be available at all Internet Centers nationwide due to usage of the cloud system
- Results will be available immediately & printable on-site
- Overall results will be pushed back to the server in MCMC for record purposes
CYBER WELLNESS: INTERNET SAFETY IS A MAJOR CONCERN

Internet content complaints received by MCMC is on an increasing trend
- Figures as at June 2018 are already over 50% of those received in 2017

With increased accessibility of the Internet, more will be exposed to risks of harm
- MCMC Internet User Survey (2017) 76.9% internet users and growing; increasing e-commerce trend (48.8% up from 35.3% previous year).
- 64.6% do not shop online due to security & privacy concerns;
- Low levels of awareness on personal safety online – 92.2% of Internet users disclosed that they have shared personal information online (photo, DOB, contact info, workplace, home)

Exposure to inappropriate content have occurred as early as 10 years old
- MCMC Focus Group Study (2015) found 75% children surveyed have seen inappropriate material online;
- 64.4% of parents do not have rules for internet use
NATIONAL ACTION PLAN ON CHILD ONLINE PROTECTION (COP)

• Under the Ministry of Women, Family and Community Development

• Objective is to ensure all children receive protection from cyber threats

• This action plan requires the cooperation and commitment of all parties, especially parents, guardians, teachers, the community and NGOs

• MCMC is involved in advocacy & preventive measures in the action plan

**ACTION PLAN - STRATEGY**

- **ADVOCACY**
  - Education and awareness
  - Provision of self-filtering tools by ISPs

- **PREVENTION**
  - Website redirection
  - Training of trainers

- **INTERVENTION**
  - Training of Investigation Officers
  - Engagement with stakeholders

- **SUPPORT SERVICES**
  - Recovery support
  - Policy review
MCMC AS A CYBER WELLNESS PROVIDER

1. Availability of educational and promotional materials
2. Clear & focused messages via multiple media platforms
3. Engaging audiences through ground activities
4. Platform for sharing ICT knowledge & skills

**CREATING DIGITAL & MEDIA LITERATE CITIZENS**

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**2018 and beyond**

**Managing online risks**
- Users need to know how to make the right choices online and to equip themselves with the relevant knowledge & skills.

**Building resilience**
- Children need guidance from parents to maneuver the internet in a safe manner. Parents need to be provided with tools and knowledge that can help them carry out their responsibilities.

**Digital Empowerment through volunteerism**
- Platform for organising & mobilizing the resources of volunteers to assist in improving the levels of media and digital literacy among the public.
EVOLUTION OF CYBER WELLNESS CAMPAIGNS

1 July 2012 – Launch of “Klik Dengan Bijak” or “Click Wisely” Initiative

2017/2018 Adults (Ages 21 & above)

FALSE INFORMATION
SELF REGULATION
ONLINE IDENTITY
LEGAL AWARENESS
TRAINING AND ENTREPRENEURSHIP INITIATIVES

Number of members 550,335

<table>
<thead>
<tr>
<th>Number of people trained</th>
<th>2017</th>
<th>2018 (Jan – Aug)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>280,413</td>
<td>151,090</td>
</tr>
<tr>
<td>Female</td>
<td>317,293</td>
<td>183,363</td>
</tr>
<tr>
<td>Total</td>
<td>597,706</td>
<td>334,453</td>
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</tbody>
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Types of Courses
- MS Office
- E-Learning
- Digital Literacy
- E-Commerce
- ICT
- Website building
- Entrepreneurship
- Multimedia
- Soft skills
- PC Hardware

STUDENT
Azrul Hafiz Khairulanuar – Sungkai, Perak

- Diagnosed with ADHD
- Had difficulty communicating
- Now - Learnt to pronounce words properly especially English through YouTube. Built confidence to speak. Improved focus, attention and concentration at school (as related by the school teacher)
## WINNERS FOR INTERNET CENTRE BEST ENTREPRENEURS 2017

### Best Entrepreneur from Northern Region

**Name:** Nur Isma Afifi Binti Md Aris  
**Product:** Stingless Bee Honey  
Online marketing generates sales opportunities for honey-based products.  
Sales increase from RM2,000 to RM10,000. Sold to Brunei, Indonesia and Thailand.

### Best Entrepreneur from Sabah Region

**Name:** Erly binti Dusun  
**Product:** Tuhau based food  
Online marketing technique helps to increase monthly sales from RM80 to RM3,000.

### Best Entrepreneur from Sarawak Region

**Name:** Zulkipli Bin Ibrahim  
**Product:** Perfume  
Leveraged on ICT and online marketing strategy, sales increased from RM1,000 to RM7,000 per month. Sold to Brunei, UK and Australia.
CHALLENGES GOING FORWARD

- **Sustainability: funding the operations; maintaining the resources**
  - Cooperative model to fund the operations;
  - Rewards for long service supervisors

- **Program enrichment: STEM, IR 4.0**
  - Collaboration with schools and private sectors

- **Inclusive: Participation of rural and remote communities**
  - Reaching out to the target communities

- **Project award: implementation mechanisms**
  - Implementation policy/mechanism to be reviewed
OTHER USP INITIATIVES
2003

TELEPHONY
First USP Project
Provide access to basic telephony service in underserved communities throughout the country

1,252 payphones installed

Pilot Project – Julau, Sarawak

Figures as at Mar 2018
COMMUNITY INTERNET CENTER
Provision of broadband access up to 20Mbps at selected premises in underserved areas and for underserved groups

852 sites completed

2007

2014 URBAN INTERNET CENTER
2015 MINI INTERNET CENTERS & NEXTGEN CENTERS

Figures as of Mar 2018
Rolling out new communication towers and upgrading existing towers to improve 3G coverage in underserved areas nationwide.

5,811 sites completed
WIFI HOTSPOTS

Provision of collective wireless internet access (hotspots) at selected locations in underserved areas

2,535 sites completed

Figures as of Mar 2018
From 2013 - Hub & Spoke Concept

Internet Center

Internet Speed
4Mbps

Internet Speed
8Mbps

Internet Speed
4Mbps

Internet Speed
4Mbps

Location:
- Highly frequented area
- Densely populated
- Easily accessible

Hub & Spoke Distance: 3km

WiFi Coverage: 250m
NETBOOK PROJECT

Provision of netbooks to underprivileged students from low-income families and Teacher Activity Centres (PKG) for the purpose of information technology education

1,668,772 units distributed

Figures as at Mar 2018
FIBER OPTIC NETWORK EXPANSION

Upgrading of existing backhaul network to fiber optic to accommodate high-speed mobile services

759 kilometres completed

Figures as at Mar 2018
SMART DEVICE WITH INTERNET PACKAGE

Offers smart devices such as smartphones or tablets at lower prices compared to recommended retail price

2,437,300 units activated

Figures as of Mar 2018
FIXED LINE BROADBAND EXPANSION

Provision of broadband infrastructure with speeds of up to 20Mbps in rural and suburban areas

421,024 connections available

Figures as of Mar 2018
SKR1M SUBMARINE CABLE SYSTEM
Installation of submarine fibre optic cables (est. total distance of 3,800km) that will connect Peninsular Malaysia to Sabah and Sarawak with 4Tbps capacity.

3,819 kilometers completed

Figures as of Mar 2018
Thank you

Email: hclong[at]mcmc.gov.my