Abstract: - Malaysia, in its effort to achieve its Vision 2020, launched a National Broadband Pelan (NBP) in 2004; subsequently Broadband Implementation Plan was formulated in 2007 as an effort and strategy by the government to provide and upgrade the ICT infrastructure and broadband facilities throughout Malaysia. The initiative to bridge digital divide is encapsulated in two strategic foundations of the National Mission which are: 1) Strategic foundation 1.2 whose purpose is to increase the effort to bridge digital divide effort; 2) Strategic foundation 3.7 whose purpose is to increase the development of underserved states by providing economic opportunity and upgrading the infrastructure, social facilities and basic necessities. As at the heart of these is the need to educate its citizen and to instill socio-economic competitiveness, the government sets a target for the broadband penetration for each household at 50% by the end of 2010. This means one telecenter per district has been set as a target and the main focus is ICT literacy. Therefore, the paper discusses the roles of government initiated telecenters in Malaysia in an effort to bridge digital divide by focusing on the education aspects of telecenters.

Key-Words: - Broadband Implementation Plan, Bridging Digital Divide, ICT Infrastructure, Telecenters, Education, Broadband Penetration

1 Introduction
Malaysia is moving really fast towards becoming a digital nation. One of the reasons for this is due to the commitment made by the government and its people in achieving the National Vision, commonly known as Vision 2020. This vision has to be understood from its historical context, as it is quintessentially the idea of Mahathir Muhammad, Malaysia’s longest serving premier and a known critic of globalization. However, his critical perspective is from an advocate of globalization. This explains why Malaysia, in its effort to achieve its Vision 2020, launched a National Broadband Plan (NBP) in 2004; and subsequently Broadband Implementation Plan was formulated in 2007 as a strategy by the government to provide and upgrade the ICT infrastructure and broadband facilities throughout Malaysia. This is an effort by the government to bridge digital divide among the communities in Malaysia. At the heart of this strategy is education for all.

2 Problem Statement
In bridging the omnipresent digital divide in Malaysia, several steps have been taken to ensure that this gap is eventually bridged. The efforts thus far concentrate on the development of the physical infrastructure such as building telecenters that can be used by the public to learn and eventually access the Internet. Telecenters, have to be said, are successful at acting as the Contact Access Point, which allows users to access the World Wide Web. According to the study done by the Ministry of Energy, Water and Communications, or now known as The Ministry of Energy, Green Energy and Water, the development of telecenters is necessary due to some problems such as:

1. Access constraint due to area and coverage factor
2. Financial constraint to own a computer and subscribe to the Internet
3. Low basic computer literacy
4. Low English Language proficiency

In addition, studies that are carried out in Malaysia have shown that telecenters have been focusing so much on introducing the Internet that they, to a certain extent, have failed to foreground the importance of education. Despite the fact that telecenters have been used as a training center, they are still seen as a place where children, teenagers and youth can access government’s websites and games only. This kind of attitude and
perception towards internet technology is supported by a study done on college residence in America that concludes that “most of them (the subjects) did relate that the amount of time they used their computers for academic purposes was considerably less than the time spent on nonacademic activities” [1].

This misconception is also due to lack of local content and as English is only the second language in the country, rural and underserved communities find it very difficult to comprehend the sea of information in the Internet as it is prominent in English. Therefore, the paper discusses the roles of government initiated telecenters in Malaysia in an effort to bridge digital divide by focusing on their education aspects.

2.1 Plans and Strategies

The initiative to bridge digital divide is encapsulated in two strategic foundations of the National Mission which are: 1) Strategic foundation 1.2 whose purpose is to increase the effort to bridge digital divide effort; 2) Strategic foundation 3.7 whose purpose is to increase the development of underserved states within Malaysia by providing economic opportunity and upgrading the infrastructure, social facilities and basic necessities. As at the heart of these is the need to educate its citizen and to instill socio-economic competitiveness, the government sets a target for the broadband penetration for each household at 50% by the end of 2010. One way to achieve this is by developing more telecenters, which can be accessed by the community at a very minimal cost. In achieving this target, one telecenter has been set up per district and the main focus is ICT literacy. These telecenters are built by different government agencies. Naturally, these different agencies have different purposes and agendas; however, their core business remains the same, that is, to provide internet service to rural, remote and underserved communities.

The agenda to bridge digital divide, which is included in the National vision of the Eighth and Ninth Malaysian Plan, which is basically an economic plan, is further strengthened by various policies and framework. These include:

1. National Information Technology Agenda
2. National Policy for Communication and Multimedia Industry
3. Master Plan for Knowledge-based Economy
4. National Strategic Plan – Bridging Digital Divide
5. National Broadband Plan and National Broadband Implementation Plan

As can be seen, Knowledge-based economy is central to the government’s agenda especially in managing globalization. In managing the free market, which Malaysia is a part of, it has to rely on what Charles Leadbeater argues are the driving force in modern economy, which are “finance, knowledge and social capital” [2].

This is further evident in the model introduced by Malaysian government. In making telecenters in Malaysia a multipurpose center that focuses on the education of the people, Malaysian government has introduced a model for a Rural Internet Center (better known with the Malay acronym PID). The model is shown below:

![RIC/PID's Model includes Management of Knowledge (Pembelajaran)](image)

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society [...] the basis for this assertion is that the production of information values and not material values will be the driving force behind the formation and development of society” [3]. Indeed, the shift in emphasis has begun to take place in Malaysia.

2.2 Content Development

The increase in broadband access especially in rural and remote areas will help to boost the country’s competitiveness as well as its social and economic abilities. Therefore, it is the government’s inspiration to see the expansion of broadband services to be implemented at a larger scale all over Malaysia. The development and content production as well as application are necessary to spur the growth of broadband.

A more steadfast effort has to focus not only on e-Government and e-Commerce applications but also on e-Learning so that more content and application can be developed which would benefit especially underserved communities. Unfortunately, what is lacking at this present moment is local content that is written in the National Language, Bahasa Malaysia. The needs for local content have been properly addressed by different agencies, and they have come up with their own websites that can be accessed by the communities.

Under the 9th Malaysian Plan, RM150 millions were allocated to develop content industry, and Malaysian Multimedia and Communication Commissions (SKMM) has allocation worth RM20 millions for the same purpose. The initiative would further strengthen local content industry so that it will be able to capture both local and international market. The development of local content requires research on need analysis so that the digital content that is developed fulfils the information need and user’s service. The collaboration among content experts, ICT experts, and academicians is needed to produce quality digital content that is high in quality and suitable with local culture and features.

The second matter that needs to be taken into consideration in the development of digital content is the accessibility of the content especially for those in rural and remote areas. With broadband services in Telecenter and other Internet access centers, digital content that is developed can include multimedia element. The multimedia element will attract the attention of the users to access and appreciate the digital content.

The development of digital content should also reduce the use of media in a format that slows down the Internet access. Alternative off line media such as CD-ROM or periodic downloading at local server should also be introduced. The strategy can provide application that can be shared by users at a faster speed along with the broadband services provided.

3 Initiatives and Education Programs

Various services have been offered by Telecenter and some benefits identified are shown in Table 1. The services are to bridge digital divide through the democratization of information resources to enable some communities that had no opportunity to use ICT facility before to start using it at Telecenter.

Even though David F. Noble argues that education is different from training, as according to him, “training involves the honing of a person’s mind so that that mind can be used for the purposes of someone other than that person” [4], the terms are usually conflated and used interchangeably. Besides, training provided is a mirror of the education that will be received by the public. In addition to that, it can be argued that the training provided will germinate into more education. Therefore, this paper does not make any distinction between the meaning of training and education.

Table 1: Activity, Training, Service and the Benefit of Telecenter

<table>
<thead>
<tr>
<th>Activity/Training</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to computer</td>
<td>• Increasing the number of IT-literate and ICT-aware rural communities</td>
</tr>
<tr>
<td>Microsoft Office</td>
<td>• Bridging digital divide between rural and urban communities</td>
</tr>
<tr>
<td>Publisher</td>
<td>• Giving exposure to technological innovation as well as to encourage ICT to interact faster, easier and economical</td>
</tr>
<tr>
<td>Internet for communication</td>
<td>• Increasing ICT confidence among the communities</td>
</tr>
<tr>
<td>Blog writing and using digital camera</td>
<td></td>
</tr>
</tbody>
</table>
### SERVICES

- Access to the Internet
- Online transaction
- Services like typing, scanning, printing, and centralised data
- Preparing working paper/proposal
- Selling computer and computer accessory
- Repairing computer and formatting computer software and program software
- Making wedding card
- Local community web

### BENEFITS

- Enabling rural community to access various information via the internet facility provided
- Bridging mind gap between rural and urban communities via various online information
- Ensuring equal services that are affordable for rural communities
- Giving opportunity for rural communities to access the facility and services at affordable prices.
- Generating the economy of local communities via business activities.
- Ensuring rural communities are not left behind in obtaining the latest information

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3.1 Lifelong learning

1996 has been chosen by the European Union as “the year of lifelong learning”, which according to Henry McLoughlin, signals that “we are entering an era where the need for ongoing training” [5] becomes increasingly crucial. Therefore, in Malaysian case, long term planning needs to be done through unanimous agreement among organizations that train the trainers and Telecenter staff or ICT and PPIK centers to ensure the development of a steady curriculum in the appropriate duration for it to be implemented. Cooperative and collaborative approach can be used after all trainers have gone through the same coaching course as a way of building expertise network that can benefit all parties in a short period of time. The curriculum formed has to get the approval from the governing body. This is to ensure that the training given will include curriculum that can fulfil the requirement to achieve the objective and aim of the course. By doing this, certificate can be granted to participants who have successfully gone through the courses at the minimum standard required.

For the introductory course to computer for those who are just learning ICT, experimental or learning through experience approach can be done. ICT training that downloads application and example for daily activities such as cyber chatting, email correspondence, doing timetable, and building business webpage will attract people of different background to increase ICT literacy. The sharing of digital content that is developed by institutions of higher learning will help rural community to continue their studies either formally or informally. Telecenter becomes the connecting point for the members of the community to continue their education even though they are no longer in school or university. Short term courses that are widely offered by various agencies and external bodies can be accessed by Telecenter users.

Courses for Telecenter supervisors should lean towards their personal development and increase their ICT literacy level. Among them are courses or training on webpage, blog, graphic and multimedia courses such as Photoshop, Flash, Illustrator, Video Studio, Publisher and Print Shop. Besides that, courses on the use of video, digital camera, and digital audio-visual equipment, webcam and the latest digital gadget that can be beneficial for daily activities are important. Training provided should fulfil the certification criteria for achieving standard to ensure that trainings are useful in terms of economic and productivity, more comfortable life, and consistent knowledge acquisition. For that reason, the training can hopefully help the manager and Telecenter supervisor to manage their work more efficiently.

In addition to that, even though telecenters have been used by distance learners, the place is still
underutilized. The government hopes that one day telecenters can be used for e-learning as the influence of the Internet should not be underestimated in education. This is in line with Tony Bates’ observation when he compared the Internet and other technologies that “the Internet […] are different, both in scale and nature of their impact on education” [6].

4 Conclusion
There is no denying that all the initiatives implemented by the government has one common major role, that is, to increase the use and application of ICT among rural, remote and underserved communities. Broadband network provided at telecenters across this country can assist in the sharing and accessing the Net at a faster speed. The initiatives are to ensure that access to the Internet will not only help improving the socio-economic status of the communities but also providing equal opportunity to obtain education.

References: