

Indonesia:



APWKomitel: Future Community Warnet - MCI Center

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APWKomitel (Indonesian Association of Community Internet Center or Warnet)

Project Summary

The Vision of APWKomitel is the successful running of MCI (Multipurpose Community Internet) in Indonesia. A cyber café in Indonesia is called a Warung Internet (Warnet). Warnets are mostly SME (Small and Medium Enterprises) owned and entirely financed by the private sectors.

In Indonesia, 4,000 Warnets are responsible for 42 per cent of Internet access. Warnets are scattered in cities across the giant archipelago. Statistics say that until 2002, Indonesian Internet users were around 4.4 million, while Internet subscribers were only 500,000 - about 8.8 users sharing 1 Internet subscriber line.

Most of the Internet users share public Internet access facilities such as Warnets. Majority of the society in Indonesia cannot afford to buy PCs at home thus sharing public facilities becomes the only way to have access to the global Internet society.

The mission of the MCI Centers is to provide value-added services beyond ordinary Internet services, such as e-mail, chat, browsing to serve the community. It is strongly assumed that by providing value-added services, the MCI Centers will have sustainable and long-term effects compared to traditional cyber cafés.

Unlike many such initiatives across the world, where the approach is always top down - financing and facilitation usually coming from donors, governments, incumbents or a combination of these, the approach in the case of Indonesia's MCIs is unique and simple. By empowering existing SME and Warnet, which were already in place and operating in the market and society, it is a not top-down but a grassroots approach, from community to community.

Socio Economic Impacts

APWKomitel MCI Center (Warnet) provides a range of services, which can be classified as social, economic and commercial services.

Some of them are:

- Extending public Internet access to serve people with no computer or Internet access at home;
- Providing value-addition to small and medium businesses in the community, strengthening the economy by creating employment and business opportunities;
- With the support of the Ministry of Industry and Trade, setting up of Warsi (Warung Informasi or Information Center) near small traditional industry clusters;
- Providing Internet access and literacy to the small businesses in the community and cluster;
- Promoting the products and services beyond local and traditional markets, to global and national reach;
- With Open University and OSOL, programs to promote the use of IT as a tool for education;
- Providing tourists, travelers and commuters with Internet access.

Sustainability Model

Since the grassroots approach is using Warnets that are already in operation in the market, the need to enhance these Warnets using MCI Centers is very crucial. Warnet Association (APWKomitel) internally will provide the platform for collaboration among members. Externally, it will facilitate communication with the Government and players in the telecommunication supply chain as per institutional framework. The MCI Center is simply providing multipurpose value-added Internet services to the community. Previously, with any traditional cyber café or Warnet, the services were usually limited to traditional Internet services such as Internet access, e-mail, chatting, browsing.

Technology Infrastructure

Negotiations with the government are underway, where proposals are in the pipeline for special tariff rates for members who provide public Internet access to the community for educational purposes and other community services.

Issues of SLA (Service Level Agreement) are very important, because some-times the bandwidth supplied to the members do not meet the level that was previously offered. With non-standard level of bandwidth, it is difficult to provide value-added services to the community, especially with application such as VoIP (Voice Over Internet Protocol), Video Conferencing (VC) for distant learning etc.

In rural areas where there is no telecommunications infrastructure, outdoor Wireless LAN (WLAN) is simple and affordable technology. To share bandwidth for public Internet access in urban and rural areas, this technology could prove to be very economical.

Satellite footprint covers the whole Indonesia, but most Warnets cannot afford to have their own VSAT. An interesting cooperative model is in Makassar, a remote capital city in the Sulawesi Island.

Here, several Warnets cooperate together to share a VSAT bandwidth that is otherwise expensive for one Warnet to bear. The last mile from the VSAT to the individual Warnet is through cheap and affordable WLAN (2.4Ghz 802.11b) that cost less than USD 3,000 for one link.

Unfortunately, recently there have been discussions to impose tax on the use of this free industrial frequency. This may hamper public Internet access across school and government offices' to use the frequency freely and economically.

On the other front, there has been decent effort to use open source software and applications. The association of APWKomitel is working with Micronics Internusa PT (distributor of DELL and promoter of Redhat & Simply Mepis) to setup classes for Linux training for Warnet engineers. APWKomitel plans to develop billing system software on Linux platform and move from Microsoft Windows. The effort to migrate from proprietary software to open source software is because of strict and unaffordable licensing policy of proprietary software.

Business Model and Classification of Warnet

- Small Warnets

Majority of the players is small Warnets equipped with 3 to 12 PCs. These Warnets usually do not have proper business licenses. Many Warnets are operated by young startup entrepreneurs as their family business and quite informally. Such Warnets use

fixed line dial-up modems to access Internet. Investment in small Warnets is as small as USD 5,000 - 10,000, where family or friend owns the building. It is difficult to collect data from these small Warnets, but they may represent more than 40 per cent of the total membership strength of the association. They provide traditional and basic services like classic Internet applications (e-mail, chatting, browsing), PC rental for student and SME; and some venture into a small basic IT training class (MS Windows and recently Linux etc.).

- Medium Warnets

A typical medium sized Warnet would have 12 to 24 PCs. These Warnets are usually equipped with business licenses since many of them are located in crowded and commercial areas such as near bus-terminal, malls, etc. Some of their value-added services also include edutainment such as LANGames. The Investment necessary to start a medium Warnet ranges between USD 10,000 and 25,000, and a majority of them uses broadband connections such as Cable, ADSL, or Leased-lines. This category also enjoys 40 per cent of the membership capacity of the association.

- Large Warnets Equipped with more than 24 PCs, large Warnets usually operate near strategic commercial areas in the city (malls) or near Universities or Colleges (Campus). Many of the large Warnets operate professionally and closely resemble the business model of an MCI Center serving the community. It usually provides edutainment, classic Internet services, and café and some have other unique services. Investment required here would range between USD 25,000 and USD 100,000 or may be even more. Broadband connections with a combination of VSAT, Cable, ADSL and lease line are used in large Warnets.

Partnerships

APWKomitel's strategy to achieve its mission is through partnerships and collaborations. Partnerships with various stakeholders will facilitate the exchange of information and resources to foster the development of the MCI Center.

- 1) *OSOL - One School One Labs*: With the help of public and private initiatives Warnet derived "One-School-One-Lab". Under this initiative, school premises are used as MCI centers after school hours, and in lieu of the provision of space, school uses the MCI PCs for their computer labs.
- 2) *MOU - Open University Distant Learning*: Public - Private partnership initiates MOU between Indonesian government-owned Open University (Universitas Terbuka) and APWKomitel. The University has no physical campuses, so the MOU can facilitate Warnet as a virtual campus on a remote island, while the university can focus on providing educational contents. Previously students had to use traditional technologies like fax to send and communicate with the University, but now they can use Internet for communicating with other students.
- 3) *MCI Center - APEC E-marketplace collaboration model*: During the APEC Workshop on e-marketplace in Jakarta in 2002, cooperation between Warnet and community content providers such as: e-business content (textile, mining industry, e-travel, arts & crafts), community content (Indian community), news content (detik.com) was initiated. It is supposed to be win-win collaboration where the content provider needs Internet users to access through Warnet, while Warnet needs content so that its customer can use the Internet.
- 4) *Warsi - Warung Informasi or Information Center*: Collaboration between APWKomitel and Director of SME, Ministry of Industry and Trade (MoIT) is underway. The strategy

is to use a Warnet for future Warsi, so that SMEs in industrial clusters on an island can use the Internet to empower their business. Another win-win collaboration where small and marginalized SMEs do not need to buy and maintain PCs and Internet connections, while Warnet gets an additional customer from the cluster.

- 5) *Indonesian Directory*: Warnet, Hotspot and MCI Center will be published in October 2003. This is a sole initiative to empower its member and publicize member services through the publication of a directory (hardcopy). The idea is to promote the Warnet network throughout the country so that any foreign tourist, traveler and commuter who visit any city in Indonesia can always find a Warnet.
- 6) *Makassar Broadband City*: Warnets in Makassar in West Indonesia have cooperatives to share their bandwidth provided by VSAT. This is a success story, where several small Warnets initiate collaboration sharing VSAT connections to Internet via outdoor wireless LAN 2.4Ghz. After years of operation there are more than 30-50 Warnets sharing broadband Internet around the city.

Private Sector Partnerships

- *Micronics Internusa PT*- Implementation of ICT technology for SME and Warnet (www.indopc.com)
- *AsriCitra Pratama PT*- The owners of Millenia Net Café. Developed the School Warnet (OSOL) using WNET the facility at Wijaya High School- *PSN (Pacific Satellite Nusantara) PT*
- VSAT provider for Warnet in rural areas (www.psn.co.id)- *IM2 (Indosat Mega Media) PT*. This is an Indonesian ISP with national coverage (www.indosatm2.com)

Lessons from the Field

A proper field report has not been prepared due to limited resources, but most of the information gathered is by talking to partners.

Financial Sustainability

- Although many new Warnets are being setup every month, many are also closing down, due to competition or poor business models. In the beginning of 2003, the total number of Warnets having positive growth was about 4,000. With this model of an MCI Center, APWKomitel can prevent SMEs from terminating their businesses and provide better financial sustainability.
- The top revenue streams are from Warnets located near shopping malls, universities and tourist areas.
- Government policy to provide a favourable pricing policy for Warnets to operate in urban and rural areas is much required for future expansions.
- Usually a Warnet operates for longer periods and should get bulk Internet access tariff.
- Public policy to foster cooperation between financial sectors and small business Warnets.- Access to capital market is needed for future expansion.

Technology

- There are various enabling technologies such as Wireless for outdoor LAN, to distribute bandwidth from the Internet POP (point of present) to the Warnet (see Makassar broadband city).
- There are more non-technical issues with regulation on frequency allocation and usage. With the autonomy law, the local government tends to introduce their own policy to collect revenue from the use of resources including frequency.
- Regulations favor incumbents that still hold monopoly and control over long distance telecommunication infrastructure rights.- Industry policy is not yet established and the

current informal policy often excludes the small player. Regulators still favor big players in the supply chain.

- Government facilitation in the development of open source software for future MCI Centers.
- For the past two years, negotiations have been going on with proprietary soft-ware representative Microsoft Indonesia, but without any success. Currently, alternative Open source for Operating systems (Redhat 9.0, Suse 8.2) and Office application (Open Office) are used. *The Community*- The major benefit goes to students and marginal small businesses that can not afford to own PCs or Internet access. Warnets located near schools help students with their homework such as PC rental for making reports.
- After school hours, many students use the facility for entertainment such as online and multiplayer games.
- Many university students use the Warnet near their campus for their work and projects.
- The community can use the Warnet as an open online library and as a collaboration tools through e-mail. Although only 2 per cent of the population is wired, many people in the city use e-mail rather than fax and surface mail. Indonesia consists of 16,000 geographically dispersed islands. The Internet is an enabler tool to bridge this geographical distance.

Scalability/ Replication

MCI model used by APWKomitel involves only simple collaboration, public private partnership and facilitation from the association, using practical and simple technologies, to penetrate rural area and less developed parts of the country.

Limitations of the Model

- Continued dependency on government policy to empower APWKomitel as a business association. The membership is voluntary, so government facilitation can enhance efforts to introduce the MCI Center model to the community.
- Government facilitation can be in the form of socialization of model and the institution in the form of business association (APWKomitel) to other and remote areas in the archipelago.- Connectivity is still an issue in rural areas. It is therefore required that the government provides good connectivity in these areas.

Website and Contact Information

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