

INDONESIAN INFOCOM SOCIETY

MASTEL

BRIDGING THE DIGITAL DIVIDE IN INDONESIA THROUGH TELECENTER

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BACKGROUND (1)

- Low Statistic on infocom penetration
 - Computer: 0.9%
 - Telephone: 3,8 %
 - Internet: 0.4%
 - TV/Radio: 60%
- Statistic of population
 - Majority of Indonesian population lives in rural area
 - 99% of private sector are SME and micro businesses
- “Digital Divide” are occur within country and with the international
- The economic crisis hit Indonesia since 1998, will create wider gap between the people with infocom access and the people without infocom access.
- Effort to empower the community in rural areas

Telecenter in Indonesia

- A place with **access facilities and infocom services**, including the information or additional facilities that can be used as a shared facilities by the society and for the benefit of the surrounding society in the CTC location.
- At least have 1 set of computer, printer and scanner, 1 telephone access and 1 internet access (optional).
- A place where a forum of discussion, training and consulting can be created as needed

BENEFIT OF TELECENTER

- For the Society
 - Availability of infocom access (telephone, internet, fax)
 - Availability of on line and off line information needed (epidemic, weather forecast, price of commodity, plant disease, general knowledge, school materials, and others)
- For the Government
 - Telecenter can be used as means to disseminate government information.
 - Can be used as a voting center at the national election.
 - Can function as facility for government service point, tele-education, long life learning center, tele-medicine, center of epidemic prevention
- For Business
 - It can be used as a channel for marketing of products consumed by the local community, such as: fertilizer, insecticide, etc
 - It can act as business information center, it can provide business consultation for SME and micro businesses

CHALLENGES OF TELECENTER (1)

- Telephone and internet access are not always available in the rural area. It's not always on-line
- Local leaders are important factor, sometimes act as pioneer. Endorsement from formal government leaders will be an advantage
- No high expectation for the farmers, but to the second generation
- Lack of specific content that are suitable for surrounding the community
- Needs bridging financing

CHALLENGES OF TELECENTER (2)

- Develop the community interest in the value of information and BIM activities
- To change the culture from traditional behavior into more adaptive to the ICT technology, to value the information
- To have cultural shift from “talking” to “read and write”
- To keep up with the learning curve of the community.
- Finance sustainability
- Management of Telecenter

Initiatives to Build Telecenter in Indonesia

- Several institutions have begun their individual pilot projects in different models:
 - Ministry of Research and Technology – Warintek
 - MASTEL – CTC/Telecenter
 - Ministry of Communication and Information – JEIMI
 - UNDP and National Planning Agency – e-Pabelan
 - Ministry of Transportation - provide telephone access (USO program)
 - Microsoft
- The Ministry of Communication and Information recently conducted a workshop on Telecenter to find several business models and to invite parties that are potential to contribute action to the program

Developing Information Center Model for Farmer Community

- Objectives
- Services Demand
- Network Model
- Potential Enhancement
- Key Success Factors

Objectives

- Provide information to people in the rural area.
- Develop system model that is suitable for farmer community.
- Increase the speed of culture transformation from traditional behavior into more adaptive to IT.

Services Demand

Information

General Information
Business Information
Weather Forecast
Health Information
Gov. Rules Information

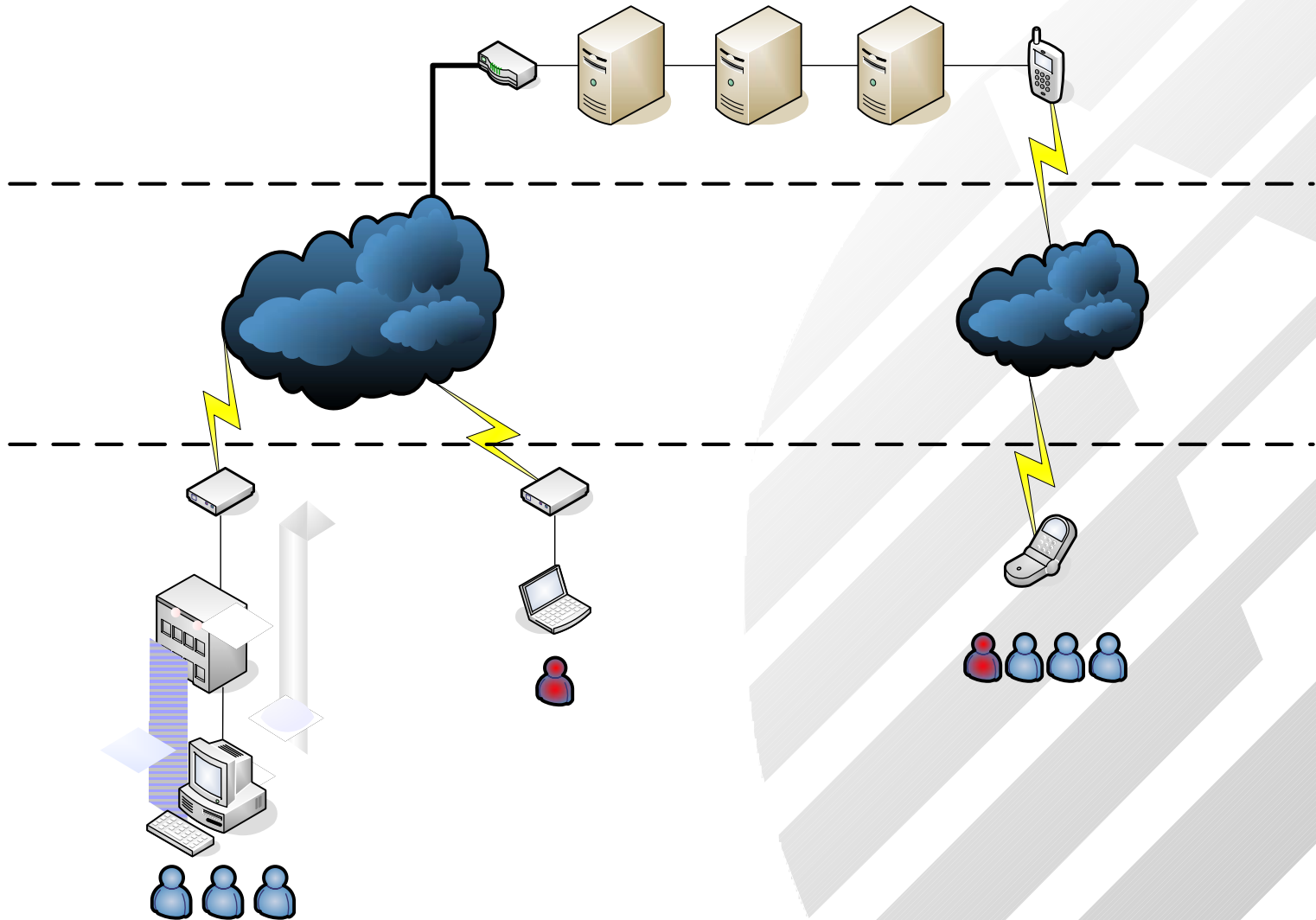
Collaboration

Bulletin Board
Chat
Web Mail
Sales & Promotion

Education

Education Information
Scout Information
Women Information

General Network Model



Application Center

- Content management and SMS-push application will be installed to the server. These applications can be developed by third party or purchased separately at a lower price; some are free to install.
- The setup and maintenance cost for this application center include :
 - One time payment :
 - server machine
 - operating system software
 - database system software
 - content management software
 - SMS-push software
 - SMS-terminal for sending/broadcast SMS
 - Monthly payment :
 - Co-location
 - SMS subscription.

Public Network

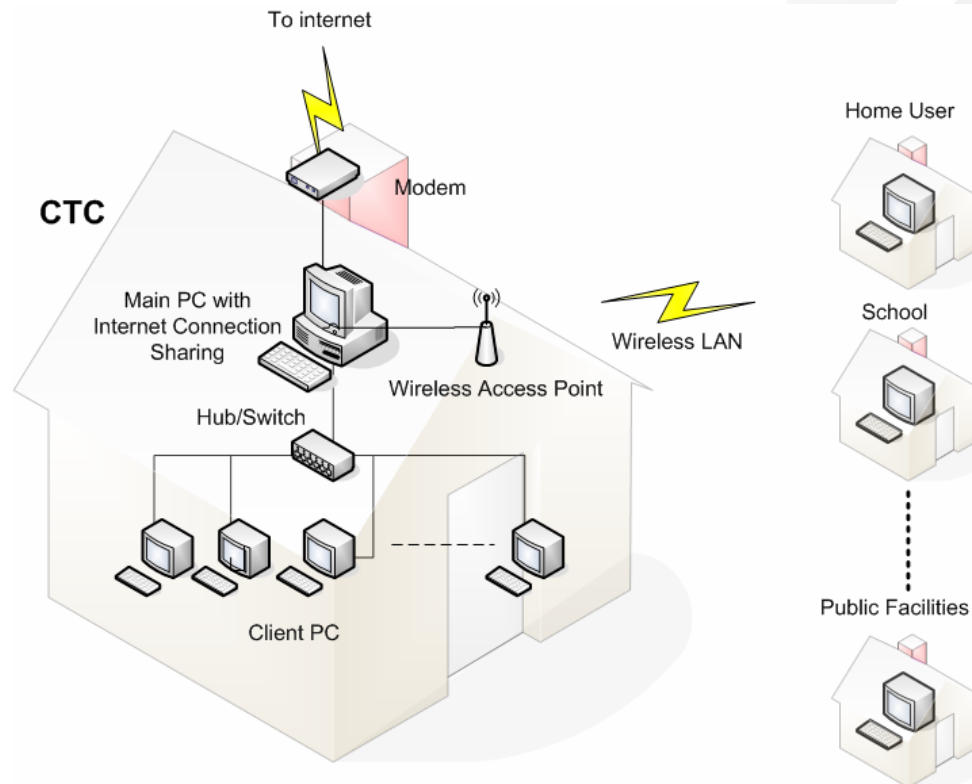
- Can be provided by TELCOs that offer any kind of access: internet, fixed phone, fixed wireless (CDMA) and mobile communication (GSM).
- Offers many type of services like : instant internet, turbo internet, GPRS/EDGE, WAP, SMS/MMS.
- Already established and stable.
- Monthly usage cost for this public network include : internet and SMS subscription.

Client Area

- Setup and installed by community and local government.
- Each CTC (provided by BIM) must have access to internet (via fixed phone/fixed wireless or GPRS/EDGE) and accessed from one main PC.
- If CTC have several PC to access the internet, these can be done through internet connection sharing from main PC. So the connection access to the internet remain only one line.
- This PC act as sharing terminal to access the content from internet.
- If the location in the coverage of GSM/CDMA, the information can be retrieved from SMS terminal.
- This facilities cost will include: PC with browser, internal/external modem or mobile terminal with built-in modem, telephone line/fixed wireless/GSM subscription and ISP.

Potential Enhancement

- Using LAN and WLAN to increase the total terminal at each CTC, and decrease internet subscription payment.



Key success factors

- Content
- Network Infrastructure.
- Involvement intensity of farmer community in using the CTC.
- Active participation of observer and sponsor of rural community

CONCLUSION

- Telecenter can be a solution to bridge the digital divide. One shared place for all and to get more information.
- The impact of one Telecenter to the community is more than the impact of one telephone line.
- Impact to the community are ranging from education, business, social, pride, etc.
- To implement ICT has to consider change of culture
- Government role is important to make Telecenter available in the areas where the infrastructure is insufficient and to make internet is more affordable



Apectel Telecenter Workshop



Apectel Telecenter Workshop



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Apectel Telecenter Workshop

Thank You

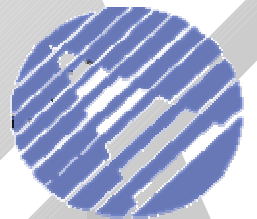
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