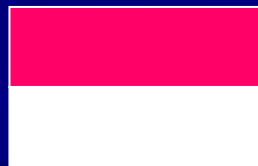


# “E-learning development in the Network of Technical and Vocational Education in Indonesia.”

Technical Education Development Centre, Bandung



Indonesia Country Report 2004

# National Education Department Directorate for Vocational Education (Dikmenjur)



## TEDC Bandung

- Training Center for Teachers Development
- Curriculum Developer for Vocational Schools
- Company Partner Ship for Profession  
Standard Competence Developer
- E-Learning development Host for  
AEN-Indonesian Group

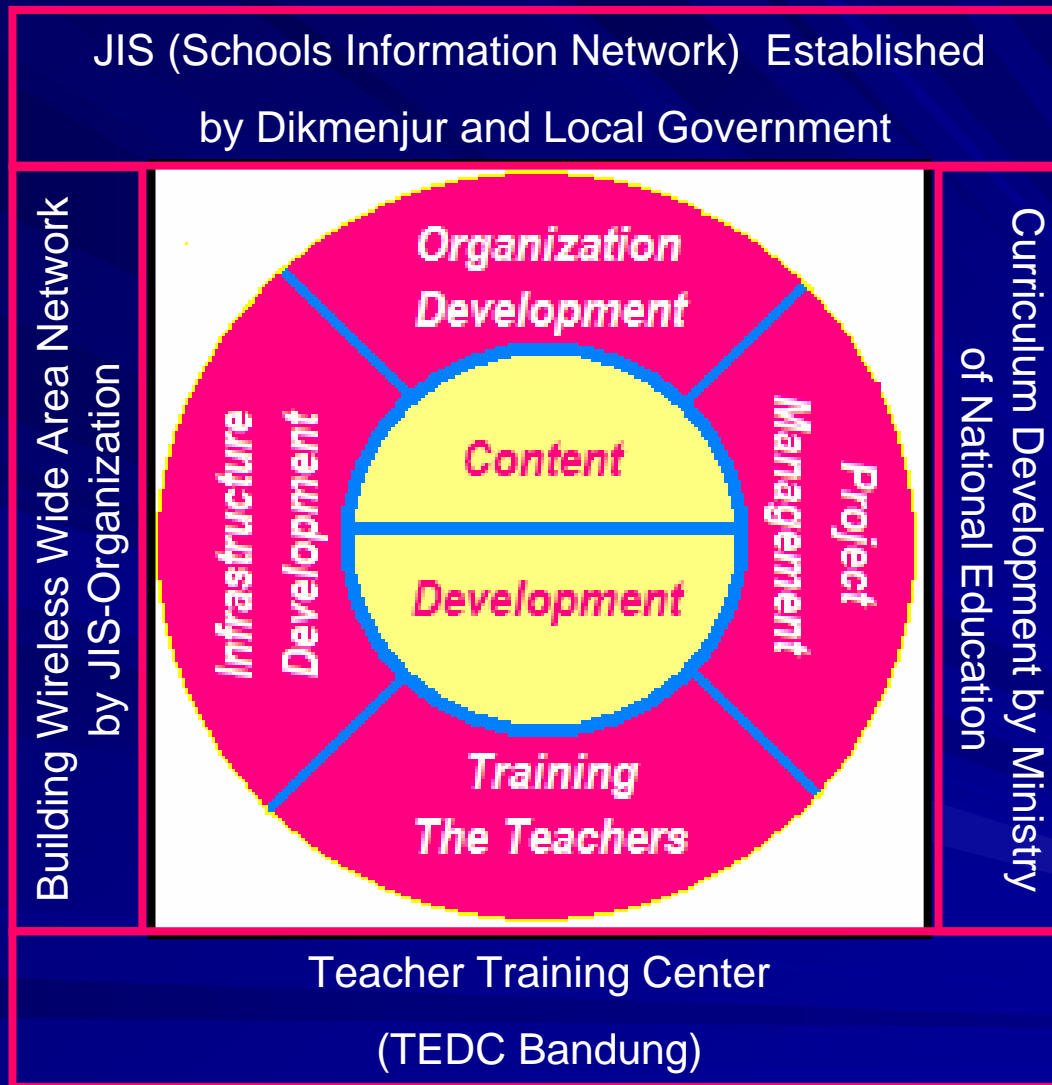
# Motivator for Organization Development

- ❑ **Establish Schools Information Network (JIS) in each major cities in Indonesia : 64 JIS already exist in 2004**
- ❑ **JIS will focus on building ICT communities in each city as a tutor for e-Learning promotion.**
- ❑ **Establish e-learning related organizations as needed**
- ❑ **Establish strategic partnership with private companies**

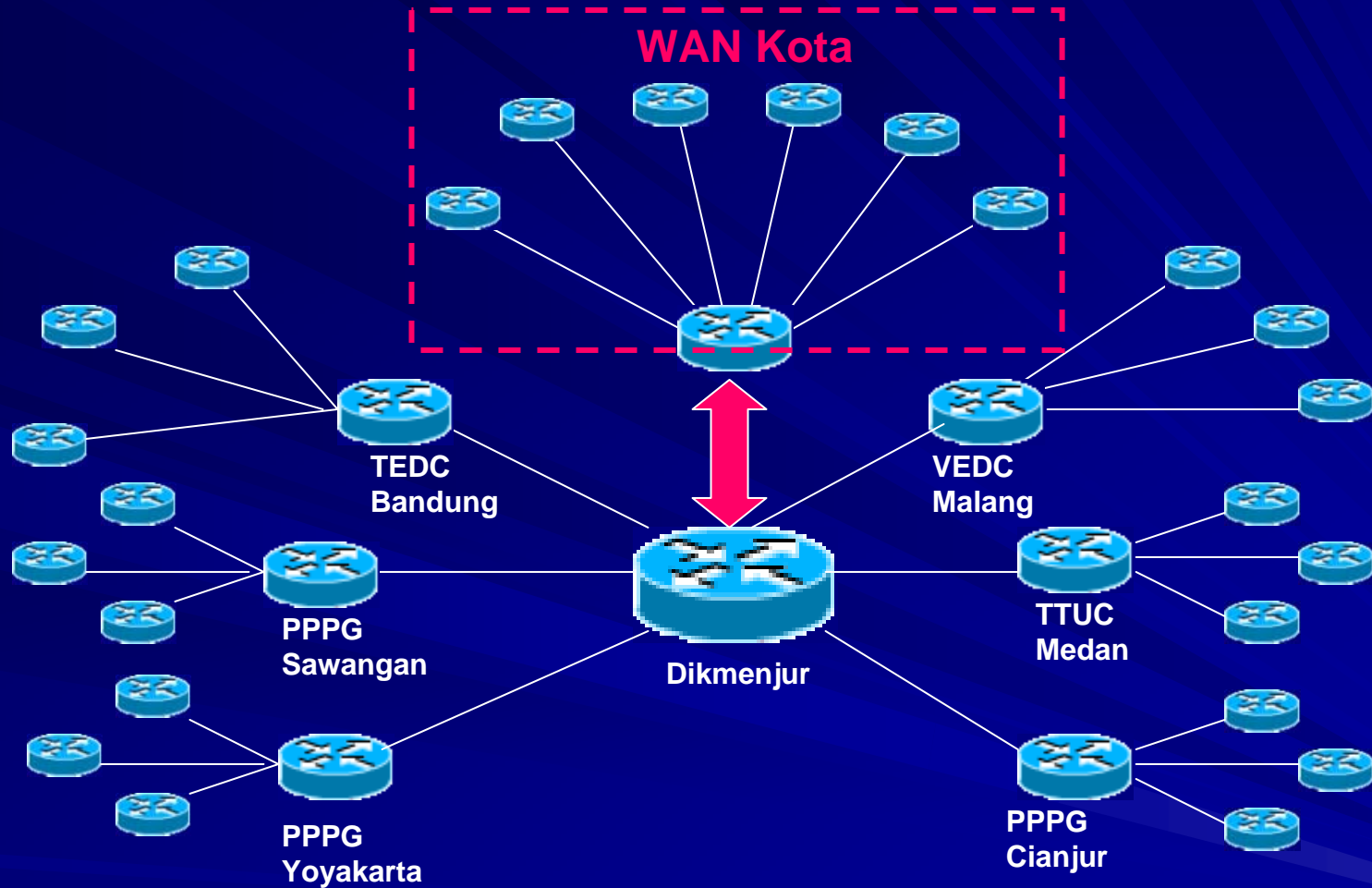
# Electronic Department, Information Technology Section

- ❑ **Focus on ICT Training for teachers**
- ❑ **Supporting to Establish ICT Center in every province in Indonesia**
- ❑ **Target Teacher trainees : 24 groups x 20 persons in each ICT Center for year 2004-2005**
- ❑ **Supporting to Prepare Mobile Training Units (MTU) Pilot project, 6 units operated year 2004**
- ❑ **All budget supported by National Education Department**
- ❑ **Content e-Learning Development for year 2005-2010 (New plan)**
- ❑ **Software Development Center, Joint Program with Microsoft , Web-C, Solusipintar@inc**

# E-Learning Development Strategy



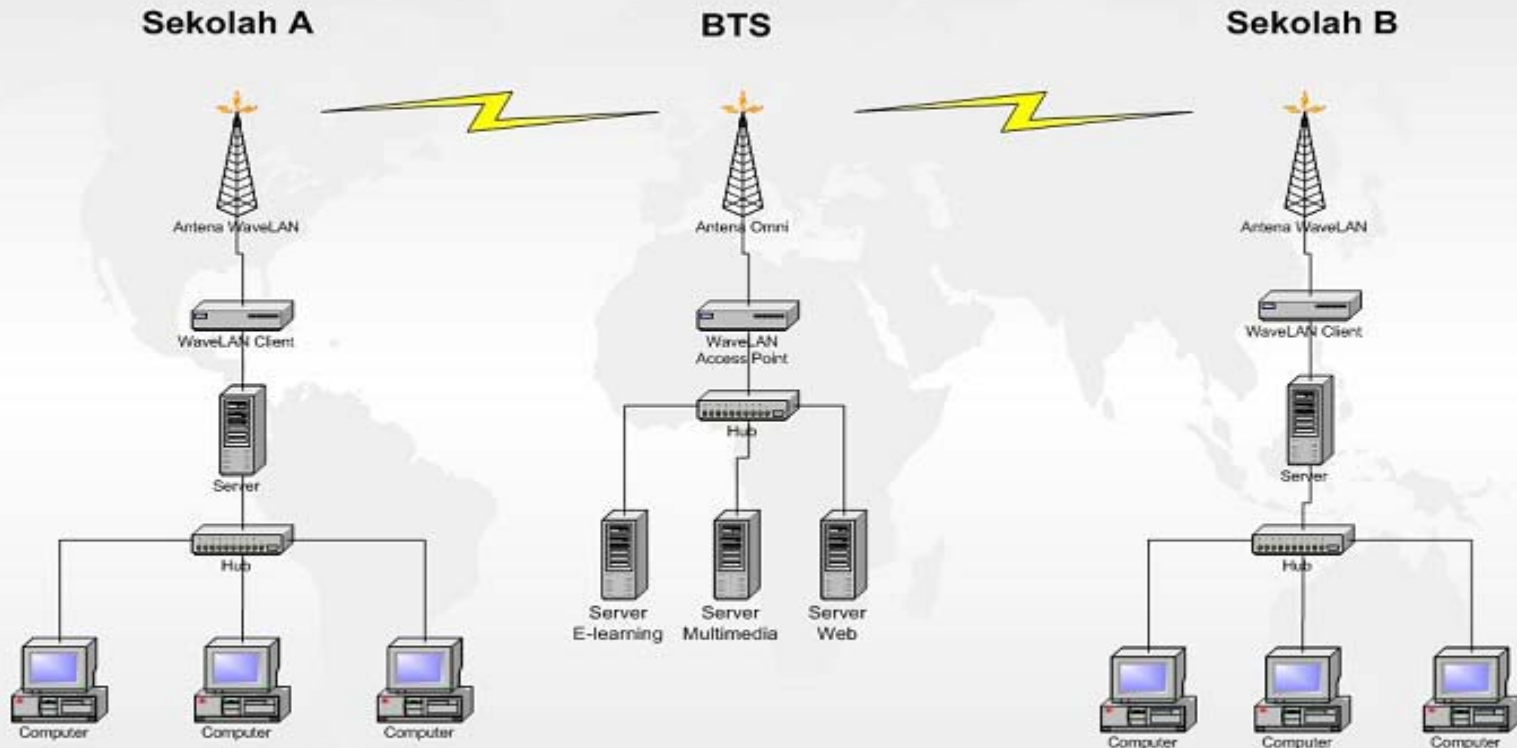
# Network Planning



Networks Supported by 48 "CISCO" Local Academy, at Vocational Schools (SMK)

1450 Teachers has upgraded their skill for Networking and Web Developer until 2004.

# WAN-KOTA (City Network)



# Organization And Network Development Area



4.169 Vocational Schools  
7.900 General Senior Secondary Schools  
12 + 27 Teacher Training Centre

**400** Schools with **16.000** PC's  
**12** Teacher Training Centre **1200** Pc's  
2004-2005: **64** WAN Establishes



# Network Development on the East Indonesia



**Direct Connection to Satellite**

# Curriculum Development

- ❑ **Enhancing curriculum to support Competency Based Approach**
- ❑ **Compulsory curriculum for high school student, General class to apply 90 hours on IT subject per semester (Computer Basic Knowledge)**
- ❑ **Starting to prepare national testing (online testing) for ICT subject**
- ❑ **Plan to integrate e-learning with existing curriculum → blended approach**



**Workshop Joint Program  
Microsoft & TEDC Bandung**



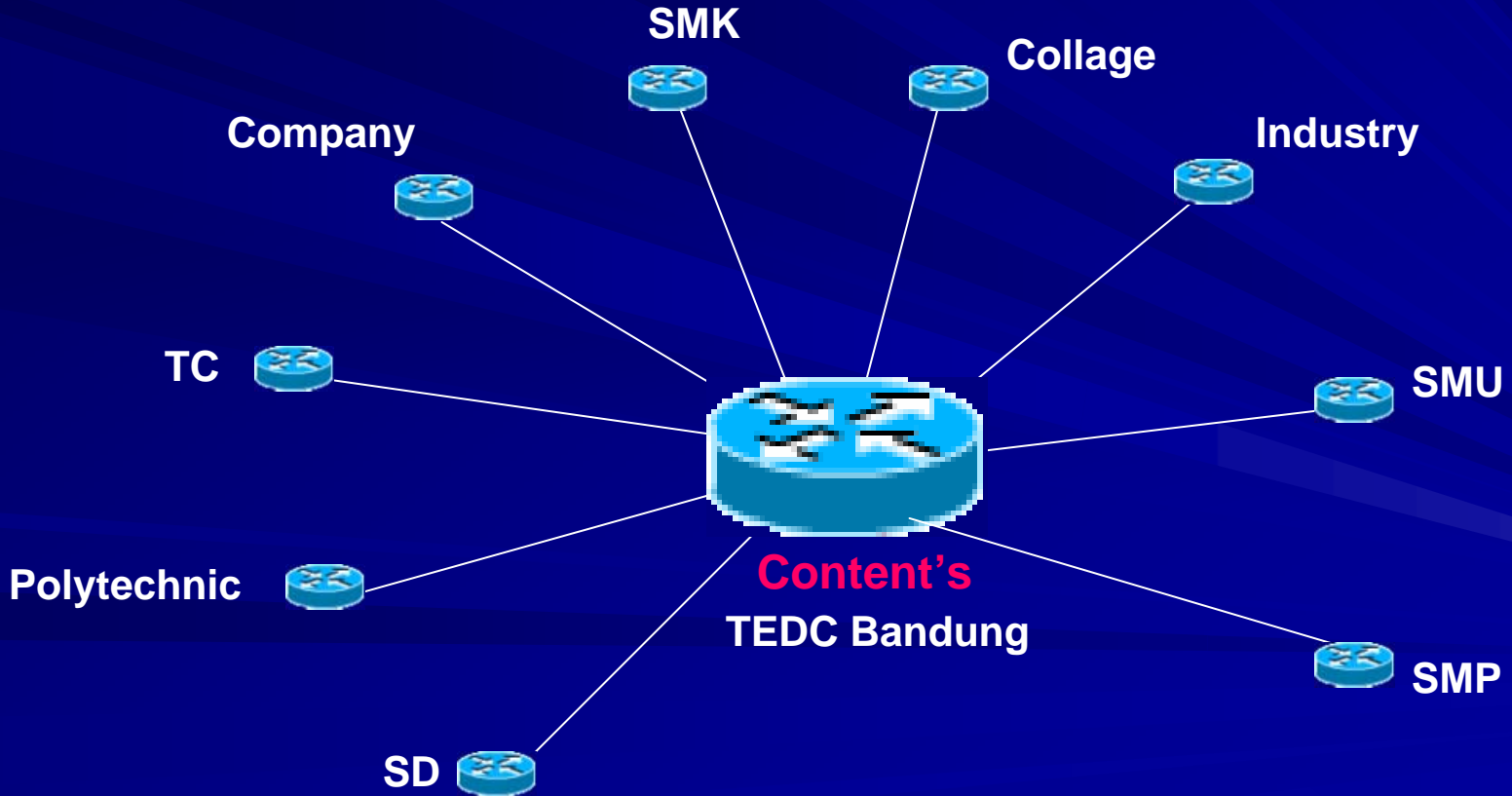
AEN Conference 2004, Singapore

# e-Learning Content Development

- ❑ In 2004, Ministry of National Education has prepared learning content for high schools using government budget
- ❑ 125 topics for vocational high school (US 2000/topic)
- ❑ 125 topics for general high school (US 2000/topic)
- ❑ For next five year, will develop 125 topics/year
- ❑ Using CBT approach, PC/web-based
- ❑ Need to be re-packaged to adopt SCORM standard
- ❑ Next step : develop/using LMS

# Establishing e-learning Content Developer group

Since the e-learning content consist of many subject matter from different discipline. We need to establish the e-learning Content developer group . The member of this group are the teacher or Trainers from several Difference Institution. To facilitate the communication and coordination among the group members, the computer Network should be setup.



# Current Problems



**First Workshop E-Learning  
Developer team (24 persons)**

- ❑ **Lack of e-learning professional  
→ need knowledge transfer**
- ❑ **Lack of e-learning content that  
suitable with existing  
curriculum**
- ❑ **Lack of e-learning experience  
→ study best practice from  
other country**

# CD Interactive Sample (Transformator)

## Modul Pembelajaran Interaktif

Perawatan dan Perbaikan Transformator

# TRANSFORMATOR

Konfigurasi bagian dalam transformator

### 1.1 Bagian Utama Transformator

#### 1.1.2 Dilihat Dari Dalam

Dan apabila transformator dilihat bagian dalamnya, maka terdiri dari:

1. Keping pengangkat
2. Terminal tegangan rendah
3. Kumpanan tegangan tinggi
4. Terminal tegangan rendah
5. Pembalut inti (core)
6. Kumpanan tegangan tinggi
7. Keran nitrogen
8. Katub pembebasan tekanan
9. Penyetel klem kumpanan
10. Tapping link
11. Baut inti berisolasi
12. Baut mur inti
13. Gandar inti
14. Isolator tegangan tinggi

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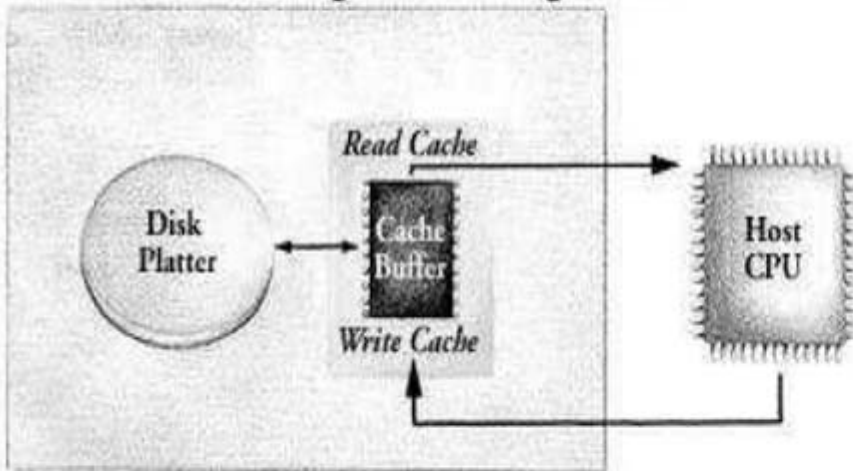
# CD Interactive Sample (PC Hardware)



## Modul Pembelajaran Interaktif

### Perangkat Keras Komputer

#### Read and Write Caching: How Caching Works



## 6.1 Arsitektur Disk

### 6.1.3 Disk Cache dan Disk Addressing

#### Disk Cache

Adalah memory berjumlah kecil yang dirangkakan dengan unit storage, untuk mempercepat proses baca/tulis. Jika ada request data, ternyata data tersebut ada pada cache, maka pembacaan akan jauh lebih cepat.

Analoginya misalkan kita adalah tukang kayu yang membutuhkan paku, pertama kita mencari dan mengeluarkan 8 buah paku dari tool box kita, dan menggunakan 3, sedangkan sisanya kita taruh di meja. Nah, jika kita membutuhkan lagi paku, kita tidak usah lagi mencari ke dalam tool box, melainkan mengambilnya dari meja. Disk Cache juga digunakan sebagai antrian

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# CD Interactive Sample (CNC Machine)

**Modul Pembelajaran Interaktif**  
**DIREKTORAT PENDIDIKAN MENENGAH KEJURUAN**

**MESIN MILLING**  
**CNC TU - 3A**

**BAB 2.2 PENGERTIAN MESIN CNC**

**2.2.1.4. Rumah alat potong (milling taper spindle)**

Rumah alat potong pada mesin milling digunakan untuk menjepit alat potong (tool holder) pada waktu proses penyayatan benda kerja. Adapun sumber putaran dihasilkan dari putaran motor utama yang mempunyai kecepatan putar antara 300 - 2000 put/menit.

Pada mesin milling CNC TU-3A hanya memungkinkan menjepit satu alat karena data alat potong dapat tersimpan dalam memori mesin.

Sedangkan proses penggantian alat potong dilakukan secara manual.

doftar menu — PILIH MENU —

menu kuis kembali lanjut



# CD Interactive Sample (PC-Networking)

**Modul Pembelajaran Interaktif**  
**Jaringan Komputer**

*Jaringan*



Server



NIC



Hub



Coaxial Cable



UTP



Workstation

### 4. Hardware Jaringan

Untuk membuat suatu jaringan komputer, diperlukan perlengkapan sebagai berikut:

- Minimal ada satu komputer yang berlaku sebagai server (pusat data)
- Ada komputer workstation (tempat kerja)
- Sistem operasi pendukung jaringan seperti Win NT, Netware, Linux, dsb
- Peripheral jaringan seperti Network Interface Card (NIC), hub, dll
- Media penghubung antarkomputer seperti kabel, connector, terminator, dll

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# **Thank you for your Attention !**

**Presented on November 5-8, 2004**

**The Asia e-Learning Network**

**Kickoff Meeting 2004,**

**Tokyo Prince Hotel & Hotel Mets Shibuya**

**Tokyo**

**AEN-Indonesian Group  
TEDC Bandung Indonesia**

**The End.**