22<sup>nd</sup> APNIC Open Policy Meeting

#### Taiwan's Internet operation development and future prospects

#### Shyang-Yih Chen

Executive Vice President Chunghwa Telecom Co., Ltd. 2006/09/06





# Agenda

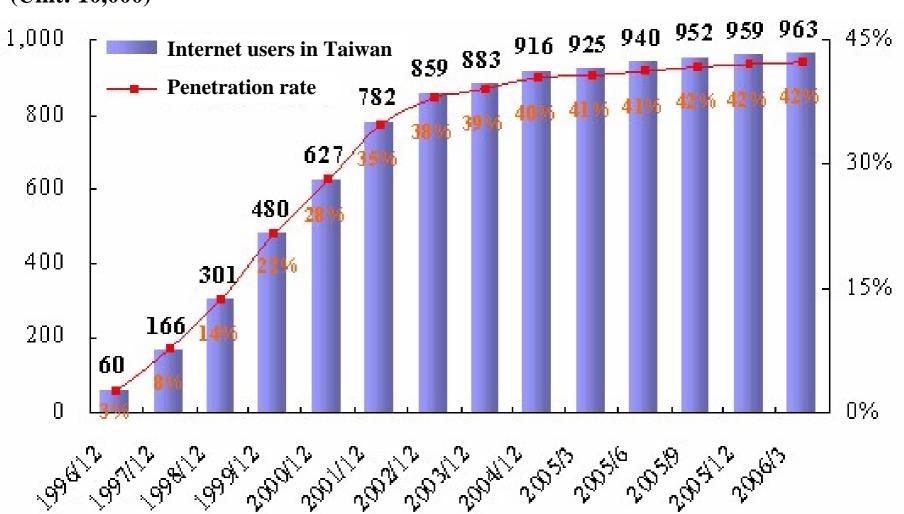
- Internet Current Status in Taiwan
- Network & Service Development
- CHT HiNet's Deployment Strategy
- Concluding Remark





### **Internet Users**

(Unit: 10,000)

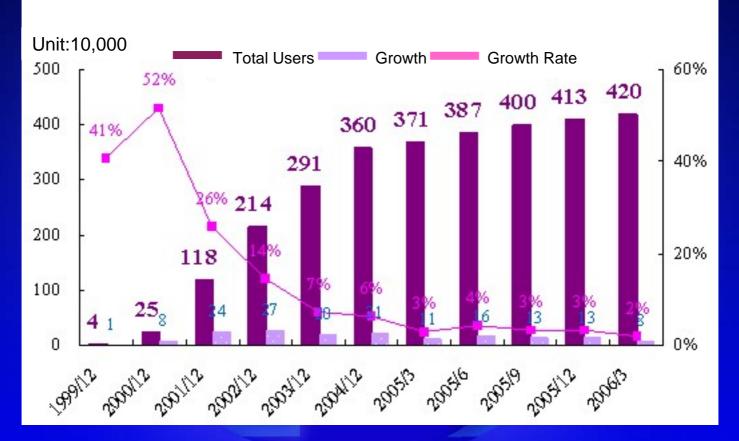




Source : FIND (Focus on Internet News and Data) Project Institute for Information Industry (3/31, 2006)



#### Internet Broadband Users (Household)



Source : FIND (Focus on Internet News and Data) Project Institute for Information Industry (3/31, 2006)





## **Network Access**



#### **Broadband household penetration is over 70%**

Source : 2006 Annual "Internet Broadband Usage in Taiwan" Survey Results, TWNIC





# Major ISP, IX and Portal Operator

#### • ISP

 HiNet, Seednet, So-Net, TFN, TTN, APOL, Giga, Sparq, etc.

#### • **X**

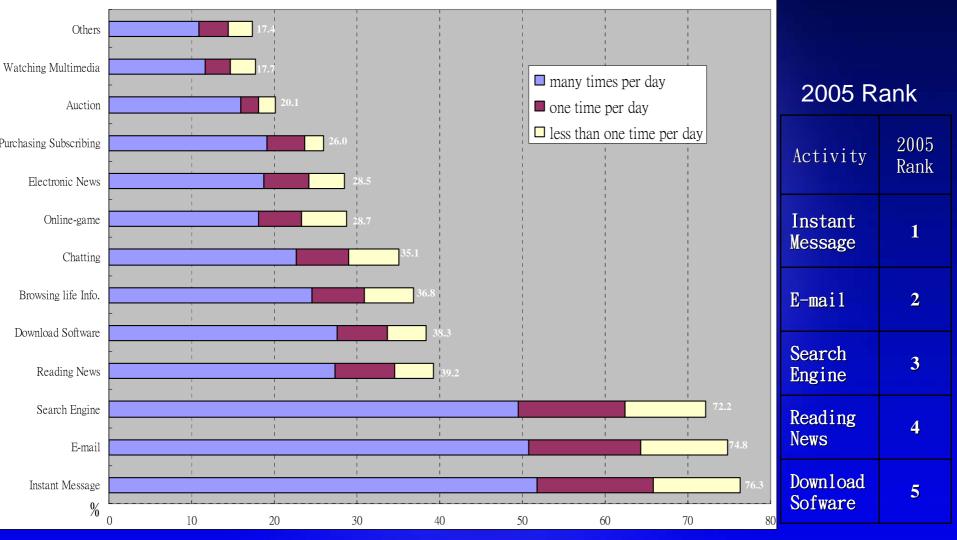
- **-TWIX, EBIX, TPIX, TWNAP**
- Portal

-Yahoo, PChome, HiNet, MSN, Yam





# **Main Activities on Internet**



Source: FIND Project MIC (Market Information Center) , July 2005



# **Thread and Opportunity to ISP**

#### Thread

- P2P applications generate large traffic
- Network security and privacy problems
- SPAM Mail
- Free Riding
- Opportunity
  - Users expect higher bandwidth and quality
  - Various CPE and mobility
  - Innovated applications (Web 2.0)
  - Cyber advertisement
  - Multimedia service (VoIP, IPTV, Digital Home)





### Agenda

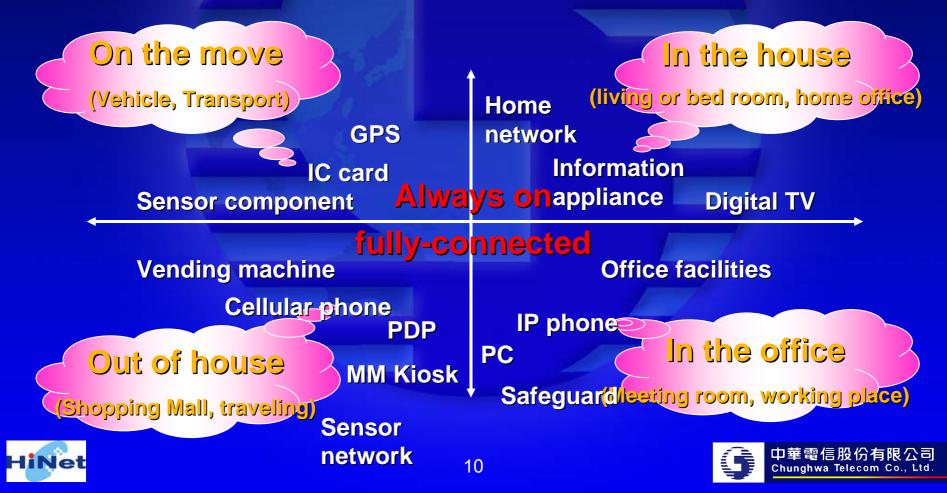
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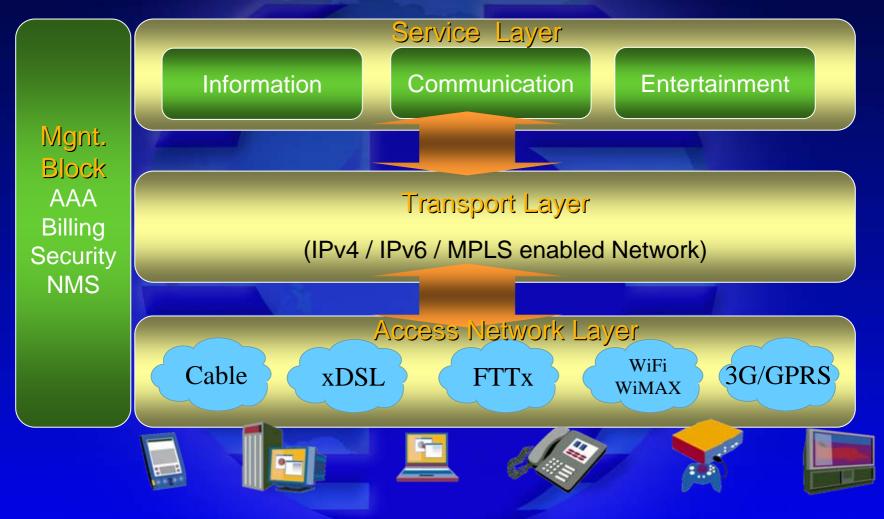


### **Ubiquitous Network Services**

Through different devices, at home or outdoors, in the office or business travel, adopting all kinds application services. (Communication, Information, eCommerce, Entertainment.....)



#### **Ubiquitous Network Service Framework**



**Construct the high-quality ubiquitous network** 







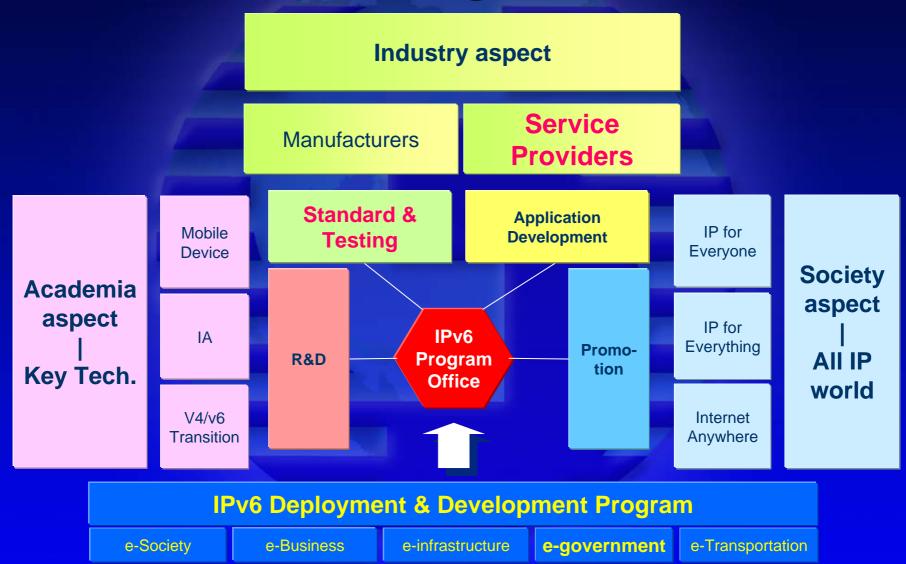
# **M-Taiwan Program**

- hope to build Taiwan a "Brave New Mobile World" and enables people to access multiple ICTs anytime, anywhere — it promises a better M-life.
- leaded by NICI and 37 billion NT dollars has been allocated for years 2005~2009
- expected to buildup
  - -the wireless networks
  - integrate mobile phone networks
  - setup the optical-fiber backbones
  - execute the Integrated Beyond 3<sup>rd</sup> Generation Program.
  - reach the vision of "Mobile Taiwan, infinite application, and a brave new mobile world."





# **National IPv6 Program**

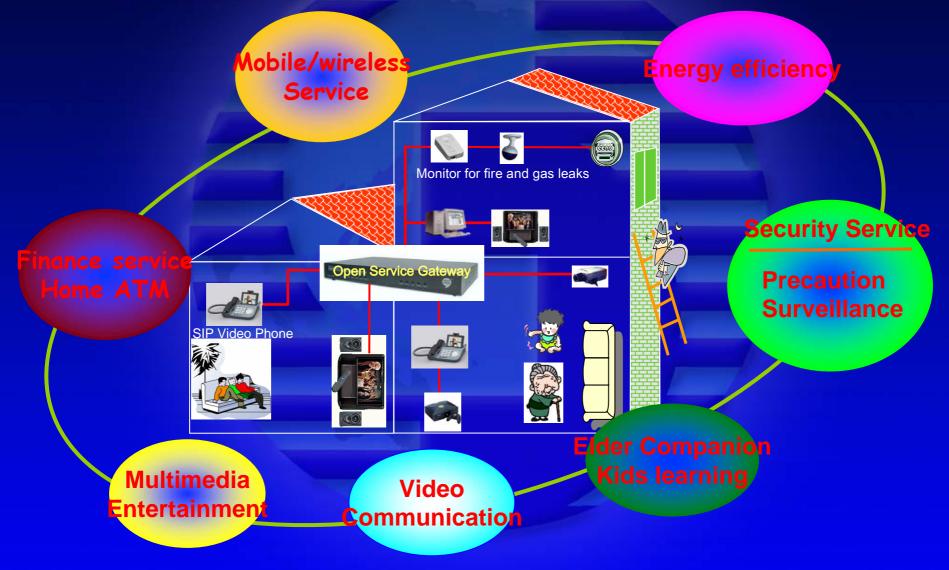




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Chunghwa Telecom Co., Ltd.

# **Digital Home Applications**





## Web 2.0

- Asymmetric vs. Symmetric ?
- Business Model ?
- Privacy and Security ?
- Advertisement ?





### Agenda

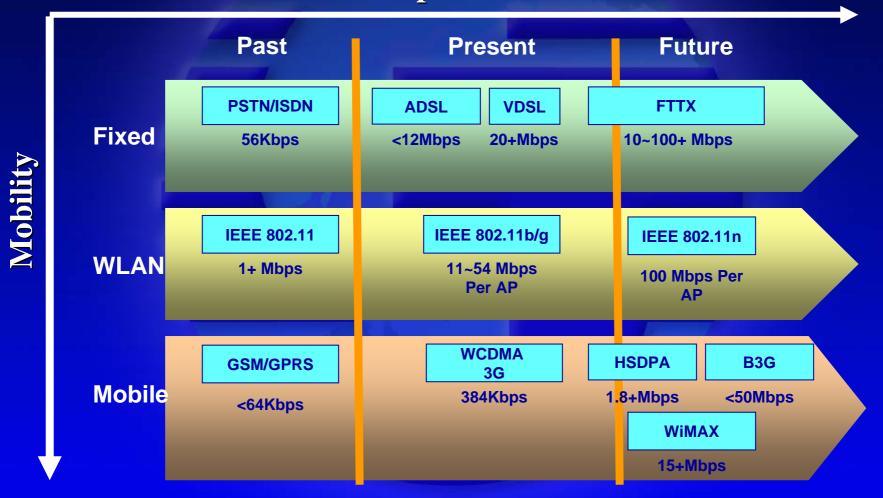
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### **HiNet Network Access Evolution**

**Speed** 

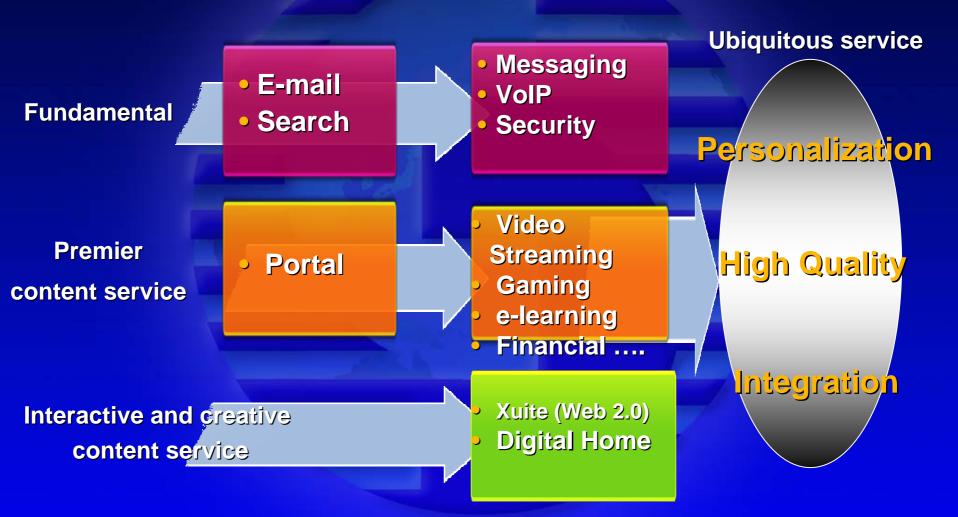




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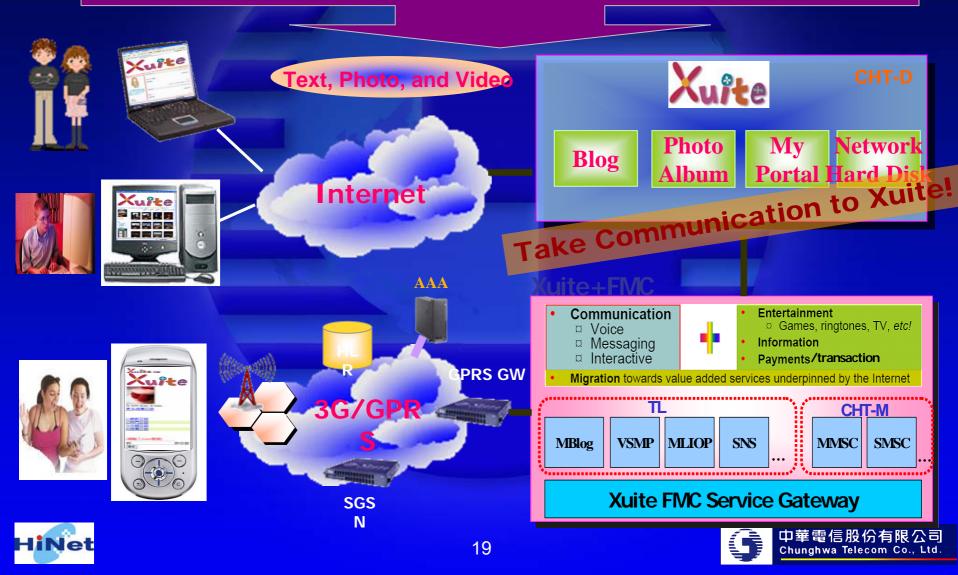
### **HiNet Value Added Services**





### **Xuite Services**

#### Web 2.0 Spirits : Participation, Interaction, and Sharing



# **HiNet Digital Home Services**

HiNet

HiNet

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- Information
- Entertainment
  - Streaming & Download
- Home Surveillance
- To be announced at Q4 2006

galige 學習網~ -web **Dannel** < We make your life easy and fur HiNet HiNet數位家庭 http://dhs.hinet.net 邁入數位匯流時代(Digital Convergence) 提供數位生活(digital life)整合應用服務

HiNet

HiNet

HiNet

Internet史上最強! 高畫質數位內容 VIP專屬服務一年免費 提供下載保證收視品質

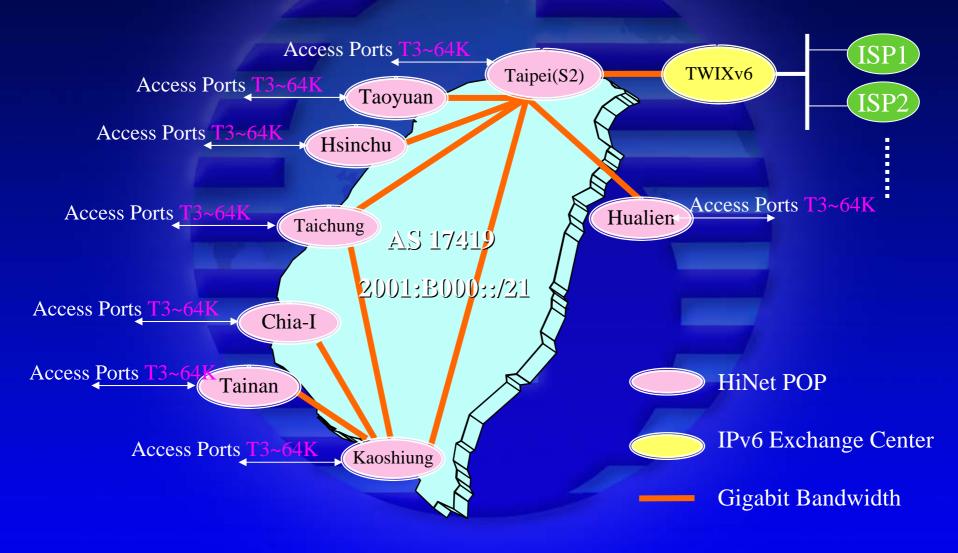
數位家庭服務 建議使用 HiNet 8M ADSL

中華電信股份有限公司

Chunghwa Telecom Co., Ltd.



## **HiNet IPv6 Trial Network**





<u>山華電信股份有限</u>

Chunghwa Telecom Co., Ltd

) 신티

# **CHT NGN Planning**

- Will invest 1.8B USD before FY2011
- Expand FTTx coverage
- Expand Ethernet Aggregation Networks
- Consolidate IP Core Networks
- PSTN transformation (Packetization)
- Develop NGOSS
- Deploy platforms to support new services





# **Conclusion Remark**

- User demands Internet services at anytime from anywhere with any devices
- Government has been aggressively promoting Internet services in Taiwan
  - 2002 e-Taiwan Project
  - 2005 m-Taiwan Project
  - 2007 u-Taiwan Project (Planning)
- CHT will deploy infrastructures for the ubiquitous network society and provide related applications





# Thank you for the attention

# 中華 聖 信 Chunghwa Telecom



