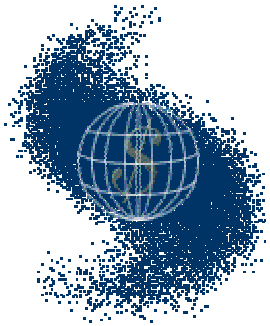


TOT Broadband Vision

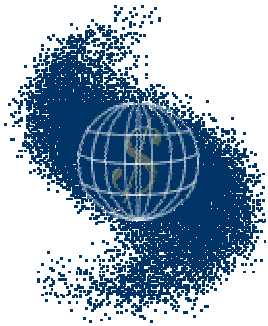


Converged Network

Converged Services

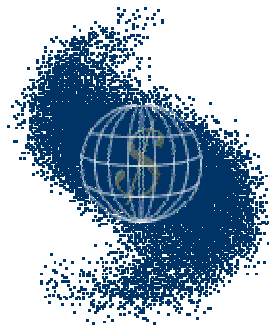


Converged Network



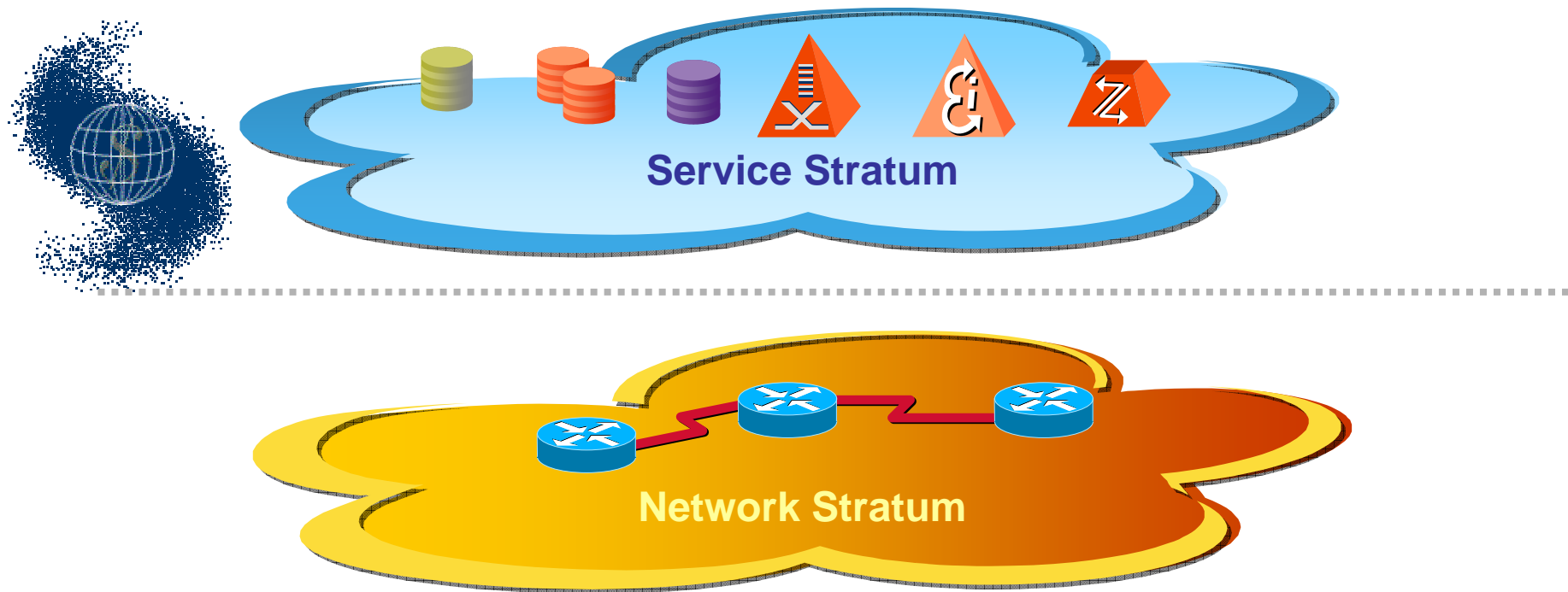
- **One network for any services**
 - Support IPv4/v6 infrastructure
 - Supporting MPLS makes IP network ready for various patterns of traffic (real-time, non real-time multimedia)
- **Independent access technologies**
 - Broadband wireline (ADSL and FTTH)
 - Broadband goes wireless (Wi-Fi, WiMAX)
 - Broadband is on the move (3G)

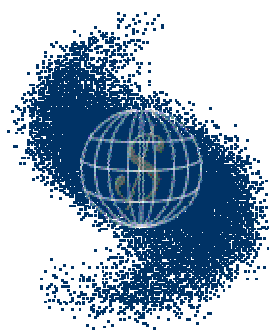
Converged Services



- **Multimedia communication services**
 - Video communications
 - Instant Messaging and Presence Notification
- **PSTN emulation services**
 - Legacy telephony services on IP network
- **Streaming Services**
 - IPTV, Video on Demand, Game online

NGN Logical Model

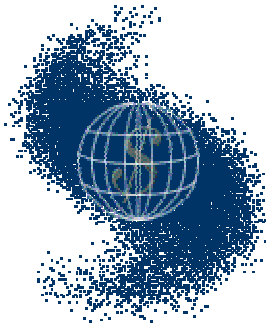




Network-Transformation



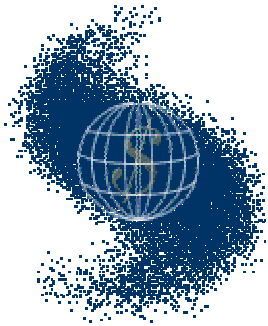
TOT's Network Transformation Strategies



- 2005-2012 Plan for service nodes and core transport nodes
- 2005-2009 Plan for broadband access nodes
- 2005-2009 Plan for human resource development



Plan for service node and core transport node(1)



- **Deployment of IPv4/v6 MPLS core node spanning throughout Thailand**
 - Metro transit network has capacity not less than 40 Gbps
 - Regional transit network has capacity not less than 20 Gbps

Plan for service node and core transport node(2)

- **Deployment of new NGN service node in metro and regional area**

- Plus interoperating with existing NGN service node from 565K lines project within the year of 2007

- **MSU/RSU replacement**

- By traditional DLC in case of voice service are mainly required
- By MSAN in case of triple-play services are required

Plan for broadband access node(1)

- 
- **Reach 1 million ports of ADSL2+ within the year of 2007**

- Plus enhance the quality of copper wire to be ready for broadband services

- **Ethernet goes wireless**

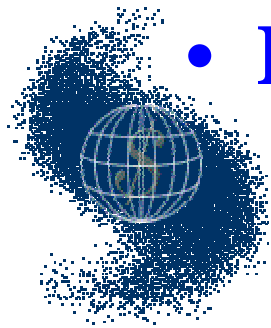
- Expansion of Wi-Fi coverage area

- Implementation of WiMAX access point

- Bundle services (voice + data) via IPSTAR



Plan for broadband access node(2)



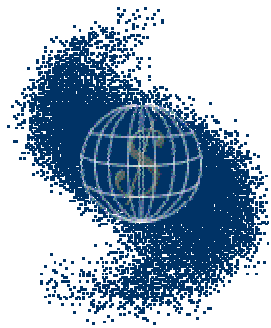
- **Deployment of FTTx services**
 - Starting FTTB in the year of 2006
 - Launch FTTH after 2009
- **Field trial for 3GPP IP-CAN (FMC solution)**
 - Invoke services from NGN service node
- **Expand coverage area of Metro Ethernet services**



Plan for Human Resource Development

- 
- **Raise up the standard of existing staff to reach the professional and expert level**
 - Utilize career certification program from vendors/recognized organizations
 - **Recruit talented people to join TOT to create new generation of communication society**
 - **Establish new research & development center for IP-related technologies**

TOT's Activities on NGN(1)

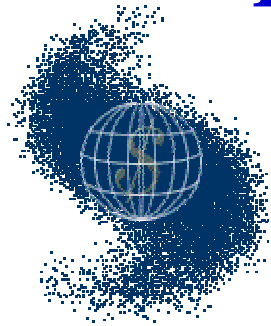


- **DSL ports expansion**
- **Core network upgrading**
 - New Platform for carrier class services
 - Expansion of core node capacity(> 10 GB)
 - L2/L3 PP VPN supported
- **Wi-MAX field trial**
- **Plan for streaming services**



TOT's Activities on NGN(2)

- **Broadband goes rural**



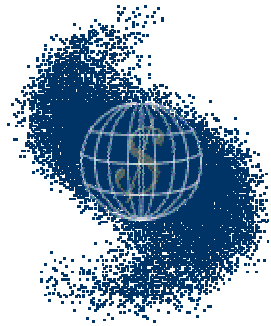
- IPSTAR can be reached from residential customer in rural area

- **Traditional voice services over Broadband**

- TOT hosts 8 vendors the workshop on SIP-I/H.248 on interoperability issues



Broadband Trends

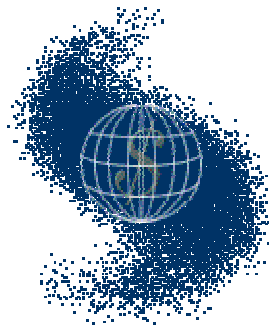


- **Wireless Broadband**
Portable Internet (Wi-Fi and Wi-Max)
- **Satellite Broadband**
- **Broadband Over Power line**

Source : FCC



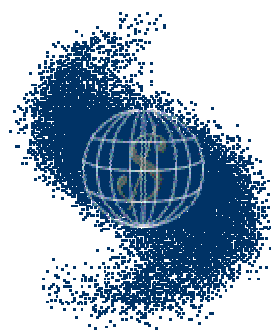
Conclusion



All operators in the world are subject to broadband technology trends

Without any exception, all operators in Thailand are also moving into the same direction





THANK YOU

