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IPv6 Development in China

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IPv6 development in China

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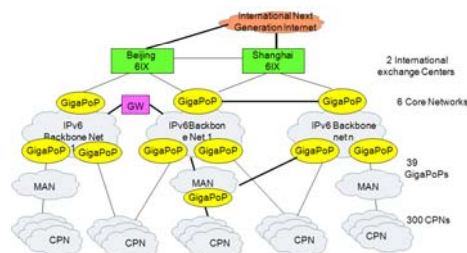
Developing status of IPv6

- **Number of Internet users keeps rising, most are broadband**
 - From 2008, the Internet users of China has been ranked the first in the world; By the end of 2009, the number reached 384 million; Among them, 346 million Internet users are using broadband access.
- **120 million new mobile Internet users added**
 - In 2009, mobile Internet service experienced a rapid growth, the issuance of 3G licenses was one important reason . By the end of 2009, the size of mobile internet users increased by 120 million a year, reached 233 million, accounting for 60.8% of total Internet users. Among them, 30.7 million only use mobile terminals to access Internet, accounting for 8% of total Internet users in China.
- **1M+ IPv6 users**
 - IPv6 network in China is one of the largest IPv6 network, with more than 1 million users. IPv6 traffic flow is 16G , which is around 1/10 of IPv4 traffic flow, much higher than the world average rate, which is about 1%. But still not commercialized in scale yet, most users and services still remain on CNGI.



- **Government and Industry cooperate to promote IPv6**

- Next generation Internet trial platform established in 2003 by 8 Ministries, including Development and Reform Commission, MII etc. with 1.4 billion RMB investment.
- Demo networks setup by the industry.
 - 2 IPv6 Exchange Centres set in Beijing and Shanghai
 - 6 core networks, China Telecom, China Netcom, China Mobile, China Unicom, CERNET2, China Railcom
 - 300 CPNs



- **New environment changes brought IPv6 more chances**

- 3G deployment accelerates traditional telecom companies' transition process
 - Construction of 3G network enhanced the network capacity, accelerating the development of data services.
 - Revenue reduction of traditional services urges the operators to continuously launch new mobile data services, that greatly raise the demand for IP address.
- Three Networks Convergence and Internet of things raise new demand
 - Three Networks Convergence expand the new demands for home networking services. The 13th State Council executive meeting decided to speed up the Three Networks Convergence. Triple play services will be the most important applications for telecom operators.
 - On March 5, Premier Minister Wen Jiabao urged to speed up the R&D on the Internet of things. Internet of things will greatly increase the demand for IP addresses. In 2009, China had 300 million fixed broadband users, 200 million mobile broadband users. But by 2013, fixed broadband users will be 600 million, while mobile broadband users will be 1.4 billion.



- **Establishment of China Internet Service Provider Union(CNISP)**
 - Consisted of ISP, IDC, ICP, Private network operators, equipment, VAS providers, and relevant institutions and organizations, except telecom operators.
 - To provide IPv6 technology solutions consulting, assistant to get IP address resources.
- **China Telecom's three-stage developing plan of IPv6**
 - Commercial trial phase, from 2009 to 2011, network and service platform reforming and Trial commercialization
 - Scale commercialization phase, from 2012 to 2015, IPv4, IPv6 network service co-exist, service platform migration to IPv6.
 - After 2015, full commercialized IPv6 networks.
- **IPv6 being used in recent big events**
 - 2008 Beijing Olympics; 2010 Shanghai EXPO; 2011, Shenzhen Universiade
- **Trial commercialization in some area**
 - In 2009, China Telecom supplied Internet of things services with IPv6 . China Telecom used intelligent sensing and control technology to provide video, temperature, humidity, light, soil displacement monitoring and other services and applications, directly serving the Academy of Agricultural Sciences.



- China has huge Internet market, and still in rapid progress, but IPv6 still in its initial stage of commercialization;
- Chinese government promoted the development of IPv6 together with the Industry; Issuing 3G licenses in 2009 and Three Networks Convergence promotion in 2010, provided a better environment for the development of IPv6;
- The Industry including Telecom companies and ISPs tried to seize opportunities of IPv6, already started commercial trial service in some areas.

Thank You!