

# Internet technology research with International collaboration

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APRICOT'2005  
Kyoto

# Topics

- The international collaboration on Internet technology
- Support from Ministry of Science and Technology
- Support from Natural Science Foundation for basic research
- In CERNET/CERNET2 context
- The future



# Supported Area by the Department of Information Science, NSFC

**Acquisition , Storage, Transmission, Proccession, Utilization**

## **Next Generation Wireless Communication**

- **Multimedia Communication**
- **Communication Systems Integration and modeling**
- **Broadband Access Technologies**
- **Communication Quality and Reliability**
- **Wireless and Mobile Networking and Computing**
- **Signal & Image Processing**

# Supporting Area of Information and Communication

## Internet II and Network

- **Architecture Modeling and Simulation**
- **Internetworking Protocols and Performance**
- **Parallel and Distributed Computing**
- **Real-Time and Multimedia Systems**

# Supporting Area of Information and Communication

## Internet II and Network— (Continued)

- Information Infrastructure Interconnect in High Speed Digital System
- Network and information security
- Network traffic studies and QoS
- E-Science, Grid Computing, Sensor Network

# Chinese-European Networking Symposium on Research Networks, Advanced Networks and Broadband Solutions



## Chinese-European cooperation on Information and Communications Technologies

*Mário Campolargo*  
*Head of Unit*

*DG INFSO F3 Research Infrastructure*  
Shanghai 9-10 December 2004



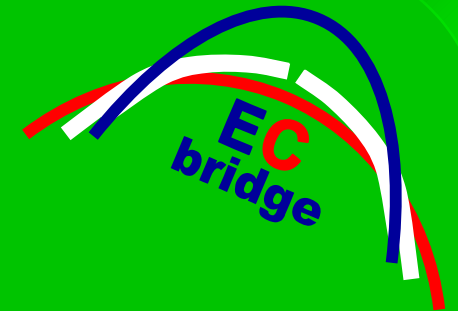
# EU-China cooperation framework

- **Joint Declaration (1997)**
- **A Memorandum of Understanding (1998) signed by:**
  - *Sir Leon Brittan, Vice-President of the European Commission*
  - *Mr. Liu Shanzai, Executive Vice-Minister of MOFTEC*
- **The Science & Technology Co-operation Agreement (1999)**
- **A Joint Declaration (2002) signed by:**
  - *Prof. Xu Guanghua, Minister of Science & Technology*
  - *Mr. Erkki Liikanen, European Commissioner for Information Society & Enterprise*



# Workshop on Advanced Networks

- Research Networks
- Access Networks
- IPv6
- Network security
- Middleware
- eInfrastructures
- Applications



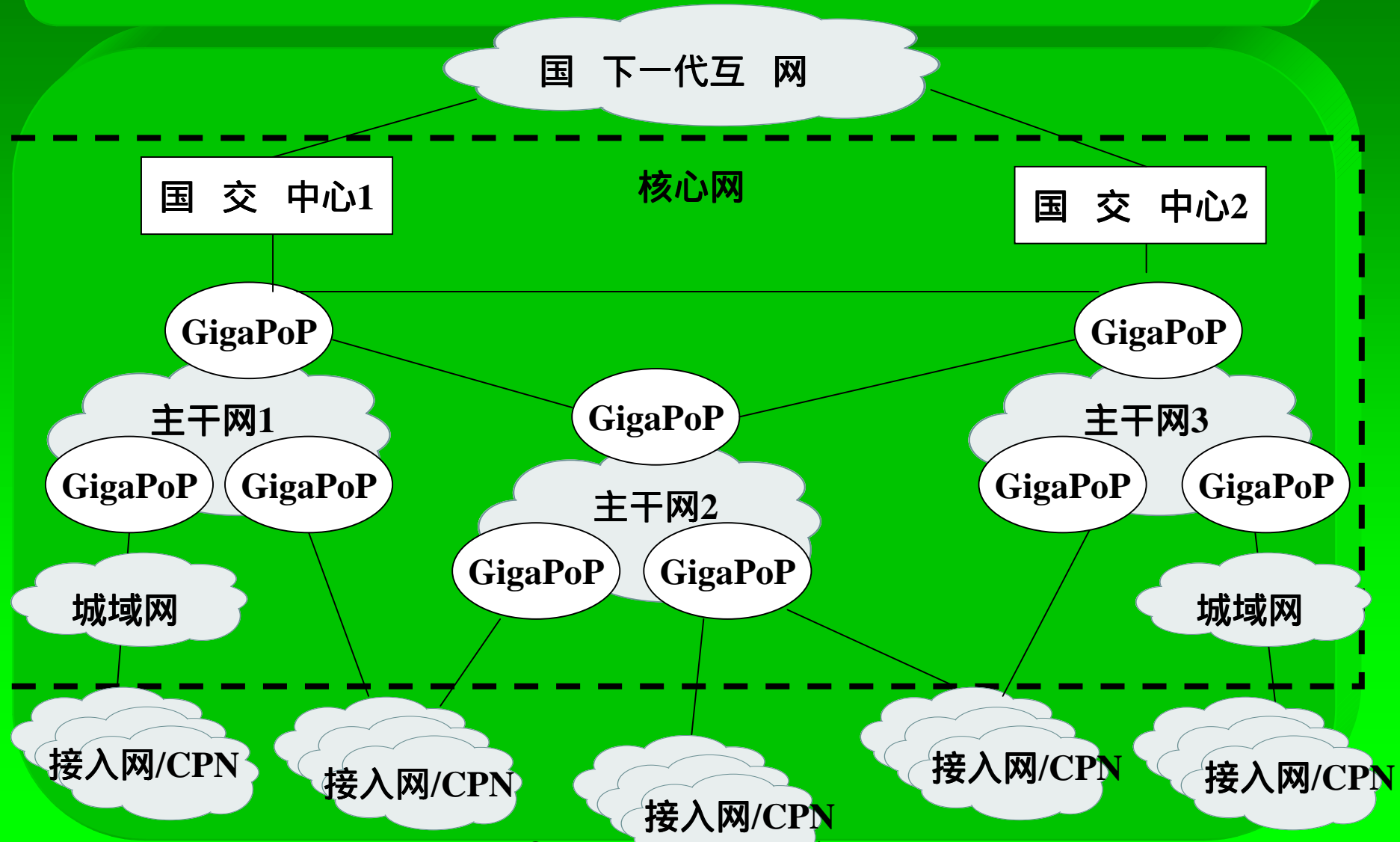
# In Asia area

- CJ-IPv6
- CK-Internet traffic monitoring
- APAN

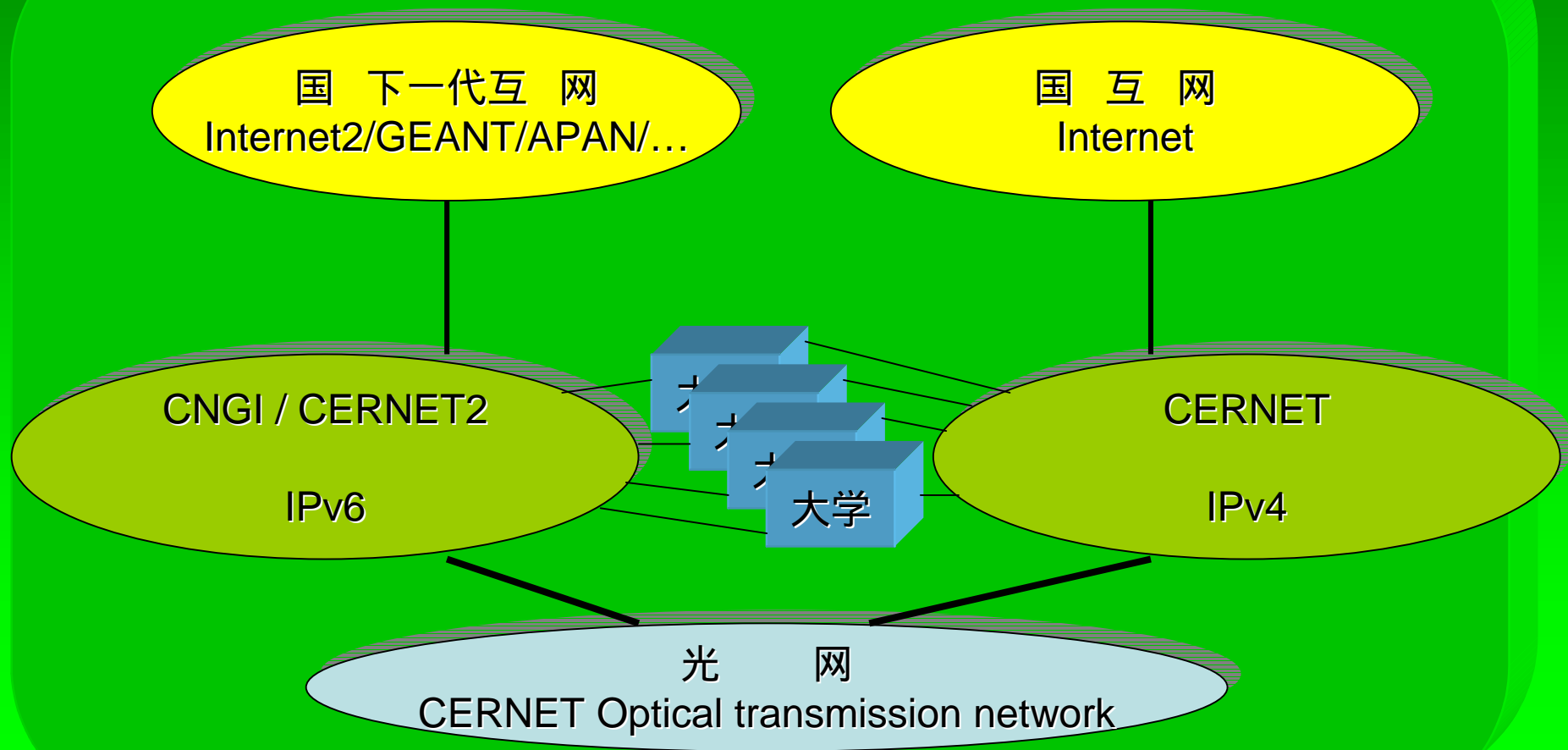
# Grand opening of CNGI/CERNET2 in Dec.2004



# CNGI project



# CERNET and CERNET2



# The joint launch of IPv6 service, 2004



Global IPv6 Service Launch Event

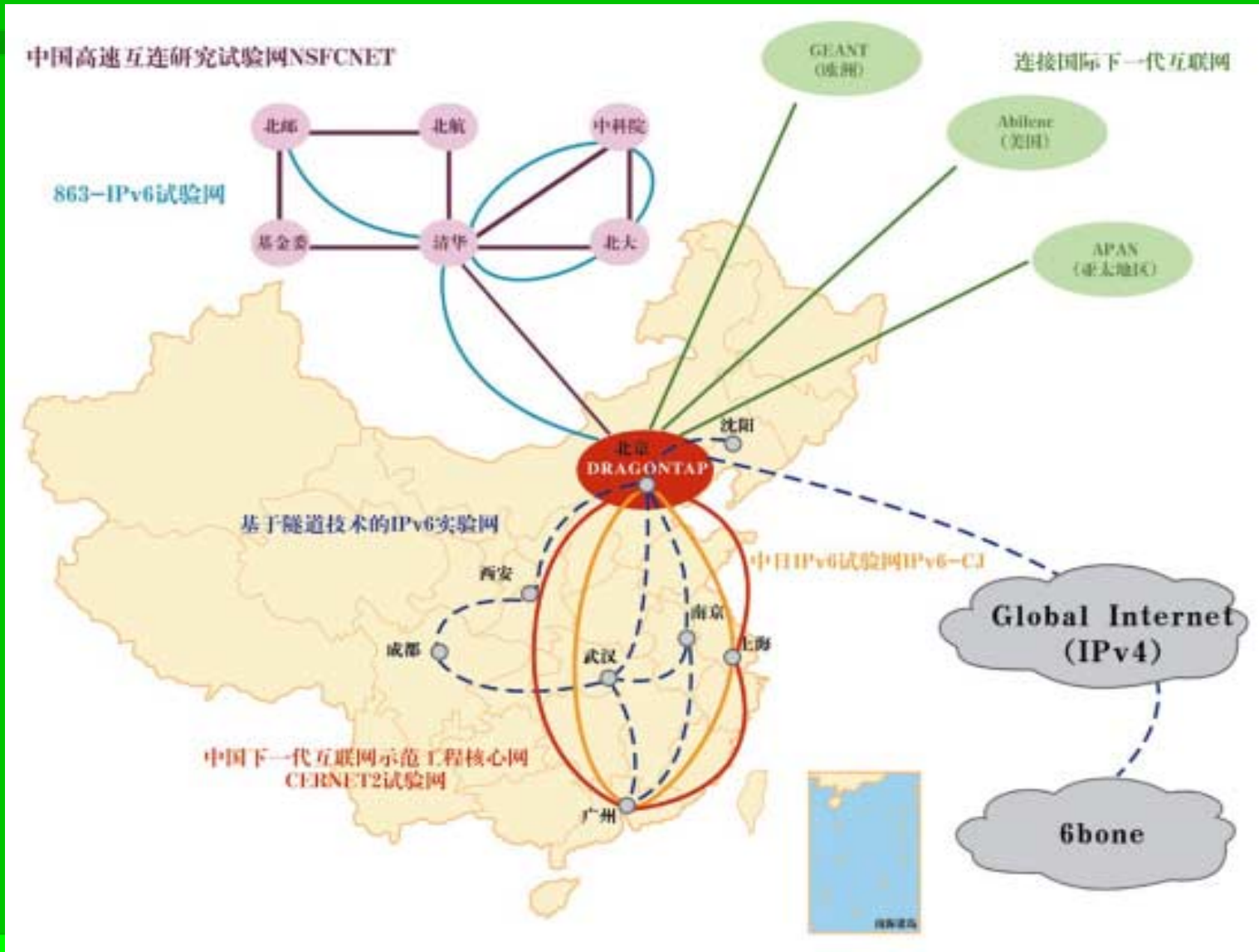
ABS'2004

MA Yan/BUPT

January 15 2004

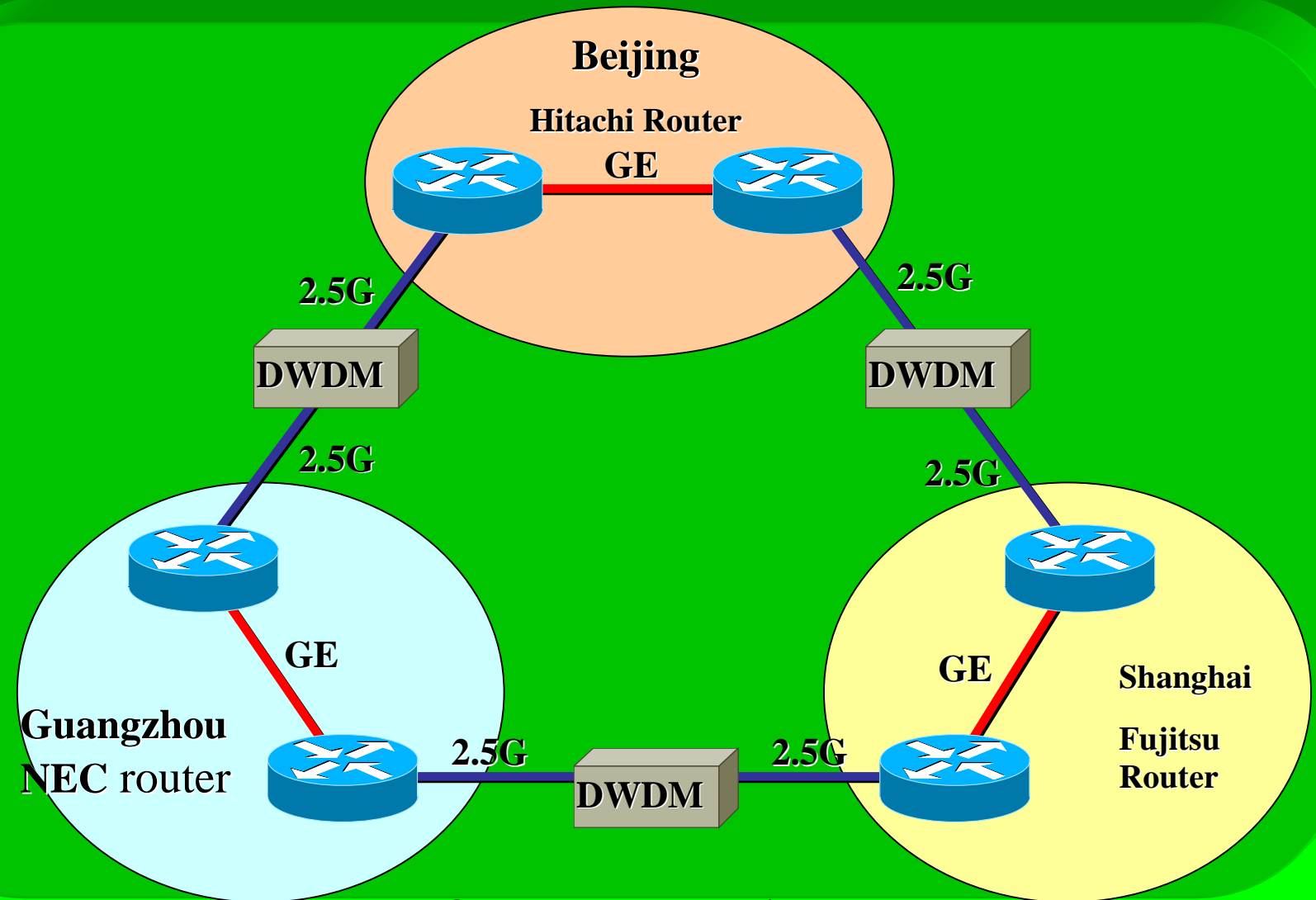


# NGI and IPv6 in China



# China-Japan IPv6 cooperation on Next Generation Network Test-bed project

## 中日IPv6合作 目 网



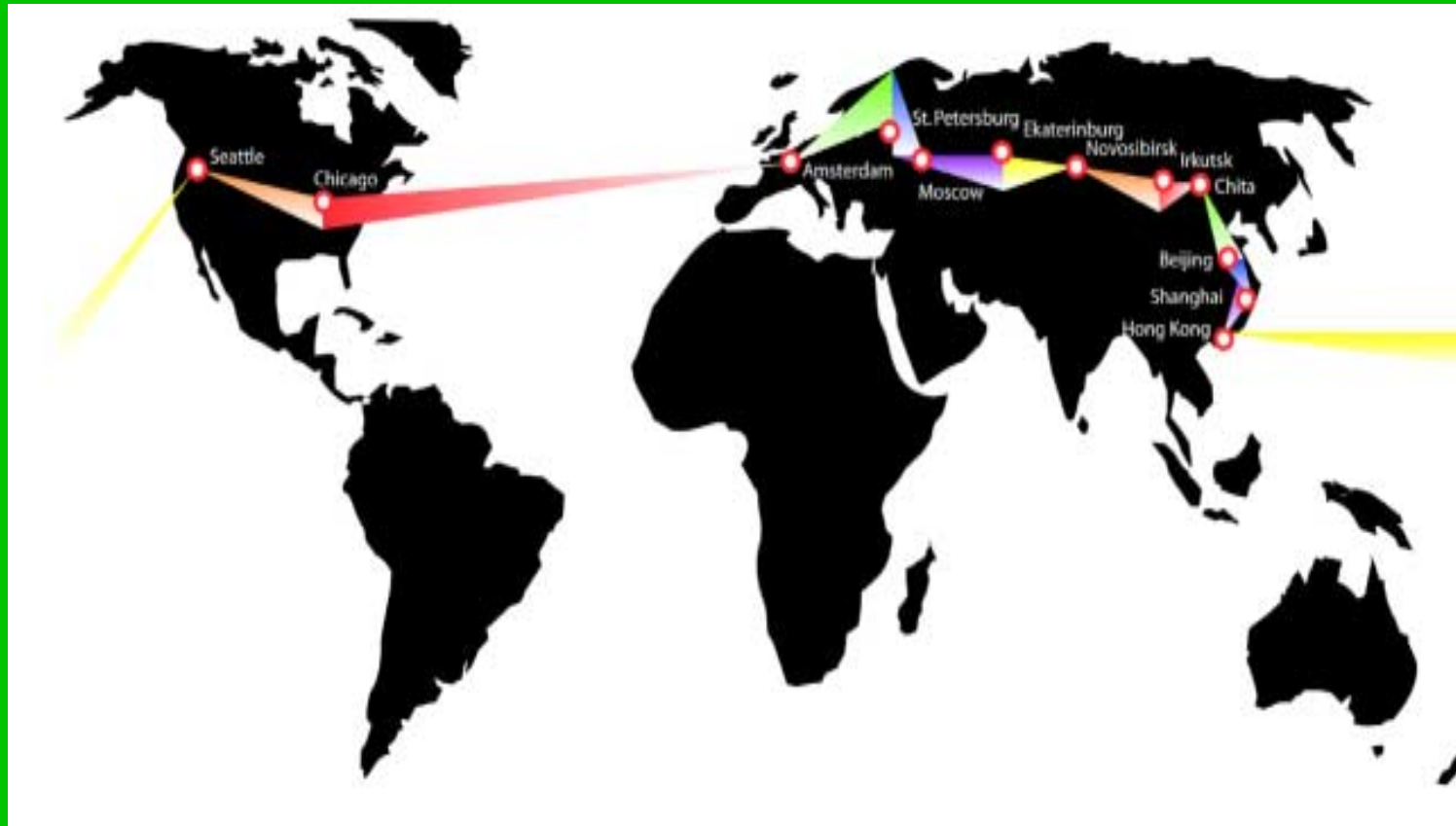


# 地学和天文学国际超基服

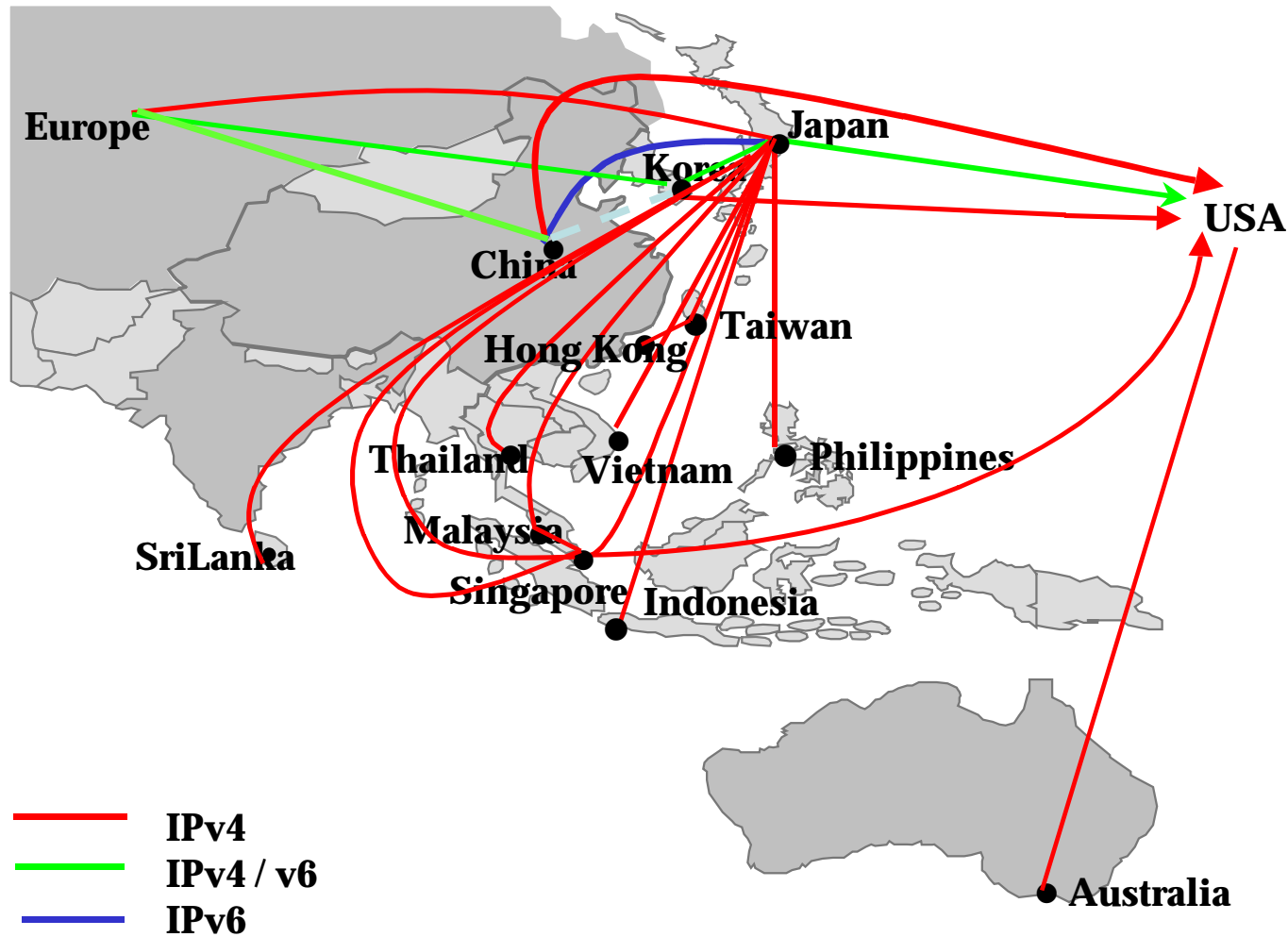
International VLBI Service for Geodesy and Astrometry (IVS)



# GLORIAD



# APAN and APAN-6IX



# APAN Observatory

- **Internet2 backbone Abilene Collocation Research Projects:**
  - [PlanetLab](#)
  - [The AMP Project](#)
  - [Passive Measurement and Analysis](#)
- **Joint project on APAN Observatory start on 2005**
  - John Hicks, TransPAC2/Indiana University
  - Takatoshi Ikeda, KDDI Labs, APAN-JP
  - Chris Myers, Grangenet
  - Kazanori Konishi, APAN-JP
  - Matt Zekauskas, Internet2/Abilene
  - Andy Gernain, NASA
  - Yan Ma, BUPT/CERNET
  - Xing LI, CERNET
  - Bruce Morgan, AARNET
  - Yoshitaka Hattori, KDDI/APAN-JP
  - Ronn Ritke, MNA/SDSC/UCSD
  - Yu-lin Chang, Academica Sinica

# In Dec. 2004



PlanetLab Home - Microsoft Internet Explorer  
 地址: http://www.planet-lab.org

**PLANETLAB**  
 An open platform for developing, deploying, and accessing planetary-scale services

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Current distribution of 508 nodes over 235 sites

**Announcements**

December 21 2004

**CERNET joins PlanetLab**  
 Fifty machines at 25 sites on CERNET (Chinese Research and Education Network) have come on-line, bringing the total number of PlanetLab nodes above the 500-node mark.

# The future

- Internet is powerful
- It is a tool for collaboration
- It is a platform for collaboration
- It is the future

**THANKS !**