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Research and Education Network in Taiwan

Simon C. Lin & Kenny Huang

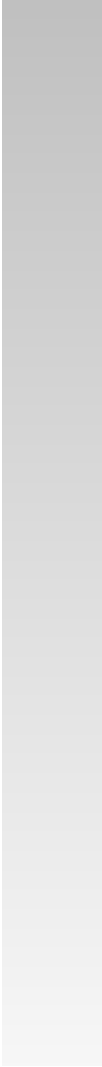
Computing Centre

Academia Sinica

Jan 1999



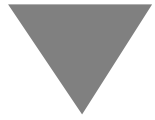
Agenda

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- Executive Summary
 - R&E Internet Analysis
 - R&E Networks in Taiwan
 - Summary

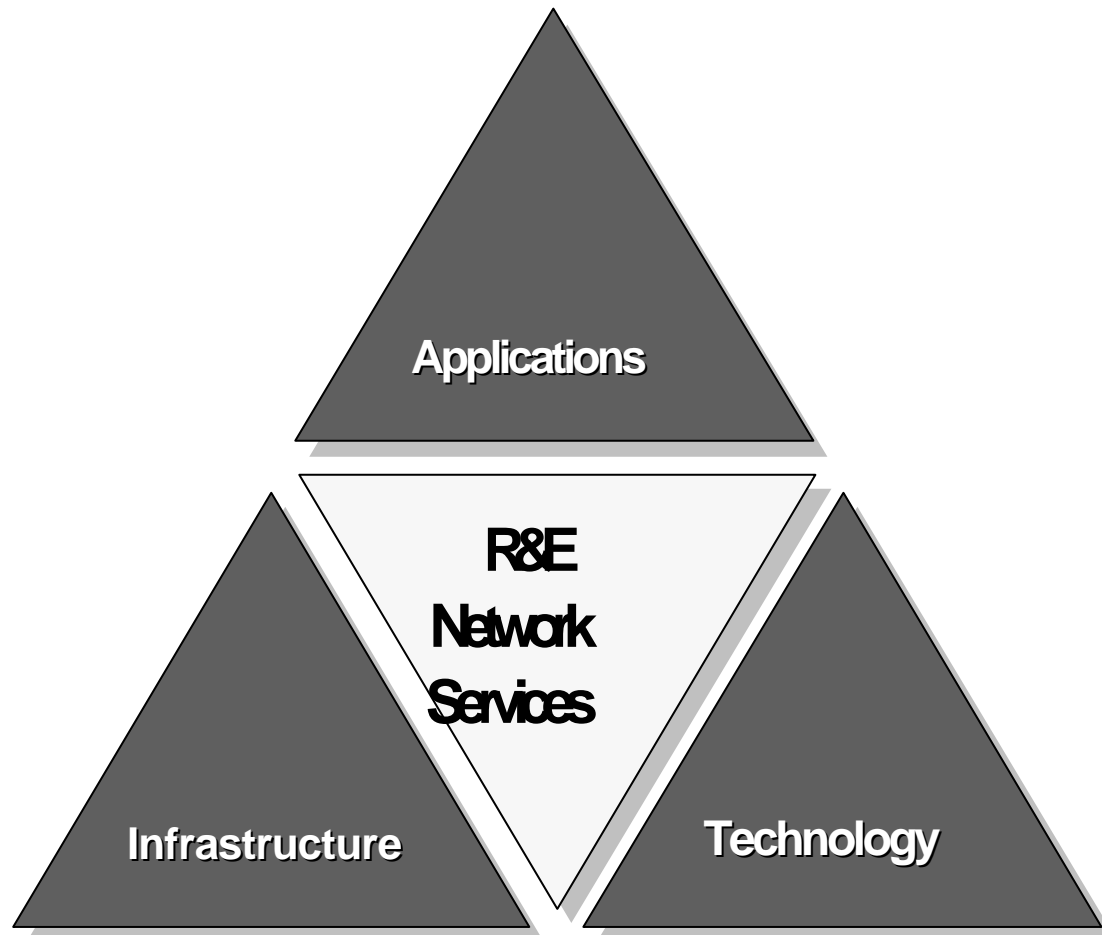


R&E Internet Analysis

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Landscape





Advanced Internet Initiatives

CA^{net}II



**CUDI Corporación
Universitaria para el
Desarrollo de Internet**



**Red
Científica**



**Rede Nacional
de Pesquisa**



**Red
Universitaria
Nacional**

**Red de Interconexión
Universitaria**



Dante
Quantum
Nordunet
SuperJanet
DFN
Renater2
FUNET
SURFNET
MirNET



TANet

AARNET





Research and Education Networks In Taiwan

TANet, TANet2, NBEN



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TANet

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- Taiwan Academic Network
 - First Internet in Taiwan
 - Members include universities, schools
 - Over half million users

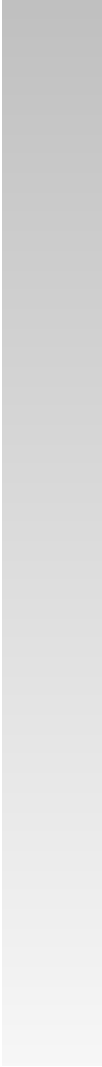


TANet2

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- Next Generational TANet
 - Members include national labs, universities and research organizations
 - Participants over 30 institutes
 - Peering with other international R&E networks through STARTAP



NBEN

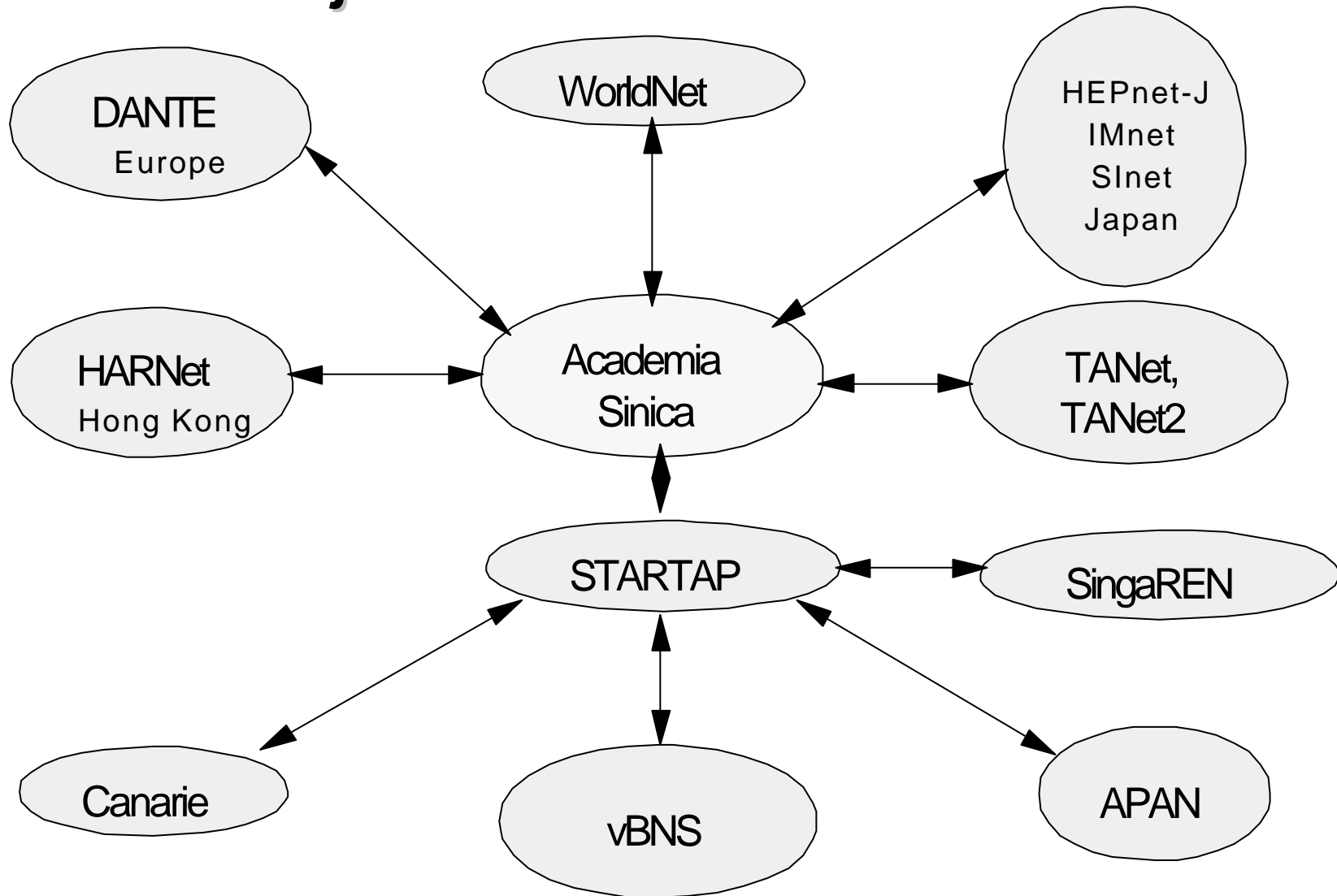
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- National Broadband Experimental Network
 - ATM-based Infrastructure
 - GigaPoP regional connections
 - Exploring new generation technologies and applications



Academia Sinica International Connectivities

- International T45 Digital Network / TANet2
 - San Francisco - 24Mbps
 - STARTAP/Chicago - 15Mbps
 - Peering: vBNS, CANARIE, APAN
- DANTE/TEN155 Connection - 1.5Mbps
- HEPnet-J (Japan) - 128kbps
- HARNet (Hong Kong) - 512kbps
- Other Connections in Asia

Global Projection

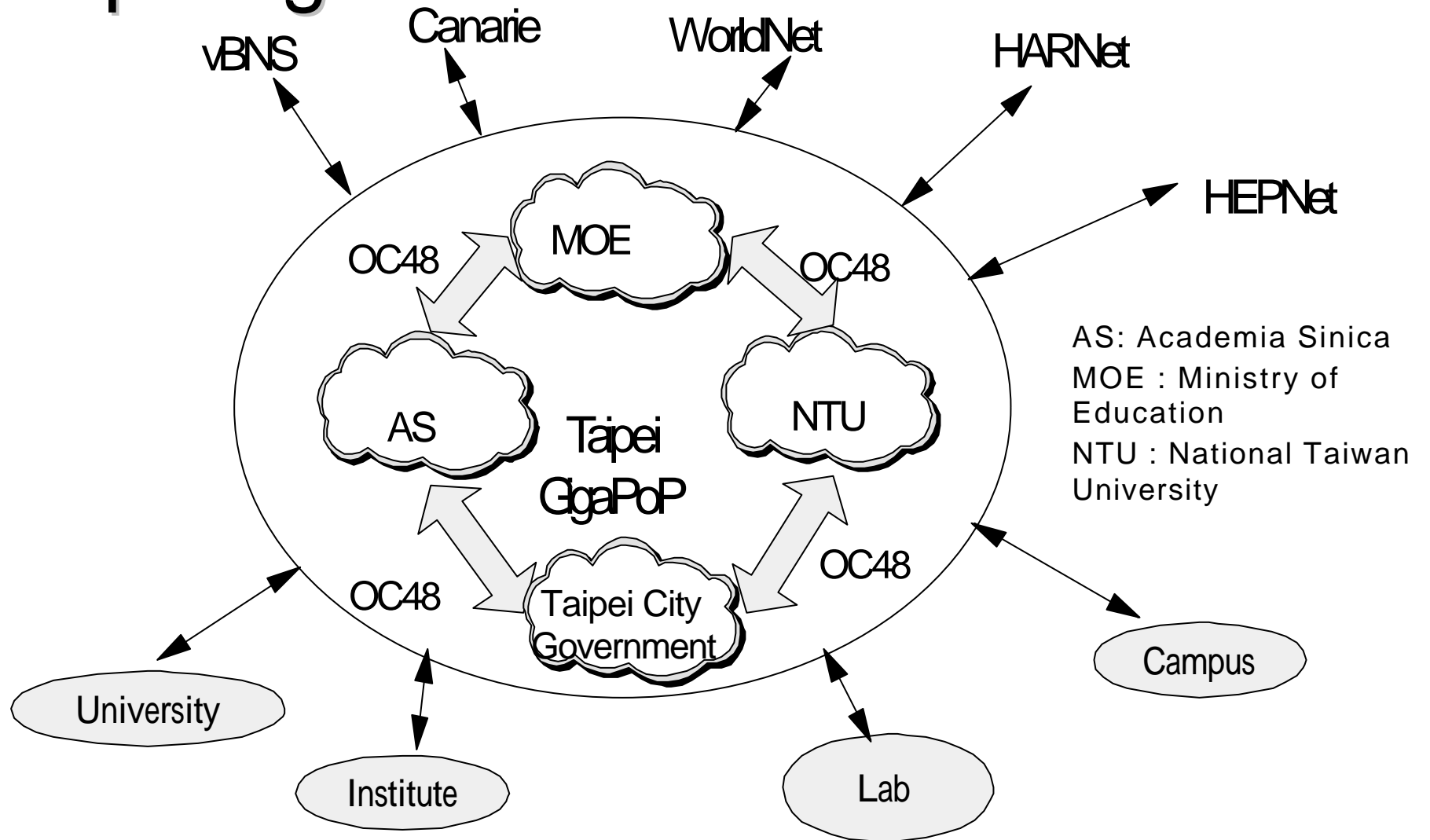




Regional Connectivities - Taipei GigaPoP

- Point of Aggregation with Distributed Routing
- Point of Local Traffic Exchange
- Variety of Speed
- Point of Policy Implementation
- Point of Backbone Uplink
- Taipei GigaPoP - Fibre City

Taipei GigaPoP



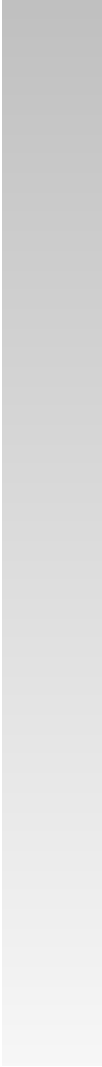


QoS Strategy

- Route Guarantees
 - ▶ Dedicated R&E network
 - ▶ Global Connectivities
- Broadband Technology
 - ▶ High Speed is contradictory to QoS
- Deploy Differentiated Service rather than QoS




DCIC Programme

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- Developing Country Internet Connection Programme
 - Collaborative Organisations : Academia Sinica, PNC, NSC, TWNIC, MOE
 - Provides \$500,000 per Year



Summary

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- Wire the World
 - Advanced Technology
 - International Collaboration with Organisation (PNC) and Real Applications
 - Vision