

# CUDI-NOC MEXICO



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**DGSCA**

**UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO**



**Marzo 2004**

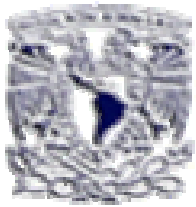
**Manzanillo, Colima**





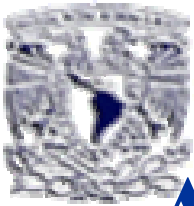
# Agenda

- Arquitectura de Redes Educativas (Internet2)
- Enrutamiento (Estáticas, IGP, BGP)
- Reportes mas comunes:
  - Direcciones IP, Numero de AS/NAT/Firewalls
  - Multicast/IPv6
  - Fish-problem

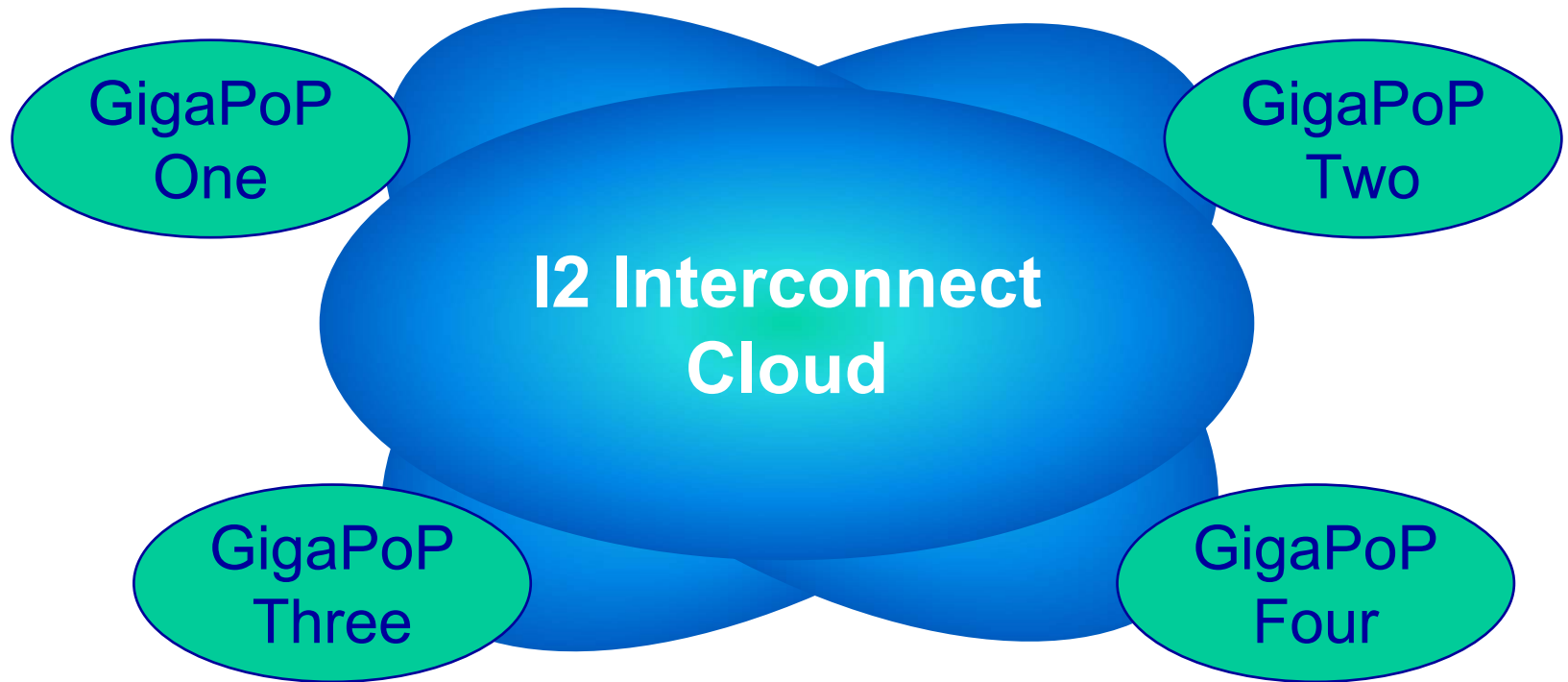


# Aquitectura de Redes Educativas

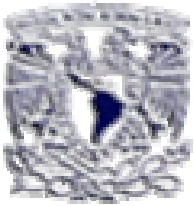




# Aquitectura de Redes Educativas







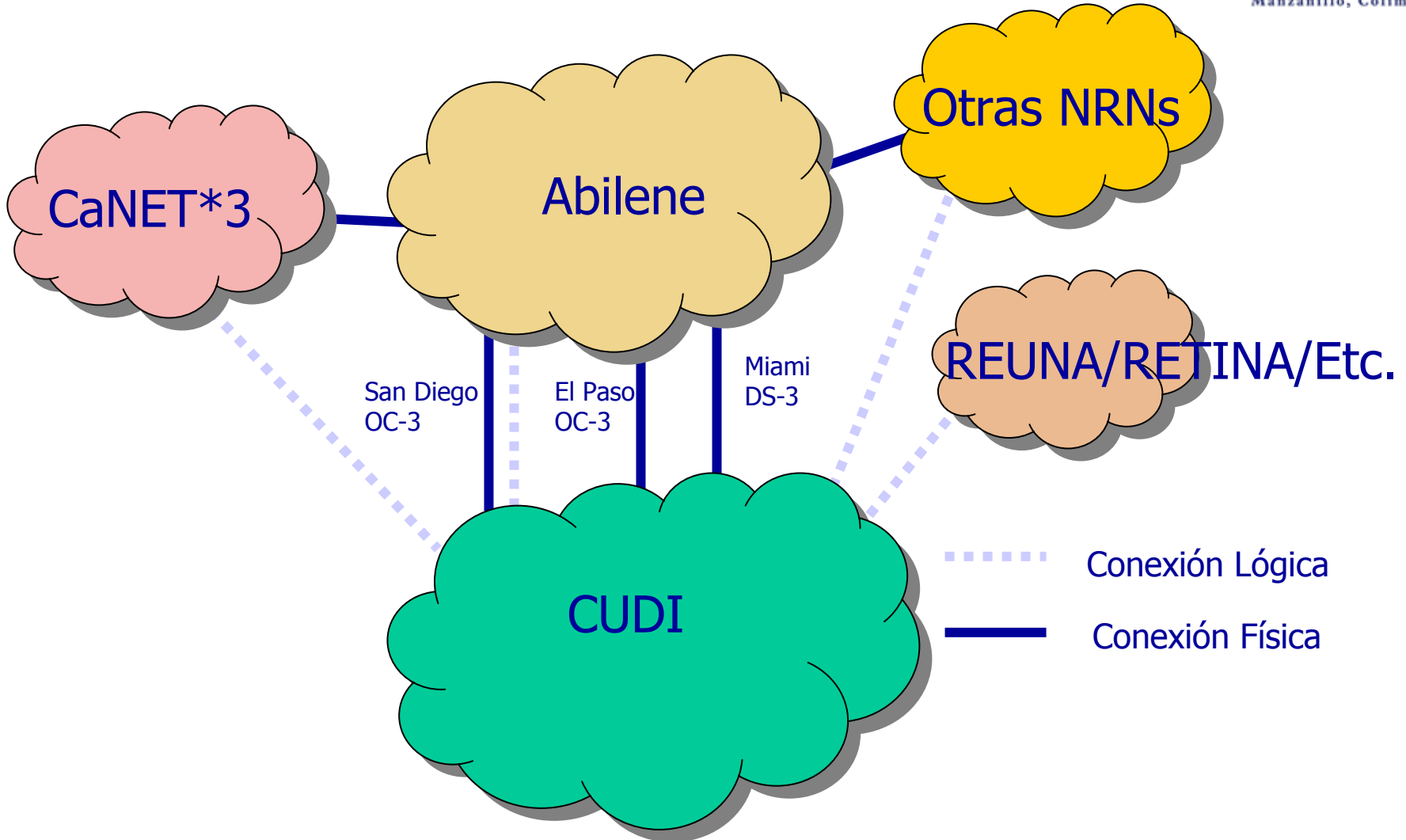
# Abilene Network



Fuente: [www.abilene.iu.edu](http://www.abilene.iu.edu)



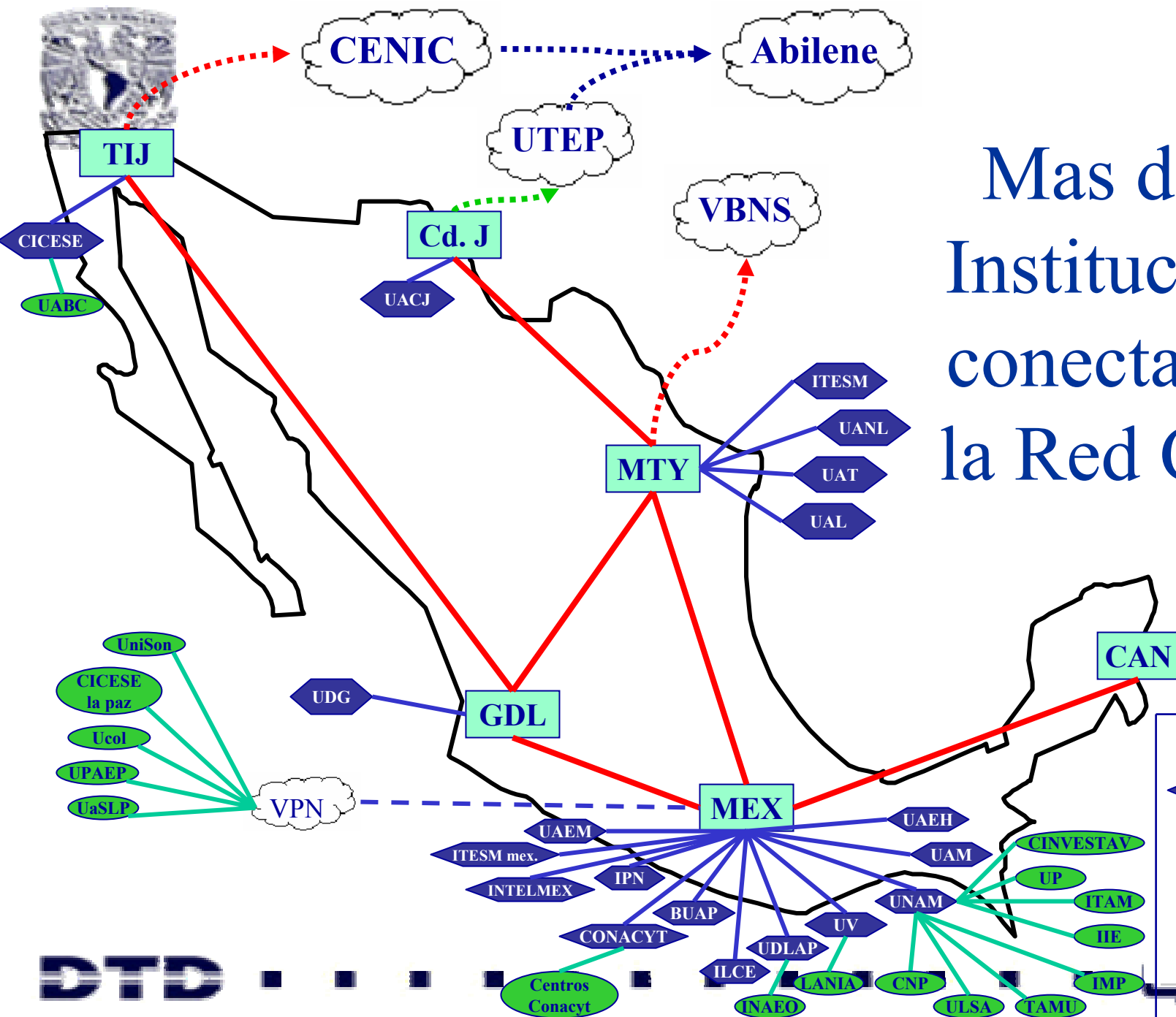
# ENLACES INTERNACIONALES





REUNIÓN DE PRIMAVERA  
CUDI 2004  
28 al 30 de abril  
Manzanillo, Colima

# Mas de 60 Instituciones conectadas a la Red CUDI



**Nodo POP**

**Asociado Acad**

**Afilado**

— 155 Mbps

— 100 Mbps

— 34 Mbps

— 2 Mbps o más





## IGP's vs EGP's

### IGP:

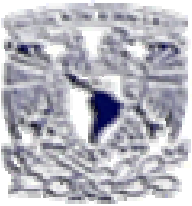
- Interior Gateway Protocol.
- Intercambio de información dentro de un AS.
- Ejemplos: Rutas Estáticas, RIP, IGRP, EIGRP, OSPF, IS-IS.

### EGP:

- Exterior Gateway Protocol.
- Intercambio de información entre AS's.
- Ejemplos: EGP, BGP.







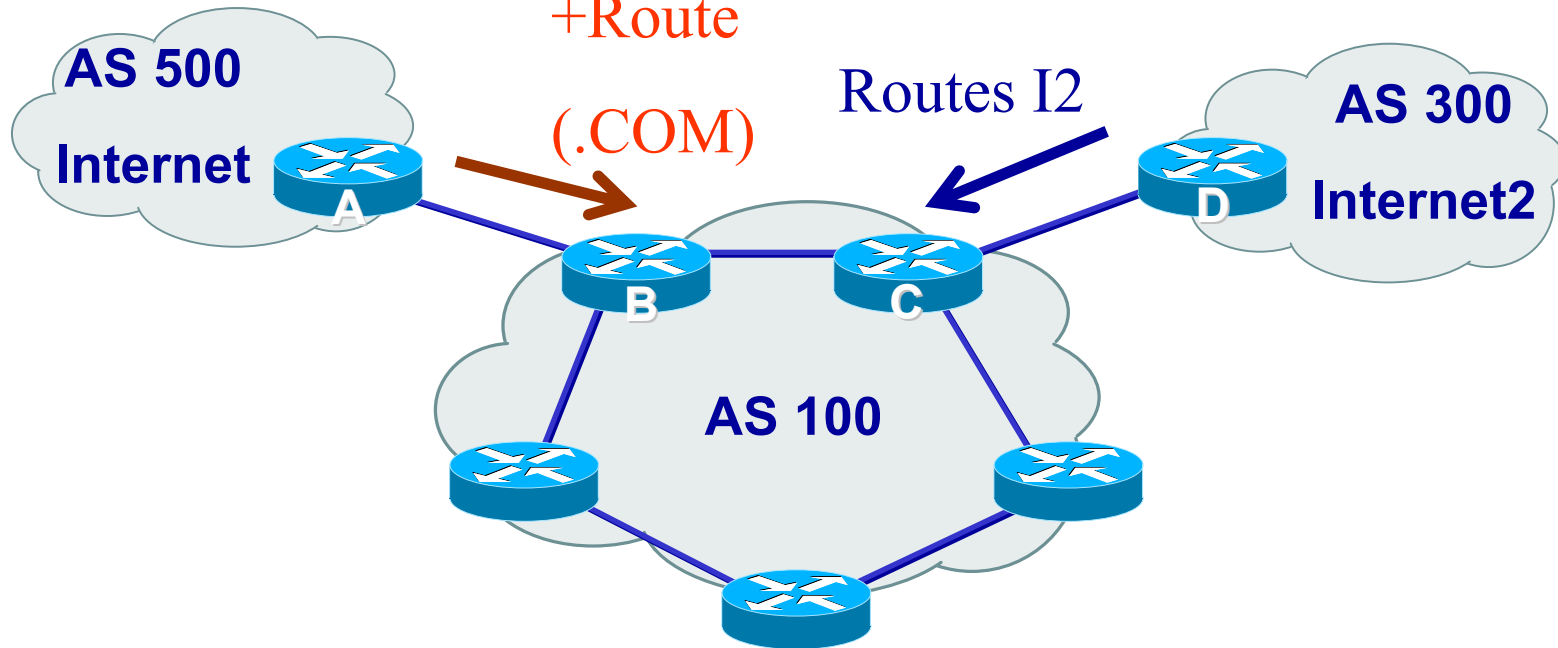
# Multi-homed

Default

+Route

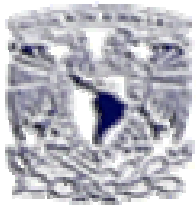
(.COM)

Routes I2



Paths asimétricos





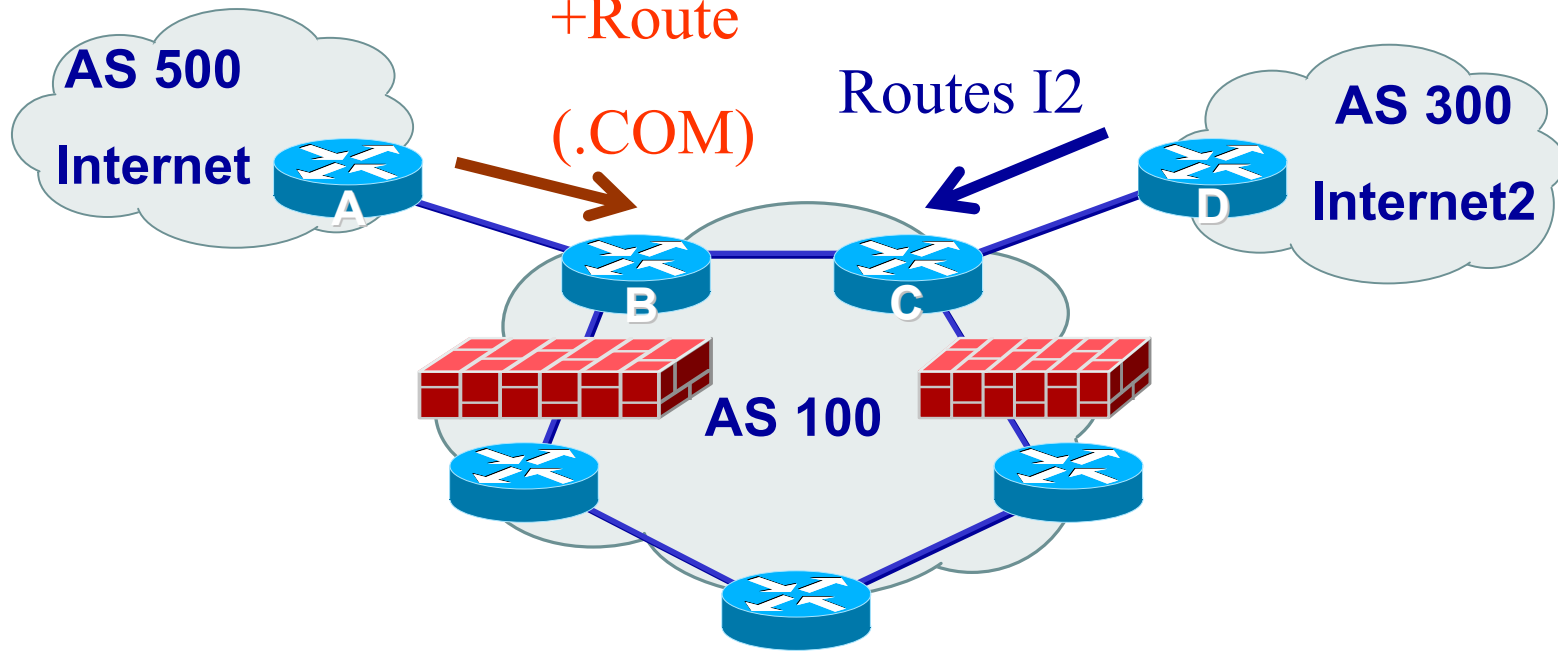
# Reportes mas comunes





# Multi-homed

Default  
+Route



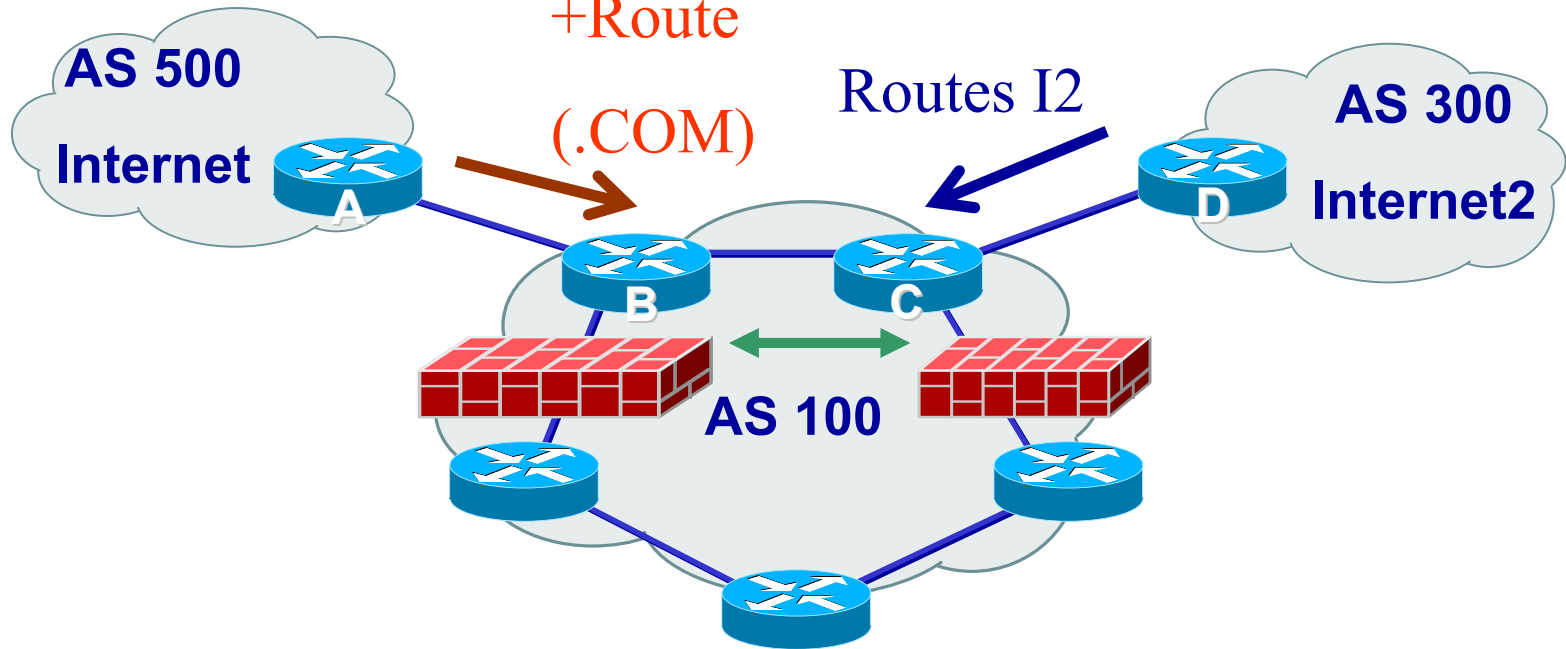
Paths asimétricos:



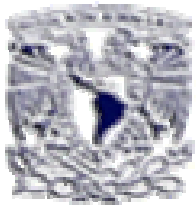


# Multi-homed

Default  
+Route

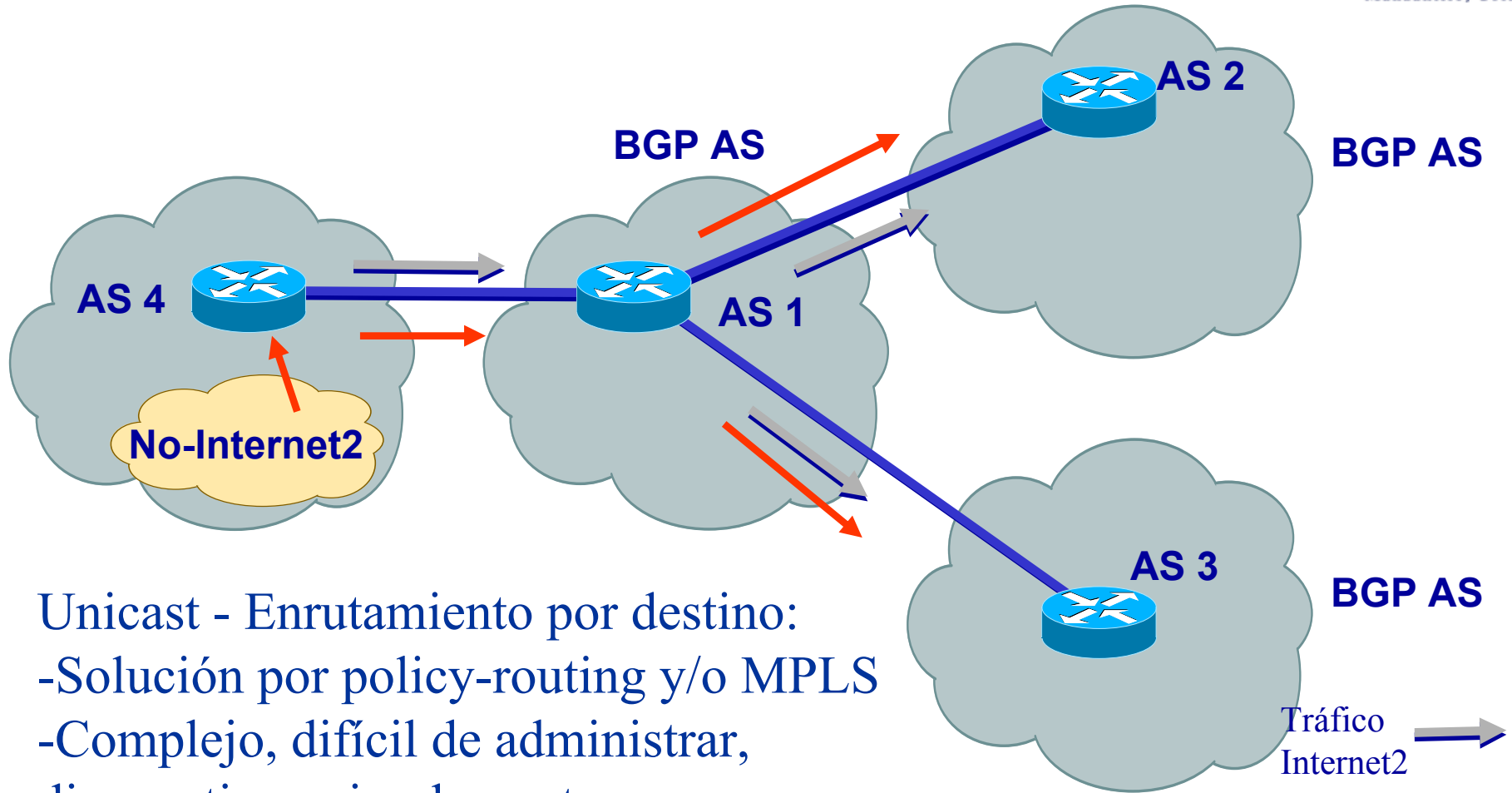


Ataques de TCP-Sync



# Fish-Problem

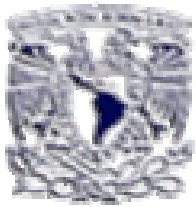




Unicast - Enrutamiento por destino:  
-Solución por policy-routing y/o MPLS  
-Complejo, difícil de administrar,  
diagnosticar e implementar

Tráfico Internet2 →

Tráfico No Internet2 →



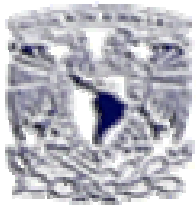
# More Information

- Internet2
  - [www.internet2.edu](http://www.internet2.edu)
- Abilene
  - [www.internet2.edu/abilene](http://www.internet2.edu/abilene)
- UCAID
  - [www.ucaid.edu](http://www.ucaid.edu)



# REFERENCIAS

- General
    - [www.cudi.edu.mx/](http://www.cudi.edu.mx/)
    - [www.internet2.edu.mx](http://www.internet2.edu.mx)
    - [www.noc-internet2.unam.mx/](http://www.noc-internet2.unam.mx/)
  - IPv6
    - [www.ipv6.unam.mx/internet2.html](http://www.ipv6.unam.mx/internet2.html)
- Multicast
- [multicast.mty.itesm.mx/cudi.htm](http://multicast.mty.itesm.mx/cudi.htm)



!!!Gracias!!!

