

# 3er. Foro Regional de Interconectividad , ciberSeguridad e IPV6 ITU

Panama, Septiembre 2015



# Definicion de IXP

- An Internet Exchange Point (IXP) is a network facility that enables the interconnection of more than two independent Autonomous Systems, primarily for the purpose of facilitating the exchange of Internet traffic.
- An IXP provides interconnection only for Autonomous Systems.
- An IXP does not require the Internet traffic passing between any pair of participating Autonomous Systems to pass through any third Autonomous System, nor does it alter or otherwise interfere with such traffic.
- “Autonomous Systems” has the meaning given in BCP6/RFC4271 , “A Border Gateway Protocol BGP4”.
- “Independent” means Autonomous Systems that are operated by organizational entities with separate legal personality.



# *Explanatory Notes*

- 1. An Internet Exchange Point is a technical facility. This is distinct from the organization that provides that facility, which might be termed an IXP operator.
- 2. An IXP is distinct from an Internet access network or a transit network/carrier.
- 3. The function of an IXP is to interconnect networks. An IXP does not provide network access or act as a transit provider/carrier. An IXP also does not provide other services unrelated to interconnection (although this does not preclude an IXP operator from also providing unrelated services).



# *Explanatory Notes*

- 4. An IXP exists to interconnect networks that are technically and organizationally separate.
- Without qualification the term “network” is too flexible and fails to identify the degree or kind of separation required. Once interconnected, separate networks are arguably part of the same network: the entire Internet is often considered a network, a network of networks.
- To resolve this terminological problem we employ the term “Autonomous System”, which is the standard technical definition of a technically stand-alone network.

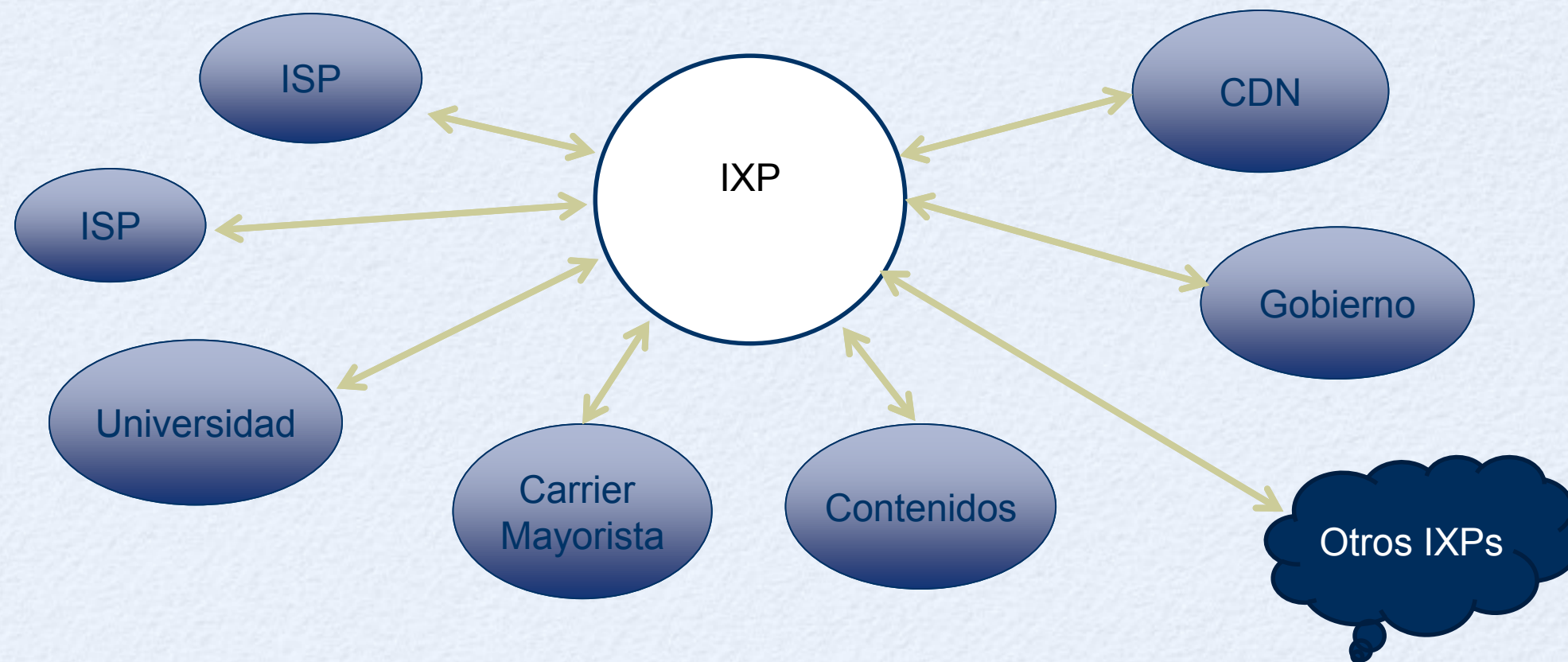


# *Explanatory Notes*

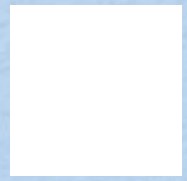
- 5. The network operators whose networks are interconnected in an IXP are sometimes collectively termed “IXP participants”, which generalizes the relationship between those entities and the IXP operator; IXP participants may be members of the IXP operator, customers of the IXP operator, or some other relationship.
- 6. An IXP is a facility where numerous participants interconnect (at least three); this distinguishes Internet Exchanges from bilateral network interconnection, in which one network connects to one other.



# Quines lo forman







# IXP Operator Mas de un Modelo

- Por tipo de Agrupacion
- Por con o sin fin de Lucro
- Inter Conectados o No
- Por modelo de Trafico o Puertos
- Por tipo de Acuerdo



# ■ Que Costos Tienen

- **La ubicación Física es muy importante**
- **La Capacidad Tecnica de Operacion**
- **La capacidad de Crecimiento en Bocas y Trafico**
- **La instalacion de enlaces de Fibra y Radios**
- **Modelo Auto-Sustentable en el Tiempo**



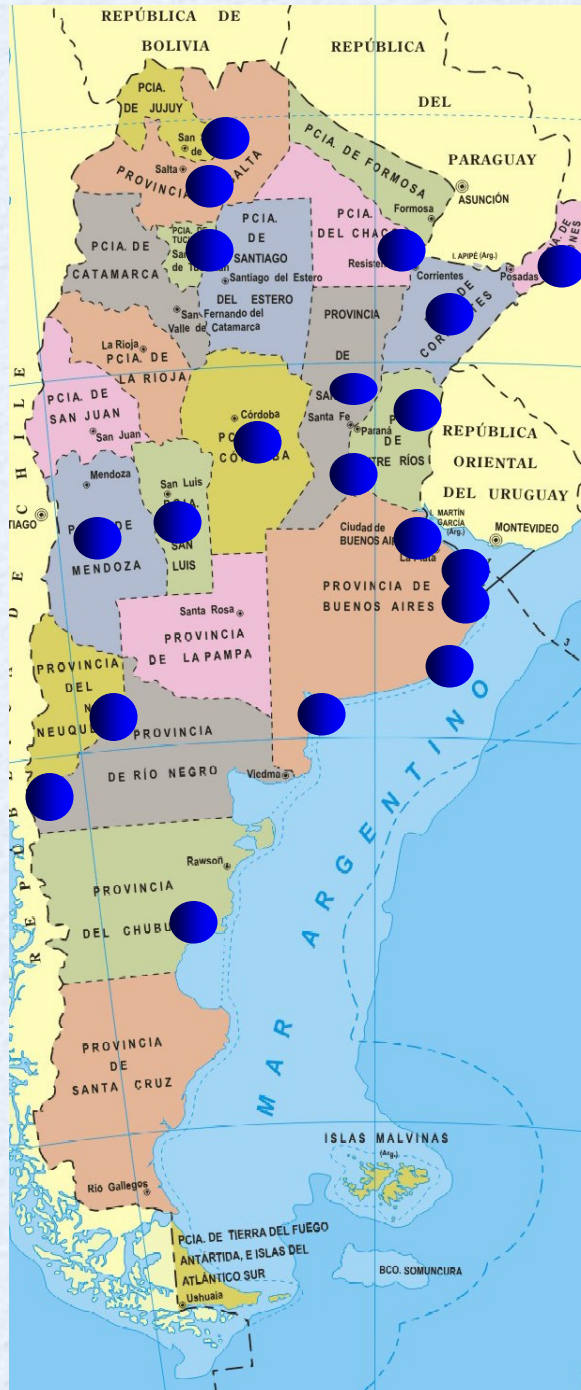


# Un Caso de Exito

- CABASE Camara Argentina de Internet
- 1er. Nap 1997, 12 miembros
- 11 Naps 2012 ,135 miembros
- 21 Naps a fin de 2015 mas de 290 miembros
- Incremento del Trafico de 1Gbps a 80Gbps
- Reduccion del costo Mayorista desde U\$S480 a U\$S 20 por Mbps
- Mayor Penetracion de Banda Ancha en el Pais



# NAPS CABASE



- Buenos Aires
- Neuquen
- Rosario
- Santa Fe
- Cordoba
- La Plata
- Mar del Plata
- Mendoza
- Santa Fe
- La Costa Atlantica
- Tucuman
- Salta
- Jujuy
- Resistencia
- Corrientes
- Colon
- Posadas
- Comodoro Rivadavia
- San Luis





# Gracias

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