

# NeuStar SIP-IX

Eugene Lew

VP, Advanced Services

+1-571-434-3420

[Eugene.Lew@neustar.biz](mailto:Eugene.Lew@neustar.biz)

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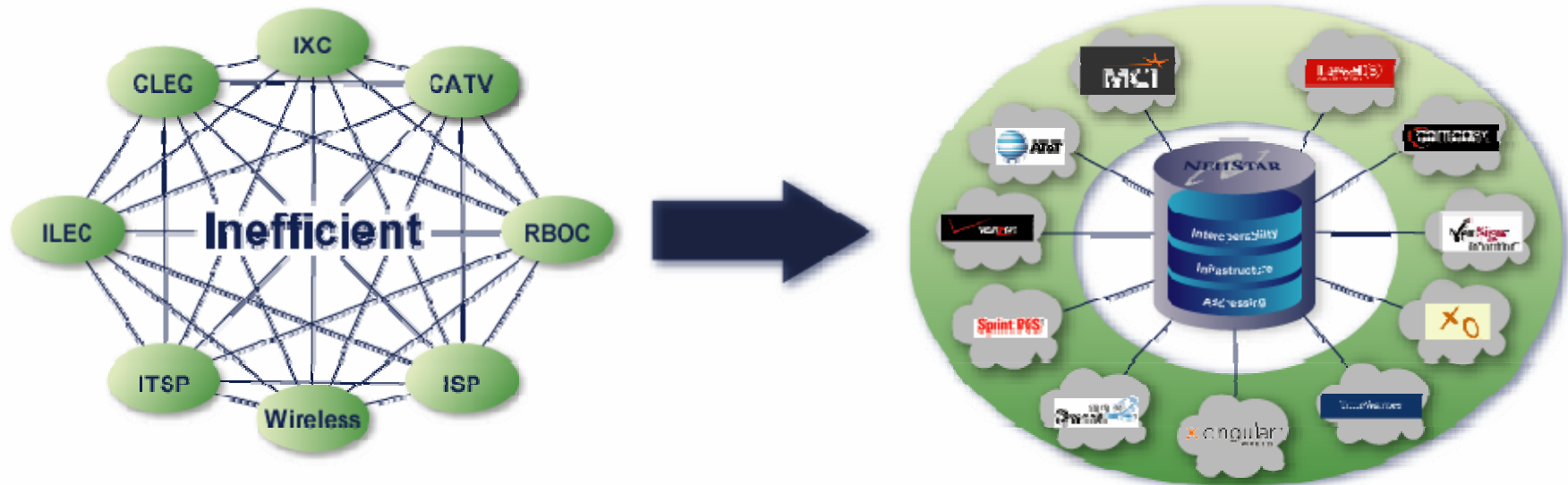
*Every day, billions of calls, and hundreds of millions of internet transactions rely on NeuStar*

- **Global operator of neutral, shared, mission-critical directory and clearinghouse services to communications industry**
  - Neutral third party
  - GSMA Root
  - NPAC (number portability) & NANPA (numbering) for North America
  - TW-NPAC (partner with Taiwan)
  - TLD operator for .us, .biz, and GW for .cn, .tw
- **Financially stable**
  - 2005 US\$242M revenues, US\$55.4M earnings
  - +25% CAGR, 500+ people, NYSE: NSR
- **10 years proven track record operating crucial services**
  - Originally started as an independent unit within Lockheed Martin
  - Became NeuStar upon spin-out in 1999
- **Focus on solving strategically critical industry interoperability problems relating to numbering, addressing, and inter-working**
  - Leadership role in SIP and ENUM industry groups
- **Strategic value-creation for service providers**
  - Enable new revenue-generating services (scalable inter-working)
  - New business models to prevent disintermediation or commoditization
  - Strategic cost reduction

# Built on the Need for Shared Neutral Services

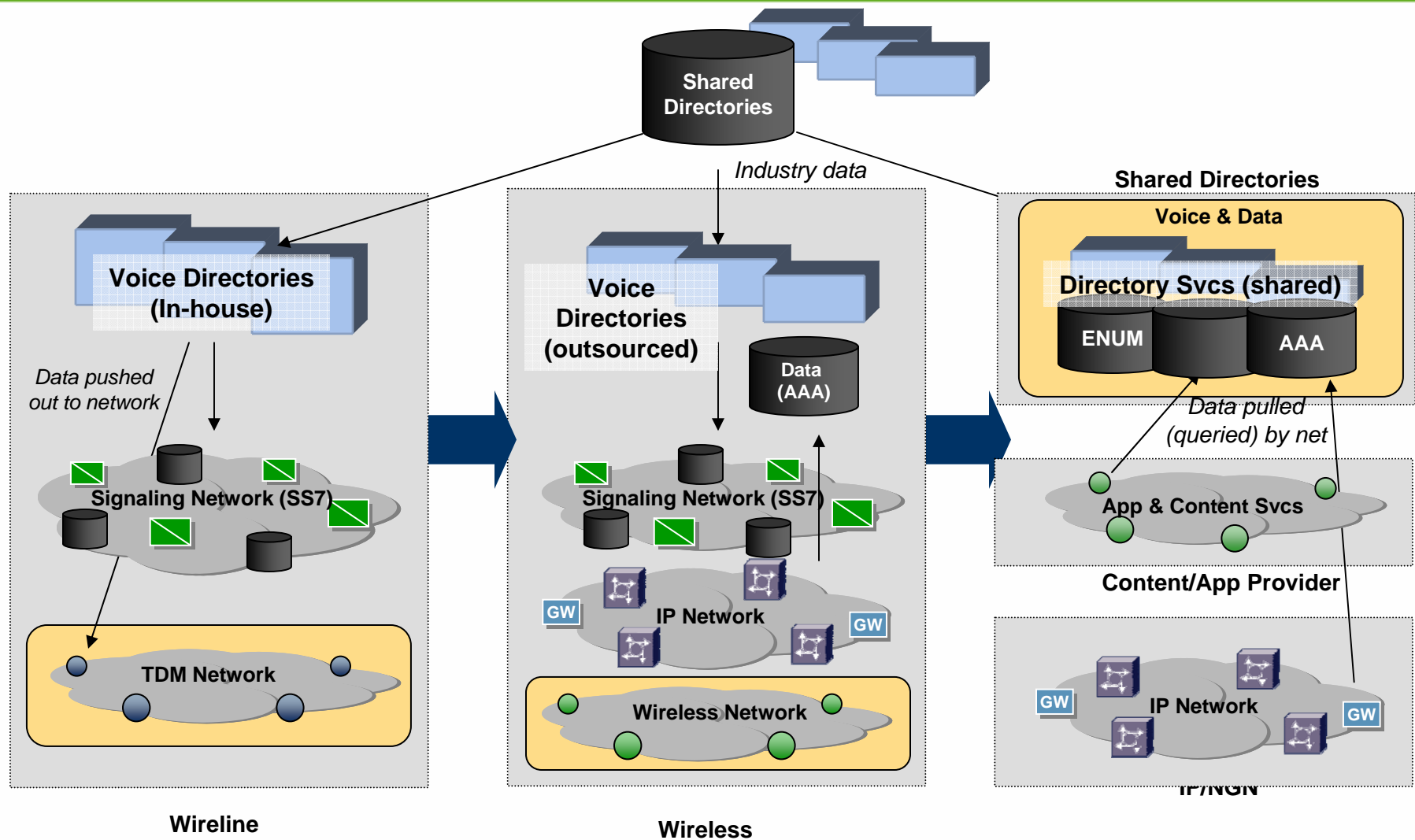


- To inter-work seamlessly and scale efficiently, networks need:
  - Addresses (e.g., phone numbers, domain names)
  - Exchange of ordering and provisioning information
  - Discovery, authentication routing, signaling mediation



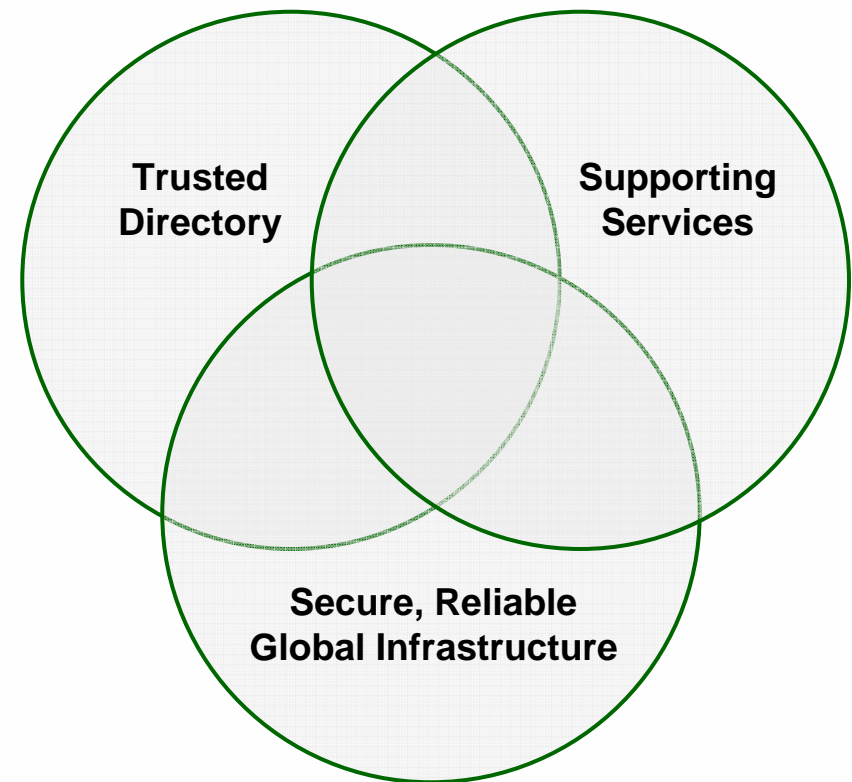
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# Evolution towards Network of Directories



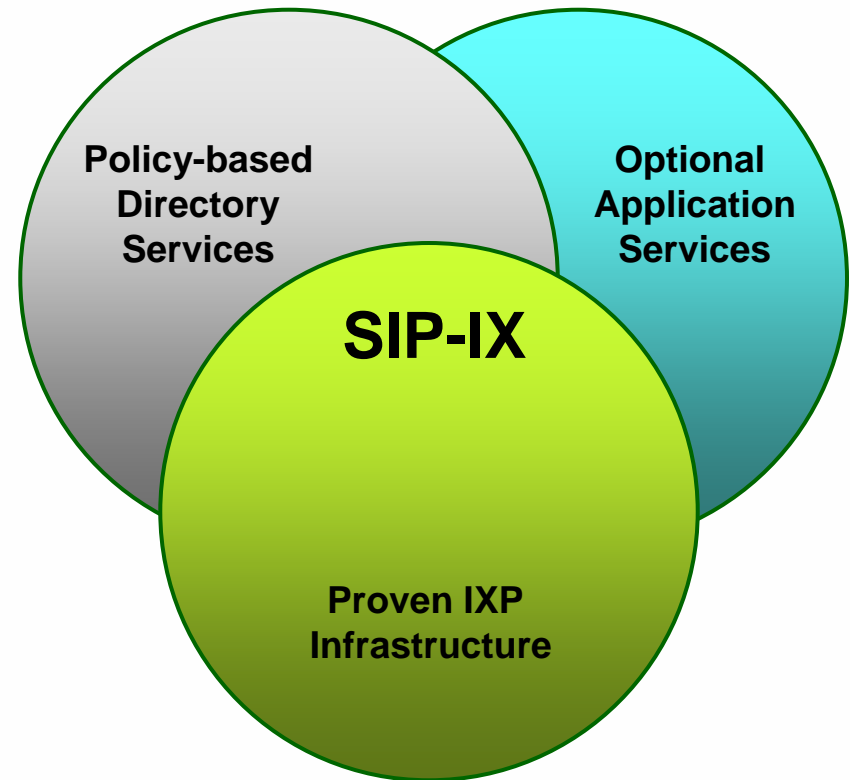
- **The Need**

- Seamless, network-neutral interworking of SIP and IMS applications across domains
- A trusted, shared directory enabling reliable, low latency call and session setup
- Service enablement to dynamic community of users, devices and locations
- Global, redundant, secure, high performance infrastructure
- Efficient, scalable business and technology models

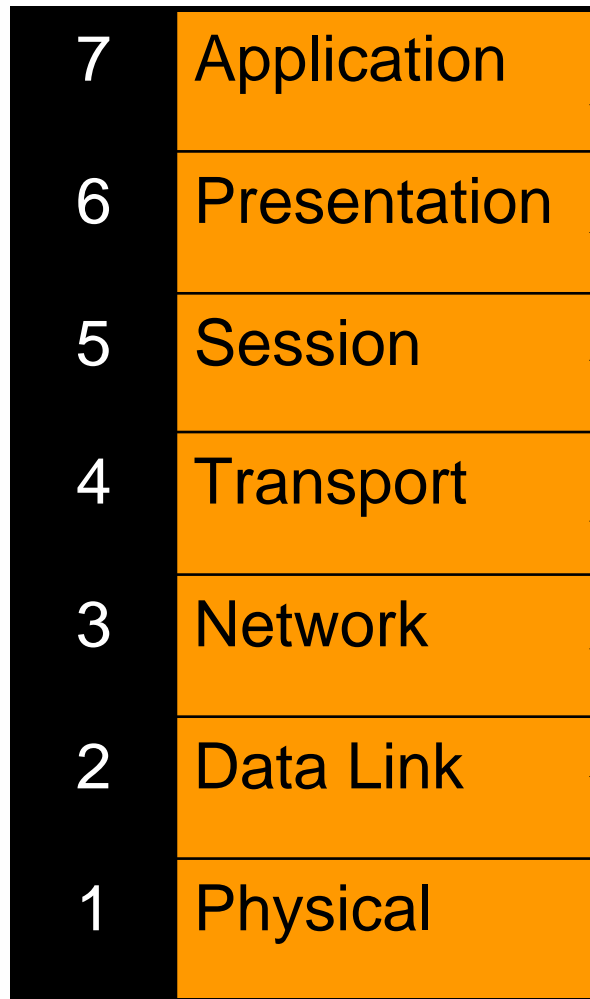


- **The Service**

- Direct network-to-network peering, addressing and routing of SIP and IMS traffic
- Shared Directory Services based on global availability of a single root directory (private ENUM)
- Policy-based management tools modeled after data peering policy tools
- Deployed at global Internet Exchange Points
- Platform for industry alliances and service enhancements



# OSI 7-Layer model: Internet & VoIP/SIP Peering

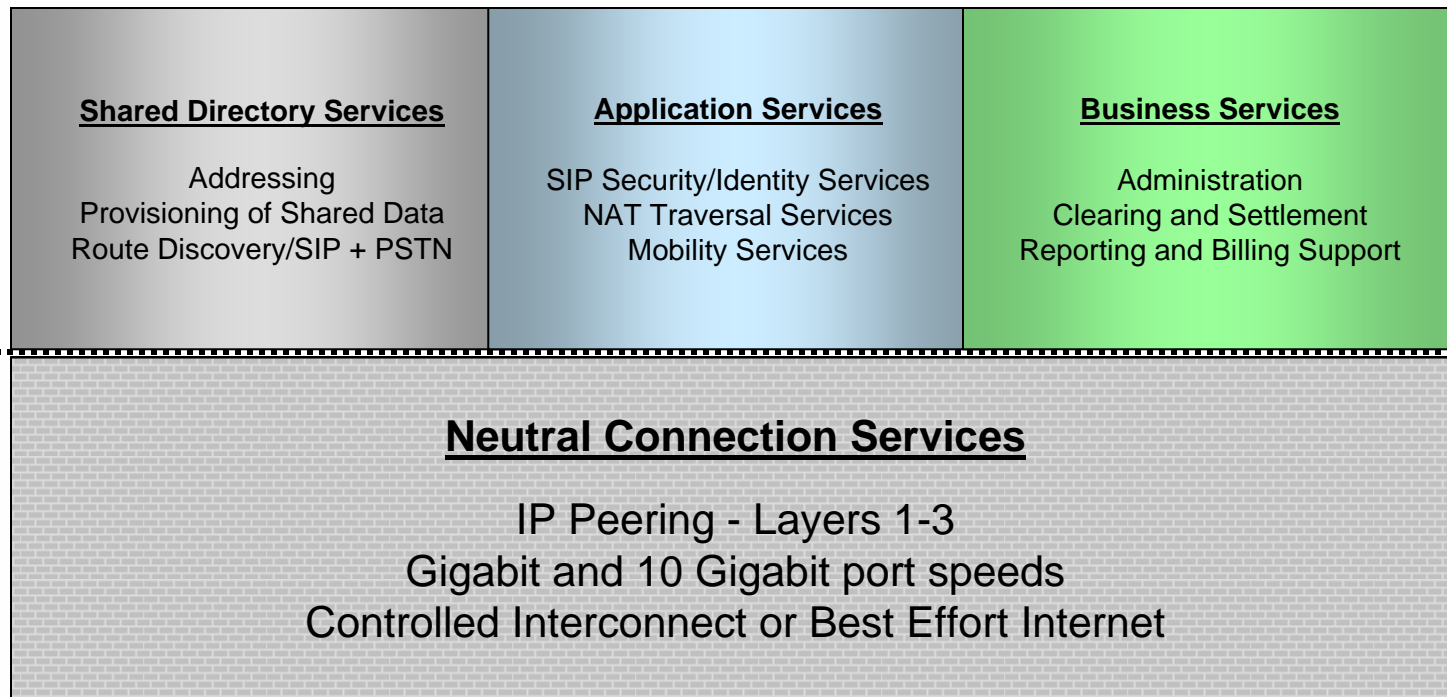


SIP Peering



Internet Peering

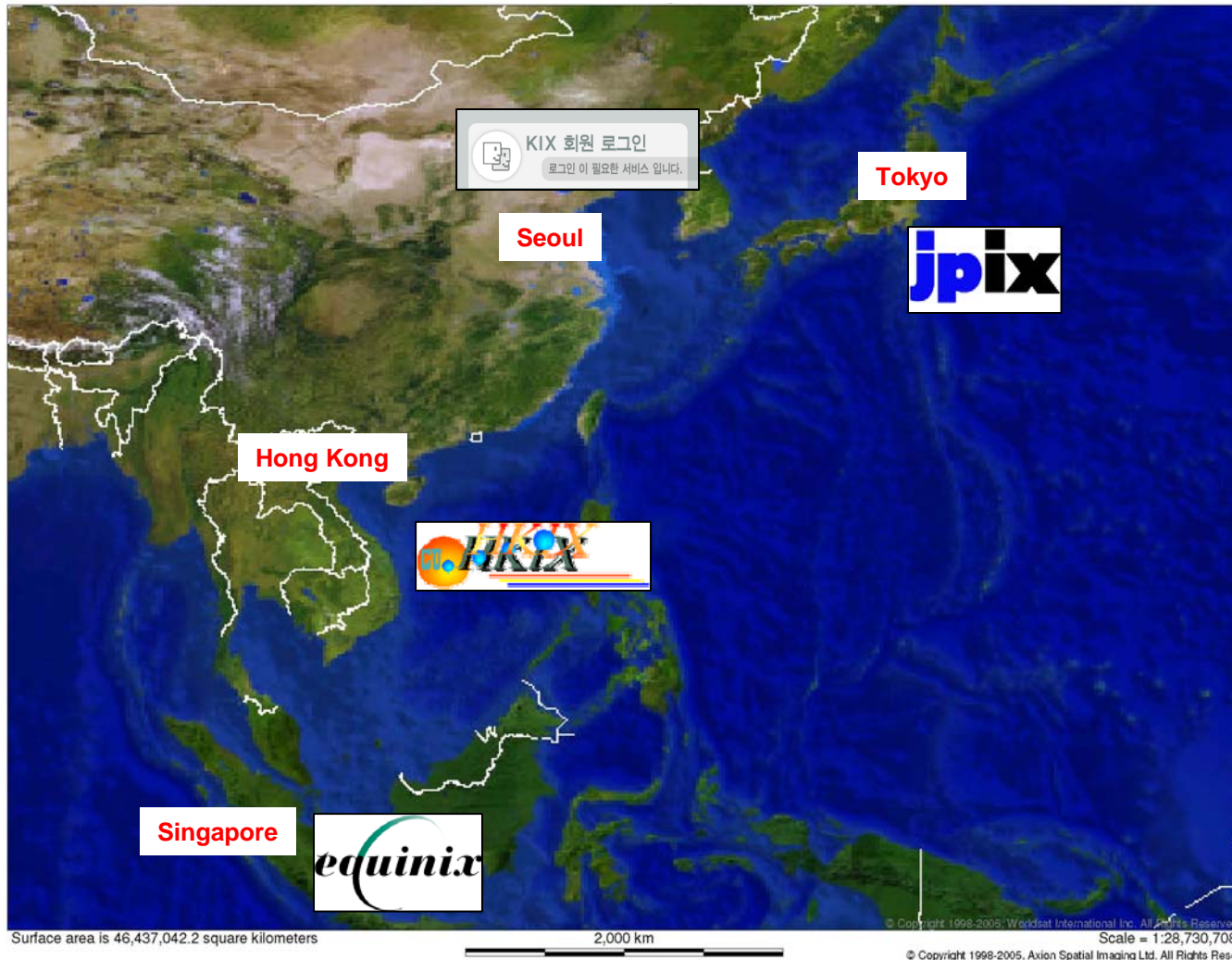




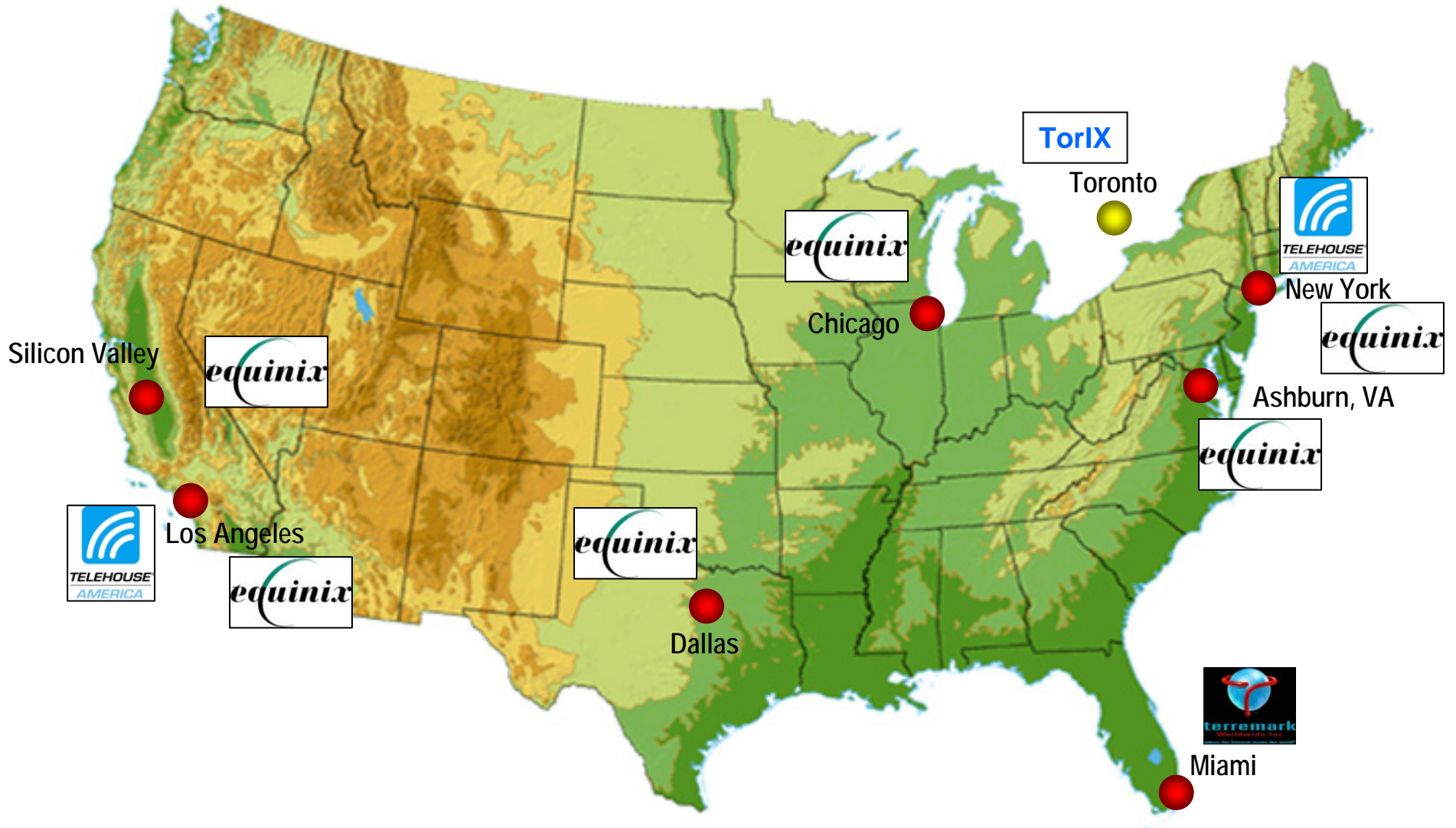


- Where IP networks interconnect today
  - Public & Private peering
  - Transit Sale & Purchase
- Logical location for network neutral, performance optimization and reliability
- Leverage existing infrastructure and model of global IP network model

# Key Asian IP Exchange points



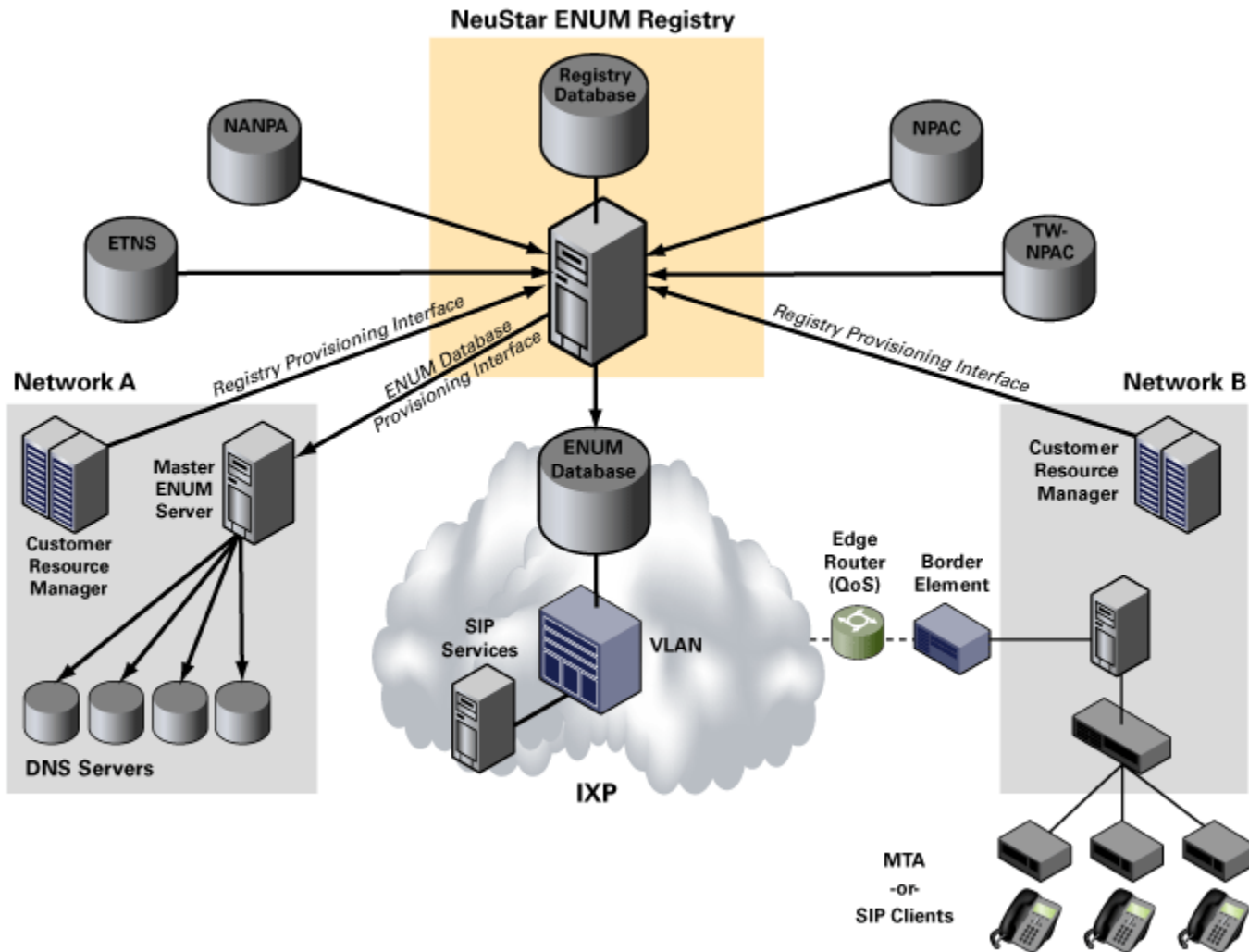
# Key North American IP Exchange points



# Key European IP Exchange points



# SIP-IX – Infrastructure Overview



- Greater Feature Differentiation and Reach
  - PSTN eliminated as “least common denominator”
  - SIP-enabled feature sets span disparate underlying networks
- Reliable, low latency call setup and improved service quality
  - Stream-lined addressing and route discovery
  - Fewer protocol conversions
- Improved Return on Investment
  - Elimination of voice interconnect costs (Gateways, settlement, tie-lines, etc.)
  - Leverages existing investment in proven data peering infrastructure
- Positioned for the Future
  - SIP-IX service enhancements and alliances
  - Sets the stage for interworking of wireless, wireline, and cable services

- Builds on established community and global model
- Accurate addressability & provisioning is critical
- Global root provides integrity
- Functional advantages & benefits to industry as a group:
  - Data
  - Voice
  - Video
  - Wireless

# Questions & Answers?

For further information:

[Eugene.Lew@neustar.biz](mailto:Eugene.Lew@neustar.biz)

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