ENUM & PhNUM

Next Generation DNS
Powered Telephony

APTLD Beijing 2009
Why implement Electronic Number Mapping (ENUM)?

- ENUM enables the convergence of the Public Switched Telephone Network (PSTN) and the Internet Protocol (IP) Network
- Enhances interoperability, therefore helping providers and users to continue to use telephone numbers in Next Generation Networks (NGN).
- ENUM facilitates the integration of IP telephony multimedia services in NGN.
- ENUM enables users to have a single point of contact on the Internet using one telephone number.
Existing implementations - and why they fail

• The deployment of commercial user ENUM has been limited to a select group of countries and characterized by slow growth.
  – .AT, .CZ, .DE, .NL and .UK

• ENUM works as a facilitator for convergence between the PSTN and IP networks and cannot be sold by itself.

• We can only sell services or products that consumers understands.

• ENUM needs to be bundled into a product or service.
What is PhNUM®?

• PhNUM® is a convergence technology that enables users to purchase a Global Phone Number and redirect to anywhere in the world.
  – Utilizes ENUM technology.

• First commercial application that provides a quick, stable and inexpensive link between the telecommunications system and the Internet.

• Device independent routing.

• Global Phone Number managed using PhNUM® reachable via traditional Mobile Phone, Landline and Voice-over-IP (VoIP) networks
User makes a call to a PhNUM® via the public telephone network.

The call is routed to the PhNUM® network and queries the authoritative DNS servers for the ENUM equivalent of the number.

The query returns a result in the form of a Naming Authority Pointer Resource (NAPTR) record(s).

The terminal application sets up a communication link based on the NAPTR record(s) and routes it accordingly.
Practical Application

• We provided test accounts with local Beijing Phone Numbers
• Beijing number is redirected back to home country
  – Dashboard access via Web Interface
• Local call from hotel is redirected
  – Office, Home, Mobile etc
• Typical cost for a Corporate / Retail Customer
  – Phone Number – USD $20 per month
  – Local call cost to PhNUM® (incurred by the caller)
  – Call rates – usually cents per minute
Benefit to Registries

• Commercial product to facilitate the use of ENUM services
  – Increase in the volume of ENUM domain registrations.
• Additional revenue from Phone Number sales
• Ready for use and proven technology
  – Private tree available if not ENUM ready
  – Portable when become ENUM ready
Benefit to Registrars

• Easy to use and implement
  – Similar to domain name operations where registration and renewal is required

• Alternate revenue stream for Registrars
  – Strong product proposition - package a global telephone number, web-hosting and a domain name to Customers.

• Entry to the lucrative Telcommunications market
Benefit to Businesses

• Available in over 60 countries and 3400 cities
  • Geographic and Country Toll Free
• Increase in global presence by offering Customers a local telephone number
  • Ability to divert to any phone number (PABX, landline, mobile etc)
  • Inexpensive - Inbound calls mapped to mobile phones or PSTN
  • Calls redirected to SIP VoIP accounts are free.
• Can reduce inter-office communications if used internally
• Enhanced Customer experience
Benefit to Individuals

• Connect with family and friends from around the world in a cost effective manner

• Quality outbound calls – comparable rates to calling cards but much better telephone experience
Advanced Features

• Time Based Redirection
  – Redirect calls to different phone number based on the time and day of the week.

• Caller ID Redirection
  – Redirect calls to different phone numbers based on who's calling

• Call blocking
  – Block Callers - Unwanted callers won't be able to reach you anymore

• Fax capabilities
  – Fax is converted to PDF and sent via email

• Notifications
  – Receive voicemail notifications as a wav file via email

• SIP address @ your domain
• Online Address Book
• Video Call support
Instra Corporation
About Instra Corporation

- Private company founded in 1999
- Head Office: Melbourne, Australia
- Incorporated and Represented in: USA, UK, Canada, France, Finland, Hong Kong, Singapore, New Zealand, Netherlands, Norway, China, Germany, Indonesia, Japan, Kenya
- Global Leader in ENUM technology
- Corporate Customers from around the world