

ENUM in Korea

(and Neighboring Countries)

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Contents

■ ENUM in KR

- History so far
- Extended trial in 2005
- User and Infra ENUM in 2006
- User ENUM scenarios
- Infra ENUM test network
- Consideration of ENUM-based VoIP Clearing House

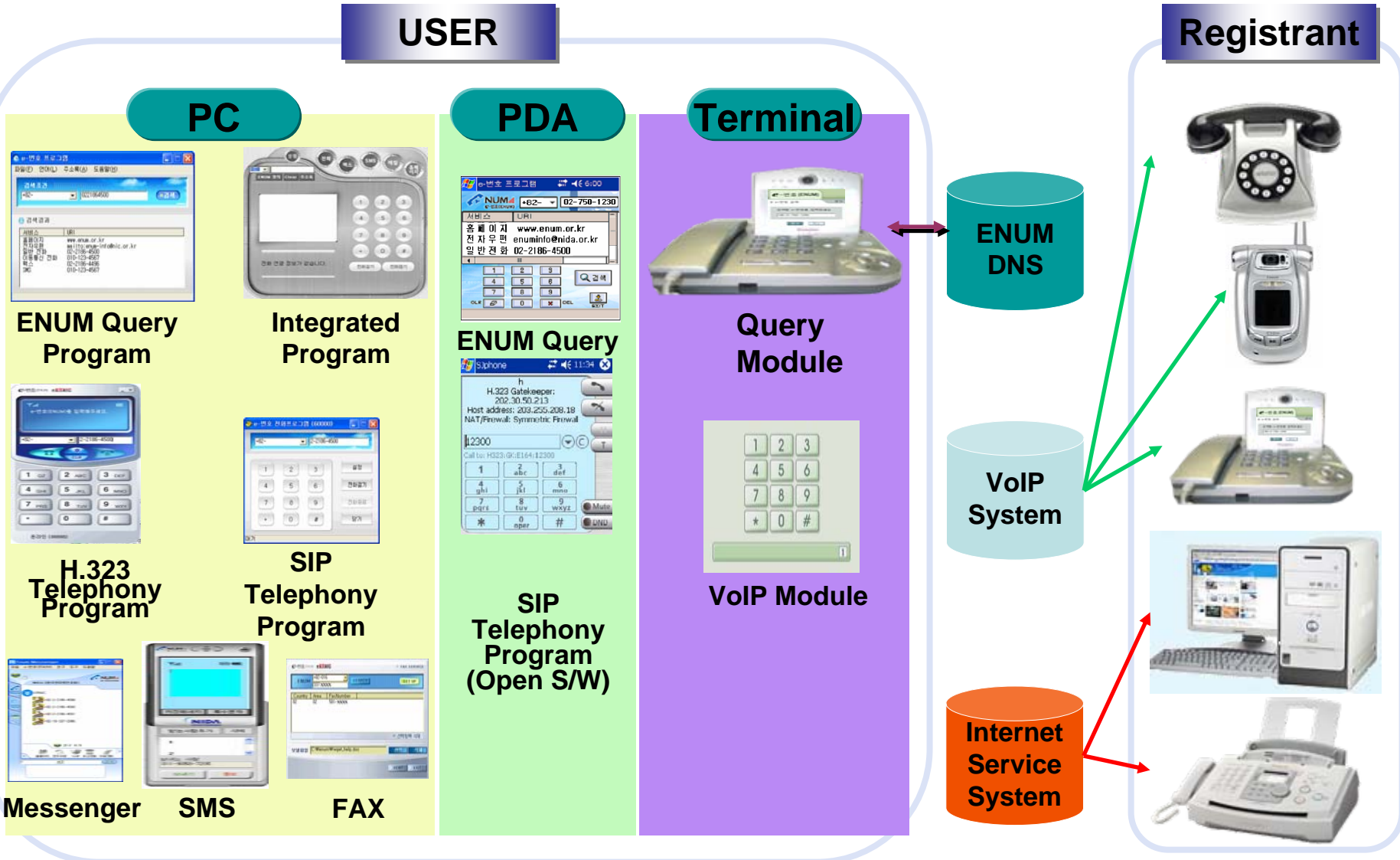
■ ENUM in CN

■ ENUM in JP

History So far....

- Korean ENUM Forum (2001)
- ENUM 1st public trial service
 - Proof of concept : technical feasibility and availability of ENUM
 - ENUM Demonstration in IETF (2003)
 - from 13th. Oct. 2003 to 9th. Jan. 2004
 - ENUM trial registration(1300s), ENUM telephony(VoIP) use
 - Examined ENUM potential and users' interest
- 2nd extended trial service
 - Throughout 2005
 - More applications and interfaces (PC, PDA, IP Phone. Etc.)
 - Drew not much attention from users and telcos
- National Code(+82) delegated to NIDA (May. 2005)
- Discussion of Infra ENUM introduction (2005~)

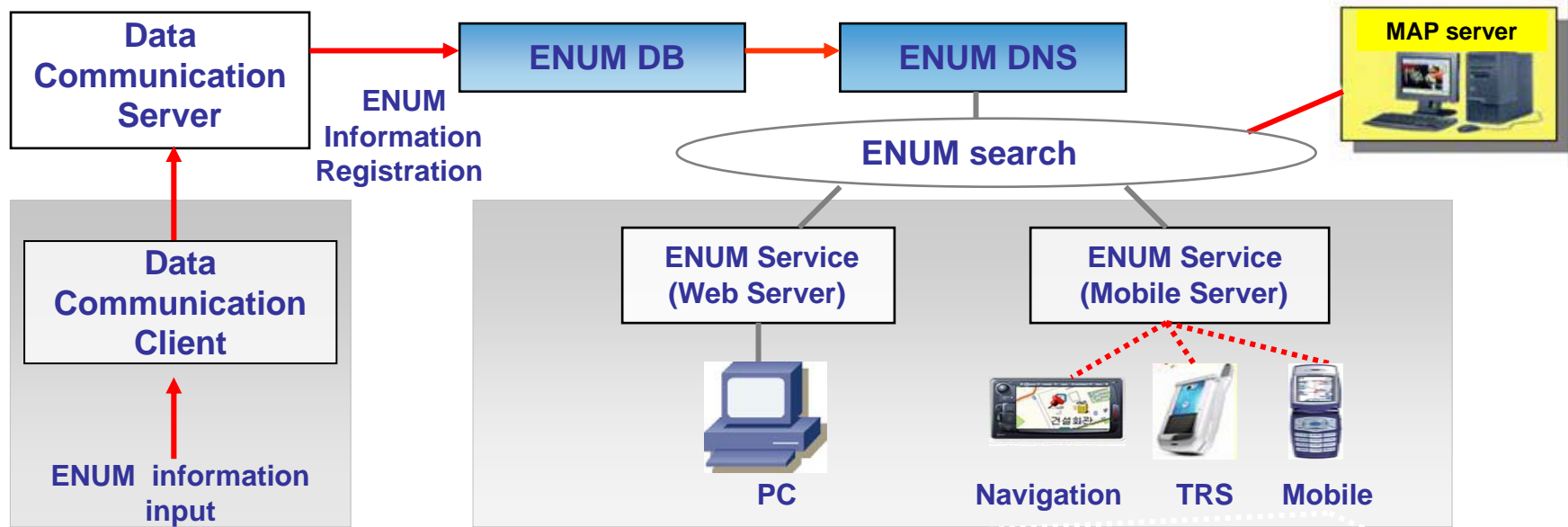
ENUM Extended Trial in 2005



ENUM 2006

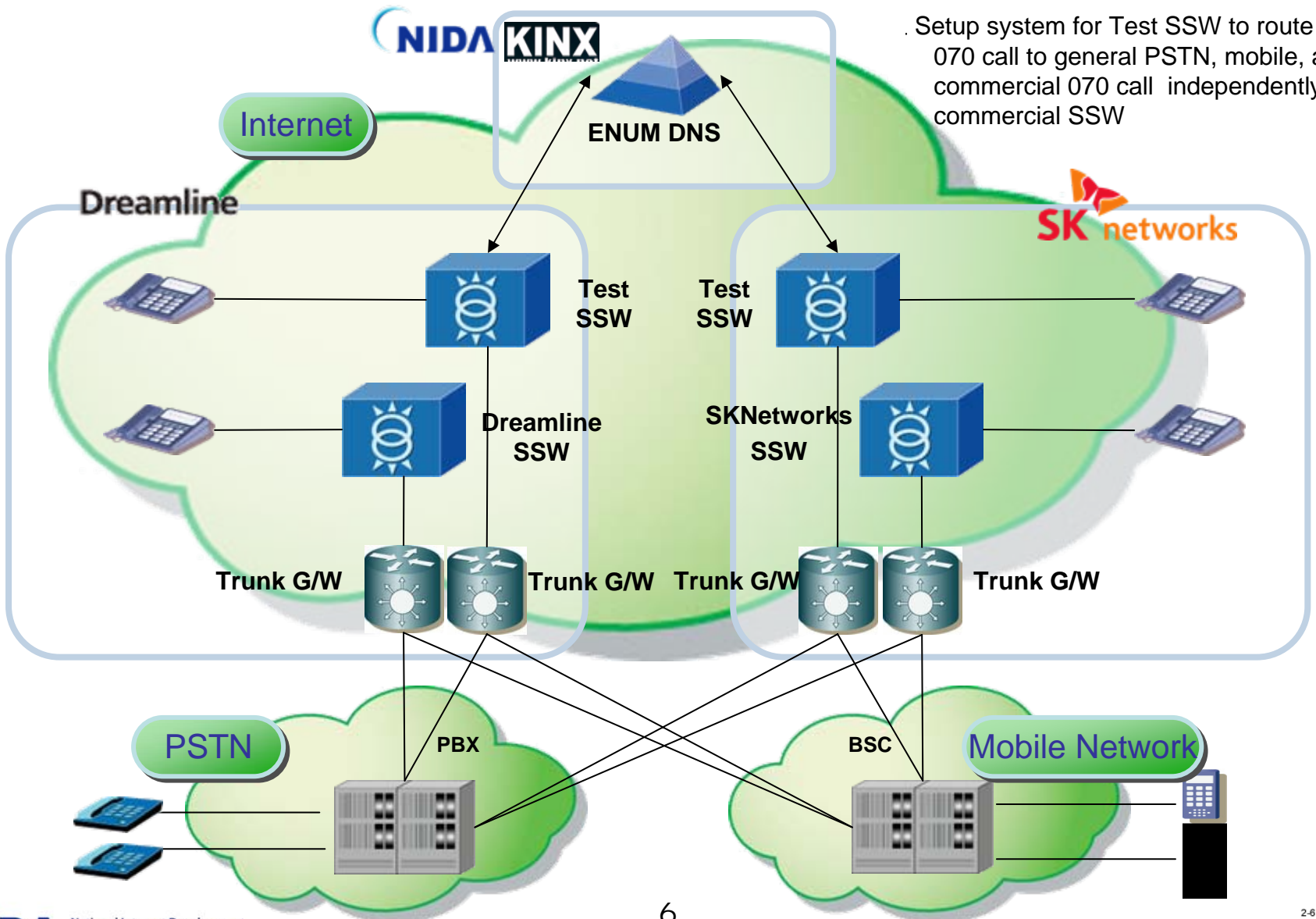
	INFRASTRUCTURE ENUM (Interconnection among Internet Telephony Providers)	USER ENUM (Using Diverse Internet/Mobile Services by Telephone Numbers)
Participants	NIDA, KINX (Korea Internet Exchange), Dreamline CO., SK Networks	NIDA, Web Portal Developers' Consortium
Timeline	System development : August to September Service period : Sep. 26 th ~ Nov. 30 th	System development : September to October Service period : Oct. 25 th ~ Dec. 31 st (User ENUM service provided 6 months more)
Role	NIDA : ENUM DNS, Project Management KINX : Backup DNS Others : System development and Service Deployment	NIDA : ENUM DNS, Project Management Consortium : System development and Service Deployment
Purpose	Technical Feasibility of Internet Telephony Call Routing based on ENUM	Possibility of Commercial Success in the market using diverse services with ENUM
Feature	Call routing test of Internet Telephony for Test-user(100) with IP Telephone	Web/Mobile Web, e-mail, MAP, Route Find services in various Terminals
Criteria for Evaluation	Success rate of Call routing 95% (Criterion for ITSP license)	User ENUM Registration above 10,000

User ENUM Scenarios in 2006



Infra ENUM Test Network

Setup system for Test SSW to route test 070 call to general PSTN, mobile, and commercial 070 call independently from commercial SSW



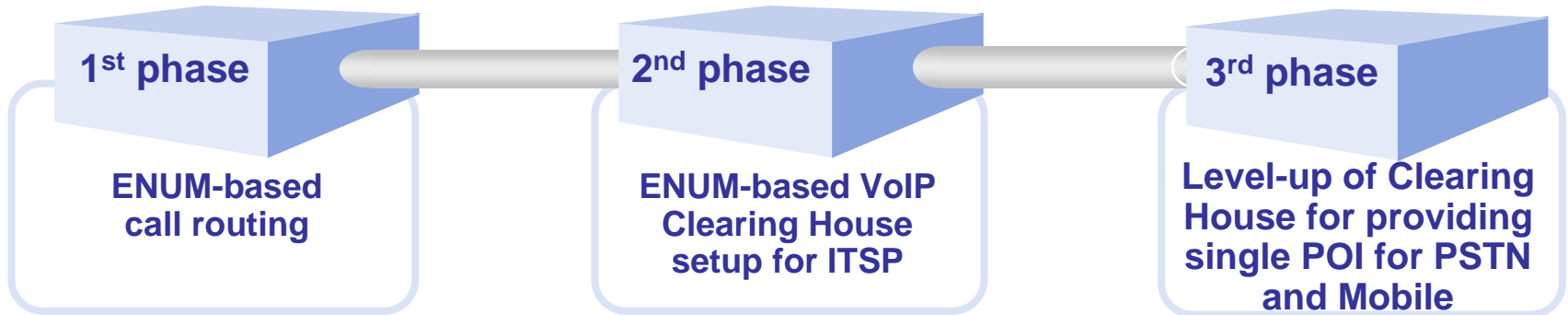
Consideration of VoIP Clearing House based on ENUM

- Facts about Internet Telephony in Korea
 - 9 facility-based providers and 140 resellers
 - Prefix (070) for Internet telephony
 - Facility-based provider must have more 60 POIs to PSTN and mobile network
 - Resellers need to have minimum 12 POIs to PSTN and 1 POI to mobile network
 - ITSPs interconnect via Internet

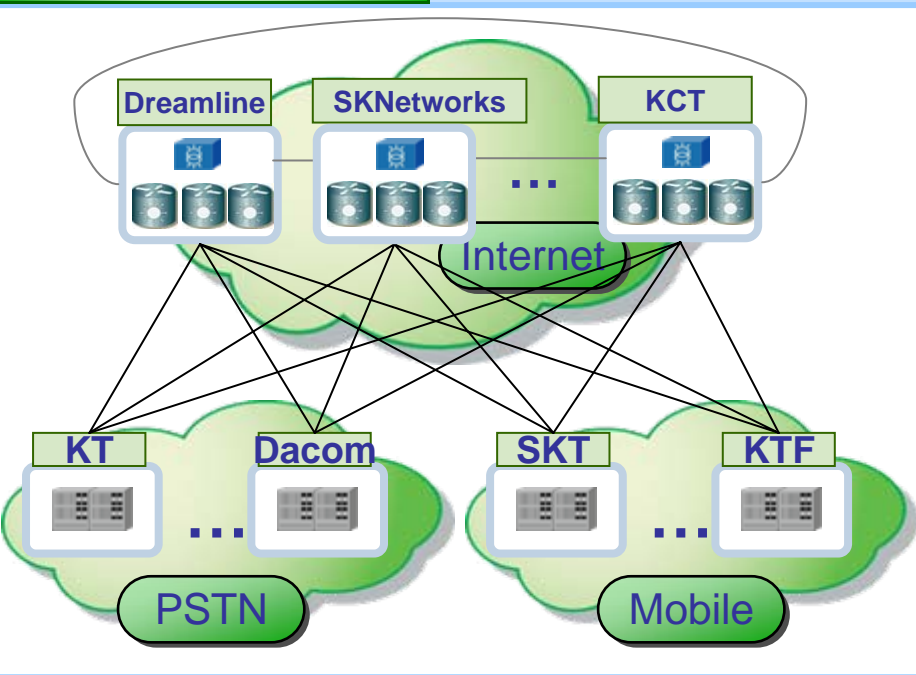
- Problems
 - Too complicated Interconnection and billing system
 - One ITSP needs multiple cooperations and systems to interconnect
 - Small companies must need to Interconnect facility-based companies and all calls should be routed to PSTN at least
 - ITSPs run mobile NPDB and need trunk GW and other connection facilities

- With ENUM-based VoIP Clearing House
 - International interconnection based on IP can be easier
 - System can be simpler
 - ENUM can be rolled as NPDB and no need to run NPDB among small ITSPs
 - preparaton Internet telephony number portability

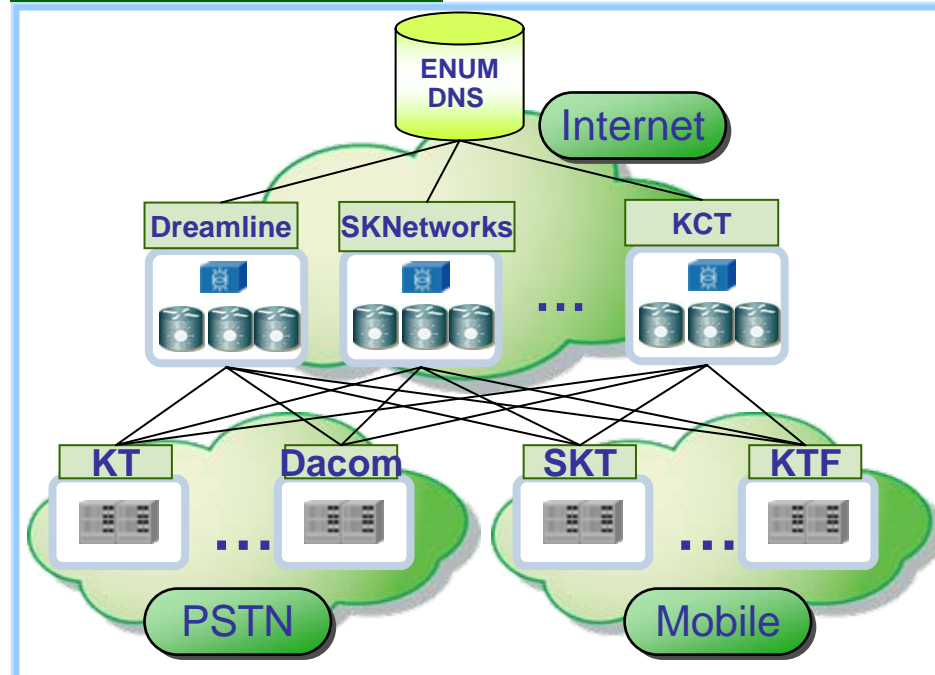
Phased Setup Plan



Present

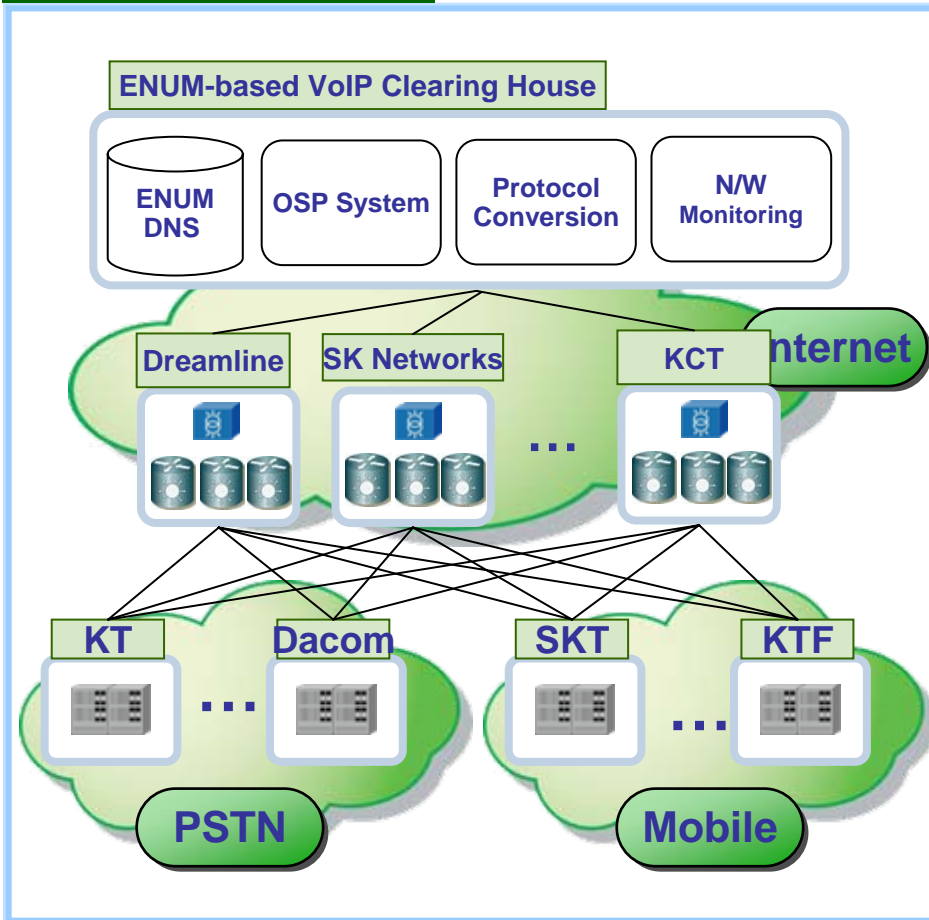


1st phase 2007

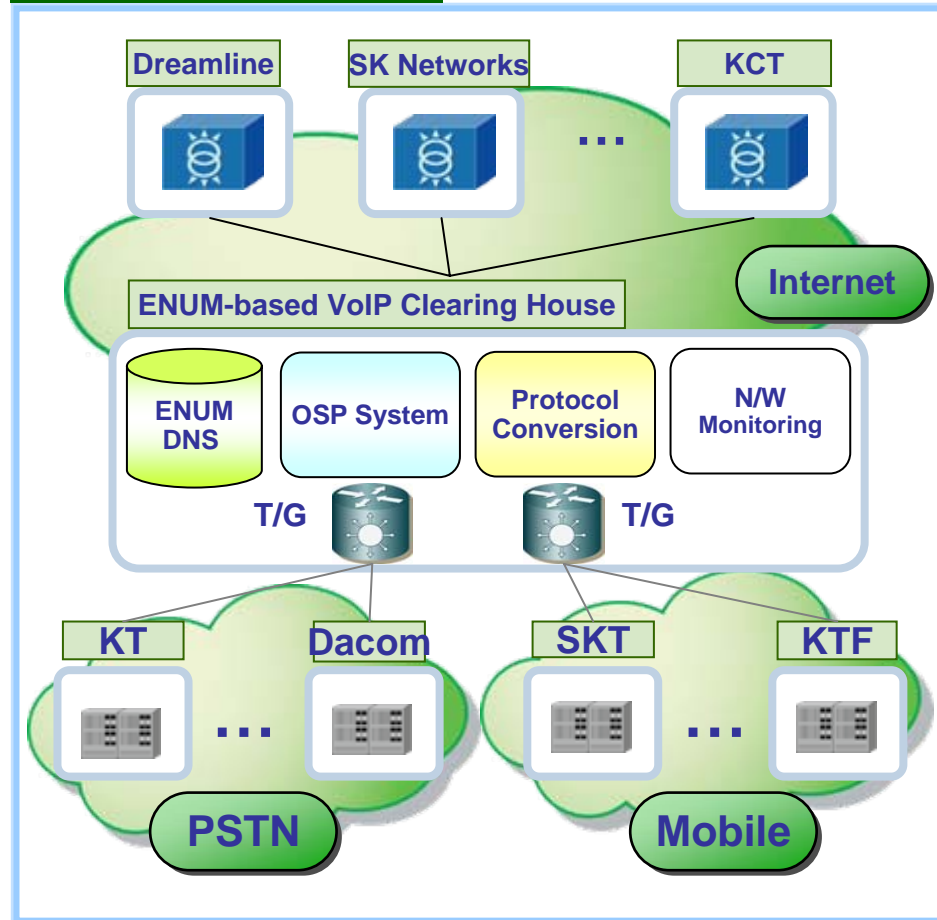


Phased Setup Plan

2nd phase 2008



3rd phase 2009~

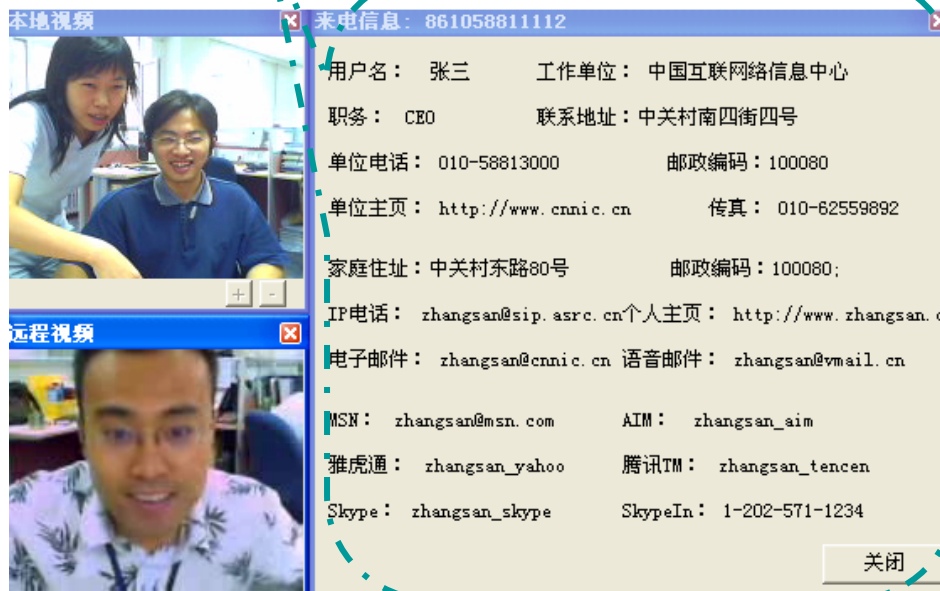


Issues

- In 2006, focused on proof of concept and technical availability of Infra ENUM
- Related document is being prepared
- Needs more understanding of mechanism for clearing house : ESTI's Open settlement Protocol and ITU's H225 Annex G
- Enters discussion among Ministry, ITSPs, vendors and related organizations

ENUM in China

- ENUM research and development mainly conducted by CNNIC
 - Xiaodong Lee : lee@cnnic.cn
- New Applications based on ENUM
 - Video via SIP
 - vCard functions onto SIP UA



ENUM in China

- VoIP authentication and validation based on ENUM
 - To make VoIP industry more regular and orderly
 - To prevent number abuses
 - To serve for other applications based on ENUM, besides of VoIP
 - To provide the third authentication and validation for new ENUM services
- Added new ENUM services into current ENUM trial platform
 - <http://www.enum.cn>
 - New service types:
 - vCard
- Developed ENUM toolbar
 - IE 6.0+
 - Firefox 1.5+



The result of ENUM Query is:

SERVICE TYPE	URI
vCard	http://www.enum.cn/ftft.vcf
mailto	mailto:fengtao@cnnic.cn
http	http://www.adjhong.com
tel	tel:+861058813151

ENUM in Japan

- ENUM players in Japan
 - MIC (Ministry of Internal Affairs and Communications) was delegated +81 on Nov. 2005
 - JPNIC designated as registry and JPRS designated as ENUM DNS operator
 - Yoshiro Yoneya : yone@jprs.co.jp
- 1.8.e164.arpa ENUM DNS was started in Nov. 2005
- No real-use E.164 numbers are registered under 1.8.e164.arpa zone

ENUM in Japan

■ Japan ENUM Trial

- Formal +81 ENUM trial started as 'Japan ENUM Trial' (Jan. 2006)
- Currently 2 organizations are participating 'Japan ENUM Trial' but Activities very limited
 - ETJP (ENUM Trial Japan) & Interested individual
 - <http://etjp.jp>
- Interests in ENUM still remain, but there is no visible motivation from business aspects
- ETJP trying to reactivate its activity

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