

ENUM Trial Status in Korea

Contact:

Sungwoo Shin

ssw@nic.or.kr

Dr. Weon Kim

wkim@nic.or.kr

www.enum.or.kr

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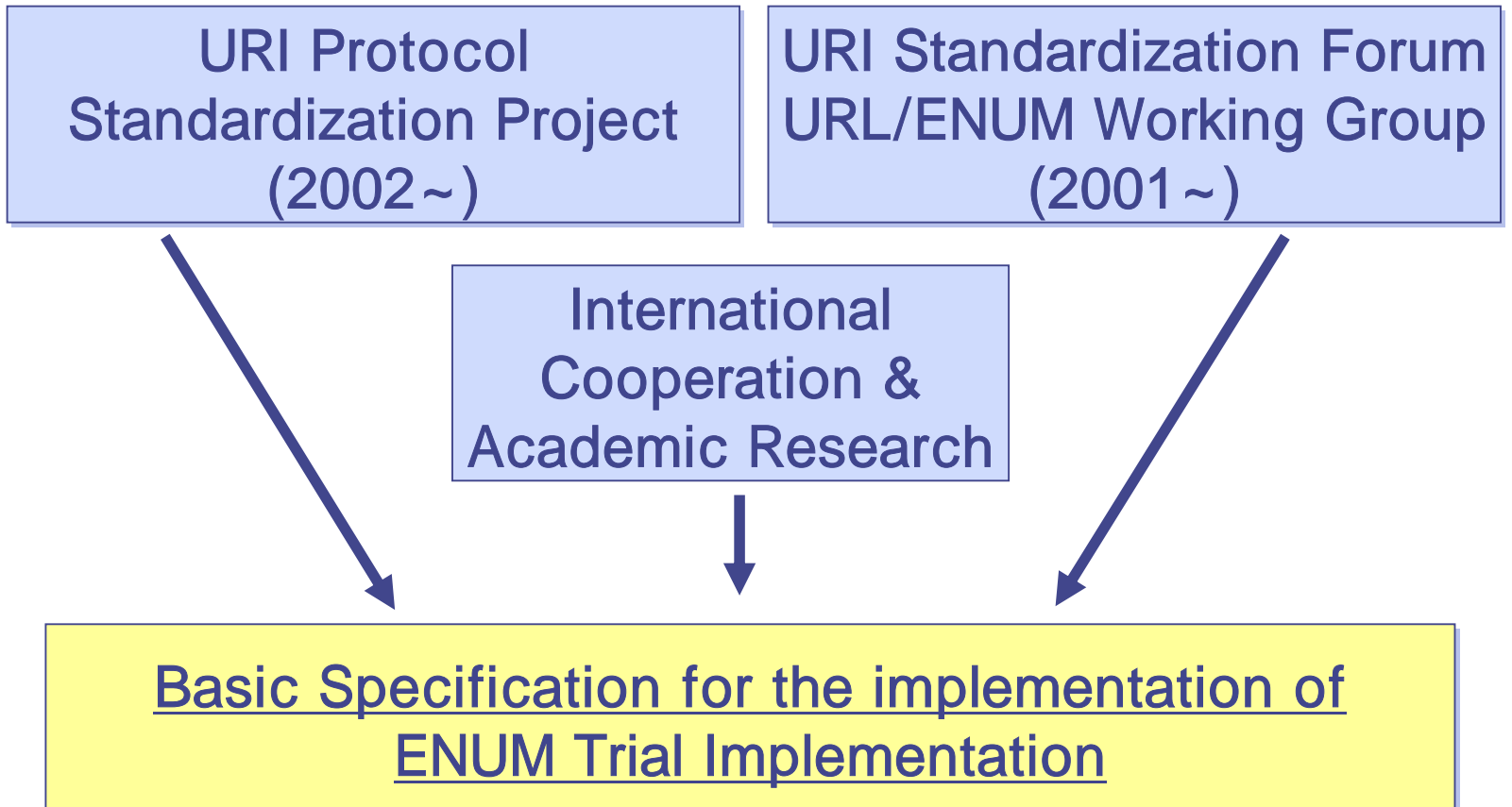
ENUM Activities (National)

- ◆ Since Oct. 2000
 - Studies of the international standardization activities
 - Participation in IETF, ITU-T SG2 WP ½, US ENUM Forum
 - ENUM Promotions in Korea
- ◆ URI projects
 - URI Protocol Standardization Project
 - URI Standardization Forum : ENUM Committee
- ◆ ENUM Workshops & Seminars
 - IT Forum Korea / KIOW(2002/2003)
 - URI Standardization Forum Workshop(2002/2003)
 - The 1st Next Generation Internet Identifiers workshop (2002)
 - ◆ US ENUM Forum, Korean Companies
 - The 2nd Next Generation Internet Identifiers workshop (2003)
 - ◆ JPRS, CNNIC, Austria, ITU, VeriSign,

ENUM Activities (International)

- ◆ Cooperation with TWNIC & Chunghwa Telecom, Taiwan (Dec.'02)
- ◆ APRICOT 2003 (Feb. '03) in Taipei
 - APRICOT : Asia Pacific Regional Internet Conference on Operational Technologies
- ◆ 8th GSC in Ottawa (Apr. '03)
 - GSC : Global Standards Collaboration
- ◆ Internet Computing 2003. in LV(Jun. '03)
- ◆ 57th IETF ENUM WG in Vienna (Jul. '03)
- ◆ ITU-TSB Director Houlin Zhao in Seoul(Aug. '03)
- ◆ APT-ITU Joint ENUM Workshop in BKK (Aug. '03)
- ◆ CNNIC Cooperative Meeting and MoU in Beijing (Nov. '03)
- ◆ JPRS Cooperative Meeting in Tokyo (Nov. '03)

ENUM Research Project



ENUM Trial Overview

◆ Mission

- To examine the technical availability of ENUM

◆ Setup Period

- Mar. 2003 ~ Oct. 2003
- Internal trial system set-up finished (Jul.2003)

◆ ENUM Public Trial Service (finished)

- From 13th. Oct. 2003 to 9th. Jan. 2004
- ENUM Trial Registration, ENUM Telephony(VoIP) Use

◆ Budget : Approx. US\$300,000

- Project of Internet Address Resource Management System Implementation
- URI Protocol Project
(Funded by Ministry of Information and Communication)

ENUM Trial Formation

◆ ENUM APIs

- Based on Windows(98/ME/2000/XP), IE Tool Bar and IE Built-in
- ENUM number direct fill-in, Service array and connection

◆ ENUM Telephony System

- IP-PSTN Connection Telephony Service Based on SIP Technology

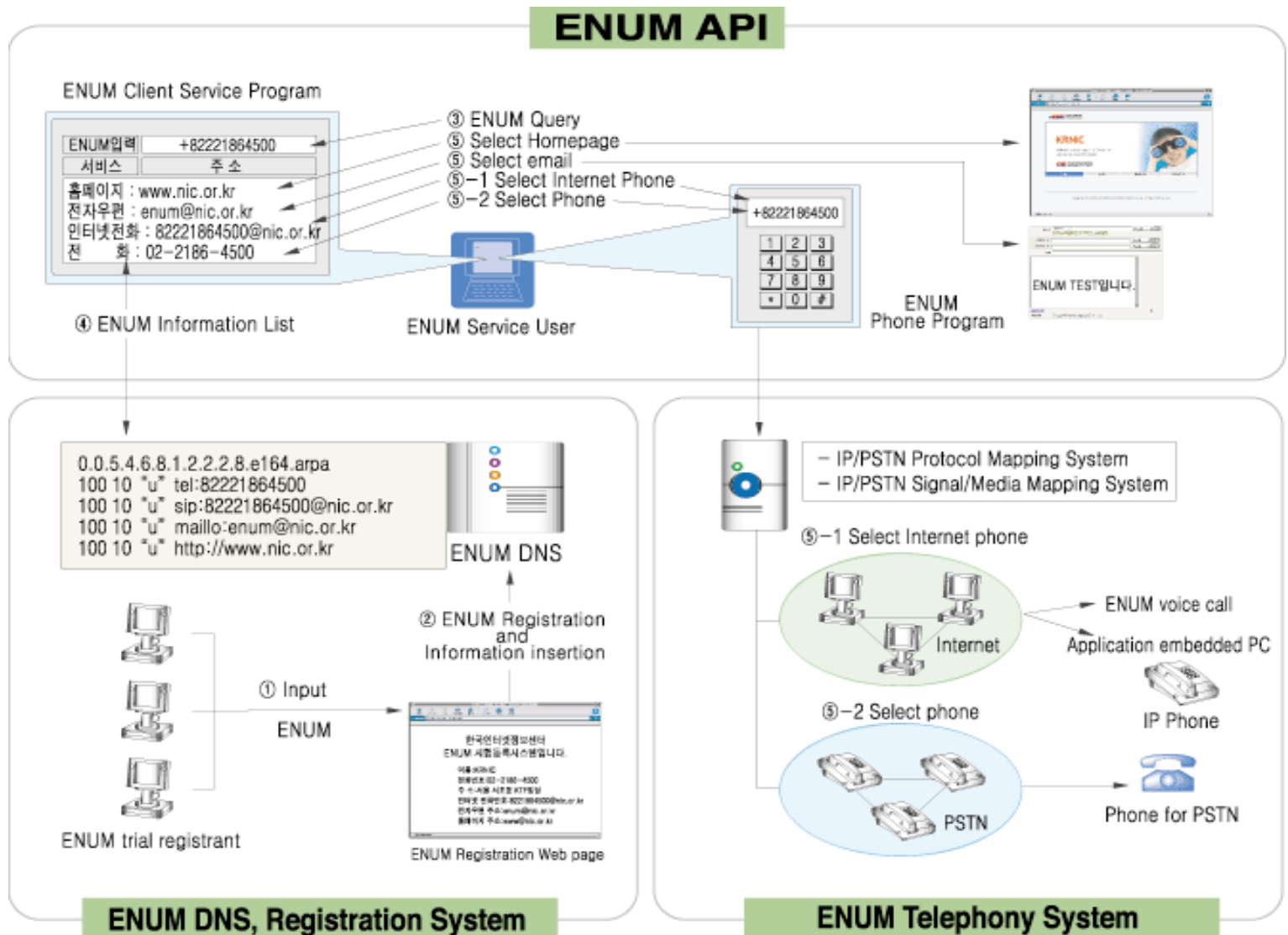
◆ ENUM DNS

- ENUM Tier 1 / 2, Dynamic Update from Registration System

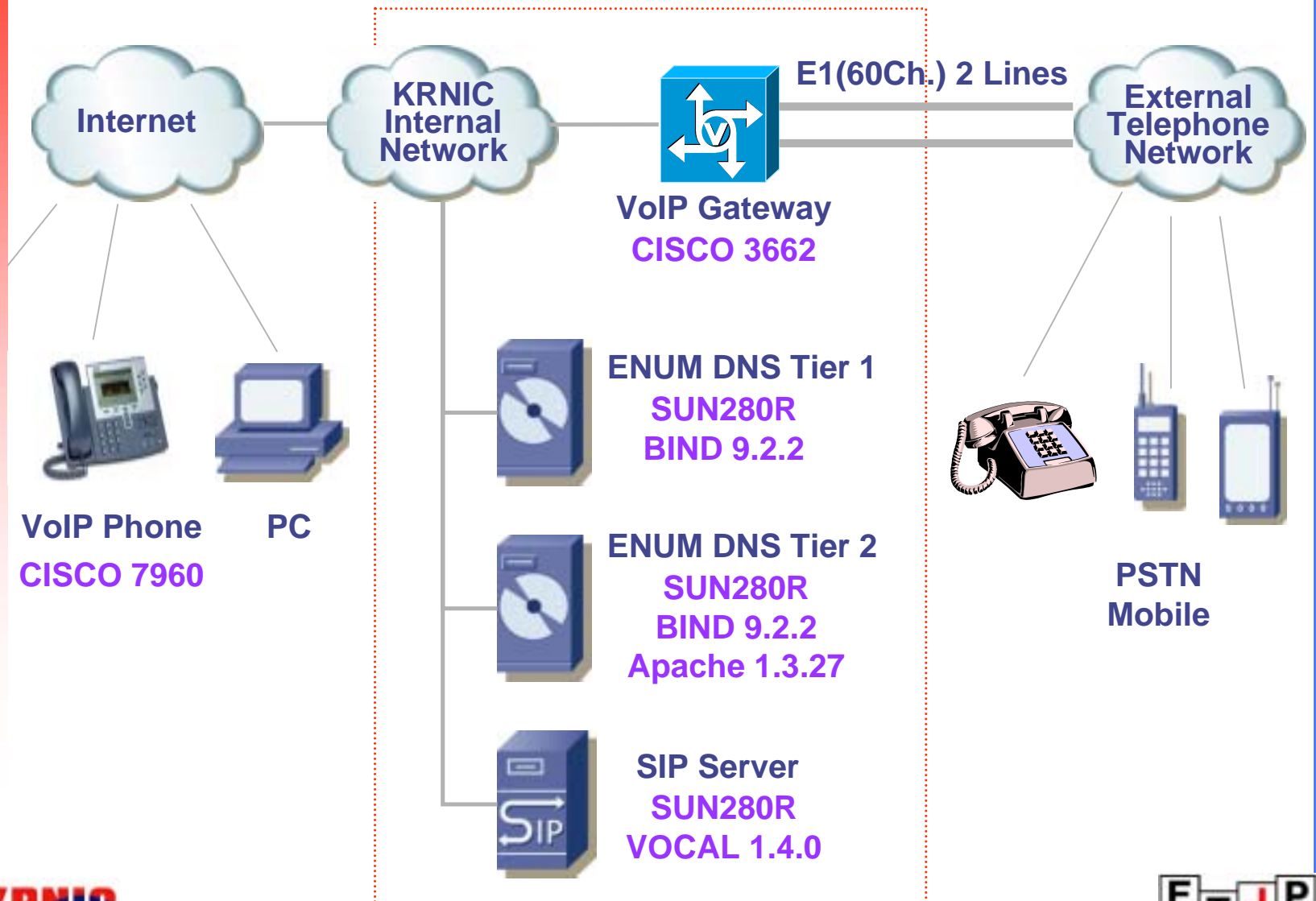
◆ ENUM Registration System

- Web-based Registration

ENUM Trial System Figure

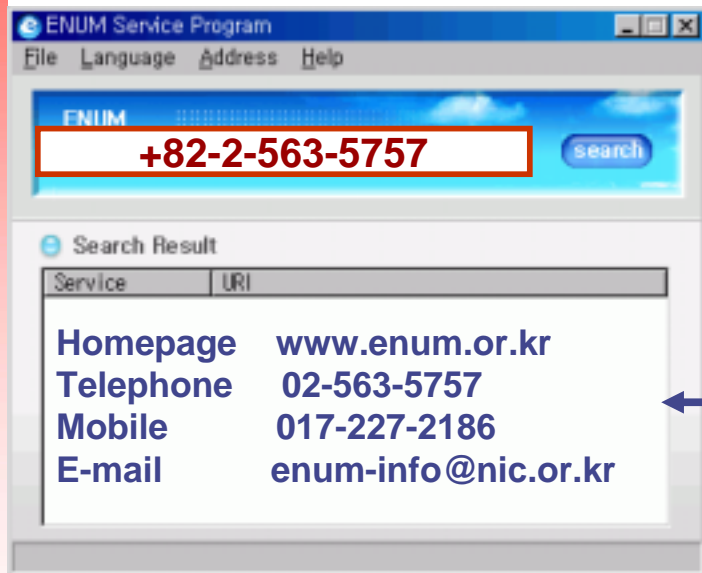


ENUM Trial System Feature

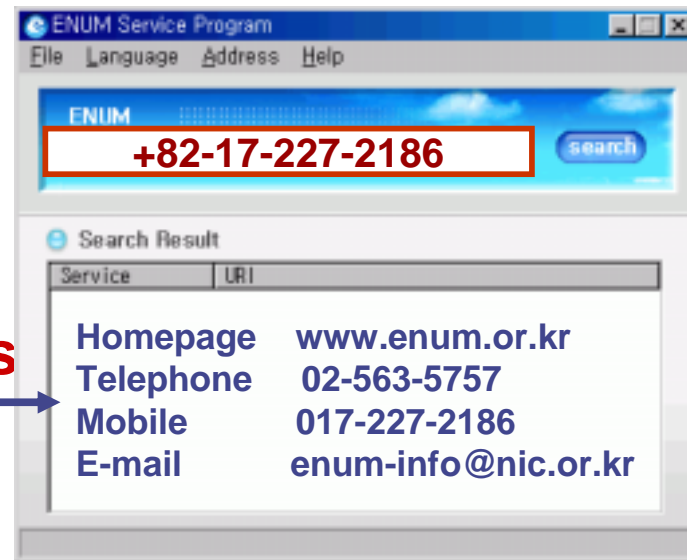


ENUM Numbering Plan

- ◆ Both Telephone Number and Mobile Number can be ENUM Number



Same Results



- * Number of Telephone Service Subscribers
 - Wire Telephone : 23,000,000(41%)
 - Mobile Phone : 33,000,000 (59%)

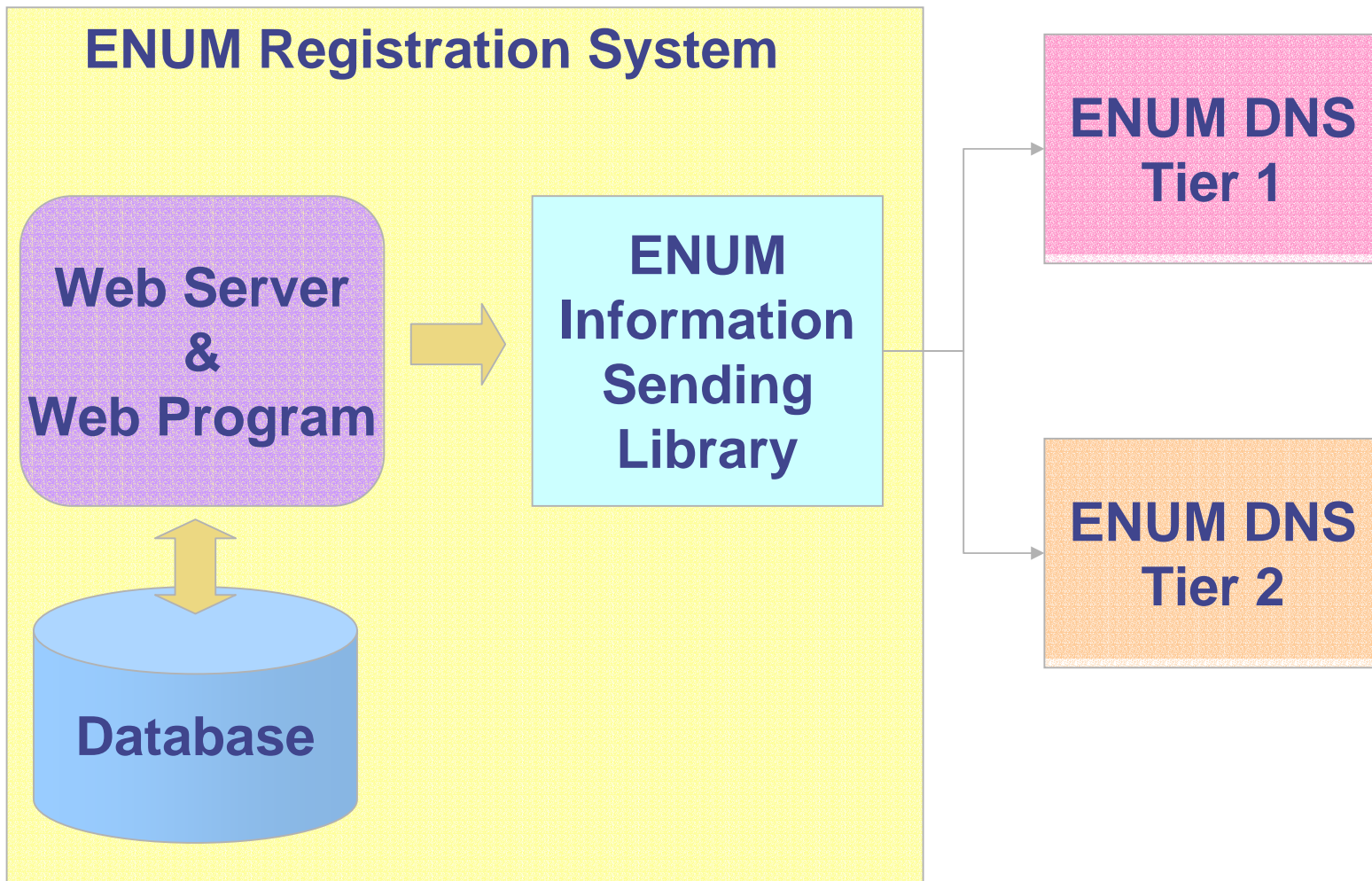
Not considering Specific prefix for ENUM number

ENUM Main Website

◆ ENUM Trial Website : www.enum.or.kr (kor/eng)



ENUM Registration Flow



ENUM Registration System

ENUM Information Registration

등록신청

사용자 등록

1. 등록자 정보

이름: 김성우

비밀번호: [masked]

이름(한글): 김성우

이름(영문): Sangwoo Kim

주민등록번호: 730104 - 100000000

주요전화번호: 137 - 1661

주소(한글): 서울 서초구 서초2동

상세주소(한글): 1321-11 KTF 11F KRNIC

주소(영문): SEOUL Seocho-gu Seocho 2-dong

상세주소(영문): KRNIC 11F KTF, 1321-11

비밀번호 힌트: [선택하세요]

비밀번호 입력: none

2. e-번호(ENUM) 서비스 정보 입력

e-번호: [empty]

e-번호등록: [empty]

인터넷 전화: [empty]

전자우편: ssw@nic.or.kr

홈페이지: http://www.nic.or.kr

3. 친구에게 알리기

ENUM No. (Mobile/Wired Both)

e-번호 찾기

일반전화번호: 서울 - 566 - 5757

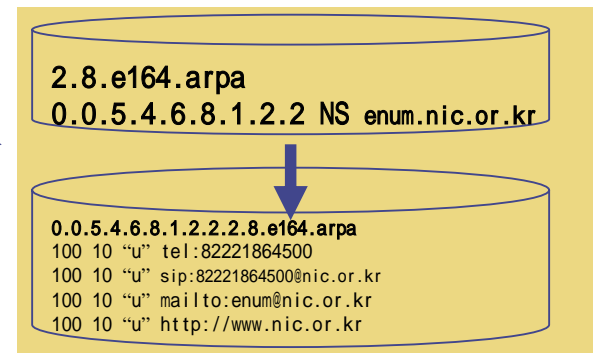
이동전화번호: 011 - 253 - 2508

확인

닫기

ENUM DNS System Dynamic Update

Completing Registration

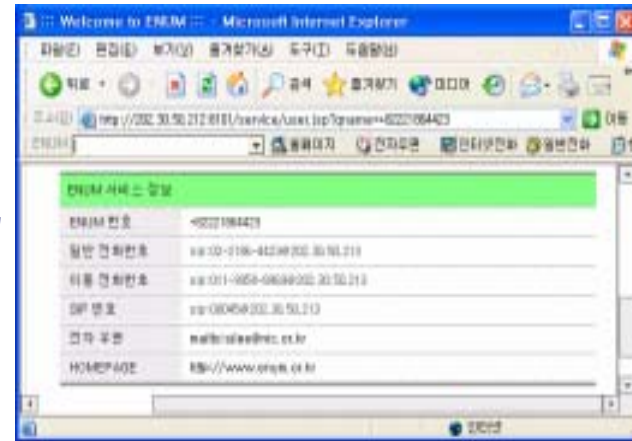


ENUM APIs for Users

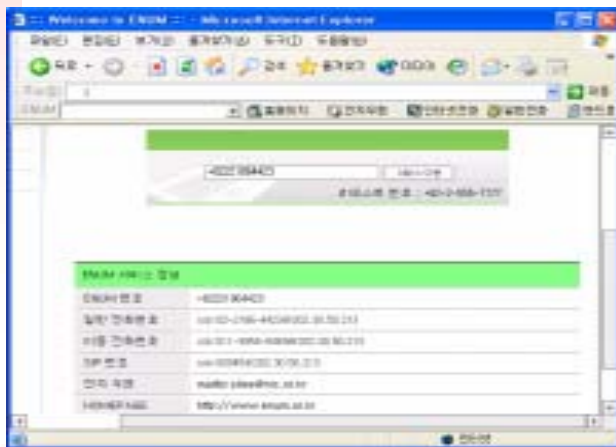
ENUM API Download and Installation API on Windows



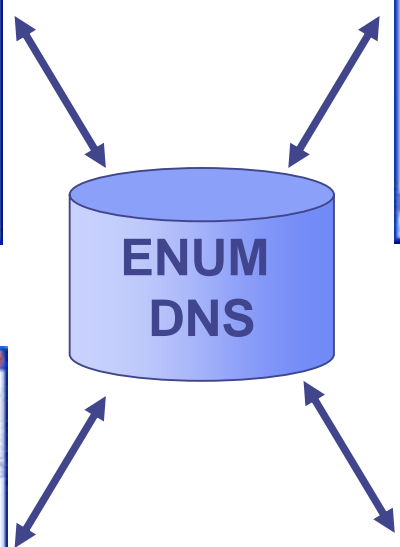
IE Direct Fill-in



ENUM Website Fill-in

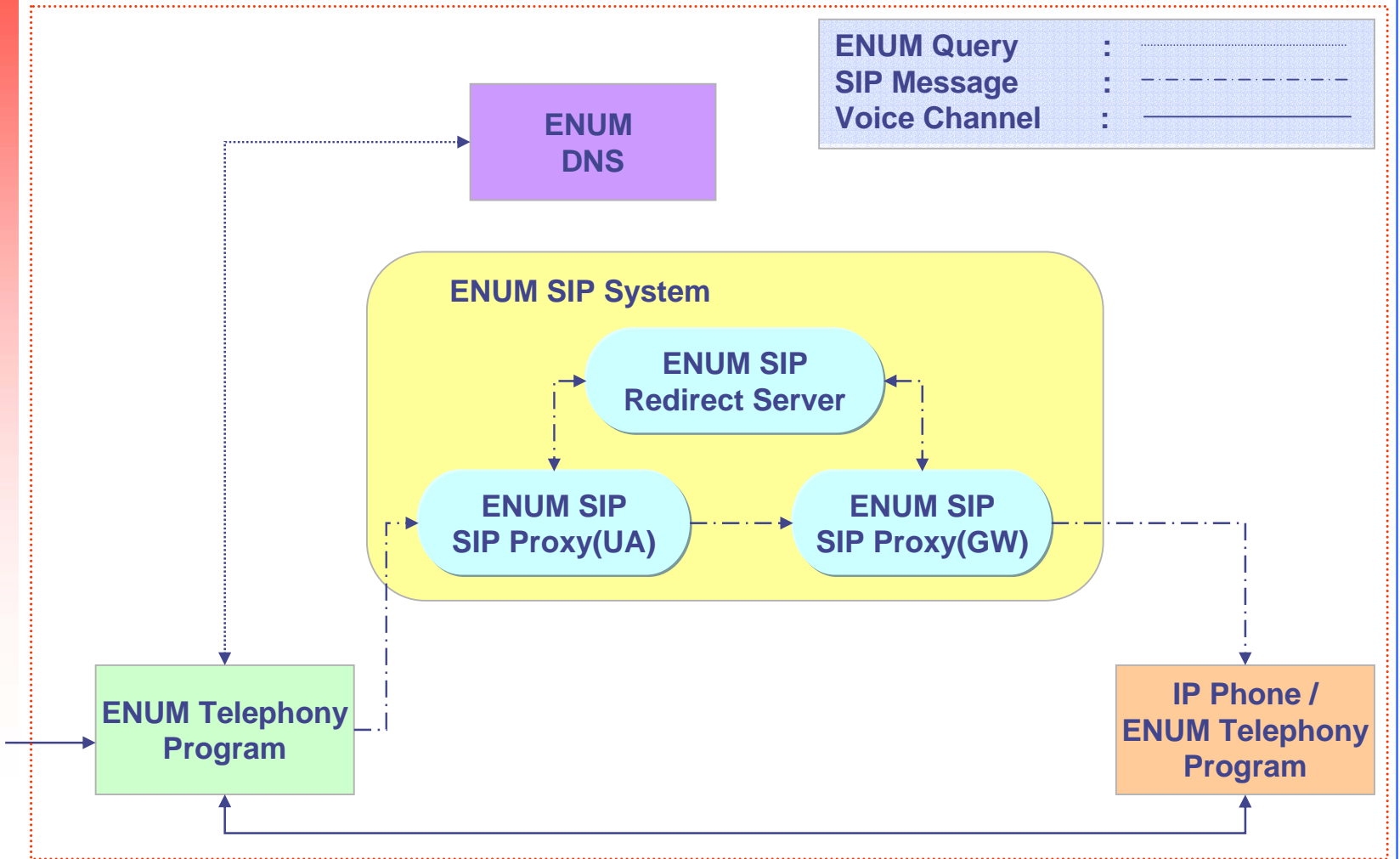


IE Toolbar



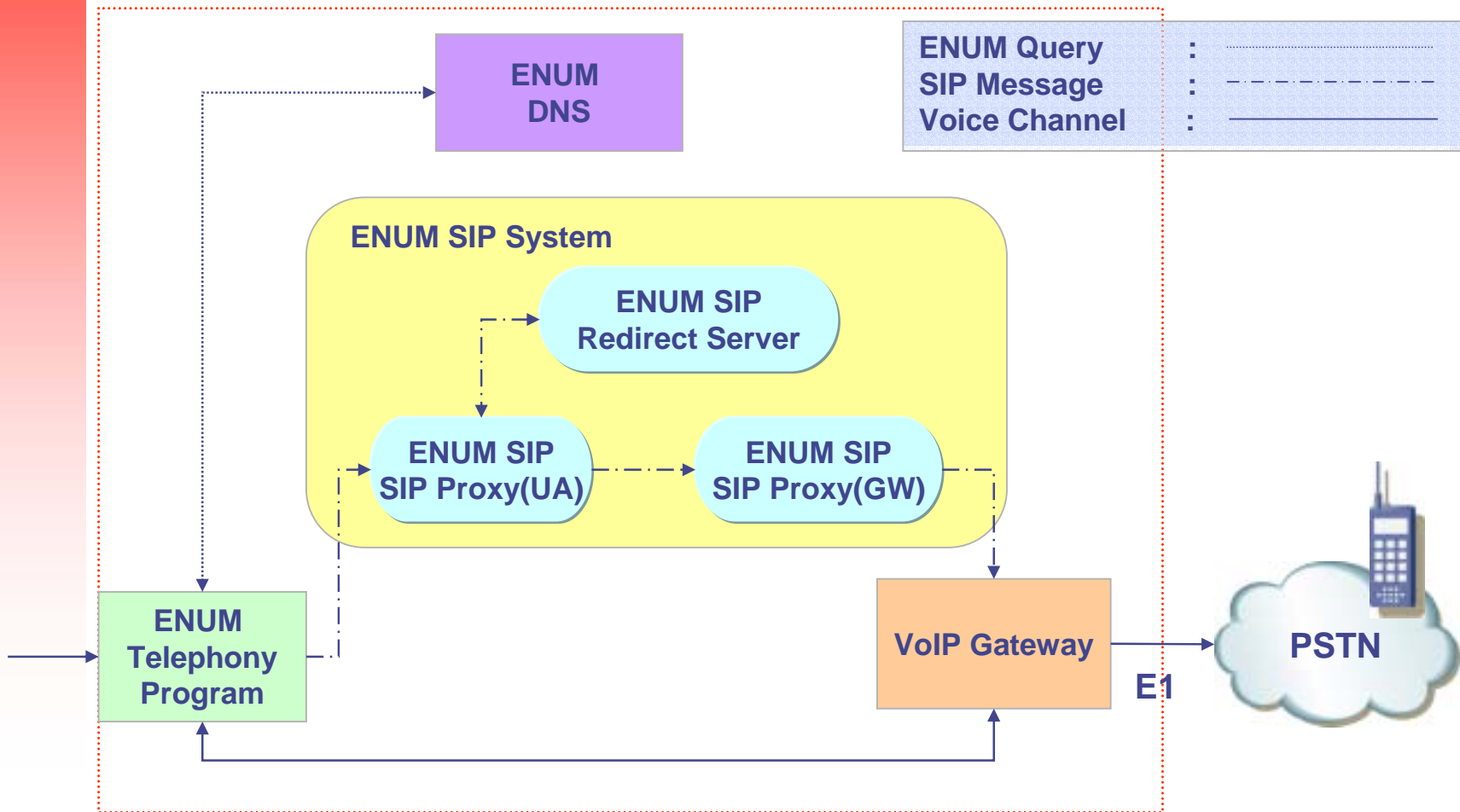
ENUM Telephony Call

◆ PC to PC VoIP using ENUM



ENUM Telephony Call

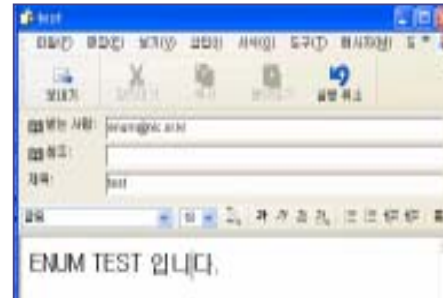
◆ PC to PSTN VoIP using ENUM



ENUM Service Use

ENUM APIs....

◆ Web visiting by ENUM Registration Information



◆ ENUM Registrant E-mail by ENUM (with Outlook)

◆ ENUM Phone Call via VoIP/PSTN with Telephony Program



Trial Usage Statistics

Trial Period : Oct. 13th 2003 to Jan. 9th 2004

- ◆ ENUM Registration :1,495
- ◆ ENUM Telephony Service Use : 14,697
 - PC to PC(IP Phone) : 5,117
 - PC to Mobile : 8,022
 - PC to PSTN : 1,558
- ◆ ENUM Web Visitors (accumulated): 181,734
 - Oct. : 37,861, Nov. : 70,625, Dec. : 73,248
- ◆ Survey from ENUM Service Users for Extended Trial and System Modification

Korean ENUM Service Council

◆ Overview

- Started as of Sep.,2003
- To seek common interest among related Org.
- Members : KRNIC, MIC

Dacom, Hanaro, KT, KTF, LGT, SKT

◆ General Goals

Present

- Joint Promotion
- Privacy Guideline
- Delegation of National Code
 - Tier 1 Registry Selection
 - Joint Development for Extended System
- Standardization Works



Future Work

- Profit Model
- Commercial Service

National Standardization Issues

- URI Standardization Forum - ENUM committee
 - ◆ ENUM Trial Working Group
 - Started as of 2003. 6. 20
 - Consider next step of ENUM Trial Service and Affiliations with major Telcos in Korea

- TTA TC02(Telecommunication Network Technical Committee)
 - ◆ ENUM Task Force Team
 - Started as of 2002. 10.
 - Following up international ENUM standardization activities
 - Standardization for the national application of ENUM

ENUM Standardization Process

URI Standardization Forum Standards

- Technical Specification
- International Standards Reference



TTA Standards

- Technical Proposal from the International Standards

Forum Members

Preparation for the Forum Standards Proposal



After the proposal to the committee, notification of adoption by the chair

Preparation for Proposed Standards



reviewing by the committee, revision

Settlement and Decision of Proposed Standards

After the settlement of the committee chair, decision of the steering committee

Selection among Forum standards for proposing TTA Standard



Standardization by ENUM Task Force Team

Standardization Status

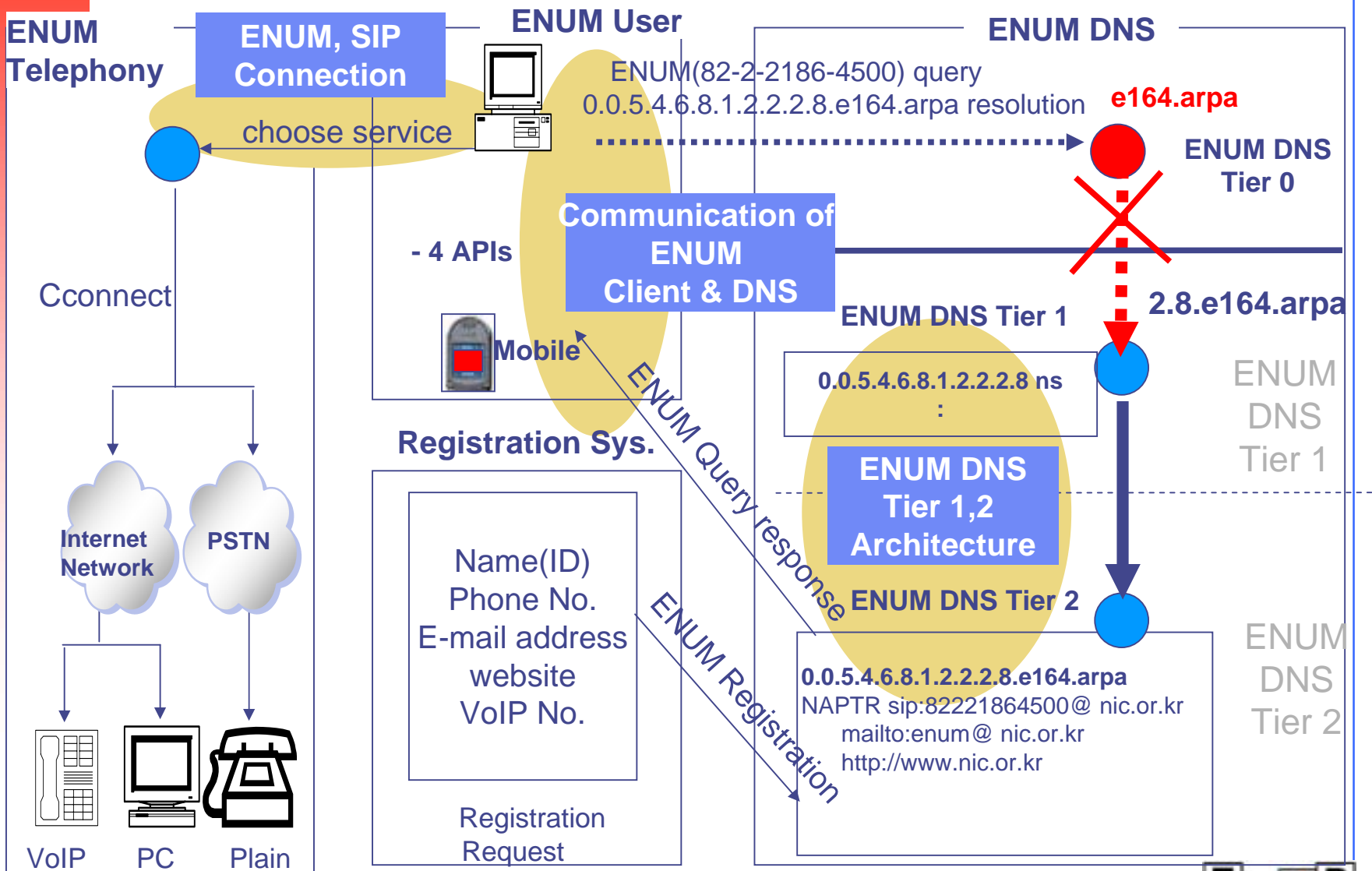
◆ Applied of RFC and Drafts

- RFC 2916bis
- ENUM Service Registration for H.323 URL
- Enumservice registration for SIP Address of Record
- Registration for enumservice web and ft
- Registration for enumservice of group messages

◆ New Standards Development

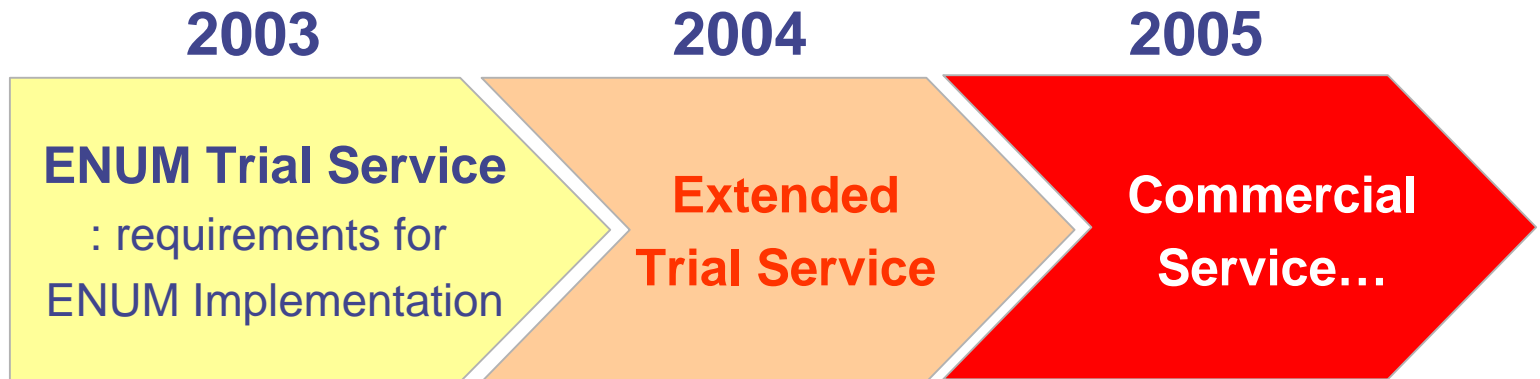
- ENUM DNS Tier 1,2 Architecture
- Communication Procedure between ENUM Client and DNS
- ENUM Service Registration for Wireless Internet Sites

Standard Drafts from Trial System



Next Steps...

◆ ENUM Service Plan



- ◆ APRICOT 2004 ENUM SIP BoF in KL(Feb.,2004)
 - Propose “ASIA ENUM Cooperation Committee”
 - JP, KR, CN, TW, SG, MY...

**THANK
YOU**