



*Working Group ENUM, Seminar  
Bratislava 16th of March 2005*



## **Proposal on ENUM Trial in the Slovak Republic**

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# Introduction



⌘ **Working Group ENUM** was established under the Association **Communication Technology Forum** with support of Ministry of Transport, Posts and Telecommunications of the Slovak Republic as a national ENUM domain name holder on the introductory meeting in Bratislava 6<sup>th</sup> of October 2004.

# ENUM definition



## Electronic NUMbering tElephone NUMbers Mapping

- ⌘ ENUM is an IETF standard (**RFC3761**) finalized in April 2004 that allows an end user to type a telephone number into e.g. a Web browser and to access a listing of Internet resources (URI) for that number, such as addresses for IP telephony, e-mail or Web sites.

<http://www.ietf.org/html.charters/enum-charter.html>

# History 1



## ⌘ **Research Project „The Aims and Procedures Harmonisation of ENUM Implementation with EU Member States“, Research Institute P&T, 01/2003 - 12/2003**

- ☒ monitoring of ENUM standardisation work in ETSI, ITU and IETF;
- ☒ evaluation of ENUM trial experiences from other countries;
- ☒ recommendations for organisation of national ENUM Trial in the Slovak Republic.

# History 2



## ⌘ Delegation of Slovak country code zone 1.2.4.e164.arpa for ENUM trial 06/2003

- ☒ Tier 1 Manager Ministry of Transport, Posts and Telecommunications of the Slovak Republic;
- ☒ Tier 1 Registry Slovak Academic Network SANET (for national ENUM trial)

For details:

<http://www.ripe.net/maillists/ncc-archives/enum-announce/2003/msg00012.html>

# History 3



## ⌘ **Research project „Convergence of ICT networks and services in communication infrastructure of the Slovak Republic“, Slovak Technical University and Other Partners 11/2003 - 12/2005**

- ☒ Analysis of present status numbering in communication networks.
- ☒ IP telephony in converged network.
- ☒ Conception draft of numbering (ENUM) and pilot implementation in converged network.

# ENUM Status Worldwide

## ⌘ Delegated Domains <cc>.e164.arpa:

- ☒ 27 delegated domain names, status 9<sup>th</sup> of March 2005  
<http://www.itu.int/itudoc/itu-t/enum/enum-app.html>

## ⌘ Trials:

- ☒ Finland, France, Poland, Romania, Switzerland;
- ☒ Australia, China, Japan, Korea, Singapore.

## ⌘ Commercial:

- ☒ Austria - 12/2004; Germany, Sweden and United Kingdom - under consideration

## ⌘ Monitoring RIPE ENUM Working Group

<http://www.centri.org/kim/enum/index.html>

# ENUM Status Slovak Republic



- ⌘ 1.2.4.e164.arpa - delegated 3rd of June 2003 (domain name holder MDPT SR, Tier 1 registry SANET);
- ⌘ WG ENUM established 6th of October 2004;
- ⌘ 1st Meeting WG ENUM 19th of October 2004;
- ⌘ 2nd Meeting WG ENUM 19th January 2005;
- ⌘ WG ENUM Seminar „Project ENUM in the SR“ 16th of March 2005.



# WG ENUM Goals



- ⌘ Opening up national forum for discussion about implementation of ENUM.
- ⌘ Creating knowledge base necessary to involve international discussion about implementation of ENUM and relate question.
- ⌘ Monitoring development of ENUM in international range, including standardization and foreign research a pilot projects.
- ⌘ Co-operating in creating terms and conditions and seting up targets for trials.
- ⌘ Evaluation of results and experiences obtained during trials.
- ⌘ Proposing recommendations of concerning implementation of ENUM in the SR.

# Members of WG ENUM



⌘ 4 Operators



⌘ 3 Associations



⌘ 2 Governmental



⌘ 3 Universities



⌘ 1 Research



⌘ 1 Supplier



# Pracovní skupina ENUM



## Čo je ENUM

## Aktuality

## Dokumenty

## Linky

## Diskusná skupina ENUM

**Pracovní skupina ENUM** bola založená v rámci Fóra pre komunikačné technológie CTF za podpory Ministerstva dopravy, pôšt a telekomunikácií Slovenskej republiky ako administrátora národnej domény ENUM (tElephone NuMbers Mapping) na úvodnom stretnutí v Bratislave 6.10. 2004.

## Ciele pracovnej skupiny

1. Poskytovanie národného fóra na diskusiu o realizácii ENUM.
2. Vytvorenie vedomostného potenciálu potrebného na zapojenie sa do medzinárodnej diskusie o realizácii ENUM a súvisiacich záležitostiach.
3. Monitorovanie rozvoja ENUM v medzinárodnom rozsahu, vrátane normalizácie a zahraničných výskumných a pilotných projektov.
4. Spolupráca pri vytváraní podmienok a stanovení cieľov prevádzkových skúšok ENUM v SR a dohľad na tieto skúšky.
5. Hodnotenie výsledkov a skúseností získaných počas prevádzkových skúšok.
6. Návrh odporúčaní na realizáciu ENUM v SR.

## Pravidlá činnosti pracovnej skupiny

## Plán činnosti na rok 2005

## Zoznam členov PS ENUM



Zoznam členov PS ENUM - Microsoft Internet Explorer

Soubor Úpravy Zobraziť Oľbíbené Nástroje Nápoýeda

Zpět Vpřed Zastavit Obnovit Domů Hledat Oľbíbené Historie Pošta Tisk Upravit Diskuse ICQ Pro

Adresa http://www.vus.sk/broadband/enum/plan2005.htm

## Plán činnosti PS ENUM na rok 2005

**Hlavné programové ciele:**

1. Organizačné zabezpečenie činnosti PS ENUM.
2. Osvetová činnosť a publikačná činnosť.
3. Príprava pilotného projektu realizácie ENUM v SR.
4. Návrh súvisiacich legislatívnych a regulačných opatrení.

**Harmonogram:**

Január 2005:

**Predsedníctvo PS ENUM**  
Miesto a termín: Bratislava, 19.1.2005; Organizačné zabezpečenie: predseda

**Pracovná skupina PS ENUM**  
Miesto a termín: Bratislava, MDPT SR, 19.1.2005; Org. zabezpečenie: RNDr. Bagínová, MDPT SR

Marec 2005

**Pracovný seminár „Príprava realizácie ENUM v SR“**  
Miesto a termín: Bratislava, FEI STU, 16.3.2005; Org. zabezpečenie: predsedníctvo

Apríl 2005

**Návrh tutorialu o ENUM a príprava na jeho publikovanie.**  
Zodpovedá: predsedníctvo

Máj 2005

**Predsedníctvo PS ENUM**  
Miesto a termín: bude upresnené neskôr; Organizačné zabezpečenie: predseda

**Pracovná skupina PS ENUM**  
Miesto, termín a organizačné zabezpečenie bude upresnené neskôr.

September 2005

**Predsedníctvo PS ENUM**

Hotovo

Místní síť intranet

enum Info Page - Microsoft Internet Explorer

Soubor Úpravy Zobrazit Oblíbené Nástroje Nápověda

Zpět Vpřed Zastavit Obnovit Domů Hledat Oblíbené Historie Pošta Tisk Upravit Diskuse ICQ Pro

Adresa <https://mail.cnl.tuke.sk/cgi-bin/mailman/listinfo/enum> Přejít Odkazy

## enum -- ENUM CTF

**About enum** English (USA)

ENUM CTF

To see the collection of prior postings to the list, visit the [enum Archives](#).

**Using enum**

To post a message to all the list members, send email to [enum@lists.ctf.sk](mailto:enum@lists.ctf.sk).

You can subscribe to the list, or change your existing subscription, in the sections below.

**Subscribing to enum**

Subscribe to enum by filling out the following form.

This is a closed list, which means your subscription will be held for approval. You will be notified of the list moderator's decision by email. This is also a hidden list, which means that the list of members is available only to the list administrator.

Your email address:

Your name (optional):

You may enter a privacy password below. This provides only mild security, but should prevent others from messing with your subscription. **Do not use a valuable password** as it will occasionally be emailed back to you in cleartext.

If you choose not to enter a password, one will be automatically generated for you, and it will be sent to you once you've confirmed your subscription. You can always request a mail-back of your password when you edit your personal options.

Pick a password:

Reenter password to confirm:

Sif Internet

# ENUM Views



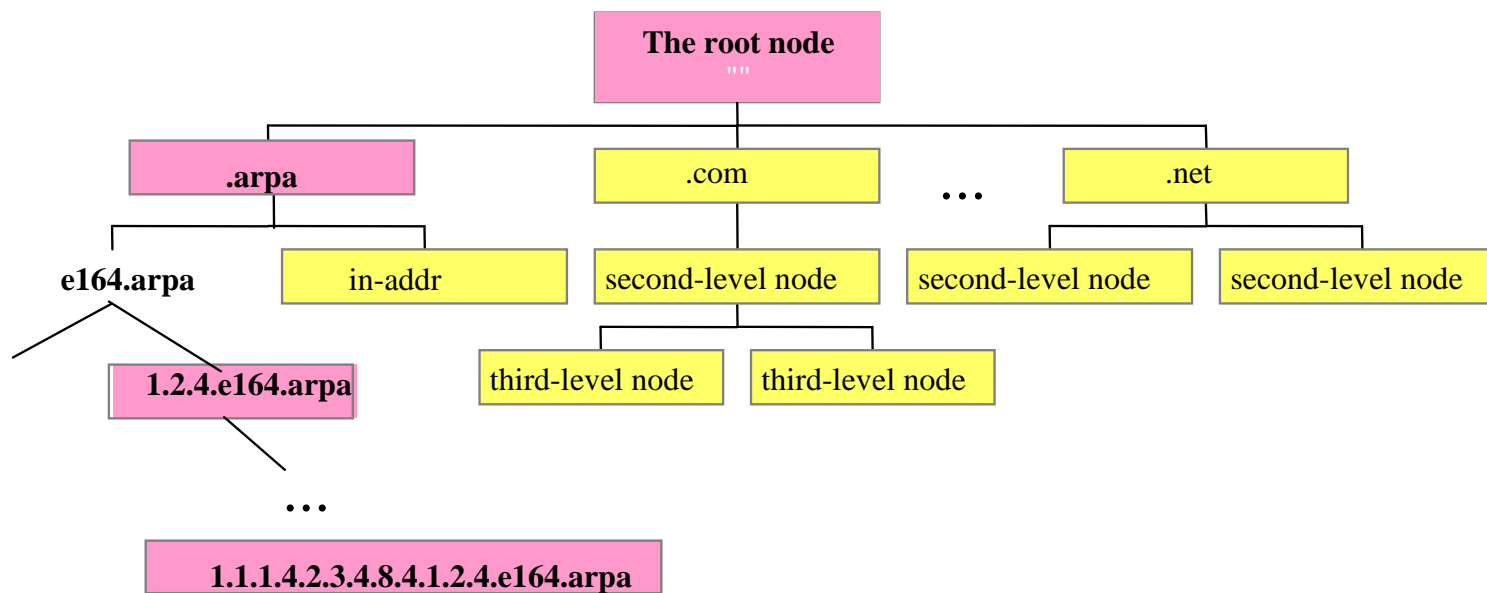
## ⌘ User ENUM vs. Infrastructure ENUM

- ☑ Subscriber (End User) opt-in vs. Provider (Operator) opt-in

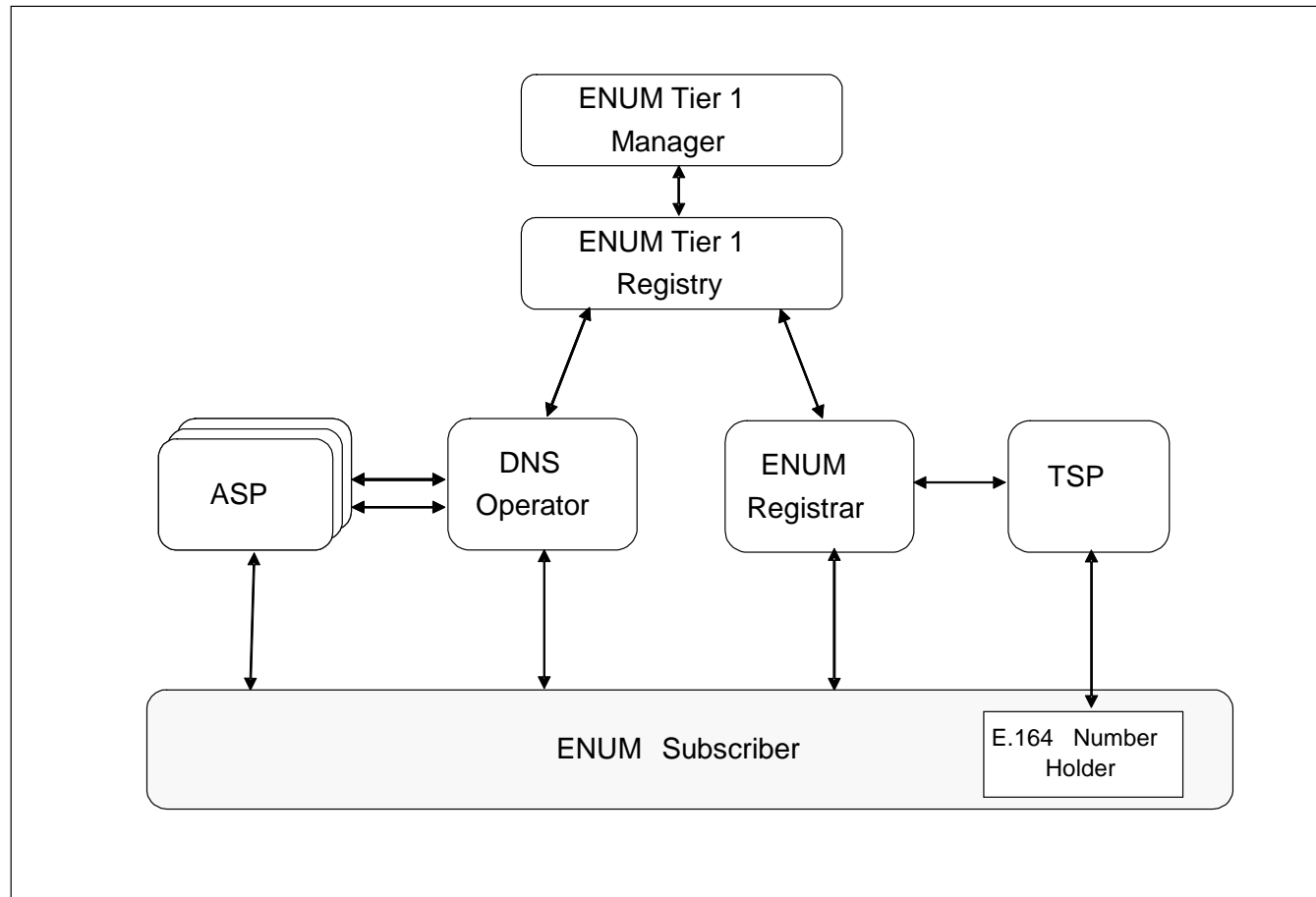
## ⌘ Public ENUM vs. Private ENUM

- ☑ Internet vs. managed IP-Networks (or intranets)

# ENUM root



# Administrative model ENUM






ENUM Homepage - Netscape

File Edit View Go Bookmarks Tools Window Help

http://www.ripe.net/enum/

Home My Netscape Search

Ripe NCC LIR Portal RIPE About RIPE NCC | Contact | Search | Sitemap



# ENUM

you are here: [home](#) -> [Internet Resources](#) -> [ENUM](#)

## ENUM

The instructions regarding operations of the domain e164.arpa that can be found at the URL: <http://www.ripe.net/rs/enum/instructions.html> are instructions from the IAB to the RIPE NCC. They do not implicitly give the ability for anyone to receive a domain delegation for an E.164 CC by contacting the RIPE NCC.

The RIPE NCC will not evaluate any requests for delegation that it happens to receive apart from the correctness of the technical information submitted in the request. (Please see specifications listed at: <http://www.ripe.net/ripe/docs/enum-request.html> ).

The ITU-T TSB evaluates delegation requests and questions. We urge anyone interested in discussing E.164 matters that are not DNS related to contact ITU-T TSB.

Information on how TSB will handle ENUM requests can be found under the bullet "Interim Procedures" at the ITU-T Web site at: <http://www.itu.int/ITU-T/inr/enum/>.

**Internet Resources:**

- IPv4
- IPv6
- Reverse DNS
- ENUM
- News Archive

**RELATED TOPICS**

- [ENUM Draft Request Form](#)
- [RIPE ENUM Working Group](#)
- [ENUM maillists](#)
- [ENUM presentations](#)
- [ENUM Request Archives](#)

**WHOIS SEARCH**

[Advanced search](#)

# RIPE WG ENUM Survey 1



1. What is the country and E.164 code?
2. Who is the delegate for the E.164 code?
3. The status of deployment (not delegated>applied>delegated/objected>trial>production)
4. ENUM Project contact details (telephone, email, web)
5. Is a trial being, or going to be, conducted?
  - 5a. Types of numbers used in the trial?
6. Is there work or plans toward full permanent deployment?
  - 6a. Types of numbers for production?
7. Who is leading the ENUM project? (government, industry working group, etc.)

# RIPE WG ENUM Survey 2



8. Who operates the ccTLD for that country at present?
9. What type of organisation runs the ccTLD? (state, private, academic, etc.)
10. What is the ccTLD legal regulation, if any?
11. Who is the current Tier 1 registry?
13. How will the Tier 1 registry selection be made? (i.e. decision, license, concession, agreement, public procurement, etc.)
14. How will the method of cost recovery for the Tier 1 registry's operations?
15. Will there be more than one Tier 1 provider for the country?
16. Will there be ENUM registrars?
17. What will be the ENUM validation technique?

# RIPE WG ENUM Survey 3



- 18. Is there/will there be a special number block for ENUM and/or IP Telephony?
- 19. Is there special treatment for unlisted numbers?
- 20. Are there any plans for infrastructure ENUM?
- 21. What is your ENUM WHOIS address?
- 22. Please provide the history of ENUM trials, projects etc., if any.
- 23. What are your future plans? (and dates if available)
- 24. What is your date estimate on a production ENUM registry launch?

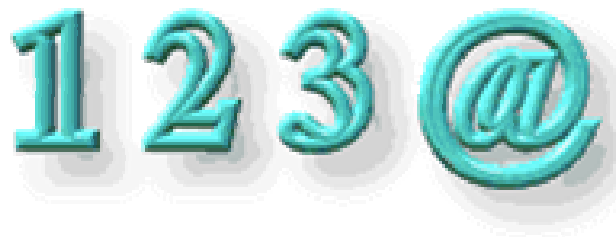
# Conclusions



## ⌘ Open questions:

- ☑ Market interest? Open for all interested parties.
- ☑ ENUM Pilot Plan
- ☑ ENUM Test Plan
- ☑ E.164 numbers
- ☑ Validation
- ☑ Commercial architecture
- ☑ Applications?

# Working Group ENUM



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