



Finnish Communications  
Regulatory Authority



# Motivating ENUM: Avoiding the Bottlenecks

RIPE 55 ENUM  
Working Group

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### Timeline:

- 28.11.2001: ENUM WG was founded
- 26.2.2003: +358 delegation was approved by TSB
- 28.2.2003: ENUM Basic study was completed
- 17.4.2003: ENUM pilot WG was founded
- 1.12.2003: ENUM pilot started
- 10.2.2005: ENUM Final Report
- 2.10.2006: Commercial launch
- Autumn 2007: New arrangements are planned...

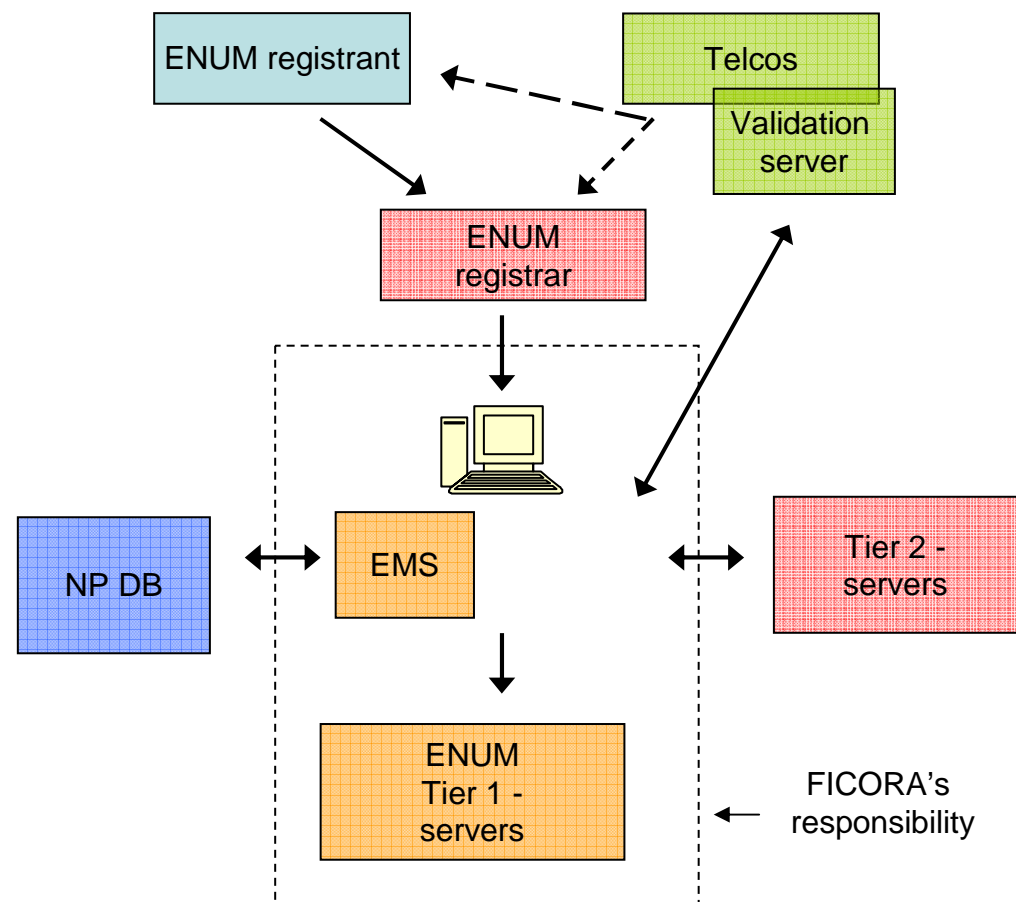
For more information, please visit:

- [www.enum.fi/en/](http://www.enum.fi/en/)

## The current system/model

### Main decisions:

- Registration via independent service providers
- Strong validation with NP DB and telcos' validation servers
- Tier 2 can be hosted anywhere
- Registration fee and annual fee for a domain are 4 euro



\* EMS = ENUM Management System

## Ok, what can go/went wrong?

Know your communication market and your target group:

- 1) To whom the system is mainly designed? (VoIP-users, VoIP-providers, enterprises, government etc...)
- 2) Are incumbents interested? Can you rely on them?
- 3) What is maximum price different user groups are willing to pay?

What we faced:

- 1) Incumbents were not interested even though they were designing and piloting the system. That means in practice no validation = no service
- 2) Only a few VoIP providers and VoIP subscriptions
- 3) 4 euro was too much for some VoIP providers

## Plans to go forward...

Price the service correctly

- Decision to decrease the price to 0,50 €

Remove operator control over the validation of mobile numbers and start offering also registrar service

- SMS validation solves the both problems
- premium numbers can be used for charging

Likely to start offering Tier 2 service

- End users won't maintain their own Tier 2 servers

Start using ENUM

- Good example for other governmental organisations



## Operator ENUM status in Finland

- spring 2006 - work started in SIP interworking WG
- 27.7.2006: public consultation
- 27.3.2007 work was transferred to NP DB company and continued by 3 largest incumbents (mobile + fixed)
- 4.10.2007 preliminary specification was finished
- commercial and implementation specification work continues – no implementation decision is however made

## Some facts:

- a mixed Tier 1/2 model, supports multiple ENUM-roots
- linkage with NP DB, can used to replace it later
- updates via a separate front end service