



# ENUM in the Netherlands

Antoin Verschuren  
[antoin.verschuren@sidn.nl](mailto:antoin.verschuren@sidn.nl)

# ENUM in the Netherlands

2001 - 2002	NLEG report
2002	Protective delegation 1.3.e164.arpa to Ministry (EZ)
2002 – 2005	No interest from the market to start a trial
2005	VoIP boom, sudden interest
2006	SIDN starts ENUM initiative, seeks support from market

# Some NL special market observations

- Innovative market
- High broadband penetration
- 28% of voice is VoIP (Oct. 2007)
- Government promotes competition
- Regulator supplies numberblocks directly to endusers, not only to operators
- Operators already operate central numberportability database.

# Support for ENUM initiative

## Explicit support from:

- BTG (Interest group for large telco users, most of them with their own numbers)
- ISOC (Internet Society)
- RIPE NCC
- NLNetLabs

## No constructive objections from:

- Cable operators (already started VoIP peering)
- Telcos's could not formulate joint position

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# Consultation results

- Open transparent policy
- Support the NLEG report
- Compulsory market consultation about policy and technical requirements
- Only Public User ENUM
- Request from telco's that only numberholders could do registrations was rejected by the ministry because it prevented competition and did not comply to NLEG report model of registrars

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2006 - 2007	Ministry consults the market for objections
22-03-2007	“Covenant” between ministry and ENUM NL about conditions for deploying Public User ENUM.
18-06-2007	Start ENUM innovation platform
26-03-2008	Report from innovation platform and 1st registration

# Platform results

- Strong validation (agent) requirements
- Open registrar market
- Clear complaint procedure
- Only number users can register through registrar
- Almost all numbers can be registered
- Pre-delegation DNS-checks
- Use validation token
- Validation methods invented by market
- Allow numberblock registrations
- No regular whois service
- DNSSEC and IPv6 within 1 year after introduction



# Market observations

- Interest from BTG/Companies with own numberblocks was expected, but is massive
- Hesitating interest from regular ISP's
- Telco's are interested, but cannot change their company policy, so they will probably "outsource" validation to not miss the boat
- Surprisingly much interest from banks and online traders to use ENUM as a distribution channel for PKI's for identity management

# Registry setup

- Seperate foundation for ENUM NL
- Procedures/processes/documentation takes most of our time
- Start with limited known registrars
- In temporary registry system
- Will use same registry system software as enum.at and IEnum in few months
- Next step open up for all registrars
- DNSSEC and IPv6 in 2009

# Pricing

<b>Registration in relation to block size</b>	<b>Basic tariff</b>	<b>Discount 08 - 09</b>
1	€ 5	€ 2,50
10	€ 25	€ 12,50
100	€ 125	€ 50
1000	€ 500 **	€ 250
10000	€ 2500 **	€ 1250
<b>Registrarfee</b>		
ENUM Registrar	€ 620	€ 310
Validation-agent	Free	Free
<b>Mutations</b>		
Transfers	€ 5	€ 5
Unblock tariff	€ 10	€ 10
<b>Other services</b>		
Ratify validation method	Max. € 150	Free

# Where are we now?

- 10 registrars have started.
- Basic interface online, enum.at implementation has begun.
- 1st validation agents have started.
- Two nurturing projects have started.
- Results evaluated by end of 2009.



Questions ?



ENUM registry:

[www.enum.nl](http://www.enum.nl)

ENUM innovation platform:

[www.enuminnederland.nl](http://www.enuminnederland.nl)