Using ENUM before it establishes critical mass

OpenFortress*
digital signatures

user enum requires 2 sides

* User ENUM works when 2 sides co-operate:
  → Service offerings published in ENUM
  → Service location based on ENUM

* ”The World would be a better place if we’d all. . . ”

* A path is needed towards critical mass
  → Need to exploit ENUM as a one-sided mechanism

offering information in enum

Is it a sign of politeness, or plain visionary?

qr codes for mobile users

* see $\Rightarrow$ scan $\Rightarrow$ click $\Rightarrow$ contact
  $\rightarrow$ Could it be any simpler?

* Information is dynamic; it comes from ENUM
* Excellent for map locations, social media links, photo's, ...
* Usable on vans, printwork, in ads, ...

qr codes for mobile users

Photo by Miep Jukkema†

subnumbers for additional contacts

* ENUM is a DNS *zone*, so. . .

* having ENUM for +31534782239 implies
  having ENUM for +31534782239641

* ENUM stores dedicated information under a subnumber
  → Direct link to a webpage, phone number, . . .
  → Works well on a product brochure

* A subnumber for your husband
* A subnumber for your teen daughter
* A subnumber for your parrot

subnumbers for additional contacts

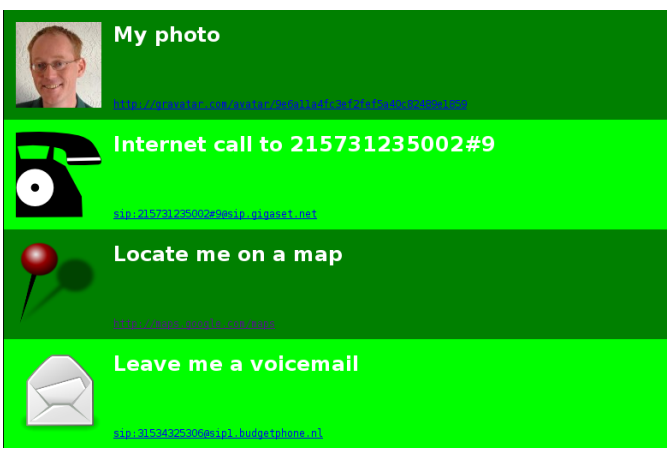
Something we all need: An IPv6-addressable door bell

the dynqr.nl website

* Created as ENUM service portal for +31

* Could easily be adapted to serve more countries

* Hosted connectivity services: SIP, XMPP, webwrap
* Includes support for FreeNUM, e.g. 7425*880
  → dynQR offers *880 numbers to individuals



locating services in enum

If it stares at you, why not say hello?

the internet dialtone

* Dial a nearby number to access the Internet
* Enter a number on the presented dialtone:
  - → from ENUM
  - → from NRENUM
  - → from FreeNUM
  - → from peering small telco's
  - → *in fact, any validated dialstring!*

* In the Netherlands, dial `05-37113617`

* Call your homebase at local call rates
* It's not about free calls. . . well, not *just* about that

public enum relay

* Resolve [A-Z]*ENUM in a public SIP relay
* Connect over the Internet if at all possible
* Upon failure, forward to original destination

* Works as outbound proxy in *any SIP phone or PBX*

* One requirement: NAT Traversal
  $\rightarrow$ Use ICE, STUN, port forwarding...
* Or take the easy way out... and use IPv6 `:-)`

* The address of this service is `sip.0cpm.net`
  $\rightarrow$ β-testers can request the UDP port
* Intended to be a public service soon
  $\rightarrow$ Will launch on `http://0cpm.net/`

how easy it is for countries to get on board

If it's plain sailing, why not dive in?

the choice of each country

* Conventional governmental wisdom stipulates:

  → Delegate control to a new body
  → Have it guard an open market of resellers
  → Thus creating a ‘private government’ branch
  → Procedures, policies, business views. . .
  → Even though the technology is fairly simple

* This makes ENUM fairly expensive
  → Users end up paying ‘protection money’
  → They will weigh pros/cons before purchasing
  → Effectively, critical mass is needed

the choice of each country

* A light-weight alternative could be:

  → Hire a technical company to run an ENUM registry
  → Require support of multiple registrars
  → Only pay for development, hosting, and maintenance
  → Stay in full control of the technology
  → Re-use an existing telco watchdog to handle disputes
  → Simplify validation → Relay number revocations
  → Integrate ENUM into POTS

* Try to keep ENUM registrations free. . .
  → . . . and save a *lot* of extra administrative work
  → . . . and see it pop up in hosting packages!

summary

* ENUM is already useful just to broadcast information

* ENUM is already useful just to find information

* ENUM adoption needn’t be difficult or expensive to countries

info@openfortress.nl

http://openfortress.nl

OpenFortress*

digital signatures