

Situação do *User* ENUM na Europa



Workshop sobre ENUM – 28 e 29 de Outubro de 2009

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- **Consulta pública e acções**
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1. Consulta pública e acções

- *Workshop* informativo sobre ENUM, em 24 de Junho de 2002.
(<http://www.anacom.pt/render.jsp?contentId=52117>)
- Consulta pública sobre ENUM, em Fevereiro de 2006.
(<http://www.anacom.pt/render.jsp?categoryId=231942>)
- Relatório da Consulta pública em Janeiro de 2007.
(<http://www.anacom.pt/render.jsp?categoryId=227159>)
- Promoção de Grupo de Trabalho sobre o ENUM.

- Aprovação do relatório referente à consulta pública.
- Propor ao Membro do Governo responsável pela área das comunicações a designação do ICP-ANACOM, enquanto Administração de Estado Membro da UIT-T, como *Tier 1 Manager* do domínio “1.5.3.e164.arpa”, tendo em conta ser a entidade responsável pela administração do código de país internacional (351) atribuído pela UIT-T, para todos os efeitos que essa designação implica:
 - decisão de participar no ENUM;
 - designar o ENUM *Tier 1 Registry*;
 - estabelecer procedimentos a seguir pelo ENUM *Tier 1 Registry*, quando este delega domínios às entidades ENUM *Tier 2 Nameserver Provider*.
- Promoção, por parte do ICP-ANACOM e em conjunto com outras entidades, de um Grupo de Trabalho sobre o ENUM, que analise as condições para a introdução do ENUM em Portugal, incluindo o desenvolvimento de um projecto-piloto sobre esta matéria.
- Propor à Fundação para a Computação Científica Nacional (FCCN) a celebração de um protocolo para a operacionalização de um projecto piloto do ENUM em Portugal, em moldes a definir, em que à FCCN seria atribuída a competência operacional de ENUM *Tier 1 Registry*, para a gestão do “1.5.3.e164.arpa” para esse piloto.

2. *User* ENUM na Europa

- O procedimento é baseado no processo “*ENUM administration ad interim*” do ITU-T (<http://www.itu.int/ITU-T/inr/enum/index.html>);
- O organismo responsável pelo Código de país (CC) deverá autorizar a abertura do TLD respectivo (no caso de Portugal seria o “1.5.3.e164.arpa”) no RIPE NCC. Esta autorização deve ser enviada para o TSB do ITU-T;
- O pedido de abertura no RIPE NCC será feito pelo Registry do Tier 1 designado pelo organismo responsável (no caso de Portugal é o ICP-ANACOM).
- O pedido ao RIPE NCC deve seguir as instruções contidas no seguinte link: <http://www.ripe.net/enum/instructions.html>.

Estado do ENUM na Europa



E.164 Country Code	Country, Geographical area, or Global service	Delegee	Date of TSB Approval	Status
30	Greece	Telecom and Post Commission	06/02/06	Delegated
31	Netherlands	Stichting ENUM	27/10/06	Production
33	France	DiGITIP (Government)	28/03/03	Trial
350	Gibraltar	Gibraltar Regulatory Authority	01/11/05	
353	Ireland	Commission for Communications Regulation	25/05/04	Production
354	Iceland	Post and Telecom Administration	28/02/05	Delegated
358	Finland	Finnish Communications Regulatory Authority	26/02/03	Production
359	Bulgaria	ISOC Bulgaria	13/04/06	Delegated
36	Hungary	CHIP/ISzT	15/07/02	Delegated
370	Lithuania	Communications Regulatory Authority	10/08/07	Delegated
374	Armenia	Arminco Ltd	11/07/03	Delegated
386	Slovenia	Post and Electronic Communications Agency	06/02/08	Delegated
39	Italy	Ministerio delle Comunicazioni		Delegated
40	Romania	MinCom	10/12/02	Production
41	Switzerland	OFCOM	01/10/03	Not delegated
420	Czech Republic	Ministry of Informatics	24/06/03	Production
421	Slovak Republic	Ministry of Transport, Post, and Telecommunications	04/06/03	Delegated
423	Liechtenstein	SWITCH	21/10/03	Trial
43	Austria	Regulator	11/06/02	Production
44	UK	DTI/Nominum	16/05/02	Production
46	Sweden	NPTA	10/12/02	Hiatus
47	Norway	Norwegian Post and Telecommunications Authority	16/03/05	Delegated
48	Poland	NASK	18/07/02	Production
49	Germany	DENIC	16/05/02	Production

Fontes:

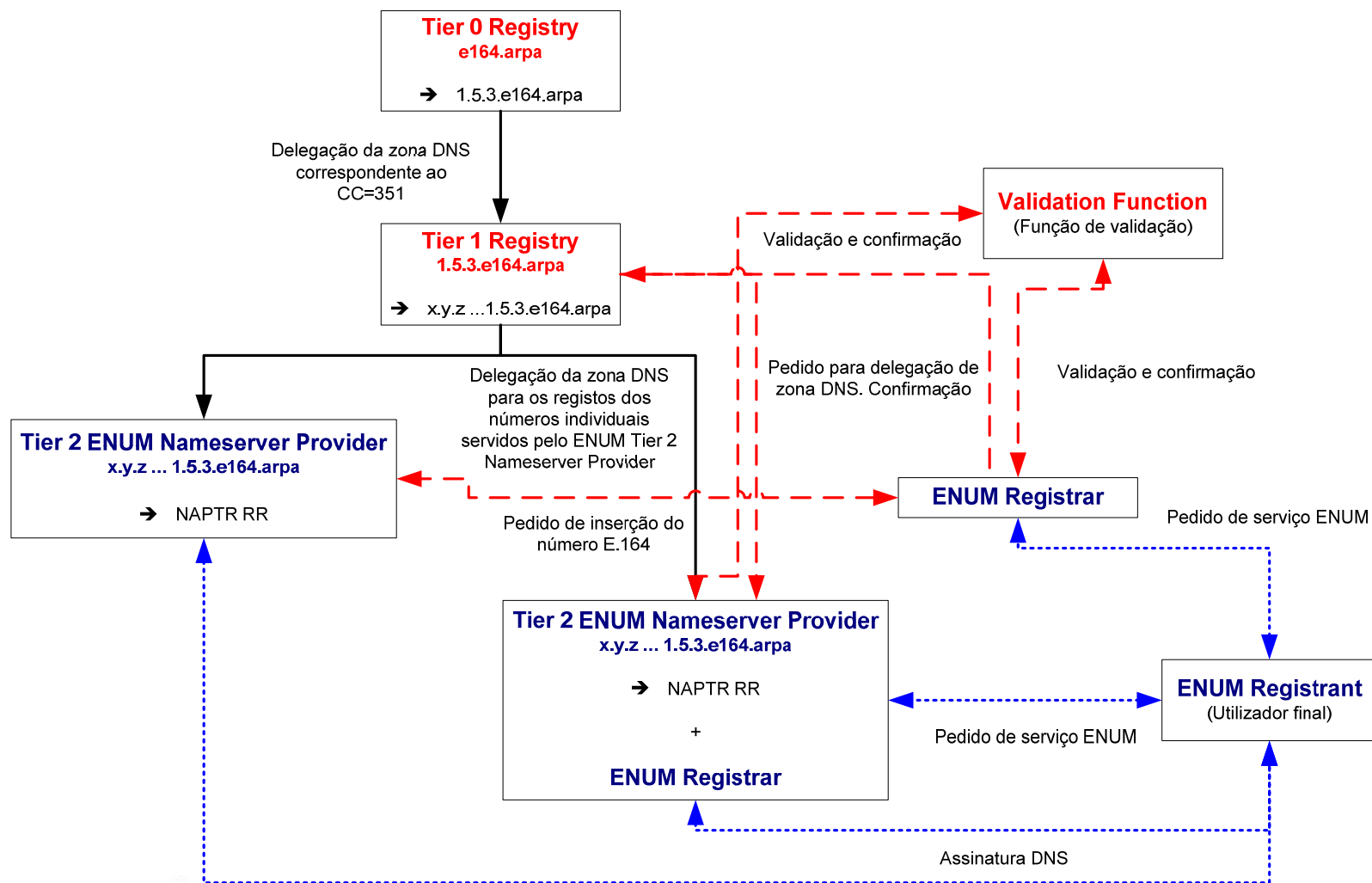
Ripe (<http://enumdata.org>)

ITU-T (http://www.itu.int/dms_pub/itu-t/oth/02/08/T02080000010005MSWE.doc)

Tipos de n.ºs possíveis no ENUM

País	Tipos de números possíveis de serem usados no ENUM	Gama específica para ENUM
Áustria	<ul style="list-style-type: none"> • geographical numbers • numbers for private networks • mobile numbers • location-independant fixed network numbers • numbers for converged services (ENUM enabled) • free-phone numbers 	Yes. <ul style="list-style-type: none"> • numbers for converged services (ENUM enabled)
República Checa	<ul style="list-style-type: none"> • geographical numbers • mobile numbers • free-phone numbers • premium rate and value-added services • VoIP dedicated numbers 	Yes, there is a special range dedicated to VoIP telephony
Alemanha	<ul style="list-style-type: none"> • geographical numbers • mobile numbers • free-phone numbers • personal numbers • national numbers • service numbers 	The number block for national numbers was intended for VoIP telephony but it is not widely used.
Irlanda	<ul style="list-style-type: none"> • Geographic numbers • Mobile numbers • special-purpose VoIP numbers 	A special range has been defined for VoIP, but ENUM is not restricted to this range.
Roménia	<ul style="list-style-type: none"> • numbers for private networks • location-independent (non-geographical) fixed network numbers 	
Reino Unido	<ul style="list-style-type: none"> • Geographical Numbers • Mobile Numbers • Freephone Numbers • Personal Numbers • National Numbers • Service Numbers 	No.

Modelo genérico de registo



- **Respostas à Consulta Pública:**

- ***Tier 1 Manager*** – ICP-ANACOM;
- ***Tier 1 Registry*** – entidade a ser designada pelo ICP-ANACOM;
- ***Tier 2 Nameserver*** – Operadores / prestadores de serviços de comunicações que pretendam oferecer o serviço ENUM, creditados pelo ICP-ANACOM;
- ***Registrar*** – Os Tier 2 Nameserver ou entidades externas autorizadas para o efeito;
- ***Validation Function*** – Esta função poderá ser desempenhada por uma entidade única, externa aos operadores detentores das gamas de numeração, ou por estes próprios.

Funções e entidades na Europa

	Austria	Czech Republic	Germany	Ireland	UK
Permanent Tier 1 registry	enum.at	CZ.NIC	DENIC eG	IENUM	Nominet UK
Tier 1 registry selection	Decision by contract between RTR and enum.at	Agreement regarding ENUM domain delegation and Tier1 registry operation signed between ccTLD registry and government.	Initiative of the industry concerned	Selection was by competition	Public procurement / Tender process
More than one Tier 1 provider for the country?	No	No	No	No	No
Will there be ENUM registrars?	Yes	Yes	Yes	Yes	Yes
ENUM validation techniques	Various, also depending on type of number.	Various depending whether validating single number or a number block.	Various techniques were developed by the registrars during the trial phase and are used now in the production phase.	Several techniques from checking a phone bill to sending a SMS, making a telephone call to the registrant. The technique used will likely be case-dependent.	Various manual and automatic methods will be used by accredited Validation Agents.

Como registar um domínio ENUM



Holanda

Passos	Descrição
Step 1	As a Dutch phone number user, you decide to register the corresponding ENUM domain. You select a registrar to make the necessary arrangements for you.
Step 2	You apply to register your number through the registrar. Exactly how you do this depends on the way your chosen registrar operates. However, registration will always involve agreeing to the General Terms and Conditions for ENUM NL Registrations and the associated technical requirements.
Step 3	Next, your registration application goes through a validation process. Validation means checking to verify that you (the prospective registrant of the ENUM domain) are also the user of the corresponding e.164 phone number. The checks are made by a validation agent. Often, your registrar will also be a validation agent and will be able to make the necessary checks. If your chosen registrar is not a validation agent, you can select an accredited validation agent from the list published by ENUM.
Step 4	Following successful validation, your registrar will forward your registration application to ENUM NL.
Step 5	Once the application has been checked and approved, the domain corresponding to your number is registered by ENUM NL. You can then start using ENUM.

Fonte:
ENUM N.V.

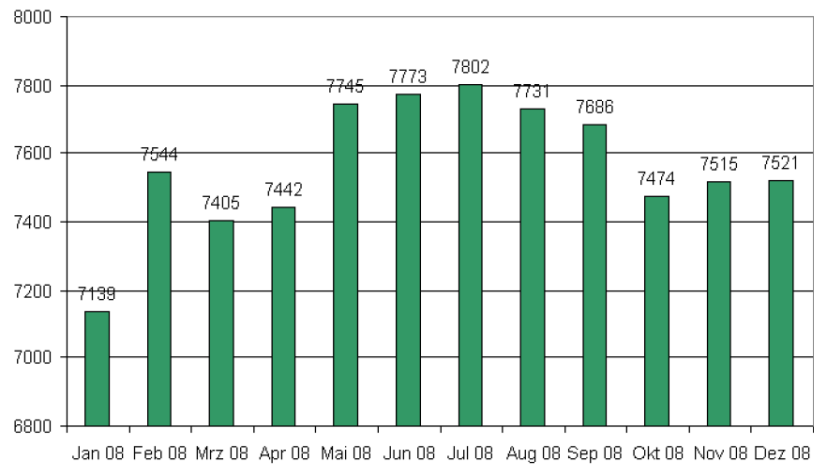
Irlanda

Passos	Descrição
Step 1	A registrant / telephone number holder decides to register the ENUM domain for his Irish number, and approaches a Tier 2 registrar.
Step 2	Tier 2 requests DNS setup from DNS provider.
Step 3	The Tier 2 registrar selects a cooperating Validation entity, and provides it with data about the registration.
Step 4	Validation entity confirms validation details with registrant if necessary.
Step 5	The Validation entity verifies the registrant's right to use the number, and if successful creates a validation token.
Step 6	The Tier 2 registrar provisions the ENUM domain and its associated objects with the registry.
Step 7	The Tier 1 registry automatically verifies the validation token attached to the request, and delegates the ENUM domain if all policy requirements are met.

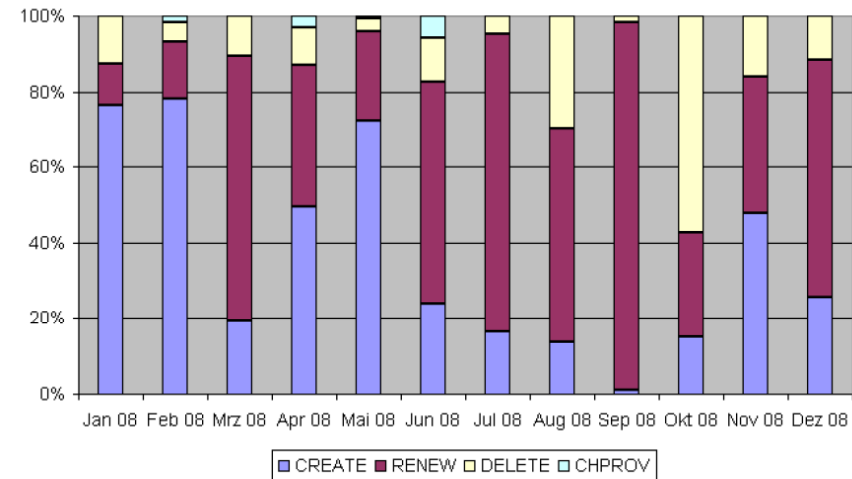
Fonte:
IENUM Ltd.

Dados do ENUM na Alemanha

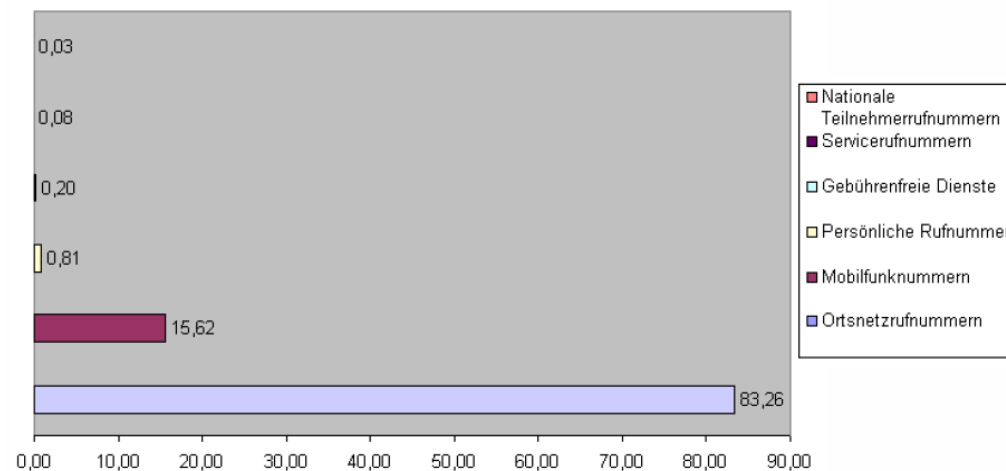
ENUM-Domains 2008



Aufträge bei ENUM-Domains



Verteilung Rufnummerngassen (Stand 31.12.2008)



Obrigado!