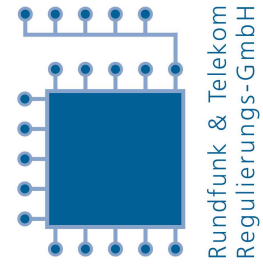


enum.at
net.communications



RTR

Agreement

concluded by:

Rundfunk und Telekom Regulierungs-GmbH
(Austrian Regulatory Authority for Broadcasting and
Telecommunications)

(Commercial Register FN 208312t)

Mariahilfer Strasse 77-79

A-1060 Vienna, Austria

(hereinafter referred to as "**RTR**")

and

enum.at Dienstleistungs GmbH
für konvergente Kommunikationsdienste

(Commercial Register FN 244986z)

Währinger Strasse 3/18

A-1090 Vienna, Austria

(hereinafter referred to as "**enum.at**")

(jointly referred to as "the parties" and "the parties to this agreement" in this document)

Preamble

A)

The subject matter of this agreement is the technical operation as well as the setup, change and deletion of ENUM domain delegations within Austria's ENUM-TLD 3.4.e164.arpa zone.

B)

RTR is divided into two specialized sections (Broadcasting and Telecommunications) and is responsible for duties such as those assigned to it under the Austrian Telecommunications Act of 2003 (TKG 2003).

These duties include the administration of all communication parameters in Austria (such as telephone numbers in accordance with the ITU-T E.164 recommendation) under §§ 61 to 68 TKG 2003.

C)

enum.at is a wholly owned subsidiary of the Internet Foundation Austria (German: *Internet Privatstiftung Austria*) and is registered as a provider of "Automated data processing and information technology services" in Austria.

D)

ENUM is a protocol first defined by the Internet Engineering Task Force (IETF) in Document RFC 2916, which has been replaced by RFC 3761 as of the date of this agreement. This protocol makes it possible to associate telephone numbers with a format described in Recommendation E.164 of the International Telecommunication Union (ITU) with (ENUM) domain names using the Domain Name System (DNS). These domains make it possible to access a given subscriber's (contact) information, which can be used subsequently as the basis for electronic communication. Therefore, this technology also enables convergent services which unite "classic" public switched telephone networks (PSTN) and the IP-based, packet-switched Internet using existing E.164 telephone numbers.

The top-level domain defined for ENUM is e164.arpa.

E)

ENUM is an innovation which enables the convergence of services in the public switched telephone network (PSTN) and the Internet, as well as promoting the development of new services. The 780 number range has been dedicated specifically to such services under RTR's 6th Ordinance of May 12, 2004 which defines regulations for communication parameters, fees and value-added services (*KEM-V*), which RTR announced by making it available to the public. In principle, additional number ranges can also be used in connection with ENUM as specified in this agreement. The primary objective in the implementation of ENUM is to secure the integrity of the E.164 number range, that is, it is necessary to ensure that an ENUM domain corresponding to a telephone number can only be used with the knowledge of the subscriber authorized to use the telephone number, and that the authorized subscriber has the right of refusal at any time if he/she did not explicitly consent to a delegation. The potential for misuse and the compromise of telephone privacy is especially relevant in cases of insufficient validation and insufficient security measures against unauthorized changes to the data stored for ENUM domains, and the introduction of commercial ENUM services must not present a danger to the reliability and integrity of public telephone services.

F)

Definitions

The terms below are defined as follows in this document:

- a. **Tier 1 registry:** The person or organization responsible for operating the Austrian ENUM domain 3.4.e164.arpa under the provisions of this agreement.
- b. **Registrar:** The person or organization from which a registrant must request the delegation of an ENUM domain and which carries out this function on the basis of an appropriate contract with the Tier 1 registry.
- c. **Registrant:** A person who applies for the setup, change or deletion of an ENUM domain delegation (via a registrar).
- d. **Validation:** The process of ensuring that the setup, change or deletion of an ENUM domain delegation corresponding to an ENUM-compliant national telephone number is only carried out or maintained (initial or ongoing validation) for a registrant in cases where that person has the authorization to use the respective national telephone number.
- e. **Error:** A case in which an ENUM domain delegation is used without the consent of the subscriber authorized to use the corresponding telephone number, or, if the delegation of an ENUM domain is applied for by the respective authorized communications service provider, a case in which delegation is carried out unbeknownst to the subscriber authorized to use the telephone number. Any case in which the registrant entered for an ENUM domain at enum.at is not authorized to use the corresponding telephone number under Section 5.3 a shall be considered an error.
- f. **Suspension of an ENUM domain delegation:** The temporary deactivation of an existing ENUM domain delegation.
- g. **in writing:** also refers to communication via e-mail or fax.
- h. **Registrar's agreement:** An agreement between enum.at and a registrar on the basis of the provisions in this agreement.
- i. **Business day:** Working days from Monday to Friday (except public holidays).
- j. **Authorized communications service provider:** The communications service provider who is officially authorized to use the telephone number corresponding to an ENUM domain or to which this authorization is assigned by means of a number transfer under § 23 in conjunction with § 65 Par. 5 TKG 2003.
- k. **NAPTR Record:** (Naming Authority Pointer Resource Record): An entry in the Domain Name System (DNS) which contains rules for the conversion of queries. The result is returned to the requesting application. For ENUM resolution, this means that a request for an ENUM domain is answered with a URI (Uniform Resource Identifier) according to the specified rules. This URI provides the destination address and the protocol for further communication.

1 Subject matter and basis of the agreement

- 1.1 With the consent of the Austrian Federal Minister for Transport, Innovation and Technology granted on June 7, 2002, RTR is the domain name holder for the national ENUM domain 3.4.e164.arpa in Austria.
- 1.2 By concluding this agreement, RTR is delegating operation of the Tier 1 registry for Austria's ENUM-TLD 3.4.e164.arpa to enum.at under the following contractual provisions.
- 1.3 The following services are to be provided by enum.at in any case:
 - a. Ongoing technical operation of the ENUM TLD
 - b. Setup, change and deletion of ENUM domain delegations under the national ENUM TLD,
 - c. Provision of delegation data to RTR in connection with validation quality reviews and for the efficient handling of number allocations to communications service providers in the 780 number range (to be carried out by RTR).
- 1.4 The setup, change and deletion of ENUM domain delegations or the corresponding NAPTR records can only be carried out on the basis of the provisions set forth in this agreement.

2 Duties of enum.at

- 2.1 enum.at is to ensure the continuous technical operation of the ENUM TLD on the basis of the specifications in Annex A.
- 2.2 enum.at shall ensure the transparent, objective and non-discriminating delegation of ENUM domains for registrars.
- 2.3 As regards transactions arising from this agreement, enum.at is to cooperate with individual registrars only on the basis of a registrar's agreement which at least contains the provisions set forth under Sections 6 and 7.
- 2.4 enum.at is to ensure that the setup, change or deletion of an ENUM domain delegation is only carried out upon request by a registrar. In all cases, ENUM registrants are to have ENUM domain delegations carried out by a registrar. enum.at itself shall not fulfill the functions of a registrar. In justified cases, changes and deletions of ENUM domains can be carried out by enum.at. In such cases, the respective registrar and RTR are to be informed accordingly.
- 2.5 The delegation of an ENUM domain does not establish any form of contract between enum.at and the ENUM registrant. An active or suspended delegation must always be assigned to a specific registrar.
- 2.6 When a registrant requests an ENUM domain delegation from a registrar, enum.at shall review the application for completeness and verify that the telephone number corresponding to the ENUM domain applied for lies within a number range under Section 4 and is governed by the respective registrar's agreement with regard to validation.
- 2.7 As the Tier 1 registry, enum.at shall operate the Tier 1 name server. Tier 2 name servers can be operated by enum.at or by third parties as long as this is compatible

with the state of international development in the field. The prerequisite for active delegations at any point in time is the simultaneous approval of the number range in accordance with Section 4.

- 2.8 The enum.at web site is to provide a simple means of retrieving information on whether the domain for a certain telephone number has been delegated or not. Data on the registrant associated with the number shall not be revealed. If an ENUM delegation exists for the telephone number queried, the current registrar (name, address) for the ENUM domain shall be displayed as well.
- 2.9 The subscriber authorized to use a given telephone number can object to an existing delegation in cases where such a delegation is not justified from his/her perspective. For such cases, the enum.at web site shall allow the transmission of the objection to the appropriate registrar along with the data entered by the subscriber (including the necessary contact data) free of charge. At RTR's request, enum.at shall submit a complete list of such objections.
- 2.10 Objections as specified in Section 2.9 can also be submitted by the communications service provider authorized to use a telephone number.
- 2.11 enum.at shall also offer registrars the ability to temporarily suspend existing delegations for the ENUM domains they manage.
- 2.12 In cases where enum.at is aware of erroneous delegations, enum.at shall inform the appropriate registrar without delay and cooperate in the clarification and resolution of the problem to the full extent of its capabilities. At RTR's request, enum.at shall report on all problems which have arisen as well as their resolution and any measures taken in this regard.
- 2.13 enum.at shall report any cases related to Sections 6.7, 6.8, 6.9 and 6.10 to RTR in writing within two business days at the latest. Furthermore, enum.at shall inform RTR on planned decisions (including the essential bases for the decision) regarding offers made by a registrar under the provisions of Sections 6.8 and 6.9, as well as cases in which Section 6.10 applies. RTR shall have the right to veto such decisions within five business days of receiving notification from enum.at.
- 2.14 enum.at is to inform RTR at least one month in advance about the start of commercial operation of ENUM domain delegation in the 780 number range and to publish this information in cooperation with RTR.

3 Duties of RTR

- 3.1 RTR shall inform enum.at of any foreseeable or occurring change regarding the ENUM TLD 3.4.e164.arpa without delay.

4 Permitted number ranges

- 4.1 The national ENUM Tier 1 registry may only delegate an ENUM domain whose corresponding E.164 telephone number lies in one of the following number ranges:
- a. Geographical telephone numbers under §§ 36 – 40 KEM-V
 - b. Telephone numbers for private networks under §§ 41 – 45 KEM-V
 - c. Mobile telephone numbers under §§ 46 – 50 KEM-V
 - d. Location-independent fixed network telephone numbers under §§ 56 – 60 KEM-V
 - e. Telephone numbers for convergent services under §§ 61 – 65 KEM-V
 - f. Telephone numbers for services with regulated maximum tariffs using the national destination code 800 under §§ 66 – 71 KEM-V.
- 4.2 If the integrity of a number range appears to be endangered by repeated overruns of the limits listed under Section 5.1, RTR shall have the right to impose general restrictions on the approval of the respective number range for ENUM use under Section 4.1, or to revoke such an approval entirely in the case of repeatedly high overruns of the limits under Section 5.1.

5 General requirements regarding validation

- 5.1 The following registrar-specific maximum error rates per number range have been defined for the purposes of validation:
- a. For the first 200 domains delegated: a maximum of 2 errors
 - b. From 201 to 1,000 domains delegated: a maximum error rate of 1%
 - c. From 1,001 to 10,000 domains delegated: a maximum error rate of 0.1%
 - d. From 10,001 to 100,000 domains delegated: a maximum error rate of 0.01%
 - e. For more than 100,000 delegated domains: a maximum error rate of 0.001%

Example

If 2,000 domains in the 720 number range have been delegated for a registrar, the maximum error value in absolute terms is 11 errors (= 2 + 8 + 1).

In random sample-based tests, an error limit will be considered exceeded when the statistical probability of an overrun is 90% or higher. In any case, this is based on the assumption of a random and independent distribution of errors in overall delegations in a number range for a registrar at the time of the test.

For the purpose of calculating an error value, all errors known to RTR will be cumulated for each registrar and number range over the six months prior to the evaluation date, or over the period from the evaluation date back to the last time an event occurred as specified under Section 6.7, 6.8 or 6.9. The maximum error rates

- under lit. a to e will be based on the number of delegations existing on the evaluation date.
- 5.2 The values under Section 5.1 can be reviewed by RTR at any time on the basis of available information. Upon request, enum.at shall provide RTR with the appropriate data on the domains delegated to date in electronic form.
- 5.3 The data mentioned under Section 5.2 is to include the following information on each ENUM domain delegated:
- a. Name and address of the registrant (not required in the 780 range or for mobile telephone numbers in cases where the registrant's power of disposal over the respective SIM card (mobile handset) is ensured by at least quarterly validation)
 - b. Identification of the current registrar for the ENUM domain
 - c. Date on which the current ENUM domain delegation was set up
 - d. Date on which the current registrar took over the delegation (same as lit. c unless a registrar switch has taken place)
 - e. Where applicable, the date of the (last) deletion of an ENUM domain delegation including information on the reason for deletion.
- 5.4 If RTR determines that the error limits under Section 5.1 have been exceeded in a number range, RTR will inform enum.at of such circumstances without delay.
- 5.5 Annex B provides number range-specific validation models which, in the opinion of the parties to this agreement, appear suitable for ensuring that the error limits defined under Section 5.1 will not be exceeded. Sections 6.7, 6.8 and 6.9 shall remain unaffected by these provisions.
- 5.6 In all number ranges, the registrar is to ensure that the registrant data described under Section 5.3a is recorded sufficiently.
- 5.7 The registrar shall be required to confirm any requested deletion of an ENUM domain delegation or information under Section 7.1 to the subscriber (registrant) in writing.
- 6 Minimum requirements for registrar's agreements / provisions regarding registrars**
- 6.1 Each registrar shall be responsible for initial and ongoing validation in accordance with the requirements of this agreement.
- 6.2 With respect to transactions arising from this agreement, enum.at undertakes to enter into contracts with registrars only using the minimum content requirements listed below (notwithstanding additional provisions in this agreement).
- 6.3 The authorization to use an ENUM domain is inextricably linked to the authorization to use the corresponding ENUM-compliant E.164 number. Along with the authorization to use an E.164 number, the subscriber automatically acquires the right to use the accompanying ENUM domain (except in the 780 number range). Should the authorization to use an E.164 number be revoked, for example due to cancellation of the corresponding agreement with the communications service provider to which the number was officially assigned by RTR, then the right to use the

- corresponding ENUM domain will also expire automatically (except in the case of simultaneous number porting).
- 6.4 The validation methods provided for in individual number ranges by the registrar or a third party appointed by the registrar in accordance with Section 4, as well as any substantial changes to these validation methods which may have an effect on the quality of the validation shall require written approval by enum.at before application. By granting such approval, enum.at assumes no liability for adherence to the error limits under Section 5.1. enum.at shall only grant such approval in cases where it can be assumed that the error limits under Section 5.1 will not be exceeded.
- 6.5 The registrar shall work with enum.at on an ongoing basis in order to improve validation methods (e.g., lower error values, greater efficiency).
- 6.6 In cases where erroneous delegations become known to the registrar, the registrar shall ensure that the necessary correction or deletion is performed without delay.
- 6.7 In cases where erroneous delegations which exceed the number range-specific error limits set forth in Section 5.1 become known, the registrar shall be required to propose measures to enum.at within three business days and to implement such measures without delay after receiving approval from enum.at. Such measures should be suitable for reducing the error values to a level below the error limits under Section 5.1 within a maximum of three months. If these requirements are not met, Section 6.9 will also be applied to cases in which limits are exceeded by less than 400%.
- 6.8 In cases where erroneous delegations become known which exceed the number range-specific error limits set forth in Section 5.1 by more than 200%, the registrar shall immediately offer to stop submitting requests for further delegations in this number range without delay. enum.at shall decide on such an offer with due attention to Section 2.13 without unnecessary delay. Should the registrar fail to meet this obligation within 14 days of becoming aware of such circumstances and fail to clarify or resolve the situation, the registrar's agreement shall be considered suspended immediately with regard to the ability to request new ENUM domains in the respective number range. This shall not signify a rescission of the contract, rather a suspension of the registrar's right to request new ENUM domain delegations.
- 6.9 In cases where erroneous delegations become known which exceed the number range-specific error limits set forth in Section 5.1 by more than 400%, the registrar shall immediately offer to stop submitting requests for further delegations in this number range without delay and to suspend any existing delegations in that number range. enum.at shall decide on such an offer with due attention to Section 2.13 without unnecessary delay. Should the registrar fail to meet this obligation within 14 days of becoming aware of such circumstances and fail to clarify or resolve the situation, the registrar's agreement shall immediately be considered suspended for the respective number range. This shall not signify a rescission of the contract, rather a suspension of the registrar's rights to request new ENUM domain delegations and with regard to existing ENUM domain delegations, with the consequence that all of the registrar's delegations in the respective number range are suspended.
- 6.10 An existing suspension of the registrar's agreement under Sections 6.8 and 6.9 can be lifted – with due attention to Section 2.13 – in light of the measures proposed by the registrar in order to adhere to the error limits.

- 6.11 When an objection to an active domain delegation (e.g., under Section 2.9) is submitted by a subscriber, the registrar shall be required to resolve the matter without delay. In such cases, the complainant will be required to provide evidence of his/her right to the respective telephone number. For the purpose of this verification, the registrar must not apply more stringent standards than those used for the validation of a telephone number in that range. If the complainant provides such evidence, the registrar is to request suspension of the corresponding ENUM domain by enum.at until the matter is resolved completely.
- 6.12 In cases where a communications service provider submits an objection (e.g., under Section 2.10), the registrar shall be required to resolve the matter without delay. In such cases, the complainant is to provide evidence of his/her right to use the telephone number (assignment by RTR-GmbH or number porting) and to provide credible evidence that delegation was not performed at the authorized party's request. If the complainant provides such evidence, the registrar is to request suspension of the corresponding ENUM domain by enum.at until the matter is resolved completely.
- 6.13 Upon request by a communications service provider which has provided evidence of its right to use a telephone number, the registrar for the corresponding ENUM domain shall be required to make the data stored for that ENUM domain (see Section 5.3 a) available to the communications service provider in a structured, electronically readable form free of charge.
- 6.14 Data on individual ENUM domains (especially NAPTR records) are to be protected from unauthorized manipulation using state-of-the-art technology.

7 Minimum requirements for registrar's agreements / provisions with respect to consumers

- 7.1 In the agreement with the registrar, the registrant is to be required to report immediately any lapse of his/her authorization to use the telephone number corresponding to an ENUM domain. The registrant is to be expressly warned that s/he shall be held liable for all damage resulting from not reporting changes of data relevant to the ENUM domain delegation or any lapse of his/her authorization to use the corresponding telephone number. Furthermore, the appropriate provision in § 9 Par. 5 KEM-V as well as the accompanying explanatory remark are to be included in the consumer's contract.
- 7.2 Should a registrant fail to meet his/her obligation to report under Section 7.1 once his/her authorization to use the number corresponding to an ENUM domain lapses and then receive (unauthorized) communications via that ENUM domain, the registrant shall be obliged to keep such communications strictly confidential. However, the registrant shall also be required to report these circumstances to the appropriate registrar within two business days.
- 7.3 ENUM registrants shall have the right to choose a registrar freely, regardless of their communications service provider. In particular, it is necessary to enable registrants to switch registrars without the consent of the losing registrar. The losing registrar is to be informed of such moves by enum.at.
- 7.4 The party authorized to use an ENUM-compliant E.164 number shall have the right to decide independently whether the corresponding domain is delegated or not. Domains may not be delegated without the express consent of the subscriber

authorized to use the corresponding telephone number. One exception to this provision is a request for an ENUM domain by a communications service provider authorized to use the corresponding telephone number by official decision or by transfer due to number porting, as long as the subscriber for the corresponding telephone number is informed in writing at least four weeks in advance, has the right to refuse such a delegation free of charge at any time, and is also informed of the general information available on the enum.at web site of the possibilities and risks associated with ENUM. enum.at is to coordinate this information with RTR and to update it as necessary.

- 7.5 The subscriber for the corresponding telephone number shall have the right to decide independently which data (within the possibilities of ENUM) is entered in his/her NAPTR records, that is, information will only be included in the NAPTR record at the subscriber's specific request. One exception to requirement of express consent is provided for in cases where the entry of data is requested by the communications service provider authorized to use the corresponding telephone number (to whom the authorization has been granted by means of an official decision or transfer due to number porting) with due adherence to data protection regulations, as long as the subscriber is informed in writing at least four weeks in advance in each case and is allowed the right to refuse the delegation free of charge. In any case, this information shall also include a generally understandable description of the entries to be made in the subscriber's NAPTR records and the services offered or planned in that context.
- 7.6 In cases of number porting, delegations under 7.4 and 7.5 are to be deleted unless otherwise agreed upon with the new communications service provider.

8 Ongoing reporting obligations of enum.at

- 8.1 enum.at shall send a list containing all existing ENUM domain delegations as well as suspended and deleted delegations (along with information on the reason for each suspension or deletion) to RTR in electronic form once per month. This data is to be provided on the last day of each month in the form of an overall list as well as a list showing differences compared to the previous month. The format of the list shall be defined by RTR in coordination with enum.at.
- 8.2 enum.at shall also send to RTR a current list of registrars with which it has a standing contractual relationship once per month. Upon request, enum.at will also send copies of the underlying agreements.
- 8.3 Every six months, enum.at shall send a profit and loss statement on enum.at's activities in connection with this agreement. RTR shall be obligated to keep this data confidential. Such data shall only be published with the consent of enum.at.

9 Duration, extension and termination of the agreement

- 9.1 This agreement is concluded for a limited time, with the contractual period expiring at the end of 2007.
- 9.2 enum.at shall have the right to terminate the contract as of the last day of each month with due adherence to a six-month notice period. Termination notices are to be sent to RTR in writing.
- 9.3 RTR shall inform enum.at at least four months before the end of the contractual period as to whether the agreement will be extended or the functions are to be assigned otherwise once the agreement expires. Should RTR fail to make the corresponding decision, this agreement shall be extended automatically by six months in each case.
- 9.4 Should the services named in this agreement be put out to tender by RTR for the period after 2007, enum.at shall have the right to take part in the invitation to tender without restrictions.
- 9.5 RTR may rescind this agreement prematurely and unilaterally for substantial reasons which would make it unacceptable to continue the contractual relationship. enum.at is to be informed of such a premature and unilateral rescission in writing.
- 9.6 In particular, substantial reasons which would entitle RTR to rescind the contract prematurely and unilaterally include any behavior not in good faith by the Tier 1 registry, the opening of bankruptcy proceedings for enum.at's assets, or any violation of Sections 6, 7 or 11.10.
- 9.7 In the case of premature rescission (except in cases specified under Section 9.9) or termination of this agreement, all previously delegated ENUM domains may be operated by enum.at for a maximum period of three months after the end of the agreement.
- 9.8 In the case of (premature) rescission, termination or an announcement pursuant to Section 9.3 that the Tier 1 registry function will not be assigned to enum.at once the contractual period has expired, enum.at shall convey all data necessary for further operation to RTR. In all cases, this data shall include the entire database for the 3.4.e164.arpa zone, especially the data on all active and suspended ENUM domain delegations – including any Tier 2 information stored (such as NAPTR records). The data is to be conveyed at such a time and in such a form to enable an interruption-free transition of operation to a third party, insofar as this is technically and economically feasible.
- 9.9 If the delegation of Austria's ENUM TLD 3.4.e164.arpa to RTR is revoked for reasons beyond RTR's control, this agreement shall be considered rescinded immediately as of the time when such a revocation is received by RTR. RTR assumes no liability for damage – of any type whatsoever – resulting from such a revocation.

10 Financing

- 10.1 RTR shall not be held responsible for any financing costs with regard to the services rendered by enum.at under this agreement.
- 10.2 Should this agreement not be extended with enum.at after the period mentioned under Section 9.1 or 9.3, enum.at shall have no right to compensation for investments or to any other form of remuneration. The same shall apply in cases where RTR exercises its right to premature rescission under Section 9.5.
- 10.3 The price of ENUM domain delegations shall be determined by enum.at after consultation with RTR; on average, the price should not exceed that of an Internet domain delegation under the .at TLD.

11 Final provisions

- 11.1 Any and all changes or supplements to this agreement shall be made in writing. This shall also apply to any deviations from this requirement.
- 11.2 If any provision in this agreement or any later change/supplement is or becomes invalid, the validity and effect of the remaining provisions in this agreement shall remain unaffected. In cases where a provision in this agreement becomes invalid or unenforceable, the parties agree to adhere to the closest possible valid and enforceable provision.
- 11.3 This agreement shall be exclusively subject to Austrian law, excluding the referral standards of Austrian international private law as well as United Nations Convention on Contracts for the international Sale of Goods (CISG).
- 11.4 The materially competent court in Vienna shall have exclusive jurisdiction over any and all disputes arising from or in connection with this agreement. This shall also apply to decisions regarding the valid creation, continued existence or non-existence of this agreement.
- 11.5 In cases of dispute, enum.at shall not have the right to discontinue its services.
- 11.6 RTR assumes no liability for claims – of any type whatsoever – asserted by enum.at. Claims of any type related to negligent or even slightly negligent actions are explicitly ruled out.
- 11.7 Any and all applicable provisions under Austrian law – especially those in TKG 2003 and KEM-V in their current applicable versions – shall take precedence regardless of the provisions in this agreement.
- 11.8 This agreement is to be published along with any and all amendments on RTR's web site.
- 11.9 Any costs incurred for legal or tax-related advising in connection with this agreement shall be borne by each party individually.

- 11.10 Technical and operational planning shall be left up to enum.at, provided that commercial operation on the basis of this agreement begins within a maximum of six months after conclusion of this agreement.
- 11.11 The ENUM domain delegations performed in the course of the ENUM field test initiated by RTR may remain in existence until the end of 2004. After that time, the provisions of this agreement shall apply to those domains without restriction.
- 11.12 This agreement has been drawn up in two original versions, with one such version being issued to each party.

Vienna, August 24, 2004

RTR GmbH

represented by

Dr. Georg Serentschy

Chief Executive Officer,
Telecommunications Division

enum.at

represented by

Mag. Robert Schischka

Chief Executive Officer

ANNEX A: Technical and operational requirements

1 Name servers

- 1.1 The zone is to be operated on at least five different and physically separate name servers. The name servers are to be located on at least two continents, with the actual distribution determined by the expected utilization profile of the zone (concentrated on Austria / Europe). The name servers are each to be connected to the Internet by at least two upstream operators with sufficient capacity.
- 1.2 The operation of the DNS zone is to be carried out exclusively on name servers dedicated to this purpose and owned or accessed directly by the operator. The name servers are to be operated in protected IT center environments and integrated into a distributed monitoring and performance measurement system. The appropriate maintenance agreements are to be concluded for name servers which can not be maintained 24x7 by the operator itself.
- 1.3 In order to provide protection from specific software errors, at least two different DNS software products are to be deployed. The availability of at least two name servers using native IPv6 is to be ensured.

2 Registry interface

- 2.1 The registry is to provide registrars with a standard interface which is reachable from the public Internet and encrypted at transport level. Transactions handled via this interface are to be processed synchronously. Administrative access to the registry is to be restricted to authorized registrars only, and the registry is to be protected from unauthorized access by security measures at network level.
- 2.2 The registry systems are to be operated in a protected IT center environment with 24x7 monitoring and maintenance of the servers. The databases and applications are to be backed up on external data media on a regular basis.

3 Organizational requirements

- 3.1 The operator is to provide registrars with the necessary support infrastructure for problems and inquiries. This infrastructure includes web sites, documentation, software toolkits as well as a registrars' service reachable by e-mail/telephone/fax.

ANNEX B:

1 Number range-specific validation methods which the parties consider suitable for ensuring adherence to the limits under Section 5.1

1.1 General remarks

The list of validation methods in this annex is not exhaustive (cf. also Section 5.5).

For ongoing validation via telephone call or text message (SMS), it is necessary to ensure that no ENUM functionality is used to set up any part of the connection.

In cases of validation by means of the invoice to be presented by the registrant, it is necessary to ensure – insofar as this is visible on the invoice – that the registrant is not merely the recipient of the invoice (and thus not authorized to set up, change or delete an ENUM domain delegation for the telephone number).

In general, number portability and the ability of communications service providers to transfer authorizations to use telephone numbers from one subscriber to another are to be ensured.

1.2 05 number range: private networks

a. Identification / initial validation:

- Identification by identification card; in cases where only a copy is transmitted by fax/e-mail, a subscriber call-back number for the respective private network is to be provided and the registrar is to call the registrant back at the number indicated
- Initial validation by presentation of the official telephone number allocation decision (also by fax, e-mail)
or
- Initial validation by verification of power to represent the company or legal entity listed on the RTR web site as holder of the official allocation [insofar as data from the RTR web site is necessary, an appropriate data exchange interface will be defined between RTR and enum.at]

b. Option of digital signature / citizen's card for secure identification

c. Ongoing validation: Comparison with the number-specific information on RTR's web site.

1.3 800 number range

a. Identification / initial validation:

- Identification by identification card; in cases where only a copy is transmitted by fax/e-mail, the registrar is to call the registrant back at the 800 number indicated
- Initial validation by presentation of the contract with the communications service provider for the 800 number or a current invoice (also by fax, e-mail) and call-back at the 800 number (unless the number has already been called for the purpose of identification).

b. Option of digital signature / citizen's card for secure identification

c. Ongoing validation: Periodic (monthly) calls to the 800 number

1.4 Geographical telephone numbers

a. Identification / initial validation:

- Identification by identification card; in cases where only a copy is transmitted by fax/e-mail, the registrar is to call the registrant back at the geographical number indicated
- Initial validation by presentation of the contract with the communications service provider for the geographical number or a current invoice (also by fax, e-mail) and call-back at the geographical number (unless the number has already been called for the purpose of identification).

b. Option of digital signature / citizen's card for secure identification

c. Ongoing validation: Use of publicly available information (e.g., subscriber directories); possibly by text message to a mobile telephone number indicated upon initial registration (see section on mobile telephone numbers)

1.5 Mobile telephone numbers

a. Identification / initial validation:

- Identification / initial validation: Identification by identification card; in cases where only a copy is transmitted by fax/e-mail, the registrar is to call the registrant back at the mobile number indicated
- Initial validation by presentation of the contract with the communications service provider for the mobile number or a current invoice (also by fax, e-mail) and call-back at the mobile number (unless the number has already been called for the purpose of identification).
- Possible identification / initial validation option with increased risk of error for the registrar: Subscriber data entry on the web plus a text message containing a PIN code for continuing the web-based request; completion of initial validation only by means of a second text message to the mobile number on a different day and confirmation message from the applicant.

b. Option of digital signature / citizen's card for secure identification

c. Ongoing validation: Via text message / confirmation text message (possibly to a 901 number) once per month/quarter

1.6 720 number range

Validation as for geographical numbers.

1.7 780 number range

No special regulations required due to provisions under KEM-V.