



Quick Start Guide for Registrars



The role of the registrar

A registrar's main function is to interact with the registry to register ENUM domains on behalf of number users. The role is similar to that played by registrars in the context of ccTLDs and gTLDs. Registrants cannot work directly with the registry: all domain registrations, transfers and registration renewals have to go through a registrar. A registrar is also needed to modify the details of or delete contacts, nameservers or registrations.

Every registration, transfer and renewal has to be validated. Validation is performed by a validation agent, who issues a token to the registrar as confirmation. The registrar then submits the token to the registry along with the registration.

Becoming a registrar

To become a registrar, you need to complete and submit the Registrarship and/or Validation Agency Application Form, available from our website <http://www.enum.nl>. The same form is used to apply to become both a registrar and a validation agent. The completed form needs to be sent back to ENUM NL by post.

Once your application has been processed, we will send you a written confirmation. This will include the *handle* (or 'registrar ID') that you will be known by on the registration system and the password that you need to access the system. We will also send you information about accessing the test environment.

Communicating with the registration system

The ENUM Registration System (ERS) is accessed via an EPP server:

Address: ers.enum.nl
Port: TCP 700

The connection uses TLS (SSL socket) encryption.

To perform ERS transactions, you need to establish a connection to the EPP server. This involves logging in to the server by sending a log-in XML message. Once you have successfully logged in, you can send commands to the registration server using XML messages.

The procedures for establishing a connection and sending a log-in message are described in Section 4 of the Registrar's Manual (available from our website <http://www.enum.nl>).

Access to the registration system via the EPP server is restricted on the basis of IP address. All IP addresses from which your administrative or front-office systems contact the registration system to manage ENUM domains have to be registered with us. Non-registered IP addresses will be unable to access the registration system. You need to inform us which IP addresses you wish to use by completing the relevant section on the Registrarship and/or Validation Agency Application Form. If there is subsequently any change, you can let us know by post or by e-mail.

Test environment

A test environment is available for registrars:

Address: eto.enum.nl
Port: TCP 700

The connection uses TLS (SSL socket) encryption.

The test environment enables registrars to test new or modified administrative processes. The set-up and functionality of the test environment is exactly the same as the production environment. Access to the test environment is restricted on the basis of IP address.



When you become a registrar, two test accounts are automatically set up for you. Having two accounts means that you can simulate transfers, for example, without involving a third party.

Managing registrations

Communication with ERS is by means of XML messages via an EPP server. To perform ERS transactions, you need to establish a connection to the EPP server. Once you have a connection, you can manage your registrations using the available EPP commands.

The main object types that can be managed using EPP commands are:

1. Number type objects (phone numbers on which domain names are based)
2. Contact type object (the various contacts associated with a domain)
3. Name server set type object (sets of name servers)

The above objects are managed using a fixed set of commands:

4. Create / update / delete
5. Renew number (extend a registration using a new validation token)
6. Transfer number (relocate a number to another registrar)

Detailed descriptions of all the commands are given in Section 6 of the Registrar's Manual (available from our website <http://www.enum.nl>). The related objects are described in Section 5.

If you use default name servers for the registrations that you manage, you can pre-register your name server sets in the ERS before creating registrations. Similarly, you can create a default technical contact.

How a new registration may proceed:

1. Check whether the domain already exists
Use the 'info' command.
2. Obtain a validation token for the registration
Appropriate arrangements need to be made with a validation agent.
3. Create the necessary contacts in the ERS
This step can be skipped if you are going to use existing contacts.
4. Enter the name servers in the ERS
This step can be skipped if you are going to use a pre-registered default name server set.
5. Create the registration in the ERS
Compose an EPP message ('create number' or 'transfer number') specifying the correct details (including the validation token) and the associated handles for all contacts.
Submission of this message creates the registration.

For more examples and step-by-step descriptions of how the various commands are used, refer to the scenarios in Sections 7 and 8 of the Registrar's Manual.

Information about registrations and messages

A registrar can retrieve information from the registration system using the following commands:

- info: provide information about an object in the registration system
- check: establish whether there is already a registration for a particular number
- poll: see whether there are any new messages

Detailed descriptions of these commands are given in Section 6 of the Registrar's Manual. For examples and step-by-step descriptions of how the various commands are used, refer to the scenarios in Section 8.



The registration system sends messages about transactions and registrations to registrars. For example:

- A notification is sent to the 'old' registrar in the event of a relocation
- Reminders are sent regarding the expiry of validations

Messages awaiting collection can be downloaded using a 'poll' command. We recommend that all registrars collect their messages from the EPP server at least once a day.

DNS

Successfully completed transactions are immediately processed by the registration system and a confirmation message is sent out. All resulting changes to the ENUM zone are included in the next zone file update. Zone file updates are propagated at least once every two hours.

Validation and identification

Validation agents work on the basis of validation methods that have been registered with and approved by the registry prior to use. A validation method has to reliably establish:

- whether the phone number in question belongs to the Dutch number plan;
- whether it is a valid e.164 phone number;
- whether the registration applicant is the phone number's legitimate user.

For registration purposes, it is also necessary to confirm the identity of the applicant. If the registrar (the party that operates the registration process and submits the registration application to ENUM NL) is also the validation agent (the party that makes the validation), it makes sense to confirm the identity of the applicant as part of the validation process.

Registration and validation tokens

A validation agent issues a token for each successful validation. This validation token specifies the domain name (phone number), number user (name), validation agent (handle), validation method (handle), registrar (handle), validation date and expiry date. More information about validation tokens is given in the Registrar's Manual, in Section 9 ('Validation') and subsection 5.3.4 ('Token type object').

The registrar has to submit a current validation token to the registry with every registration, transfer or renewal request. The registrar and the validation agent decide between them how tokens will be issued to the registrar. No special security measures are required, because the content and issuer of the token are confirmed by the signature.

Information, enquiries and contact

Comprehensive information and the latest versions of all forms and documentation are available from our website:

<http://www.enum.nl>

Contact details for ENUM NL's Registration & Services Department:

E-mail support@enum.nl
Phone (+31) (0)26 352 5555 (select option 3)
 Lines open on working days from 8am to 6pm (CET)



General contact details for ENUM NL

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