

Registry Product improvements: .UK Standardisation

.uk Lifecycle

Options for the auto-renew / auto-delete challenges that have been raised.

We have proposed moving to an auto-renew lifecycle model and heard some feedback on this from registrars of varying types and sizes.

Until 2003 .UK operated on an auto-renew lifecycle model where registrars had to explicitly request to delete a domain in a very specific period of time otherwise it would auto-renew. This differed from the proposed now industry standard auto-renew model where deletes happen when requested by the registrant and not at a point in relation to renewal.

One concern some smaller registrars have in moving to the industry standard auto-renew model is managing the process of needing to delete domains where a registrar does not have automated infrastructure. This is precisely the opposite concern that happened in 2003 where registrars were worried about having to issue renew commands.

We have considered options to solve this potential problem and are open to hear of other options.

The technical aspects of the auto-renew process will operate as follows:

1. At the timestamp of expiry of a domain:
 - a. A domain's expiry date will wind forward 1 year.
 - b. An 'Auto Renew Period' will be shown on the domain.
 - c. The 'Auto Renew Period' will be 45 days.
 - d. If during that auto-renew period, a registrar issues an EPP or web domain manager renew command where the expiry date provided in the request matches the expiry date...:
 - i. ... before the auto-renew, then the renewal will be converted to use the 'Renew Period' instead of the 'Auto Renew Period'.
 - ii. ... after the auto-renew, then the renewal will be treated as an additional period to the auto-renew and the domain will enter the 'Renew Period'.
2. Option 1 – "Per registrar model":
 - a. Registrars will be able to configure their tag to either:
 - i. 'Auto-renew domains'; or
 - ii. 'Auto-delete domains at the end of the Auto-renew period'. (Mimicking the current behaviour. Note: delete in this sense is entry into a redemption period not the final purge).
 - b. At the end of the auto-renew grace period if the domain has not been deleted by the registrar, then for registrars who have chosen to:

- i. 'Auto-renew domains':
 1. The 'Auto Renew Period' will be removed.
 2. The auto-renewal transaction will be finalised and added to the next invoice.
 - ii. 'Auto-delete at end of Auto-Renew Period' (i.e. Expiry + 45 days):
 1. An automatic delete command will be issued, and the domain will enter RFC3915 'Redemption Period'.
 2. Two transactions will appear on the registrar's next invoice:
 - a. An auto-renewal transaction.
 - b. A refund of the auto-renewal transaction.
 - c. If a registrar utilises the 'Auto-delete domains at end of Auto-Renew Period' configuration, then they must submit a renew command with the old expiry date before the end of the 'Auto Renew period' to avoid interruption of the DNS. The web domain manager interface will allow registrars a simple option for this.
3. Option 2 – "Per domain model":
- a. Registrars will be able to configure their tag settings so that at a default set of 'EPP Status' fields for domains created and/or transferred to their tag.
 - b. Any domains that are created on or transferred to the registrar's tag will at that point in time have the EPP statuses applied by the registry systems.
 - c. Registrars will be free to change the EPP statuses on a domain-by-domain basis.
 - d. We would extend the meaning of our implementation of 'clientRenewProhibited' which currently only prevents a manual renewal command to include prohibiting the finalisation of an auto-renew period.
 - e. At the end of the auto-renew period then:
 - i. Any domains which do not have clientRenewProhibited set will:
 1. Have the 'Auto Renew Period' removed.
 2. The auto-renewal transaction will be finalised and added to the next invoice.
 - ii. Any domains which do have clientRenewProhibited set will:
 1. Have an automatic delete command issued, and the domain will enter RFC3915 'Redemption Period'.
 2. Two transactions will appear on the registrar's next invoice:
 - a. An auto-renewal transaction.
 - b. A refund of the auto-renewal transaction.

4. Option 3 – "No problem to solve.":

Some registrars may think that there is no operational problem here given that a registrant can now request the deletion of the name at any time throughout the year and for non-renewal the registrar will have a 45-day timeframe in which they can choose to issue a delete command.

It is therefore an open question as to whether or not we might be over-engineering a solution to address a perceived issue that may or may not exist?

Current thinking from Nominet product team

Option 1 is less problematic than option 2 in obtaining a consistent approach with the RFCs and the configurations available within them.

Option 2 while it may look interesting would be inconsistent with the reach of the EPP 'client' statuses in their application to server-side processing. If we take the example of `clientDeleteProhibited` and `clientRenewProhibited` both being set then under solution 2 the prohibition on renewal will force a delete despite the setting of the client status and thus show clearly as a different reach. Alternatively, we could prevent that inconsistency through rejecting the ability to set both at the same time but that would remove a use case that is both normal and common amongst registrars across many registry backends.

Option 3 is an open question in our minds. Historically, there have been times we have looked to solve envisaged problems that over-complicate the operational results and that has led to criticism. It is an open question as to whether there is a real-world problem to solve.

We are interested to understand registrars thinking in this area, or alternative succinct approaches that would be compatible with standard lifecycle and address the concerns of some registrars.

Existing per domain fields related to renewal

The original move from an auto-renew model to an auto-delete model brought with it some additional configuration on a per domain basis to cater for backwards compatibility in experience.

- **Next-bill**
Allows the setting of a renewal to be triggered automatically before the current expiry date. After that renewal it is unset.
- **Auto-bill**
Allows the setting of a renewal to be triggered automatically before every expiry.
- **Renew-not-required**
Setting renew not required will suppress renewal reminder emails that are sent to registrants.

We propose in moving to an auto-renew lifecycle model to retire all of these fields as a matter of simplification for the following reasons:

- **Next-bill** is used by a very small number of tags and is largely used to trigger auto-renew behaviour the majority of the time up to a week before expiry.
- **Auto-bill** is used by more registrars but again is used to trigger auto-renew behaviour the majority of the time the day before expiry.
- **renew-not-required** – the changes proposed to the lifecycle would see this replaced by the usage of either the new method to trigger auto delete at the end of the lifecycle or the delete command and redemption period.

Use of Delete command, Redemption Period and Restoring Domains.

Our proposal to offer registrars to let their registrants request the deletion of a domain was well received by most. While there has been at least one voice against it no reasoning has so far been forthcoming on why and we remain minded to enable registrars to support the agency of their registrants throughout the lifecycle.

In order to provide a safe mechanism for registrars to offer this service to registrants we are also minded to introduce RFC3915 behaviour to the .uk registry.

RFC3915 introduces the concepts of redemption period and restoring domains which are in a redemption period. We have proposed introducing this to .UK and conforming to the IETF agreed standards requirements. Some registrars have raised some concerns around the technical processes for restoring domain which happens in two stages:

- The sending of a restore request.
- The sending of a restore report.

Only once both stages are complete is a domain restored from the redemption Period.

The process defined in RFC is deliberately two stages in order to collect information as to the details of the restoration and to confirm that the registrar is not restoring the domain to take the domain over themselves.

An obvious question arises from this concern – if this is a real-world problem, and there is evidence even from our gTLD registries to suggest it may be, then should registrars and registries engage in IETF Registry Extensions process to offer an alternative technical approach to restoring domains in EPP that is less problematic but can be standardised?

- Considerations for Web Domain Manager users.
The implementation of an RFC3915 restore mechanism in web domain manager that has minimal impact on a user's experience is relatively trivial to handle with a simple web-based user experience at Nominet's end. We do not envisage any issues for users that exclusively use Web Domain Manager.
- Considerations for EPP
To restore domains in EPP a registrar first requires issuing a RESTORE command, before then issuing a RESTORE REPORT command.

We would like to understand from registrars the specific details of the challenges themselves, the motivations and concerns that lead them not to include RESTORE and RESTORE REPORT commands within EPP client software so that we can review the details of this problem further.

Potential alternative approach:

If we were to consider deviation from the EPP standard, one potential solution to reduce the EPP complexity might be to allow that for domains which have passed their

expiry date; and are also in Redemption Period to be restored by means of a RENEW command being treated as also RESTORING the domain as part of the RENEW. In this scenario the registry would be giving up the option to obtain the extra data available from the restore report.

The challenge we see with the use of the RENEW command more generally for domains which have entered redemption period prior to their expiry date is that the domain still has some life left to it and it may drive behaviour that encourages registrars to only support restore for domains where the registrant commits for an additional annual increment. We are not sure that is in the best interests of registrants.

Notifications from Nominet to registrants.

In our earlier proposal we suggested that Nominet would continue to send notification of events such as expiry, suspension for non-renewal and purging from the registry. Some registrars have questioned this in an approach to standardise. Across the rest of the industry registries do not tend to take such a proactive stance on communicating with the end registrant.

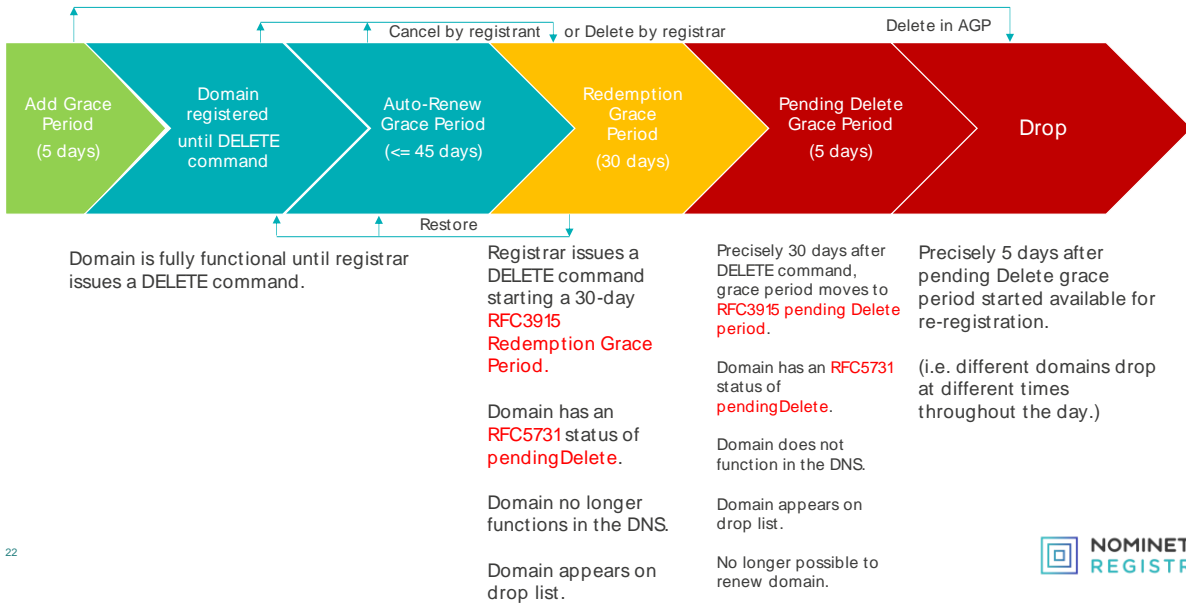
In .UK today Nominet notify registrants by email when their domain:

1. expires.
2. is suspended for non-renewal.
3. is purged from the registry.

While we do intend to retain the 3-way contract in order to be available to provide that emergency care for registrants under a compliance process, we are open to understand registrars views on the benefits of Nominet doing this direct communication versus requiring registrars to provide appropriate care in these areas for their registrants and ensuring that through an appropriate compliance regime.

Proposed new lifecycle.

Proposed .UK lifecycle process



Nominet propose:

- RFC3915 will be introduced with grace periods as follows:
 - ‘Add period’ for .UK will change from “before next invoice” to “5 days”.
 - Registrars will be able to delete domains during this period. Subject to an add grace limits policy domains deleted during this period will not be invoiced.
 - ‘Renew period’ for .UK will change from “before next invoice” to “5 days”.
 - Registrars will be able to unrenue domains during this period. If a domain is deleted during this period the renewal will not be invoiced.
 - ‘Auto-renew period’ for .UK will be introduced as “45 days”.
 - Domains will ‘Auto-renew’ on expiry for a period of 1 year; we continue to consider how the mitigation of the challenges of this for registrars as included elsewhere in this document.
 - If during that auto-renew period a registrar issues an EPP renew command where the expiry date provided in the request matches the expiry date...:
 - ...before the auto-renew, then the renewal will be converted to a manual renew into a renew Period.
 - ...after the auto-renew, then the renewal will be treated as an additional period to the auto-renew.
 - ‘Transfer period’ for .UK will be introduced and set as “5 days” aligned to the ‘Renew Period’. If a domain was renewed during transfer then...:
 - ...Registrars will be able to unrenue domains during this period.
 - ...If a domain is deleted during this period the renewal will not be invoiced.
 - ‘pendingRestore’ grace period will introduced as “5 days”.
 - ‘RedemptionPeriod’ will be “30 days”.
 - ‘pendingDelete’ grace period will remain as “5 days”.

- When a registrant informs their registrar, they no longer wish to retain a domain the registrar will submit a 'DELETE' request to the registry which will put the domain into RFC5731 pendingDelete and RFC3915 RedemptionPeriod.
- Transactions:
 - Will be charged to the credit account at the start of the grace period.
 - Will only be invoiced after the completion of their grace periods.
 - Domains which are unrenewed or deleted during renew, transfer or auto-renew period, will have the transactional charge released back to available credit.
- Credit Limits
 - At the point of changing to a new lifecycle Nominet would review all credit limits to ensure they provide equivalent credit under the new model as available today.
 - The cost of an auto-renew will be deducted from the available credit at the time of auto-renew even if it takes the registrar past their credit limit.
- Restore fees will be £0 at the registry to encourage the retention of existing customers.

Suggested requirements placed on registrars:

- Registrars will be required to:
 - bind registrants to Nominet's terms and conditions at the point of registration, renewal and transfer between registrars.
 - Update domains at the registrants request throughout the lifecycle of the domain including and up to the start of the last 5 day pending delete period.
 - to have had a renewal request from the registrant for a domain to be renewed. A renewal request can be made at any time for future renewals.
 - i. If no renewal request is received a registrar must issue a 'delete' command during the auto-renew grace period unless extenuating circumstances exist.
 - 1. A registrar must provide in their policies or terms and conditions that are shared with the registrant information on when to expect the registrar to 'delete' a domain.
 - ii. If extenuating circumstances exists a registrar may renew the domain at their own cost but must keep a record of those circumstances which can be shared with the .UK compliance team.
 - For the avoidance of doubt registrars are not required, by Nominet, to disrupt the DNS during the auto-renew period.

Additional input required on:

- Some registrars have suggested that registrars should not be able to charge restore fees to their customers; others have suggested there are increased costs in providing restoration of a domain. We are keen to understand more detail on the increased costs experienced by a registrar of retaining a customer through restoring a name vs the costs of new customer acquisition.