# How the GDPR Will Affect the CentralNic Registry System

## CentralNic
### Group PLC

# 1. Contents

## 2. Version Control

| Version | Date | Author | Notes |
|---------|------|--------|-------|
| 1.0 | 2018-05-14 | Gavin Brown | Initial version |
| 1.1 | 2018-05-14 | Raedene McGary | Added Note in Section 3 |

# 3. Introduction

As a company based in the European Union, we are subject to the General Data Protection Regulation (GPDR). From May 25th, 2018, EU data protection agencies will have the power to enforce stiff penalties against organisation who do not comply with the GDPR. More information about the GDPR may be found at https://www.eugdpr.org/.

As a result, we have carried out a comprehensive review of our data collection, processing, storage, retention and disclosure practices, and have made many changes to these practices. Most of these changes are not visible to registrars or Internet users and only relate to internal systems.

However, it is necessary for us to make some significant changes to how we collect and publish Registration Data for domain names. This document outlines what these changes are, and how they will affect registrars and Internet users.

Note:  This implementation is subject to change in the event ICANN approves an emergency temporary policy inconsistent with the contents herein.

# 4. Overview

There is no single, uniform model for domains on the CentralNic registry platform, since each TLD is operated by a Registry Operator who has their own business requirements, their own registry policies, and who serve different Internet communities.

Instead, TLDs (both generic and country-code) and second-level domains on CentralNic's platform will adopt one of three models.

These three models are described below.

# 5. Standard Model (Unchanged by GDPR)

TLDs following the "Standard Model" will not see any change in their data collection and display policies.

Registrars must assign contact objects to the Registrant, Administrative, Technical and (optionally) Billing contacts for each domain. These contacts will be displayed in full in Whois records.

This model has mostly been selected by "brand" TLD operators who operate their TLDs for their own exclusive use.

Appendix A provides a summary of the TLDs that will use this model.

# 6. Minimum Data Model (A)

## 6.1.    Data Model

In the Minimum Data Model, registrars will no longer assign contact objects to the Administrative, Technical or Billing contacts for domains under their sponsorship. Only the Registrant must be specified, and other contact objects assigned to the domain in <create> or <update> commands will be ignored.

## 6.2.    Display in Whois

Since domains under TLDs operating under this model will not have Administrative, Technical or Billing contacts, this information cannot not be displayed in Whois records.

The "Registry Registrant ID", which uniquely identifies the contact object in CentralNic's system (and which is equal to the ROID of that object), will always be displayed in Whois records.

All other Registrant data elements, including those listed below, will only appear if the registrar has explicitly opted those fields in to be displayed:

- Registrant Name
- Registrant Organization
- Registrant Street
- Registrant City
- Registrant State/Province
- Registrant Postal Code
- Registrant Country
- Registrant Phone
- Registrant Phone Ext
- Registrant Fax
- Registrant Fax Ext
- Registrant Email

If it has been explicitly opted in, the "Registrant Email" will appear unmasked. Otherwise, it will be replaced with a link to a contact form.

*Appendix A* provides a summary of the TLDs that will use this model.

# 7. Adapted ICANN Model (B)

## 7.1. Data Model

This model is based on the "Cookbook" designed by ICANN but has been amended to address some of the issues that have been identified with that model.

Under this model, domains must still be assigned Administrative and Technical contacts. The Billing contact remains optional.

## 7.2. Display in Whois

The "Registry Registrant ID", which uniquely identifies the contact object in CentralNic's system (and which is equal to the ROID of that object), will always be displayed in Whois records.

All other Registrant data elements, including those listed below, will only appear if the registrar has explicitly opted those fields into display:

- Registrant Name
- Registrant Organization
- Registrant Street
- Registrant City
- Registrant State/Province
- Registrant Postal Code
- Registrant Country
- Registrant Phone
- Registrant Phone Ext
- Registrant Fax
- Registrant Fax Ext
- Registrant Email

If it has been explicitly opted in, the "Registrant Email" will appear unmasked. Otherwise, it will be replaced with a link to a contact form.

No information relating to the Administrative, Technical or Billing contacts will be displayed. As a result, domains under TLDs operating under the Adapted ICANN Model (B) will have identical Whois records to those operating under the Minimum Data Model (A).

*Appendix A* provides a summary of the TLDs that will use this model.

# 8. Summary of Models

The following table shows, for each Whois contact element, the impact of the three different models on (a) the collection and (b) the display of that element.

As reminder, the "Standard Model" is identical to the current situation.

| Field | Standard Model | | Minimum Data Model (A) | | Adapted ICANN Model (B) | |
|---|---|---|---|---|---|---|
| | Mandatory? | Displayed? | Mandatory? | Displayed? | Mandatory? | Displayed? |
| Registry Registrant ID | Yes | Always* | Yes | Always* | Yes | Always* |
| Registrant Name | Yes | Always | Yes | Opt-In | Yes | Opt-In |
| Registrant Organization | Yes (if applicable) | Always | Yes (if applicable) | Opt-In | Yes (if applicable) | Opt-In |
| Registrant Street | No | Always | No | Opt-In | No | Opt-In |
| Registrant City | Yes | Always | Yes | Opt-In | Yes | Opt-In |
| Registrant State/Province | No | Always | No | Opt-In | No | Opt-In |
| Registrant Postal Code | No | Always | No | Opt-In | No | Opt-In |
| Registrant Country | Yes | Always | Yes | Opt-In | Yes | Opt-In |
| Registrant Phone | No | Always | No | Opt-In | No | Opt-In |
| Registrant Phone Ext | No | Always | No | Opt-In | No | Opt-In |
| Registrant Fax | No | Always | No | Opt-In | No | Opt-In |
| Registrant Fax Ext | No | Always | No | Opt-In | No | Opt-In |
| Registrant Email | Yes | Always | Yes | Opt-In | Yes | Opt-In |
| Registry Admin ID | Yes | Always* | N/A | N/A | No | Never |
| Admin Name | Yes | Always | N/A | N/A | No | Never |
| Admin Organization | Yes (if applicable) | Always | N/A | N/A | No | Never |
| Admin Street | No | Always | N/A | N/A | No | Never |
| Admin City | Yes | Always | N/A | N/A | No | Never |
| Admin State/Province | No | Always | N/A | N/A | No | Never |
| Admin Postal Code | No | Always | N/A | N/A | No | Never |
| Admin Country | Yes | Always | N/A | N/A | No | Never |
| Admin Phone | No | Always | N/A | N/A | No | Never |
| Admin Phone Ext | No | Always | N/A | N/A | No | Never |
| Admin Fax | No | Always | N/A | N/A | No | Never |
| Admin Fax Ext | No | Always | N/A | N/A | No | Never |
| Admin Email | Yes | Always | N/A | N/A | No | Never |
| Registry Tech ID | Yes | Always* | N/A | N/A | No | Never |
| Tech Name | Yes | Always | N/A | N/A | No | Never |
| Tech Organization | Yes (if applicable) | Always | N/A | N/A | No | Never |

| | Standard Model | | Minimum Data Model (A) | | Adapted ICANN Model (B) | |
|---|---|---|---|---|---|---|
| **Tech Street** | No | Always | *N/A* | *N/A* | No | Never |
| **Tech City** | Yes | Always | *N/A* | *N/A* | No | Never |
| **Tech State/Province** | No | Always | *N/A* | *N/A* | No | Never |
| **Tech Postal Code** | No | Always | *N/A* | *N/A* | No | Never |
| **Tech Country** | Yes | Always | *N/A* | *N/A* | No | Never |
| **Tech Phone** | No | Always | *N/A* | *N/A* | No | Never |
| **Tech Phone Ext** | No | Always | *N/A* | *N/A* | No | Never |
| **Tech Fax** | No | Always | *N/A* | *N/A* | No | Never |
| **Tech Fax Ext** | No | Always | *N/A* | *N/A* | No | Never |
| **Tech Email** | Yes | Always | *N/A* | *N/A* | No | Never |
| **Registry Billing ID** | Yes | Always | *N/A* | *N/A* | No | Never |
| **Billing Name** | Yes | Always | *N/A* | *N/A* | No | Never |
| **Billing Organization** | Yes (if applicable) | *Always\** | *N/A* | *N/A* | No | Never |
| **Billing Street** | No | Always | *N/A* | *N/A* | No | Never |
| **Billing City** | Yes | Always | *N/A* | *N/A* | No | Never |
| **Billing State/Province** | No | Always | *N/A* | *N/A* | No | Never |
| **Billing Postal Code** | No | Always | *N/A* | *N/A* | No | Never |
| **Billing Country** | Yes | Always | *N/A* | *N/A* | No | Never |
| **Billing Phone** | No | Always | *N/A* | *N/A* | No | Never |
| **Billing Phone Ext** | No | Always | *N/A* | *N/A* | No | Never |
| **Billing Fax** | No | Always | *N/A* | *N/A* | No | Never |
| **Billing Fax Ext** | No | Always | *N/A* | *N/A* | No | Never |
| **Billing Email** | Yes | Always | *N/A* | *N/A* | No | Never |

*: object IDs are server-generated and contain no personally-identifying information

Legend:

- Data Collection:
  - o  Red = always collected
  - o  Green = never collected


- Display:
  - o  Red = always disclosed
  - o  Amber = not always disclosed
  - o  Green = never disclosed

# 9. Example Whois Records

As mentioned above, although the two models (A) and (B) differ in their data models, they result in identical Whois records.

The following examples show what Whois records will look like under the Minimum Data Model (A) and Adapted ICANN Model (B).

## 9.1.  Default record (no opted-in data elements)

```
Domain Name: EXAMPLE.XYZ
Registry Domain ID: D3607091-CNIC
Registrar WHOIS Server: whois.tldregistrarsolutions.com
Registrar URL: http://www.tldregistrarsolutions.com
Updated Date: 2017-05-21T04:52:21.0Z
Creation Date: 2014-06-20T14:10:51.0Z
Registry Expiry Date: 2018-06-20T23:59:59.0Z
Registrar: TLD Registrar Solutions Ltd
Registrar IANA ID: 1564
Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited
Registry Registrant ID: C47356243-CNIC
Registrant Email: https://whois.nic.xyz/contact/example.xyz/registrant
Name Server: NS0.EXAMPLE.COM
Name Server: NS1.EXAMPLE.NET
DNSSEC: signedDelegation
Registrar Abuse Contact Email: admin@tldregistrarsolutions.com
Registrar Abuse Contact Phone: +44.2033880600
URL of the ICANN Whois Inaccuracy Complaint Form: https://www.icann.org/wicf/
>>> Last update of WHOIS database: 2018-05-08T13:35:32.0Z <<<
```

## 9.2.  Record with opted-in data elements

The data elements highlighted green in the following example will only appear if they have been opted-in for display:

```
Domain Name: EXAMPLE.XYZ
Registry Domain ID: D3607091-CNIC
Registrar WHOIS Server: whois.tldregistrarsolutions.com
Registrar URL: http://www.tldregistrarsolutions.com
Updated Date: 2017-05-21T04:52:21.0Z
Creation Date: 2014-06-20T14:10:51.0Z
Registry Expiry Date: 2018-06-20T23:59:59.0Z
Registrar: TLD Registrar Solutions Ltd
Registrar IANA ID: 1564
Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited
Registry Registrant ID: C47356243-CNIC
Registrant Name: John Doe
Registrant Organization: Example, Inc.
Registrant Email: jdoe@example.com
Name Server: NS0.EXAMPLE.COM
Name Server: NS1.EXAMPLE.NET
DNSSEC: signedDelegation
Registrar Abuse Contact Email: admin@tldregistrarsolutions.com
Registrar Abuse Contact Phone: +44.2033880600
URL of the ICANN Whois Inaccuracy Complaint Form: https://www.icann.org/wicf/
>>> Last update of WHOIS database: 2018-05-08T13:35:32.0Z <<<
```

In the example above the Registrant Email element has been opted in, so instead of displaying a URL, the email address is displayed.

## 10. Web-based Contact Form

For registrants who have not opted-in to have their email address displayed in Whois, a URL will be displayed in the "Registrant Email" field.

This URL will point to a web-based contact form which will allow third parties to send messages to the registrant of the domain. This form is hosted on the same platform that supports the port-43 and web-based Whois services. The URLs will have the form:

> https://<whois server name>/contact/<domain>/registrant

In most cases, the "<whois server name>" will be "whois.nic.<tld>".

Parties who wish to send a message must agree to the service terms and conditions, complete a CAPTCHA, and prove their identity by clicking a link on an email sent to them before their message is sent to the registrant. They must complete this process each time they wish to send a message.

## 11. Submission of Contact Data by Registrars

Irrespective of any changes to the data collection and display models described above, CentralNic does not, and will not, prevent registrars from creating contact objects with redacted or masked contact information according to their own assessment of their responsibilities under the GDPR.

Registrars should note that as per RFC5733, the only data elements required to create a contact object are the <contact:name>, <contact:city>, <contact:cc> and <contact:email> elements.

## 12. Change to Default Disclosure Policy for Contact Objects

A change to the default disclosure policy for contact objects has already been announced. After this change, all contact objects will be opted-out of display in Whois records and must be explicitly opted in. A document which describes this change in detail may be found here:

> contact-disclose-letter-2018-04-18.pdf

See Section 2.9 of RFC5733 for further information about disclosure of data elements and attributes of contact objects.

## 13. Changes to Contact Object Access Policy

From July 22, registrars will no longer be able to submit domain <create> or <update> commands which would assign, as the registrant, admin, tech or billing contact of a domain, a contact object sponsored by a different registrar.

This policy is being implemented to prevent unauthorised disclosure of contact information using the authInfo code of an associated domain to authenticate a contact <info> command.

This policy will have no effect on the use of the <info> command with the ROID of an associated domain to (a) obtain the email address of a registrant prior to submitting a transfer request or (b) access the registrant information associated with a domain that has transferred from another registrar.

# 14.    Changes to Authorisation (authInfo) Codes

On July 22, we will be making a number of changes to the way that authInfo codes are processed and displayed. These changes are intended to reduce the risk of (a) domain hijacking and (b) unauthorised disclosure of contact information.

The changes are as follows:

1. authInfo codes will no longer be displayed in responses to domain and contact <info> submitted by the sponsoring registrar of those objects. The authInfo code in effect becomes "write only": it may be set in <create> commands and updated by <update> commands but may not be accessed.

2. AuthInfo codes set for domain and contact objects in <create> and <update> commands will be validated against the following criteria. If the authInfo code does not meet these criteria then the command will be rejected:

    a. Minimum length: 16 characters
    b. Maximum length: 48 characters
    c. Must contain a mix of upper- and lower-case characters
    d. Must contain at least one number
    e. Must contain at least one non-alphanumeric character

Since it is assumed that registrars generate authInfo codes automatically, we recommend that all registrars use authInfo codes of 48 characters, since the work required to implement this in code is no more than the work required to implement shorter authInfo codes.

# 15.    Rate limiting of AuthInfo "tests"

We will be implementing rate limiting on EPP <info> commands and <transfer op="request"> commands which result in 2202 (authentication errors) due to incorrect authInfo codes. This is to prevent brute-force attacks which might result in domain hijacking or unauthorised disclosure of contact information.

Registrars which exceed the established rate limits will be locked out of performing transfers until manually unlocked by an administrator.

We will provide further information about this in a future communication.

# 16.    Impact on inter-registrar transfers

Registrars will no longer be able to use Whois reliably obtain the email address of a domain's registrant in order to obtain the Form of Authorisation (FOA) required to submit a transfer request.

However, registrars can use EPP to perform an <info> command on the domain's registrant contact, using the authInfo code of the domain. This will provide the email address which may be used to obtain the FOA.

# 17.  .LA and the Registry Gateway

The .LA ccTLD is operated using CentralNic software by LANIC in the Lao PDR. CentralNic registrars have access to the .LA ccTLD via our Registry Gateway.

We have been advised that .LA will be moving to the Minimum Datal Model (A). The implementation timeline for .LA is the same as for the main CentralNic system, which is outlined in the "Timeline for Implementation" section.

Other TLDs available through the Registry Gateway (i.e. .CX and .AM) will implement their own approach to GDPR compliance. More information may be found on the CoCCA and Amnic websites, respectively:

- .CX: https://cocca.org.nz/

- .AM: https://www.amnic.net/

# 18.  .COM.DE and .COM.SE

These second-level zones have Whois services which emulate those of their parent ccTLDs (.DE and .SE respectively). Our intention is to preserve this arrangement, and any changes made to the ccTLD Whois will be replicated to the SLD Whois.

The data model will remain unchanged, so registrars must provide Registrant, Administrative and (optionally) Billing contacts for domains under these SLDs.

# 19.  Timeline for Implementation

| Action | Date |
|---|---|
| • First release of this document<br>• Implementation of Data Model changes in OT&E<br>• Implementation of Whois changes in OT&E<br>• Implementation of contact access and authInfo policies in OT&E | 2018-05-14 |
| • Implementation of Whois changes in Production | 2018-06-11 |
| • Change to Default Disclosure Policy for Contact Objects<br>• Implementation of Data Model changes in Production<br>• Implementation of contact access and authInfo policies in OT&E | 2018-07-22 |
| • Implementation of AuthInfo "test" rate limiting | TBA |

# 20. Further Information and Questions

CentralNic welcomes feedback and advice from registrars and other third parties. If you have a comment or question about the changes described in this document, please contact us:

By email:              support@centralnic.com
By telephone:      +44 (0) 20 33 88 06 00 (24x7)
Live chat:               https://chat.centralnic.com/mibew/chat?group=1

# Appendix A

**Zones that will remain on the Standard Model:**

- .adac
- .deloitte
- .dhl
- .edu.fm
- .epost
- .etisalat
- .gov.fm
- .idn
- .kfh
- .kpn
- .lidl
- .lpl
- .lplfinancial
- .meo
- .sapo
- .schwarz
- .smart
- .stc
- .stcgroup
- .viva
- بيتك. (.xn--ngbe9e0a)
- اتصالات. (.xn--mgbaakc7dvf)

**Zones that will switch to the Minimum Data Model (A):**

- .co.nl
- .contact
- .feedback
- .forum
- .fun
- .host
- .in.net
- .la
- .observer
- .online
- .pid
- .press
- .pw
- .realty
- .reit
- .sfr
- .site
- .space
- .store
- .tech
- .web.in
- .website
- .wme

**Zones that will switch to the Adapted ICANN Model (B):**

- .ae.org
- .art
- .bar
- .basketball
- .best*
- .br.com
- .ceo*
- .cn.com
- .co.com
- .co.no
- .college
- .com.fm
- .coop
- .de.com
- .design
- .eu.com
- .fm
- .fo*
- gb.net
- .gent
- .gr.com
- .hu.net
- .icu
- .ink
- .jp.net
- .jpn.com
- .kred*
- .love
- .mex.com
- .net.fm
- .ooo
- .org.fm
- .protection
- .radio.am
- .radio.fm
- .rent
- rest
- .ru.com
- .rugby
- .sa.com
- .se.net
- .security
- .storage
- .theatre
- .tickets
- .uk.com
- .uk.net
- .us.com
- .us.org
- .wiki
- .xyz
- .za.bz
- .za.com

*\* These TLDs have not yet migrated onto CentralNic from their current backend RSP*