Report-URI and Data Protection

1 Introduction

1.1 Purpose

This document is intended to help IT professionals and their legal advisors answer the two questions that we are frequently asked about data protection and Report-URI's service:

1. Does Report-URI process the Personal Data of a Report-URI Customer's customers or users (i.e. is it necessary to nominate Report-URI as a data Processor)?
2. What Personal Data does Report-URI process?

We also hope this document helps our Users and Customers to understand any data protection obligations they and Report-URI have in respect of the UK or EU GDPR.

It is not intended to be legal advice. Entities that want to ensure compliance with the appropriate legal framework should seek advice from legal practitioners in their own jurisdiction.

1.2 Terminology

In this document we refer to a Report-URI 'User' and a Report-URI 'Customer'.

A User is an individual that creates an account with the Report-URI service to enable them to use the service. A User may use the service in their own right as an individual (a natural person), or they may use the service as a representative of an entity – a company or other type of organisation (a legal person) – if this is the case then this document refers to that entity as a Customer.

A User can create other Users as part of a team, and the assumed use of this feature is that all Users in a team will be using the service on behalf of a Customer.

Other than User and Customer, capitalised terms used in this document are as defined in Article 4 of the GDPR (EU 2016/679) or are words capitalised in normal usage.

1.3 What Report-URI does

Report-URI provides a solution that enables organisations to collect error and telemetry information about how their website is received by their customer's browsers. Additionally, it also will allow the collection of telemetry about their email security configuration from recipient email servers.

Many internet protocols now allow for a telemetry recipient to be specified so when a consumer browser or email server detects an error or policy violation, they can report that to the owner of the webpage or email. The web address (URI) where that report is sent is typically specified in the REPORT-URI parameter of a directive – hence the service's name.

Report-URI allows a User to create an account; once that account has been created the User can then direct such error reports to the Report-URI service. The service intelligently interprets, parses, consolidates and normalises the telemetry reports and then allows the User of the service to query the normalised telemetry data received in the form of on-screen reports.
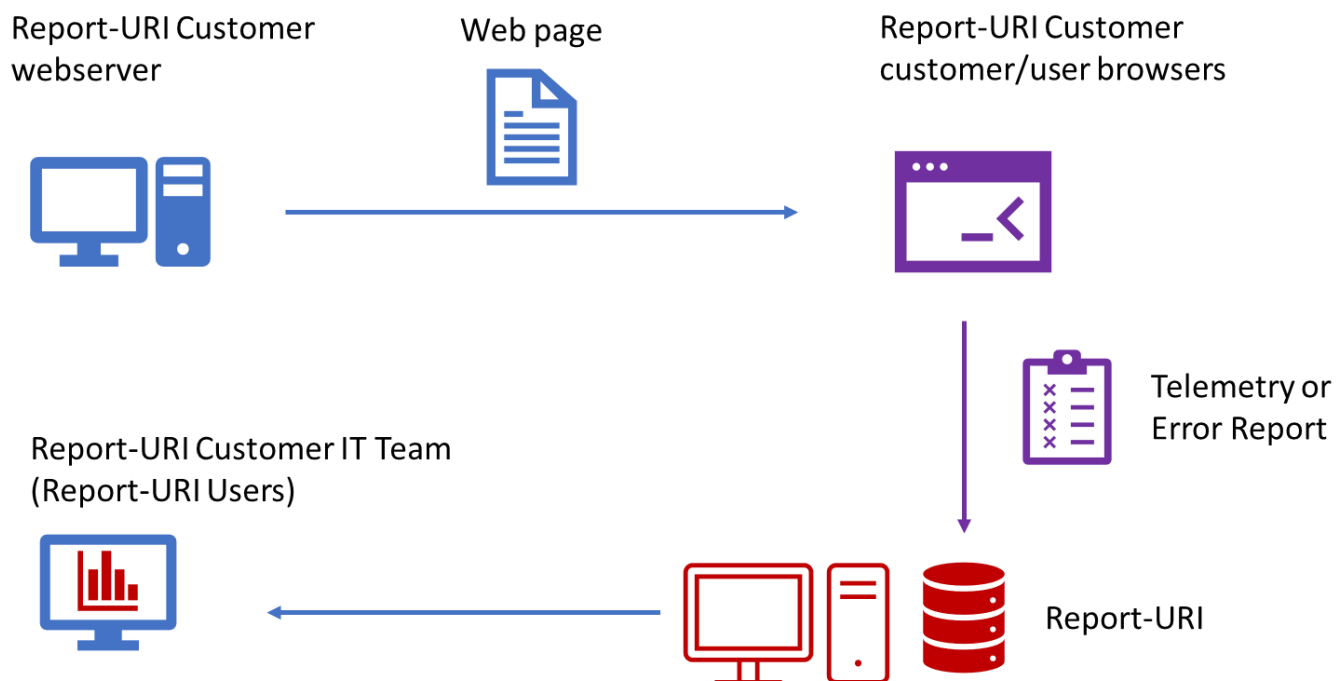
The service is available free of charge but requires payment once the number of telemetry reports received exceeds a monthly threshold.

Payment for the service is by monthly payment card billing (account on file) or by pre-arranged invoice for larger enterprise customers.

2   Report-URI as a Processor

Report-URI may be a Processor of the Personal Data of its Customers, if:

1.   **The Customer is subject to the UK or EU GDPR.**

This is dependent on the Customer's location, their location of their customers/users and the goods or services offered by the Customer. This document is unable to provide guidance in this respect.

The European Data Protection Board´s *Guidelines 3/2018 on the territorial scope of the GDPR (Article 3)* may be useful to help organisations address this question.[1]

2.   **The data received in telemetry or error reports can be related to a Data Subject for which Report-URI's Customer is a Controller.**

This section aims to help IT and legal professionals make this determination.

Whether the data received by Report-URI is Personal Data depends on the contents of the telemetry and error reports i.e. the data received, processed and stored. This is entirely under the control of, and configurable by, Report-URI's Customers.

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[1] https://edpb.europa.eu/our-work-tools/our-documents/riktlinjer/guidelines-32018-territorial-scope-gdpr-article-3-version_en

2.1 Data Processed by Report-URI

For most of Report-URI's Customers, the telemetry and error reports are *unlikely* to contain the Personal Data of their own users or customers. However, for a minority of Customers, based on the Customer's activities and the structure of their website, Report-URI *may* receive the Personal Data of its Customers' customers/users. Any Personal Data is likely to be in the following five fields that are included in telemetry and error reports.

- IP Address
- HTTP Referrer
- URI
- Query String
- URI Fragment

2.1.1 IP Address

The IP address of the reporting system (i.e. the customer/user's browser) is received with a telemetry report. This information may or may not be Personal Data depending on the activities of Report-URI's Customer – i.e., whether the IP address is able to be related to an individual identifiable Data Subject by the Customer.[2]

All telemetry / error reports are initially received by Report-URI's sub-processor– Cloudflare – which runs a global content distribution and edge computing network. Reports are received by the Cloudflare Edge nearest to the browser making the telemetry report. Typically, this will be in the same country as the browser is based. The IP address is stripped out from the telemetry report by Cloudflare's systems before the report is forwarded to Report-URI's core application.

IP addresses typically will only be processed by Cloudflare in the same country that the reporting browser/computer is located.

Technically, for some of Report-URI's Customers the IP address may be able to be related to an individual Data Subject, however because the data is not received by Report-URI's core systems, it is impossible that any correlation to a Data Subject by the Controller can practically occur.

2.1.2 HTTP-Referrer

The HTTP-Referrer is the previous page URI that the user was visiting and where they clicked the link to the URI that generated the telemetry report.

The HTTP-Referrer may be included in a telemetry report depending on the configuration of the referring page. This information may or may not be Personal Data depending on the format of the URI, and therefore Report-URI's Customer may be able to identify an individual Data Subject from the combination of HTTP-Referrer, Reporting URI and timestamp.

The HTTP-Referrer is received by the Report-URI core / application, the Customer can choose whether this data is discarded or retained.

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[2] See CJEU C-582/14: Patrick Breyer v Bundesrepublik Deutschland

2.1.3   Document URI

The Document URI is the URI that the browser was visiting when it encountered the condition that required it to generate a telemetry or error report.

Depending on the format of the Document URI, the path may contain Personal Data relating to a Data Subject, e.g.

```
www.customer.com/profile/John_Doe/
```

This information would be retained by Report-URI and appear in reports.

2.1.4   Query String

Query String is variable data that is passed as part of a URI. The data appears after a '?' symbol in the URI and consists of (potentially multiple) name=value pairs, separated by the '&' symbol.

Personal data relating to a Data Subject may appear in query string variables received as part of a URI, e.g.

```
www.customer.com/editprofile?userID=12345&name=JohnDoe
```

Query String data is received by the Report-URI core / application, the Customer can choose whether this data is discarded or retained.

2.1.5   URI Fragments

A URI Fragment may also contain variable data that is passed as part of a URI. The data appears after a '#' symbol in the URI and is a free text string determined by the developer / page author.

Personal data relating to a Data Subject may appear in fragments received as part of a URI, e.g.

```
www.customer.com/editprofile#JohnDoe-12345
```

URI Fragments are received by the Report-URI core / application, the Customer can choose whether this data is discarded or retained.

2.2   Access to Stored Data

Report-URI does not provide access to the original data received in the telemetry reports. They are processed in real-time and normalised. This normalisation exercise will normally mean that the data stored cannot be related to an individual Data Subject.

It is also not possible for a Customer to download data; only summary reports are made available and this may also have a bearing on whether a Customer is able to relate the data to a Data Subject.

Summary of potential Personal Data processed

Element	Received	Stored	Retained	Downloadable?
IP Address	No *	No	-	-
HTTP Referrer	Yes	Default: No Configurable by Customer	90 days	No
URI	Yes	Yes	90 days	No
Query String	Yes	Default: No Configurable by Customer	90 days	No
Fragment	Yes	Default: No Configurable by Customer	90 days	No

* IP address is received by Cloudflare (a sub-processor of Report-URI) along with the telemetry report; however the IP address is not forwarded to the Report-URI core application and is discarded within the processing that occurs Cloudflare.

2.3   If Report-URI is a Processor

If a Report-URI Customer determines that Report-URI is a Processor of Personal Data relating to Data Subjects for whom the Customer is a Controller, the following section is pertinent.

2.3.1   Data Processing Agreement

Report-URI's Customers must agree to the addition of the Data Processing Agreement (DPA) as an amendment to Report-URI's terms of service. The DPA is compliant with the requirements of Article 28 and can be found at https://cdn.report-uri.com/pdf/Report URI - DPA Latest.pdf.

The Customer can incorporate the agreement when they upgrade their account to a paid-for account or at any point whilst on a paid subscription.

If the customer terminates their agreement, the DPA no longer applies.

2.3.2   Legal Basis of Processing

Although the determination of the legal basis of processing is the responsibility of the Customer, it is likely that the Personal Data contained in telemetry and error reports is of a nature such that processing is in the Legitimate Interests of the Controller – Article 6(1)(f).

The processing of Personal Data in respect of network and information security falls into the bounds of legitimate interest as described in Recital 49, although of course a Customer should carry out its own assessment of legitimate interests balanced with any impact to the fundamental rights and freedoms of the Data Subject.

2.3.3   Data Minimisation and Data Protection by Design and Default

The presence of Personal Data in telemetry reports (URIs, referrers, Query String and Fragments), and the subsequent storage of that Personal Data by Report-URI is wholly within the control of the Customer. A Customer can therefore minimise the processing of Personal Data by Report-URI by:

1. The configuration of the Customer's own website, and

2. The Customer's use and configuration of Report-URI's settings especially related to filtering and data retention.

As such, Customers that both pass Personal Data to Report-URI, and who also configure their use of the service to store such data, should satisfy themselves that this meets the core GDPR principles of *data minimisation* and *storage limitation* given by Articles 5(1)(c) and (e), and the requirement for *Data protection by design and by default* (Article 25).

2.3.4   Data Retention

Consolidated, normalised report telemetry data is retained for 90 days before being automatically deleted. Customers should satisfy themselves that this 90-day retention period satisfies their Legitimate Interests assessment.

2.3.5   Data Subject Rights

As a Processor, Report-URI has an obligation to provide assistance to a Controller to help them respond to any Data Subject rights requests. The following table summarises the technical capabilities provided by the platform.

Right	IP Address	Referrer, URI, and Query String
Access	Not stored	From standard reports – significant work will be required by the Customer to then download and extract individual records from the standard report.
Rectification	Not stored	Automatic erasure of all records after 90 days.
Erasure	Not stored	
Restriction	Not stored	No option exists to erase individual entries.
Portability	Not stored	Not applicable

Customers should be aware that other than the standard reports provided by the service, no other access to stored data is available and therefore that they can be confident they are able to respond to Data Subject rights requests. The best approach is to ensure that Personal Data is not received in telemetry or error reports by:

- Configuring Report-URI to not retain the HTTP Referrer.

- Ensuring personal data is not present in URI paths.

- Ensuring personal data is not present in Query String or Fragments but if it is, configuring Report-URI to not retain this data.

2.3.6   Use of Sub-processors

Of the Processors used by Report-URI to provide the service, three may process data included in telemetry reports: Digital Ocean (US), Cloudflare (global) and Microsoft Azure (US). Report-URI has the revised Standard Contractual Clauses (SCCs) approved by the Commission in place with all these sub-processors. Controllers may want to conduct their own Transfer Impact Assessments in respect of US authorities' lawful access to any personal data contained in telemetry or error reports.

In accordance with the Data Processing Agreement, if Report-URI changes or adds a sub-processor, Customers will receive prior notification and have the opportunity to delete any Personal Data and cease their use of the service if they object to the use of a proposed sub-processor.

2.3.7   Does Report-URI or the Customer Transfer Data Outside the UK or EEA?

We have been asked whether it is Report-URI or the Customer (acting as Controller) that is responsible for transferring data outside the UK or EEA. The instruction to send a telemetry report to Report-URI is in the control of the Customer, the owner of the website – the Controller. However, the instruction is just given by the URI specified, which in itself is geographically independent – i.e. the Customer has no control over the geographic location of the system that the URI will resolve to.

Where that URI resolves to is wholly in Report-URI's control (it will be the nearest Cloudflare edge node, which is typically in the same country as the user of the website) and as such our view is that Report-URI, acting as a Processor, is the party responsible for the transfer of data out of the UK or EEA.

2.3.8   Privacy Aspects of Telemetry Reports

When designing the internet standards that allow for telemetry and error reporting, privacy and data protection were a significant concern. Further information about the privacy implications of telemetry and violation reporting is available in the following detailed technical standards and RFC documents.

Document	Location
General W3C Reporting API	https://www.w3.org/TR/reporting/#privacy
Content Security Policy (CSP)	https://www.w3.org/TR/CSP3/#security-considerations
Network Error Logging (NEL)	https://www.w3.org/TR/network-error-logging/#privacy-considerations
Domain-based Message Authentication, Reporting, and Conformance (DMARC)*	https://tools.ietf.org/html/rfc7489#section-9
Transport Layer Security for Simple Mail Transport Protocol (SMTP over TLS)	https://tools.ietf.org/html/rfc8460#section-8
Certificate Transparency (CT)	https://tools.ietf.org/html/rfc6962

* The forensic reporting option in DMARC (ruf) will expose the private information contained in an email. Report-URI does not support this option.

2.4   Security

Report-URI was established by Scott Helme, an experienced information security professional who was later joined by Troy Hunt and Michal Špaček. All three principals regularly teach information security.

It should be remembered that from a data protection perspective this level of security is to protect the only personal data processed by Report-URI, which is the User's username and password and any Personal Data potentially contained in telemetry reports.

2.4.1   Cyber Essentials

Report-URI was independently assessed against, and achieved, the Cyber Essentials certification in January 2019[3] this has been renewed annually and the current certification expires in July 2023.

2.4.2   Penetration test

Report-URI commissions an annual external "white box" penetration test. The results of this test are published in full along with an analysis of the vulnerabilities found and how they were rectified[4].

2.4.3   PCI DSS Compliance

Payment data is collected directly by Stripe, Report-URI's payment processor. This meets the eligibility criteria of PCI DSS SAQ A[5] which is completed annually and provided to Report-URI's acquiring bank.

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[3] https://cdn.report-uri.com/pdf/Report URI - Cyber Essentials Latest.pdf

[4] https://cdn.report-uri.com/pdf/Report URI - Penetration Test Report Latest.pdf

[5] https://cdn.report-uri.com/pdf/Report URI - PCI DSS SAQ A.pdf

Redirecting a User to Stripe's webservers to enter and manage their payment details protects against e-commerce skimming (aka Magecart) attacks and means that Report-URI's systems do not store, process, or transmit any payment card data.

Administrative access to Stripe's customer portal where the payment information that was entered by the User (masked card data only) can be viewed by Report-URI personnel is protected by two-factor authentication.

A more detailed description of Report-URI's security is available on request.

3   Report-URI as a Controller

Report-URI processes limited Personal Data of its Users and potentially contact information for other people who work for its Customers.

The information provided here complements Report-URI's privacy policy which is available at https://report-uri.com/home/privacy_policy.

3.1   Data Subjects and Classes of Data

The primary Data Subject is a User who creates an account with the service.

3.1.1   User Data

To create an account a User needs to provide an email address and password. These are stored in Report-URI's core systems.

The email address is used as the unique identifier for the User to login.

The password is salted with 128 bits of entropy, and hashed using 1024 rounds of Bcrypt.

A unique internal user ID is also generated for the account.

The User may also select a unique sub-domain prefix (e.g. mysubdomian.report-uri.com).

The use of the email address, password, internal user ID and (where requested) sub-domain are essential for the operation of the service.

The email address is verified: on registration the email address used is sent a validation email which contains a unique link. To complete registration this unique link must be clicked which confirms that the User is in control of the email address specified.

3.1.2   Payment Data

Once a User decides to add a payment card to their account (typically because the number of reports received monthly exceeds the free allowance) the following additional information is collected:

- A company or person name
- The country of residence
- The billing address, city, and postcode that the payment card is registered to
- An optional EU VAT ID
- The Primary Account Number (PAN), expiration date and verification code of the payment card.

The data is transmitted from the User's computer directly to Stripe, the third-party service provider used to manage payment card billing. Stripe then returns a reference that is associated with the User's account. This reference is stored and is used by Report-URI to modify or cancel billing instructions.

The collection and processing of all this data is required to enable payment card billing.

Stripe is acting as a Processer for Report-URI when it is asked to collect a payment.

Stripe also acts as a Controller in its own right for the purpose of detecting fraud and to fulfil its legal and regulatory obligations.

3.1.3 Enterprise Contact Data

Customers that do not pay by payment card receive monthly invoices. The information necessary for sending invoices and collecting payments is obtained directly from Customers. This generally includes data relating to one or more individuals at each Customer. The data collected includes:

- Names
- Job Titles
- Email address
- Office address
- Telephone numbers

This data is usually collected via email and it is a sub-set of data that is manually transcribed into Sage Accounts, a cloud-based third-party Processor that provides accounting and invoicing services.

3.1.4 Legal Basis of Processing

The legal basis for processing all personal data is provided by Article 6(1)(b); that processing is necessary for the performance of a contract to which the data subject is party or in order to take steps at the request of the data subject prior to entering into a contract.

Report-URI is registered as a Controller with the UK Information Commissioner's Office, registration number ZA860641.

3.1.5 Use of Processors

Report-URI publishes a detailed privacy policy describing the use of data and any Processors used which is located at https://report-uri.com/home/privacy_policy. This is maintained as new Processors are appointed.