



Department for Transport

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1 Document Control

1.1 Version History

Version	Author	Summary of changes	Date
2.0	Gabriel Popescu (PA Consulting)	Record Management enhancement for D-TRO submission	01/07/2024

1.2 Document Review

Version	Reviewer(s)	Date
2.0	John Cooper (Department for Transport, Product Owner)	

1.3 Approved Versions

Version	Approver(s)	Date
2.0	Department for Transport	

2 Terms and Abbreviation

Term / Abbreviation	Definition
API	Application Programming Interface
CRUD	Create, Read, Update and Delete
D-TRO	Digital Traffic Regulation Order
DC	Data Consumer
DfT	Department for Transport
DSP	Digital Solution Provider
ICD	Interface Control Document
JSON	JavaScript Object Notation
MVP	Minimum Viable Product
TRA	Traffic Regulation Authority
TRO	Traffic Regulation Order
URI	Uniform Resource Identifier

3 Introduction

As part of its 'Future of Mobility: Urban Strategy', the Department for Transport (DfT) is modernising the regulatory framework for Traffic Regulation Orders (TROs) (Traffic Management Orders in London) made under the Road Traffic Regulation Act 1984.

The Automated Vehicles Act 2024 (clause 93) provides statutory instruction for TRAs to provide information on a defined set of TROs, in a specified manner and form, to be provided in accordance with a specified model, standard or set of specifications. These will be the D-TRO Data Specification including the D-TRO Data Model, which are expected to be specified under secondary legislation.

The new regulatory framework will, subject to necessary secondary legislation coming into force, mandate that Traffic Regulation Authorities (TRAs) in England and Wales publish TROs as open data in a standardised and digital format that anyone can access, use and share.

The standardised digital format will be based on the Digital TRO (D-TRO) Data Specification that is described in this and other associated documents. This Data Specification is intended to be a free resource for all. The Data Specification is candidate in nature and may be subject to change without notification.

Taking into account the needs arising from the UK Industrial Strategy and recognising the requirements that will emerge from the deployment of Connected and Automated Vehicles (CAVs), this Data Specification provides a framework for how the data and information relating to TROs can be formed in the future. Availability of such a draft Data Specification, when suitably tested, will support the move towards TROs being easily accessible to the public whether using apps or driving connected vehicles.

4 Other Documents and Artefacts

This Interface Control Document (ICD) is part of the documents and artefacts that are available in connection to the D-TRO Service:

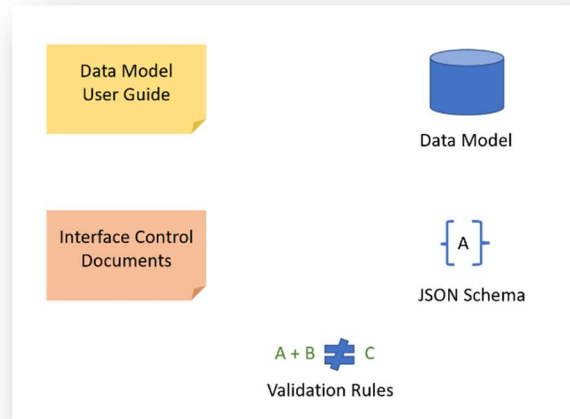


Figure 1 – Documents and artefacts supporting the D-TRO Service

This ICD forms part of the Data Specification that has been released for Beta, including the technical user guide which outlines the data modelling concepts defined to help support the definition and exchange of information relating traffic regulations. All the latest versions of documents and other artefacts of this release are listed in GitHub [\[#38\]](#).

5 Scope of this document

This ICD specifies the design of the interface for the D-TRO Publication API. This API enables integration between TRA systems and D-TRO Service for the purposes of allowing TRAs to:

- Publish their D-TROs to the D-TRO Service.
- Update and amend D-TROs that have been previously submitted to the D-TRO Service.
- Retrieve a history of the D-TROs issued by the TRAs held by the D-TRO Service.
- Search events and record of the existing D-TROs held by the D-TRO Service.
- Retrieve existing rules and schemas within the D-TRO Service.

6 Target Audience

The target audience of this document includes:

- Traffic Regulation Authorities (TRAs) and or their Digital Solution Providers (DSPs) that currently manage the IT contracts within the authority.

Throughout this document where reference is made to TRA systems, this also refers to DSP systems.

7 Integration Architecture

7.1 Overview (API v1 methods)

Figure 2 below depicts the 'happy path' sequence of interactions between TRA systems and the D-TRO Service.

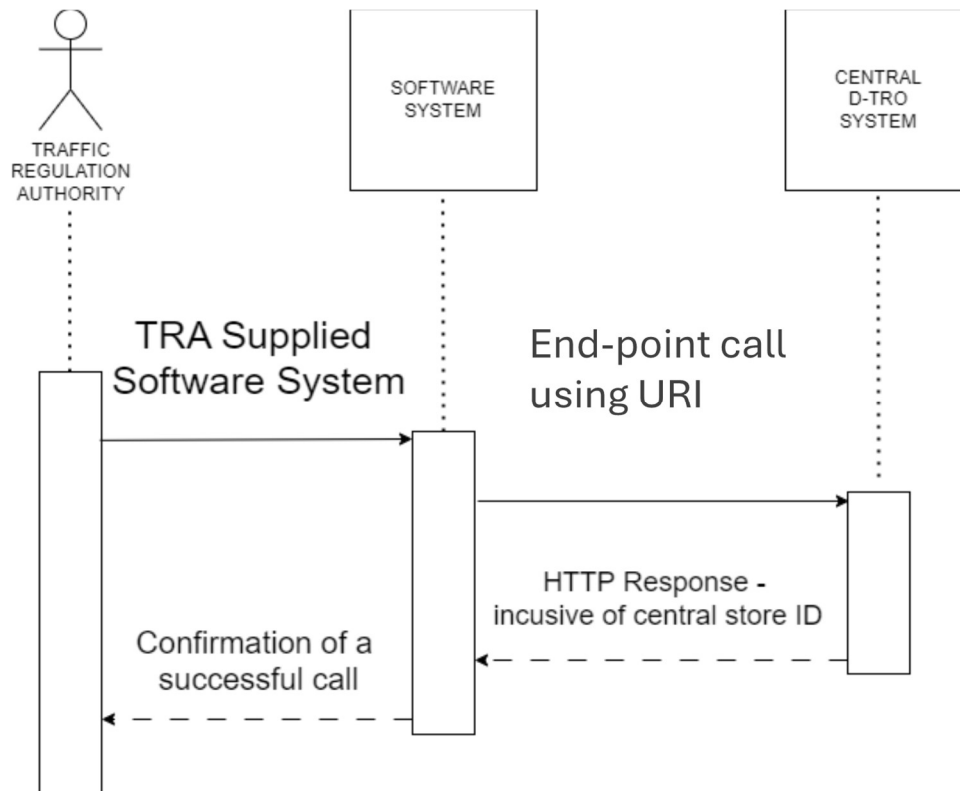


Figure 2 Expected API interactions

7.2 Design Principles

When integrating with this interface, the following design patterns and principles should be adopted to ensure that the non-functional characteristics of TRA systems and the D-TRO Service are effectively implemented:

ID	Pattern / Principle	Description
DP01	Guaranteed delivery	TRA systems must adopt an architecture that ensures guaranteed delivery of requests/responses to and from the D-TRO Service.
DP02	Loose coupling	TRA systems must adopt an architecture that is loosely coupled with the D-TRO Service and can detect, respond to, and recover from exceptions where the D-TRO Service is unavailable.

DP03	GOV.UK API technical and data standards	The interface will comply with published GOV.UK API technical and data standards .
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8 Assumptions, Constraints, Risks and Dependencies

8.1 Assumptions

ID	Assumption	Impact if not true
A01	TRAs will adopt an 'API-first' approach to integrating with the D-TRO interface.	No web-based user interface is proposed to allow the registration of D-TROs. If API integration is not possible, the TRA will need a DSP to help with service integration.

8.2 Constraints

ID	Constraint
C01	Calls to the D-TRO Publication API will be subject to a quota constraining the number of requests that can be issued per second. Rate limiting values will be captured in future versions of this document.

8.3 Risks

ID	Risk	Impact	Mitigation
R01	There is a risk that the D-TRO Service is unavailable due to a technical fault or unplanned maintenance. (e.g., to address a critical security vulnerability identified in the underlying technology platform)	The operation of TRA systems that integrate with the D-TRO Service will be correspondingly impacted.	TRA systems will adopt the design patterns and policies specified in section 5 (see assumption A01).

8.4 Dependencies

ID	Dependency
D01	TRA systems must authenticate with the D-TRO Service using Google Apigee. API credentials will be supplied as part of activities to on-board and integrate with the D-TRO Service.
D02	TRA systems must securely manage API credentials.
D03	TRA systems must adhere to the design patterns and policies specified in section 7.

9 Endpoints available for TRAs and/or DSPs

Table 1 lists the endpoints relevant for this ICD. Additional endpoints for consumers are documented in Beta-01-DfT-D-TRO-ICD for Consumers_v2.0.docx.

Ref.	HTTP verb	Endpoints	Name
D-TROs			
D1	POST	/v1/dtros/createFromFile	Create a new D-TRO
D2	PUT	/v1/dtros/updateFromFile/{id}	Update an existing D-TRO
D3	POST	/v1/dtros/createFromBody	Create a new D-TRO
D4	PUT	/v1/dtros/updateFromBody/{id}	Update an existing D-TRO
D5	GET	/v1/dtros/{id}	Retrieve a D-TRO by D-TRO ID
D6	DELETE	/v1/dtros/{id}	Delete a D-TRO by D-TRO ID
D7	GET	/v1/dtros/sourceHistory/{dtrold}	Retrieve source history based by D-TRO ID
D8	GET	/v1/dtros/provisionHistory/{dtrold}	Retrieve provisions history by D-TRO ID
D9	POST	/v1/dtros/Ownership/{id}/{assignToTrald}	Assign ownership to a D-TRO by D-TRO ID
Events and Search			
ES1	POST	/v1/events	Query central data store events (e.g., D-TRO being created, updated, or deleted)
ES2	POST	/v1/search	Find existing D-TROs that matches the requested criteria
Rules			
R1	GET	/v1/rules/versions	Retrieve available rule template versions
R2	GET	/v1/rules	Retrieve available rule templates
R3	GET	/v1/rules/{versions}	Retrieve rule template by version
R4	GET	/v1/rules/{id}	Retrieve rule template by ID
Schemas			
S1	GET	/v1/schemas/versions	Retrieve available schema template versions
S2	GET	/v1/schemas	Retrieve available schema templates.
S3	GET	/v1/schemas/{version}	Retrieve schema template by version
S4	GET	/v1/schemas/{id}	Retrieve schema template by ID

Table 1 Summary of Publisher API endpoints

10 Interface Specification

This interface enables integration, via a RESTful API, between TRAs business processes and systems and the D-TRO Service for the recording of Digital Traffic Regulation Orders.

Overview	
Item	Value
Name	D-TRO Publication (API)
Publisher	Department for Transport
Consumer	TRA / DSP
Interface type	<input checked="" type="checkbox"/> RESTful API <input type="checkbox"/> SOAP API <input type="checkbox"/> File transfer <input type="checkbox"/> Other (please specify)
Protocol	<input type="checkbox"/> HTTP <input checked="" type="checkbox"/> HTTPS – must be HTTPS 1.1 or higher. <input type="checkbox"/> Other (please specify)
Test URL	To publish shortly
Pre-Production URL	To published in a future revision of this document
Production URL	To published in a future revision of this document
Security Classification	<input type="checkbox"/> UNMARKED <input checked="" type="checkbox"/> OFFICIAL <input type="checkbox"/> OFFICIAL-SENSITIVE <input type="checkbox"/> SECRET <input type="checkbox"/> TOP SECRET
Authentication	<p>Authentication to the application via the API endpoints for all public-facing environments (Third-party test and Production) will be controlled using the OAuth 2.0 framework (in keep with GOV.UK API technical and data standards). In order to obtain the necessary token, the user must either be onboarded with a TRA or cleared by the CSO before being allowed to self-register to use D-TRO via a portal and obtain the authentication token.</p> <p>It should be noted that for Private-Beta, IP restrictions will be in place, only allowing a select few addresses to call D-TRO API endpoints.</p>
Content type	application/json
Content encoding	UTF-8
Non-Repudiation	The use of OAuth 2.0 credentials paired with X-Correlation-ID headers will be used to uniquely identify an API invocation for non-repudiation purposes.

Notes applicable to all methods:

1. Dates and times – all date and time records shall be expressed in UTC using the ISO 8601-1:2019 extended format (e.g. YYYY-MM-DDTHH:MM:SSZ).
2. Correlation identifier – all identifiers shall be expressed using UUID ISO/IEC 11578:1996 specification. The format consists of 32 hexadecimal digits plus 4 hyphens (8-4-4-4-12).
3. The size of a D-TRO submission must not exceed 10MB.

10.1 Endpoints D-TROs

The below methods are provisioned for creation, modification, and retrieval of D-TRO records.

The tables below cover the following endpoints specific for D-TROs.

Ref.	Endpoints	Name
D1	/v1/dtros/createFromFile	Create a new D-TRO from a file
D2	/v1/dtros/updateFromFile/{id}	Update an existing D-TRO from a file
D3	/v1/dtros/createFromBody	Create a new D-TRO
D4	/v1/dtros/updateFromBody/{id}	Update an existing D-TRO
D5	/v1/dtros/{id}	Retrieve a D-TRO by D-TRO ID
D6	/v1/dtros/{id}	Delete a D-TRO by D-TRO ID
D7	/v1/dtros/sourceHistory/{dtrold}	Retrieve source history based by D-TRO ID
D8	/v1/dtros/provisionHistory/{dtrold}	Retrieve provisions history by D-TRO ID
D9	/v1/dtros/Ownership/{id}/{assignToTrald}	Assign ownership to a D-TRO by D-TRO ID

Reference	D1					
Item	Value					
POST	/v1/dtros/createFromFile					
Name	Create a new D-TRO					
Description	This POST method allows data publishers to record a new D-TRO to the D-TRO Service by providing the D-TRO as a file					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	Ta	int	4	5	Mandatory	The TRA who creates the D-TRO
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes

Reference	D1					
Item	Value					
POST	/v1/dtros/createFromFile					
Name	Create a new D-TRO					
Description	This POST method allows data publishers to record a new D-TRO to the D-TRO Service by providing the D-TRO as a file					
	file	file	1KB	10MB	Mandatory	A file containing JSON payload describing a D-TRO. File should be provided through a multipart/form-data request having UTF8 encoding.
Input data scope	When invoking this endpoint, the supplied file must contain a full D-TRO representation. Payloads will be assessed against the schema (created and activated in schemas endpoints), semantic JSON rules and custom rules (created in rules endpoints) for validity against the D-TRO data model.					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Id	string	36	36	Mandatory	UUID formatted string containing a D-TRO Service identifier for the newly created D-TRO record.
Responses						
200 OK	<pre>{ "id": "3fa85f64-5717-4562-b3fc-2c963f66afa6" }</pre>					
404 Not Found	<pre>{ "message": "Not found", "errors": ["Schema version not found."] }</pre>					

Reference	D1	
Item	Value	
POST	/v1/dtros/createFromFile	
Name	Create a new D-TRO	
Description	This POST method allows data publishers to record a new D-TRO to the D-TRO Service by providing the D-TRO as a file	
400 Bad Request	<pre>{ "errors": { "property": ["Unexpected end when deserializing object. Path <i>property</i>."] }, "type": "https://tools.ietf.org/html/rfc7231#section-6.5.1", "title": "One or more validation errors occurred.", "status": 400, "traceId": "00-9f4aa677608b15827106b63502eb806f-ca691cf133c8871d-00" }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	D2					
Item	Value					
PUT	/v1/dtros/uploadFromFile{id}					
Name	Updates an existing D-TRO					
Description	This PUT method allows data publishers to update an existing D-TRO to the D-TRO Service.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	Ta	int	4	5	Mandatory	The TRA who creates the D-TRO.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	file	file	1KB	10MB	Mandatory	A file containing JSON payload describing a D-TRO.
	Id	string	36	36	Mandatory	UUID formatted string representing the D-TRO to be updated. File should be provided through a multipart/form-data request having UTF8 encoding.
Input data scope	When invoking this endpoint, the supplied file must contain a full D-TRO representation. Payloads will be assessed against the schema (created and activated in schemas endpoints), semantic JSON rules and custom rules (created in rules endpoints) for validity against the D-TRO data model.					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Responses						
201 Created	<pre>{ "id": "3fa85f64-5717-4562-b3fc-2c963f66afa6" }</pre>					

Reference	D2	
Item	Value	
PUT	/v1/dtros/uploadFromFile{id}	
Name	Updates an existing D-TRO	
Description	This PUT method allows data publishers to update an existing D-TRO to the D-TRO Service.	
404 Not Found	<pre>{ "message": "Not found", "errors": ["Schema version not found."] }</pre>	
400 Bad Request	<pre>{ "errors": { property: ["Unexpected end when deserializing object. Path property."] }, "type": "https://tools.ietf.org/html/rfc7231#section-6.5.1", "title": "One or more validation errors occurred.", "status": 400, "traceId": "00-9f4aa677608b15827106b63502eb806f-ca691cf133c8871d-00" }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	D3					
Item	Value					
POST	/v1/dtros/createFromBody					
Name	Create a new D-TRO					
Description	This POST method allows data publishers to record a new D-TRO to the D-TRO Service.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	ta	int	4	5	Mandatory	The TRA who creates the D-TRO
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
Input data scope	data	object	1KB	10MB	Mandatory	A JSON payload describing a D-TRO. Payload should be UTF8 encoded.
	<pre>{ "schemaVersion": "3.2.0", "data": { "source": { ...omitted for brevity. } } }</pre>					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
Output data structure	id	string	36	36	Mandatory	UUID formatted string containing a D-TRO Service identifier for the newly created D-TRO record.

Reference	D3	
Item	Value	
POST	/v1/dtros/createFromBody	
Name	Create a new D-TRO	
Description	This POST method allows data publishers to record a new D-TRO to the D-TRO Service.	
Responses		
200 OK	<pre>{ "id": "3fa85f64-5717-4562-b3fc-2c963f66afa6" }</pre>	
404 Not Found	<pre>{ "message": "Not found", "errors": ["Schema version not found."] }</pre>	
400 Bad Request	<pre>{ "errors": { property: ["Unexpected end when deserializing object. Path property."] }, "type": "https://tools.ietf.org/html/rfc7231#section-6.5.1", "title": "One or more validation errors occurred.", "status": 400, "traceId": "00-9f4aa677608b15827106b63502eb806f-ca691cf133c8871d-00" }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	D4					
Item	Value					
PUT	/v1/dtros/uploadFromBody{id}					
Name	Updates an existing D-TRO					
Description	This PUT method allows data publishers to update an existing D-TRO to the D-TRO Service.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	ta	int	4	5	Mandatory	The TRA who creates the D-TRO.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	data	object	1KB	10MB	Mandatory	A JSON payload describing a D-TRO. Payload should be UTF8 encoded.
	id	string	36	36	Mandatory	UUID formatted string representing the D-TRO to be updated.
Input data scope	<pre>{ "schemaVersion": "3.2.0", "data": { "source": { ...omitted for brevity. } } }</pre>					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Responses						
201 Created	<pre>{ "id": "3fa85f64-5717-4562-b3fc-2c963f66afa6" }</pre>					
404 Not Found	<pre>{ "message": "Not found", "errors": ["Schema version not found."] }</pre>					

Reference	D4	
Item	Value	
PUT	/v1/dtros/uploadFromBody{id}	
Name	Updates an existing D-TRO	
Description	This PUT method allows data publishers to update an existing D-TRO to the D-TRO Service.	
400 Bad Request	<pre>{ "errors": { property: ["Unexpected end when deserializing object. Path property."] }, "type": "https://tools.ietf.org/html/rfc7231#section-6.5.1", "title": "One or more validation errors occurred.", "status": 400, "traceId": "00-9f4aa677608b15827106b63502eb806f-ca691cf133c8871d-00" }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	D5					
Item	Value					
GET	/v1/dtros/{id}					
Name	Get a D-TRO by id					
Description	This GET method allows data publishers retrieve an existing D-TRO from the D-TRO Service, based on its unique identification.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	id	string	36	36	Mandatory	UUID formatted string containing the unique identification of a D-TRO.
Input data scope	When invoking this endpoint, the request parameter must contain a full UUID representation. If the unique identifier matches with one of the existing D-TROs within the D-TRO Service, that D-TRO will be retrieved.					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Data	JSON	-	-	Mandatory	D-TRO retrieved from the D-TRO Service.
Responses						
200 OK	<pre>{ "schemaVersion": "3.2.0", "data": { "source": { "provision": [{ "regulatedPlace": [{ ...omitted for brevity }] }] } } }</pre>					

Reference	D5	
Item	Value	
GET	/v1/dtros/{id}	
Name	Get a D-TRO by id	
Description	This GET method allows data publishers retrieve an existing D-TRO from the D-TRO Service, based on its unique identification.	
404 Not Found	<pre>{ "message": "Not found", "errors": ["D-TRO with id 3fa85f64-5717-4562-b3fc-2c963f66afa6 not found."] }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	D6					
Item	Value					
DELETE	/v1/dtros/{id}					
Name	Delete a D-TRO by id					
Description	This DELETE method allows data publishers soft delete an existing D-TRO from the D-TRO Service, based on its unique identification.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	ta	int	4	5	Mandatory	The TRA who creates the D-TRO.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	id	string	36	36	Mandatory	UUID formatted string containing the unique identification of a D-TRO.
Input data scope	When invoking this endpoint, the request id parameter must contain a full UUID representation. If the unique identifier matches with one of the existing D-TROs within the D-TRO Service, that D-TRO will be soft deleted.					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Data	JSON	-	-	Mandatory	D-TRO retrieved from the D-TRO Service
Responses						
204 No Content						
404 Not Found	<pre>{ "message": "Not found", "errors": ["D-TRO with id 3fa85f64-5717-4562-b3fc-2c963f66afa6 not found."] }</pre>					

Reference	D6	
Item	Value	
DELETE	/v1/dtros/{id}	
Name	Delete a D-TRO by id	
Description	This DELETE method allows data publishers soft delete an existing D-TRO from the D-TRO Service, based on its unique identification.	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	D7					
Item	Value					
GET	/v1/dtros/sourceHistory/{dtrold}					
Name	Get the source history of a D-TRO by id					
Description	This GET method allows data publishers retrieve the source history of an existing D-TRO from the D-TRO Service, based on its unique identification.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	dtrold	string	36	36	Mandatory	UUID formatted string containing the unique identification of a D-TRO.
Input data scope	When invoking this endpoint, the request dtrold parameter must contain a full UUID representation. If the unique identifier matches with one of the existing D-TROs within the D-TRO Service, that D-TRO will be retrieved.					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Data	JSON	-	-	Mandatory	D-TRO retrieved from the D-TRO Service
Responses						
200 OK	<pre>[{ "actionType": "new", "created": "2024-06-28T10:16:30.518769Z", ...omitted for brevity. }]</pre>					
500 Internal Server Error	<pre>{ "message": "Internal Server Error", "errors": ["An unexpected error occurred."] }</pre>					

Reference	D7	
Item	Value	
GET	/v1/dtros/sourceHistory/{dtrold}	
Name	Get the source history of a D-TRO by id	
Description	This GET method allows data publishers retrieve the source history of an existing D-TRO from the D-TRO Service, based on its unique identification.	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	D8					
Item	Value					
GET	/v1/dtros/provisionHistory/{dtrold}					
Name	Get the provisions history of a D-TRO by id					
Description	This GET method allows data publishers retrieve the provisions history of an existing D-TRO from the D-TRO Service, based on its unique identification.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	dtrold	string	36	36	Mandatory	UUID formatted string containing the unique identification of a D-TRO.
Input data scope	When invoking this endpoint, the requested dtrold parameter must contain a full UUID representation. If the unique identifier matches with one of the existing D-TROs within the D-TRO Service, that D-TRO will be retrieved.					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Data	JSON	-	-	Mandatory	D-TRO retrieved from the D-TRO Service
Responses						
200 OK	<pre>[{ "actionType": "new", "created": "2024-06-28T10:16:30.518769Z", "data": { "addition": true, "reference": "A3448229-1DFA-48CD-A785-376ACB9F7C56", "actionType": "new", ...omitted for brevity. }, "lastUpdated": "2024-07-01T15:29:51.1340642Z", "reference": "A3448229-1DFA-48CD-A785-376ACB9F7C56", "schemaVersion": "3.2.0" }]</pre>					

Reference	D8	
Item	Value	
GET	/v1/dtros/provisionHistory/{dtrold}	
Name	Get the provisions history of a D-TRO by id	
Description	This GET method allows data publishers retrieve the provisions history of an existing D-TRO from the D-TRO Service, based on its unique identification.	
500 Internal Server Error	<pre>{ "message": "Internal Server Error", "errors": ["An unexpected error occurred."] }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	D9					
Item	Value					
POST	/v1/dtros/Ownership/{id}/{assignToTrald}					
Name	Assign an existing D-TRO to a different TRA by its unique identifier					
Description	This POST method allows data publishers to reassign an existing D-TRO from the current owner TRA to another one within the D-TRO Service, based on its unique identification.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	ta	int	4	5	Mandatory	The TRA who creates the D-TRO.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	id	string	36	36	Mandatory	UUID formatted string containing the unique identification of a D-TRO.
	assignToTrald	int	4	5	Mandatory	The new TRA identification number that will take ownership to the current D-TRO.
Input data scope	When invoking this endpoint, the requested assignToTrald parameter must contain a full UUID representation of the D-TRO and the assignToTrald must be based on SWA codes.					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Data	JSON	-	-	Mandatory	D-TRO retrieved from the D-TRO Service.
Responses						
204 No Content						
404 Not Found	<pre>{ "message": "Not found", "errors": ["D-TRO not found."] }</pre>					

Reference	D9	
Item	Value	
POST	/v1/dtros/Ownership/{id}/{assignToTraId}	
Name	Assign an existing D-TRO to a different TRA by its unique identifier	
Description	This POST method allows data publishers to reassign an existing D-TRO from the current owner TRA to another one within the D-TRO Service, based on its unique identification.	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

10.2 Events and Search

Ref.	Endpoints	Name
ES1	/v1/events	Query D-TRO Service data for stored events
ES2	/v1/search	Find existing D-TROs that matches requested criteria.

Reference	ES1					
Item	Value					
POST	/v1/events					
Name	Query D-TRO Service data for stored events (e.g., D-TROs being created, updated, or deleted).					
Description	This POST method allows data publishers to query events (created, updated or deleted) on existing D-TROs within the D-TRO Service.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	ta	string	4	5	Mandatory	The TRA SWA code that events are search for
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	data	object	1KB	10MB	Mandatory	A JSON payload containing a D-TRO events to search. Payload should be UTF8 encoded.
Input data scope	When invoking this endpoint, the request payload must contain a search query object. <pre>{ "page": 1, "pageSize": 50, "since": "2022-07-04T06:07:41.180Z", "regulationStart": { "operator": ">", "value": "2022-07-04T06:07:41.180Z" }, "regulationEnd": { "operator": "<", "value": "2024-07-04T06:07:41.180Z" } }</pre>					

Reference	ES1					
Item	Value					
POST	/v1/events					
Name	Query D-TRO Service data for stored events (e.g., D-TROs being created, updated, or deleted).					
Description	This POST method allows data publishers to query events (created, updated or deleted) on existing D-TROs within the D-TRO Service.					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	id	string	36	36	Mandatory	UUID formatted string containing a D-TRO Service identifier for the newly created D-TRO record.
Responses						
200 OK	<pre>{ "events": [], "page": 1, "pageSize": 0, "totalCount": 0 }</pre>					
404 Not Found	<pre>{ "message": "Not found", "errors": ["Schema version not found."] }</pre>					
400 Bad Request	<pre>{ "errors": { "property": ["Unexpected end when deserializing object. Path <i>property</i>."] }, "type": "https://tools.ietf.org/html/rfc7231#section-6.5.1", "title": "One or more validation errors occurred.", "status": 400, "traceId": "00-9f4aa677608b15827106b63502eb806f-ca691cf133c8871d-00" }</pre>					
Other error codes	HTTP Code	Error Type				
	400	Bad request				
	403	Access denied/forbidden				
	404	Not found				
	405	Method not allowed				
	429	Too many requests				
	500	Internal server error				
	502	Bad gateway				
	503	Service unavailable				
	504	Gateway timeout				

Reference	ES2					
Item	Value					
POST	/v1/search					
Name	Find existing D-TROs that matches requested criteria.					
Description	This POST method allows data publishers to query D-TROs that matches certain criteria within the D-TRO Service.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	ta	string	4	5	Mandatory	The TRA SWA code that query search is for
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
Input data scope	data	object	1KB	10MB	Mandatory	A JSON payload containing query search. Payload should be UTF8 encoded.
	When invoking this endpoint, the request payload must contain a search query object. <pre>{ "queries": [{ "traCreator": 1585, "regulationStart": { "operator": ">", "value": "2022-07-04T06:18:16.458Z" }, "regulationEnd": { "operator": "<", "value": "2024-07-04T06:18:16.458Z" } }], "page": 1, "pageSize": 50 }</pre>					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					

Reference	ES2					
Item	Value					
POST	/v1/search					
Name	Find existing D-TROs that matches requested criteria.					
Description	This POST method allows data publishers to query D-TROs that matches certain criteria within the D-TRO Service.					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	data	JSON array	-	-	Mandatory	Result array
Responses						
200 OK	<pre>{ "results": [{ ...omitted for brevity. "vehicleType": ["taxi"], ...omitted for brevity. "page": 1, "pageSize": 1, "totalCount": 1 }] }</pre>					
200 OK	<pre>{ "results": [], "page": 1, "pageSize": 0, "totalCount": 0 }</pre>					
400 Bad Request	<pre>{ "message": "Bad request", "errors": ["An exception has been raised that is likely due to a transient failure."] }</pre>					

Reference	ES2	
Item	Value	
POST	/v1/search	
Name	Find existing D-TROs that matches requested criteria.	
Description	This POST method allows data publishers to query D-TROs that matches certain criteria within the D-TRO Service.	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

10.3 Rules

Ref.	Endpoints	Name
R1	/v1/rules/versions	Retrieve available rule template versions
R2	/v1/rules	Retrieve available rule templates
R3	/v1/rules/{versions}	Retrieve rule template by version
R4	/v1/rules/{id}	Retrieve rule template by id

Reference	R1					
Item	Value					
GET	/v1/rules/versions					
Name	Get available rule template versions ¹					
Description	This GET method allows data publishers to retrieve rule template versions from the D-TRO Service.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	-	-	-	-	-	-
Input data scope	-					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Data	JSON	-	-	Mandatory	Array containing JSON objects
Responses						

¹ **Rules Template:** Defines logical conditions (rule) that data must satisfy within specific paths (path) of the DTRO. It is used to enforce business rules, validation criteria, or complex data relationships.

Reference	R1	
Item	Value	
GET	/v1/rules/versions	
Name	Get available rule template versions ¹	
Description	This GET method allows data publishers to retrieve rule template versions from the D-TRO Service.	
200 OK	<pre>[{ "schemaVersion": "3.2.0" }]</pre>	
500 Internal Server Error	<pre>{ "message": "Internal Server Error", "errors": ["An unexpected error occurred."] }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	R2					
Item	Value					
GET	/v1/rules					
Name	Get available rule templates					
Description	This GET method allows data publishers to retrieve rule templates from the D-TRO Service.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	-	-	-	-	-	-
Input data scope	-					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Data	JSON	-	-	Mandatory	Array containing JSON objects
Responses						
200 OK	<pre>[{ "schemaVersion": "3.2.0", "template": [{ ...omitted for brevity. "rule": { "in": [{ "var": "source.currentTraOwner" }, { "service_data": "swa_codes" }] } }] }]</pre>					

Reference	R2	
Item	Value	
GET	/v1/rules	
Name	Get available rule templates	
Description	This GET method allows data publishers to retrieve rule templates from the D-TRO Service.	
500 Internal Server Error	<pre>{ "message": "Internal Server Error", "errors": ["An unexpected error occurred."] }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	R3					
Item	Value					
GET	/v1/rules/{version}					
Name	Get available rule template by version					
Description	This GET method allows data publishers to retrieve a rule template by version from the D-TRO Service.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	version	string	5	5	Mandatory	String representation of rule version
Input data scope	When invoking this endpoint, the request parameter must be string in this format: {Major}.{Minor}.{Patch}.					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Data	JSON	-	-	Mandatory	Array containing JSON objects
Responses						
200 OK	<pre>{ "schemaVersion": "3.2.0", "template": [{ ...omitted for brevity. "rule": { "in": [{ "var": "source.currentTraOwner" }, { "service_data": "swa_codes" }] } }] }</pre>					

Reference	R3	
Item	Value	
GET	/v1/rules/{version}	
Name	Get available rule template by version	
Description	This GET method allows data publishers to retrieve a rule template by version from the D-TRO Service.	
500 Internal Server Error	<pre>{ "message": "Internal Server Error", "errors": ["An unexpected error occurred."] }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	R4					
Item	Value					
GET	/v1/rules/{id}					
Name	Get available rule template by unique identifier					
Description	This GET method allows data publishers retrieve a rule template from the D-TRO Service.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	id	string	36	36	Mandatory	UUID formatted string representing the rule to be retrieved.
Input data scope	When invoking this endpoint, the id parameter must be string in UUID format.					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Data	JSON	-	-	Mandatory	Array containing JSON objects
Responses						
200 OK	<pre>{ "schemaVersion": "3.2.0", "template": [{ ...omitted for brevity. "rule": { "in": [{ "var": "source.currentTraOwner" }, { "service_data": "swa_codes" }] } }] }</pre>					

Reference	R4	
Item	Value	
GET	/v1/rules/{id}	
Name	Get available rule template by unique identifier	
Description	This GET method allows data publishers retrieve a rule template from the D-TRO Service.	
500 Internal Server Error	<pre>{ "message": "Internal Server Error", "errors": ["An unexpected error occurred."] }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

10.4 Schemas

Ref.	Endpoints	Name
S1	/v1/schemas/versions	Retrieve available schema template versions
S2	/v1/schemas	Retrieve available schema templates
S3	/v1/schemas/{versions}	Retrieve schema template by version
S4	/v1/schemas/{id}	Retrieve schema template by id

Reference	S1					
Item	Value					
GET	/v1/schemas/versions					
Name	Get available schema template versions ²					
Description	This GET method allows data publishers to retrieve schema template versions from the D-TRO Service.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	-	-	-	-	-	-
Input data scope	-					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Data	JSON	-	-	Mandatory	Array containing JSON objects

² **Schema Template:** Specifies the expected structure, data types, and constraints (type, minimum, maximum, etc.) for each field within the DTRO. It ensures consistency, integrity, and compatibility of data across systems or processes.

Reference	S1	
Item	Value	
GET	/v1/schemas/versions	
Name	Get available schema template versions ²	
Description	This GET method allows data publishers to retrieve schema template versions from the D-TRO Service.	
Responses		
200 OK	<pre>[{ "schemaVersion": "3.2.0", "isActive": true, "rulesExist": true }]</pre>	
500 Internal Server Error	<pre>{ "message": "Internal Server Error", "errors": ["An unexpected error occurred."] }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	S2					
Item	Value					
GET	/v1/schemas					
Name	Get available schema templates					
Description	This GET method allows data publishers to retrieve schema templates from the D-TRO Service.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	-	-	-	-	-	-
Input data scope	-					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Data	JSON	-	-	Mandatory	Array containing JSON objects
Responses						
200 OK	<pre>[{ "schemaVersion": "3.2.0", "template": { "type": "object", "\$defs": { ... omitted for brevity. }, "oneOf": [... omitted for brevity.], "\$schema": "https://json-schema.org/draft/2020-12/schema", "description": "DTRO v3.2.0 data model JSON schema", "additionalProperties": true }, "isActive": true }]</pre>					

Reference	S2	
Item	Value	
GET	/v1/schemas	
Name	Get available schema templates	
Description	This GET method allows data publishers to retrieve schema templates from the D-TRO Service.	
500 Internal Server Error	<pre>{ "message": "Internal Server Error", "errors": ["An unexpected error occurred."] }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	S3					
Item	Value					
GET	/v1/schemas/{version}					
Name	Get available schema template by version					
Description	This GET method allows data publishers retrieve a schema template by version from the D-TRO Service.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	version	string	5	5	Mandatory	String representation of schema version
Input data scope	When invoking this endpoint, the request parameter must be string in this format: {Major}.{Minor}.{Patch}.					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Data	JSON	-	-	Mandatory	Array containing JSON objects
200 OK	<pre>{ "schemaVersion": "3.2.0", "template": { "type": "object", "\$defs": { ... omitted for brevity. }, "oneOf": [... omitted for brevity.], "\$schema": "https://json-schema.org/draft/2020-12/schema", "description": "DTRO v3.2.0 data model JSON schema", "additionalProperties": true }, "isActive": true }</pre>					

Reference	S3	
Item	Value	
GET	/v1/schemas/{version}	
Name	Get available schema template by version	
Description	This GET method allows data publishers retrieve a schema template by version from the D-TRO Service.	
Responses		
500 Internal Server Error	<pre>{ "message": "Internal Server Error", "errors": ["An unexpected error occurred."] }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout

Reference	S4					
Item	Value					
GET	/v1/schemas/{id}					
Name	Get available schema template by unique identifier.					
Description	This GET method allows data publishers retrieve a schema template from the D-TRO Service.					
Input data type(s)	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Input Structure	Header Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	X-Correlation-ID	string	36	36	Mandatory	UUID formatted string to track the request through the enquiries stack.
	Request Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	id	string	36	36	Mandatory	UUID formatted string representation of schema unique identifier.
Input data scope	When invoking this endpoint, the id parameter must be string in UUID format.					
Output data type	<input checked="" type="checkbox"/> JSON <input checked="" type="checkbox"/> XML <input checked="" type="checkbox"/> File <input checked="" type="checkbox"/> Other (please specify)					
Output data structure	Response Parameters					
	Field Name	Data Type	Min Length	Max Length	Opportunity	Notes
	Data	JSON	-	-	Mandatory	Array containing JSON objects
200 OK	<pre>{ "schemaVersion": "3.2.0", "template": { "type": "object", "\$defs": { ... omitted for brevity. }, "oneOf": [... omitted for brevity.], "\$schema": "https://json-schema.org/draft/2020-12/schema", "description": "DTRO v3.2.0 data model JSON schema", "additionalProperties": true }, "isActive": true }</pre>					

Reference	S4	
Item	Value	
GET	/v1/schemas/{id}	
Name	Get available schema template by unique identifier.	
Description	This GET method allows data publishers retrieve a schema template from the D-TRO Service.	
Responses		
500 Internal Server Error	<pre>{ "message": "Internal Server Error", "errors": ["An unexpected error occurred."] }</pre>	
Other error codes	HTTP Code	Error Type
	400	Bad request
	403	Access denied/forbidden
	404	Not found
	405	Method not allowed
	429	Too many requests
	500	Internal server error
	502	Bad gateway
	503	Service unavailable
	504	Gateway timeout