

Oracle® Health Sciences ClearTrial Cloud Service

Web Services API User Guide

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Preface

The Oracle Health Sciences ClearTrial Cloud Service Web Services API User Guide is a reference for ClearTrial users who are creating, editing, and managing studies for their organization with the ClearTrial Web Services Application Programming Interface (API).

Audience

This document is for users who are working with the Oracle Health Sciences ClearTrial Web Services API.

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<http://www.oracle.com/technetwork/documentation/hsgbu-154445.html>

or, for the documentation for this product, to:

<http://www.oracle.com/technetwork/documentation/hsgbu-clinical-407519.html>

Note: Always check oracle.com to ensure you have the latest updates to the documentation.

Related Documents

For more information, see the following documents in the Oracle Health Sciences ClearTrial Cloud Service Release 5.4 documentation set:

- *Oracle Health Sciences ClearTrial Cloud Service 5.4 Release Notes*
- *Oracle Health Sciences ClearTrial Cloud Service 5.4 Plan and Source User Guide*
- *Oracle Health Sciences ClearTrial Cloud Service 5.4 System Administrator User Guide*
- *Oracle Health Sciences ClearTrial Cloud Service 5.4 Track User Guide*
- *Oracle Health Sciences ClearTrial Cloud Service 5.4 Third Party Licenses and Notices*

Getting Started: Basic Information

The ClearTrial Web Services API is a simple and powerful web services interface into the ClearTrial software. It is a HTTP-based API that is technology and platform independent. The API is hosted at:
<https://cleartrial-api.oracleindustry.com/cleartrial-ws>.

Requirements for Working with the API

To use the ClearTrial Web Services API, the client must be able to issue HTTP GET, POST, PUT, and DELETE calls. The client can be Java, .NET, Perl, Python, or a command line *curl* call.

User Capabilities

To work with the ClearTrial Web Services API, you must be a licensed user who has been granted the additional role/capability "Can access WS-API" by the system administrator.

Note: The Web Services capabilities are only available to licensed users. Please contact your account manager for details on subscribing to the ClearTrial Web Services API.

Stateless API

The Web Services API that the ClearTrial software exposes is stateless. This means that each call is independent of the previous call, and the information conveyed by the client in the request must be sufficient for the server to understand and act upon the request.

Compression

To decrease network bandwidth usage, if the incoming HTTP request contains the Accept-Encoding HTTP header with gzip value, the ClearTrial software compresses the contents it returns.

Security

All communication with the ClearTrial Web Services API is encrypted and secured using HTTPS connections.

Authentication

The ClearTrial Web Services API supports the Basic Access Authentication scheme.

The ClearTrial Web Services API expects that the *Authorization HTTP* header has already been populated with the Base64 encoding of the username and password (as described in the IETF specification) when accessing the resources. The ClearTrial Web Services API will not challenge the user by sending a *WWW-Authenticate* HTTP header if it detects that the *Authorization HTTP* header is missing.

Every request must also contain the ClearTrial Customer ID in an HTTP header named `customerCode`.

Here is an example of authentication using the UNIX command line tool *curl*:

```
curl --user myLogin:myPassword --header"customerCode: myCustomerCode" --get
https://cleartrial-api.oracleindustry.com/cleartrial-ws/plans/10802/siteInformation
```

ClearTrial Resources

The ClearTrial Web Services API exposes resources through distinct URLs and the HTTP method calls dictate the action that is required to be performed on the identified resource. ClearTrial resources include products (medical devices and drugs), studies, plans, portfolios, actuals, and other resources. The ClearTrial Web Services API refers to products as compounds.

Each resource may have zero to many sub-resources. Sub-resources make sense only within the context of the parent resource and, therefore, the sub-resource URLs use the parent resource URL as the base. Examples of resource and sub-resource URLs appear in subsequent chapters.

The ClearTrial Web Services API also supports reading and writing ClearTrial Track data in and out of the ClearTrial software. The resources supported for the Clear Trial Track application include sites, subjects, and monitoring.

Representations

Every resource has a representation. The representation can appear as XML or JSON, according to user preference. The user can set the *Accept HTTP* header in the request to either *application/xml* or *application/json*, respectively.

In the absence of the *Accept* header, the ClearTrial Web Services API returns the representation in JSON.

An example of an XML representation of a plan resource appears as follows:

```
<plan>
  <id>10801</id>
  <name>Baseline Locked Plan</name>
  <code>test</code>
  <createdBy>administrator</createdBy>
  <createdDate>15-Apr-2010</createdDate>
  <lastModifiedBy>administrator</lastModifiedBy>
  <lastModifiedDate>15-Apr-2010</lastModifiedDate>
  <planState>Draft</planState>
  <outsourcingOption>Combination</outsourcingOption>
  <startDate>01-Apr-2010</startDate>
  <preStudyStartDate>01-Jan-2010</preStudyStartDate>
  <defaultModelingCurrency>USD</defaultModelingCurrency>
  <drugHandlingType>Room Temperature</drugHandlingType>
  <radioLabeledDrug>false</radioLabeledDrug>
```

```

<locationsUrl>/cleartrial-ws/plans/10801/locations</locationsUrl>
<siteInformationUrl>/cleartrial-ws/plans/10801/siteInformation
</siteInformationUrl>
<siteApprovalScheduleUrl>/cleartrial-ws/plans/10801/siteApprovalSchedule
</siteApprovalScheduleUrl>
<dataUrl>/cleartrial-ws/plans/10801/data</dataUrl>
<subjectUrl>/cleartrial-ws/plans/10801/subject</subjectUrl>
<treatmentUrl>/cleartrial-ws/plans/10801/treatment</treatmentUrl>
<monitoringInformationUrl>/cleartrial-ws/plans/1001/monitoringInformation
</monitoringInformationUrl>
<monitoringScheduleUrl>/cleartrial-ws/plans/10801/monitoringSchedule
</monitoringScheduleUrl>
<serviceProviderUrl>/cleartrial-ws/plans/10801/serviceProvider
</serviceProviderUrl>
<laborUrl>/cleartrial-ws/plans/10801/labor</laborUrl>
<laborMonthlyByMajorTaskUrl>/cleartrial-ws/plans/10801/
labor?view=monthlyByMajorTask</laborMonthlyByMajorTaskUrl>
<laborMonthlyByResourceUrl>/cleartrial-ws/plans/10801/
labor?view=monthlyByResource</laborMonthlyByResourceUrl>
<costUrl>/cleartrial-ws/plans/10801/cost</costUrl>
<costMonthlyUrl>/cleartrial-ws/plans/10801/cost?view=monthly
</costMonthlyUrl>
<url>/cleartrial-ws/plans/10801</url>
</plan>

```

An example of a JSON representation appears as follows:

```

{
  "id": "10801",
  "name": "Baseline Locked Plan",
  "code": "test",
  "createdBy": "administrator",
  "createdDate": "15-Apr-2010",
  "lastModifiedBy": "administrator",
  "lastModifiedDate": "15-Apr-2010",
  "planState": "Draft",
  "outsourcingOption": "Combination",
  "startDate": "01-Apr-2010",
  "preStudyStartDate": "01-Jan-2010",
  "defaultModelingCurrency": "USD",
  "drugHandlingType": "Room Temperature",
  "radioLabeledDrug": false,
  "locationsUrl": "/cleartrial-ws/plans/10801/locations",
  "siteInformationUrl": "/cleartrial-ws/plans/10801/siteInformation",
  "siteApprovalScheduleUrl": "/cleartrial-ws/plans/10801/siteApprovalSchedule",
  "dataUrl": "/cleartrial-ws/plans/10801/data",
  "subjectUrl": "/cleartrial-ws/plans/10801/subject",
  "treatmentUrl": "/cleartrial-ws/plans/10801/treatment",
  "monitoringInformationUrl": "/cleartrial-ws/plans/10801/monitoringInformation",
  "monitoringScheduleUrl": "/cleartrial-ws/plans/10801/monitoringSchedule",
  "serviceProviderUrl": "/cleartrial-ws/plans/10801/serviceProvider",
  "laborUrl": "/cleartrial-ws/plans/10801/labor",
  "laborMonthlyByMajorTaskUrl": "/cleartrial-ws/plans/labor?view=monthlyByMajorTask",
  "laborMonthlyByResourceUrl": "/cleartrial-ws/plans/labor?view=monthlyByResource",
  "costUrl": "/cleartrial-ws/plans/10801/cost",
  "costMonthlyUrl": "/cleartrial-ws/plans/cost?view=monthly",
  "url": "/cleartrial-ws/plans/10801"
}

```

Every resource representation contains a URL property that indicates to the client the unique URL associated with that instance of the resource.

In the previous examples, `<url>/cleartrial-ws/plans/10801</url>` and `"url": "/cleartrial-ws/plans/10801,"` in the XML and JSON representations, respectively, indicate that the plan resource whose plan ID is 10801 can always be found at that URL location.

The plan representation contains other URL properties such as `locationsUrl`, `siteInformationUrl`, `siteApprovalScheduleUrl`, and others. These are sub-resources under the plan resource and the URLs indicate the locations for that plan resource instance's sub-resources.

For example, the site locations for the plan resource whose ID is 10801 can be found at the URL, `/cleartrial-ws/plans/10801/locations`.

The *curl* Unix command is:

```
curl --user myLogin:myPassword --header"customerCode: myCustomerCode"
--header"Accept: application/json" --get
https://cleartrial-api.oracleindustry.com/cleartrial-ws/plans/10801/locations
```

To obtain the XML representation, change the Accept header value in the previous command to:

```
"Accept:application/xml"
```

Some of the APIs also allow a client to add or update resources using the HTTP PUT or POST method. For example, a client can add a new compound or product into ClearTrial at the URL: `/cleartrial-ws/compounds`. Assuming the content is in the file `postContent`, the *curl* Unix command is:

```
cat postContent | curl --user myLogin:myPassword --header"customerCode:
myCustomerCode" --header"Content-Type: application/json" --request PUT
https://cleartrial-api.oracleindustry.com/cleartrial-ws/compounds
```

To use the XML representation, change the Content-Type header value in the command above to:

```
"Accept:application/xml"
```

Error Codes

The following HTTP error codes may be returned for the reasons as follows:

400 - missing customerCode header

401 - wrong customerCode

401 - incorrect/missing credentials

403 - credentials provided do not have the necessary permissions required for access

404 - incorrect URL used

Detailed API Specifications

The following chapters describe the ClearTrial Web Services APIs, grouped by ClearTrial resources, and the ClearTrial Track API. In the URLs shown, values within braces {} are placeholders for entering the ID of a specific instance of the resource.

For example, in `/cleartrial-ws/studies/{studyID}`, the `{studyID}` is a placeholder for any study IDs identified in the `<id>` elements in the representation returned by the GET call to `/cleartrial-ws/studies`.

Each ClearTrial Web Services API specification includes the following information:

- Purpose
- Method: GET or PUT
- The URL to which the call is made
- Sample output in JSON for a late-stage study
- Sample output in XML for a late-stage study
- Sample output in JSON for a Phase I Healthy Volunteers study, if it differs from a late-stage study
- Sample output in XML for a Phase I Healthy Volunteers study, if it differs from a late-stage study

Secure Development

This section provides guidelines and recommendations for using and developing against the REST Web Services API published by ClearTrial. The following are recommended practices for secure usage of this API.

Roles and Permissions

Developers working with the REST API are subject to the same roles and permissions required to use ClearTrial applications. To work with the REST API, developers must have the Web Services API permission.

Valid Content Types

The REST API supports `application/XML` and `application /JSON`. Developers must use one of these MIME types in the `Accept` and `Content-Type` HTTP headers. Otherwise, the API will reject the requests.

Injection

To prevent SQL injections, the REST API uses bind variables in SQL queries that might involve any user input.

The data that the REST API returns is properly encoded for their returned types, either XML or JSON. Developers should encode data based on the context they are using. The REST API does not know the context, so safeguards are important.

Broken Authentication and Session Management

The REST API is stateless and, therefore, does not create and maintain an HTTP session. Therefore, the typical security issues associated with HTTP sessions do not apply.

However, the API does require transmission of the username and password in the HTTP authorization header. Developers, therefore, should ensure that the username and password are stored securely and use the HTTPS protocol. For example, this might be the Oracle Platform Security Services (OPSS) framework.

Cross-Site Scripting

The API validates input from developers before using it. For outbound data from the REST API, developers are responsible for properly encoding the data, depending on the context where the data is being used.

Insecure Direct Object References

The REST API ensures that the invoker has the permissions to access every requested resource and representation or entity returned.

Sensitive Data Exposure

The username and password are the only business-agnostic data that is considered sensitive for the REST API. The data is transmitted over HTTPS and is never at rest; that is, it is not stored or output to log files. Developers should also provide safe and secure storage when data is at rest.

Missing Function-Level Access Control

The REST API ensures that the invoker has the permissions to access every requested resource and representation or entity returned.

Cross-Site Request Forgery

Because the REST API is stateless, there is no HTTP session to exploit via Cross-Site Request Forgery (CSRF). Every request needs to carry the Authorization header with valid values; otherwise, it is rejected.

Using Known Vulnerable Components

The REST API stack is constantly updated with the latest security fixes and patches. Oracle recommends that developers using the API do the same.

Non-validated Redirects and Forwards

Although REST API responses might provide URLs to other resources and/or sub-resources in the representations that are returned, none of these URLs contain any user input. Therefore, the REST API is not subject to this vulnerability.

Compound Resource API

This ClearTrial Web Services API enables you to view compounds accessible to the current user for a given customer ID. Compounds are products and include drugs and medical devices.

Get Compounds

Lists the compounds accessible to the current user for a given customer ID.

Method: GET

URL: /cleartrial-ws/compounds

Sample output in JSON:

```
{
  "List": [
    {
      "id": 10201,
      "name": "Test Compound",
      "code": "ABC-123",
      "description": "test",
      "createdBy": "administrator",
      "createdDate": "15-Apr-2010",
      "lastModifiedBy": "administrator",
      "lastModifiedDate": "15-Apr-2010",
      "url": "/cleartrial-ws/compounds/10201"
    },
    {
      ...
      ...
    }
  ]
}
```

Sample output in XML:

```
<compoundRepresentations>
  <compound>
    <id>10201</id>
    <name>Test Compound</name>
    <code>ABC-123</code>
    <description>test</description>
    <createdBy>administrator</createdBy>
    <createdDate>15-Apr-2010</createdDate>
    <lastModifiedBy>administrator</lastModifiedBy>
    <lastModifiedDate>15-Apr-2010</lastModifiedDate>
  </compound>
</compoundRepresentations>
```

```
<url>/cleartrial-ws/compounds/10201</url>
</compound>
<compound>
  ...
</compound>
...
</compoundRepresentations>
```

Sub-Resources: None

Get Compound

Obtains the representation for a specified compound.

Method: GET

URL: /cleartrial-ws/compounds/{compoundID}

Sample output in JSON:

```
{
  "compound": {
    "id": 10201,
    "name": "Test Compound",
    "code": "ABC-123",
    "description": "test",
    "createdBy": "administrator",
    "createdDate": "15-Apr-2010",
    "lastModifiedBy": "administrator",
    "lastModifiedDate": "15-Apr-2010",
    "url": "/cleartrial-ws/compounds/10201"
  }
}
```

Sample output in XML:

```
<compound>
  <id>10201</id>
  <name>Test Compound</name>
  <code>ABC-123</code>
  <description>test</description>
  <createdBy>administrator</createdBy>
  <createdDate>15-Apr-2010</createdDate>
  <lastModifiedBy>administrator</lastModifiedBy>
  <lastModifiedDate>15-Apr-2010</lastModifiedDate>
  <url>/cleartrial-ws/compounds/10201</url>
</compound>
```

Sub-Resources: None

Add Compound

This ClearTrial Web Services API adds a new product by issuing an HTTP PUT command. The server expects a name, code, and description. An attempt to create a compound with the same name or code as an existing compound causes the server to return an error message.

Method: PUT

URL: /cleartrial-ws/compounds

Sample input in JSON:

```
{
  "compound": {
    "name": "Test Compound",
    "code": "ABC-123",
    "description": "test",
  }
}
```

Corresponding response by server in JSON:

```
{
  "compound": {
    "id": 10502,
    "name": "Test Compound",
    "code": "ABC-123",
    "description": "test",
    "createdBy": "joeuser",
    "createdDate": "03-May-2011",
    "lastModifiedBy": "joeuser",
    "lastModifiedDate": "03-May-2011",
    "url": "/cleartrial-ws/compounds/10502"
  }
}
```

Sample input in XML:

```
<compound>
<name>Test Compound</name>
<code>ABC-123</code>
<description>test</description>
</compound>
```

Corresponding response by server in XML:

```
<compound>
<id>10501</id>
<name>Test Compound</name>
<code>ABC-123</code>
<description>test</description>
<createdBy>joeuser</createdBy>
<createdDate>03-May-2011</createdDate>
<lastModifiedBy>joeuser</lastModifiedBy>
<lastModifiedDate>03-May-2011</lastModifiedDate>
<url>/cleartrial-ws/compounds/10501</url>
</compound>
```

Sub-Resources: None

Therapeutic Area and Indications API

This ClearTrial Web Services API supports the therapeutic areas and indications that are present in ClearTrial applications.

Get Therapeutic Areas

Returns the list of therapeutic areas that the ClearTrial software supports.

Method: GET

URL: /cleartrial-ws/therapeuticAreas

Sample output in JSON:

```
{
  "List": [
    {
      "id": 1,
      "name": "Blood and Blood Forming Organs",
      "indicationsUrl": "/cleartrial-ws/therapeuticAreas/1/indications",
      "url": "/cleartrial-ws/therapeuticAreas/1"
    },
    {
      "id": 2,
      "name": "Circulatory System",
      "indicationsUrl": "/cleartrial-ws/therapeuticAreas/2/indications",
      "url": "/cleartrial-ws/therapeuticAreas/2"
    },
    {
      ...
    }
  ]
}
```

Sample output in XML:

```
<therapeuticAreaRepresentations>
  <therapeuticArea>
    <id>1</id>
    <name>Blood and Blood Forming Organs</name>
    <indicationsUrl>/cleartrial-ws/therapeuticAreas/1/indications</indicationsUrl>
    <url>/cleartrial-ws/therapeuticAreas/1</url>
  </therapeuticArea>
  <therapeuticArea>
    <id>2</id>
    <name>Circulatory System</name>
```

```
<indicationsUrl>/cleartrial-ws/therapeuticAreas/2/indications
</indicationsUrl>
<url>/cleartrial-ws/therapeuticAreas/2</url>
</therapeuticArea>
...
</therapeuticAreaRepresentations>
```

Sub-Resources: Indications

Get Indications

Returns the indications under a specified therapeutic area.

Method: GET

URL: /cleartrial-ws/therapeuticAreas/{therapeuticAreaId}/indications

Sample output in JSON:

```
{
  "List": [
    {
      "id": 8,
      "therapeuticAreaId": 1,
      "name": "Anemias",
      "description": "Anemias",
      "url": "/cleartrial-ws/therapeuticAreas/1/indications/8"
    },
    {
      "id": 21,
      "therapeuticAreaId": 1,
      "name": "Blood Dyscrasias",
      "description": "Blood Dyscrasias",
      "url": "/cleartrial-ws/therapeuticAreas/1/indications/21"
    },
    {
      ...
    }
  ]
}
```

Sample output in XML:

```
<indicationRepresentations>
  <indication>
    <id>8</id>
    <therapeuticAreaId>1</therapeuticAreaId>
    <name>Anemias</name>
    <description>Anemias</description>
    <url>/cleartrial-ws/therapeuticAreas/1/indications/8</url>
  </indication>
  <indication>
    <id>21</id>
    <therapeuticAreaId>1</therapeuticAreaId>
    <name>Blood Dyscrasias</name>
    <description>Blood Dyscrasias</description>
    <url>/cleartrial-ws/therapeuticAreas/1/indications/21</url>
  </indication>
  ...
</indicationRepresentations>
```

Sub-Resources: None

Study Phases API

This ClearTrial Web Services API returns information about ClearTrial study phases from the application.

Get Study Phases

Returns the study phases.

Method: GET

URL: /cleartrial-ws/studyPhases

Sample output in JSON:

```
{
  "List": [
    {
      "id": 10,
      "name": "I (Healthy Volunteers)"
    },
    {
      "id": 1,
      "name": "I (Oncology/Vaccines)"
    },
    {
      "id": 4,
      "name": "IIa"
    },
    {
      "id": 3,
      "name": "II"
    },
    {
      "id": 5,
      "name": "IIb"
    },
    {
      "id": 6,
      "name": "III"
    },
    {
      "id": 7,
      "name": "IIIb"
    },
    {
      "id": 8,
      "name": "IV with IND"
    }
  ]
}
```

```
    },  
    {  
      "id": 9,  
      "name": "IV no IND"  
    }  
  ]  
}
```

Sample output in XML:

```
<studyPhaseRepresentations>  
  <studyPhase>  
    <id>10</id>  
    <name>I (Healthy Volunteers)</name>  
  </studyPhase>  
  <studyPhase>  
    <id>1</id>  
    <name>I (Oncology/Vaccines)</name>  
  </studyPhase>  
  <studyPhase>  
    <id>4</id>  
    <name>IIa</name>  
  </studyPhase>  
  <studyPhase>  
    <id>3</id>  
    <name>II</name>  
  </studyPhase>  
  <studyPhase>  
    <id>5</id>  
    <name>IIb</name>  
  </studyPhase>  
  <studyPhase>  
    <id>6</id>  
    <name>III</name>  
  </studyPhase>  
  <studyPhase>  
    <id>7</id>  
    <name>IIIb</name>  
  </studyPhase>  
  <studyPhase>  
    <id>8</id>  
    <name>IV with IND</name>  
  </studyPhase>  
  <studyPhase>  
    <id>9</id>  
    <name>IV no IND</name>  
  </studyPhase>  
</studyPhaseRepresentations>
```

Sub-Resources: None

Sponsors API

This ClearTrial Web Services API returns information about the available sponsors in ClearTrial applications.

Get Sponsors

Returns the available sponsors.

Method: GET

URL: /cleartrial-ws/sponsors

Sample output in JSON:

```
{
  "List": [
    {
      "id": 10201,
      "name": "Sponsor",
      "code": "Sponsor",
      "description": "Sponsor",
      "createdBy": "cleartrialadmin",
      "createdDate": "15-Apr-2010",
      "lastModifiedBy": "cleartrialadmin",
      "lastModifiedDate": "15-Apr-2010"
    }
  ]
}
```

Sample output in XML:

```
<sponsorRepresentations>
  <sponsor>
    <id>10201</id>
    <name>Sponsor</name>
    <code>Sponsor</code>
    <description>Sponsor</description>
    <createdBy>cleartrialadmin</createdBy>
    <createdDate>15-Apr-2010</createdDate>
    <lastModifiedBy>cleartrialadmin</lastModifiedBy>
    <lastModifiedDate>15-Apr-2010</lastModifiedDate>
  </sponsor>
  ...
</sponsorRepresentations>
```

Sub-Resources: None

Study Resource API

This ClearTrial Web Services API returns information about study resources from ClearTrial applications.

Get Studies

Lists all the studies accessible to the current user for a given customer ID.

Method: GET

URL: /cleartrial-ws/studies

Sample output in JSON:

```
{
  "List": [
    {
      "id": 10201,
      "name": "Simple Study 1",
      "createdBy": "joeuser",
      "createdDate": "15-Apr-2010",
      "lastModifiedBy": "joeuser",
      "lastModifiedDate": "15-Apr-2010",
      "sponsorId": 10201,
      "sponsorName": "sponsor",
      "protocol": "ABC-123",
      "studyPhaseId": 3,
      "studyPhaseName": "II",
      "indicationId": 105,
      "indicationName": "Other (Routine)",
      "compoundId": 10201,
      "compoundUrl": "/cleartrial-ws/compounds/10201",
      "url": "/cleartrial-ws/studies/10201"
    },
    {
      ...
    },
    {
      ...
    }
  ]
}
```

Sample output in XML:

```
<studyRepresentations>
  <study>
    <id>10201</id>
    <name>Simple Study 1</name>
    <createdBy>administrator</createdBy>
    <createdDate>15-Apr-2010</createdDate>
    <lastModifiedBy>administrator</lastModifiedBy>
    <lastModifiedDate>15-Apr-2010</lastModifiedDate>
    <sponsorId>10201</sponsorId>
    <sponsorName>QA</sponsorName>
    <protocol>ABC-123</protocol>
    <studyPhaseId>3</studyPhaseId>
    <studyPhaseName>II</studyPhaseName>
    <indicationId>105</indicationId>
    <indicationName>Other (Routine)</indicationName>
    <compoundId>10201</compoundId>
    <compoundUrl>/cleartrial-ws/compounds/10201</compoundUrl>
    <url>/cleartrial-ws/studies/10201</url>
  </study>
  <study>
    ...
  </study>
  ...
</studyRepresentations>
```

Sub-Resources: Compound

Get Study

Obtains the representation for a specified study.

Method: GET

URL: /cleartrial-ws/studies/{studyID}

Sample output in JSON:

```
{
  "study": {
    "id": 10201,
    "name": "Simple Study 1",
    "createdBy": "administrator",
    "createdDate": "15-Apr-2010",
    "lastModifiedBy": "administrator",
    "lastModifiedDate": "15-Apr-2010",
    "sponsorId": 10201,
    "sponsorName": "QA",
    "protocol": "ABC-123",
    "studyPhaseId": 3,
    "studyPhaseName": "II",
    "therapeuticAreaId": 21,
    "therapeuticAreaName": "Other (Non-Routine)",
    "indicationId": 105,
    "indicationName": "Other (Routine)",
    "compoundId": 10201,
    "compoundUrl": "/cleartrial-ws/compounds/10201",
    "url": "/cleartrial-ws/studies/10201"
  }
}
```

Sample output in XML:

```
<study>
  <id>10201</id>
  <name>Simple Study 1</name>
  <createdBy>administrator</createdBy>
  <createdDate>15-Apr-2010</createdDate>
  <lastModifiedBy>administrator</lastModifiedBy>
  <lastModifiedDate>15-Apr-2010</lastModifiedDate>
  <sponsorId>10201</sponsorId>
  <sponsorName>QA</sponsorName>
  <protocol>ABC-123</protocol>
  <studyPhaseId>3</studyPhaseId>
  <studyPhaseName>II</studyPhaseName>
  <therapeuticAreaId>21</therapeuticAreaId>
  <therapeuticAreaName>(Non-Routine)</therapeuticAreaName>
  <indicationId>105</indicationId>
  <indicationName>Other (Routine)</indicationName>
  <compoundId>10201</compoundId>
  <compoundUrl>/cleartrial-ws/compounds/10201</compoundUrl>
  <url>/cleartrial-ws/studies/10201</url>
</study>
```

Sub-Resources: Compound

Note: If you are tracking the study in Oracle Health Sciences ClearTrial Track Cloud Service, there are additional lines displaying information about the plan that has actuals being tracked.

Plan Resource API

The ClearTrial Web Service Plan Resource API returns information about plans stored in the ClearTrial application.

Get Plans

Gets the first 25 complete plans accessible to the current user for a given customer ID, ordered by plan and study name. Using the pagination options, the user can get subsequent pages.

Method: GET

URL: /cleartrial-ws/plans

Sample output in JSON:

```
{
  "plans": {
    "pageNumber": 1,
    "pageSize": 25,
    "totalPages": 141,
    "isLastPage": false,
    "plan": [
      {
        "id": "10801",
        "name": "Baseline Locked Plan",
        "code": "test",
        "createdBy": "administrator",
        "createdDate": "15-Apr-2010",
        "lastModifiedBy": "administrator",
        "lastModifiedDate": "15-Apr-2010",
        "planState": "Draft",
        "outsourcingOption": "Combination",
        "startDate": "01-Apr-2010",
        "preStudyStartDate": "01-Jan-2010",
        "defaultModelingCurrency": "USD",
        "drugHandlingType": "Room Temperature",
        "radioLabeledDrug": false,
        "summaryUrl": "/cleartrial-ws/plans/10801/summary",
        "locationsUrl": "/cleartrial-ws/plans/10801/locations",
        "siteInformationUrl": "/cleartrial-ws/plans/10801/siteInformation",
        "siteApprovalScheduleUrl": "/cleartrial-ws/plans/10801/siteApprovalSchedule",
        "dataUrl": "/cleartrial-ws/plans/10801/data",
        "subjectUrl": "/cleartrial-ws/plans/10801/subject",
        "subjectEnrollmentScheduleUrl": "/cleartrial-ws/plans/subjectEnrollmentSchedule",

```

```
"treatmentUrl":"/cleartrial-ws/plans/10801/treatment",
"monitoringInformationUrl":"/cleartrial-ws/plans/10801/
  monitoringInformation",
"monitoringScheduleUrl":"/cleartrial-ws/plans/10801/monitoringSchedule
"serviceProviderUrl":"/cleartrial-ws/plans/10801/serviceProvider",
"laborUrl":"/cleartrial-ws/plans/10801/labor",
"laborMonthlyByMajorTaskUrl":"/cleartrial-ws/plans/
  labor?view=monthlyByMajorTask":
"laborMonthlyByResourceUrl":"/cleartrial-ws/plans/
  labor?view=monthlyByResource",
"costUrl":"/cleartrial-ws/plans/10801/cost",
"costMonthlyUrl":"/cleartrial-ws/plans/cost?view=monthly",
"url":"/cleartrial-ws/plans/10801"
},
{
  ...
},
{
  ...
}
]
}
```

Sub-Resources: None

Note: In Phase I Healthy Volunteers studies, the Subject Enrollment Schedule sub-resource URL does not appear in the values returned by the Get Plans API.

In the example above:

- **'pageNumber': 1**, specifies that the current contents belong to page 1.
- **'pageSize': 25**, defines the current page size. In this case, the page has 25 plans.
- **'totalPages': 141**, indicates that there are 141 pages available.
- **'isLastPage': false**, indicates that the current page is not the last page.

Continuing with the example, the user can obtain the next page, by issuing the following request:

```
/cleartrial-ws/plans?page=2
```

Sample output of the request:

```
{
  "plans": {
    'pageNumber': 2,
    "pageSize": 25,
    "totalPages": 141,
    "isLastPage": false,
    "plan": [
      {
        "id": 16303,
        .....
      }
    ]
  }
}
```

.....

The user does not have to fetch the pages in sequence. The user can specify any page number in the 'pageNumber' field.

If the user asks for a page that does not exist, the ClearTrial application gets the contents of the last page.

For example, if the user asks for page 142, where there are only 141 pages available, with the request:

```
/cleartrial-ws/plans?page=142
```

Sample output:

```
{
  "plans": {
    "pageNumber": 141,
    "pageSize": 25,
    "totalPages": 141,
    "isLastPage": true,
    "plan": [
      {
        "id": 16303,
        .....
        .....
      }
    ]
  }
}
```

Because the user requested a page number, 142, that fell outside the total number of pages, the application retrieved the last page, 141.

The **isLastPage** field is set to true to indicate that the current page is the last available page.

The **pageSize** field is set to 5, indicating that there are only five plans on the last page.

Get Plan

Obtains the representation for a specific plan.

Method: GET

URL: /cleartrial-ws/plans/{planID}

Sample output in JSON:

```
{
  "plan": {
    "id": "10801",
    "name": "Baseline Locked Plan",
    "code": "test",
    "createdBy": "administrator",
    "createdDate": "15-Apr-2010",
    "lastModifiedBy": "administrator",
    "lastModifiedDate": "15-Apr-2010",
    "planState": "Draft",
    "outsourcingOption": "Combination",
    "startDate": "01-Apr-2010",
    "preStudyStartDate": "01-Jan-2010",
    "defaultModelingCurrency": "USD",
    "drugHandlingType": "Room Temperature",
  }
}
```

```
    "radioLabeledDrug": false,
    "summaryUrl": "/cleartrial-ws/plans/10801/summary",
    "locationsUrl": "/cleartrial-ws/plans/10801/locations",
    "siteInformationUrl": "/cleartrial-ws/plans/10801/siteInformation",
    "siteApprovalScheduleUrl": "/cleartrial-ws/plans/10801/
      siteApprovalSchedule",
    "dataUrl": "/cleartrial-ws/plans/10801/data",
    "subjectUrl": "/cleartrial-ws/plans/10801/subject",
    "treatmentUrl": "/cleartrial-ws/plans/10801/treatment",
    "monitoringInformationUrl": "/cleartrial-ws/plans/10801/
      monitoringInformation",
    "monitoringScheduleUrl": "/cleartrial-ws/plans/10801/monitoringSchedule",
    "serviceProviderUrl": "/cleartrial-ws/plans/10801/serviceProvider",
    "laborUrl": "/cleartrial-ws/plans/10801/labor",
    "laborMonthlyByMajorTaskUrl": "/cleartrial-ws/plans/
      labor?view=monthlyByMajorTask":
    "laborMonthlyByResourceUrl": "/cleartrial-ws/plans/
      labor?view=monthlyByResource",
    "costUrl": "/cleartrial-ws/plans/10801/cost",
    "costMonthlyUrl": "/cleartrial-ws/plans/cost?view=monthly",
    "url": "/cleartrial-ws/plans/10801"
  }
}
```

Sub-Resources:

- Locations
- Site Information
- Site Approval Schedule
- Data
- Subject
- Subject Enrollment Schedule
- Treatment
- Monitoring Information
- Monitoring Schedule
- Service Provider
- Labor
- Labor Monthly by Major Task
- Labor Monthly by Resource
- Cost
- Cost Monthly

Note: In Phase I Healthy Volunteers studies, the following field does not appear in the Get Plan API: Subject Enrollment Schedule.

Get Summary

Obtains a summary for a specified plan.

Method: GET

URL: /cleartrial-ws/plans/{planID}/summary

Sample output in JSON:

```
{
  "planSummary": {
    "planId": 50027,
    "studyStartDate": "30-May-2013",
    "earliestActivityDate": "30-May-2013",
    "latestActivityDate": "09-Oct-2015",
    "finalReportDate": "09-Oct-2015",
    "studyDuration": 862.0,
    "treatmentPeriodDuration": 602.0,
    "subjectsPerMonthPerSite": 0.54,
    "costPerCompletedSubject": 18996.44749705476,
    "feesHoursFtes": {
      "total": {
        "fees": 58260.47497054761059320782123904791660606861114501953125,
        "hours": 7813.6350025646388530731201171875,
        "ftes": 3.9069629
      },
      "taskSummaryGroup": [
        {
          "id": 1,
          "name": "Startup Fees",
          "provider": [
            {
              "id": 10104,
              "name": "Cleartrial Operations",
              "fees": 19175.4744262695312500,
              "hours": 887.616597175598144531250,
              "ftes": 1.2336452
            },
            {
              "id": 16303,
              "name": "!! TEST SP",
              "fees": 303.10033813642198641247205159743316471576690673828125,
              "hours": 600.5966637060046195983886718750,
              "ftes": 0.83473337
            }
          ]
        },
        {
          "id": 7,
          "name": "Other",
          "provider": [
            {
              "id": 16303,
              "name": "!! TEST SP",
              "fees": 0,
              "hours": 0,
              "ftes": 0.0
            }
          ]
        },
        {
          "id": 6,
          "name": "Medical Writing / Final Report",
          "provider": [
            {
              "id": 16303,
```

```
        "name": "!! TEST SP",
        "fees": 922.5649221995045081712305545806884765625,
        "hours": 304.208537042140960693359375,
        "ftes": 0.3787054
    }
}
},
{
    "id": 3,
    "name": "Data Management",
    "provider": [
        {
            "id": 16303,
            "name": "!! TEST SP",
            "fees": 2437.8518534520990215241909027099609375,
            "hours": 806.2866775989532470703125,
            "ftes": 0.18980163
        }
    ]
},
{
    "id": 2,
    "name": "Clinical Monitoring, Closeout, and Site Audit Fees",
    "provider": [
        {
            "id": 10104,
            "name": "Cleartrial Operations",
            "fees": 455.876678466796875,
            "hours": 21.6666660308837890625,
            "ftes": 0.0057697217
        },
        {
            "id": 16303,
            "name": "!! TEST SP",
            "fees": 1565.196786008775234222412109375,
            "hours": 704.093476258218288421630859375,
            "ftes": 0.1874965
        }
    ]
},
{
    "id": 5,
    "name": "Project Management / Study Oversight",
    "provider": [
        {
            "id": 10104,
            "name": "Cleartrial Operations",
            "fees": 27241.733464062213897705078125,
            "hours": 1115.1467763446271419525146484375,
            "ftes": 0.26250795
        },
        {
            "id": 16303,
            "name": "!! TEST SP",
            "fees": 577.16983725891225986970312078483402729034423828125,
            "hours": 2766.4996128380298614501953125,
            "ftes": 0.65124
        }
    ]
},
},
```

```

    {
      "id": 4,
      "name": "Biostatistics",
      "provider": [
        {
          "id": 16303,
          "name": "!! TEST SP",
          "fees": 5581.50666469335556030273437500,
          "hours": 607.51999557018280029296875,
          "ftes": 0.16306339
        }
      ]
    }
  ],
  "feesInflation": {
    "total": 668.934656583986,
    "provider": [
      {
        "id": 10104,
        "name": "Cleartrial Operations",
        "inflation": 0.0
      },
      {
        "id": 16303,
        "name": "!! TEST SP",
        "inflation": 668.934656583986
      }
    ]
  },
  "costs": {
    "total": {
      "cost": 131704,
      "inflation": 6049.825683116913
    },
    "cost": [
      {
        "id": 2,
        "name": "Miscellaneous",
        "description": "Miscellaneous costs may be marked up by service providers.",
        "provider": [
          {
            "id": 10104,
            "name": "Cleartrial Operations",
            "amount": 90,
            "inflation": 0.0
          }
        ],
        {
          "id": 16303,
          "name": "!! TEST SP",
          "amount": 2978,
          "inflation": 99.13089752197266
        }
      ]
    },
    {
      "id": 1,
      "name": "Pass Through",
      "description": "Pass through costs that are typically not marked up by

```

```
        service providers.",
        "provider": [
            {
                "id": 10104,
                "name": "Cleartrial Operations",
                "amount": 5000,
                "inflation": 0.0
            },
            {
                "id": 16303,
                "name": "!! TEST SP",
                "amount": 123636,
                "inflation": 5950.69478559494
            }
        ]
    }
}
},
"url": "/cleartrial-ws/plans/50027/summary"
}
```

Note: In Phase I Healthy Volunteers studies, the following additional field appears in the Get Summary API: CPU Pass-Through Cost.

Get Locations

Obtains the location representation for all locations for a specified plan.

Method: GET

URL: /cleartrial-ws/plans/{planID}/locations

Sample output in JSON:

```
{
  "planLocations": {
    "planId": 10802,
    "planLocation": [
      {
        "locationId": 104,
        "locationName": "Belgium",
        "numSites": 45,
        "numSubjects": 600,
        "grantAmountPerSubject": 9500,
        "grantAmountCurrency": "USD",
        "mohFdaDelayTime": 90
      },
      {
        ...
      },
      {
        ...
      }
    ],
    "url": "/cleartrial-ws/plans/10802/locations"
  }
}
```

Sub-Resources: None

Get Site Information

Obtains the site information representation for each location in a specified plan.

Method: GET

URL: /cleartrial-ws/plans/{planID}/siteInformation

Sample output in JSON:

```
{
  "siteInformation": {
    "planId": 49344,
    "locations": [
      {
        "locationId": 157,
        "locationName": "Australia",
        "numSites": 300,
        "percentSponsorSites": 45.0,
        "numSponsorSites": 135,
        "percentPreStudySiteVisits": 110.0,
        "numPreStudySiteVisits": 330,
        "percentPreStudySitePhoneVisits": 0.0,
        "numPreStudySitePhoneVisits": 0,
        "percentSiteInitVisits": 100.0,
        "numSiteInitVisits": 300,
        "percentSiteInitPhoneVisits": 0.0,
        "numSiteInitPhoneVisits": 0,
        "percentSiteCloseoutVisits": 100.0,
        "numOnSiteCloseoutVisits": 300,
        "percentSiteCloseoutPhoneVisits": 0.0,
        "numSiteCloseoutPhoneVisits": 0,
        "numGrantPaymentsPerSite": 10,
        "percentSitesLocalMonitor": 0.0,
        "numSitesLocalMonitor": 0,
        "percentSitesOverhead": 0.0,
        "numSitesOverhead": 0,
        "percentOverhead": 25.0,
        "numDrugShips": 1,
        "percentSitesAudit": 20.0,
        "numSitesAudit": 60,
        "pctRegulatoryDocsToCollect": 100.0,
        "percentSitesBothIrb": 0.0,
        "numSitesBothIrb": 0,
        "percentSitesOnlyCentralIrb": 100.0,
        "numSitesOnlyCentralIrb": 300,
        "percentSitesOnlyLocalIrb": 0.0,
        "numSitesOnlyLocalIrb": 0
      },
      {
        "locationId": 101,
        "locationName": "Canada",
        "numSites": 1212,
        "percentSponsorSites": 60.0,
        "numSponsorSites": 727,
        "percentPreStudySiteVisits": 110.0,
        "numPreStudySiteVisits": 1333,
        "percentPreStudySitePhoneVisits": 0.0,
        "numPreStudySitePhoneVisits": 0,

```

```
    "percentSiteInitVisits": 100.0,
    "numSiteInitVisits": 1212,
    "percentSiteInitPhoneVisits": 0.0,
    "numSiteInitPhoneVisits": 0,
    "percentSiteCloseoutVisits": 100.0,
    "numOnSiteCloseoutVisits": 1212,
    "percentSiteCloseoutPhoneVisits": 0.0,
    "numSiteCloseoutPhoneVisits": 0,
    "numGrantPaymentsPerSite": 10,
    "percentSitesLocalMonitor": 0.0,
    "numSitesLocalMonitor": 0,
    "percentSitesOverhead": 0.0,
    "numSitesOverhead": 0,
    "percentOverhead": 25.0,
    "numDrugShips": 1,
    "percentSitesAudit": 20.0,
    "numSitesAudit": 242,
    "pctRegulatoryDocsToCollect": 100.0,
    "percentSitesBothIrb": 0.0,
    "numSitesBothIrb": 0,
    "percentSitesOnlyCentralIrb": 100.0,
    "numSitesOnlyCentralIrb": 1212,
    "percentSitesOnlyLocalIrb": 0.0,
    "numSitesOnlyLocalIrb": 0
  }
],
  "url": "/cleartrial-ws/plans/49344/siteInformation"
}
```

Sub-Resources: None

Get Site Approval Schedules

Obtains the site approval schedule representation for each location for a specified plan.

Method: GET

URL: /cleartrial-ws/plans/{planID}/siteApprovalSchedule

Sample output in JSON:

```
{
  "approvalSchedules": {
    "planId": 49344,
    "location": [
      {
        "locationId": 101,
        "locationName": "Canada",
        "periods": [
          {
            "startDate": "08-Feb-2013",
            "endDate": "14-Feb-2013",
            "numSitesApprovedThisWeek": 0,
            "cumulativeNumSitesApproved": 0
          },
          {
            "startDate": "15-Feb-2013",
            "endDate": "21-Feb-2013",
            "numSitesApprovedThisWeek": 0,
            "cumulativeNumSitesApproved": 0
          }
        ]
      }
    ]
  }
}
```

```

        },
        {
            ...
        }
    ]
}
],
"url": "/cleartrial-ws/plans/50904/siteApprovalSchedule"
}
}

```

Sub-Resources: None

Get Subject

Obtains the subject representation for a specified plan.

Method: GET

URL: /cleartrial-ws/plans/{planID}/subject

Sample output in JSON:

```

{
  "subject": {
    "planId": 50011,
    "enrollmentPeriod": 26,
    "indicationEnrollmentType": "Chronic",
    "firstSubjectInDate": "31-Dec-2013",
    "numCRFPagesPerScreenFailure": 0,
    "locations": [
      {
        "locationId": 157,
        "locationName": "Australia",
        "numSubjectsToRandomize": 150,
        "screenFailureRate": 1.96,
        "numSubjectsScreen": 153,
        "amountPerScreenFailure": 0.0,
        "amountPerScreenFailureCurrency": "USD",
        "percentScreenFailuresAllowed": 0.0,
        "numScreenFailsAllowed": 0,
        "subjectDropRate": 1.0,
        "numSubjectsComplete": 148,
        "stipendPerScreenFailure": 0.0,
        "stipendPerScreenFailureCurrency": "USD"
      },
      {
        ...
      }
    ],
    "url": "/cleartrial-ws/plans/50011/subject"
  }
}

```

Get Subject returns a representation for Phase I Healthy Volunteers studies as follows.

Sample output in JSON:

```

{
  "subject": {
    "planId": 49308,

```

```
"firstSubjectInDate": "22-Apr-2013",
"numCRFPagesPerScreenFailure": 5,
"locations": [
  {
    "locationId": 100,
    "locationName": "USA",
    "numSubjectsToRandomize": 200,
    "percentAlternateSubjects": 10,
    "numAlternateSubjects": 20,
    "stipendPerAlternateSubject": 0,
    "stipendPerAlternateSubjectCurrency": "USD",
    "screenFailureRate": 50,
    "numSubjectsScreen": 440,
    "amountPerScreenFailure": 0,
    "amountPerScreenFailureCurrency": "USD",
    "percentScreenFailuresAllowed": 2,
    "numScreenFailsAllowed": 5,
    "subjectDropRate": 5,
    "numSubjectsComplete": 190,
    "stipendPerScreenFailure": 50,
    "stipendPerScreenFailureCurrency": "USD"
  }
  ...
],
"url": "/cleartrial-ws/plans/49308/subject"
}
```

Sub-resources: None

Get Data

Obtains the data collected representation for a specified plan.

Method: GET

URL: /cleartrial-ws/plans/{planID}/data

The data represented in the output varies based on the data collection method selected in the plan.

If a non-electronic data collection method is used, such as "Paper (Traditional Monitoring)," then the output is similar to the sample output in JSON as follows:

```
{
  "planData":{
    "planId":10802,
    "dataCollectionType":"Paper (Traditional Monitoring)",
    "queryRate":43.0,
    "numUniquePages":15,
    "pctDatabaseAudit":10.0,
    "numManuscripts":0,
    "numDataTransfers":0,
    "numInterimAnalyses":0,
    "crfPageNCRply":3,
    "numMinsCrfEntry":3.5728002,
    "costPerPageToPrint":1.35000002384186,
    "costPerPageCurrencyCode":"USD",
```

```

        "numMinsCrfCoord":4.137056,
        "numNewsletters":0,
        "numPagesInvestigatorBrochure":125,
        "numDataTables":19,
        "numDataListings":23,
        "numFigures":12,
        "numCpyDataTables": 6,
            "numPdDataListings": 9,
            "numCpyFigures": 10,
        "numDaysFromLpoToDbLock":14,
        "numDaysFromDbLockToStatReport":46,
        "numDaysFromDbLockToDraftReport":76,
        "numYearsArchive":5,
        "numDaysFromDbLockToFinalReport":106,
        "icfVideo":false,
        "numDataVendors":0,
        "numDataImports":0,
        "estPctSAE":3.0,
        "estNumSAE":56,
        "timeToMonitorSAE":4.0,
        "pctExpeditedSAE":0.0,
        "numExpeditedSAE":0,
        "dsmbReportingFrequency":"N/A",
        "ivrs": [
            "Randomization",
            "Drug Distribution",
            "Subject Diary"
        ],
        "url":"/cleartrial-ws/plans/10802/data"
    }
}

```

If the data collection method is an electronic data capture method, then the output is similar to the representation that follows. One or more of these fields will be present in the output:

- edcMaturityLevel
- numEdcScreensPerCrfPage
- numOnlineEdcTrainingSessions

These fields will not be present:

- crfPageNCRply
- costPerPageToPrint
- costPerPageCurrencyCode

Sample output in JSON:

```

{
  "planData": {
    "planId": 10802,
    "dataCollectionType":"Electronic Data Capture",
    "edcMaturityLevel":"Stage 1: Pilot / Single Study",
    "queryRate": 30.0,
    "numUniquePages": 15,
    "numScreensPerCrfPage": 15,
    "pctDatabaseAudit": 10.0,
    "numManuscripts": 0,
    "numDataTransfers": 0,

```

```
"numInterimAnalyses": 0,
"numMinsCrfEntry": 0.0,
"numMinsCrfCoord": 1.0,
"numOnlineEdcTrainingSessions": 3,
"numNewsletters": 0,
"numPagesInvestigatorBrochure": 125,
"numDataTables": 19,
"numDataListings": 23,
"numFigures": 12,
"numCpyDataTables": 6,
                        "numCpyDataListings": 9,
                        "numCpyFigures": 10,
"numDaysFromLpoToDbLock": 30,
"numDaysFromDbLockToStatReport": 45,
"numDaysFromDbLockToDraftReport": 73,
"numYearsArchive": 5,
"numDaysFromDbLockToFinalReport": 98,
"icfVideo": false,
"numDataVendors": 0,
"numDataImports": 0,
"estPctSAE": 3.0,
"estNumSAE": 56,
"timeToMonitorSAE": 4.0,
"pctExpeditedSAE": 0.0,
"numExpeditedSAE": 0,
"dsmbReportingFrequency": "N/A",
"ivrs": [
    "Randomization",
    "Drug Distribution",
    "Subject Diary"
],
"url": "/cleartrial-ws/plans/10802/data"
}
}
```

Get Data returns a representation for Phase I Healthy Volunteers studies as follows.

Sample output in JSON:

```
{
  "planData": {
    "planId": 49308,
    "dataCollectionType": "Electronic Data Capture",
    "edcMaturityLevel": "Stage 3: Standardization",
    "queryRate": 15,
    "numUniquePages": 3,
    "numScreensPerCrfPage": 3,
    "pctDatabaseAudit": 10,
    "numManuscripts": 0,
    "numDataTransfers": 0,
    "numInterimAnalyses": 0,
    "numMinsCrfEntry": 0,
    "numMinsCrfCoord": 1,
    "numOnlineEdcTrainingSessions": 1,
    "numNewsletters": 0,
    "numPagesInvestigatorBrochure": 125,
    "numDataTables": 4,
    "numDataListings": 5,
    "numFigures": 2,
    "numPkPdDataTables": 4,
  }
}
```

```

    "numPkPdListings": 5,
    "numPkPdFigures": 2,
    "numCpyPkPdDataTables": 6,
        "numCpyPkPdDataListings": 9,
        "numCpyPkPdFigures": 10,
    "numDaysFromLpoToDbLock": 42,
    "numDaysFromDbLockToStatReport": 46,
    "numDaysFromDbLockToDraftReport": 76,
    "numYearsArchive": 10,
    "numDaysFromDbLockToFinalReport": 91,
    "icfVideo": false,
    "numDataVendors": 0,
    "numDataImports": 0,
    "estPctSAE": 0,
    "estNumSAE": 0,
    "timeToMonitorSAE": 0,
    "pctExpeditedSAE": 0,
    "numExpeditedSAE": 0,
    "dsmbReportingFrequency": "N/A",
    "ivrs": [
        "Randomization",
        "Drug Distribution",
        "Subject Diary"
    ],
    "url": "/cleartrial-ws/plans/49308/data"
}
}

```

Sub-Resources: None

Get Subject Enrollment Schedule

Obtains the subject enrollment schedule representation for each location in a specified plan.

Method: GET

URL: /cleartrial-ws/plans/{planID}/subjectEnrollmentSchedule

Sample output in JSON:

```

{
  "enrollmentSchedules": {
    "planId": 50011,
    "location": [
      {
        "locationId": 101,
        "locationName": "Canada",
        "periods": [
          {
            "startDate": "31-Dec-2013",
            "endDate": "07-Jan-2014",
            "numSubjectsEnrolled": 8,
            "cumulativeSubjectsEnrolled": 8
          },
          {
            "startDate": "07-Jan-2014",
            "endDate": "14-Jan-2014",
            "numSubjectsEnrolled": 9,
            "cumulativeSubjectsEnrolled": 17
          }
        ]
      }
    ]
  }
}

```

```
{
  ...
},
{
  "locationId": 100,
  "locationName": "USA",
  "periods" : [
    {

    },
    {

    },
    {
      ...
      ...
    }
  ]
},
{
  ...
}
],
"url":"/cleartrial-ws/plans/10802/subjectEnrollmentSchedule"
}
```

Sub-Resources: None

Note: If you issue this call for a Phase I Healthy Volunteers plan, the ClearTrial Web Services API returns a message, 404 Not Found Code, because this resource does not exist for Phase I Healthy Volunteers plans.

Get Treatment

Obtains the treatment information representation for a specified plan.

Method: GET

URL: /cleartrial-ws/plans/{planID}/treatment

If the study is not an endpoint study, then the representation is similar to the one that follows.

Sample output in JSON:

```
{
  "treatments": {
    "planId": 50411,
    "trialDesign": "Parallel",
    "electronicSubjectDiary": false,
    "endpointStudy": false,
    "treatment": [
      {
        "treatmentId": 1,
        "duration": 6,
        "durationUnit": "week",
```

```

    "numSubjectVisits": 5,
    "standardTreatment": {
      "numCrFPagesPerSubject": 100,
      "numQOLDataPages": 0,
      "numSubjectDiaryPages": 0,
      "numPharmacoDataPages": 0,
      "monitoringMinutesPerCrFPage": 5.667
    },
    "treatmentLocations": [
      {
        "locationId": 157,
        "locationName": "Australia",
        "grantAmountPerSubject": 5632.0,
        "grantAmountPerSubjectCurrency": "USD",
        "stipendPerEnrolledSubject": 0.0,
        "stipendPerEnrolledSubjectCurrency": "USD"
      },
      {
        "locationId": 101,
        "locationName": "Canada",
        "grantAmountPerSubject": 4536.0,
        "grantAmountPerSubjectCurrency": "USD",
        "stipendPerEnrolledSubject": 0.0,
        "stipendPerEnrolledSubjectCurrency": "USD"
      }
    ],
    "treatmentSchedule": [
      {
        "periodNum": 0,
        "numCRFPages": 26,
        "monitoringTimeMins": 165.98401,
        "pctOfGrant": 20.3125
      },
      {
        "periodNum": 2,
        "numCRFPages": 17,
        "monitoringTimeMins": 99.845764,
        "pctOfGrant": 13.28125
      },
      {
        "periodNum": 3,
        "numCRFPages": 18,
        "monitoringTimeMins": 105.71904,
        "pctOfGrant": 14.0625
      },
      {
        "periodNum": 5,
        "numCRFPages": 17,
        "monitoringTimeMins": 99.845764,
        "pctOfGrant": 13.28125
      },
      {
        "periodNum": 6,
        "numCRFPages": 22,
        "monitoringTimeMins": 129.21216,
        "pctOfGrant": 17.1875
      }
    ]
  }
],

```

```
        "url": "/cleartrial-ws/plans/50411/treatment"
    }
}
```

If the study is an endpoint study, then the output is similar to the representation that follows.

Sample output in JSON:

```
{
  "treatments": {
    "planId": 50411,
    "trialDesign": "Parallel",
    "electronicSubjectDiary": false,
    "endpointStudy": true,
    "endpointDetails": {
      "weeksFromFsiToEndpoint": 54,
      "endpointDate": "11-Dec-2014",
      "extendedTreatmentFrequencyInWeeks": 4
    },
  },
  "treatment": [
    {
      "treatmentId": 1,
      "duration": 6,
      "durationUnit": "week",
      "numSubjectVisits": 5,
      "standardTreatment": {
        "numCrFPagesPerSubject": 100,
        "numQOLDataPages": 0,
        "numSubjectDiaryPages": 0,
        "numPharmacoDataPages": 0,
        "monitoringMinutesPerCrFPage": 5.667
      },
      "extendedTreatment": {
        "numCrFPagesPerExtendedVisit": 7,
        "numQOLDataPagesPerExtendedVisit": 0,
        "numSubjectDiaryPagesPerExtendedVisit": 0,
        "numPharmacoDataPagesPerExtendedVisit": 0
      },
    },
    "treatmentLocations": [
      {
        "locationId": 157,
        "locationName": "Australia",
        "grantAmountPerSubject": 5632.0,
        "grantAmountPerSubjectCurrency": "USD",
        "stipendPerEnrolledSubject": 0.0,
        "stipendPerEnrolledSubjectCurrency": "USD"
      },
      {
        "locationId": 101,
        "locationName": "Canada",
        "grantAmountPerSubject": 4536.0,
        "grantAmountPerSubjectCurrency": "USD",
        "stipendPerEnrolledSubject": 0.0,
        "stipendPerEnrolledSubjectCurrency": "USD"
      }
    ],
    "treatmentSchedule": [
      {
        "periodNum": 0,

```

```

        "numCRFPages": 26,
        "monitoringTimeMins": 165.98401,
        "pctOfGrant": 14.130434782608695,
        "extendedTreatmentSegment": false
    },
    {
        "periodNum": 2,
        "numCRFPages": 17,
        "monitoringTimeMins": 99.845764,
        "pctOfGrant": 9.239130434782608,
        "extendedTreatmentSegment": false
    },
    {
        "periodNum": 3,
        "numCRFPages": 18,
        "monitoringTimeMins": 105.71904,
        "pctOfGrant": 9.782608695652174,
        "extendedTreatmentSegment": false
    },
    {
        "periodNum": 5,
        "numCRFPages": 17,
        "monitoringTimeMins": 99.845764,
        "pctOfGrant": 9.239130434782608,
        "extendedTreatmentSegment": false
    },
    {
        "periodNum": 6,
        "numCRFPages": 22,
        "monitoringTimeMins": 129.21216,
        "pctOfGrant": 11.956521739130435,
        "extendedTreatmentSegment": false
    },
    {
        "periodNum": 10,
        "numCRFPages": 7,
        "monitoringTimeMins": 41.11296,
        "pctOfGrant": 3.804347826086957,
        "extendedTreatmentSegment": true
    },
    {
        "periodNum": 14,
        "numCRFPages": 7,
        "monitoringTimeMins": 41.11296,
        "pctOfGrant": 3.804347826086957,
        "extendedTreatmentSegment": true
    },
    {
        "periodNum": 18,
        "numCRFPages": 7,
        "monitoringTimeMins": 41.11296,
        "pctOfGrant": 3.804347826086957,
        "extendedTreatmentSegment": true
    },
    {
        "periodNum": 22,
        "numCRFPages": 7,
        "monitoringTimeMins": 41.11296,
        "pctOfGrant": 3.804347826086957,
        "extendedTreatmentSegment": true
    }

```

```
    },
    {
      "periodNum": 26,
      "numCRFPages": 7,
      "monitoringTimeMins": 41.11296,
      "pctOfGrant": 3.804347826086957,
      "extendedTreatmentSegment": true
    },
    {
      "periodNum": 30,
      "numCRFPages": 7,
      "monitoringTimeMins": 41.11296,
      "pctOfGrant": 3.804347826086957,
      "extendedTreatmentSegment": true
    },
    {
      "periodNum": 34,
      "numCRFPages": 7,
      "monitoringTimeMins": 41.11296,
      "pctOfGrant": 3.804347826086957,
      "extendedTreatmentSegment": true
    },
    {
      "periodNum": 38,
      "numCRFPages": 7,
      "monitoringTimeMins": 41.11296,
      "pctOfGrant": 3.804347826086957,
      "extendedTreatmentSegment": true
    },
    {
      "periodNum": 42,
      "numCRFPages": 7,
      "monitoringTimeMins": 41.11296,
      "pctOfGrant": 3.804347826086957,
      "extendedTreatmentSegment": true
    },
    {
      "periodNum": 46,
      "numCRFPages": 7,
      "monitoringTimeMins": 41.11296,
      "pctOfGrant": 3.804347826086957,
      "extendedTreatmentSegment": true
    },
    {
      "periodNum": 50,
      "numCRFPages": 7,
      "monitoringTimeMins": 41.11296,
      "pctOfGrant": 3.804347826086957,
      "extendedTreatmentSegment": true
    },
    {
      "periodNum": 54,
      "numCRFPages": 7,
      "monitoringTimeMins": 41.11296,
      "pctOfGrant": 3.804347826086957,
      "extendedTreatmentSegment": true
    }
  ]
}
```

```

    "url": "/cleartrial-ws/plans/50411/treatment"
  }
}

```

If the study is a parallel Phase I Healthy Volunteers study, then the output is similar to the representation that follows.

Sample output in JSON:

```

{
  "treatments": {
    "planId": 51113,
    "trialDesign": "Parallel",
    "electronicSubjectDiary": false,
    "costPerBedNight": 100.0,
    "costPerBedNightCurrency": "USD",
    "treatment": [
      {
        "treatmentId": 1,
        "duration": 10,
        "durationUnit": "day",
        "numSubjectVisits": 10,
        "numBedNights": 10,
        "standardTreatment": {
          "numCrFPagesPerSubject": 50,
          "numQOLDataPages": 0,
          "numSubjectDiaryPages": 0,
          "numPharmacoDataPages": 0,
          "monitoringMinutesPerCrFPage": 5.667
        },
        "treatmentLocations": [
          {
            "locationId": 103,
            "locationName": "Austria",
            "procedureCost": 1000.0,
            "procedureCostCurrency": "USD",
            "specialProcedureCost": 0.0,
            "specialProcedureCostCurrency": "USD",
            "stipendPerEnrolledSubject": 0.0,
            "stipendPerEnrolledSubjectCurrency": "USD"
          },
          {
            "locationId": 194,
            "locationName": "Puerto Rico",
            "procedureCost": 1000.0,
            "procedureCostCurrency": "USD",
            "specialProcedureCost": 0.0,
            "specialProcedureCostCurrency": "USD",
            "stipendPerEnrolledSubject": 0.0,
            "stipendPerEnrolledSubjectCurrency": "USD"
          }
        ],
        "treatmentSchedule": [
          {
            "periodNum": 0,
            "numCRFPages": 11,
            "monitoringTimeMins": 49.764,
            "pctOfGrant": 22.0
          },
          {
            "periodNum": 1,

```

```
        "numCRFPages": 4,
        "monitoringTimeMins": 16.648321,
        "pctOfGrant": 8.0
    },
    {
        "periodNum": 2,
        "numCRFPages": 4,
        "monitoringTimeMins": 16.648321,
        "pctOfGrant": 8.0
    },
    {
        "periodNum": 3,
        "numCRFPages": 4,
        "monitoringTimeMins": 16.648321,
        "pctOfGrant": 8.0
    },
    {
        "periodNum": 5,
        "numCRFPages": 4,
        "monitoringTimeMins": 16.648321,
        "pctOfGrant": 8.0
    },
    {
        "periodNum": 6,
        "numCRFPages": 4,
        "monitoringTimeMins": 16.648321,
        "pctOfGrant": 8.0
    },
    {
        "periodNum": 7,
        "numCRFPages": 4,
        "monitoringTimeMins": 16.648321,
        "pctOfGrant": 8.0
    },
    {
        "periodNum": 8,
        "numCRFPages": 4,
        "monitoringTimeMins": 16.648321,
        "pctOfGrant": 8.0
    },
    {
        "periodNum": 9,
        "numCRFPages": 4,
        "monitoringTimeMins": 16.648321,
        "pctOfGrant": 8.0
    },
    {
        "periodNum": 10,
        "numCRFPages": 7,
        "monitoringTimeMins": 29.134562,
        "pctOfGrant": 14.000000000000002
    }
]
},
"url": "/cleartrial-ws/plans/51113/treatment"
}
```

If the study is a late-stage crossover study, then the output is similar to the representation that follows.

Sample output in JSON:

```
{
  "treatments": {
    "planId": 50413,
    "trialDesign": "Cross-over",
    "crossoverDesignType": "Latin Square",
    "electronicSubjectDiary": false,
    "endpointStudy": false,
    "baselineAndWashoutDetails": {
      "numCRFPages": 6,
      "monitoringTimeMins": 27.456001,
      "washoutPeriod": 0,
      "washoutPeriodUnit": "week"
    },
  },
  "treatment": [
    {
      "treatmentId": 1,
      "duration": 250,
      "durationUnit": "week",
      "numSubjectVisits": 150,
      "standardTreatment": {
        "numCrfPagesPerSubject": 300,
        "numQOLDataPages": 0,
        "numSubjectDiaryPages": 0,
        "numPharmacoDataPages": 0,
        "monitoringMinutesPerCrfPage": 5.667
      },
    },
    "treatmentLocations": [
      {
        "locationId": 157,
        "locationName": "Australia",
        "grantAmountPerSubject": 2261.0,
        "grantAmountPerSubjectCurrency": "USD",
        "stipendPerEnrolledSubject": 0.0,
        "stipendPerEnrolledSubjectCurrency": "USD"
      }
    ],
    "treatmentSchedule": [
      {
        "periodNum": 2,
        "numCRFPages": 2,
        "monitoringTimeMins": 8.32
      },
      {
        "periodNum": 3,
        "numCRFPages": 2,
        "monitoringTimeMins": 8.32
      },
      {
        "periodNum": 100,
        "numCRFPages": 2,
        "monitoringTimeMins": 8.32
      },
      {
        "periodNum": 247,
        "numCRFPages": 2,
        "monitoringTimeMins": 8.32
      }
    ]
  }
}
```

```
    },
    {
      "periodNum": 248,
      "numCRFPages": 2,
      "monitoringTimeMins": 8.32
    },
    {
      "periodNum": 250,
      "numCRFPages": 2,
      "monitoringTimeMins": 8.32
    }
  ]
},
{
  "treatmentId": 2,
  "duration": 250,
  "durationUnit": "week",
  "numSubjectVisits": 150,
  "standardTreatment": {
    "numCrfPagesPerSubject": 300,
    "numQOLDataPages": 0,
    "numSubjectDiaryPages": 0,
    "numPharmacoDataPages": 0,
    "monitoringMinutesPerCrfPage": 5.667
  },
  "treatmentLocations": [
    {
      "locationId": 157,
      "locationName": "Australia",
      "grantAmountPerSubject": 2260.0,
      "grantAmountPerSubjectCurrency": "USD",
      "stipendPerEnrolledSubject": 0.0,
      "stipendPerEnrolledSubjectCurrency": "USD"
    }
  ],
  "treatmentSchedule": [
    {
      "periodNum": 2,
      "numCRFPages": 2,
      "monitoringTimeMins": 8.32
    },
    {
      "periodNum": 3,
      "numCRFPages": 2,
      "monitoringTimeMins": 8.32
    },
    {
      "periodNum": 250,
      "numCRFPages": 2,
      "monitoringTimeMins": 8.32
    }
  ]
}
],
"url": "/cleartrial-ws/plans/50413/treatment"
}
}
```

If the study is a Phase I Healthy Volunteers crossover study, then the output is similar to the representation that follows.

Sample output in JSON:

```
{
  "treatments": {
    "planId": 51113,
    "trialDesign": "Cross-over",
    "crossoverDesignType": "Latin Square",
    "electronicSubjectDiary": false,
    "costPerBedNight": 100.0,
    "costPerBedNightCurrency": "USD",
    "baselineAndWashoutDetails": {
      "numCRFPages": 77,
      "monitoringTimeMins": 348.34802,
      "washoutPeriod": 10,
      "washoutPeriodUnit": "day",
      "washoutPeriodBedNights": 10
    },
    "treatment": [
      {
        "treatmentId": 1,
        "duration": 10,
        "durationUnit": "day",
        "numSubjectVisits": 10,
        "numBedNights": 10,
        "standardTreatment": {
          "numCrfPagesPerSubject": 50,
          "numQOLDataPages": 0,
          "numSubjectDiaryPages": 0,
          "numPharmacoDataPages": 0,
          "monitoringMinutesPerCrfPage": 5.667
        },
        "treatmentLocations": [
          {
            "locationId": 103,
            "locationName": "Austria",
            "procedureCost": 500.0,
            "procedureCostCurrency": "USD",
            "specialProcedureCost": 0.0,
            "specialProcedureCostCurrency": "USD",
            "stipendPerEnrolledSubject": 0.0,
            "stipendPerEnrolledSubjectCurrency": "USD"
          },
          {
            "locationId": 194,
            "locationName": "Puerto Rico",
            "procedureCost": 500.0,
            "procedureCostCurrency": "USD",
            "specialProcedureCost": 0.0,
            "specialProcedureCostCurrency": "USD",
            "stipendPerEnrolledSubject": 0.0,
            "stipendPerEnrolledSubjectCurrency": "USD"
          }
        ],
        "treatmentSchedule": [
          {
            "periodNum": 1,
            "numCRFPages": 5,
            "monitoringTimeMins": 20.810402
          },
          {
            "periodNum": 2,
```

```
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 3,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 4,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 5,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 6,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 7,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 8,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 9,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 10,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    }
]
},
{
    "treatmentId": 2,
    "duration": 10,
    "durationUnit": "day",
    "numSubjectVisits": 10,
    "numBedNights": 10,
    "standardTreatment": {
        "numCrfPagesPerSubject": 50,
        "numQOLDataPages": 0,
        "numSubjectDiaryPages": 0,
        "numPharmacoDataPages": 0,
        "monitoringMinutesPerCrfPage": 5.667
    },
    "treatmentLocations": [
        {
```

```

        "locationId": 103,
        "locationName": "Austria",
        "procedureCost": 500.0,
        "procedureCostCurrency": "USD",
        "specialProcedureCost": 0.0,
        "specialProcedureCostCurrency": "USD",
        "stipendPerEnrolledSubject": 0.0,
        "stipendPerEnrolledSubjectCurrency": "USD"
    },
    {
        "locationId": 194,
        "locationName": "Puerto Rico",
        "procedureCost": 500.0,
        "procedureCostCurrency": "USD",
        "specialProcedureCost": 0.0,
        "specialProcedureCostCurrency": "USD",
        "stipendPerEnrolledSubject": 0.0,
        "stipendPerEnrolledSubjectCurrency": "USD"
    }
],
"treatmentSchedule": [
    {
        "periodNum": 1,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 2,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 3,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 4,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 5,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 6,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 7,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    },
    {
        "periodNum": 8,
        "numCRFPages": 5,
        "monitoringTimeMins": 20.810402
    }
]

```

```
    },
    {
      "periodNum": 9,
      "numCRFPages": 5,
      "monitoringTimeMins": 20.810402
    },
    {
      "periodNum": 10,
      "numCRFPages": 5,
      "monitoringTimeMins": 20.810402
    }
  ]
},
"url": "/cleartrial-ws/plans/51113/treatment"
}
Sub-Resources: None
```

Get Monitoring Information

Obtains the monitoring information representation for a specified plan. This includes the on-site and phone-based monitoring frequency information. The output differs subtly based on whether the monitoring is performed globally or at a per-location level. Both variations are shown in the samples below.

Method: GET

URL: /cleartrial-ws/plans/{planID}/monitoringInformation

Sample output in JSON showing monitoring per location and without phone-based monitoring:

```
{
  "monitoringInformation": {
    "planId": 50011,
    "scheduleManagedPerLocation": true,
    "numCRFPages": 42900.0,
    "numCRFPagesWithDrops": 42692,
    "medicalMonitoringFtes": 0.044650666,
    "separateDrugAccountability": false,
    "staffPositionForDrugAccountability": "Not Applicable",
    "numAdditionalDrugAccountabilityPerSite": 0,
    "onSiteMonitoringFrequency": [
      {
        "locationId": 101,
        "locationName": "Canada",
        "intervals": [
          {
            "frequency": 2,
            "startDate": "31-Dec-2013",
            "endDate": "21-Jan-2014"
          },
          {
            "frequency": 5,
            "startDate": "21-Jan-2014",
            "endDate": "07-Oct-2014"
          }
        ]
      }
    ]
  },
  {
```

```

        "locationId": 157,
        "locationName": "Australia",
        "intervals": [
            {
                "frequency": 2,
                "startDate": "11-Feb-2014",
                "endDate": "04-Mar-2014"
            },
            {
                "frequency": 5,
                "startDate": "04-Mar-2014",
                "endDate": "15-Apr-2014"
            },
            {
                "frequency": 5,
                "startDate": "15-Apr-2014",
                "endDate": "20-May-2014"
            },
            {
                "frequency": 5,
                "startDate": "20-May-2014",
                "endDate": "18-Nov-2014"
            }
        ]
    },
    "locationMonitoringDetails": [
        {
            "locationId": 101,
            "locationName": "Canada",
            "pctCRAFieldTime": 65.0,
            "pctMonTimeByCRA": 100.0,
            "percentRegionalMonitoring": 0.0,
            "pctDataChecked": 100.0,
            "timeToReviewPrevData": 7.168,
            "avgTravelTime": 5.0,
            "useOnSiteMonitoring": true,
            "usePhoneBasedMonitoring": false,
            "monitoringTravelStrategy": "Loop",
            "numMonitorTrips": 900
        },
        {
            "locationId": 157,
            "locationName": "Australia",
            "pctCRAFieldTime": 65.0,
            "pctMonTimeByCRA": 100.0,
            "percentRegionalMonitoring": 0.0,
            "pctDataChecked": 100.0,
            "timeToReviewPrevData": 7.168,
            "avgTravelTime": 5.0,
            "useOnSiteMonitoring": true,
            "usePhoneBasedMonitoring": false,
            "monitoringTravelStrategy": "Loop",
            "numMonitorTrips": 900
        }
    ],
    "url": "/cleartrial-ws/plans/50011/monitoringInformation"
}

```

Sample output in JSON showing monitoring globally and without phone-based monitoring:

```
{
  "monitoringInformation": {
    "planId": 50011,
    "scheduleManagedPerLocation": false,
    "numMonitorTrips": 1800,
    "numCRFPages": 42900.0,
    "numCRFPagesWithDrops": 42692,
    "medicalMonitoringFtes": 0.044650666,
    "separateDrugAccountability": false,
    "staffPositionForDrugAccountability": "Not Applicable",
    "numAdditionalDrugAccountabilityPerSite": 0,
    "onSiteMonitoringFrequency": [
      {
        "locationId": 101,
        "locationName": "Canada",
        "intervals": [
          {
            "frequency": 2,
            "startDate": "31-Dec-2013",
            "endDate": "21-Jan-2014"
          },
          {
            "frequency": 5,
            "startDate": "21-Jan-2014",
            "endDate": "07-Oct-2014"
          }
        ]
      }
    ],
    {
      "locationId": 157,
      "locationName": "Australia",
      "intervals": [
        {
          "frequency": 2,
          "startDate": "11-Feb-2014",
          "endDate": "04-Mar-2014"
        },
        {
          "frequency": 5,
          "startDate": "04-Mar-2014",
          "endDate": "18-Nov-2014"
        }
      ]
    }
  ],
  "locationMonitoringDetails": [
    {
      "locationId": 101,
      "locationName": "Canada",
      "pctCRAFieldTime": 65.0,
      "pctMonTimeByCRA": 100.0,
      "percentRegionalMonitoring": 0.0,
      "pctDataChecked": 100.0,
      "timeToReviewPrevData": 7.168,
      "avgTravelTime": 5.0,
      "useOnSiteMonitoring": true,
      "usePhoneBasedMonitoring": false,
      "monitoringTravelStrategy": "Loop"
    }
  ]
}
```

```

    },
    {
      "locationId": 157,
      "locationName": "Australia",
      "pctCRAFieldTime": 65.0,
      "pctMonTimeByCRA": 100.0,
      "percentRegionalMonitoring": 0.0,
      "pctDataChecked": 100.0,
      "timeToReviewPrevData": 7.168,
      "avgTravelTime": 5.0,
      "useOnSiteMonitoring": true,
      "usePhoneBasedMonitoring": false,
      "monitoringTravelStrategy": "Loop"
    }
  ],
  "url": "/cleartrial-ws/plans/50011/monitoringInformation"
}

```

Sample output in JSON showing monitoring globally and with phone-based monitoring:

```

{
  "monitoringInformation": {
    "planId": 50011,
    "scheduleManagedPerLocation": false,
    "numMonitorTrips": 1800,
    "numDefaultPhoneBasedMonitoringVisits": 1600,
    "numCRFPages": 42900.0,
    "numCRFPagesWithDrops": 42692,
    "medicalMonitoringFtes": 0.044650666,
    "separateDrugAccountability": false,
    "staffPositionForDrugAccountability": "Not Applicable",
    "numAdditionalDrugAccountabilityPerSite": 0,
    "onSiteMonitoringFrequency": [
      {
        "locationId": 101,
        "locationName": "Canada",
        "intervals": [
          {
            "frequency": 2,
            "startDate": "31-Dec-2013",
            "endDate": "21-Jan-2014"
          },
          {
            "frequency": 5,
            "startDate": "21-Jan-2014",
            "endDate": "07-Oct-2014"
          }
        ]
      },
      {
        "locationId": 157,
        "locationName": "Australia",
        "intervals": [
          {
            "frequency": 2,
            "startDate": "11-Feb-2014",
            "endDate": "04-Mar-2014"
          }
        ]
      }
    ]
  }
}

```

```
        "frequency": 5,
        "startDate": "04-Mar-2014",
        "endDate": "18-Nov-2014"
      }
    ]
  },
  ],
  "phoneMonitoringFrequency": [
    {
      "locationId": 101,
      "locationName": "Canada",
      "intervals": [
        {
          "frequency": 5,
          "startDate": "31-Dec-2013",
          "endDate": "07-Oct-2014"
        }
      ]
    },
    {
      "locationId": 157,
      "locationName": "Australia",
      "intervals": [
        {
          "frequency": 5,
          "startDate": "11-Feb-2014",
          "endDate": "18-Nov-2014"
        }
      ]
    }
  ],
  "locationMonitoringDetails": [
    {
      "locationId": 101,
      "locationName": "Canada",
      "pctCRAFieldTime": 65.0,
      "pctMonTimeByCRA": 100.0,
      "percentRegionalMonitoring": 0.0,
      "pctDataChecked": 100.0,
      "timeToReviewPrevData": 7.168,
      "avgTravelTime": 5.0,
      "useOnSiteMonitoring": true,
      "usePhoneBasedMonitoring": true,
      "monitoringTravelStrategy": "Loop",
      "avgHoursPerPhoneBasedVisit": 4.0
    },
    {
      "locationId": 157,
      "locationName": "Australia",
      "pctCRAFieldTime": 65.0,
      "pctMonTimeByCRA": 100.0,
      "percentRegionalMonitoring": 0.0,
      "pctDataChecked": 100.0,
      "timeToReviewPrevData": 7.168,
      "avgTravelTime": 5.0,
      "useOnSiteMonitoring": true,
      "usePhoneBasedMonitoring": true,
      "monitoringTravelStrategy": "Loop",
      "avgHoursPerPhoneBasedVisit": 4.0
    }
  ]
}
```

```

    ],
    "url": "/cleartrial-ws/plans/50011/monitoringInformation"
  }
}

```

Get Monitoring Schedule

Obtains the monitoring schedule representation for each location in a specified plan.

Method: GET

URL: /cleartrial-ws/plans/{planID}/monitoringSchedule

Sample output in JSON:

```

{
  "monitoringSchedule":{
    "planId":10802,
    "location":[
      {
        "locationId":100,
        "locationName":"USA",
        "periods":[
          {
            "periodDate":"23-Sep-2010",
            "crfPagesWithDrop":180.0,
            "totalTimePerSiteVisit":1.0,
            "monitoringDays":0.0
          },
          {
            ...
            ...
          },
          ...
          ...
        ]
      },
      {
        "locationId":101,
        ...
      },
      {
        ...
        ...
      }
    ],
    "url":"/cleartrial-ws/plans/10802/monitoringSchedule"
  }
}

```

Sub-Resources: None

Get Service Providers

Obtains the service providers that are used in the specified plan.

Method: GET

URL: /cleartrial-ws/plans/{planID}/serviceProvider

Sample output in JSON:

```
{
  "serviceProvider": {
    "planId": 10802,
    "provider": [
      {
        "name": "QA",
        "defaultBillingRateLocation": "USA",
        "effectiveRateYear": 2010,
        "useCompoundInflation": true,
        "discountRate": 0.0,
        "pmUtilizationPrior": 0.0,
        "pmUtilizationPost": 0.0,
        "staffUtilization": 60.0,
        "numAffiliates": 0,
        "manageCtms": false
      },
      {
        "name": "Premium CRO",
        "defaultBillingRateLocation": "USA",
        "effectiveRateYear": 2010,
        "useCompoundInflation": true,
        "discountRate": 0.0,
        "pmUtilizationPrior": 160.545,
        "pmUtilizationPost": 160.545,
        "staffUtilization": 80.0,
        "numAffiliates": 0,
        "manageCtms": false
      },
      ...
    ],
    "url": "/cleartrial-ws/plans/10802/serviceProvider"
  }
}
```

Sub-Resources: None

Get Service Provider

Provides details about the service provider for whose scope of work the RFP was created.

Method: GET

URL: /cleartrial-ws/plans/<planID>/serviceProvider/<serviceProviderId>

Sample output in JSON:

```
{
  "serviceProvider": {
    "planId": 32610,
    "provider": [
      {
        "name": "2.4.1_CRO",
        "defaultBillingRateLocation": "UK",
        "effectiveRateYear": 2008,
        "useCompoundInflation": false,
        "discountRate": 0,
        "pmUtilizationPrior": 186.89998,

```

```

        "pmUtilizationPost": 186.89998,
        "staffUtilization": 80,
        "numAffiliates": 0,
        "manageCtms": false
    }
],
"url": "/cleartrial-ws/plans/32610/serviceProvider/200" [<= where 200 is
service provider id]
}
}

```

Get Labor

Shows the breakdown of labor by major task, task, location, and resources.

Method: GET

URL: /cleartrial-ws/plans/{planID}/labor

Sample output in JSON:

```

{
  "planLabor": {
    "planId": 10802,
    "currency": "USD"
    "majorTask": [
      {
        "id": 2,
        "name": "Project Initiated",
        "unitOfMeasure": "Study",
        "task": [
          {
            "id": 2,
            "name": "Develop scope of work, timeline, work assignments",
            "location": [
              {
                "locationId": 0,
                "locationName": "All Locations",
                "resource": [
                  {
                    "id": 1,
                    "name": "CR01 - Clinical Research Associate",
                    "code": "CR01",
                    "serviceProviderId": 10201,
                    "serviceProviderName": "QA",
                    "startDate": "01-Apr-2010",
                    "endDate": "23-Sep-2010",
                    "billingRate": 0.0,
                    "unitCost": 0.0,
                    "unitHours": 0.0,
                    "cost": 0.0,
                    "hours": 0.0,
                    "numUnits": 1.0
                  },
                  {
                    "id": 2,
                    "name": "CR02 - Senior Clinical Research Associate",
                    ...
                  },
                  ...
                ]
              },
              ...
            ]
          },
          ...
        ]
      },
      ...
    ]
  }
}

```

```
    }
  ]
}
],
{
  "id": 31,
  "name": "Study Setup Per-Location",
  "unitOfMeasure": "Location(s)",
  "task": [
    {
      "id": 303,
      "name": "Translate Investigator Brochure",
      "location": [
        {
          "locationId": 100,
          "locationName": "USA",
          "resource": [
            {
              "id": 1,
              "name": "CR01 - Clinical Research Associate",
              "code": "CR01",
              "serviceProviderId": 10201,
              "serviceProviderName": "QA",
              "startDate": "01-Apr-2010",
              "endDate": "23-Sep-2010",
              "billingRate": 0.0,
              "unitCost": 0.0,
              "unitHours": 0.0,
              "cost": 0.0,
              "hours": 0.0,
              "numUnits": 0.0
            },
            {
              "id": 2,
              "name": "CR02 - Senior Clinical Research Associate",
              ...
            }
          ],
          ...
        },
        ...
      ]
    },
    {
      "locationId": 123,
      "locationName": "Japan",
      ...
    },
    ...
  ]
},
],
{
  "url": "/cleartrial-ws/plans/10802/labor"
}
}
```

Sub-Resources: None

Get Labor Monthly View by Major Task

Shows the monthly cost, inflation, and hours breakdown of labor by provider, location, department, general ledger code, and major task.

Method: GET

URL: /cleartrial-ws/plans/{planID}/labor?view=monthlyByMajorTask

Sample output in JSON:

```
{
  "planLaborMonthlyView": {
    "planId": 10802,
    "currency": "USD",
    "provider": [
      {
        "id": 251,
        "name": "Premium CRO",
        "location": [
          {
            "id": 0,
            "name": "All Locations",
            "department": [
              {
                "id": 2,
                "name": "Clinical Operations",
                "generalLedgerCode": [
                  {
                    "id": 21,
                    "name": "Professional Fees",
                    "majorTask": [
                      {
                        "id": 2,
                        "name": "Project Initiated",
                        "unitOfMeasure": "Study",
                        "monthlyCost": [
                          {
                            "year": 2010,
                            "month": 4,
                            "cost": 12640.567335728245,
                            "inflation": 0.0,
                            "hours": 51.39730903080536
                          },
                          {
                            "year": 2010,
                            "month": 5,
                            "cost": 13061.919580252521,
                            "inflation": 0.0,
                            "hours": 53.110552665165535
                          },
                          ...
                        ]
                      },
                      ...
                    ]
                  }
                ],
                "unitOfMeasure": "Study",
                "monthlyCost": [
                  {
                    "year": 2010,
                    "month": 4,
                    "cost": 12640.567335728245,
                    "inflation": 0.0,
                    "hours": 51.39730903080536
                  },
                  {
                    "year": 2010,
                    "month": 5,
                    "cost": 13061.919580252521,
                    "inflation": 0.0,
                    "hours": 53.110552665165535
                  },
                  ...
                ]
              },
              ...
            ]
          },
          ...
        ]
      },
      ...
    ]
  },
  {
    "id": 32,
    "name": "Study Setup",
    "unitOfMeasure": "Study",
```

```
        "monthlyCost": [
            ...
            ...
        ]
    },
    ...
    ...
]
}
{
  "id": 6,
  "name": "Dues & Subscription",
  "majorTask": [
    {
      "id": 2,
      "name": "Project Initiated",
      "unitOfMeasure": "Study",
      "monthlyCost": [
        {
          "year": 2010,
          "month": 4,
          "cost": 22640.567335728245,
          "inflation": 0.0,
          "hours": 61.39730903080536
        },
        {
          "year": 2010,
          "month": 5,
          "cost": 13061.919580252521,
          "inflation": 0.0,
          "hours": 53.110552665165535
        },
        ...
        ...
      ]
    },
    {
      "id": 32,
      "name": "Study Setup",
      "unitOfMeasure": "Study",
      "monthlyCost": [
        ...
        ...
      ]
    },
    ...
    ...
  ]
}
...
...
]
},
{
  "id": 3,
  "name": "Data Management",
  ...
  ...
},
...
```

```

        ...
    },
    {
        "id": 100,
        "name": "USA",
        ...
        ...
    },
    ...
    ...
},
{
    "id": 10201,
    "name": "QA",
    ...
    ...
}
...
...
],
"url": "/cleartrial-ws/plans/10802/labor?view=monthlyByMajorTask"
}
}

```

Sub-Resources: None

Get Labor Monthly View by Resource

Shows the monthly hours breakdown of labor by provider, location, department, general ledger code, resource, and major task.

Method: GET

URL: /cleartrial-ws/plans/{planID}/labor?view=monthlyByResource

Sample output in JSON:

```

{
  "planResourcesMonthlyView": {
    "planId": 10802,
    "currency": "USD"
    "provider": [
      {
        "id": 251,
        "name": "Premium CRO",
        "location": [
          {
            "id": 0,
            "name": "All Locations",
            "department": [
              {
                "id": 2,
                "name": "Clinical Operations",
                "generalLedgerCode": [
                  {
                    "id": 21,
                    "name": "Professional Fees",
                    "resource": [
                      {
                        "id": 1,
                        "name": "Clinical Research Associate",

```

```
    "code": "CR01",
    "majorTask": [
      {
        "id": 2,
        "name": "Project Initiated",
        "unitOfMeasure": "Study",
        "monthlyCost": [
          {
            "year": 2010,
            "month": 4,
            "hours": 7.187143380301344
          },
          {
            "year": 2010,
            "month": 5,
            "hours": 7.42671482631139
          },
          ...
          ...
        ],
        {
          "id": 32,
          "name": "Study Setup",
          "unitOfMeasure": "Study",
          ...
          ...
        },
        ...
        ...
      ]
    },
    {
      "id": 2,
      "name": "Senior Clinical Research Associate",
      "code": "CR02",
      ...
      ...
    },
  ],
  {
    "id": 6,
    "name": "Dues & Subscription",
    ...
    ...
  }
},
{
  "id": 3,
  "name": "Data Management",
  ...
  ...
},
...
...
]
},
{
  "id": 100,
  "name": "USA",
```

```

        ...
        ...
    },
    ...
    ...
]
},
{
    "id": 10201,
    "name": "QA",
    ...
    ...
}
...
...
],
"url": "/cleartrial-ws/plans/10802/labor?view=monthlyByResource"
}
}

```

Sub-Resources: None

Get Costs

Shows the calculated costs for a plan.

Method: GET

URL: /cleartrial-ws/plans/{planID}/cost

Sample output in JSON:

```

{
  "costs": {
    "planId": 10802,
    "cost": [
      {
        "id": 1,
        "name": "Advertising (additional)",
        "type": "Miscellaneous",
        "department": "Clinical Operations",
        "generalLedgerCode": "Advertising and Promotion",
        "location": [
          {
            "id": 0,
            "name": "All Locations",
            "serviceProvider": "QA",
            "startDate": "01-Apr-2010",
            "endDate": "20-Jul-2012",
            "amount": {
              "currency": "USD",
              "calculatedAmount": 0,
              "adjustmentAmount": 0,
              "inflationAmount": 0.0,
              "totalAmount": 0
            }
          }
        ]
      }
    ]
  },
  {
    "id": 38,

```

```
    "name": "Clinical Trial Insurance",
    "type": "Pass Through",
    "department": "Safety",
    "generalLedgerCode": "Insurance",
    "location": [
      {
        "id": 104,
        "name": "Belgium",
        "serviceProvider": "Premium CRO",
        "startDate": "01-Apr-2010",
        "endDate": "20-Oct-2010",
        "amount": {
          "currency": "USD",
          "calculatedAmount": 28000,
          "adjustmentAmount": 0,
          "inflationAmount": 0.0,
          "totalAmount": 28000
        }
      },
      {
        "id": 123,
        "name": "Japan",
        ...
      },
      ...
    ],
    ...
  },
  ...
],
"url": "/cleartrial-ws/plans/10802/costs"
}
```

Sub-Resources: None

Get Costs Monthly View

Shows the monthly calculated costs and inflation breakdown for a plan by provider, location, department, general ledger code, and cost.

Method: GET

URL: /cleartrial-ws/plans/{planID}/cost?view=monthly

Sample output in JSON:

```
{
  "costsMonthlyView": {
    "planId": 10802,
    "currency": "USD",
    "provider": [
      {
        "id": 251,
        "name": "Premium CRO",
        "location": [
          {
            "id": 0,
            "name": "All Locations",

```

```

"department": [
  {
    "code": "CR",
    "name": "Clinical Operations",
    "generalLedgerCode": [
      {
        "code": "2800",
        "name": "Outside Services",
        "cost": [
          {
            "id": 39,
            "name": "EDC Setup",
            "type": "Pass Through",
            "monthlyCost": [
              {
                "year": 2010,
                "month": 8,
                "cost": 2666.6666666666665,
                "inflation": 0.0
              },
              {
                "year": 2010,
                "month": 9,
                "cost": 7333.333333333333,
                "inflation": 0.0
              }
            ]
          },
          ...
        ]
      },
      {
        "id": 40,
        "name": "EDC Licensing",
        "type": "Pass Through",
        ...
      },
      ...
    ]
  },
  {
    "code": "3600",
    "name": "Travel Expense",
    ...
  },
  ...
]
},
{
  "code": "DS",
  "name": "Safety",
}
...
]
},

```

```
    {
      "id": 104,
      "name": "Belgium",
      ...
    },
    ...
  ],
  {
    "id": 10201,
    "name": "QA",
    ...
  },
  ...
],
"url": "/cleartrial-ws/plans/10802/cost?view=monthly"
}
```

Sub-Resources: None

RFP Resource API and Bid Resource API

The ClearTrial Web Service RFP Resource API returns information about RFPs stored in the ClearTrial application. The ClearTrial Web Service Bid Resource API returns information about bids stored in the ClearTrial application.

Get RFPs

Gets the first 25 complete RFPs accessible to the current user for a given customer ID, ordered by plan and study name. Using the pagination options, the user can get subsequent pages.

Method: GET

URL: /cleartrial-ws/rfps

Sample output in JSON:

```
{
  "rfps": {
    "rfp": [
      {
        "id": 10129,
        "study": "24660",
        "currency": "USD",
        "shortDescription": "dsafgfdsg",
        "createdBy": "France, Michelle",
        "createdDate": "13-Apr-2015",
        "lastModifiedBy": "France, Michelle",
        "lastModifiedDate": "13-Apr-2015",
        "laborUrl": "/cleartrial-ws/rfps/10129/labor",
        "costUrl": "/cleartrial-ws/rfps/10129/cost",
        "bidsUrl": "/cleartrial-ws/rfps/10129/bids",
        "planUrl": "/cleartrial-ws/plans/32610",
        "serviceProviderUrl":
"/cleartrial-ws/plans/32610/serviceProvider/12401"
      },
      {
        "id": 10123,
        "study": "!! 10181-1",
        "currency": "USD",
        "shortDescription": "sfdddddddddddddd",
        "bidGridTitle": "sdfsdfsdfsdfsdfsdfsdfsdfsdfsdfsdf",
        "comments": "sdffffffffffffffffffff",
        "createdBy": "Administrator, QA",
        "createdDate": "13-Apr-2015",
        "lastModifiedBy": "Administrator, QA",
        "lastModifiedDate": "13-Apr-2015",

```

```
        "laborUrl": "/cleartrial-ws/rfps/10123/labor",
        "costUrl": "/cleartrial-ws/rfps/10123/cost",
        "bidsUrl": "/cleartrial-ws/rfps/10123/bids",
        "planUrl": "/cleartrial-ws/plans/54173",
        "serviceProviderUrl":
"/cleartrial-ws/plans/54173/serviceProvider/19003"
    }, . . .
    ... ]
    }
}
```

Sample output in XML:

```
<rfps>
<rfp>
<id>10000</id>
<study>Simple Study</study>
<currency>USD</currency>
<shortDescription>short description</shortDescription>
<bidGridTitle>Sample RFP</bidGridTitle>
<comments>This is a Sample RFP</comments>
<createdBy>administrator</createdBy>
<createdDate>04-Mar-2015</createdDate>
<lastModifiedBy>administrator</lastModifiedBy>
<lastModifiedDate>04-Mar-2015</lastModifiedDate>
<laborUrl>/cleartrial-ws/rfps/10000/labor</laborUrl>
<costUrl>/cleartrial-ws/rfps/10000/cost</costUrl>
<bidsUrl>/cleartrial-ws/rfps/10000/bids</bidsUrl>
<planUrl>/cleartrial-ws/plans/12345</planUrl>
<serviceProviderUrl>/cleartrial-ws/plans/12345/serviceProvider/6789</serviceProvid
erUrl>
</rfp>
<rfp>
...
</rfp>
...
</rfps>
```

Sub-Resources: None

Note: In Phase I Healthy Volunteers studies, the Subject Enrollment Schedule sub-resource URL does not appear in the values returned by the Get RFPs API.

Get RFP

Obtains the representation for a specific RFP. This provides an overview of an RFP that was created.

Method: GET

URL: /cleartrial-ws/rfps/<rfpId>

Sample output in JSON:

```
{
  "rfp": {
    "id": 10129,
    "study": "24660",
```

```

    "currency": "USD",
    "shortDescription": "dsafgfdsg",
    "createdBy": "France, Michelle",
    "createdDate": "13-Apr-2015",
    "lastModifiedBy": "France, Michelle",
    "lastModifiedDate": "13-Apr-2015",
    "laborUrl": "/cleartrial-ws/rfps/10129/labor",
    "costUrl": "/cleartrial-ws/rfps/10129/cost",
    "bidsUrl": "/cleartrial-ws/rfps/10129/bids",
    "planUrl": "/cleartrial-ws/plans/32610",
    "serviceProviderUrl": "/cleartrial-ws/plans/32610/serviceProvider/12401"
  }
}

```

Sample output in XML:

```

<rfp>
  <id>10000</id>
  <study>Simple Study</study>
  <currency>USD</currency>
  <shortDescription>short description</shortDescription>
  <bidGridTitle>Sample RFP</bidGridTitle>
  <comments>This is a Sample RFP</comments>
  <createdBy>administrator</createdBy>
  <createdDate>04-Mar-2015</createdDate>
  <lastModifiedBy>administrator</lastModifiedBy>
  <lastModifiedDate>04-Mar-2015</lastModifiedDate>
  <laborUrl>/cleartrial-ws/rfps/10000/labor</laborUrl>
  <costUrl>/cleartrial-ws/rfps/10000/cost</costUrl>
  <bidsUrl>/cleartrial-ws/rfps/10000/bids</bidsUrl>
  <planUrl>/cleartrial-ws/plans/12345</planUrl>

  <serviceProviderUrl>/cleartrial-ws/plans/12345/serviceProvider/6789</serviceProviderUrl>
</rfp>

```

Sub-Resources:

- Labor
- Cost

Note: In Phase I Healthy Volunteers studies, the following field does not appear in the Get Plan API: Subject Enrollment Schedule.

Get Labor

Shows the breakdown of labor by major task, task, location, and resources.

Method: GET

URL: /cleartrial-ws/rfps/{rfpID}/labor

Sample output in XML:

```

<rfp>
  <id>10000</id>
  <currency>USD</currency>
  <location>
    <locationId>100</locationId>

```

```
<locationName>USA</locationName>
<majorTask>
<id>2</id>
<name>Project Initiated</name>
<unitOfMeasure>Study</unitOfMeasure>
<task>
<id>2</id>
<name>Develop scope of work, timeline, work assignments</name>
<resource>
<name>Senior Clinical Researcher Associate</name>
<code>CR02</code>
<mappingKey>000-002-002</mappingKey>
<billingRate>143.13</billingRate>
<inflatedBillingRate>143.13</inflatedBillingRate>>
<numUnits>1.0</numUnits>
<unitCost>286.26</unitCost>
<unitHours>2.0</unitHours>
<totalCost>286.26</cost>
<totalHours>2.0</hours>
</resource>
<resource>
....
</resource>
....
</task>
<task>

....
</task>
....
</majorTask>
<majorTask>
...
</majorTask>
...
</location>
<location>
....
</location>
<url>/cleartrial-ws/rfps/10000/labor</url>
</rfp>
```

Get Cost

Shows the breakdown of labor by major task, task, location, and resources.

Method: GET

URL: /cleartrial-ws/rfps/{rfpID}/cost

Sample output in XML:

```
<rfp>
<rfpId>1</rfpId>
<currency>INR</currency>
<location>
<locationId>3</locationId>
<locationName>India</locationName>
<cost>
```

```

<id>2</id>
<name>TestMiscCost</name>
<mappingKey>TR-01010-01010</mappingKey>
    <wbsModelId>1</wbsModelId>
    <workUnitId>1</workUnitId>
    <locationScoped>true</locationScoped>
    <credit>false</credit>
    <includeInflation>true</includeInflation>
    <numUnits>3</numUnits>
    <totalCost>4500.0</totalCost>
    <inflatedTotalCost>4500.0</inflatedTotalCost>
</cost>
<cost>
...
</cost>
...
</location>
<location>
...
</location>
...
    <url>/cleartrial-ws/rfps/1/cost</url>
</rfp>

```

Portfolio Resource API

This ClearTrial Web Services API returns information about portfolio resources from ClearTrial applications.

Get Portfolios

Lists all the portfolios accessible to the current user for a given customer ID.

Method: GET

URL: /cleartrial-ws/portfolios

Sample output in JSON:

```
{
  "List": [
    {
      "id": 10201,
      "name": "Sample Portfolio 1",
      "code": "Sample Portfolio 1 short description",
      "description": "Sample Portfolio 1 long description",
      "createdBy": "administrator",
      "createdDate": "02-May-2011",
      "lastModifiedBy": "administrator",
      "lastModifiedDate": "02-May-2011",
      "plan": [
        {
          "id": 12001,
          "url": "/cleartrial-ws/plans/12001"
        },
        ...
      ],
      "url": "/cleartrial-ws/portfolios/10201"
    },
    {
      "id": 10202,
      "name": "Sample Portfolio 2",
      ...
    },
    ...
  ]
}
```

Sub-Resources: None

Get Portfolio

Obtains the representation for a specified portfolio.

Method: GET

URL: /cleartrial-ws/portfolios/{portfolioID}

Sample output in JSON:

```
{
  "List": {
    "id": 10201,
    "name": "Sample Portfolio 1",
    "code": "Sample Portfolio 1 short description",
    "description": "Sample Portfolio 1 long description",
    "createdBy": "administrator",
    "createdDate": "02-May-2011",
    "lastModifiedBy": "administrator",
    "lastModifiedDate": "02-May-2011",
    "plan": [
      {
        "id": 12001,
        "url": "/cleartrial-ws/plans/12001"
      },
      {
        ...
        ...
      }
      ...
      ...
    ],
    "url": "/cleartrial-ws/portfolios/10201"
  }
}
```

Sub-Resources: None

The ClearTrial Track Web Services API is a bi-directional API that permits reading and writing of data in and out of the ClearTrial Track application.

The format for Track URLs is:

/cleartrial-ws/actuals/{baselinePlanId}/{resourceName}

Where the {baselinePlanId} is the ID of the plan that was chosen as the baseline for the study and {resourceName} is one of the supported Track resources as described in [Chapter 7, "Plan Resource API."](#)

For example, to obtain ClearTrial Track data and update it, use the Unix command line tool *curl*:

```
curl --user myLogin:myPassword --header"customerCode: myCustomerCode"
--header"Accept: application/json" --get
https://cleartrial-api.oracleindustry.com/cleartrial-ws/actuals/10802/sites
```

To enter or update Track data for the resource in the previous example, assuming that the data is present in a file called *postContent*, issue the following command:

```
cat postContent | curl --user myLogin:myPassword --header"customerCode:
myCustomerCode" --header"Content-Type: application/json" --post302
https://cleartrial-api.oracleindustry.com/cleartrial-ws/actuals/10802/sites
```

To use an XML format, use the headers *Accept: application/xml* and *ContentType: application/xml* in the GET and POST requests, respectively. Upon a successful POST, the updated resource representation is echoed back to the ClearTrial Track Web Services API user. The general format of the interaction with the Track API is to GET the current state of the resource, update the representation with the actuals, and POST the updated representation back to the server.

Stale Data Resolution

As you use the ClearTrial Track API to obtain and update track data for a particular resource, the GET method returns may become obsolete or stale because another user has updated the track data for the same resource through the web interface.

If this happens, the ClearTrial Track API rejects the POST request and returns an HTTP Conflict 409 error code with an appropriate error message.

The server detects this situation because every POST request echoes the *lockToken* element that was sent to it in the preceding GET request for the resource. If the *lockToken* is missing, or if there is a mismatch between what was returned in the GET

and what is being sent in the POST, the update fails and the server generates a Conflict 409 error code.

To proceed with the update, issue a fresh GET and obtain a new lockToken to get the latest view of the track data that you can update as needed.

Data Validation

The ClearTrial Track API performs data validation of all update requests. For each of the numerous validations, the ClearTrial Track API returns an error message detailing the errors. The categories of error messages include:

- Field cannot be empty
- Value of the field has to be in a particular range
- Date is invalid

Sites Track Data

Gets and posts data pertaining to the number of sites completed in each location per week.

Method: GET/POST

URL: /cleartrial-ws/actuals/{baselinePlanId}/sites

Sample output/input:

```
{
  "actualSites": {
    "lockToken": 1304370420148,
    "planId": 10802,
    "location": [
      {
        "locationId": 100,
        "locationName": "USA",
        "periods": [
          {
            "date": "01-Apr-2010",
            "plannedValue": 3,
            "actualValue": 0
          },
          {
            ...
          },
          {
            ...
          },
          {
            ...
          }
        ],
        "locationId": 123,
        "locationName": "Japan",
        ...
      }
    ],
    "url": "/cleartrial-ws/actuals/10802/sites"
  }
}
```

Subjects Track Data

Gets and posts data pertaining to the number of subjects enrolled in each location per week.

Method: GET/POST

URL: /cleartrial-ws/actuals/{baselinePlanId}/subjects

Sample output/input:

```
{
  "actualSubjects": {
    "lockToken": 1304370420148,
    "planId": 10802,
    "location": [
      {
        "locationId": 100,
        "locationName": "USA",
        "periods": [
          {
            "date": "01-Apr-2010",
            "plannedValue": 3,
            "actualValue": 0
          },
          {
            ...
          },
          {
            ...
          }
        ]
      },
      {
        "locationId": 123,
        "locationName": "Japan",
        ...
      }
    ],
    "url": "/cleartrial-ws/actuals/10802/subjects"
  }
}
```

Monitoring Track Data

Gets and posts data pertaining to the number of CRF pages completed in each location per week.

Method: GET/POST

URL: /cleartrial-ws/actuals/{baselinePlanId}/crfs

Sample output/input:

```
{
  "actualCrfs": {
    "lockToken": 1304370420148,
    "planId": 10802,
    "location": [
      {
        "locationId": 100,
```

```
    "locationName": "USA",
    "periods": [
      {
        "date": "01-Apr-2010",
        "plannedValue": 3,
        "actualValue": 0
      },
      {
        ...
      },
      {
        ...
      }
    ]
  },
  {
    "locationId": 123,
    "locationName": "Japan",
    ...
  }
  ...
],
"url": "/cleartrial-ws/actuals/10802/crfs"
}
```

Units Track Data

Gets and posts data pertaining to the units in Track.

Method: GET/POST

URL: /cleartrial-ws/actuals/{baselinePlanId}/units

Sample output/input:

```
{
  "actualUnits": {
    "lockToken": 1370450129065,
    "planId": 47323,
    "serviceProvider": [
      {
        "id": 10104,
        "name": "Cleartrial Operations",
        "majorTask": [
          {
            "id": 2,
            "name": "Project Initiated",
            "isTrackedAsPercentage": true,
            "location": [
              {
                "locationId": 0,
                "locationName": "All Locations",
                "periods": [
                  {
                    "startDate": "01-Oct-2012",
                    "endDate": "31-Oct-2012",
                    "plannedValue": 0.14285714285714293,
                    "actualValue": null
                  },
                  {

```

```

...
},
{
  "id": 32,
  "name": "Study Setup",
  "isTrackedAsPercentage": true,
  "location": [
    {
      "locationId": 0,
      "locationName": "All Locations",
      "periods": [
        {
          "startDate": "01-Oct-2012",
          "endDate": "31-Oct-2012",
          "plannedValue": 0.14285714285714293,
          "actualValue": null
        }
      ],
      ...
    },
    {
      "id": 31,
      "name": "Study Setup Per-Location",
      "isTrackedAsPercentage": true,
      "location": [
        {
          "locationId": 157,
          "locationName": "Australia",
          "periods": [
            {
              "startDate": "01-Oct-2012",
              "endDate": "31-Oct-2012",
              "plannedValue": 0.13333333333333333,
              "actualValue": null
            }
          ],
          ...
        }
      ],
      ...
    },
    {
      "id": 3,
      "name": "A Written Protocol",
      "isTrackedAsPercentage": true,
      "location": [
        {
          "locationId": 0,
          "locationName": "All Locations",
          "periods": [
            {
              "startDate": "01-Oct-2012",
              "endDate": "31-Oct-2012",
              "plannedValue": 0.9333333333333332,
              "actualValue": null
            }
          ],
          {
            "startDate": "01-Nov-2012",
            "endDate": "30-Nov-2012",
            "plannedValue": 0.06666666666666667,
            "actualValue": null
          }
        }
      ]
    }
  ]
}

```

```
    }
  ]
},
{
  "id": 4,
  "name": "Unique CRF Page Developed",
  "isTrackedAsPercentage": true,
  "location": [
    {
      "locationId": 0,
      "locationName": "All Locations"
    }
  ]
},
{
  "id": 5,
  "name": "CRF Book Printed",
  "isTrackedAsPercentage": false,
  "location": [
    {
      "locationId": 0,
      "locationName": "All Locations"
    }
  ]
},
{
  "id": 61,
  "name": "Meetings - Kickoff",
  "isTrackedAsPercentage": false,
  "location": [
    {
      "locationId": 0,
      "locationName": "All Locations",
      "periods": [
        {
          "startDate": "01-Oct-2012",
          "endDate": "31-Oct-2012",
          "plannedValue": 1.0,
          "actualValue": null
        }
      ]
    }
  ]
},
{
  "id": 50,
  "name": "Meetings - Investigator",
  "isTrackedAsPercentage": false,
  "location": [
    {
      "locationId": 0,
      "locationName": "All Locations",
      "periods": [
        {
          "startDate": "01-Apr-2013",
          "endDate": "30-Apr-2013",
          "plannedValue": 1.0,
          "actualValue": null
        }
      ]
    }
  ]
}
```

```

    }
  ]
},
{
  "id": 33,
  "name": "Meetings - Face to Face",
  "isTrackedAsPercentage": false,
  "location": [
    {
      "locationId": 0,
      "locationName": "All Locations",
      "periods": [
        {
          "startDate": "01-Apr-2013",
          "endDate": "30-Apr-2013",
          "plannedValue": 1.0,
          "actualValue": null
        }
      ]
    }
  ]
},
{
  "id": 62,
  "name": "Meetings - Teleconference",
  "isTrackedAsPercentage": false,
  "location": [
    {
      "locationId": 0,
      "locationName": "All Locations",
      "periods": [
        {
          "startDate": "01-Oct-2012",
          "endDate": "31-Oct-2012",
          "plannedValue": 4.0,
          "actualValue": null
        },
        {
          ...
        }
      ]
    }
  ]
}

```

Fees Track Data

Gets and posts data pertaining to the fees in Track.

Method: GET/POST

URL: /cleartrial-ws/actuals/{baselinePlanId}/fees

Sample output/input:

```

{
  "actualFees": {
    "lockToken": 1370451444843,
    "planId": 47323,
    "serviceProvider": [
      {
        "id": 10104,
        "name": "Cleartrial Operations",
        "trackingLevel": "Globally",
        "majorTask": [

```

```
{
  "id": 0,
  "name": "All Major Tasks",
  "location": [
    {
      "locationId": 0,
      "locationName": "All Locations",
      "periods": [
        {
          "startDate": "01-Oct-2012",
          "endDate": "31-Oct-2012",
          "plannedValue": 20501.20641137218,
          "actualValue": null
        },
        {
          "startDate": "01-Nov-2012",
          "endDate": "30-Nov-2012",
          "plannedValue": 14306.048742060317,
          "actualValue": null
        },
        {
          ...
        },
        {
          "startDate": "01-Apr-2014",
          "endDate": "30-Apr-2014",
          "plannedValue": 9455.021795460874,
          "actualValue": null
        }
      ]
    }
  ]
},
{
  "id": 19003,
  "name": "!! 1",
  "trackingLevel": "Pay for work completed upon milestone achieved"
}
],
"url": "/cleartrial-ws/actuals/47323/fees"
}
```

Costs Track Data

Gets and posts data pertaining to the costs in Track.

Method: GET/POST

URL: /cleartrial-ws/actuals/{baselinePlanId}/costs

Sample output/input:

```
{
  "actualCosts": {
    "lockToken": 1370451755956,
    "planId": 47323,
    "serviceProvider": [
      {
```

```

    "id": 19003,
    "name": "!! 1",
    "cost": [
      {
        "id": 1,
        "name": "Advertising (additional)",
        "earnedValueTrackingLevel": "Auto-tracked (set EV to AC)",
        "location": [
          {
            "locationId": 0,
            "locationName": "All Locations"
          }
        ]
      },
      {
        "id": 27,
        "name": "Call Center ",
        "earnedValueTrackingLevel": "Auto-tracked (set EV to AC)",
        "location": [
          {
            "locationId": 0,
            "locationName": "All Locations"
          }
        ]
      },
      {
        "id": 38,
        "name": "Clinical Trial Insurance",
        "earnedValueTrackingLevel": "Auto-tracked (set EV to AC)",
        "location": [
          {
            "locationId": 157,
            "locationName": "Australia",
            "periods": [
              {
                "startDate": "01-Oct-2012",
                "endDate": "31-Oct-2012",
                "plannedValue": 0.0,
                "earnedValue": null,
                "actualValue": null
              },
              {
                ...
              },
              {
                "locationId": 158,
                "locationName": "New Zealand"
              }
            ]
          }
        ]
      }
    ],
    "url": "/cleartrial-ws/actuals/47323/costs"
  }
}

```

