Vermilion Reporting Suite (VRS) API
Version 1.0 & SCIM

Developer's Manual & Reference

Feb 2022

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VRS API & SCIM – Version 1.0

Contents

1. API Program

The aim of this API program is to enable our customers to link to VRS via a faster mechanism, using industry standard APIs and a similar API framework to other FactSet products, such as Publisher. The API provides more freedom of VRS functionality to our clients and enable them to build more custom solutions as well as a more sophisticated channel to interact with FactSet's market leading reporting solutions. As the market continues to demand more transparency and data, FactSet will provide flexible options to meet those demands. APIs complement the current reporting suite offerings and facilitate partnerships by enabling users to build private experiences.

The first stage of exposing VRS APIs will focus on the Report retrieval service and the Get data service areas of the system. Later, the program will expand to include other areas of the Vermilion platform, such as the Workflow service.

The Program will provide the following:

- Developer toolkit to build proof of concept
- Uniform feel across all FactSet's Enterprise scale APIs
- Adherence to industry standards
- Versioned APIs
- Documentation and tutorials on the developer portal.

2. Vermilion Reporting Suite (VRS) API

Through the Vermilion Reporting Suite (VRS) API, users can optimise their reporting workflows by integrating with the Report retrieval service and the Get data service.

All APIs are hosted under https://api.factset.com. Authentication is handled using API Keys and authorization is handled using FactSet's in-house subscriptions product. You can find more information about using API Keys at https://developer.factset.com/authentication.

HTTP request and response header names should be considered case insensitive as per HTTP Standard. Please do not rely on case sensitive matching of headers in your code.

2.1. Data retrieval service: Data source

2.1.1. List all data sources

/v1/{tenant}/data-sources

Description

The Data retrieval service: list all data sources end point lists all data sources the user has permission to see.

Request Parameters

Parameter Name	Data type	Required	Description
tenant	String	Yes	The code of the tenancy
_Sort	String	No	The column to sort on. Can add - to sort
_paginationLimit	Integer	No	Non-negative maximum number of entries to return
_PaginationOffset	Integer	No	Non-negative number of entries to skip

Returns

HTTP status code	Description
200	Successful operation.
401	Unauthorised.
403	No permissions to view data sources in VRS.
406	Unsupported Accepted header. Header needs to be set into application/json.

Example

Request:

GET **https://vrsqa01.hosting.factset.com/VRSAPI/v1/MASTER/data-sources?_sort=name&_paginationLimit=25&_paginationOffset=0**

Response:

HTTP 200 Successful operation

Body:

```json
{
    "meta": {
        "pagination": {
            "total": 6,
            "isEstimatedTotal": false,
            "next": null,
            "previous": null
        },
        "sort": [
            "name"
        ]
    },
    "data": [
        {
            "dataSourceId": 1095,
            "lastUpdatedBy": "sample user",
            "name": "4",
            "code": "4",
            "type": "FILTER",
            "releaseTag": null,
            "entities": [],
            "lastUpdated": 1596737602607,
            "outputRecordSet": "new record sets"
        },
        {
            "dataSourceId": 564,
            "lastUpdatedBy": "admin",
            "name": "D-JIM-HTML",
            "code": "D_JIM_HTML",
            "type": "MANUAL",
            "releaseTag": null,
            "entities": [],
            "lastUpdated": 1615290842147,
            "outputRecordSet": "R-JIM-HTML"
        },
        {
            "dataSourceId": 1093,
            "lastUpdatedBy": "sample user",
            "name": "fad",
            "code": "FAD",
            "type": "AUTOMATIC",
            "releaseTag": null,
            "entities": [],
            "lastUpdated": 1596737266297,
```

```
            "outputRecordSet": "new record sets4"
        },
        {
            "dataSourceId": 1094,
            "lastUpdatedBy": "sample user",
            "name": "gdfa",
            "code": "GDFA",
            "type": "FILTER",
            "releaseTag": null,
            "entities": [],
            "lastUpdated": 1597068093080,
            "outputRecordSet": "new record sets"
        },
        {
            "dataSourceId": 1091,
            "lastUpdatedBy": "admin",
            "name": "new data sources",
            "code": "NEW_DATA_SOURCES",
            "type": "MANUAL",
            "releaseTag": null,
            "entities": [
                {
                    "entityId": 1161,
                    "name": "Entity 1",
                    "code": "ENTITY_1"
                }
            ],
            "lastUpdated": 1615288674257,
            "outputRecordSet": "new record sets"
        },
        {
            "dataSourceId": 1092,
            "lastUpdatedBy": "sample user",
            "name": "new data sources2",
            "code": "NEW_DATA_SOURCES2",
            "type": "MANUAL",
            "releaseTag": null,
            "entities": [],
            "lastUpdated": 1596734858703,
            "outputRecordSet": "new record sets"
        }
    ]
}
```

2.1.2. Gets a data source

/v1/{tenant}/data-sources/{dataSourceCode}

Description

The Data retrieval service: get a data source end point gets a datasource based on the code passed.

Request Parameters

Parameter Name	Data type	Required	Description
tenant	String	Yes	The code of the tenancy
dataSourceCode	String	Yes	The code of the datasource

Returns

HTTP status code	Description
200	Successful operation.
401	Unauthorised.
403	No permissions to view data sources in VRS.
404	The supplied data source code was not found
406	Unsupported Accepted header. Header needs to be set into application/json.

Example

Request:

GET **https://vrsqa01.hosting.factset.com/VRSAPI/v1/MASTER/data-sources/DS001**

Response:

HTTP 200 Successful operation

Body:

```
{
    "data": {
        "dataSourceId": 1645,
        "name": "Test Data (DS001)",
        "code": "DS001",
        "type": "AUTOMATIC",
        "entities": []
    }
}
```

2.1.3. Get the data for a data source

/v1/{tenant}/data-sources/{dataSourceCode}/data

Description

The Data retrieval service: get the data for a data source end point gets the data for the datasource. There are optional query parameters to filter the data source.

Request Parameters

Parameter Name	Data type	Required	Description
tenant	String	Yes	The code of the tenancy
dataSourceCode	String	Yes	The code of the datasource
EntityCodes	String	No	A series of query parameter used to filter the data for a datasource. This represents the entities for the datasource. E.g. entityCodes=ACCOUNT&entityCodes=FUNDS
entityKeys	String	No	A series of query parameter used to filter the data for a datasource. This is the entity key value for an entity selection. E.g. entityKeys=1&entityKeys=Test2

Returns

HTTP status code	Description
200	Successful operation - returns data for the datasource.
400	The supplied datasource code was either missing or invalid, or the query parameters are invalid.
401	Unauthorised.
403	No permissions to view data sources in VRS.
404	The supplied data source code was not found.
406	Unsupported Accepted header. Header needs to be set into application/json.

Example

Request:

GET **https://vrsqa01.hosting.factset.com/VRSAPI/v1/QA/data-sources/ASSET_ALLOCATION/data?entityCodes=SYSTEM_DATE,ACCOUNT&entityKeys=31-May-2021 00:00:00,345EWQ**

Response:

HTTP 200 Successful operation

Body:

```json
{
    "data": {
        "fields": [
            {
                "recordSetFieldDefinitionId": 323,
                "fieldDataType": "DECIMAL",
                "displayFormat": "0.0",
                "hideField": false,
                "name": "MarketValue"
            },
            {
                "recordSetFieldDefinitionId": 322,
                "fieldDataType": "TEXT",
                "displayFormat": null,
                "hideField": false,
                "name": "AssetType"
            },
            {
                "recordSetFieldDefinitionId": 326,
                "fieldDataType": "DATETIME",
                "displayFormat": null,
                "hideField": false,
                "name": "Date"
            },
            {
                "recordSetFieldDefinitionId": 325,
                "fieldDataType": "TEXT",
                "displayFormat": null,
                "hideField": false,
                "name": "Code"
            },
            {
                "recordSetFieldDefinitionId": 324,
                "fieldDataType": "DECIMAL",
                "displayFormat": "0.0",
                "hideField": false,
                "name": "Pct"
            }
        ],
        "dstInstance": {
            "dstInstanceId": 17990,
            "dstInstanceType": "AUTOMATIC",
            "rows": [
                {
                    "rowId": 1,
                    "order": 1,
                    "fields": [
                        {
                            "dstFieldId": 322,
```

```
                        "fieldType": "DECIMAL",
                        "fieldValue": "Cash Securities"
                    },
                    {
                        "dstFieldId": 323,
                        "fieldType": "TEXT",
                        "fieldValue": "2303989.0"
                    },
                    {
                        "dstFieldId": 324,
                        "fieldType": "DATETIME",
                        "fieldValue": "0.4608724507830477"
                    },
                    {
                        "dstFieldId": 325,
                        "fieldType": "TEXT",
                        "fieldValue": "345EWQ"
                    },
                    {
                        "dstFieldId": 326,
                        "fieldType": "DECIMAL",
                        "fieldValue": "30 September 2012 00:00:00"
                    }
                ]
            },
            {
                "rowId": 2,
                "order": 2,
                "fields": [
                    {
                        "dstFieldId": 322,
                        "fieldType": "DECIMAL",
                        "fieldValue": "Equity Securities"
                    },
                    {
                        "dstFieldId": 323,
                        "fieldType": "TEXT",
                        "fieldValue": "267216147.65000004"
                    },
                    {
                        "dstFieldId": 324,
                        "fieldType": "DATETIME",
                        "fieldValue": "53.45188751172868"
                    },
                    {
                        "dstFieldId": 325,
                        "fieldType": "TEXT",
                        "fieldValue": "345EWQ"
                    },
```

```
                                {
                                    "dstFieldId": 326,
                                    "fieldType": "DECIMAL",
                                    "fieldValue": "30 September 2012 00:00:00"
                                }
                            ]
                        },
                        {
                            "rowId": 3,
                            "order": 3,
                            "fields": [
                                {
                                    "dstFieldId": 322,
                                    "fieldType": "DECIMAL",
                                    "fieldValue": "Fixed Income Securities"
                                },
                                {
                                    "dstFieldId": 323,
                                    "fieldType": "TEXT",
                                    "fieldValue": "230398874.8"
                                },
                                {
                                    "dstFieldId": 324,
                                    "fieldType": "DATETIME",
                                    "fieldValue": "46.08724003748828"
                                },
                                {
                                    "dstFieldId": 325,
                                    "fieldType": "TEXT",
                                    "fieldValue": "345EWQ"
                                },
                                {
                                    "dstFieldId": 326,
                                    "fieldType": "DECIMAL",
                                    "fieldValue": "30 September 2012 00:00:00"
                                }
                            ]
                        }
                    ]
                }
            }
}
```

2.2. Data retrieval service: Entity

2.2.1. Get the entity values

/v1/{tenant}/entities/{entityCode}/values

Description

The Data retrieval service: get the entity values end point gets the entity values for the specified entity.

Request Parameters

Parameter Name	Data type	Required	Description
tenant	String	Yes	The code of the tenancy
entityCode	String	Yes	The code of the entity
_Sort	String	No	The column to sort on. Can add - to sort
_paginationLimit	Integer	No	Non-negative maximum number of entries to return. Default is 25
_pagianationOffset	Integer	No	Non-negative number of entries to skip. Default is 0

Returns

HTTP status code	Description
200	Successful operation.
400	The supplied entity code was either missing or invalid, or the entity was not found
401	Unauthorised.
403	No permissions to view data sources in VRS.
404	The supplied data source code was not found
406	Unsupported Accepted header. Header needs to be set into application/json.

Example

Request:

GET
https://vrsqa01.hosting.factset.com/VRSAPI/v1/QA/entities/ACCOUNT/values?_paginationOffset=25&_paginationLimit=100

Response:

HTTP 200 Successful operation

Body:

```
{
    "meta": {
        "pagination": {
```

```json
            "total": 15,
            "isEstimatedTotal": false,
            "next": null,
            "previous": null
        }
    },
    "data": [
        {
            "entityRowId": 329,
            "keyValue": "ABC123",
            "descriptionValue": "Local Library Endowment"
        },
        {
            "entityRowId": 325,
            "keyValue": "ABC656",
            "descriptionValue": "Local University Retirement"
        },
        {
            "entityRowId": 327,
            "keyValue": "ABC658",
            "descriptionValue": "Local University Endowment"
        },
        {
            "entityRowId": 326,
            "keyValue": "ABC789",
            "descriptionValue": "Private Company Retirement"
        },
        {
            "entityRowId": 5563,
            "keyValue": "Copy of 345EWQ",
            "descriptionValue": "Local Firefighters Retirement"
        },
        {
            "entityRowId": 328,
            "keyValue": "DEF123",
            "descriptionValue": "Local Plumbers Retirement"
        },
        {
            "entityRowId": 330,
            "keyValue": "DFDKJ12",
            "descriptionValue": "Local Electricians Retirement"
        },
        {
            "entityRowId": 317,
            "keyValue": "DFR123",
            "descriptionValue": "Local Teachers Retirement"
        },
        {
            "entityRowId": 331,
```

```
            "keyValue": "EWW344",
            "descriptionValue": "Carpenters Pension"
        },
        {
            "entityRowId": 332,
            "keyValue": "EWW345",
            "descriptionValue": "Steelworkers Pension"
        },
        {

            "entityRowId": 322,
            "keyValue": "FGH123",
            "descriptionValue": "Autoworkers Retirement"
        },
        {
            "entityRowId": 324,
            "keyValue": "GHU123",
            "descriptionValue": "HealthCare Employees Pension"
        },
        {

            "entityRowId": 323,
            "keyValue": "OKI345",
            "descriptionValue": "Doctors Pension Account"
        },
        {
            "entityRowId": 318,
            "keyValue": "OKI3451",
            "descriptionValue": "Nurses Pension Account"
        },
        {
            "entityRowId": 333,
            "keyValue": "ORT23X",
            "descriptionValue": "Local Zoo Endowment"
        }
    ]
}
```

2.3. Report retrieval service: Report

2.3.1. Get all report definitions

/v1/{tenant}/reports

Description

The Report retrieval service get all report definitions end point gets all report definitions the user has permissions for.

Request Parameters

Parameter Name	Data type	Required	Description
tenant	String	Yes	The code of the tenancy
_Sort	String	No	The column to sort on. Can add - to sort
_paginationLimit	Integer	No	Non-negative maximum number of entries to return
_PaginationOffset	Integer	No	Non-negative number of entries to skip

Returns

HTTP status code	Description
200	Successful operation.
400	The supplied report definition code was either missing or invalid, or the report definition was not found.
401	Unauthorised.
403	No permissions to view reports in VRS.
406	Unsupported Accepted header. Header needs to be set into application/json.

Example

Request:

GET
https://vrsqa01.hosting.factset.com/VRSAPI/v1/QA/reports?_sort=name&_paginationLimit=25&_paginationOffset=0

Response:

HTTP 200 Successful operation

Body:

```
{
    "meta": {
        "pagination": {
            "total": 25,
            "isEstimatedTotal": false,
            "next": null,
```

```json
            "previous": null
        }
    },
    "data": [
        {
            "name": "_Preview Attribution Report",
            "code": "_PREVIEW_ATTRIBUTION_REPORT",
            "releaseTag": null,
            "entities": [
                {
                    "entityId": 38,
                    "name": "Portfolio",
                    "code": "PORTFOLIO"
                }
            ]
        },
        {
            "name": "Adopt Report",
            "code": "ADOPT_REPORT",
            "releaseTag": null,
            "entities": [
                {
                    "entityId": 274,
                    "name": "Adopt Entity",
                    "code": "ADOPT_ENTITY"
                }
            ]
        },
        {
            "name": "Area Rules",
            "code": "AREA_RULES",
            "releaseTag": null,
            "entities": [
                {
                    "entityId": 3,
                    "name": "Date",
                    "code": "SYSTEM_DATE"
                }
            ]
        },
        {
            "name": "Attribution Analysis",
            "code": "ATTRIBUTION_ANALYSIS",
            "releaseTag": "Roles",
            "entities": [
                {
                    "entityId": 3,
                    "name": "Date",
                    "code": "SYSTEM_DATE"
```

```
                }
            ]
        },
        {
            "name": "Basic Obligation Sync Report",
            "code": "BASIC_OBLIGATION_SYNC_REPORT",
            "releaseTag": null,
            "entities": [
                {
                    "entityId": 486,
                    "name": "Basic Obligation Sync Entity",
                    "code": "BASIC_OBLIGATION_SYNC_ENTITY"
                },
                {
                    "entityId": 3,
                    "name": "Date",
                    "code": "SYSTEM_DATE"
                }
            ]
        },
        {
            "name": "Calendar Report",
            "code": "CALENDAR_REPORT",
            "releaseTag": null,
            "entities": [
                {
                    "entityId": 217,
                    "name": "Calendar type",
                    "code": "CALENDAR_TYPE"
                }
            ]
        },
        {
            "name": "Calendars Report",
            "code": "CALENDARS_REPORT",
            "releaseTag": null,
            "entities": [
                {
                    "entityId": 217,
                    "name": "Calendar type",
                    "code": "CALENDAR_TYPE"
                }
            ]
        },
        {
            "name": "Com Test Report",
            "code": "COM_TEST_REPORT",
            "releaseTag": null,
            "entities": [
```

```json
                {
                    "entityId": 378,
                    "name": "Com Test Entity",
                    "code": "COM_TEST_ENTITY"
                }
            ]
        },
        {
            "name": "Commentary Editor Report",
            "code": "COMMENTARY_EDITOR_REPORT",
            "releaseTag": null,
            "entities": [
                {
                    "entityId": 3,
                    "name": "Date",
                    "code": "SYSTEM_DATE"
                }
            ]
        },
        {
            "name": "Custom Date Report",
            "code": "CUSTOM_DATE_REPORT",
            "releaseTag": "jyo",
            "entities": [
                {
                    "entityId": 3,
                    "name": "Date",
                    "code": "SYSTEM_DATE"
                },
                {
                    "entityId": 552,
                    "name": "Term",
                    "code": "TERM"
                },
                {
                    "entityId": 550,
                    "name": "Date Type",
                    "code": "DATE_TYPE"
                },
                {
                    "entityId": 551,
                    "name": "From Date",
                    "code": "FROM_DATE"
                }
            ]
        },
        {
            "name": "Custom Date Report",
            "code": "CUSTOM_DATE_REPORT",
```

```
        "releaseTag": null,
        "entities": [
            {
                "entityId": 550,
                "name": "Date Type",
                "code": "DATE_TYPE"
            },
            {
                "entityId": 551,
                "name": "From Date",
                "code": "FROM_DATE"
            },
            {
                "entityId": 552,
                "name": "Term",
                "code": "TERM"
            },
            {
                "entityId": 3,
                "name": "Date",
                "code": "SYSTEM_DATE"
            }
        ]
    },
    {
        "name": "Data Preview Report",
        "code": "DATA_PREVIEW_REPORT",
        "releaseTag": null,
        "entities": [
            {
                "entityId": 222,
                "name": "Data Preview Entity",
                "code": "DATA_PREVIEW_ENTITY"
            }
        ]
    },
    {
        "name": "Data Source Generate Task Test",
        "code": "DATA_SOURCE_GENERATE_TASK_TEST",
        "releaseTag": null,
        "entities": [
            {
                "entityId": 3,
                "name": "Date",
                "code": "SYSTEM_DATE"
            }
        ]
    },
    {
```

```
            "name": "Data_Row_View_Report",
            "code": "RPD_74432455",
            "releaseTag": "74432455",
            "entities": [
                {
                    "entityId": 3,
                    "name": "Date",
                    "code": "SYSTEM_DATE"
                }
            ]
    },
    {
        "name": "Def and Ops report",
        "code": "DEF_AND_OPS_REPORT",
        "releaseTag": null,
        "entities": [
            {
                "entityId": 273,
                "name": "Def and Ops",
                "code": "DEF_OPS"
            },
            {
                "entityId": 3,
                "name": "Date",
                "code": "SYSTEM_DATE"
            }
        ]
    },
    {
        "name": "Dropdown Report",
        "code": "DROPDOWN_REPORT",
        "releaseTag": null,
        "entities": [
            {
                "entityId": 219,
                "name": "Dropdown Type",
                "code": "DROPDOWN_TYPE"
            }
        ]
    },
    {
        "name": "DS Basic Report",
        "code": "DS_BASIC_REPORT",
        "releaseTag": null,
        "entities": [
            {
                "entityId": 38,
                "name": "Portfolio",
                "code": "PORTFOLIO"
```

```json
            }
        ]
    },
    {
        "name": "DS Demo Report",
        "code": "DS_DEMO_REPORT",
        "releaseTag": null,
        "entities": [
            {
                "entityId": 27,
                "name": "Benchmark",
                "code": "BENCHMARK"
            },
            {
                "entityId": 38,
                "name": "Portfolio",
                "code": "PORTFOLIO"
            }
        ]
    },
    {
        "name": "DS Simple Report",
        "code": "DS_SIMPLE_REPORT",
        "releaseTag": null,
        "entities": [
            {
                "entityId": 25,
                "name": "Account",
                "code": "ACCOUNT"
            }
        ]
    },
    {
        "name": "DS Simple Report with Data Signoff",
        "code": "DS_SIMPLE_REPORT_WITH_DATA_SIGNOFF",
        "releaseTag": null,
        "entities": [
            {
                "entityId": 25,
                "name": "Account",
                "code": "ACCOUNT"
            }
        ]
    },
    {
        "name": "DT Template Test",
        "code": "DT_TEMPLATE_TEST",
        "releaseTag": null,
        "entities": [
```

```json
        {
            "entityId": 3,
            "name": "Date",
            "code": "SYSTEM_DATE"
        }
    ]
},
{
    "name": "File Name Test",
    "code": "FINE_NAME_TEST",
    "releaseTag": null,
    "entities": [
        {
            "entityId": 272,
            "name": "Report File Entitiy",
            "code": "REORT_FILE_ENTITIY"
        }
    ]
},
{
    "name": "Filter Report",
    "code": "FILTER_REPORT",
    "releaseTag": null,
    "entities": [
        {
            "entityId": 221,
            "name": "Filter Type",
            "code": "FILTER_TYPE"
        }
    ]
},
{
    "name": "FR_Template Test",
    "code": "FR_TEMPLATE_TEST",
    "releaseTag": null,
    "entities": [
        {
            "entityId": 3,
            "name": "Date",
            "code": "SYSTEM_DATE"
        }
    ]
},
{
    "name": "FR Imported Image File Properties",
    "code": "FR_IMPORTED_IMAGE_FILE_PROPERTIES",
    "releaseTag": null,
    "entities": [
        {
```

```json
                    "entityId": 3,
                    "name": "Date",
                    "code": "SYSTEM_DATE"
                }
            ]
        }
    ]
}
```

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2.3.2. Get a report definition

/v1/{tenant}/reports/{reportDefinitionCode}

Description

The Report retrieval service Get a report definition end point gets a report definition based on the code specified.

Request Parameters

Parameter Name	Data type	Required	Description
tenant	String	Yes	The code of the tenancy
reportDefinitionCode	String	No	The code of the report definition

Returns

HTTP status code	Description
200	Successful operation.
400	The supplied report definition code was either missing or invalid, or the report definition was not found.
401	Unauthorised.
403	No permissions to view reports in VRS.
404	The supplied report definition code was not found
406	Unsupported Accepted header. Header needs to be set into application/json.

Example

Request:

GET **https://vrsqa01.hosting.factset.com/VRSAPI/v1/QA/reports/TEST_REPORT**

Response:

HTTP 200 Successful operation

Body:

```
{
    "data": {
        "name": "test report",
        "code": "TEST_REPORT",
        "releaseTag": "MY_TAGS",
        "entities": [
            {
                "entityId": 25,
                "name": "Account",
                "code": "ACCOUNT"
            },
            {
```

```json
            "entityId": 48,
            "name": "Letter Filtered",
            "code": "LETTER_FILTERED"
        },
        {
            "entityId": 3,
            "name": "Date",
            "code": "SYSTEM_DATE"
        }
    ]
  }
}
```

2.4. Report retrieval service: Report instance

2.4.1. Generates a report

/v1/report-instances/generate

Description

The Report retrieval service: Report instance generates a report end point generates a report using the specified ID and the JSON in the request body.

Returns

HTTP status code	Description
202	Report generation request succeeded and report generation is in progress.
400	The supplied report definition code was either missing or invalid, or the report definition was not found.
401	Unauthorised.
403	No permissions to view reports in VRS.
404	The report code could not be found.
406	Unsupported Accepted header. Header needs to be set into application/json.

Example

Request:

POST **https://vrsqa01.hosting.factset.com/VRSAPI/v1/report-instances/generate**

Headers:

content-type: application/json

Body:

```
{

    "vrs": {

        "1": {

            "tenancy": "QA",

            "report": "SYNC_REPORT",

            "outputFormat": "PDF",

            "entitySelection": {
```

```
                    "SYSTEM_DATE": {

                        "key": "2021-04-14 00:00:00"

                    }

                }

            }

        }

    }
```

Response:

HTTP 202 Report generation request succeeded and report generation is in progress.

Headers:

location: https://vrsqa01.hosting.factset.com/VRSAPI/v1/QA/report-instances/192175

2.4.2. Cancels a report generation

/v1/{tenant}/report-instances/{reportInstanceId}

Description

The Report retrieval service cancels a report definition end point sends a request to cancel a report generation based on the report instance id passed.

Request Parameters

Parameter Name	Data type	Required	Description
tenant	String	Yes	The code of the tenancy
reportInstanceId	String	Yes	The id of the report instance.

Returns

HTTP status code	Description
204	No content.
400	The supplied report instance id was either missing or invalid.
401	Unauthorised.
403	No permissions to view reports in VRS.
404	The supplied report instance ID could not be found.
406	Unsupported Accepted header. Header needs to be set into application/json.

Example

Request:

DELETE **https://vrsqa01.hosting.factset.com/VRSAPI/v1/QA/report-instances/192175**

Response:

HTTP 204 No content.

2.4.3. Gets a report instance based on the ID

/v1/{tenant}/report-instances/{reportInstanceId}

Description

The Report retrieval service gets a report instance based on the ID end point gets a report instance object based on the ID passed.

Request Parameters

Parameter Name	Data type	Required	Description
reportInstanceId	String	Yes	The id of the report instance.
tenant	String	Yes	The code of the tenancy

Returns

HTTP status code	Description
200	Report generation has completed and the report is ready to download.
202	Expected response returned if the report generation is not yet completed.
400	The supplied report instance id was either missing or invalid, or the report instance was not found.
401	Unauthorised.
403	No permissions to view reports in VRS.
404	The supplied report instance ID could not be found.
406	Unsupported Accepted header. Header needs to be set into application/json.

Example

Request:

GET **https://vrsqa01.hosting.factset.com/VRSAPI/v1/QA/report-instances/192176**

Response:

HTTP 200 Successful operation

Body:

```
{
    "data": {
        "reportInstanceId": 192176,
        "reportDefinitionId": 7764,
        "reportDefinitionName": "Sync Report",
        "reportName": "rep_397_47349_1624287482386.pdf",
        "userFriendlyReportName": "Sync Report (2021-04-14).pdf",
        "extension": "pdf",
        "reportRevision": {
```

```
            "reportStatus": "COMPLETED",
            "startDate": 1624287482000,
            "finishDate": 1624291086127,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "PDF",
            "percentageComplete": 100.0
        },
        "name": "Sync Report (2021-04-14).pdf"
    }
}
```

2.4.4. Gets a list of report instances

/v1/{tenant}/report-instances

Description

The Report retrieval service gets a list of report instances end point gets a list of report instances. This can be filtered down further by including query parameters in the URL. For example, a report definition id can be added so the only report instances returned are the ones with a matching id.

Request Parameters

Parameter Name	Data type	Required	Description
tenant	String	Yes	The code of the tenancy
reportDefinitionCode	String	No	Acts as a filter for the retrieval process. Filters the report instances that match the report definition code.
entityCodes	String	No	A series of query parameters used to filter the report instances by entity code. E.g. entityCode=DATE&entityCode=SYSTEM_LANG.
entityKeys	String	No	A series of query parameters used to filter the report instances by entity keys. E.g. entityKey=en-gb.
sectionFilter	String	No	Acts as a filter for the retrieval process. Filters the report instances that match the section filter
outputFormat	String	No	Acts as a filter for the retrieval process. Filters the report instances that match the output format.
_paginationLimit	Integer	No	Non-negative maximum number of entries to return.

Returns

HTTP status code	Description
200	Successful operation.
401	Unauthorised.
403	No permissions to view reports in VRS.
406	Unsupported Accepted header. Header needs to be set into application/json.

Example

Request:

GET **https://vrsqa01.hosting.factset.com/VRSAPI/v1/QA/report-instances**

Response:

HTTP 200 Successful operation

Body:

```json
{
    "meta": {
        "pagination": {
            "total": 25,
            "isEstimatedTotal": false,
            "next": null,
            "previous": null
        }
    },
    "data": [
        {
            "reportInstanceId": 108,
            "reportDefinitionId": 24,
            "reportDefinitionName": "test report",
            "reportName": "rep_27_42933_1500385076142.pdf",
            "userFriendlyReportName": "XDummy_30 June 2017 00 00 00.pdf",
            "extension": "pdf",
            "reportRevision": {
                "reportStatus": "COMPLETED",
                "startDate": 1500388676000,
                "finishDate": null,
                "signOffStatus": "PENDING",
                "signOffNotes": "",
                "reportReasonCd": null,
                "description": null,
                "languageCode": "EN-GB",
                "outputFormat": "PDF",
                "percentageComplete": 100.0
            },
            "name": "XDummy_30 June 2017 00 00 00.pdf"
        },
        {
            "reportInstanceId": 177,
            "reportDefinitionId": 24,
            "reportDefinitionName": "test report",
            "reportName": "rep_13_18366_1502391332271.pdf",
            "userFriendlyReportName": "345EWQ1_31 July 2017 00 00 00.pdf",
            "extension": "pdf",
            "reportRevision": {
                "reportStatus": "COMPLETED",
                "startDate": 1502394932000,
                "finishDate": null,
                "signOffStatus": "PENDING",
                "signOffNotes": "",
                "reportReasonCd": null,
                "description": null,
                "languageCode": "en-gb",
```

```
                "outputFormat": "PDF",
                "percentageComplete": 100.0
            },
            "name": "345EWQ1_31 July 2017 00 00 00.pdf"
        },
        {

            "reportInstanceId": 178,
            "reportDefinitionId": 24,
            "reportDefinitionName": "test report",
            "reportName": "rep_13_68765_1502391727155.pdf",
            "userFriendlyReportName": "345EWQ1_31 July 2017 00 00 00.pdf",
            "extension": "pdf",
            "reportRevision": {
                "reportStatus": "COMPLETED",
                "startDate": 1502395327000,
                "finishDate": null,
                "signOffStatus": "PENDING",
                "signOffNotes": "",
                "reportReasonCd": null,
                "description": null,
                "languageCode": "en-gb",
                "outputFormat": "PDF",
                "percentageComplete": 100.0
            },
            "name": "345EWQ1_31 July 2017 00 00 00.pdf"
        },
        {

            "reportInstanceId": 181,
            "reportDefinitionId": 24,
            "reportDefinitionName": "test report",
            "reportName": "rep_17_13870_1502393877635.zip",
            "userFriendlyReportName": "345EWQ_31 July 2017 00 00 00.zip",
            "extension": "zip",
            "reportRevision": {
                "reportStatus": "COMPLETED",
                "startDate": 1502397477000,
                "finishDate": null,
                "signOffStatus": "PENDING",
                "signOffNotes": "",
                "reportReasonCd": null,
                "description": null,
                "languageCode": "EN-GB",
                "outputFormat": "HTML",
                "percentageComplete": 100.0
            },
            "name": "345EWQ_31 July 2017 00 00 00.zip"
        },
        {

            "reportInstanceId": 186,
```

```json
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_17_39022_1502394184623.pdf",
        "userFriendlyReportName": "345EWQ_31 July 2017 00 00 00.pdf",
        "extension": "pdf",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1502397784000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "EN-GB",
            "outputFormat": "PDF",
            "percentageComplete": 100.0
        },
        "name": "345EWQ_31 July 2017 00 00 00.pdf"
    },
    {
        "reportInstanceId": 187,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_82746_1502394677533.pdf",
        "userFriendlyReportName": "345EWQ1_31 July 2017 00 00 00.pdf",
        "extension": "pdf",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1502398277000,
            "finishDate": null,
            "signOffStatus": "APPROVED",
            "signOffNotes": null,
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "PDF",
            "percentageComplete": 100.0
        },
        "name": "345EWQ1_31 July 2017 00 00 00.pdf"
    },
    {
        "reportInstanceId": 188,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_69766_1502394932562.pdf",
        "userFriendlyReportName": "345EWQ1_31 July 2017 00 00 00.pdf",
        "extension": "pdf",
        "reportRevision": {
            "reportStatus": "COMPLETED",
```

```
            "startDate": 1502398532000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "PDF",
            "percentageComplete": 100.0
        },
        "name": "345EWQ1_31 July 2017 00 00 00.pdf"
    },
    {
        "reportInstanceId": 189,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_20913_1502394932564.docx",
        "userFriendlyReportName": "345EWQ1_31 July 2017 00 00 00.docx",
        "extension": "docx",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1502398532000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "WORD2010",
            "percentageComplete": 100.0
        },
        "name": "345EWQ1_31 July 2017 00 00 00.docx"
    },
    {
        "reportInstanceId": 191,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_95330_1502395312637.pdf",
        "userFriendlyReportName": "345EWQ1_31 July 2017 00 00 00.pdf",
        "extension": "pdf",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1502398912000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
```

```json
            "outputFormat": "PDF",
            "percentageComplete": 100.0
        },
        "name": "345EWQ1_31 July 2017 00 00 00.pdf"
    },
    {

        "reportInstanceId": 192,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_40855_1502395312639.docx",
        "userFriendlyReportName": "345EWQ1_31 July 2017 00 00 00.docx",
        "extension": "docx",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1502398912000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "WORD2010",
            "percentageComplete": 100.0
        },
        "name": "345EWQ1_31 July 2017 00 00 00.docx"
    },
    {

        "reportInstanceId": 194,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_84474_1502397973025.pdf",
        "userFriendlyReportName": "345EWQ_31 July 2017 00 00 00.pdf",
        "extension": "pdf",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1502401573000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "PDF",
            "percentageComplete": 100.0
        },
        "name": "345EWQ_31 July 2017 00 00 00.pdf"
    },
    {
        "reportInstanceId": 195,
```

```
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_15196_1502398213049.pdf",
        "userFriendlyReportName": "345EWQ_31 July 2017 00 00 00.pdf",
        "extension": "pdf",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1502401813000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "PDF",
            "percentageComplete": 100.0
        },
        "name": "345EWQ_31 July 2017 00 00 00.pdf"
    },
    {
        "reportInstanceId": 196,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_68860_1502398213052.xlsx",
        "userFriendlyReportName": "345EWQ_31 July 2017 00 00 00.xlsx",
        "extension": "xlsx",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1502401813000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "EXCEL2010",
            "percentageComplete": 100.0
        },
        "name": "345EWQ_31 July 2017 00 00 00.xlsx"
    },
    {
        "reportInstanceId": 197,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_15855_1502398213174.pptx",
        "userFriendlyReportName": "345EWQ_31 July 2017 00 00 00.pptx",
        "extension": "pptx",
        "reportRevision": {
            "reportStatus": "COMPLETED",
```

```
            "startDate": 1502401813000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "PPT2010",
            "percentageComplete": 100.0
        },
        "name": "345EWQ_31 July 2017 00 00 00.pptx"
    },
    {
        "reportInstanceId": 198,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_00614_1502398213177.docx",
        "userFriendlyReportName": "345EWQ_31 July 2017 00 00 00.docx",
        "extension": "docx",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1502401813000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "WORD2010",
            "percentageComplete": 100.0
        },
        "name": "345EWQ_31 July 2017 00 00 00.docx"
    },
    {
        "reportInstanceId": 200,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_65132_1502398338070.pdf",
        "userFriendlyReportName": "345EWQ_31 July 2017 00 00 00.pdf",
        "extension": "pdf",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1502401938000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
```

```json
            "outputFormat": "PDF",
            "percentageComplete": 100.0
        },
        "name": "345EWQ_31 July 2017 00 00 00.pdf"
    },
    {

        "reportInstanceId": 201,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_58315_1502398338072.xlsx",
        "userFriendlyReportName": "345EWQ_31 July 2017 00 00 00.xlsx",
        "extension": "xlsx",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1502401938000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "EXCEL2010",
            "percentageComplete": 100.0
        },
        "name": "345EWQ_31 July 2017 00 00 00.xlsx"
    },
    {

        "reportInstanceId": 202,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_57482_1502398338194.pptx",
        "userFriendlyReportName": "345EWQ_31 July 2017 00 00 00.pptx",
        "extension": "pptx",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1502401938000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "PPT2010",
            "percentageComplete": 100.0
        },
        "name": "345EWQ_31 July 2017 00 00 00.pptx"
    },
    {

        "reportInstanceId": 203,
```

```json
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_60270_1502398338246.docx",
        "userFriendlyReportName": "345EWQ_31 July 2017 00 00 00.docx",
        "extension": "docx",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1502401938000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "WORD2010",
            "percentageComplete": 100.0
        },
        "name": "345EWQ_31 July 2017 00 00 00.docx"
    },
    {
        "reportInstanceId": 380,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_14_33056_1505273766235.pdf",
        "userFriendlyReportName": "345EWQ1_31 July 2017 00 00 00.pdf",
        "extension": "pdf",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1505277366000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": null,
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "PDF",
            "percentageComplete": 100.0
        },
        "name": "345EWQ1_31 July 2017 00 00 00.pdf"
    },
    {
        "reportInstanceId": 431,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_56667_1505486402524.xlsx",
        "userFriendlyReportName": "345EWQ_31 August 2017 00 00 00.xlsx",
        "extension": "xlsx",
        "reportRevision": {
            "reportStatus": "COMPLETED",
```

```
            "startDate": 1505490002000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "EXCEL2010",
            "percentageComplete": 100.0
        },
        "name": "345EWQ_31 August 2017 00 00 00.xlsx"
    },
    {
        "reportInstanceId": 432,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_72631_1505486402527.pdf",
        "userFriendlyReportName": "345EWQ_31 August 2017 00 00 00.pdf",
        "extension": "pdf",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1505490002000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
            "outputFormat": "PDF",
            "percentageComplete": 100.0
        },
        "name": "345EWQ_31 August 2017 00 00 00.pdf"
    },
    {
        "reportInstanceId": 433,
        "reportDefinitionId": 24,
        "reportDefinitionName": "test report",
        "reportName": "rep_13_51452_1505486402702.docx",
        "userFriendlyReportName": "345EWQ_31 August 2017 00 00 00.docx",
        "extension": "docx",
        "reportRevision": {
            "reportStatus": "COMPLETED",
            "startDate": 1505490002000,
            "finishDate": null,
            "signOffStatus": "PENDING",
            "signOffNotes": "",
            "reportReasonCd": null,
            "description": null,
            "languageCode": "en-gb",
```

```json
                "outputFormat": "WORD2010",
                "percentageComplete": 100.0
            },
            "name": "345EWQ_31 August 2017 00 00 00.docx"
        },
        {

            "reportInstanceId": 434,
            "reportDefinitionId": 24,
            "reportDefinitionName": "test report",
            "reportName": "rep_13_61745_1505486402707.pptx",
            "userFriendlyReportName": "345EWQ_31 August 2017 00 00 00.pptx",
            "extension": "pptx",
            "reportRevision": {
                "reportStatus": "COMPLETED",
                "startDate": 1505490002000,
                "finishDate": null,
                "signOffStatus": "PENDING",
                "signOffNotes": "",
                "reportReasonCd": null,
                "description": null,
                "languageCode": "en-gb",
                "outputFormat": "PPT2010",
                "percentageComplete": 100.0
            },
            "name": "345EWQ_31 August 2017 00 00 00.pptx"
        },
        {

            "reportInstanceId": 435,
            "reportDefinitionId": 24,
            "reportDefinitionName": "test report",
            "reportName": "rep_13_81038_1505486403025.zip",
            "userFriendlyReportName": "345EWQ_31 August 2017 00 00 00.zip",
            "extension": "zip",
            "reportRevision": {
                "reportStatus": "COMPLETED",
                "startDate": 1505490003000,
                "finishDate": null,
                "signOffStatus": "PENDING",
                "signOffNotes": "",
                "reportReasonCd": null,
                "description": null,
                "languageCode": "en-gb",
                "outputFormat": "HTML",
                "percentageComplete": 100.0
            },
            "name": "345EWQ_31 August 2017 00 00 00.zip"
        }
    ]
}
```

2.4.5. Gets the generated file

/v1/{tenant}/report-instances/{reportInstanceId}/results/{reportFileName}

Description

The Report retrieval service gets the generated file end point get the generated file for a report instance. Users can fetch the generated report once the generation is finished. The report instance id and the report file name are passed in as path parameters.

Request Parameters

Parameter Name	Data type	Required	Description
tenant	String	Yes	The code of the tenancy
reportInstanceID	String	Yes	Used to validate that report file name belongs to the report instance passed.
reportFileName	String	Yes	The report file name that has to be retrieved. report file name. E.g. xyz.pdf.

Returns

HTTP status code	Description
200	Successful operation.
400	The supplied report instance id was either missing or invalid or the report instance was not found. The supplied report file name was either invalid or not found.
401	Unauthorised.
403	No permissions to view reports in VRS.
406	Unsupported Accepted header. Header needs to be set into application/json.

Example

Request:

GET **https://vrsqa01.hosting.factset.com/VRSAPI/v1/QA/report-instances/192176/results/rep_397_47349_1624287482386.pdf**

Response:

HTTP 200 Successful operation

2.4.6. Gets a list of logs for the report instance generation

v1/{TENANT_CODE}/report-instances/{reportInstanceId}/logs

Description

The Report retrieval service gets a list of logs for the report instance generation end point gets a list of logs for the report instance generation. Enables the user to sort on log message, type and date. Also allows for retrieving of just the errors and warnings.

Request Parameters

Parameter Name	Data type	Required	Description
tenant	String	Yes	The code of the tenancy
reportInstanceID	String	Yes	Used to validate that report file name belongs to the report instance passed.
fullLog	String	No	Determines if the endpoint should return a full set of logs or just the errors and warnings e.g: fullLog=true
_Sort	String	No	The column to sort on. Can add - to sort
_paginationLimit	Integer	No	Non-negative maximum number of entries to return
_paginationOffset	Integer	No	Non-negative number of entries to skip

Returns

HTTP status code	Description
200	Successful operation.
401	Unauthorised.
403	No permissions to view reports in VRS.
404	The supplied report instance ID could not be found.
406	Unsupported Accepted header. Header needs to be set into application/json.

Example

Request:

GET **https://vrsqa-jrs-04.prod.factset.com/VRSAPI/v1/QA/report-instances/108/logs**

Response:

HTTP 200 Successful operation

Body:

```
{
    "data": [
        {
```

```
        "message": "Compilation Completed (0.075s)",
        "updateDate": 1500385077227,
        "sequenceNumber": 2662,
        "type": "LOG"
    },
    {

        "message": "Component Preprocessing Completed (0.005s)",
        "updateDate": 1500385077363,
        "sequenceNumber": 2664,
        "type": "LOG"
    },
    {

        "message": "Content Filter Processing Completed (0.005s)",
        "updateDate": 1500385076897,
        "sequenceNumber": 2657,
        "type": "LOG"
    },
    {

        "message": "Document Creation Completed",
        "updateDate": 1500385078630,
        "sequenceNumber": 2669,
        "type": "LOG"
    },
    {

        "message": "Document Filing Completed",
        "updateDate": 1500385090457,
        "sequenceNumber": 2673,
        "type": "LOG"
    },
    {

        "message": "Document Filing Started",
        "updateDate": 1500385090427,
        "sequenceNumber": 2672,
        "type": "LOG"
    },
    {

        "message": "Finished RG Processing (1.21s)",
        "updateDate": 1500385077590,
        "sequenceNumber": 2666,
        "type": "LOG"
    },
    {

        "message": "Get Data Completed (0.008s)",
        "updateDate": 1500385077127,
        "sequenceNumber": 2660,
        "type": "LOG"
    },
    {

        "message": "PDF Conversion Completed",
```

```json
        "updateDate": 1500385090420,
        "sequenceNumber": 2671,
        "type": "LOG"
    },
    {

        "message": "PDF Conversion Started",
        "updateDate": 1500385078660,
        "sequenceNumber": 2670,
        "type": "LOG"
    },
    {

        "message": "Post Processing Completed (0.034s)",
        "updateDate": 1500385077400,
        "sequenceNumber": 2665,
        "type": "LOG"
    },
    {

        "message": "Rendering instance 108 on beu05wrsa01",
        "updateDate": 1500385077927,
        "sequenceNumber": 2668,
        "type": "LOG"
    },
    {

        "message": "Rendering Instruction Processing Completed (0.009s)",
        "updateDate": 1500385077147,
        "sequenceNumber": 2661,
        "type": "LOG"
    },
    {

        "message": "Request Retrieval Completed (0.355s)",
        "updateDate": 1500385076847,
        "sequenceNumber": 2656,
        "type": "LOG"
    },
    {

        "message": "Rule Processing Completed (0.054s)",
        "updateDate": 1500385077107,
        "sequenceNumber": 2659,
        "type": "LOG"
    },
    {

        "message": "Started RG Processing",
        "updateDate": 1500385076473,
        "sequenceNumber": 2655,
        "type": "LOG"
    },
    {

        "message": "Style Preprocessing Completed (0.103s)",
        "updateDate": 1500385077013,
```

```json
                "sequenceNumber": 2658,
                "type": "LOG"
        },
        {
                "message": "Substitution Completed (0.11s)",
                "updateDate": 1500385077347,
                "sequenceNumber": 2663,
                "type": "LOG"
        },
        {
                "message": "WRS Rendering Completed",
                "updateDate": 1500385090487,
                "sequenceNumber": 2674,
                "type": "LOG"
        },
        {
                "message": "WRS Rendering Started",
                "updateDate": 1500385077723,
                "sequenceNumber": 2667,
                "type": "LOG"
        }
    ]
}
```

3. SCIM

From VRS version 21.9, our new users and roles API utilises System for Cross-domain Identity Management (SCIM) 2.0 standard. In order for clients to make use of the SCIM API, WildFly requires an update. Should you wish to benefit from this feature, please contact the Vermilion Support team for assistance.

3.1.1. Retrieve VRS users

/scim/v2/Users/

Description

SCIM: retrieves the full list of VRS users.

Request Parameters

Parameter Name	Data type	Required	Description
count	Integer	No	Non-negative maximum number of entries to return
startIndex	Integer	No	The 1-based index of the first query result

Returns

HTTP status code	Description
200	Successful operation.
401	Unauthorised.
403	No permissions to view data sources in VRS.

Example

Request:

GET **https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users?count=5&startIndex=0**

Response:

HTTP 200 Successful operation

Body:

```
{
    "schemas": [
        "urn:ietf:params:scim:api:messages:2.0:ListResponse"
    ],
    "totalResults": 5,
    "itemsPerPage": 5,
    "startIndex": 1,
    "Resources": [
        {
            "schemas": [
                "urn:scim:schemas:extension:FactSet:VRS:1.0:User"
```

```
            ],
            "id": "321",
            "userName": "$%!",
            "name": {
                "formatted": "$%!"
            },
            "userType": "0",
            "active": true,
            "authenticatedUserName": "",
            "tenant": "QA",
            "emails": [
                {
                    "value": "dummy@vermilionreporting.com",
                    "type": "work",
                    "primary": true
                }
            ],
            "phoneNumbers": [
                {
                    "value": "",
                    "type": "work",
                    "primary": true
                }
            ],
            "domainCode": "vrsqa-jrs-01",
            "isAdministrator": false
        },
        {
            "schemas": [
                "urn:scim:schemas:extension:FactSet:VRS:1.0:User"
            ],
            "id": "200",
            "userName": "♪",
            "name": {
                "formatted": "Quaver"
            },
            "userType": "0",
            "active": true,
            "authenticatedUserName": "",
            "tenant": "QA",
            "emails": [
                {
                    "value": "dummy@vermilionreporting.com",
                    "type": "work",
                    "primary": true
                }
            ],
            "phoneNumbers": [
                {
```

```
                    "value": "",
                    "type": "work",
                    "primary": true
                }
            ],
            "domainCode": "vrsqa-jrs-01",
            "isAdministrator": false
        },
        {

            "schemas": [
                "urn:scim:schemas:extension:FactSet:VRS:1.0:User"
            ],
            "id": "444",
            "userName": "7512test",
            "name": {
                "formatted": "7512test"
            },
            "userType": "0",
            "active": true,
            "authenticatedUserName": "",
            "tenant": "TRAINING",
            "emails": [
                {
                    "value": "jira7512@gmail.com",
                    "type": "work",
                    "primary": true
                }
            ],
            "phoneNumbers": [
                {
                    "value": "",
                    "type": "work",
                    "primary": true
                }
            ],
            "domainCode": "vrsqa-jrs-01",
            "isAdministrator": false
        },
        {
            "schemas": [
                "urn:scim:schemas:extension:FactSet:VRS:1.0:User"
            ],
            "id": "10",
            "userName": "admin",
            "name": {
                "formatted": "admin"
            },
            "userType": "1",
            "active": true,
```

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```json
        "authenticatedUserName": "",
        "tenant": "MASTER",
        "emails": [
            {
                "value": "dummy@vermilionreporting.com",
                "type": "work",
                "primary": true
            }
        ],
        "phoneNumbers": [
            {
                "value": "",
                "type": "work",
                "primary": true
            }
        ],
        "domainCode": "vrsqa-jrs-01",
        "isAdministrator": true
    },
    {

        "schemas": [
            "urn:scim:schemas:extension:FactSet:VRS:1.0:User"
        ],
        "id": "270",
        "userName": "andré-silva@test.com",
        "name": {
            "formatted": "André Silva"
        },
        "userType": "0",
        "active": true,
        "authenticatedUserName": "",
        "tenant": "SANDBOX",
        "emails": [
            {
                "value": "dummy@vermilionreporting.com",
                "type": "work",
                "primary": true
            }
        ],
        "phoneNumbers": [
            {
                "value": "",
                "type": "work",
                "primary": true
            }
        ],
        "domainCode": "vrsqa-jrs-01",
        "isAdministrator": false
    }
```

```
    ]
}
```

3.1.2. Creates a user

/scim/v2/Users/

Description

SCIM: Creates a VRS user.

Request Parameters

N/A

Returns

HTTP status code	Description
201	Created
400	Bad Request, required values not provided in JSON request body (e.g. tenant, name or userName (loginID)
403	Forbidden, user does not have permission to create users or it does not have requested tenancy assigned to it
409	User already exists

Example

Request:

POST https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users

Response:

HTTP 201 Created

Body:

```
{
    "schemas": [
        "urn:scim:schemas:extension:FactSet:VRS:1.0:User"
    ],
    "id": "641",
    "userName": "SCIM_TEST_DEB",
    "name": {
        "formatted": "New User DEB"
    },
    "userType": "0",
    "active": true,
    "authenticatedUserName": "",
    "tenant": "MASTER",
    "emails": [
        {
            "value": "abcdef@factset.com",
            "type": "work",
```

```json
            "primary": true
        }
    ],
    "phoneNumbers": [
        {
            "value": "123",
            "type": "work",
            "primary": true
        }
    ],
    "photos": [
        {
            "value": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/profilepicpath"
        }
    ],
    "domainCode": "vrsqa-jrs-01",
    "isAdministrator": false,
    "meta": {
        "resourceType": "VRSUser",
        "created": "2022-01-25T11:41:28.047Z",
        "lastModified": "2022-01-25T11:41:28.047Z",
        "location": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/641"
    }
}
```

3.1.3. Retrieves a VRS user

/scim/v2/Users/{userId}

Description

SCIM: Retrieves a VRS user based on their ID.

Request Parameters

Parameter Name	Data type	Required	Description
userID	String	Yes	The ID of the user

Returns

HTTP status code	Description
200	Successful operation.
403	No permissions to view data sources in VRS.
404	Not Found

Example

Request:

GET **https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/321**

Response:

HTTP 200 Successful operation

Body:

```
{
    "schemas": [
        "urn:scim:schemas:extension:FactSet:VRS:1.0:User"
    ],
    "id": "321",
    "userName": "$%!",
    "name": {
        "formatted": "$%!"
    },
    "userType": "0",
    "active": true,
    "authenticatedUserName": "",
    "tenant": "QA",
    "emails": [
        {
            "value": "dummy@vermilionreporting.com",
            "type": "work",
            "primary": true
        }
```

```json
    ],
    "phoneNumbers": [
        {
            "value": "",
            "type": "work",
            "primary": true
        }
    ],
    "domainCode": "vrsqa-jrs-01",
    "isAdministrator": false,
    "meta": {
        "resourceType": "VRSUser",
        "created": "2019-08-28T20:57:06.670Z",
        "lastModified": "2019-08-28T20:57:06.670Z",
        "location": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/321"
    }
}
```

3.1.4. Deletes a VRS user

/scim/v2/Users/{userId}

Description

SCIM: Deletes a VRS user (this marks them as 'Deleted' in the database)

Request Parameters

Parameter Name	Data type	Required	Description
userID	String	Yes	The ID of the user

Returns

HTTP status code	Description
204	No content
403	Forbidden, user does not have permission to delete users
404	Not Found

Example

<u>**Request**</u>: **DELETE https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/270** **<u>Response:</u>** HTTP 204 No Content **<u>Body:</u>** 1

3.1.5. Add or remove VRS user attributes

/scim/v2/Users/{userId}

Description

SCIM: Adds or removes VRS user attributes based on the JSON properties

Request Parameters

Parameter Name	Data type	Required	Description
userID	String	Yes	The ID of the user

Returns

HTTP status code	Description
200	Successfully updated user
403	Forbidden, user does not have permission to update users
404	Not Found

Example

Request:

PATCH https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/628

Response:

HTTP 200 Successful operation

Body:

```
{
    "schemas": [
        "urn:scim:schemas:extension:FactSet:VRS:1.0:User"
    ],
    "id": "640",
    "userName": "New_User01",
    "name": {
        "formatted": "New User 9401"
    },
    "userType": "0",
    "active": true,
    "authenticatedUserName": "SCIM_Patchuser",
    "tenant": "MASTER",
    "emails": [
        {
            "value": "abcdef@factset.com",
            "type": "work",
            "primary": true
        }
```

```
        ],
        "phoneNumbers": [
            {
                "value": "123",
                "type": "work",
                "primary": true
            }
        ],
        "photos": [
            {
                "value": "http://vrsqa-jrs-01:9080/VRSAPI/profilepicpath"
            }
        ],
        "domainCode": "vrsqa-jrs-01",
        "isAdministrator": false,
        "meta": {
            "resourceType": "VRSUser",
            "created": "2022-01-25T11:40:11.717Z",
            "lastModified": "2022-01-25T06:46:37.9379092-05:00",
            "location": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/640"
        }
    }
}
```

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3.1.6. Updates a VRS user

/scim/v2/Users/{userId}

Description

SCIM: Updates (replaces) a VRS user with the properties in the JSON

Request Parameters

Parameter Name	Data type	Required	Description
userID	String	Yes	The ID of the user

Returns

HTTP status code	Description
200	Successfully updated user
403	Forbidden, user does not have permission to update users
404	Not Found

Example

Request:

PUT **https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/10**

Response:

HTTP 200 Successful operation

Body:

```
{
    "schemas": [
        "urn:scim:schemas:extension:FactSet:VRS:1.0:User"
    ],
    "id": "640",
    "userName": "API tests 10a",
    "name": {
        "formatted": "API Test Account_90a"
    },
    "userType": "0",
    "active": true,
    "authenticatedUserName": "",
    "tenant": "MASTER",
    "emails": [
        {
            "value": "abc.moon@factset.com",
            "type": "work",
            "primary": true
        }
```

```json
    ],
    "phoneNumbers": [
        {
            "value": "12349000",
            "type": "work",
            "primary": true
        }
    ],
    "domainCode": "vrsqa-jrs-01",
    "isAdministrator": false,
    "meta": {
        "resourceType": "VRSUser",
        "location": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/640"
    }
}
```

3.1.7. Retrieve a list of VRS roles/groups

/scim/v2/Groups/

Description

SCIM: Retrieves a VRS roles/groups

Request Parameters

Parameter Name	Data type	Required	Description
count	Integer	No	Non-negative maximum number of entries to return
startIndex	Integer	No	The 1-based index of the first query result

Returns

HTTP status code	Description
200	Successful operation
403	Forbidden, user does not have permission to view roles/groups

Example

Request:

GET **https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Groups?count=5&startIndex=2**

Response:

HTTP 200 Successful operation

Body:

```
{
    "schemas": [
        "urn:ietf:params:scim:api:messages:2.0:ListResponse"
    ],
    "totalResults": 5,
    "itemsPerPage": 4,
    "startIndex": 2,
    "Resources": [
        {
            "schemas": [
                "urn:scim:schemas:extension:FactSet:VRS:1.0:Group"
            ],
            "id": "176",
            "displayName": "User Preferences ONLY",
            "members": [
                {
                    "value": "201",
```

```
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/201",
                "type": "User"
            },
            {
                "value": "264",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/264",
                "type": "User"
            },
            {
                "value": "289",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/289",
                "type": "User"
            },
            {
                "value": "291",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/291",
                "type": "User"
            },
            {
                "value": "342",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/342",
                "type": "User"
            },
            {
                "value": "354",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/354",
                "type": "User"
            },
            {
                "value": "355",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/355",
                "type": "User"
            },
            {
                "value": "371",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/371",
                "type": "User"
            },
            {
                "value": "381",
```

```
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/381",
                    "type": "User"
                },
                {
                    "value": "382",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/382",
                    "type": "User"
                },
                {
                    "value": "395",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/395",
                    "type": "User"
                },
                {
                    "value": "396",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/396",
                    "type": "User"
                },
                {
                    "value": "397",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/397",
                    "type": "User"
                },
                {
                    "value": "404",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/404",
                    "type": "User"
                },
                {
                    "value": "410",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/410",
                    "type": "User"
                },
                {
                    "value": "426",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/426",
                    "type": "User"
                },
                {
                    "value": "458",
```

```
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/458",
                    "type": "User"
                },
                {
                    "value": "459",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/459",
                    "type": "User"
                },
                {
                    "value": "512",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/512",
                    "type": "User"
                },
                {
                    "value": "623",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/623",
                    "type": "User"
                }
            ],
            "tenant": "MASTER",
            "domainCode": "vrsqa-jrs-01"
        },
        {
            "schemas": [
                "urn:scim:schemas:extension:FactSet:VRS:1.0:Group"
            ],
            "id": "303",
            "displayName": "View only",
            "members": [
                {
                    "value": "264",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/264",
                    "type": "User"
                },
                {
                    "value": "289",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/289",
                    "type": "User"
                },
                {
                    "value": "291",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/291",
```

```
                    "type": "User"
                },
                {
                    "value": "342",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/342",
                    "type": "User"
                },
                {
                    "value": "354",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/354",
                    "type": "User"
                },
                {
                    "value": "381",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/381",
                    "type": "User"
                },
                {
                    "value": "382",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/382",
                    "type": "User"
                },
                {
                    "value": "395",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/395",
                    "type": "User"
                },
                {
                    "value": "396",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/396",
                    "type": "User"
                },
                {
                    "value": "410",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/410",
                    "type": "User"
                },
                {
                    "value": "426",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/426",
                    "type": "User"
```

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```
            },
            {
                "value": "458",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/458",
                "type": "User"
            },
            {
                "value": "459",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/459",
                "type": "User"
            },
            {
                "value": "512",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/512",
                "type": "User"
            },
            {
                "value": "590",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/590",
                "type": "User"
            },
            {
                "value": "623",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/623",
                "type": "User"
            }
        ],
        "tenant": "MASTER",
        "domainCode": "vrsqa-jrs-01"
    },
    {
        "schemas": [
            "urn:scim:schemas:extension:FactSet:VRS:1.0:Group"
        ],
        "id": "89",
        "displayName": "oAKgIckRBG",
        "members": [
            {
                "value": "26",
                "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/26",
                "type": "User"
            },
            {
                "value": "200",
```

```
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/200",
                    "type": "User"
                },
                {
                    "value": "201",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/201",
                    "type": "User"
                },
                {
                    "value": "203",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/203",
                    "type": "User"
                },
                {
                    "value": "215",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/215",
                    "type": "User"
                },
                {
                    "value": "218",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/218",
                    "type": "User"
                },
                {
                    "value": "221",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/221",
                    "type": "User"
                },
                {
                    "value": "239",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/239",
                    "type": "User"
                },
                {
                    "value": "244",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/244",
                    "type": "User"
                },
                {
                    "value": "264",
```

```
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/264",
                    "type": "User"
                },
                {
                    "value": "289",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/289",
                    "type": "User"
                },
                {
                    "value": "291",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/291",
                    "type": "User"
                },
                {
                    "value": "323",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/323",
                    "type": "User"
                },
                {
                    "value": "324",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/324",
                    "type": "User"
                },
                {
                    "value": "326",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/326",
                    "type": "User"
                },
                {
                    "value": "342",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/342",
                    "type": "User"
                },
                {
                    "value": "354",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/354",
                    "type": "User"
                },
                {
                    "value": "371",
```

```
                        "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/371",
                        "type": "User"
                },
                {
                        "value": "381",
                        "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/381",
                        "type": "User"
                },
                {
                        "value": "382",
                        "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/382",
                        "type": "User"
                },
                {
                        "value": "395",
                        "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/395",
                        "type": "User"
                },
                {
                        "value": "396",
                        "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/396",
                        "type": "User"
                },
                {
                        "value": "397",
                        "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/397",
                        "type": "User"
                },
                {
                        "value": "404",
                        "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/404",
                        "type": "User"
                },
                {
                        "value": "410",
                        "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/410",
                        "type": "User"
                },
                {
                        "value": "426",
```

```
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/426",
                    "type": "User"
            },
            {
                    "value": "458",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/458",
                    "type": "User"
            },
            {
                    "value": "459",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/459",
                    "type": "User"
            },
            {
                    "value": "512",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/512",
                    "type": "User"
            },
            {
                    "value": "623",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/623",
                    "type": "User"
            }
        ],
        "tenant": "MASTER",
        "domainCode": "vrsqa-jrs-01"
    },
    {
        "schemas": [
            "urn:scim:schemas:extension:FactSet:VRS:1.0:Group"
        ],
        "id": "180",
        "displayName": "QA",
        "members": [
            {
                    "value": "201",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/201",
                    "type": "User"
            },
            {
                    "value": "264",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/264",
```

```
                    "type": "User"
                },
                {
                    "value": "284",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/284",
                    "type": "User"
                },
                {
                    "value": "289",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/289",
                    "type": "User"
                },
                {
                    "value": "291",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/291",
                    "type": "User"
                },
                {
                    "value": "340",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/340",
                    "type": "User"
                },
                {
                    "value": "342",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/342",
                    "type": "User"
                },
                {
                    "value": "354",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/354",
                    "type": "User"
                },
                {
                    "value": "371",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/371",
                    "type": "User"
                },
                {
                    "value": "381",
                    "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/381",
                    "type": "User"
```

```
            },
            {
                "value": "382",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/382",
                "type": "User"
            },
            {
                "value": "395",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/395",
                "type": "User"
            },
            {
                "value": "396",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/396",
                "type": "User"
            },
            {
                "value": "397",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/397",
                "type": "User"
            },
            {
                "value": "404",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/404",
                "type": "User"
            },
            {
                "value": "410",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/410",
                "type": "User"
            },
            {
                "value": "426",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/426",
                "type": "User"
            },
            {
                "value": "458",
                "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/458",
                "type": "User"
            },
```

```
                    {
                        "value": "459",
                        "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/459",
                        "type": "User"
                    },
                    {
                        "value": "512",
                        "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/512",
                        "type": "User"
                    },
                    {
                        "value": "594",
                        "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/594",
                        "type": "User"
                    },
                    {
                        "value": "623",
                        "$ref": "https://vrsqa-jrs-
01.prod.factset.com/VRSAPI/scim/v2/Users/623",
                        "type": "User"
                    }
                ],
                "tenant": "MASTER",
                "domainCode": "vrsqa-jrs-01"
            }
        ]
}
```

3.1.8. Creates a VRS role/group

/scim/v2/Groups/

Description

SCIM: Creates a VRS role/group

Request Parameters

N/A

Returns

HTTP status code	Description
201	Created
403	Forbidden, user does not have permission to create roles/groups
409	Role/Group already exists

Example

Request:

POST **https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Groups**

Response:

HTTP 201 Created

Body:

```
{
    "schemas": [
        "urn:scim:schemas:extension:FactSet:VRS:1.0:Group"
    ],
    "id": "2205",
    "displayName": "su_test_scim_role11a",
    "tenant": "MASTER",
    "domainCode": "vrsqa-jrs-01",
    "meta": {
        "resourceType": "VRSGroup",
        "created": "2022-01-25T11:52:53.567Z",
        "lastModified": "2022-01-25T11:52:53.567Z",
        "location": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Groups/2205"
    }
}
```

3.1.9. Retrieves a VRS role/group

/scim/v2/Groups/{groupId}

Description

SCIM: Retrieves a VRS role/group based on the ID

Request Parameters

Parameter Name	Data type	Required	Description
groupId	String	Yes	The ID of the role/group

Returns

HTTP status code	Description
200	Successful operation
403	Forbidden, user does not have permission to view roles/groups
404	Not Found

Example

Request:

GET **https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Groups/1**

Response:

HTTP 200 Successful operation

Body:

```json
{
    "schemas": [
        "urn:scim:schemas:extension:FactSet:VRS:1.0:Group"
    ],
    "id": "1",
    "displayName": "Admin",
    "members": [
        {
            "value": "10",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/10",
            "type": "User"
        },
        {
            "value": "11",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/11",
            "type": "User"
        },
        {
            "value": "14",
```

```json
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/14",
            "type": "User"
        },
        {
            "value": "15",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/15",
            "type": "User"
        },
        {
            "value": "16",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/16",
            "type": "User"
        },
        {
            "value": "20",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/20",
            "type": "User"
        },
        {
            "value": "21",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/21",
            "type": "User"
        },
        {
            "value": "24",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/24",
            "type": "User"
        },
        {
            "value": "26",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/26",
            "type": "User"
        },
        {
            "value": "158",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/158",
            "type": "User"
        },
        {
            "value": "159",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/159",
            "type": "User"
        },
        {
            "value": "200",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/200",
            "type": "User"
        },
        {
```

```
        "value": "201",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/201",
        "type": "User"
    },
    {

        "value": "203",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/203",
        "type": "User"
    },
    {

        "value": "215",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/215",
        "type": "User"
    },
    {

        "value": "218",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/218",
        "type": "User"
    },
    {

        "value": "221",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/221",
        "type": "User"
    },
    {

        "value": "239",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/239",
        "type": "User"
    },
    {

        "value": "244",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/244",
        "type": "User"
    },
    {

        "value": "245",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/245",
        "type": "User"
    },
    {

        "value": "251",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/251",
        "type": "User"
    },
    {

        "value": "264",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/264",
        "type": "User"
    },
```

```
    {
        "value": "284",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/284",
        "type": "User"
    },
    {
        "value": "289",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/289",
        "type": "User"
    },
    {
        "value": "291",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/291",
        "type": "User"
    },
    {
        "value": "296",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/296",
        "type": "User"
    },
    {
        "value": "304",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/304",
        "type": "User"
    },
    {
        "value": "309",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/309",
        "type": "User"
    },
    {
        "value": "323",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/323",
        "type": "User"
    },
    {
        "value": "324",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/324",
        "type": "User"
    },
    {
        "value": "326",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/326",
        "type": "User"
    },
    {
        "value": "336",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/336",
        "type": "User"
```

```json
    },
    {
        "value": "340",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/340",
        "type": "User"
    },
    {
        "value": "342",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/342",
        "type": "User"
    },
    {
        "value": "354",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/354",
        "type": "User"
    },
    {
        "value": "356",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/356",
        "type": "User"
    },
    {
        "value": "371",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/371",
        "type": "User"
    },
    {
        "value": "381",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/381",
        "type": "User"
    },
    {
        "value": "382",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/382",
        "type": "User"
    },
    {
        "value": "395",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/395",
        "type": "User"
    },
    {
        "value": "396",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/396",
        "type": "User"
    },
    {
        "value": "397",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/397",
```

```json
        "type": "User"
    },
    {
        "value": "410",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/410",
        "type": "User"
    },
    {
        "value": "415",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/415",
        "type": "User"
    },
    {
        "value": "416",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/416",
        "type": "User"
    },
    {
        "value": "426",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/426",
        "type": "User"
    },
    {
        "value": "458",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/458",
        "type": "User"
    },
    {
        "value": "469",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/469",
        "type": "User"
    },
    {
        "value": "472",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/472",
        "type": "User"
    },
    {
        "value": "473",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/473",
        "type": "User"
    },
    {
        "value": "512",
        "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/512",
        "type": "User"
    },
    {
        "value": "517",
```

```json
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/517",
            "type": "User"
        },
        {
            "value": "594",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/594",
            "type": "User"
        },
        {
            "value": "623",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/623",
            "type": "User"
        }
    ],
    "tenant": "MASTER",
    "domainCode": "vrsqa-jrs-01",
    "meta": {
        "resourceType": "VRSGroup",
        "created": "2020-08-25T13:50:10.607Z",
        "lastModified": "2020-08-25T13:50:10.607Z",
        "location": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Groups/1"
    }
}
```

3.1.10.   Deletes a VRS role/group

/scim/v2/Groups/{groupId}

Description

SCIM: Deletes a VRS role/group

Request Parameters

Parameter Name	Data type	Required	Description
groupId	String	Yes	The ID of the role/group

Returns

HTTP status code	Description
204	No content
403	Forbidden, user does not have permission to delete roles/groups
404	Not Found

Example

Request: **DELETE https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Groups/2205**   **Response:**   HTTP 204 No content   **Body:**   **1**

3.1.11. Add or remove a user to/from a role/group

/scim/v2/Groups/{groupId}

Description

SCIM: Adds or removes a VRS user to/from a VRS role/group

Request Parameters

Parameter Name	Data type	Required	Description
groupId	String	Yes	The ID of the role/group

Returns

HTTP status code	Description
204	Successfully added user to role/group

Example

Request:

PATCH https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Groups/2205

Response:

HTTP 200 Successful operation

Body:

```
{
    "schemas": [
        "urn:scim:schemas:extension:FactSet:VRS:1.0:Group"
    ],
    "id": "2205",
    "displayName": "su_test_scim_role11a",
    "members": [
        {
            "value": "11",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/11",
            "type": "User"
        }
    ],
    "tenant": "MASTER",
    "domainCode": "vrsqa-jrs-01",
    "meta": {
        "resourceType": "VRSGroup",
        "created": "2022-01-25T11:52:53.567Z",
        "lastModified": "2022-01-25T11:52:53.567Z",
        "location": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Groups/2205"
    }
```

```
}
```

3.1.12. Updates a VRS role

/scim/v2/Groups/{groupId}

Description

SCIM: Updates (replaces) a VRS role/group with the properties in the JSON

Request Parameters

Parameter Name	Data type	Required	Description
groupId	String	Yes	The ID of the role/group

Returns

HTTP status code	Description
200	Successfully updated role/group
403	Forbidden, user does not have permission to update roles/groups
404	Not Found

Example

Request:

PUT **https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Groups/623**

Response:

HTTP 200 Successful operation

Body:

```
{
    "schemas": [
        "urn:scim:schemas:extension:FactSet:VRS:1.0:Group"
    ],
    "id": "623",
    "displayName": "API_auto_03_03",
    "members": [
        {
            "value": "354",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/354",
            "type": "User"
        },
        {
            "value": "623",
            "$ref": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Users/623",
            "type": "User"
        }
    ],
    "tenant": "TESTIMPORT",
```

```
    "domainCode": "vrsqa-jrs-01",
    "meta": {
        "resourceType": "VRSGroup",
        "created": "2022-01-21T15:56:37.783Z",
        "lastModified": "2022-01-21T15:56:37.783Z",
        "location": "https://vrsqa-jrs-01.prod.factset.com/VRSAPI/scim/v2/Groups/623"
    }
}
```

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4. Troubleshooting

The following steps are recommended to troubleshoot errors from any of the different APIs

- Record the response body when the response is an error response. All HTTP status codes equal to and greater than 400 are considered error responses.

- Reach out to your account team with the above information for assistance.

5. Version Upgrade

FactSet will support old API versions for a limited time. The actual support time will depend on the API and the release stage of the core VRS product. All breaking changes, functionality additions, and bug fixes across earlier versions will be documented in the Release Notes. FactSet's API engineering team will work with the clients to ensure smooth transition to newer versions.

6. Appendix: Supported Date Format

The system will only accept the following format "yyyy-MM-dd HH:mm:ss" for all end points.