



# FactSet Procure-to-Pay API

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## Scope

This document describes how to use FactSet's Procure-to-Pay Provisioning API endpoints to create and manage FactSet user accounts and entitlements. The API adheres to the following SCIM RFCs:

<https://datatracker.ietf.org/doc/html/rfc7644> (Protocol)

<https://datatracker.ietf.org/doc/html/rfc7643> (Schema)

You should be familiar with the XML and JSON languages, HTTP protocol and Web Services. This document will describe the syntax needed for proper request formatting as well as the rules for processing responses. In addition, code examples are included, which further illustrate the use of this service.

## Authentication

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

## UAT-Path

The API supports a UAT path, <https://api.uat.factset.com/scim/v2> which is provided solely for testing of bug fixes and enhancements. Any changes, additions or updates of any kind passed into the UAT path will apply as if they were passed into production-path endpoints except for any new, documented features, of the UAT paths. If you require use of the UAT domain, please submit an [Issue Tracker](#) to FactSet to request this.

## Procure-to-Pay Provisioning API Introduction

This section describes how to use FactSet's externally facing API to create and manage user provisioning and entitlement. You should be familiar with the XML language, the HTTP protocol, and Web Services. This document will describe the syntax needed for proper request formatting as well as the rules for processing responses. JSON examples are included as well in [section 9](#) of this document.

The API described in this document allows for the creation, modification, and deletion of end users on FactSet's systems.

Please note that if [Vermilion Reporting Suite](#) (VRS) is in scope of your implementation, a minimum version of "VRS 21.9" is required to make use of this API against VRS users. Please speak with your FactSet account team for questions related to versions or upgrading.

You may review the [Common Workflows](#) section of this document for various, working examples of available workflows for the available API endpoints.

## Alerts and Updates

You and members of your team with access to FactSet and supporting the API should subscribe to Provisioning API updates and alerts so as to keep informed of enhancements, updates fixes and most critically, retirement of older revisions of the API.

You will find the ability to subscribe to these updates at <https://notify.factset.com> – located under Datafeeds and APIs > FactSet APIs > Provisioning APIs.

## Terms

Below please find terms and definitions of parameters and values of this API which are particular to FactSet.

### Serial Number

A unique identifier allocated to each individual with access to FactSet. A serial number is distinct and never re-used if cancelled. Only individuals with a Serial Number will be returned via the API. If an individual's serial number is cancelled

### Username

Each Serial Number is allocated to a Username. A Username represents a logical grouping of serial numbers. This grouping may be determined by business type, physical location, or job role amongst others and is determined by your FactSet account team and is a relatively static and unchanging list. A list of available usernames to allocate Serial Numbers to and descriptions is available in FactSet's [Control Center](#) under "Usernames & QNT Accounts" and are also available via API should an unknown username be provided.

### Products

Products represent entitlements to either FactSet Products, Exchanges or Benchmarks and may be allocated to, or removed from, individuals via the API. A list of products for allocation to Serial Numbers is available via the [Products Management](#) endpoints of this API. If additional products need to be made available for you to order, please contact your FactSet Account Team.

### Location

Each individual allocated a Serial Number must be assigned a location. A list of available locations and details are available from the [Location Management](#) endpoints of this API. If new locations need to be made available, please contact your FactSet Account Team. Redistributors may access the /Locations endpoint via POST for new client locations.

### Workstation

A FactSet workstation, remarked by Workstation=TRUE, represents base level access to FactSet and issues the individual a serial number. Workstation products may never be removed from an individual but may be updated to new values. If you wish to cancel all entitlements of an individual, see [Delete User](#).

### RoleName

RoleName is an optional parameter, determined by your FactSet Account Team. RoleNames are optional attributes passed in on POST/PATCH/PUT requests to /Users which always allocates or updates a Workstation and any products you and your Account Team determine in order to provision users for any base level of entitlements on creation/update; saving calls to the API. If a RoleName is not passed in on the creation of a serial, then a pre-defined, default FactSet workstation, as defined by your Account Team, will be allocated to the new user. Typically, this default workstation will be 6781 – FactSet Identity. Workstations issued by FactSet will never be allocated a roleName as the value is only utilized via the API. You may however allocate roleNames to user resources returned by the API.

### AssertionValue (SAML NameID)

FactSet supports SAML2.0 for means of authentication to FactSet-domain resources within a browser. Should a Federation exist between your domain and FactSet's you may manually define the [expected nameID](#) for the SSO login of the individual. AssertionValues **must** be unique within the Federation and may not contain the following characters: ", <, >, \*, &, ?, #, %, {, }, |, \, /, ^, ~, [, ]. See [Federation Schema](#) for customizing Federation assertions. Most Direct Client implementations utilize the Federation Auto-Sync Feature of FactSet's [Control Center](#). Additional Federation Details and controls are documented [here](#).

### Taxonomy

Within this document, Locations and Users carry with them taxonomy. User Taxonomy describes the user's role and job-function within your firm as provided by FactSet. Location Taxonomy describes the type of business performed by that specific location. See [section 6](#) for these values.

## User Provisioning

The [Procure-to-Pay API](#) should be integrated into your user-onboarding/CRM systems to provide seamless ordering and integration with FactSet. Use of this API should primarily be workflow based with support for ad-hoc and bulk solutions to leverage the API and its endpoints.

To receive FactSet content, individuals must be provisioned via the provided API in FactSet's CRM system and be entitled for a. FactSet's CRM system contains basic information about the end user's name, e-mail address and location. In addition, FactSet assigns each user a unique [serial number](#) which is never reused. Individuals are grouped into FactSet [Usernames](#) which represent groupings of individuals aligned by business unit, workflow, location or other grouping as determined by your account team.

## Transaction Logging and Details

All transactions against the API will contain a distinct value in the headers of the response titled: X-DataDirect-Request-Key. Your implementation should track these values for tracking and logging purposes as well as proof of the Service Provider's receipt of the request. In addition if support is required the specific Request-Key must be referenced. See [Server Information](#) section of this document examples of headers and responses.

Please note that all API transactions have a global timeout of 300-seconds. FactSet makes best effort to service all requests in the synchronous fashion defined by the SCIM RFC but should a transaction take longer on the Service Provider side, a message detailing to check back on the resource later will be seen with http-response:500. You may query the resource endpoint via details provided such as, email address or [externalId](#) (if provided) to check back on the given transaction.

## Direct Client Implementation

Direct client implementations are where individuals you provision are employed directly by your organization.

Available FactSet Usernames are listed in FactSet's Control Center in the left pane under [Usernames & QNT Accounts](#) as well as available per-location from the Location [schema](#). You may allocate new serial numbers to any available FactSet Username. Speak to your FactSet account representatives if you require additional Usernames or information regarding FactSet Usernames.

Once assigned a serial and allocated to a Username, individuals can then be assigned additional functionality or content via permissioning of additional FactSet products. FactSet creates different types of workstations which are containers holding predefined products and you may allocate via roleName. FactSet services many types of institutions; certain workstations or products are geared towards a particular workflow or use cases. Your FactSet account team may be contacted for details related to available workstations, roleName assignments and other FactSet products.

Please note that POST to /Locations is typically not provided to Direct Client Implementations. If you require new locations be created for your organization, please contact your FactSet account representative.

Products available for your use in allocating entitlement to individual serial numbers may be fetched via the [/products](#) endpoint. Examples are available in [section 9](#) of this document.

## Redistributor and Provider Implementation

Redistributor and Provider implementations are where the individuals you provision are individuals external to your organization whereby you serve as a host for FactSet content.

Each new location you create via POST to /locations will assign a net new FactSet username allocated to that specific location. Only usernames listed in Locations [schema](#) are available for use at the given location. See additional details for location creation [here](#).

A brief instructional for creation of new locations and workstations can be found in FactSet's recipe catalog here:

- <https://developer.factset.com/recipe-catalog/manage-new-locations-and-users-at-scale-via-an-api>

Products available for your use in allocating entitlement to individual serial numbers may be fetched via the [/products](#) endpoint. Examples are available in [section 9](#) of this document.

Depending on the complexity of your deployment, roleName assignments may not be made available for your use. If this is the case, you must make use of FactSet's [Taxonomy Schema](#) to describe your users. See [section 6](#) of this document for detail as to this usage. **If you are migrating from the User Provisioning API (UP API) then roleNames are not configured for your use by design, please utilize FactSet's provided Taxonomy and Schema as with your prior implementation via the User Provisioning API.**

## Migration for User Provisioning API Implementations

This section is intended to assist implementors of legacy provisioning solutions and to assist in your migration of provisioning workflows.

### **Environments and Federations**

Your legacy implementation of a FactSet Provisioning API may have utilized two-or-more machine serials to manage entitlement of FactSet serials across your various environments. Your environments have historically been siloed, separating users into your environments by which Federation the individual is mapped into.

The SCIM API is scoped to manage all FactSet serials across your various environments with a single machine serial (denoted historically as remarked for 'Production'), this is accomplished by exposing which Federation the individual is mapped to as a measure of your environment. See the [Federations Endpoint](#) and [Schema](#) for additional detail as to this feature.

You may utilize your preferred [authentication mechanism](#) to create additional API Keys or OAUTH clients for the machine serial to provide for discreet authentication, siloed per your-environment.

### **AssertionField**

Assertionfield is now presented as [Federation schema](#) within the SCIM API. The Federations Endpoint and Schema must be utilized for Federation mappings.

### **Location Creation**

(Only available to Redistributors of FactSet content)

Location creation is now a distinct workflow. Rather than an overloaded request to /createIndividual endpoint, utilize POST to [/locations](#) endpoint to create a new location. The endpoint will respond back with the new username assigned to the location on success. FactSet Firm Descriptions (formerly firmDescId) are otherwise the same, documented in [section 6](#) of this document and serviceable via the API from GET [/firmDescriptions](#), returning a full list of available Firm Descriptions for new locations.

You may also utilize GET to [/locations](#) endpoint to discern all current locations and their details including applicable usernames for each location.

### **CompanyID**

(Also applies to siteCode references)

The SCIM RFC requires that the Service Provider (FactSet) issue all resource identifiers ([ref](#)). The location resource identifier value is represented as the location [id] within the [FactSet location schema](#) and is presented as the same integer-value as provided in the legacy UP API's /listCompanies endpoint via the factSetLocationID attribute. You may optionally look to utilizing the ExternalID attribute for mapping the user ID for managed users into your system.

### **UniqueID**

The SCIM RFC requires that the Service Provider (FactSet) issue all resource identifiers ([ref](#)). The user resource identifier value is represented as the user [id] within the [SCIM Core User Schema](#) and is typically formatted as the user's USERNAME-SERIAL. The user ID is used to manage the individual user-resource and is your replacement for the UniqueID from the legacy UP APIs. The uniqueID value per-user has been preserved, temporarily, within the [Core FactSet user schema](#) to allow you to map the FactSet user and locations resource identifiers on your end of the implementation.

The uniqueID presentation within the user object will be removed on a to-be-determined date as it is a legacy representation of the user. You may optionally look to utilizing the ExternalID attribute for mapping the user ID for managed users into your system.

### **User Creation**

Creation of new FactSet User is now via POST to [/users](#) endpoint. FactSet taxonomy, if utilized in your previous implementation is the same in terms of applicable Firm Descriptions, available User Classes and Position IDs. Taxonomy values are available in those document, [section 6](#) and discoverable via the [/UserClasses](#) and [/UserPositions](#) endpoints.

If your prior implementation used roleNames instead, you may forego providing taxonomy information.



A new concept and feature with respect to user creation is the requirement to provide the FactSet [Username](#) the new user is to be associated with. The [/Locations](#) endpoint and [schema](#) will provide a list of available usernames the new user may be associated with per-location.

### **RoleName Assignments**

The SCIM API is based on providing roleName assignments for easy deployment of FactSet workstations and entitlements. If roleNames were provided to you in the past, you may continue to utilize them. If roleNames were not provided in your prior solution you may disregard passing this value during provisioning and entitlement if your users.

### **Get User Details and Product Entitlements**

Fetching whole lists of users and their entitlements has been greatly simplified with the SCIM RFC. Get /users returns a paginated list of all individuals at all locations, including their individual FactSet product entitlements. See example filters in this document for examples. A more exhaustive list of available filters is available in the SCIM RFC here: <https://tools.ietf.org/html/rfc7644#section-3.4.2.2>

### **Add Remove FactSet Products**

Adding and removing products to/from an individual no longer utilize distinct endpoints. Products may be added/removed via PATCH or PUT to the [/users](#) endpoint. Examples are located within this document [here](#).

### **Managing Company Workflow**

Managing Entitlements Administrator workflows from the User Provisioning API endpoints /setManagingCompanyID and /listManagingCompanies endpoints are now handled within the Locations endpoint, see provided [schema](#) for additional details. You may update managed companies for a given location via PATCH operation to /locations endpoint. (you may still only add to list of managed locations) Managed companies for a given location, if defined, will be returned within the location object on GET to [/locations](#) endpoint.

### **Company Agreements**

Managing Company Agreements workflows from the User Provisioning API endpoints /setCompanyAgreements and /getCompanyAgreements endpoints are now handled within the Locations endpoint, see provided [schema](#) for additional details. You may update managed companies for a given location via PUT/PATCH operation to /locations endpoint. (you may still only add to list of managed locations – for removal of managed locations please file with [FactSet Support](#)) Any already-provided Company Agreement URLs for a given location, if defined, will be returned within the location object on GET to [/locations](#) endpoint.

### **TransactionStatus**

Unlike the legacy User Provisioning API, the Procure-to-Pay API is a synchronous API. As such there is no equivalent for the legacy /transactionStatus endpoint. It is typically not necessary to check back on orders as the entire resource is returned on completion of the order/request. See [Transaction Logging](#) for replacement of the legacy **transactionCode**.



# 1. SCIM API Schemas

Each Schema urn:<value> may be passed into the [GET /schemas endpoint](#) for verbose information on each schema.

## Core: User – schemas:core:2.0:User

*"schemas":["urn:ietf:params:scim:schemas:core:2.0:User"],*

See <https://datatracker.ietf.org/doc/html/rfc7643> for description of SCIM-RFC specific user core attributes. The API itself is otherwise self-describing at [FactSet's Developer Portal](#) within the downloadable .yaml file.

The service provider will allocate all resources an ID per [RFC7643](#). This ID may be utilized for further management of the resource, it may not be changed. You, the implementer, may optionally assign an individual your own mapping-value by providing an [ExternalID](#) value for any resource where available.

## Core: Groups – schemas:core:2.0:Group

*"schemas":["urn:ietf:params:scim:schemas:core:2.0:Group"],*

See <https://datatracker.ietf.org/doc/html/rfc7643> - **Group Representation** for description of SCIM-RFC specific Group core attributes. The API itself is otherwise self-describing at [FactSet's Developer Portal](#) as well as within the downloadable .yaml file.

"value" representations of Group members are the core:2.0:User "id" which FactSet has provisioned the user/individual with, typically a concatenation of the individual's FactSet Username-Serial.

## FactSet User Attributes – FactSet:Core:1.0:User

See [section 3](#) for user management.

Basic FactSet-specific attributes of a given individual as presented by distinct serialNumber.

*"schemas":["urn:scim:schemas:extension:FactSet:Core:1.0:User"],*

Parameter name	Data type	Description
username	String	The FactSet <a href="#">username</a> the individual is (or is to be) allocated to
serialNumber	String	The unique and distinct FactSet <a href="#">serial number</a> allocated to each individual with access to FactSet
roleName	String	Represents the base set of products allocated to an individual.
products	Array	Array describing the FactSet <a href="#">products</a> allocated to an individual. See the <a href="#">FactSet Products</a> for more detail
pendingProductOrders	Array	Array of objects showing any products pending approval or exchange agreements after order.
location	Array	<a href="#">Location</a> details of the location the individual is (or is to be) allocated to. See <a href="#">FactSet Location Attributes</a> below for additional detail
royaltyClass	String	Determines the type of client the individual and the royalty fee to be remitted to FactSet for the individual. Expected Royalty Class values will be provided to you by your FactSet account representative
userTaxonomyData	Array	FactSet's classification of the user. User taxonomy is composed of a <a href="#">user class</a> as well as a <a href="#">user position</a> . If utilizing roleNames for provisioning, these values are set for you on creation of a new individual.
uniqueId	String	Legacy user resource reference. See <a href="#">Migration Section</a> .

## FactSet Location Attributes – FactSet:Core:1.0:Location

Each individual provisioned for access to FactSet must be allocated to a location {id} within FactSet’s CRM. The Location schema exposes these CRM-Location details to the implementer. See [section 4](#) for endpoints. If new locations are required speak to your FactSet Account Representatives to have them created.

*"schemas":["urn:scim:schemas:extension:FactSet:Core:1.0:Location"]*

Parameter name	Data type	Description
id	String	The FactSet CRM location id representing the distinct physical location’s reference value in FactSet’s systems
externalId	String	Your firm’s (optional) reference to a FactSet location id applied via this API
name	String	The location id’s name
description	String	Description describing the location id
address1,2,3	String	Address details of location id
locality	String	Location id’s city
region	String	Region of location id within FactSet’s CRM (e.g. “California”)
postalCode	String	Postal Code of location id within FactSet’s CRM
country	String	The Country the location id is located within
phoneNumber	String	Any associated phone number of the location id
firmDescription	Array	See <a href="#">Firm Description</a> below
emailDomains	Array	List of email domains allowed for provisioned individuals at this location
partnerAssertedEntityID	String	Identifier assigned to the Corporate Entity. Value is provided as "fsymEntityId" from FactSet’s Symbology API
companyAgreementURLs	Array	The company agreement URL for authorizing pre-established Exchange Entitlements for the location. (Redistributor only)
managedLocations	Array	Lists FactSet locations managed by Research Entitlements Administrators at this location for requesting location-based research entitlements (Redistributor only)
managingLocation	Array	FactSet location ID managing this location for a Research Entitlements Administrator and requesting location-based entitlements for all <b>managedLocations</b> associated. (Redistributor only)
Username	Array	The FactSet usernames that are valid for users in this location
mainLocation	Object	Contains reference to the location id’s associated parent-location within FactSet’s CRM

## FactSet Firm Description – FactSet:Core:1.0:FirmDescription

Each Location provisioned for access to FactSet must be allocated a Firm Description value from [section 6](#) of this document. Each Description has a limited set of [User Class](#) values allowed at that location

*"schemas":["urn:scim:schemas:extension:FactSet:Core:1.0:FirmDescription"],*

Parameter name	Data type	Description
id	String	Displays a value describing the <a href="#">firm's type</a>
name	String	Displays a human friendly name of the Firm's Description [id]
UserClasses	Array	Array of User Class [value]'s allowed for the given Firm Description
Value	String	Displays allowed User Class value for the given Firm Type
Display	String	Displays a human friendly description of the User Class [value]

## FactSet User Description – FactSet:Core:1.0:UserClass

Each individual provisioned for access to FactSet must be allocated a User Class value from [section 6](#) of this document. Each Firm Description has a limited set of [User Class](#) values allowed for each Firm Description Value. UserClasses endpoint will display all Firm Descriptions and the allowed User Classes at each firm type.

If utilizing roleNames for provisioning, these values are set for you on creation of a new individual.

*"schemas":["urn:scim:schemas:extension:FactSet:Core:1.0:UserClass"],*

Parameter name	Data type	Description
id	String	Displays a value describing a User Class
name	String	Displays a human friendly name of the User Class
UserPositions	Array	Array of User Positions [value]'s allowed for the given User Class Description
↳ Value	String	Displays allowed User class value at the listed Firm Description
↳ Display	String	Displays a human friendly description of the User Position [value]

## FactSet User Position – FactSet:Core:1.0:UserPosition

Each individual provisioned for access to FactSet must be allocated a User Position value from [section 6](#) of this document. Each User Class has a limited set of User Position values allowed. UserPositions endpoint will display all User Positions allowed for each User Class.

If utilizing roleNames for provisioning, these values are set for you on creation of a new individual.

*"schemas":["urn:scim:schemas:extension:FactSet:Core:1.0:UserPosition"],*

Parameter name	Data type	Description
id	String	Displays a value describing a Firm Description
name	String	Displays a human friendly name of the Firm Description

## FactSet Products – FactSet:Core:1.0:Product

Available products can be listed from the /Products endpoints. To make additional products available to your implementation please speak to your FactSet Account Representative. See [section 7](#) for endpoints.

*"schemas":["urn:scim:schemas:extension:FactSet:Core:1.0:Product"]*

Parameter name	Data type	Description
id	String	Value represents the distinct "Product"-ID and access to an entitlement within the FactSet product Catalog
name	String	Human readable name of a given Product "id"
description	String	Human readable description of the Product "id"
workstation	Bool	A bool-value representing whether or not the product-itself is base-level access to FactSet, issuing the individual's serial number "workstation":true products cannot be canceled, but may be updated
requiresApproval	String	Indicates whether a specific product requires approval
groupDescription	String	Product type, e.g. Exchange Quotes, Product, Database
whiteLabel	Bool	Product(s) made available specific to your implementation
orderable	Bool	Details whether the product can be ordered

## FactSet Enterprise Hosting – FactSet:EnterpriseHosting:1.0:Group

Enterprise Hosting pods are separated by domains typically denoted by the last character of the domainCode.

U:UAT, D:Development, P:Production. See <https://controlcenter.factset.com> → Enterprise Hosting → Pods, for additional details on available domains.

*"schemas":["urn:scim:schemas:extension:FactSet:EnterpriseHosting:1.0:Group"]*

Parameter name	Data type	Description
domainCode	String	Domain code of the Enterprise Hosting pod containing this group

## FactSet Vermilion Reporting User Attributes – FactSet:VRS:1.0:User

VRS User attributes, permissions and tenancies are managed via User Management in [Section 3](#).

*"schemas":["urn:scim:schemas:extension:FactSet:VRS:1.0:User"]*

Parameter name	Data type	Description
<b>domainData</b>	Array	A set of attributes pertaining to individual Vermilion domains. Contains the below parameters:
↳ <b>domainCode</b>	String	Unique identifier for the Vermilion domain.
↳ <b>tenancies</b>	Array	List of tenancies (Values) where the User exists in the associated domain.
↳ <b>value</b>	String	Name of a tenant within 'tenancies' array
<b>isAdministrator</b>	Bool	Whether the User is an administrator in the associated domain
<b>password</b>	String	Password of the User in the associated domain. May be null upon creation of the User, but afterward may not change from a non-null to a null value

## FactSet Vermilion Reporting Groups – FactSet:VRS:1.0:Group

VRS group membership managed via Group Management endpoints: [Section 5](#)

*"schemas":["urn:scim:schemas:extension:FactSet:VRS:1.0:Group"]*

Parameter name	Data type	Description
<b>tenant</b>	String	The tenant this role is in
<b>domainCode</b>	String	The domain code of the Enterprise Hosting Pod in which the user resides (value cannot be changed)

## Federation Information – FactSet:Core:1.0:Federation

Single Sign-on Federation details, if Federated, and any associated user mappings

Parameter name	Data type	Description
<b>id</b>	String	FactSet issued IdpId for the Federation
<b>name</b>	String	Name of Federation
<b>entityId</b>	String	Identity Provider's unique identifier
<b>metadataURL</b>	String	Link to Identity Provider's SAML XML or OIDC 'well-known'
<b>singleSignOnServiceURL</b>	String	Identity Provider's browser redirect destination
<b>requestBinding</b>	String	Required HTTP METHOD for browser interaction with singleSignOnServiceURL
<b>certificates</b>	Array	Signing Certificate(s) the Service Provider should expect assertions to be signed with from the Identity Provider
<b>location</b>	Array	
↳ <b>value</b>	String	FactSet issued location id - See: <a href="#">FactSet:Core:1.0:Location</a>
↳ <b>display</b>	String	Location's Name
<b>autoSyncUsernames</b>	Array	FactSet Usernames associated with the Federation and automatically mapped. See Attributes section in provided documentation <a href="#">here</a> for more details
<b>users</b>	Array	Contains detail of users and expected Federation assertion identifiers
↳ <b>value</b>	String	FactSet issued user id
↳ <b>display</b>	String	Individuals name (First Last)
↳ <b>assertionValues</b>	Array	
↳ <b>value</b>	String	Assertion Values accepted in the Federation which will log the associated id into FactSet

## 2. Server Information

Servers: <https://api.factset.com/scim/v2/>

General HTTP Details:

### Response Codes

API endpoints will respond with the following responses

HTTP status code	Description
200	Expected response, returns JSON in body of response. Contains entire set of resource details
400	Provided request contains invalid data
401	Missing or invalid authentication
403	User not authorized
404	Resource not found
429	Rate limit reached
500	Server error

### Response Headers

Header name	Description
X-DataDirect-Request-Key	String value provided in all responses from FactSet endpoints. Your implementation should provide for the ability to log the X-DataDirect-Request-Key header for troubleshooting. Message may also indicate delay in provisioning and to check resource later, see <a href="#">Transaction Logging and Details</a> section for more information.

### Request Headers

All endpoints require, at a minimum, the following values provide in the headers of the request

Header name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format
Content-Type	Standard HTTP header. Value needs to specify application/JSON (i.e., caller needs to specify that the body is in JSON format)



## GET endpoint filters

All GET endpoints support the following SCIM RFC-standard filters. Filter examples are available in Common Workflows section of this document [here](#). See <https://datatracker.ietf.org/doc/html/rfc7644> for full details and syntax.

Parameter name	Data type	Description
<b>filter</b>	String	See <a href="#">RFC 7644 section 3.4.2.2</a> for syntax ( <b>note</b> : only a subset of the filter string grammar is currently supported)
<b>startIndex</b>	String	Result start index. The one-based index of the first result to be returned in the list of resources. For example, to exclude the first two resources, use a <i>startIndex</i> value of 3. This parameter has a default value of 1. This index applies <i>after</i> any resource filtration has been applied as specified by the <i>filter</i> argument.
<b>count</b>	String	Maximum resource count. The server will not return more resources than this value, although it may return fewer.
<b>attributes</b>	String	Attribute whitelist filter string. A comma-separated list of resource attribute names to be returned in the response, overriding the set of attributes that would be returned by default. Attribute names must be specified in standard attribute notation (see <a href="#">RFC 7644 section 3.10</a> ) This parameter cannot be used with the <i>excludedAttributes</i> parameter.
<b>excludedAttributes</b>	String	Attribute blacklist filter string. A comma-separated list of resource attribute names to be excluded in the response, overriding the set of attributes that would be returned by default. Attribute names must be specified in standard attribute notation (see <a href="#">RFC 7644 section 3.10</a> ) This parameter cannot be used with the <i>attributes</i> parameter.

## Get Service Provider Configuration - GET /serviceProviderConfig

### Description

Provides information and supported operations of the API set.

## List Schemas - GET /schemas/{id}

### Description

Provides details of the schemas available via the API by provided Schema {id}.

### Available Schemas in this document:

urn:ietf:params:scim:api:messages:2.0:Error	urn:scim:schemas:extension:FactSet:Core:1.0:User
urn:ietf:params:scim:api:messages:2.0:ListResponse	urn:scim:schemas:extension:FactSet:EnterpriseHosting:1.0:Group
urn:ietf:params:scim:schemas:core:2.0:Group	urn:scim:schemas:extension:FactSet:VRS:1.0:User
urn:ietf:params:scim:schemas:core:2.0:ServiceProviderConfig	urn:scim:schemas:extension:FactSet:VRS:1.0:Group
urn:ietf:params:scim:schemas:core:2.0:User	urn:scim:schemas:extension:FactSet:Core:1.0:FirmDescription
urn:scim:schemas:extension:CoreFactset:1.0	urn:scim:schemas:extension:FactSet:Core:1.0:UserClass
urn:scim:schemas:extension:FactSet:Core:1.0:Location	urn:scim:schemas:extension:FactSet:Core:1.0:UserPosition
urn:scim:schemas:extension:FactSet:Core:1.0:Product	urn:scim:schemas:extension:FactSet:Core:1.0:FirmDescription
urn:scim:schemas:extension:FactSet:Core:1.0:Federation	

### Request Parameters

Parameter name	Data type	Description
{id}	String	Returns additional detail of the provided {id} Ex: urn:scim:schemas:extension:CoreFactset:1.0

### 3. User Management

Schemas:

- [core:2.0:User Schema](#)
- [FactSet:Core:1.0:User Schema](#)

Servers: <https://api.factset.com/scim/v2/>

#### List Users - GET /users

##### Description

Returns [details](#) for individuals filters or startIndex is not provided, all individuals and their details are returned.

See [Server Information](#) for supported filters.

#### Get User - GET /Users/{id}

##### Description

Returns the [details](#) of a single individual by provided {id}

##### Request Path Parameters

Parameter name	Data type	Description
{id}	String	The API provided id for a given individual

#### Create User - POST /Users

##### Description

Creates a FactSet account for an individual based on submitted criteria.

- Base access to FactSet is based on entitlements of a FactSet Workstation product which issues a unique FactSet serial number.
  - See [GET-Products endpoint](#) for a list of available Workstation=TRUE products
- Products with "Workstation=TRUE" are known as "Workstations." An individual may only be entitled for a single Workstation product at any given time.
- Workstation products may be changed, but not cancelled, via [PATCH-User](#) endpoint by providing a new Workstation=TRUE product.
  - To cancel an individual, see [DELETE-User](#) endpoint
- On user creation, if no roleName or Workstation=TRUE product are passed in then the individual will be issued a Product{id} with Workstation=TRUE associated as determined by your FactSet account team as a default.
- Contents of [core:2.0:User Schema:name](#) array may not contain : [, (, ), ], or "Test")

## Request Body

Parameter Name	Data Type	Required	Description
<a href="#">core:2.0:User Schema</a>			
schemas	Array	Yes	Any included <a href="#">Schemas</a> in the POST
externalId	String	No	External reference to user id
name	Array	Yes	'familyName' and 'givenName' of individual
email	String	Yes	Email address of individual
<a href="#">FactSet:Core:1.0:User Schema</a>			
username	String	Yes	FactSet <a href="#">username</a> the individual is to be allocated to
location	Array	Yes	Contains the location 'value' the individual is to be allocated to. See <a href="#">Location Management</a> for available locations
roleName	String	No	The <a href="#">roleName</a> to be assigned to the individual
products	Array	No	An array of <a href="#">product</a> 'values' to be applied to the individual
<a href="#">FactSet:VRS:1.0:User Schema</a>			
domainData	Array	If VRS User-Yes	Set of attributes describing VRS domains. Contains below items:
domainCode	String	If VRS User-Yes	Unique identifier for VRS Domain
tenancies	Array	If VRS user - Yes	List of tenancies where user exists in the associated VRS domain
isAdministrator	Bool	If VRS user - Yes	Whether the user is an administrator in the associated VRS domain
<a href="#">Factset:Core:1.0:Federation</a>			
Value	String	No	Federation resource ID. Value is the FactSet issued IdpId of the Federation
assertionValues	Array	No	Expected assertion value to log the associated user ID into FactSet.

## Replace User - PUT /Users/{id}

### Description

Completely replace user based on details provided. Please note [FactSet schemas](#) for which user attributes cannot be changed and should not be provided. See [Common Workflow](#) section of this document for example requests.

### Request Path Parameters

Parameter name	Data type	Description
{id}	String	The API provided id for a given individual

### Request Body

Parameter Name	Data Type	Required	Description
<a href="#">schemas:core:2.0:User</a>			
schemas	Array		Any included <a href="#">Schemas</a> in the POST
Operations	Array		Contains 'op', 'path' of schema to be changed and new 'value'
externalId	String		External reference to user id
name	Array		'familyName' and 'givenName' of individual
email	String		Email address of individual
<a href="#">FactSet:Core:1.0:User</a>			
username	String		FactSet <a href="#">username</a> the individual is to be allocated to
location	Array		Contains the location 'value' the individual is to be allocated to. See <a href="#">Location Management</a> for available locations
roleName	String		The <a href="#">roleName</a> to be assigned to the individual
products	Array		An array of <a href="#">product</a> 'values' to be applied to the individual
<a href="#">FactSet:VRS:1.0:User</a>			
domainData	Array		Set of attributes describing VRS domains. Contains below items:
domainCode	String		Unique identifier for VRS Domain
tenancies	Array		List of tenancies where user exists in the associated VRS domain

## Patch User - PATCH /Users/{id}

### Description

Add, replace, or remove attributes of a user. Please note [FactSet schemas](#) for which user attributes cannot be changed and should not be provided. See [Common Workflow](#) section of this document for example requests.

### Request Path Parameters

Parameter name	Data type	Description
{id}	String	The API provided id for a given individual

### Request Body

Parameter Name	Data Type	Required	Description
<a href="#">schemas:core:2.0:User</a>			
schemas	Array		Any included <a href="#">Schemas</a> in the POST
Operations	Array		Contains 'op', 'path' of schema to be changed and new 'value'
externalId	String		External reference to user id
name	Array		'familyName' and 'givenName' of individual
email	String		Email address of individual
<a href="#">FactSet:Core:1.0:User</a>			
username	String		FactSet <a href="#">username</a> the individual is to be allocated to
location	Array		Contains the location 'value' the individual is to be allocated to. See <a href="#">Location Management</a> for available locations
roleName	String		The <a href="#">roleName</a> to be assigned to the individual
products	Array		An array of <a href="#">product</a> 'values' to be applied to the individual
<a href="#">FactSet:VRS:1.0:User</a>			
domainData	Array		Set of attributes describing VRS domains. Contains below items:
domainCode	String		Unique identifier for VRS Domain
tenancies	Array		List of tenancies where user exists in the associated VRS domain

## Delete User - DELETE /Users/{id}

### Description

Deletes a user by provided {id}. Deletion of an individual cancels all FactSet entitlements and the FactSet serial number.

### Request Path Parameters

Parameter name	Data type	Description
{id}	String	The API provided id for a given individual

## 4. Location Management

- Schema: [FactSet:Core:1.0:Location](#)
- Servers: <https://api.factset.com/scim/v2/>

### List Locations - GET /locations

#### Description

Returns list of locations and details per-location via the GET request.

See [Server Information](#) for supported filters.

### Get Location - GET /locations/{id}

#### Description

Returns the [details](#) of a single location as provide by {id} in path

### Replace Location - PUT /locations/{id}

#### Description

Completely replace location details based on POST-body provided.

See [Common Workflow](#) section of this document for example requests.

### Request Parameters

Parameter name	Data type	Description
{id}	String	The API provided id for a given location

### Request Body

Parameter name	Data type	Description
schemas	Array	Any included <a href="#">Schemas</a> in the POST
operations	Array	Contains 'op', 'path' of schema to be changed and new 'value'



externalId	String	Your internal reference to a specific location to be associated to the FactSet provided "id"
partnerAssertedEntityId	String	Identifier assigned to the Corporate Entity. Value is provided as "fsymEntityId" from FactSet's Symbology API
companyAgreementUrls	Array	The company agreement URL for authorizing pre-established Exchange Entitlements for the location. (Redistributor only)
managedLocations	Array	Lists FactSet locations managed by Research Entitlements Administrators at this location for requesting location-based research entitlements (Redistributor only)

## Patch Location - PATCH /locations/{id}

### Description

Patch a location (add, replace, or remove attributes of a location.)

See [Common Workflow](#) section of this document for example requests.

### Request Body

Parameter name	Data type	Description
schemas	Array	Any includes <a href="#">Schemas</a> in the POST
operations	Array	Contains 'op', 'path':'externalId' and the new 'value' to be allocated to externalId
externalId	String	Your internal reference to a specific location to be associated to the FactSet provided "id"
partnerAssertedEntityId	String	Identifier assigned to the Corporate Entity. Value is provided as "fsymEntityId" from FactSet's Symbology API
companyAgreementUrls	Array	The company agreement URL for authorizing pre-established Exchange Entitlements for the location. (Redistributor only)
managedLocations	Array	Lists FactSet locations managed by Research Entitlements Administrators at this location for requesting location-based research entitlements (Redistributor only)

## Create Location - POST /locations

### Description

Creates a new location in FactSet's CRM for which you may provision new users to via [post /Users](#)

- POST permissions to /locations endpoint are typically allocated only to redistributors of FactSet content to 3<sup>rd</sup> parties. Non-redistributor implementations should reach out to your FactSet Account Representatives for location creation.

### Request Body

Parameter Name	Data Type	Required	Description
<a href="#">core:1.0:Location Schema</a>			
schemas	Array	Yes	Any included <a href="#">Schemas</a> in the POST
externalId	String	No	External reference to location id
name	String	Yes	Description of location (e.g. Business Name)
address1	String	Yes	Street address of location
address2	String	No	Add'l address of location
address3	String	No	Add'l address of location
locality	String	Yes	City of location
region	String	No	"State" of location. Only required if Country == 'US' or 'AUS'. Otherwise, <u>do not provide</u> ISO Two Character 'US' codes <a href="#">here</a> ISO Three Character 'AUS' codes <a href="#">here</a> ISO names are also acceptable
postalCode	String	Yes	postalCode of location. If the location does not support postal codes, supply a placeholder value such as 'None'.
country	String	Yes	Two Character <a href="#">ISO Code</a> for location's country
firmDescription	Object	Yes	FactSet's firmDescription taxonomy, describing the location's line of business. See Firm Description table in <a href="#">section 6</a> of this document. Endpoint detailed in <a href="#">section 6.1</a>
emailDomains	Array	Yes	Email domains allowed to be associated at this location. At the time of this writing, you may set the first, single mail-domain only (enhancement pending to allow multiple submissions and PATCH updates to this parameter). Please contact your FactSet account representative should additional mail domains be required for the location.
partnerAssertedEntityID	String	No	Identifier assigned to the Corporate Entity. Value is provided as "fsymEntityId" from FactSet's <a href="#">Symbology API</a>

companyAgreementUrls	Array	No	A publicly available URL for authorizing pre-established Exchange Entitlements for this location. This URL may use either the "http" or "https" schemas and the URL must be available for download by FactSet systems. (Not a common attribute. If part of your deployment, the account team and engineers will detail this field for your user)
managedLocations	Array	No	Lists FactSet locations managed by Research Entitlements Administrators at this location for requesting location-based research entitlements.

## 5. Group Management

Schema:

- [schemas:core:2.0:Group](#)

Servers: <https://api.factset.com/scim/v2/>

### List Groups - GET /groups

#### Description

Returns a list of available groups and members. If ?filter is not provided, all available groups are returned.

See [Server Information](#) for supported filters.

### Get Group - GET /group/{id}

#### Description

Returns details and members of a single group as provided by {id}.

#### Request Query Parameters

Parameter name	Data type	Description
{id}	String	The API provided id of the specific group resource.

## Replace Group - PUT /group/{id}

### Description

Replace all members of a group as provided by id in URL path.

### Request Parameters

Parameter name	Data type	Description
{id}	String	ID of the specific group resource.

### Request Body

Parameter Name	Data Type	Description
schemas	Array	Any included <a href="#">Schemas</a> in the POST
operations	Array	Contains 'op', 'path' of schema to be changed and new 'value'
displayName	String	Human readable name for the group
externalId	String	An external reference to group 'id'
members	Array	Array containing any new members as provided by string objects: 'value' containing user {id}, '\$ref' URI containing path to user, and 'type' containing type of resource (e.g. 'user' or 'group')

## Update Group - Patch /group/{id}

### Description

Update members of a group as provided by id in URL path.

### Request Parameters

Parameter name	Data type	Description
{id}	String	ID of the specific group resource.

### Request Body

Parameter Name	Data Type	Description
schemas	Array	Any included <a href="#">Schemas</a> in the POST
operations	Array	Contains 'op', 'path' of schema to be changed and new 'value'
displayName	String	Human readable name for the group
externalId	String	An external reference to group 'id'

members	Array	Array containing any new members as provided by string objects: 'value' containing user {id}, '\$ref' URI containing path to user, and 'type' containing type of resource (e.g. 'user' or 'group')
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## 6. Location/User Taxonomy

Schemas:

- [FactSet:Core:1.0:FirmDescription](#)
- [FactSet:Core:1.0:UserClass](#)
- [FactSet:Core:1.0:UserPosition](#)

Servers: <https://api.factset.com/scim/v2/>

If your implementation of the provisioning API strictly utilizes FactSet Provided [roleNames](#) you may forego this section except as reference to the taxonomy values provided back to you via the API.

FactSet's taxonomy details a business' type by Firm Description as well as an individual's role within that firm, detailed by the individual's User Class and Position. All firms must have a description as all individuals must have a User Class appropriate for that Firm and a Position appropriate for that User Class, per the tables below. Data in these tables are also available via endpoints [/FirmDescriptions](#), [/UserClasses](#) and [/UserPositions](#) below and provided here primarily for reference.

If creating new locations as a Redistributor via /POST locations endpoint, it is required to accurately classify the location by the Firm Description Values below. If creating individuals as a redistributor or provider and you are not utilizing FactSet provided roleNames, individuals created via POST to /users must contain userClass and position values from the table below. The /users endpoint response messages will contain guiding responses should invalid user taxonomy be submitted.

The Taxonomy in these tables describes how FactSet has classified your locations and users; this content will present when fetching lists of user and location resources.

Available Firm Description Values

Firm Description Values	Name
1	Institutional Asset Management
2	Hedge Fund
3	Wealth Management
4	Sovereign/Endowment/Plan Sponsor
5	Investment Consulting
6	Insurance
7	Broker-Dealers
8	Banking & Advisory
9	Independent Research
10	Private Equity/Venture Capital
11	Consulting/Accounting
12	Corporate
13	Financial Exchange
14	Data Provider/PaaS
15	Asset Servicers
16	Media
17	Government Agency
18	Academic
19	Legal

Available User Class Values

UserClass Value	Name
1	Portfolio Management
2	Buy-Side Research
3	Performance/Risk Management
4	Trading
5	Client Service/Sales/Marketing
6	Wealth/Advisory
8	Investment Banking
9	Capital Markets
10	Private Equity/Alt Investments
11	Sell-Side Research
12	Sales & Trading
13	Corporate/Commercial
14	Risk & Compliance
15	Consulting/Accounting
16	Sell-Side Other
18	Investor Relations
19	Product Manager
20	Application Developer
21	Treasury
22	Reporter/Editor
23	Government Agency Analyst
24	Professor/Student
25	Lawyer
27	IT/Production Support
28	Machine
30	Corporate Research
31	Corporate Development

Available User Position Values

Position Value	Name	Position Value	Name
2	Intern	43	Research Sales
3	Other	45	Investor Relations
4	Analyst	46	Application Developer
5	Analyst - Credit	47	Treasury
6	Director of Research	48	Editor
7	Economist	49	Reporter
8	Strategist	50	Government Agency Analyst
9	Client Service	51	Professor
10	Marketing	52	Student
11	Sales	53	Lawyer
15	Desktop Support	55	Procurement
16	Legal	57	Lab/Trading Room
17	Market Data	59	Principal
18	Network Engineer	60	Partner
19	Packaging/Deployment	61	Product/Portfolio Manager
20	Production Support	63	Business Development
21	Security Engineer	64	Business Strategy
22	Vendor Management	66	Chief Compliance Officer
23	Machine	67	Compliance
24	Head of Performance	68	Assistant
25	Head of Risk	69	Portfolio Analyst
26	Performance Analyst	70	Actuary
27	Risk Analyst	71	ALM Analyst
28	Chief Investment Officer	72	LDI Analyst
29	Portfolio Manager	73	Operations
30	Head Trader	74	Accounting/Finance
31	Trader	75	Client Reporting
32	Consultant	76	Client Associate
33	Product Manager	77	Branch Manager
34	Wealth Manager	79	Call Center
35	Associate	80	Underwriter
36	Library	81	Research Analyst
37	Vice President	82	Data Scientist
38	Director	83	M&A
39	Managing Director	84	FP&A
40	Executive	85	Corporate Planning
41	Corporate Access	86	Capital Markets
42	Prime Brokerage	87	Relationship Manager



## Firm Type to UserClass Mappings table

A Green Cell denotes an acceptable User Class at a given Firm Type

Attempting to create an individual with a userClassId at a location whose firmDescId does not reflect as acceptable in the above table will result in an error.

		User Class Values																									
		Portfolio Management (1)	Buy-Side Research (2)	Performance/Risk Management (3)	Trading (4)	Client Services/Sales/Marketing (5)	Wealth/Advisory (6)	Investment Banking (8)	Capital Markets (9)	Private Equity /Alt Investments (10)	Sell – Side Research (11)	Sales & Trading (12)	Corporate/Commercial (13)	Risk & Compliance (14)	Consulting/Accounting (15)	Sell-Side Other (16)	Corporate Research (30)	Corporate Development (31)	Investor Relations (18)	Product Manager (19)	Treasury (21)	Reporter/Editor (22)	Government Agency Analyst (23)	Professor/Student (24)	Lawyer (25)		
<b>Firm Type</b>		<b>Investment Management</b>																									
<b>Firm Description (value)</b>	Hedge Fund (2)																										
	Institutional Asset Management (1)																										
	Insurance (6)																										
	Investment Consulting (5)																										
	Sovereign/Endowment/ Plan Sponsor (4)																										
	Wealth Management (3)																										
<b>Firm Type</b>		<b>Banking &amp; Brokerage</b>																									
<b>Firm Description (value)</b>	Banking & Advisory (8)																										
	Broker-Dealers (7)																										
	Consulting/ Accounting (11)																										
	Independent Research (9)																										
	Private Equity/ Venture Capital (10)																										
<b>Firm Type</b>		<b>All Else</b>																									
<b>Firm Description (value)</b>	Academic (18)																										
	Corporate (12)																										
	Asset Servicers (15)																										
	Data Provider/PaaS (14)																										
	Financial Exchange (13)																										
	Government Agency (17)																										
	Legal (19)																										
	Media (16)																										

User Classes: **IT/Production Support (27)** and **Application Developer (20)** are applicable to all available Firm Descriptions

*UserClass to Position mappings*

Given the User Class for a given individual, acceptable Positions) are shown below. Failure to adhere to the below mappings will result in a failure to create an individual; the API response will also provide a guiding response detailing appropriate values available.

User Class (value)	Position (value)
Application Developer (20)	Application Developer (46)
Buy-Side Research (2)	Analyst (4)
	Analyst – Credit (5)
	Assistant (68)
	Director of Research (6)
	Economist (7)
	Other (3)
	Strategist (8)
	Data Scientist (82)
Capital Markets (9)	Analyst (4)
	Associate (35)
	Data Scientist (82)
	Director (38)
	Executive (40)
	Intern (2)
	Library (36)
	Managing Director (39)
	Relationship Manager (87)
	Vice President (37)
Client Services/ Sales/Marketing (5)	Assistant (68)
	Client Reporting (75)
	Client Service (9)
	Marketing (10)
	Other (3)
	Sales (11)
Consulting/Accounting (15)	Analyst (4)
	Associate (35)
	Director (38)
	Partner (60)
	Principal (59)
Corporate Development (31) (WAS Business Development)	Analyst (4)
	Business Development (63)
	Business Strategy (64)
	Director (38)
	Executive (40)
	M&A (83)
Vice President (37)	

User Class	Position (value)
Corporate Research (30)	Analyst (4)
	Data Scientist (82)
	Director (38)
	Executive (40)
	Vice President (37)
Corporate/Commercial (13)	Analyst (4)
	Associate (35)
	Data Scientist (82)
	Director (38)
	Executive (40)
	Intern (2)
	Managing Director (39)
	Relationship Manager (87)
Vice President (37)	
Government Agency Analyst (23)	Government Agency Analyst (50)
Investment Banking (8)	Analyst (4)
	Assistant (68)
	Associate (35)
	Data Scientist (82)
	Director (38)
	Executive (40)
	Intern (2)
	Investor Relations (45)
	Library (36)
	Managing Director (39)
	Relationship Manager (87)
	Vice President (37)
Investor Relations (18)	Analyst (4)
	Director (38)
	Investor Relations (45)
	Vice President (37)
IT/ Production Support (27)	Accounting/Finance (74)
	Desktop Support (15)
	Legal (16)
	Market Data (17)
	Network Engineer (18)
	Operations (73)
	Packaging/Deployment (19)
	Procurement (55)
	Production Support (20)
	Security Engineer (21)
	Vendor Management (22)

UserClass to Position mappings (cont.)

User Class	Positions
Lawyer (25)	Lawyer (53)
	Library (36)
Machine (28)	Machine (23)
Performance/Risk Management (3)	Actuary (70)
	ALM Analyst (71)
	Assistant (68)
	Chief Compliance Officer (66)
	Compliance (67)
	Head of Performance (24)
	Head of Risk (25)
	LDI Analyst (72)
	Other (3)
	Performance Analyst (26)
	Risk Analyst (27)
	Underwriter (80)
Portfolio Management (1)	Assistant (68)
	Chief Investment Officer (28)
	Other (3)
	Portfolio Analyst (69)
	Portfolio Manager (29)
Private Equity/Alt Investments (10)	Analyst (4)
	Associate (35)
	Director (38)
	Executive (40)
	Intern (2)
	Library (36)
	Managing Director (39)
	Vice President (37)
Product Manager (19)	Executive (40)
	Product Manager (33)
Professor/Student (24)	Lab/Trading Room (57)
	Professor (51)
	Student (52)
Reporter/Editor (22)	Editor (48)
	Reporter (49)

User Class	Positions
Risk & Compliance (14)	Analyst (4)
	Chief Compliance Officer (66)
	Compliance (67)
	Executive (40)
Sales & Trading (12)	Assistant (68)
	Corporate Access (41)
	Head Trader (30)
	Prime Brokerage (42)
	Research Sales (43)
	Sales (11)
	Trader (31)
Sell-Side Other (16)	Assistant (68)
	Other (3)
Sell-Side Research (11)	Analyst (4)
	Assistant (68)
	Associate (35)
	Director of Research (6)
	Executive (40)
	Intern (2)
Trading (4)	Library (36)
	Assistant (68)
	Head Trader (30)
	Other (3)
Corporate Finance (21)	Trader (31)
	Analyst (4)
	Corporate Planning (85)
	Capital Markets (86)
	Director (38)
	FP&A (84)
	Treasury (47)
Vice President (37)	
Wealth/Advisory (6)	Assistant (68)
	Branch Manager (77)
	Call Center (79)
	Chief Investment Officer (28)
	Client Associate (76)
	Consultant (32)
	Operations (73)
	Other (3)
	Product/Portfolio Manager (61)
	Research Analyst (81)
	Wealth Manager (34)

## List Firm Descriptions - GET /FirmDescriptions

### Description

Returns a list of firm descriptions and User Classes allowed per firm description

### Request Parameters

Parameter name	Data type	Description
{id}	String	If provided, lists the single provided firm description id and applicable User Classes

## List User Classes - GET /UserClasses

Returns a list of User Classes and allowed Position values per User Class

### Request Parameters

Parameter name	Data type	Description
{id}	String	If provided, lists allowed User Positions for the provided User Class

## List User Positions - GET /UserPositions

### Description

Returns a list of position values and descriptions

### Request Parameters

Parameter name	Data type	Description
{id}	String	If provided, lists details of the single provided position id

## 7. Federation Management

Schema: [FactSet:Core:1.0:Location](#)

Servers: <https://api.factset.com/scim/v2/>

### List Federations - GET /Federations

#### Description

Returns all available Federations and their details as well as individual resources mapped into the Federation and their expected assertion values.

### Get Federation - GET /Federations/{id}

#### Description

Returns specific Federation details by provided Federation id.

See [Server Information](#) for supported filters.

#### Request Parameters

Parameter name	Data type	Description
{id}	String	The API provided id for a given Federation

### Replace Federation - PUT /Federations/{id}

#### Description

Completely replace all assertion mappings for provided individuals resources with mappings contained with the provided request.

#### Request Path Parameters

Parameter name	Data type	Description
{id}	String	The API provided id for a given location

#### Request Body

Parameter name	Data type	Description
Users	Array	
↳ value	String	User resource ID (username-serial)
↳ assertionValues	Array	Array containing one or more assertion values for the provided User resource ID (value)
↳ value	String	Expected assertion value for the given User ID (value)

## Patch Federation - PUT /Federations/{id}

### Description

Patch a SSO Federation (add, replace, or remove attributes of a Federation.)

### Request Path Parameters

Parameter name	Data type	Description
{id}	String	The API provided id for a given location

### Request Body

Parameter name	Data type	Description
Users	Array	
↳ value	String	User resource ID (username-serial)
↳ assertionValues	Array	Array containing one or more assertion values for the provided User resource ID (value)
↳ value	String	Expected assertion value for the given User ID (value)

## 8. Product Management

Servers: <https://api.factset.com/scim/v2/>

### List Products - GET /products

#### Description

Returns a list of available products which can be allocated to individual serial numbers. List returned shows all available Exchanges and Benchmarks in FactSet catalogs as well as specific FactSet-Products and Workstations allocated to your firm by your Account Team. If additional products are required to be listed please speak to your FactSet Account Representatives.

Products with "workstation": true, remark products which issue a FactSet serial number and denote base-level entitlement to FactSet. Individuals may only ever be allocated a single product where "workstation":true.

See [Server Information](#) for supported filters. Please note that you must utilize filters due to the number of resources that will be returned at default.

### Get Product - GET /products/{id}

#### Description

Returns a list of available products which can be allocated to individual serial numbers. List returned shows all available Exchanges and Benchmarks in FactSet catalogs as well as specific FactSet-Products and Workstations allocated to your firm by your Account Team. If additional products are required to be listed please speak to your FactSet Account Representatives.

Products with "**workstation**": true, remark products which issue a FactSet serial number and denote base-level entitlement to FactSet. Individuals may only ever be allocated a single product where "workstation":true.

## 9. File Manager

Servers: <https://api.factset.com/scim/v2/>

### File Manager Audit - GET /FileManagerAudit

#### Description

Returns details of FactSet File Manager Security Groups, Files and Security information.

See FactSet Online Assistant articles for more information:

- <https://my.apps.factset.com/oa/pages/20648>
- <https://my.apps.factset.com/oa/pages/20943>
- <https://my.apps.factset.com/oa/pages/20935>

## 10. Common Workflow Examples

### Add users to a group:

List of available groups can be fetched from /Groups endpoint in [section 5.1](#)

HTTP method	PATCH
URL	<a href="https://api.factset.com/scim/v2/Groups/eh.xyz:Pod 05 - Users">https://api.factset.com/scim/v2/Groups/eh.xyz:Pod 05 - Users</a>
HTTP request body	<pre>{   "schemas": [     "urn:ietf:params:scim:api:messages:2.0:PatchOp"   ],   "Operations": [     {       "op": "add",       "path": "members",       "value": [         {           "value": "USERNAME-123456"         },         {           "value": "USERNAME-789012"         }       ]     }   ] }</pre>

### Remove users from a group:

List of available groups can be fetched from /Groups endpoint in [section 5.1](#)

HTTP method	PATCH
URL	<a href="https://api.factset.com/scim/v2/Groups/eh.xyz:Pod 05 - Users">https://api.factset.com/scim/v2/Groups/eh.xyz:Pod 05 - Users</a>
HTTP request body	<pre>{   "schemas": [     "urn:ietf:params:scim:api:messages:2.0:PatchOp"   ],   "Operations": [     {       "op": "remove",       "path": "members[value eq \"USERNAME-123456\" or value eq \"USERNAME-789012\"]"     }   ] }</pre>



### Replace users in a group:

List of available groups can be fetched from "Get Groups" in [section 5.2](#)

HTTP method	PATCH
URL	https://api.factset.com/scim/v2/Groups/eh:xyz:Pod 05 - Users
HTTP request body	<pre>{   "schemas": [     "urn:ietf:params:scim:api:messages:2.0:PatchOp"   ],   "Operations": [     {       "op": "replace",       "path": "members[value eq \"USERNAME-123456\" or value eq \"USERNAME-789012\"]"       "value": [         {           "value": "USERNAME-345678"         },         {           "value": "USERNAME-901234"         }       ]     }   ] }</pre>

### Add products to a user:

Example adds both example products 12455 and 706 to the user resource

List of available products can be fetched from Products endpoint in [section 6.1](#)

HTTP method	PATCH
URL	https://api.factset.com/scim/v2/Users/USERNAME-123456
HTTP request body	<pre>{   "schemas": [     "urn:ietf:params:scim:api:messages:2.0:PatchOp"   ],   "Operations": [     {       "op": "add",       "path": "urn:scim:schemas:extension:FactSet:Core:1.0&gt;User:products",       "value": [         {           "value": "12455"         },         {           "value": "706"         }       ]     }   ] }</pre>

Remove products from a user:

Example provided removes products 12455 and 706 from the user resource.

HTTP method	PATCH
URL	https://api.factset.com/scim/v2/Users/USERNAME-123456
HTTP request body	<pre>{   "schemas": [     "urn:ietf:params:scim:api:messages:2.0:PatchOp"   ],   "Operations": [     {       "op": "remove",       "path":         "urn:scim:schemas:extension:FactSet:Core:1.0:User:products[value eq         \"12455\" or value eq \"706\"]"     }   ] }</pre>

Change email address:

HTTP method	PATCH
URL	https://api.factset.com/scim/v2/Users/USERNAME-123456
HTTP request body	<pre>{   "schemas": [     "urn:ietf:params:scim:api:messages:2.0:PatchOp"   ],   "Operations": [     {       "op": "replace",       "path": "email",       "value": john.doe@factset.com     }   ] }</pre>

Change location:

List of available locations can be fetched from Locations endpoint in [section 4.1](#)

HTTP method	PATCH
URL	https://api.factset.com/scim/v2/Users/USERNAME-123456
HTTP request body	<pre>{   "schemas": [     "urn:ietf:params:scim:api:messages:2.0:PatchOp"   ],   "Operations": [     {       "op": "replace",       "path":         "urn:scim:schemas:extension:FactSet:Core:1.0:User:location.value",       "value": "1691942"     }   ] }</pre>

Delete a user:

HTTP method	DELETE
URL	https://api.factset.com/scim/v2/Users/USERNAME-123456
HTTP request body	None

Add user to VRS domain:

HTTP method	PATCH
URL	https://api.factset.com/scim/v2/Users/USERNAME-123456
HTTP request body	<pre>{   "schemas": [     "urn:ietf:params:scim:api:messages:2.0:PatchOp"   ],   "Operations": [     {       "op": "add",       "path":         "urn:scim:schemas:extension:FactSet:VRS:1.0:User:domainData",       "value": [         {           "domainCode": "abcd",           "tenancies": [             {               "value": "MASTER"             }           ]         }       ]     }   ] }</pre>

Remove a user from a VRS Domain:

HTTP method	PATCH
URL	https://api.factset.com/scim/v2/Users/USERNAME-123456
HTTP request body	<pre>{   "schemas": [     "urn:ietf:params:scim:api:messages:2.0:PatchOp"   ],   "Operations": [     {       "op": "remove",       "path":         "urn:scim:schemas:extension:FactSet:VRS:1.0:User:domainData[domainCode         eq \"abcd\"]"     }   ] }</pre>

### Add tenancy to a user:

Note: when adding to a domain, the user must become a member of at least one tenancy.

HTTP method	PATCH
URL	https://api.factset.com/scim/v2/Users/USERNAME-123456
HTTP request body	<pre>{   "schemas":     ["urn:ietf:params:scim:api:messages:2.0:PatchOp"],   "Operations": [{     "op": "add",     "path": "urn:scim:schemas:extension:FactSet:VRS:1.0:User:domainData[domainCode eq \abcd\].tenancies",     "value": [{       "value": "TENANT1"     }]   }] }</pre>

### Add multiple tenancies to a user:

HTTP method	PATCH
URL	https://api.factset.com/scim/v2/Users/USERNAME-123456
HTTP request body	<pre>{   "schemas":     ["urn:ietf:params:scim:api:messages:2.0:PatchOp"],   "Operations": [{     "op": "add",     "path":       "urn:scim:schemas:extension:FactSet:VRS:1.0:User:domainData[domainCode       \abcd\].tenancies",     "value": [{       "value": "TENANT1"     }, {       "value": "TENANT2"     }]   }] }</pre>

### Remove multiple tenancies from a user:

HTTP method	PATCH
URL	https://api.factset.com/scim/v2/Users/USERNAME-123456
HTTP request body	<pre>{   "schemas":     ["urn:ietf:params:scim:api:messages:2.0:PatchOp"],   "Operations": [{     "op": "remove",     "path": "urn:scim:schemas:extension:FactSet:VRS:1.0:User:domainData[domainCode eq \"abcd\"].tenancies[value eq \"TENANT1\" or value eq \"TENANT2\"]"   }] }</pre>

Replace all tenancies on a user:

HTTP method	PATCH
URL	<a href="https://api.factset.com/scim/v2/Users/USERNAME-123456">https://api.factset.com/scim/v2/Users/USERNAME-123456</a>
HTTP request body	<pre>{   "schemas": [     ["urn:ietf:params:scim:api:messages:2.0:PatchOp"],     "Operations": [{       "op": "replace",       "path":         "urn:scim:schemas:extension:FactSet:VRS:1.0&gt;User:domainData[domainCode         eq \"abcd\"].tenancies",       "value": [ {         "value": "TENANT1" }       ]}]}</pre>

Federation Management Examples

The following items detail various workflows for managing user mappings within a Federation (expected assertionValue to username-serial)

Add assertionValues for a User

Mappings should primarily be added at time of creation of new user via POST to /USERS endpoint. This example provides for adding Federation nameID mappings (assertionValues) for an individual after having been created.

HTTP method	PATCH
URL	<a href="https://api.factset.com/scim/v2/Users/&lt;id&gt;">https://api.factset.com/scim/v2/Users/&lt;id&gt;</a>
HTTP request body	<pre>{   "schemas": [     "urn:ietf:params:scim:api:messages:2.0:PatchOp"   ],   "Operations": [     {       "op": "add",       "path":         "urn:scim:schemas:extension:FactSet:Core:1.0&gt;User:Federations",       "value": [         {           "value": "4vbd82c4-db61-4156-a9cc-A20df9b63ghh",           "assertionValues": [             {               "value": "Example_1"             },             {               "value": "Example_2"             }           ]         }       ]     }   ] }</pre>

### Remove all mappings for a given user

Removes all Federation mappings for a given user resource id within a given Federation

HTTP method	PATCH
URL	https://api.factset.com/scim/v2/Federations/<idpid>
HTTP request body	<pre>{   "schemas": [     "urn:ietf:params:scim:api:messages:2.0:PatchOp"   ],   "Operations": [     {       "op": "remove",       "path": "users[value eq \"USERNAME-1526135\"]"     }   ] }</pre>

### Remove assertionValue

Removes a specific, provided assertionValue, for given user

HTTP method	PATCH
URL	https://api.factset.com/scim/v2/user/<id>
HTTP request body	<pre>{   "schemas": [     "urn:ietf:params:scim:api:messages:2.0:PatchOp"   ],   "Operations": [     {       "op": "remove",       "path":         "urn:scim:schemas:extension:FactSet:Core:1.0:User:Federations[value         eq \"4vbd82c4-db61-4156-a9cc-A20df9b63ghh\" or value eq         \"example1\"].assertionValues[value ew \"_ex2\"]"     }   ] }</pre>

## Examples of Fetching and Filtering data:

- Items in this section are HTTP Method: GET
- Ensure that all request values are URL-encoded.
- See: <https://tools.ietf.org/html/rfc7644#section-3.4.2.2> for complete filter parameters and definitions

### Show (first 1000) users

<https://api.factset.com/scim/v2/users?startIndex=1&count=1000>

### Show all users with product 202

[https://api.factset.com/scim/v2/users?filter=urn:scim:schemas:extension:FactSet:Core:1.0:User:products.value eq "202"](https://api.factset.com/scim/v2/users?filter=urn:scim:schemas:extension:FactSet:Core:1.0:User:products.value eq )

### Show details on product 202

[https://api.factset.com/scim/v2/Products?filter=id eq "202"](https://api.factset.com/scim/v2/Products?filter=id eq )

### Show all Users entitled with product name containing "identity"

[https://api.factset.com/scim/v2/users?filter=urn:scim:schemas:extension:FactSet:Core:1.0:User:products.displayName co "identity"](https://api.factset.com/scim/v2/users?filter=urn:scim:schemas:extension:FactSet:Core:1.0:User:products.displayName co )

### Show Whitelisted products

*Whitelisted products are products specifically allocated for your ordering by your Account Team.*

<https://api.factset.com/scim/v2/Products?filter=whitelist eq true>

### Show (first 10) products where name contains "NYSE"

[https://api.factset.com/scim/v2/Products?startIndex=1&count=10&filter=name co "NYSE"](https://api.factset.com/scim/v2/Products?startIndex=1&count=10&filter=name co )

### Show (first 1000) products where groupdescription equals <value>

[https://api.factset.com/scim/v2/Products?startIndex=1&count=1000&filter=groupdescription eq "Exchange Quotes"](https://api.factset.com/scim/v2/Products?startIndex=1&count=1000&filter=groupdescription eq )

*Other available GroupDescription values:*

- News/Broker Research
- Benchmarks/Constituents

### Show Groups whose displayName contains "Training"

[https://api.factset.com/scim/v2/groups?filter=displayName co "Training"](https://api.factset.com/scim/v2/groups?filter=displayName co )

### Show Enterprise Hosting Groups, id starts with "eh"

[https://api.factset.com/scim/v2/groups?filter=displayName sw "eh"](https://api.factset.com/scim/v2/groups?filter=displayName sw )

### Show List of individuals with a specific roleName assignment

[https://api.factset.com/scim/v2/Users?filter=urn:scim:schemas:extension:FactSet:Core:1.0:User:roleName eq "A\\_RoleName"](https://api.factset.com/scim/v2/Users?filter=urn:scim:schemas:extension:FactSet:Core:1.0:User:roleName eq )

### Show all users at a given location

[https://api.factset.com/scim/v2/users?filter=urn:scim:schemas:extension:FactSet:Core:1.0:User:location.value eq "<Location ID Value>"](https://api.factset.com/scim/v2/users?filter=urn:scim:schemas:extension:FactSet:Core:1.0:User:location.value eq )

### Show all users for a given Username

[https://api.factset.com/scim/v2/users?filter=urn:scim:schemas:extension:FactSet:Core:1.0:User:username eq "<VALUE>"](https://api.factset.com/scim/v2/users?filter=urn:scim:schemas:extension:FactSet:Core:1.0:User:username eq )

## Support – FactSet’s Issue Tracker

### Issue Tracker

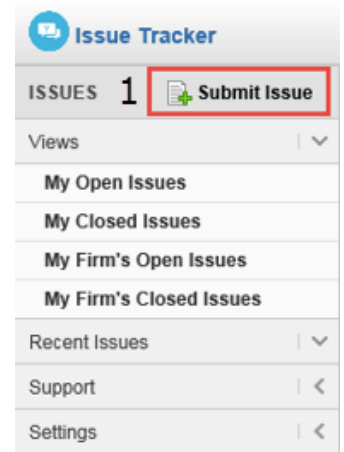
FactSet offers support for Federations and Provisioning via direct submission of support tickets to FactSet Engineers via FactSet’s Issue Tracker at <https://issuetracker.factset.com>.

To gain access to Issue Tracker for Views/White Label and Federation support, contact your FactSet Account Representative. Request FactSet product 24303.

Engineers and product specialists will handle issues submitted via Issue Tracker. Update notifications will be delivered to your e-mail for any tickets submitted by yourself or colleagues who also have access to Issue Tracker.

### Submitting an Issue via Issue Tracker

1. Log into <https://issuetracker.factset.com> and click on “Submit Issue”
2. From the “Product:” dropdown box, select the Product and then Category for the issue at hand
3. Fill in the “Subject:” field with an appropriate title
4. You may add to the “Cc:” field any of your colleagues who also have Issue Tracker access
5. Fill in the “Description” field with the issue at hand. You may also attach screenshots or other documents to the Issue
6. When completed, click on “Send”



Open issues filed by yourself will be available under **“My Open Issues”**; your closed issues will be under **“My Closed Issues”**

Issues opened and closed by others at your firm with Issue tracker will be located under **“My Firm’s Open Issues”** and **“My Firm’s Closed Issues”** respectively.

**Create Issue**

My Products:  All Products:

Product : 2

Subject : 3

Cc : 4

Description 5

6



## Support Products

The below Issue Tracker products are available which apply to this documentation. Not all products may be available to you if they are not within the scope of your implementation.

### Product - Procure-to-Pay - Provisioning

#### Categories

**API Authentication Support:** For setup and questions/troubleshooting of auth-systems required to authenticate to the Procure-to-Pay API

**Procure-to-Pay API Support:** For questions and troubleshooting of provisioning and entitling individuals via the Procure-to-Pay API

#### **Setup:**

For initial setup of the API

When submitting Procure-to-Pay API support inquiries, please include the following details with your inquiry:

- X-DataDirect-Request-Key – supplied in the response headers of any response from the API. This will allow FactSet to review the specific transaction in question
- ErrorId - Supplied in the message portion response of the API. May contain useful, actionable, information in a supplied “message” for you to act on
- TransactionCode – Supplied in the response of the API. Presence of the TransactionCode and accompanying “message” means that the request was not successful in some manner. Accompanying “message” may provide useful additional detail for troubleshooting

## Change Log

v.2022-02-01:

- Initial release

v.2022-04-21:

- Added Contents Section
- Added File Manager Audit Endpoint

v.2022-04-28:

- Added Section 8: Common Workflow Examples

v.2022-05-13:

- Added White label parameter for Products schema

v.2022-05-24:

- Added UAT Section and description

v.2023-02-16

- Moved the /VermilionUsers endpoint into FactSet:VRS:1.0:User Schema
- Moved the /VermilionGroups endpoint into FactSet:VRS:1.0:Group Schema
- Added several Vermilion workflow examples as well as additional Filter/Fetching examples to Section 8

V2023-05-05

- Adjusted versioning for YYYY-MM-DD
- "Orderable" parameter added to FactSet:Core:1.0:Product schema

V2024-01-26

- Updated [Provisioning Details](#) section with note:

Please note that all API transactions have a global timeout of 300-seconds. FactSet makes best effort to service all requests in the synchronous fashion defined by the SCIM RFC but should a transaction take longer on the Service Provider side, a message detailing to check back on the resource later will be seen with http-response:500.

- Updated all http-response:500 notes to detail the above item
- Incorporated Redistributor Provisioning within the SCIM API
  - Includes:
    - New /POST Locations endpoint
    - Addition of firmDescription, usernames, managedLocations, managingLocations, emailDomains, partnerAssertedEntityId and CompanyAgreementsURLs to [locations schema](#)
    - Addition of UserTaxonomyData and royaltyClass to FactSet [user schema](#)

V2024-04-18

- FactSetnetID deprecated from user attributes
- Added Alerts and Updates section for subscribing to alerts for changes to the API
- Appended User taxonomy to include UserClass to Position tabs in section 6

V2024-08-04

- Added [FactSet:Core:1.0:Federation](#) schema and accompanying [endpoints](#)
- [Section](#) added for Redistributor Migrations from the User Provisioning API to SCIM API
- "assertionValue" as a discrete user attribute deprecated in favor of [Federation Schema](#)