



**BLACKDUCK** | Hub

# Getting Started with the Hub SDK

Version 4.4.0



This edition of the *Getting Started with the Hub SDK* refers to version 4.4.0 of the Black Duck Hub.

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**Please send your comments and suggestions to:**

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## The Hub documentation

The documentation for the Hub consists of online help and these documents:

Title	File	Description
Release Notes	release_notes_bd_hub.pdf	Contains information about the new and improved features, resolved issues, and known issues in the current and previous releases.
Installing Hub using Docker Compose	hub_install_compose.pdf	Contains information about installing and upgrading the Hub using Docker Compose.
Installing Hub using Docker Swarm	hub_install_swarm.pdf	Contains information about installing and upgrading the Hub using Docker Swarm.
Installing Hub using Kubernetes	hub_install_kubernetes.pdf	Contains information about installing and upgrading the Hub using Kubernetes.
Installing Hub using OpenShift	hub_install_openshift.pdf	Contains information about installing and upgrading the Hub using OpenShift.
Getting Started	hub_getting_started.pdf	Provides first-time users with information on using the Hub.
Scanning Best Practices	hub_scanning_best_practices.pdf	Provides best practices for scanning.
Getting Started with the Hub SDK	getting_started_hub_sdk.pdf	Contains overview information and a sample use case.
Report Database	report_db_bd_hub.pdf	Contains information on using the report database.

Hub integration documentation can be found on [Confluence](#).

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# Chapter 1: About the Hub SDK

The Black Duck Hub REST APIs provide a standard interface for interacting with the Hub.

REST APIs provide access to resources (data entities) via URI paths. To use a REST API, your application will make a HTTP request and parse the response. The methods used by your application will be the standard HTTP methods of GET, POST, PUT and DELETE. REST APIs operate over HTTP(S) making it easy to use with any programming language or framework. The input and output format for the Hub REST APIs is JSON.

**Important:** Black Duck does not support REST APIs that begin with "v1" or "internal".

## Viewing and Testing the REST APIs

The Black Duck Hub provides online access and documentation to the REST servers and individual REST APIs. After logging in to the Hub application, you can enter the following url to access this information:

`http://<your Hub server url>/api.html`

Each supported REST API is documented with the required input parameters and expected response. A "Try it out" button allows you to do interactive testing of the API.

**Note:** The API page uses Swagger to document the Hub APIs. Swagger documentation should not be considered part of the Hub REST APIs and can change without warning or backward compatibility.

The following example shows the component-version REST API call, which returns component information:

```
GET /api/components/{componentId}/versions/{versionId}
```

where {componentId} and {versionId} are the internal Hub IDs for the OSS component in the Black Duck KB.

**Curl**

```
curl -X GET --header "Accept: application/json" "https://<HUB SERVER>/api/components/b2d3d36c-15d3-4e1a-bef5-8e907f107048/versions/35f6d76e-e4dd-4b87-bae5-133da093dcd2"
```

**Request URL**

```
https://<HUB_SERVER>/api/components/b2d3d36c-15d3-4e1a-bef5-8e907f107048/versions/35f6d76e-e4dd-4b87-bae5-133da093dcd2
```

**Response Body**

```
{
  "versionName": "7.0.22",
  "releasedOn": "2011-09-27T04:00:00.000Z",
  "source": "KB",
  "license": {
    "type": "DISJUNCTIVE",
    "licenses": [
      {
        "name": "Apache License 2.0",
        "ownership": "OPEN_SOURCE",
        "codeSharing": "PERMISSIVE",
        "licenses": [],
        "license": "https://saleshub.blackducksoftware.com/api/licenses/7cae335f-1193-421e-92f1-8802b4243e93"
      }
    ]
  },
}
```

The equivalent API call can also be made using the API GUI, for example:

GET
/api/components/{componentId}/versions/{versionId}
findVersion

Response Class (Status 200)
Model
Model Schema

```

{
  "license": {
    "present": true
  },
  "releasedOn": "2016-09-06T18:28:49.348Z",
  "source": "CUSTOM",
  "versionName": "string"
}

```

Response Content Type
application/json

Parameters

Parameter	Value	Description	Parameter Type	Data Type
componentId	b2d3d36c-15d3-4e1a-bef5-8e907f107048	componentId	path	string
versionId	35f6d76e-e4dd-4b87-bae5-133da093dcd2	versionId	path	string

Try it out!
Hide Response

Curl

```

curl -X GET --header "Accept: application/json" "https://saleshub.blackducksoftware.com/api/components/b2d3d36c-15d3-4e1a-bef5-8e9

```

Request URL

```

https://saleshub.blackducksoftware.com/api/components/b2d3d36c-15d3-4e1a-bef5-8e907f107048/versions/35f6d76e-e4dd-4b87-bae5-133da0

```

Response Body

```

{
  "versionName": "7.0.22",
  "releasedOn": "2011-09-27T04:00:00.000Z",
  "source": "KB",
  "license": {
    "type": "DISJUNCTIVE",
    "licenses": [
      {
        "name": "Apache License 2.0",
        "ownership": "OPEN_SOURCE",
        "codeSharing": "PERMISSIVE",
        "licenses": [],
        "license": "https://saleshub.blackducksoftware.com/api/licenses/7cae335f-1193-421e-92f1-8802b4243e93"
      }
    ]
  },
  "_meta": {
    "allow": [
      "GET"
    ]
  }
}

```

Response Code

200

## Authentication

The Black Duck Hub REST APIs currently support session authentication. In order to access the REST APIs, you must first authenticate with the Hub application. For example, the following curl command shows how to authenticate with the Hub application prior to making the REST API calls:



```
curl -X POST --data 'j_username=username&j_password=password' -i http://<your  
Hub server url>/j_spring_security_check
```

where the username and password in bold are the credentials for logging in to your Hub instance.

## Chapter 2: Example of using the Hub SDK

Use Case: I'm interested in using the REST APIs to find risk counts for my project "Application1" version "1.0".

### Step 1: Authentication

You must first authenticate with the Hub application. For example, the following curl command shows how to authenticate with the Hub application prior to making the REST API calls:

```
curl -X POST --data 'j_username=username&j_password=password' -i http://<your Hub server url>/j_spring_security_check
```

Note: the username and password in bold are the credentials for logging in to your Hub instance.

### Step 2: Get the Application1 project

<https://<Hub server url>:443/api/projects?q=name%3AApplication1>

```
{
  totalCount: 1
  -items: [1]
  -0: {
    name: "Application1"
    description: "Application 1"
    projectTier: 1
    source: "CUSTOM"
    -_meta: {
      -allow: [3]
      0: "GET"
      1: "PUT"
      2: "DELETE"
      href: "https://<Hub server url>:443/api/projects/4bfe0d5a-6b3d-4d11-8212-6b3b2f7b61b5"
    }
    -links: [2]
    -0: {
      rel: "versions"
      href: "https://<Hub server url>:443/api/projects/4bfe0d5a-6b3d-4d11-8212-6b3b2f7b61b5/versions"
    }
    -1: {
      rel: "canonicalVersion"
      href: "https://<Hub server url>:443/api/projects/4bfe0d5a-6b3d-4d11-8212-6b3b2f7b61b5/versions/f7838043-f144-4853-9c62-d1c4c49b909f"
    }
  }
}
```

Included in the JSON response are all your available http calls. Notice you can call "versions" or "canonicalVersion".

### Step 3: Get the Application1 project versions

Get the versions of Application1 project.

Using the links provided in the JSON response in step 1 I can use the following to get my project

versions:

<https://<Hub server url>/api/projects/4bfe0d5a-6b3d-4d11-8212-6b3b2f7b61b5/versions>

```
{
  totalCount: 1
  -items: [1]
    -0: {
      versionName: "1.0"
      phase: "DEVELOPMENT"
      distribution: "EXTERNAL"
      source: "CUSTOM"
      -_meta: {
        -allow: [3]
          0: "GET"
          1: "PUT"
          2: "DELETE"
        href: "https://<Hub server url>/api/projects/4bfe0d5a-6b3d-4d11-8212-6b3b2f7b61b5/versions/f7838043-f144-4853-9c62-d1c4c49b909f"
      }
      -links: [1]
        -0: {
          rel: "versionReport"
          href: "https://<Hub server url>/api/versions/f7838043-f144-4853-9c62-d1c4c49b909f/reports"
        }
        -1: {
          rel: "riskProfile"
          href: "https://<Hub server url>/api/projects/4bfe0d5a-6b3d-4d11-8212-6b3b2f7b61b5/versions/f7838043-f144-4853-9c62-d1c4c49b909f/risk-profile"
        }
      }
    }
}
```

Included in the JSON response are all your available http calls. Notice you can call “riskProfile”.

## Step 4: Get the Risk Profile for “1.0” version

Using the links in the JSON response from above I can call the following to get the risk profile:

<https://<Hub server url>/api/projects/4bfe0d5a-6b3d-4d11-8212-6b3b2f7b61b5/versions/f7838043-f144-4853-9c62-d1c4c49b909f/risk-profile>

```
{
  -categories: {
    -VERSION: { ... }
    -ACTIVITY: { ... }
    -VULNERABILITY: {
      HIGH: 0
      MEDIUM: 1
      LOW: 0
      OK: 8
      UNKNOWN: 0
    }
    -LICENSE: {
      HIGH: 0
      MEDIUM: 1
      LOW: 0
      OK: 8
      UNKNOWN: 0
    }
    -OPERATIONAL: { ... }
  }
  -_meta: {
    -allow: [1]
      0: "GET"
    href: "https://<Hub server url>/api/projects/4bfe0d5a-6b3d-4d11-8212-6b3b2f7b61b5/versions/f7838043-f144-4853-9c62-d1c4c49b909f/risk-profile"
  }
  -links: [1]
    -0: {
      rel: "version"
      href: "https://<Hub server url>/api/projects/4bfe0d5a-6b3d-4d11-8212-6b3b2f7b61b5/versions/f7838043-f144-4853-9c62-d1c4c49b909f"
    }
  }
}
```

The JSON response includes all risk counts for Version, Activity, Vulnerability, License, and Operational risk. The user can now use those values for whatever external activity they’d like to do (fail a build, create bug tracking tickets, and so on)

Cross-site request forgeries (CSRF) are types of attacks which perform unwanted actions on a web application without the user's intent. This type of vulnerability happens on web applications which use cookies to identify the user. For example, the attacker uses the same cookies to make a fraudulent request, and attempts to lure the user to click a fraudulent link. If the user clicks the link after being authenticated, the fraudulent request performs any actions available to the logged-in user, but without the knowledge of the user.

The forged request works because browser requests automatically include all credentials associated with the web application, such as the logged-in user's session information in cookies. The server cannot distinguish between the forged request from the user and the legitimate request from the user.

### Other names

CSRF attacks are also known by other names; the main difference is the technique used to perform the attack. The names include XSRF, Sea Surf, Session Riding, and Hostile Liking.

### CSRF security in The Hub

Black Duck Hub version 4.0.0 now features improved security for attempted cross-site request forgeries (CSRF). The Hub uses a Synchronized Token Pattern (STP) to address CSRF. This is a technique where a secret and unique token value is passed along with every request through form data or the header. This token is then verified on the server side. If the tokens do not match, then the request is ignored, and a *403 forbidden* error displays. The unique token is generated for each session, not for each request. The same unique token is used for the duration of the session, and a new token is generated for each new session. The token is destroyed when its session is destroyed. The following is an example of the CSRF format:

```
headerName = X-CSRF-TOKEN
parameterName = _csrf
token = 484dcea0-82a7-4f3e-9158-f80513ed86f9
```

When making a REST call to authenticate the user, a POST request (login request) is made to the URL `/j_spring_security_check`. The CSRF information is returned in the response header. The following is an example of the *login request header*:

```
POST /j_spring_security_check HTTP/1.1
Host: qa-hub21.dc1.lan
Connection: keep-alive
Content-Length: 40
```

```
Origin: https://qa-hub21.dcl.lan
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_12_5) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/58.0.3029.110 Safari/537.36
Content-Type: application/x-www-form-urlencoded; charset=UTF-8
Accept: */*
X-Requested-With: XMLHttpRequest
X-FirePHP-Version: 0.0.6
Referer: https://qa-hub21.dcl.lan/
Accept-Encoding: gzip, deflate, br
Accept-Language: en-US,en;q=0.8,ja;q=0.6,cs;q=0.4
Cookie: JSESSIONID=5AB917FDED71241D77EB2EAC4C364DA0
```

The following is an example of the returned *login response header*. The CSRF token is highlighted.

```
HTTP/1.1 204
Server: nginx/1.10.3
Date: Wed, 14 Jun 2017 16:27:50 GMT
Connection: keep-alive
X-CSRF-HEADER: X-CSRF-TOKEN
X-CSRF-PARAM: _csrf
X-CSRF-TOKEN: 484dcea0-82a7-4f3e-9158-f80513ed86f9
Set-Cookie: JSESSIONID=EC4F20CE9ADAACD02421803421B75D9B;path=/;HttpOnly
X-Content-Type-Options: nosniff
X-XSS-Protection: 1; mode=block
Cache-Control: no-cache, no-store, max-age=0, must-revalidate
Pragma: no-cache
Expires: 0
X-Frame-Options: SAMEORIGIN
```

#### ⚙ To add the CSRF security header to the request:

1. Copy the CSRF token from the login response header, and include the CSRF token in each subsequent POST, PUT, PATCH and DELETE request headers.

The following is a sample request with the CSRF token passed in using the request header:

```
POST /api/v1/projects HTTP/1.1
```

```
Host: qa-hub21
Connection: keep-alive
Content-Length: 180
Origin: https://qa-hub21
X-CSRF-TOKEN: 484dcea0-82a7-4f3e-9158-f80513ed86f9
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_12_5)
AppleWebKit/537.36 (KHTML, like Gecko) Chrome/58.0.3029.110
Safari/537.36
Content-Type: application/json
Accept: application/json, text/javascript, */*; q=0.01
X-Requested-With: XMLHttpRequest
X-FirePHP-Version: 0.0.6
Referer: https://qa-hub21/ui/projects/view:create/action:modal
Accept-Encoding: gzip, deflate, br
Accept-Language: en-US,en;q=0.8,ja;q=0.6,cs;q=0.4
Cookie: JSESSIONID=3515A2241A424B3523436B354823F86D
```

**Note:** You must use the CSRF token from your specific HTTP session in your request. Any integration with a Hub 4.0.0 (or higher) server must include the token.

## Chapter 4: API list

Each supported REST API is documented with the required input parameters. Below is the API list for the Hub 4.4.0:

### aggregate-bom-rest-server : Aggregate Bom Rest Server

[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/components/{componentId}/versions/{versionId}/references	findProjectVersionByComponentVersionId
GET	/api/projects/{projectId}/versions/{versionId}/components	findBomComponents
POST	/api/projects/{projectId}/versions/{versionId}/components	addBomComponent
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}	findBomComponent
PUT	/api/projects/{projectId}/versions/{versionId}/components/{componentId}	updateBomComponent
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/licenses/{licenseId}	findBomComponentLicense
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/licenses/{licenseId}/text	findBomComponentLicenseText
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/versions/{componentVersionId}	findBomComponentVersion
PUT	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/versions/{componentVersionId}	updateBomComponentVersion
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/versions/{componentVersionId}/licenses/{licenseId}	findBomComponentVersionLicense
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/versions/{componentVersionId}/licenses/{licenseId}/text	findBomComponentVersionLicenseText

### api-token-rest-server : Api Token Rest Server

[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/current-user/tokens	getApiTokens
POST	/api/current-user/tokens	createApiToken
DELETE	/api/current-user/tokens/{tokenId}	deleteApiToken
GET	/api/current-user/tokens/{tokenId}	getApiToken
POST	/api/current-user/tokens/{tokenId}	regenerateApiToken
PUT	/api/current-user/tokens/{tokenId}	updateApiToken
POST	/api/tokens/authenticate	authenticateApiToken

**bom-component-comment-rest-server : Bom Component Comment Rest Server**

		Show/Hide	List Operations	Expand Operations
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/comments			findBomComponentComments
POST	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/comments			createBomComponentComment
DELETE	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/comments/{commentId}			deleteBomComponentComment
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/comments/{commentId}			findBomComponentComment
PUT	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/comments/{commentId}			updateBomComponentComment
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/component-versions/{componentVersionId}/comments			findBomComponentVersionComments
POST	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/component-versions/{componentVersionId}/comments			createBomComponentVersionComment
DELETE	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/component-versions/{componentVersionId}/comments/{commentId}			deleteBomComponentVersionComment
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/component-versions/{componentVersionId}/comments/{commentId}			findBomComponentVersionComment
PUT	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/component-versions/{componentVersionId}/comments/{commentId}			updateBomComponentVersionComment

**bom-component-issue-rest-server : Bom Component Issue Rest Server**

		Show/Hide	List Operations	Expand Operations
POST	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/component-versions/{componentVersionId}/issues			Creates a new issue for component version. Created issue is mapped to issue tracker issue
DELETE	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/component-versions/{componentVersionId}/issues/{hubIssueId}			deleteIssue
PUT	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/component-versions/{componentVersionId}/issues/{hubIssueId}			Updates issue for component version. Updated issue is mapped to issue tracker issue
POST	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/issues			Creates a new issue for component. Created issue is mapped to issue tracker issue
DELETE	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/issues/{hubIssueId}			deleteIssue
PUT	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/issues/{hubIssueId}			Updates issue for component. Updated issue is mapped to issue tracker issue
GET	/api/releases/{releaseId}/issues			findIssuesByProjectVersionId



**code-location-rest-server : Code Location Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/codelocations	findCodeLocations
GET	/api/codelocations/{codeLocationId}	findCodeLocation
PUT	/api/codelocations/{codeLocationId}	updateCodeLocation
GET	/api/projects/{projectId}/versions/{versionId}/codelocations	findCodeLocationForProjectVersions

**component-rest-server : Component Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/components	getComponents
GET	/api/components/{componentId}	findComponent
GET	/api/components/{componentId}/versions/{versionId}/origin/{originId}/direct-dependencies	directDependencies

**component-version-rest-server : Component Version Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/components/{componentId}/versions	findVersionsByProjectId
GET	/api/components/{componentId}/versions/{versionId}	findVersion
GET	/api/components/{componentId}/versions/{versionId}/crypto-algorithms	getVersionCryptoAlgorithms
GET	/api/components/{componentId}/versions/{versionId}/licenses/{licenseId}	findLicenseForComponentVersion
GET	/api/components/{componentId}/versions/{versionId}/licenses/{licenseId}/text	getLicenseText
GET	/api/components/{componentId}/versions/{versionId}/origin	findOrigins
GET	/api/components/{componentId}/versions/{versionId}/origin/{originId}	findOrigin

**component-version-risk-profile-rest-server : Component Version Risk Profile Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/components/{componentId}/versions/{versionId}/risk-profile	findComponentVersionRiskProfile
-----	---	---------------------------------

**composite-code-location-rest-server : Composite Code Location Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

DELETE	/api/codelocations/{codeLocationId}	deleteCodeLocation
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**health-check-rest-server : Health Check Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/health-checks/liveness	Determine the liveness status to determine if the system is in a normal, healthy state.
GET	/api/health-checks/readiness	Determine the readiness status to determine if the system is ready to receive requests.

**license-rest-server : License Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/licenses	findLicenses
POST	/api/licenses	createLicense
DELETE	/api/licenses/{licenseId}	deleteLicense
GET	/api/licenses/{licenseId}	findLicense
PUT	/api/licenses/{licenseId}	updateLicense
GET	/api/licenses/{licenseId}/text	getLicenseText
PUT	/api/licenses/{licenseId}/text	updateLicenseText

**linked-data-rest-server : Linked Data Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

HEAD	/api/bom-import	head
POST	/api/bom-import	importBom

**matched-file-rest-server : Matched File Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/matched-files	findMatchedFiles
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/versions/{componentVersionId}/matched-files	findMatchedFiles
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/versions/{componentVersionId}/origins/{componentOriginId}/matched-files	findMatchedFiles

**meta-rest-server : Meta Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/current-version	findCurrentHubVersion
-----	----------------------	-----------------------

**notification-rest-server : Notification Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/notifications	findNotifications
GET	/api/notifications/{notificationId}	findNotification
GET	/api/users/{userId}/notification-counts	findUserNotificationsCount
PUT	/api/users/{userId}/notification-states	updateAllNotificationState
GET	/api/users/{userId}/notifications	findUserNotifications
GET	/api/users/{userId}/notifications/{notificationId}	findUserNotification
PUT	/api/users/{userId}/notifications/{notificationId}	updateUserNotification

**notification-subscription-rest-server : Notification Subscription Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/users/{userId}/notification-subscriptions	findNotificationSubscriptions
POST	/api/users/{userId}/notification-subscriptions	createNotificationSubscription
DELETE	/api/users/{userId}/notification-subscriptions/{subscriptionId}	deleteNotificationSubscription
GET	/api/users/{userId}/notification-subscriptions/{subscriptionId}	findNotificationSubscription

**policy-rule-filter-rest-server : Policy Rule Filter Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/policy-rule-enabled-filters	getPolicyRuleEnabledFilters
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**policy-rule-rest-server : Policy Rule Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/policy-rules	findPolicyRulesPublicV2
POST	/api/policy-rules	createPolicyRule
DELETE	/api/policy-rules/{policyRuleId}	deletePolicyRule
GET	/api/policy-rules/{policyRuleId}	findPolicyRulePublic
PUT	/api/policy-rules/{policyRuleId}	updatePolicyRule

**project-assignment-rest-server : Project Assignment Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/projects/{projectId}/usergroups	getAssignedUserGroups
POST	/api/projects/{projectId}/usergroups	addAssignedUser
DELETE	/api/projects/{projectId}/usergroups/{userGroupId}	removeAssignedUserGroup
GET	/api/projects/{projectId}/usergroups/{userGroupId}	getAssignedUserGroup
GET	/api/projects/{projectId}/users	getAssignedUsers
POST	/api/projects/{projectId}/users	addAssignedUser
DELETE	/api/projects/{projectId}/users/{userId}	removeAssignedUser
GET	/api/projects/{projectId}/users/{userId}	getAssignedUser
GET	/api/usergroups/{userGroupId}/projects	getProjectsAssignedToUserGroup
GET	/api/users/{userId}/projects	getProjectsAssignedToUserOrUsersGroups

**project-rest-server : Project Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/projects	findProjects
POST	/api/projects	createProject
DELETE	/api/projects/{projectId}	deleteProject
GET	/api/projects/{projectId}	findProject
PUT	/api/projects/{projectId}	updateProject

**project-version-rest-server : Project Version Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/projects/{projectId}/versions	findVersionsByProjectId
POST	/api/projects/{projectId}/versions	createVersion
DELETE	/api/projects/{projectId}/versions/{versionId}	deleteVersion
GET	/api/projects/{projectId}/versions/{versionId}	findVersion
PUT	/api/projects/{projectId}/versions/{versionId}	updateVersion

**report-rest-server : Report Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/reports/{reportId}	download
GET	/api/reports/{reportId}/contents	findContents
GET	/api/versions/{versionId}/license-reports	findVersionLicenseReports
POST	/api/versions/{versionId}/license-reports	createVersionLicenseReport
DELETE	/api/versions/{versionId}/license-reports/{reportId}	deleteVersionLicenseReport
GET	/api/versions/{versionId}/license-reports/{reportId}	findVersionLicenseReport
GET	/api/versions/{versionId}/reports	findVersionReports
POST	/api/versions/{versionId}/reports	createVersionReport
DELETE	/api/versions/{versionId}/reports/{reportId}	deleteVersionReport
GET	/api/versions/{versionId}/reports/{reportId}	findVersionReport
GET	/api/vulnerability-remediation-reports	findVulnerabilityRemediationReports
POST	/api/vulnerability-remediation-reports	createVulnerabilityRemediationReport
DELETE	/api/vulnerability-reports/{reportId}	deleteVulnerabilityReport
GET	/api/vulnerability-reports/{reportId}	findVulnerabilityReport
GET	/api/vulnerability-status-reports	findVulnerabilityStatusReports
POST	/api/vulnerability-status-reports	createVulnerabilityStatusReport
GET	/api/vulnerability-update-reports	findVulnerabilityUpdateReports
POST	/api/vulnerability-update-reports	createVulnerabilityUpdateReport

**role-rest-server : Role Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/roles	getRolesPublic
GET	/api/roles/{roleId}	getRolePublic

**scan-service-proxy-rest-server : Scan Service Proxy Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/codelocations/{codeLocationId}/scan-summaries	findScanSummaries
POST	/api/fp-import/scans/{scanId}	fpImportPost
GET	/api/scan-summaries/{scanId}	findScanSummary
GET	/api/scan/data/	listBdio2
POST	/api/scan/data/	uploadBdio2ViaForm
GET	/api/scan/data/{id}	summarizeBdio2
GET	/api/scan/data/{id}.bdio	download

**search-rest-server : Search Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/search/components	searchByComponentName
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**url-directory-rest-server : Url Directory Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/	getUrlDirectory
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**user-filters-rest-server : User Filters Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/user-status-filters	findUserStatusFilterView
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**user-group-rest-server : User Group Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/usergroups	page
POST	/api/usergroups	create
DELETE	/api/usergroups/{userGroupId}	delete
GET	/api/usergroups/{userGroupId}	get
PUT	/api/usergroups/{userGroupId}	update
GET	/api/usergroups/{userGroupId}/roles	getRolesByUserGroup
POST	/api/usergroups/{userGroupId}/roles	addRoleForUserGroup
DELETE	/api/usergroups/{userGroupId}/roles/{roleAssignmentId}	deleteRoleAssignmentForUserGroup
GET	/api/usergroups/{userGroupId}/roles/{roleAssignmentId}	getRoleAssignmentForUserGroup
GET	/api/usergroups/{userGroupId}/users	getAssignedUsers
POST	/api/usergroups/{userGroupId}/users	addUsersToUserGroup
DELETE	/api/usergroups/{userGroupId}/users/{userId}	removeUserFromUserGroup
GET	/api/usergroups/{userGroupId}/users/{userId}	getAssignedUser
GET	/api/users/{userId}/usergroups	getUserAssignedGroups
POST	/api/users/{userId}/usergroups	addUserToGroups
DELETE	/api/users/{userId}/usergroups/{userGroupId}	deleteUserFromGroup
GET	/api/users/{userId}/usergroups/{userGroupId}	getSpecificUserAssignedToGroup

**user-notification-filter-rest-server : User Notification Filter Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/notification-state-filters	findNotificationStateFilterView
GET	/api/notification-type-filters	getNotificationTypeFilters

**user-rest-server : User Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/current-user	getCurrentUser
GET	/api/users	findUsers
POST	/api/users	createUser
GET	/api/users/{userId}	findUser
PUT	/api/users/{userId}	updateUser
PUT	/api/users/{userId}/changepassword	changePasswordCurrentUser
PUT	/api/users/{userId}/resetpassword	resetPassword

**user-role-rest-server : User Role Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/roles/{roleId}/inheriting-users	getUsersByInheritedRolePublic
GET	/api/roles/{roleId}/users	getUsersByRolePublic
GET	/api/users/{userId}/inherited-roles	getInheritedRolesByUserPublic
GET	/api/users/{userId}/roles	getRolesByUserPublic
POST	/api/users/{userId}/roles	addRoleForUserPublic
DELETE	/api/users/{userId}/roles/{roleAssignmentId}	deleteRoleAssignmentForUserPublic
GET	/api/users/{userId}/roles/{roleAssignmentId}	getRoleAssignmentForUserPublic

**version-bom-policy-rest-server : Version Bom Policy Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/policy-rules	getPolicyRulesForComponentV2
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/policy-status	getPolicyStatusForComponent
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/versions/{componentVersionId}/policy-rules	getPolicyRulesForComponentVersionV2
GET	/api/projects/{projectId}/versions/{versionId}/components/{componentId}/versions/{componentVersionId}/policy-status	getPolicyStatusForComponentVersion
GET	/api/projects/{projectId}/versions/{versionId}/policy-status	findScanSummary

**version-risk-profile : Version Risk Profile**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/projects/{projectId}/versions/{versionId}/risk-profile	find version risk-profile
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**vulnerability-rest-server : Vulnerability Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/components/{componentId}/versions/{versionId}/origin/{originId}/vulnerabilities	Finds vulnerabilities by component version and origin
GET	/api/components/{componentId}/versions/{versionId}/vulnerabilities	Finds vulnerabilities by component version
GET	/api/components/{componentId}/vulnerabilities	Finds vulnerabilities by component
GET	/api/cwes/{cweId}	Finds a specific CWE (common weakness enumeration) record
GET	/api/vulnerabilities/{vulnerabilityId}	Finds a specific vulnerability record

**vulnerable-component-rest-server : Vulnerable Component Rest Server**[Show/Hide](#) | [List Operations](#) | [Expand Operations](#)

GET	/api/projects/{projectId}/versions/{versionId}/vulnerable-bom-components	findVulnerableComponents
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