



This PDF is generated from authoritative online content, and is provided for convenience only. This PDF cannot be used for legal purposes. For authoritative understanding of what is and is not supported, always use the online content. To copy code samples, always use the online content.

Genesys Rules System REST API Reference Guide

Genesys Rules System 8.5.2

3/10/2022

Table of Contents

Genesys Rules System REST API Reference Guide	3
Overview	5
Authentication	8
Business Hierarchy	13
Templates	15
Rule Packages	16
Parameters	22
Rules	24
Business Calendars	47
Deployment/Snapshots	65

Genesys Rules System REST API Reference Guide

API Functions

The GRS REST API provides functions to manage:

- Authentication—login, logout.
- Business Hierarchy
- Rule Templates
- Rule Packages
- Parameters
- Rules
- Business Calendars
- Deployments and Snapshots

Applications or custom user interfaces (which can run in parallel to or instead of the Genesys Rules Authoring Tool web application) can use this API to perform rule authoring and deployment.

This reference can be used to write applications that use the Genesys Rules System Representational state transfer (REST) Application Programming Interface (API). This reference also explains the resources and methods available to developers. Each category presents information about relevant operations, related resources, request parameters, and return values.

Enabling/Disabling the GRS REST API

Use of the API can be enabled or disabled by setting the value of configuration option `rest-api`. In addition, this configuration option will enable you to determine whether or not to force only SSL communications. Genesys strongly recommends running over SSL in order to protect the authentication tokens that flow on each request from compromise. SSL can be disabled where appropriate (for example, testing labs, positioning server behind firewalls, and so on). Valid values are as follows:

- `disabled`—(default)The REST API is disabled and will not accept any requests.
- `enabled`—The REST API is enabled and will accept both secure (https) and non-secure (http) requests.
- `requireSSL`—The REST API is enabled and will only accept secure (https) requests.

Platform Support

In this release, the REST API will be available only from the Tomcat application server.

Overview

Authentication / Security

The API is authenticated using HTTP Basic Authentication.

SSL is strongly recommended by Genesys. This allows the unique authentication token (APIToken) to be safely sent on each request. The APIToken will be passed in the header using HTTP Basic protocol.

A configuration option—`rest-api`—enables a customer to control whether or not they wish to force SSL. SSL might not be required, such as when GRAT server is positioned behind an ELB, and the communications between the ELB and GRAT server are protected behind a firewall.

Request Format

The base URL of the API is `https://<server>:<port>/grs/v1/` .

The "v1" indicates version 1 and allows for future expansion while maintaining compatibility with previous versions of the API.

JSON Bodies

All POST and PUT requests will contain JSON encoded request bodies, and must have have content type of `application/json`, or the API will return a 415 `Unsupported Media Type` status code.

HTTP Verbs

We use standard HTTP verbs to indicate intent of a request:

- GET—To retrieve a resource or a collection of resources (all Queries)
- POST—To create a resource (Create rule package, Create rule)
- PUT—To modify a resource (Modify rule package)
- DELETE—To delete a resource (Delete Rule, Delete Calendar)

Responses

All response bodies are JSON-encoded.

A single resource is represented as a JSON object:

```
{
  "field1": "value",
  "field2": true,
  "field3": []
}
```

A collection of resources is represented as a JSON array of objects:

```
[
  {
    "field1": "value",
    "field2": true,
    "field3": []
  },
  {
    "field1": "another value",
    "field2": false,
    "field3": []
  }
]
```

Timestamps are in UTC and formatted as ISO8601.

HTTP Status Codes

We use HTTP status codes to indicate success or failure of a request.

Success codes

- 200 OK—Request succeeded. Response included
- 201 Created—Resource created. Response included of newly created resource
- 204 No Content—Request succeeded, but no response body

Error codes

- 400 Bad Request—Could not parse request
- 401 Unauthorized—No authentication credentials provided or authentication failed
- 403 Forbidden—Authenticated user does not have access. For example, they do not have PACKAGE_CREATE permission and attempted to create a package
- 404 Not Found—Resource not found. For example; Query rule package detail and the provided package ID was not found.

- 415 Unsupported Media Type—POST/PUT request occurred without an application/json content type.
- 422 Unprocessable Entry—A request to modify or create a resource failed due to a validation error.

In case of validation errors on a POST/PUT/PATCH request, a 422 Unprocessable Entry status code will be returned. The JSON response body will include an array of error messages.

```
{
  "message": "Validation Failed",
  "errors": [
    {
      "message": "Field is not valid"
    },
    {
      "message": "OtherField is already used"
    }
  ]
}
```

- 500, 501, 502, 503—An internal server error occurred

Configuration

By default, the new REST API is not enabled. You can enable it after upgrading to GRS 8.5.2 by setting configuration option `rest-api`. In addition, this configuration option will enable you to determine whether or not to force only SSL communications. Genesys recommends running over SSL to protect the authentication tokens that flow on each request from compromise. However, there are situations where SSL would not be required (testing labs, positioning server behind firewalls, etc.). In this case, you can use the option to disable the check for SSL.

Configuration Option—`rest-api`

Default Value—`disabled`

Note—Changes to this option will require a restart of the GRAT server to take effect.

Possible Values:

- `disabled`—(default)The REST API is disabled and will not accept any requests.
- `enabled`—The REST API is enabled and will accept both secure (https) and non-secure (http) requests.
- `requireSSL`—The REST API is enabled and will only accept secure (https) requests.

Authentication

API	METHOD	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
Login	GET	[+]Show /grs/v1/login	N/A	[+]Show { "apiToken": "749cf21d112cc88cdeb72c441724ecb71e53a6a7666e847200ca9593f96f5e", "lastLogin": 1000, 0 }	• 200 OK—Response Body Provided • 401 Unauthorized—Userid/Password not valid • 422 Unprocessable Entry • 503—Service Unavailable • 1001—No User Connection • 1002—Client port bind failed [+]Show <pre>{ "message": "Validation Failed", "errors": [{ "message": "Password Change Required" }] }</pre> Additional Errors:	Userid and Password are provided in the basic authorization header. apiToken—A unique session "apiToken" is returned on a successful login. "Userid" and "apiToken" must be included on subsequent requests via the basic authorization header. lastLogin—(if available from config server) is returned as a long representing time in ms since epoch.

API	METHOD	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					1003—Max Connections Exceeded	
Change Password and Login	PUT	[+]Show /grs/v1/changepassword	[+]Show <pre>{ "newPassword": "AnotherPW" }</pre>	[+]Show <pre>{ "apiToken": "749cf21d112cc88cd972c441724ec0b71e53a6a7666e847209cae9593f96f5e" "lastLogin": 0 }</pre>	200 OK—Response Body Provided 401 Unauthorized—If Original Password not valid 503—Service Unavailable	A user cannot simply change their password at any time. The password must expire or the flag to "reset" password must be enabled in Configuration Server. When a user attempts to log in and gets the "Password Change Required" error, they can then use this API to change their password and log in. UserID and Original Password are provided in the basic authorization header. The new password is passed in the request body. If the password change is successful, the API token and last login time (if available) will be returned (just like normal login).

API	METHOD	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
Logout	GET	[+]Show /grs/v1/logout
 Optional Parameters: • &force=true—logout even if there are locked resources. Any locked resources will automatically be unlocked.	N/A	N/A	• 204 No Content—Logout successful • 401 Unauthorized—User not logged in or API Token not otherwise recognized • 422 Unprocessable Entry—User has locked resources: [+]Show <pre>{ "message": "User has locked resources", "resource": ["dmd:Rule-100", "package3:DT-163", "Calendar-200"] }</pre> • 503—Service Unavailable	
Query Locks	GET	[+]Show /grs/v1/querylocks	N/A	[+]Show <pre>{ "message": "User has locked resources", "resource": ["dmd:Rule-100", "package1:DT-163", "Calendar-200"] }</pre>	• 200 OK—Response body provided • 204 No Content—User has no locked resources • 401	

API	METHOD	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				}	Unauthorized—APIToken not valid • 503—Service Unavailable	
Permissions	GET	[+] Show /grs/v1/permissions/{tenantId}	N/A	[+] Show { "canCreatePackage":true, "canModifyPackage":true, "canDeletePackage":true, "canDeployPackage":true, "canViewRule":true, "canCreateRule":true, "canModifyRule":true, "canEditRuleOnly":false, "canDeleteRule":true, "canViewCalendar":true, "canCreateCalendar":true, "canModifyCalendar":true, "canDeleteCalendar":true, "canViewPackageSnapshot":true, "canCreatePackageSnapshot":true, "canDeletePackageSnapshot":true, "canViewTestScenario":true, "canCreateTestScenario":true, "canModifyTestScenario":true, "canDeleteTestScenario":true, "canExecuteTestScenario":true, "canCreateTemplate":true, "canModifyTemplate":true,	200 OK—Response body provided • 401 Unauthorized—APIToken not valid • 403 Forbidden—User does not have permission for the specified tenant • 503—Service Unavailable	User must have permission to the specified tenant ID. Use Query Tenants to get a list of valid tenant IDs for this logged in user.

API	METHOD	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre>"canDeleteTemplate":true }</pre>		

Business Hierarchy

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
Query Tenants	GET	[+]Show /grs/v1/tenants	N/A	[+]Show <pre>{ "tenants": [{ "nodeId": 1, "name": "Environment" }, { "nodeId": 104, "name": "KC Test Environment" }] }</pre>	200 OK—Response body provided 401 Unauthorized—API Token not valid 503—Service Unavailable	Query Tenants returns the list of tenant names and IDs that this user is allowed to see based on their login credentials.
Query Business Hierarchy	GET	[+]Show /grs/v1/tenant/{tenantId}/businesshierarchy	N/A	[+]Show <pre>{ "nodes": [{ "nodeId": 346, "name": "ACME Solution", "children": [{ "nodeId": 458, "name": "Financial Department", "children": null }, { </pre>	200 OK—Response body provided 401 Unauthorized—API Token not valid 403 Forbidden—User does not have permission for the specified tenant. 503—Service Unavailable	Will return the list of nodes that the userid has permission to view.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre>"nodeId":351, "nodeId":351, "name":"Sales", "children":[{ "nodeId":353, "name":"Outbound", "children":null }], }, { "nodeId":457, "name":"Sales Department", "children":null }], }</pre>		

Templates

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
Query Templates by Type	GET	[+]Show /grs/v1/tenant/{tenantId}/templates
 Optional parms: • &type=samples • &maxVersions=3	N/A	[+]Show <pre>{ "templates": [{ "name": "test", "version": 1, "type": "iWD", "global": false, "changeComment": "Fixed bug" }, { "name": "ABC", "version": 2, "type": "samples", "global": false, "changeComment": "Initial" }] }</pre>	• 200 OK—Response body provided • 401 Unauthorized—API token not valid • 403 Forbidden—User logged in user has permission to view. To further filter, specify: &type and/or &maxVersions • 503—Service Unavailable	By default, this query returns all versions (up to 100) of all templates published for the specified tenant that the user has permission to view. To further filter, specify: &type and/or &maxVersions parameters

Rule Packages

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
Query Packages	GET	[+]Show /grs/v1/tenant/{tenantId}/businessnode/{nodeId}/package/{packageId}	N/A	[+]Show <pre>{ "packages": [{ "packageId": "1fb18a53-17b2-4ae1-81c7-1614f483c754", "name": "dmd", "type": "samples", "businessName": "XYZ", "description": "Sample Package", "templates": [{ "name": "XYZ", "version": 1, "type": null, "global": false, "changeComment": null }] }] }</pre>	200 OK—Response body provided 401 Unauthorized—API token not valid 403 Forbidden—User does not have permission for the specified tenant or business node. 503 Service Unavailable	User must have permission to view the specified tenant and business node.
Query Package Details	GET	[+]Show /grs/v1/tenant/{tenantId}/businessnode/{nodeId}/package/{packageId}	N/A	[+]Show <pre>{ "packageId": "1fb18a53-17b2-4ae1-81c7-1614f483c754", "name": "dmd", "type": "samples", "businessName": "XYZ", "description": "Sample Package", "templates": [{ "name": "XYZ", "version": 1, "type": null, "global": false, "changeComment": null }] }</pre>	200 OK—Response body provided 401 Unauthorized—API token not valid 404 Not Found—could not find packageId	

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> "description": "SamplePackage Note: Must enable wildcards for this to work decision- table- enable- wildcards=true", "templates": [{ "name": "XYZ", "version": 1, "type": "samples", "global": false, "changeComment": "Initial" }] } </pre>	specified package ID. Use Query Packages to obtain correct ID. 503—Service Unavailable	
Create Package	POST	[+]Show <pre> /grs/v1/tenant/{tenantId}/businessnode/{nodeId}/package </pre>	[+]Show <pre> { "name": "XYZ", "type": "samples", "businessName": "XYZ", "description": "SamplePackage", Note: Must enable wildcards for this to work decision- table- enable- wildcards=true "templates": [{ "name": "Existing Template", "version": 7 }, { "name": "A new </pre>	<pre> { "packageId", "f44268af-dd9e-4035-baff-53d78fc89", "businessName": "XYZ", "description": "SamplePackage", "businessName": "XYZ", "description": "SamplePackage", "templates": [{ "name": "Existing Template", "version": 7 }, { "name": "A new </pre>	201 Created—Response body provided 401 Unauthorized—API token not valid 403 Forbidden—User does not have permission for the specified tenant or business node, or does not have proper permission to perform this operation.	

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
			<pre> "version":7 }, { "name": "A new template", "version":2 }] } </pre>	<pre> template", "version":2 }] } </pre>	422 Unprocessable Entry—Field Validation Error [+]Show <pre> { "message": "Validation Failed", "errors": [{ "code" : "1000", "field" : "name", "message": "package name must be specified" }] } </pre> Other possible return values: 1001—name—package name contains invalid character(s) 1002—name—package name cannot contain java keyword(s) 1003—name—package name already in use 1004—type—package type	

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					- must be specified 1005—templates—specified template: {templatename} version: {version} not found 1006—businessName—business name already in use 503—Service Unavailable	
Modify Package	PUT	[+]Show /grs/v1/tenant/{tenantId}/business/{businessId}/package/{packageId}	[+]Show <pre>{ "businessName": "New Business Name", "description": "New Description", "templates": [{ "name": "XYZ", "version": 1 }, { "name": "AnotherTemplate", "version": 2 }] }</pre>	[+]Show <pre>{ "name": "XYZ", "type": "samples", "businessName": "New Business Name", "description": "New Description", "templates": [{ "name": "SamplePackage", "version": 1 }, { "name": "AnotherTemplate", "version": 2 }] }</pre>	200 OK—Response body provided 401 Unauthorized—APIToken not valid 403 Forbidden—User does not have permission for the specified tenant or business packageId 422 - Unprocessable Entry - Field Validation Error	User must have MODIFY_PACKAGE permission. User can modify the following fields: - businessName - description - templates Any other fields modified will be ignored.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					[+]Show <pre>{ "message": "Validation Failed", "errors": [{ "code" : "1006", "field" : "businessName", "message": "businessName already in use" }] }</pre> 1005—templates—specified template: {templatename} version: {version} not found 1006—businessName—business name already in use 503—Service Unavailable	
Delete Package	DELETE	[+]Show /hrs/v1/ tenant/{tenantId}/businessnode/{nodeId}/package/{packageId}	N/A	N/A	204 No Content—Returned if successful operation. 401	User must have PACKAGE_DELETE permission.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					Unauthorized—APIToken not valid • 403 Forbidden—User does not have permission for the specified tenant or does not have proper permission to perform this operation. • 404 Not Found—Could not find specified package ID. • 503—Service Unavailable	

Parameters

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
Query Parameters	GET	[+]Show /grs/v1/tenant/{tenantId}/package/{packageId}/parameters	N/A	[+]Show <pre>{ "parms": [{ "name": "age", "type": "integer", "constraints": "0:99", "keysAndValues": null }, { "name": "education", "type": "list", "constraints": null, "keysAndValues": [{ "key": "dropout", "value": "High School Drop-out" }, { "key": "ged", "value": "G.E.D." }, { "key": "hs", "value": "High School" }] }] }</pre>	200 OK—Response body provided 401 Unauthorized—API Token not valid 403 Forbidden—does not have permission for the specified tenant ID. 404 Not Found—could not find specified package ID. Use Query Packages to obtain correct ID. 503—Service Unavailable	Returns a list of parameter information based on the combination of all templates/versions assigned to the specified rule package. For each parameter (eg, "age", "gender", etc) it returns the type, any constraints, and if a list of selectable values are returned, it returns the list of keys/values. For constraints, integer/numeric parms can have lower/upper bounds rendered as: "constraints": "0:99" If there is no upper bound, lower bound 0: "constraints": "0:." No lower bound, upper bound 99: "constraints": ".:99" Strings can have regex expressions such as: "constraints": ">^\d{5}\$ ^^\d{5}\d{4}\$",

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre>{ "key": "associate", "value": "Associate Degree" }, { "key": "bachelor", "value": "Bachelor Degree" }, { "key": "master", "value": "Master's Degree" }, { "key": "phd", "value": "phD" }] { "name": "zipCode", "type": "string", "constraints": ">^\d{5}\$ ^\\d{5}-\\d{4}\$ ", "keysAndValues": null } }</pre>		

Rules

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
Query Rules in Package	GET	[+]Show /grs/v1/tenant/{tenantId}/package/{packageId}/rules
 Optional parameters: • &nodeId=457 • &baseSaliency=99000	N/A	[+]Show <pre>{ "rules": [{ "ruleId": "f22d35f6-e31e-41f2-8e62-97864c47579a", "ruleType": "DECISION_TABLE", "extRuleId": "DT-103", "name": "DEF", "description": "Sample 3", "phase": "2nd", "calendarId": "Calendar_117", "nodeId": "pkg", "locked": false, "lockOwner": null, "dateEffective": null, "dateExpired": null, "pendingSnapshot": { "ruleId": "820a0434-9e46-4a44-b087-1ea201a17282", "ruleType": "DECISION_TABLE", "extRuleId": "DT-186", "name": "3rd", "description": "", "phase": "3rd", "calendarName": "none", "nodeId": "pkg", </pre>	• 200 OK—Response body provided • 401 Unauthorized—User must have API Token permission • 403 Forbidden—User does not have permission for the specified tenant ID, or does not have the correct permission for this operation. • 404 Not Found—could not find specified package ID. Use Query Packages to obtain correct ID. • 503—Service Unavailable	User must have API Token permission By default, this user returns all rules in the specified package. To further filter, specify: &nodeId, which returns only rules at that node within the rule package. Notes: If "nodeId" is set to "pkg", API will return only rules at the package level. For sub-node, set both "nodeId" and "baseSaliency" values for the node being queried. Both of these are returned on the "Query Business Hierarchy" API

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> "locked":false, "lockOwner":null, "dateEffective":null, "dateExpired":null, "pendingSnapshot":true }, { "ruleId":"a60416af-80a9-4378-be58-785c12b3ba8e", "ruleType":"LINEAR", "extRuleId":"Rule-100", "name":"1st Date", "description":"Basic criteria", "phase":"1st", "calendarName":"none", "nodeId":"pkg", "locked":false, "lockOwner":null, "dateEffective":null, "dateExpired":null, "pendingSnapshot":true }, { "ruleId":"061619bb- de47-4bda-80a1-2e1ade5fa010", "ruleType":"LINEAR", "extRuleId":"Rule-110", "name":"Default", "description":"Default is NO WAY BUDDY", "phase":" - none - -", </pre>		

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> "calendarName": "none", "nodeId": "pkg", "locked": false, "lockOwner": null, "dateEffective": null, "dateExpired": null, "pendingSnapshot": true }, { "ruleId": "65cda7d5-09b4-47ec-9f7d-d90144be7f89", "ruleType": "LINEAR", "extRuleId": "Rule-130", "name": "Check day", "description": "No dating on holidays!", "phase": "-- none--", "calendarName": "Calendar_117", "nodeId": "pkg", "locked": false, "lockOwner": null, "dateEffective": null, "dateExpired": null, "pendingSnapshot": true } } </pre>		
Query Linear Rule Body	GET	[+]Show /grs/v1/ tenant/{tenantId}/package/{packageId}/linearrulebody/{ruleId}	N/A	[+]Show {	200 OK—Response body provided	User must have RULE_VIEW permission

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre>"ruleId":"a60416af-80a9-4378-0000-785c12b3ba8e", "ruleType":"LINEAR", "extRuleId":"Rule-100", "name":"DEF", "description":"Basic criteria", "phase":"1st", "calendarId":"Calendar_117", "nodeId":"pkg", "locked":false, "lockOwner":null, "dateEffective":null, "dateExpired":null, "pendingSnapshot":tenant "conditions":[{ "conditionType":"condition", "label":"Age is between ", "sentence":"Age is between {age_low} and {age_high}", "segmentList":["\{age_low}\\"", " and ", "\{age_high}\"",], "parmList":["20", "and",</pre>	Optional Parameter: <code>&version=xxx</code> (specifies an earlier version of the rule) Description of the results: • conditionType—Either "condition" or "label". Labels are used for operators like "and", "or", "not" • sentence—The original sentence from the template • segmentList—The original parameters used (eg, "{age}") and any intervening text separated in segments. • parmList—The substituted variables (for example, "20") Note: Use Query Parameters to fetch the type of each	

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> "24"] }, { "conditionType":"condition", "label":"Education is ", "sentence":"Education is \"{education}\"", "segmentList":["\"{education}\""], "parmList":["bachelor"] }, { "conditionType":"condition", "label":"Employed ", "sentence":"Employed {employed}", "segmentList":["\"{employed}\""], "parmList":["true"] }, { "conditionType":"condition", "label":"Income is at least ", "sentence":"Income is at least {income} annually", </pre>		parameter (eg, "age", "name", etc), any constraints and any drop-down values. This information is not repeated for each condition/ action but can be queried separately and applied to control what the user is able to type for each value.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> "segmentList":["\"{income}\"", " annually"], "parmList":["25000.00", "annually"], { "conditionType":"condition", "label":"Number of loans less than ", "sentence":"Number of loans less than {loans}", "segmentList":["\"{loans}\""], "parmList":["3"], { "conditionType":"condition", "label":"Savings between ", "sentence":"Savings {savings_low} and {savings_high}", "segmentList":["\"{savings_low}\"", " and " </pre>		

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> "\{savings_high}\\"], "parmList":["160", "and", "200"] },], "actions":[{ "label":"Decision is ", "sentence":"Decision is \{decision}\\"", "segmentList":["\{decision}\\"], "parmList":["OK"] }, { "label":"Additional action: ", "sentence":"Additional action: \{action}\\"", "segmentList":["\{action}\\"], "parmList":["Reference"] }] } </pre>		

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
Query Decision Table Body	GET	[+]Show /grs/v1/ tenant/{tenantId}/package/{packageId}/decisionTableBody	N/A	[+]Show <pre>{ "ruleId": "2e11aaa7-12c4-4cf2-8a74-4dbfcf8ed76e", "ruleType": "DECISION_TABLE", "extRuleId": "DT-208", "name": "test dt 2", "description": "", "phase": "1st", "calendarId": "Calendar_117", "nodeId": "pkg", "salience": 100000, "bcLevel": 1, "locked": false, "lockOwner": null, "dateEffective": null, "dateExpired": null, "pendingSnapshot": true, "conditions": [{ "header": "Debt is less than", "sentence": "Debt is less than {debt}", "factType": "Debt is less than {debt}", "factField": null, "constraintValueType": 5, "segmentList": ["\"{debt}\""] }, { "header": "Age is</pre>	• 200 OK—Response body provided • 401 Unauthorized—API token not valid • 403 Forbidden—User does not have permission for the specified tenant ID, or does not have the correct permission for this operation. • 404 Not Found—could not find specified rule ID. • 503 —Service Unavailable	User must have RULE_VIEW permission Optional Parameter: • &version=<xxx> (specifies an earlier version of the rule) • &description=API token the results: This query will return the condition and action columns to be shown in a decision table, along with the substitution data that makes up each row. For both "condition" and "actions", the following is returned: • sentence—The original sentence from the template: Health is "{health}" • segmentList—The original parameters used (eg, "{age}") and any intervening text separated in segments.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> between", "sentence": "Age is between {age_low} and {age_high}", "factType": "Age is between {age_low} and {age_high}", "factField": null, "constraintValueType": 5, "segmentList": ["\{age_low}\\"", " and ", "\{age_high}\""] }, "actions": [{ "header": "Decision is", "sentence": "Decision is \{decision}\"", "segmentList": ["\{decision}\""] }, { "header": "Stop processing", "sentence": "Stop processing", "segmentList": ["Stop processing"] }], "data": [[null, "DTR-209", "", "33333", "22", "and", </pre>		Example: ["Health is", "{health}"] Note: Use Query Parameters to fetch the type of each parameter (eg, "age", "name", etc), any constraints and any drop-down values. This information is not repeated for each condition/action but can be queried separately and applied to control what the user is able to type for each value. The actual decision table data is returned as a two dimensional array representing the rows and columns of the decision table. The first column is always "NULL" as it represents the generated drools ID and is not modifiable by the user.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre>"23", "OK", "Stop processing"]] }</pre>		
Create Rule	POST	/grs/v1/ tenant/{tenantId}/package/{packageId}/rule	[+]Show <pre>{ "ruleType": "DECISION_TABLE", "name": "My New Rule", "description": "My Description", "phase": "My Phase", "calendarId": "Calendar_117", "nodeId": "pkg", "dateEffective": "2024-12-31", "dateExpired": "2024-12-31" }</pre>	[+]Show <pre>{ "ruleId": "f22d35f6-e31e-41f2-8e62-97864c47579a", "ruleType": "DECISION_TABLE", "name": "My New Rule", "description": "My Description", "phase": "My Phase", "calendarId": "Calendar_117", "nodeId": "pkg", "dateEffective": "2024-12-31", "dateExpired": "2024-12-31" }</pre>	201 Created—Response must have RULE_CREATE and RULE_VIEW permission 401 - Unauthorized—API Token not valid 403 - Forbidden—User does not have permission for the specified tenant ID or does not have proper permission to perform this operation. 422 - Unprocessable Entry—Field Validation Error	- ruleType—DECISION_TABLE or LINEAR - nodeId—pkg to create at package level, otherwise the node ID returned in Query Business Hierarchy. - dateEffective—null or timestamp (ms since EPOCH) - dateExpired—null or timestamp (ms since EPOCH)

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					<pre> "1000", "field" : "ruleType", "message": "ruleType must be either DECISION_TABLE or LINEAR" }, { "code" : "1001", "field" : "phase", "message": "phase is not valid" }, { "code" : "1002", "field" : "calendarId", "message": "calendarId is not valid" }, { "code" : "1003", "field" : "nodeId", "message": "nodeId is not valid. Must be either pkg or a node ID that is valid for this user" }, { </pre>	

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					<pre>"code" : "1004", "field" : "date", "message": "dateExpired is before dateEffective" }] }</pre> 503—Service Unavailable	
Lock Rule	GET	[+]Show /grs/v1/tenant/{tenantId}/package/{packageId}/lockrule/{ruleId}	N/A	N/A	204 No Content—Request was successful 401 Unauthorized—APIToken not valid. Must have RULE_VIEW and RULE_MODIFY permission. 403 Forbidden—User does not have permission for the specified tenant ID, or does not have the correct permission for this operation. 404 Not Found—could not find specified package ID or rule ID. 412 Precondition	User can LOCK (obtain exclusive access) to a rule by issuing this API. The LOCK will be in effect until UNLOCKED by the user, or until the user's APIToken times out (session timeout, default 30 min). A lock is required to modify or delete the rule.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					failed—another user holds the lock for this resource 503—Service Unavailable	
Unlock Rule	GET	[+]Show /grs/v1/tenant/{tenantId}/package/{packageId}/rule/{ruleId}	[+]Show To modify something in rule summary (name, phase, etc): <pre>{ "name": "New Name", "description": "New Description", "phase": "New Phase", "calendarName": "New Cal", "dateEffective": "999999999999", "dateExpired": "999999999999" }</pre>	[+]Show <pre>{ "ruleId": "f22d35f0-1a1e-41f2-8eb2-97864c47579a", "extRuleId": "DT-10", "ruleType": "DECISION_TABLE", "name": "New Name", "description": "New Description", "phase": "New Phase", "calendarName": "New Cal", "nodeId": "pkg", "dateEffective": "999999999999", "dateExpired": "999999999999" }</pre>	200 Successful—Response body provided 401 Unauthorized—API token not valid 403 Forbidden—User does not have permission for the specified tenant ID, or does not have proper permission to perform this operation. 404 Not Found—could not find specified package ID or rule ID. 412 Precondition Failed—Rule was not locked first 422	User must have API token and RULE_MODIFY and RULE_VIEW permission. User must have rule LOCKED. The following fields can be modified on the rule summary. Any other fields specified will be ignored: - name - description - phase - calendar - effective date - expired date

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					Unprocessable Entry—Field Validation Error [+]Show <pre> { "message": "Validation Failed", "errors": [{ "code" : "1000", "field" : "phase", "message": "phase is not valid" }, { "code" : "1001", "field" : "calendarName", "message": "calendarName is not valid" }, { "code" : "1002", "field" : "date", "message": "dateExpired is before dateEffective" }] }</pre>	

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					503—Service Unavailable	
Modify Rule	PUT	[+]Show /grs/v1/ tenant/{tenantId}/package/{packageId}/rule/{ruleId}	To modify something in rule summary (name, phase, etc): [+]Show <pre>{ "name": "New Name", "description": "New Description", "phase": "New Phase", "calendarId": "Calendar_117", "nodeId": "pkg", "dateEffective": 9999999999, "dateExpired": 9999999999 }</pre>	[+]Show <pre>{ "ruleId": "f22d35f6-e31e-41f2-b0c1-97864c47579a", "extRuleId": "DT-165", "ruleType": "DECISION_TABLE", "name": "New Name", "description": "New Description", "phase": "New Phase", "calendarId": "Calendar_117", "nodeId": "pkg", "dateEffective": 9999999999, "dateExpired": 9999999999 }</pre>	200 Successful—Response body provided 401 Unauthorized—API token not valid 403 Forbidden—User does not have permission for the specified tenant ID, or does not have proper permission to perform this operation. 404 Not Found—could not find specified package ID or rule ID. 412 Precondition Failed—Rule was not locked first 422 Unprocessable Entry—Field Validation Error	User must have RULE_MODIFY and RULE_VIEW permission. User must have rule LOCKED . The following fields can be modified on the rule summary. Any other fields specified will be ignored: - name - description - phase - calendar - effective date - expired date

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					<pre>{ "message": "Validation Failed", "errors": [{ "code" : "1000", "field" : "phase", "message": "phase is not valid" }, { "code" : "1001", "field" : "calendarName", "message": "calendarName is not valid" }, { "code" : "1002", "field" : "date", "message": "dateExpired is before dateEffective" }] }</pre> 503—Service Unavailable	
Modify LINEAR rule body	PUT	[+]Show /grs/v1/	[+]Show {	[+]Show {	200 Successful—Response body	User must have PUT permission. User must

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
		tenant/{tenantId}/package/{packageId}/rule/{ruleId}
Optional parameter: ?checkInComment=My change (check in comment appears in audit tab and package history tab for the rule)	<pre>{ "conditions": [{ "conditionType": "condition", "label": "Age is between ", "sentence": "Age is between {age_low} and {age_high}", "segmentList": ["\"{age_low}\"", "\"{age_high}\""], "actions": [{ "label": "Decision is ", "sentence": "Decision is {age_low} and {age_high}", "segmentList": ["\"{decision}\"", "\"{age_low}\"", "\"{age_high}\""], "parmList": ["OK"] }] }], "ruleType": "LINEAR", "name": "1st Date", "description": "Basic criteria", "phase": "1st", "calendarId": "Calendar_117", "nodeId": "pkg", "locked": true, "lockOwner": user01, "dateEffective": null, "dateExpired": null, "pendingSnapshot": true, "conditions": [{ "conditionType": "condition", "label": "Age is between ", "sentence": "Age is between {age_low} and {age_high}", "segmentList": ["\"{decision}\"", "\"{age_low}\"", "\"{age_high}\""], "parmList": ["20", "20"] }] }</pre>	<pre>{ "ruleId": "a60416af-80a9-4378-be58-785c12b3ba8e", "ruleType": "LINEAR", "name": "1st Date", "description": "Basic criteria", "phase": "1st", "calendarId": "Calendar_117", "nodeId": "pkg", "locked": true, "lockOwner": user01, "dateEffective": null, "dateExpired": null, "pendingSnapshot": true, "conditions": [{ "conditionType": "condition", "label": "Age is between ", "sentence": "Age is between {age_low} and {age_high}", "segmentList": ["\"{age_low}\"", "\"{age_high}\""], "actions": [{ "label": "Decision is ", "sentence": "Decision is {age_low} and {age_high}", "segmentList": ["\"{decision}\"", "\"{age_low}\"", "\"{age_high}\""], "parmList": ["20", "20"] }] }] }</pre>	provided 401 Unauthorized—APIToken not valid 403 Forbidden—User does not have permission for the specified tenant ID or package ID, or does not have proper permission to perform this operation. 404 Not Found—could not find specified rule ID. 412 PreconditionFailed—Rule422 will be returned with a list of "compiler errors". The changes have still been committed. 422 Unprocessable Entry—Rule does not validate [+]Show <pre>{ "message": "Validation Failed", "errors": [</pre>	have rule LOCKED. To modify something in LINEAR rule body, pass entire rule body (all conditions/actions), regardless of whether they were updated or not (eg, this is a total replacement of rule body). If the change causes the rule to not validate, a Rule422 will be returned with a list of "compiler errors". The changes have still been committed.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
			<pre> { "and": [{ "label": "Decision is ", "sentence": "Decision is \#{decision}\", "segmentList": [{ "label": "Validation error 1", "message": "Validation error 1" }, { "label": "Validation error 2", "message": "Validation error 2" }] }], "parmList": [{ "OK": true }] } </pre>	<pre> { "message": "Validation error 1", "label": "Decision is ", "sentence": "Decision is \#{decision}\", "segmentList": [{ "label": "Validation error 1", "message": "Validation error 1" }, { "label": "Validation error 2", "message": "Validation error 2" }] } </pre>	503—Service Unavailable	
Modify DECISION TABLE rule body	PUT	[+]Show /grs/v1/tenant/{tenantId}/package/{packageName}/rule/{ruleId} Optional parameter: ?checkInComment=My change (check in comment appears in audit tab and package history tab for the rule)	To modify condition/action columns and row data, pass in "conditions", "actions" and "data" elements. If "conditions" or "actions" are not passed, then no changes will be made. "data" must always be passed. If only "data" is changing (values changed, new	[+]Show <pre> { "ruleId": "2e11aaa7-12c4-4cf2-8a74-4dbcf8ad76e8", "ruleType": "DECISION_TABLE", "extRuleId": "DT-208", "name": "test dt 2", "description": "", "phase": "1st", "calendarId": "Calendar_1", "nodeId": "pkg", "salience": 100000, "bcLevel": 1, "locked": false, } </pre>	200 Successful—body provided 401 Unauthorized—API token not valid 403 Forbidden—user does not have permission for the specified tenant ID or package ID, or does not have proper permission	User must have RULE MODIFY and RULE VIEW permissions. User must have rule LOCKED. To modify something in DECISION TABLE body, pass entire rule body (all conditions/actions/data), regardless of whether they were updated or not (eg, this is a total

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
			rows inserted, other rows deleted, etc), just pass in the changed "data" structure (see below). [+]Show <pre> "conditions": [{ "header": "Debt is less than", "sentence": "Debt is less than {debt}", "factType": "Debt is less than {debt}", "factField": null, "constraintValueType": 5, "segmentList": ["\"{debt}\""] }, { "header": "Age is between", "sentence": "Age is between {age_low} and {age_high}", "factType": "Age is between {age_low} and {age_high}", "factField": null, "constraintValueType": 5, "segmentList": ["\"{age_low}\"", " and ", "\"{age_high}\""] }] </pre>	<pre> "lockOwner": null, "dateEffective": null, "dateExpired": null, "pendingSnapshot": true, "conditions": [{ "header": "Debt is less than", "sentence": "Debt is less than {debt}", "factType": "Debt is less than {debt}", "factField": null, "constraintValueType": 5, "segmentList": ["\"{debt}\""] }, { "header": "Age is between", "sentence": "Age is between {age_low} and {age_high}", "factType": "Age is between {age_low} and {age_high}", "factField": null, "constraintValueType": 5, "segmentList": ["\"{age_low}\"", " and ", "\"{age_high}\""] }] </pre>	- to perform this operation. 404 Not Found—could not find specified rule ID. 412 Precondition Failed—Rule was not locked first 422 Unprocessable Entry—Rule does not validate [+]Show { "message": "Validation Failed", "errors": [{ "message": "Validation error 1" }, { "message": "Validation error 2!" }] } 503—Service Unavailable	replacement of rule body). If the change causes the rule to not validate, a 422 will be returned with a list of "compiler errors". The changes have still been committed.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
			<pre> }], "actions": [{ "header": "Decision is", "sentence": "Decision is \"{decision}\" ", "segmentList": ["\"{decision}\" "], }, { "header": "Stop processing", "sentence": "Stop processing", "segmentList": ["Stop processing"] },], "data": [[null, "DTR-209", "", "33333", "22", "and", "23", "OK", "Stop processing"]] } Data changed only { "data": [[null, "DTR-209", "", "44444", "33", "and", "44", "OK", "Stop processing"]] } </pre>	<pre> "actions": [{ "header": "Decision is", "sentence": "Decision is \"{decision}\" ", "segmentList": ["\"{decision}\" "], }, { "header": "Stop processing", "sentence": "Stop processing", "segmentList": ["Stop processing"] },], "data": [[null, "DTR-209", "", "33333", "22", "and", "23", "OK", "Stop processing"]] } </pre>		

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
			}			
Delete Rule	DELETE	[+]Show /grs/v1/tenant/{tenantId}/package/{packageId}/rule/{ruleId}	N/A	N/A	204 No Content—returned if successful operation 401 Unauthorized—APIToken not valid 403 Forbidden—User does not have permission for the specified tenant or does not have proper permission to perform this operation. 404 Not Found—could not find specified package ID or rule ID. 412 Precondition Failed—Rule was not locked first 503—Service Unavailable	User must have RULE_DELETE and RULE_VIEW permission. User must have rule LOCKED
Validate Rule	GET	[+]Show /grs/v1/tenant/{tenantId}/package/{packageId}/rule/{ruleId}/validate	N/A	[+]Show { "message": "Rule is valid" }	204 No content—Rule validates successfully	User must have RULE_VIEW permission.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> "Validation Failed", "errors": [{ "message": "Validation error 1" }, { "message": "Validation error 2" }] </pre>	401 Unauthorized—APIToken not valid 403 Forbidden—User does not have permission for the specified tenant ID, or does not have proper permission to perform this operation. 404 Not Found—could not find specified rule ID. 422 Unprocessable Entry—Rule does not validate [+]Show <pre> { "message": "Validation Failed", "errors": [{ "message": "Validation error 1" }, { "message": "Validation error 2" }] } </pre>	

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					}] • 503—Service Unavailable	

Business Calendars

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
Query Business Calendars	GET	[+]Show /grs/v1/tenant/{tenantId}/package/{packageId}/calendar	N/A	[+]Show <pre> "calendars": [{ "calendarId": "dcc4a39b-3442-4408-a907-b85c44663681", "extCalendarId": "Calendar_117", "name": "Dad's Dating Calendar", "locked": false, "lockOwner": null, "weekStarts": 6, "weekEnds": 7, "dayStartsHour": 17, "dayStartsMin": 30, "dayEndsHour": 23, "dayEndsMin": 0, "timeZoneId": "EST" }, { "calendarId": "fdc4a39b-3442-4408-a907-b85c44663622", "extCalendarId": "Calendar_190", "name": "Another Calendar", "locked": false, "lockOwner": null, "weekStarts": 1, "weekEnds": 7, "dayStartsHour": 8, "dayStartsMin": </pre>	200 OK—Response body provided 401 Unauthorized—APIToken not valid 403 Forbidden—User does not have permission for the specified tenant ID, or does not have the correct permission for this operation. 404 Not Found—could not find specified package ID. 503—Service Unavailable	Need CALENDAR_VIEW permission.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> 30, "dayEndsHour": 11, "dayEndsMin": 0, "timeZoneId": "America/ Cayman" } }] </pre>		
Query Business Calendar Body	GET	[+]Show /grs/v1/ tenant/{tenantId}/package/{packageId}/businessCalendarBody/{calendarId}	N/A	[+]Show <pre> { "calendarId":"dccc479b-3442-4498-a907-b85c44663681", "externalId":"Calendar_117", "name":"Dad's Dating Calendar", "locked":false, "lockOwner":null, "weekStarts":6, "weekEnds":7, "dayStartsHour":1, "dayStartsMin":30, "dayEndsHour":23, "dayEndsMin":0, "timeZoneId":"EST", "exceptions":[{ "name":"Christmas", "type":"HOLIDAY", "placement":"FIXED", "fixedDate":3094920000, "annualMonth":0, "annualDay":0, </pre>	200 OK—Response body provided 401 Unauthorized—API token not valid 403 Forbidden—User does not have permission for the specified tenant ID, or does not have the correct permission for this operation. 404 Not Found—could not find specified calendar ID 503 Service Unavailable	For exceptions, the following applies: - HOLIDAY (entire day is non-work) - TIME_CHANGE (working range specified) - FIXED - A single date (Jan 1, 2015) - fixed Date contains time stamp - ANNUAL - Same day each year (Dec 25) - annual Month: 1-12

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> "relativeType":null, "relativeDayOfWeek":0, "relativeMonth":0, "timeChangeStartHour":0, "timeChangeStartMin":0, "timeChangeStopHour":0, "timeChangeStopMin":0 }, { "name":"It's New Year's Day", "type":"HOLIDAY", "placement":"ANNUAL", "fixedDate":null, "annualMonth":1, "annualDay":1, "relativeType":null, "relativeDayOfWeek":0, "relativeMonth":0, "timeChangeStartHour":0, "timeChangeStartMin":0, "timeChangeStopHour":0, "timeChangeStopMin":0 }, { "name":"Thanksgiving", "type":"HOLIDAY", "placement":"RELATIVE", "fixedDate":null, "annualMonth":0, </pre>		• annualDay : 1-31 • RELATIVE - 1st Thursday of each month • relativeType • ERY • FIRST • SECOND • THIRDD • FOURTH • LAST • relativeDayOfWeek : 1-7 (1=Sun)

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> "annualDay":0, "relativeType":"FOURTH", "relativeDayOfWeek":5, "relativeMonth":11, "timeChangeStartHour":0, "timeChangeStartMin":0, "timeChangeStopHour":0, "timeChangeStopMin":0 }, { "name":"My Dad's birthday !", "type":"HOLIDAY", "placement":"ANNUAL", "fixedDate":null, "annualMonth":5, "annualDay":20, "relativeType":null, "relativeDayOfWeek":0, "relativeMonth":0, "timeChangeStartHour":0, "timeChangeStartMin":0, "timeChangeStopHour":0, "timeChangeStopMin":0 }, { "name":"A Time Change", "type":"TIME_CHANGE", "placement":"ANNUAL", "fixedDate":null, "annualMonth":1, </pre>		• re l a t i v e M o n t h : 1 - 3 1, 0 if all months For TIME_CHANGE: • timeChan geStart Hour: 0-23 • timeChan geStart Min: 0-59 • timeChan geStopH our: 0-23 • timeChan geStopM in: 0-59

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> "annualDay":9, "relativeType":null, "relativeDayOfWeek":0, "relativeMonth":0, "timeChangeStartHour":12, "timeChangeStartMin":30, "timeChangeStopHour":16, "timeChangeStopMin":22 }, { "name":"tc3", "type":"TIME_CHANGE", "placement":"FIXED", "fixedDate":1428984000000, "annualMonth":0, "annualDay":0, "relativeType":null, "relativeDayOfWeek":0, "relativeMonth":0, "timeChangeStartHour":1, "timeChangeStartMin":33, "timeChangeStopHour":7, "timeChangeStopMin":33 }, { "name":"TC2", "type":"TIME_CHANGE", "placement":"RELATIVE", "fixedDate":null, "annualMonth":0, </pre>		

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> "annualDay":0, "relativeType":"EVERY", "relativeDayOfWeek":1, "relativeMonth":1, "timeChangeStartHour":3, "timeChangeStartMin":0, "timeChangeStopHour":19, "timeChangeStopMin":0 }] } </pre>		
Create Calendar	POST	[+]Show /grs/v1/ tenant/{tenantId}/package/{packageId}/calendar	[+]Show <pre> { "name": "Dad's Calendar", "weekStarts": 6, "weekEnds": 7, "dayStartsHour": 17, "dayStartsMin": 30, "dayEndsHour": 23, "dayEndsMin": 0, "timeZoneId": "EST" } </pre>	[+]Show <pre> { "calendarId": "Calendar_117", "name": "Dad's Calendar", "locked": false, "lockOwner": null, "weekStarts": 6, "weekEnds": 7, "dayStartsHour": 17, "dayStartsMin": 30, "dayEndsHour": 23, "dayEndsMin": 0, "timeZoneId": "EST" } </pre>	201 Created—Response body provided 401 Unauthorized—User not valid 403 Forbidden—User does not have permission for the specified tenant, or does not have proper permission to perform this operation. 422 Unprocessable Entry—Field Validation Error [+]Show	- User must have CALENDAR_CREATE and CALENDAR_VIEW permissions. Response will include calendarId which can be used on subsequent requests. WeekStarts / WeekEnds 1 - Sunday 2 - Monday ... 7 - Saturday - dayStartsHour : 0-23 dayStartsMin : 0-59 dayEndsHour : 0-23 dayEndsMin : 0-59 timeZoneId - As returned by Java's TimeZone class

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					<pre> { "message": "Validation Failed", "errors": [{ "code" : "1000", "field" : "name", "message": "name must be specified" }, { "code" : "1001", "field" : "weekStarts", "message": "weekStarts is invalid. Must be between 1 and 7." }, { "code" : "1002", "field" : "weekEnds", "message": "weekEnds is invalid. Must be between 1 and 7." }, { "code" : "1003", </pre>	

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					<pre> "field" : "dayStartsHour", "message": "dayStartsHour is invalid. Must be between 0 and 23." }, { "code" : "1004", "field" : "dayEndsHour", "message": "dayEndsHour is invalid. Must be between 0 and 23." }, { "code" : "1005", "field" : "dayStartsMin", "message": "dayStartsMin is invalid. Must be between 0 and 59." }, { "code" : "1006", "field" : "dayEndsMin", "message": "dayEndsMin is invalid. Must be between 0 </pre>	

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					<pre> and 59." }, { "code" : "1007", "field" : "timeZoneID", "message": "Unrecognized time zone ID." }] } </pre> 503—Service Unavailable	
Lock Calendar	GET	[+]Show /grs/v1/ tenant/{tenantId}/package/{packageId}/lockcalendar/{calendarId}	N/A	N/A	204 No Content—Request was successful 401 Unauthorized—API token not valid 403 Forbidden—User does not have permission for the specified tenant ID or does not have the correct permission for this operation. 404 Not Found—could not find specified package ID or calendar	User must have CALENDAR_VIEW and CALENDAR_MODIFY permissions. User can LOCK (obtain exclusive access) to a calendar by issuing this API. The LOCK will be in effect until UNLOCKED by the user, or until the user's APIToken times out (session timeout, default 30 min). A lock is required to modify or delete the calendar.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					ID. 412 Precondition failed—another user holds the lock for this resource 503—Service Unavailable	
Unlock Calendar	GET	[+]Show /grs/v1/tenant/{tenantId}/package/{packageId}/unlockcalendar/{calendarId}	N/A	N/A	204 No Content—Request was successful 401 Unauthorized—APIToken not valid 403 Forbidden—User does not have permission for the specified tenant ID. 404 Not Found—could not find specified package ID or calendar ID. 503—Service Unavailable	Unlocks a calendar previously locked by this user (APIToken).
Modify Calendar	PUT	[+]Show /grs/v1/tenant/{tenantId}/package/{packageId}/calendar/{calendarId}	[+]Show <pre>{ "name": "Dad's Calendar", "weekStarts": "Dad's</pre>	[+]Show <pre>{ "calendarId": "Calendar_117", "name": "Dad's</pre>	200 OK—Response body provided 401 Unauthorized	User must have CALENDAR_MODIFY permission. User must have LOCK. The APIToken following

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					not valid 403 Forbidden—User does not have permission for the specified tenant, or does not have proper permission to perform this operation. 412 Precondition Failed—Calendar was not locked first 422 - Unprocessable Entry—Field Validation Error [+]Show <pre>{ "message": "Validation Failed", "errors": [{ "code" : "1000", "field" : "weekStarts", "message": "weekStarts is invalid. Must be</pre>	fields can be updated on a calendar (any other fields passed in will be ignored): CalendarName - weekStarts - weekEnds - dayStartsHour - dayStartsMin - dayEndsHour - dayEndsMin - timeZoneId

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					<pre> between 1 and 7." }, { "code" : "1001", "field" : "weekEnds", "message": "weekEnds is invalid. Must be between 1 and 7." }, { "code" : "1002", "field" : "dayStartsHour", "message": "dayStartsHour is invalid. Must be between 0 and 23." }, { "code" : "1003", "field" : "dayEndsHour", "message": "dayEndsHour is invalid. Must be between 0 and 23." }, { "code" : "1004", "field" : </pre>	

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					<pre> "dayStartsMin", "message": "dayStartsMin is invalid. Must be between 0 and 59." }, { "code" : "1005", "field" : "dayEndsMin", "message": "dayEndsMin is invalid. Must be between 0 and 59." }, { "code" : "1006", "field" : "timeZoneID", "message": "Unrecognized time zone ID." } } </pre> 503—Service Unavailable	
Modify Calendar Body	PUT	[+]Show /grs/v1/ tenant/{tenantId}/package/{packageId}/businessCalendar	[+]Show <pre> { "exceptions": [{ "name": "Christmas", "type": "HOLIDAY" }] } </pre>	[+]Show <pre> { "calendarId": "Calendar_117", "name": "Christmas", "locked": true } </pre>	200 OK—Response body provided 401 Unauthorized—API token not valid 403	User must have CALENDAR_MODIFY permission. User must have LOCK. User should pass in structure containing entire

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
			<pre>{ "placement": "FIXED", "fixedDate": 3094920000, "annualMonth": 0, "annualDay": 0, "relativeType": "null", "relativeDayOfWeek": 0, "relativeMonth": 0, "timeZoneId": "EST", "timeChangeStartHour": 0, "timeChangeStartMin": 0, "timeChangeStopHour": 0, "timeChangeStopMin": 0, "name": "Christmas", "type": "HOLIDAY", }</pre>	<pre>{ "placement": "FIXED", "fixedDate": 3094920000, "annualMonth": 0, "annualDay": 0, "relativeType": null, "relativeDayOfWeek": 0, "relativeMonth": 0, "timeChangeStartHour": 0, "timeChangeStartMin": 0, "timeChangeStopHour": 0, "timeChangeStopMin": 0, "name": "It's New Year's Day", "type": "HOLIDAY", }</pre>	Forbidden—User does not have permission for the specified tenant, or does not have proper permission to perform this operation. • 412 Precondition Failed—Calendar was not locked first • 422 Unprocessable Entity—Field Validation Error	calendar body (exceptions). This is a complete replacement of current calendar body (not just changes). Updated structure is returned in response

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					<pre> "code" : "1001", "field" : "placement", "message": "Invalid placement. Must be ANNUAL, FIXED or RELATIVE" } } Repeated for each field: "fixedDate":null, "annualMonth":1, "annualDay":1, "relativeType":null, "relativeDayOfWeek":0, "relativeMonth":0, "timeChangeStartHour":0, "timeChangeStartMin":0, "timeChangeStopHour":0, "timeChangeStopMin":0 } </pre>	

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					THIRD, FOURTH, or LAST 1006—relativeDayOfWeek—Invalid value. Must be between 1 and 7 1007—relativeMonth—Invalid value. Must be between 1 and 12 1008—timeChangeStartHour—Invalid value. Must be between 0 and 23 1009—timeChangeStartMinute—Invalid value. Must be between 0 and 59 1010—timeChangeStopHour—Invalid value. Must be between 0 and 23 1011—timeChange	

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					eStopMin—Invalid value. Must be between 0 and 59 503—Service Unavailable	
Delete Calendar	DELETE	[+]Show /grs/v1/tenant/{tenantId}/package/{packageId}/calendar/{calendarId}	N/A	N/A	204 No Content—returned if successful operation 401 Unauthorized—APIToken not valid 403 Forbidden—User does not have permission for the specified tenant or does not have proper permission to perform this operation. 404 Not Found—could not find specified package ID or calendarID. 412 Precondition Failed—Calendar was not locked first	Must have CALENDAR_DELETE permission. Must have lock on Calendar.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					• 503—Service Unavailable	

Deployment/Snapshots

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
Query Snapshots	GET	[+]Show /grs/v1/ tenant/{tenantId}/package/{packageId}/snapshots	N/A	[+]Show "snapshots": [{ "snapshotId", "dcc4a39b-3442-4468-a907-b85c44663681", "name": "Snap 01", "comment": "Create prior to QA", "createDate": 3094920000, }, { "name": "Snap 02", "comment": "UAT", "createDate": 31989200000, }]	• 200 - OK—Response body provided • 401 - Unauthorized—API token not valid • 404 - Not Found—could not find specified package ID.	User must have SNAPSHOT_VIEW permission.
Create Snapshot	POST	[+]Show /grs/v1/ tenant/{tenantId}/package/{packageId}/snapshot	[+]Show { "name": "Snap 01", "comment": "Create prior to QA", }	[+]Show { "snapshotId", "dcc4a39b-3442-4468-a907-b85c44663681", "name": "Snap 01", "comment": "Create prior to QA", "createDate": 3094920000, }	• 201 - Created - Response body provided • 401 - Unauthorized—API token not valid • 403 - Forbidden - User does not have permission for the	User must have SNAPSHOT_CREATE permission. • name—Snapshot cannot contain special characters such as: { } [] . * / : < > ' & due to internal restrictions.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					specified tenant, or does not have proper permission to perform this operation. 422 - Unprocessable Entry - Field Validation Error [+]Show <pre>{ "message": "Validation Failed", "errors": [{ "code" : "1000", "field" : "name", "message": "snapshot name is not valid" }] }</pre> 422 - Unprocessable Entry - Rules in package do not validate [+]Show	

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					<pre>{ "message": "Package Validation Failed", "errors": [{ "message": "Validation error 1" }, { "message": "Validation error 2" }] }</pre>	
Delete Snapshot	DELETE	[+]Show /grs/v1/ tenant/{tenantId}/package/{packageId}/snapshot/{snapshotId}	N/A	N/A	• 204 No Content—returned if successful operation • 401 Unauthorized—APIToken not valid • 403 Forbidden—User does not have permission for the specified tenant or does not have proper permission to perform this operation. • 404 Not Found—could not find specified	User must have SNAPSHOT_DELETE permission.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					package ID.	
Query Deployment History	GET	[+]Show /grs/v1/ tenant/{tenantId}/package/{packageId}/deploy	N/A	[+]Show "deployments": [{ "deploymentId" : 34234, "packageVersion" : 1, "snapshotName": "Snap 01", "deployedTo", "GRECluster", "deployedBy", "comments": "Deploy to QA servers", "deployScheduleDate": 34243432432, "status" : SUCCESS }] }	• 200 OK—Response body provided • 401 Unauthorized—API token not valid • 403 Forbidden—User does not have permission for the specified tenant. • 404 Not Found—could not find specified package ID.	• SUCCESS—deployment was successful • FAILED—deployment failed • PARTIAL—deployment was partially successful • PENDING—deployment is still processing • SCHEDULED—deployment is scheduled
Query Deployment Targets	GET	[+]Show /grs/v1/ tenant/{tenantId}/deploytargets	N/A	[+]Show "deploytargets": [{ "name" : "GRE_1", "type" : SINGLE }, { "name" : "GRE_2", "type" : SINGLE }, { "name" : "GRE_CLUSTER",	• 200 OK—Response body provided • 401 Unauthorized—API token not valid • 403 Forbidden—User does not have permission for the specified tenant.	• SINGLE—represents a single GRE node target • CLUSTER—represents a cluster of GRE nodes

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
				<pre> "type" : CLUSTER }] } </pre>		
Deploy Rule Package or Snapshot	POST	[+]Show /grs/v1/ tenant/{tenantId}	[+]Show <pre> { "target": "GRE_Cluster", "snapshotName": "Snap01", "comments": "Deploy to QA servers", "deployScheduledDateTime": 34243432432 } </pre>	[+]Show <pre> { "target": "GRE_Cluster", "deploymentId": 34234, "snapshotName": "Snap01", "comments": "Deploy to QA servers", "deployScheduledDateTime": 34243432432 } </pre>	201 Created—Response body provided with deployment ID 401 Unauthorized—API token not valid 403 Forbidden—User does not have permission for the specified tenant or does not have proper permission to perform this operation. 404 Not Found—could not find specified package ID or snapshot name 422 Unprocessable Entry—Field Validation Error [+]Show	User must have PACKAGE_DEPLOY and SNAPSHOT_VIEW permissions. - target—Indicate which GRE Cluster you want to deploy to. Use "Query Deploy Targets" to get the list of valid targets. - snapshotName—To deploy "latest" package, specify "LATEST" as snapshot name (or omit the field). - deployScheduledDateTime—To schedule deployment for a future

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					<pre>{ "message": "Validation Failed", "errors": [{ "code" : "1000", "field" : "name", "message": "snapshot name is not found" }], "code" : "1001", "field" : "deployScheduleDate", "message": "scheduled date/time is in the past." }]</pre> 422 Unprocessable Entry—Rules in package do not validate [+]Show <pre>{ "message": "Package Validation Failed", "errors": [</pre>	time, pass in scheduledDateT ime field in UTC, ms since EPOCH. To schedule immediately, omit this field.

API	Method	Syntax	Request Body	Response Body	HTTP Status Codes	Notes
					<pre>{ "message": "Validation error 1" }, { "message": "Validation error 2" }]</pre>	