# type		# group		# interface		Identification ID	client	Server	Method	synchronous /	URI	URI example
				1								
0	common	1	Processing request	2	Getting list of operational state	000102	host system	MFC/FC	GET	synchronous	/v1/operations	/v1/operations
				3	Getting information of detailed operation state	000103	host system	MFC/FC	GET	synchronous	/v1/operations/{operation_id}	/v1/operations/1234567890123
		2	Controller status confirmation	1	Getting controller state	000201	host system	MFC/FC	GET	synchronous	/v1/MSFcontroller/status	/v1/MSFcontroller/status
		3	Controller log	1	Getting controller log	000301	host system	MFC/FC	GET	synchronous	/v1/operations/log	/v1/operations/log
1	Underlay Management	1	Equipment-type information management	1	Registering equipment information	010101	host system	MFC/FC	POST	synchronous	/v1/equipment-types	/v1/equipment-types
				2	Getting equipment list in switch cluster	010102	host system	MFC/FC	GET	synchronous	/v1/equipment-types	/v1/equipment-types
				3	Getting equipment information	010103	host system	MFC/FC	GET	synchronous	/v1/equipment-types/{equipment_type_id}	/v1/equipment-types/10
				4	Deleting equipment information	010104	host system	MFC/FC	DELETE	synchronous	/v1/equipment-types/{equipment_type_id}	/v1/equipment-types/10
		2	Switch-cluster management	1	Adding Switch-cluster	010201	host system	MFC	POST	asynchronous	/v1/clusters	/v1/clusters
				2	Getting list of Switch-cluster	010202	host system	MFC/FC	GET	synchronous	/v1/clusters	/v1/clusters
				3	Getting information of Switch-	010203	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}	/v1/clusters/1
				4	Deleting Switch-cluster	010204	host system	MFC	DELETE	asynchronous	/v1/clusters/{cluster_id}	/v1/clusters/1
		3	Node information	1	Getting list of nodes	010301	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes	/v1/clusters/1/nodes
		4	Leaf management	1	Adding Leaf- node	010401	host system	MFC/FC	POST	asynchronous	/v1/clusters/{cluster_id}/nodes/leafs	/v1/clusters/1/nodes/leafs
				2	Getting list of Leaf-nodes	010402	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/leafs	/v1/clusters/1/nodes/leafs
				3	Getting information of Leaf-node	010403	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/leafs/{node_id}	/v1/clusters/1/nodes/leafs/1
				4	Deleting Leaf-node	010404	host system	MFC/FC	DELETE	asynchronous	/v1/clusters/{cluster_id}/nodes/leafs/{node_id}	/v1/clusters/1/nodes/leafs/1
				5	Updating Leaf-node	010405	host system	MFC/FC	PUT	asynchronous	/v1/clusters/{cluster_id}/nodes/leafs/{node_id}	/v1/clusters/1/nodes/leafs/1
		5	Spine management	1	Adding Spine-node	010501	host system	MFC/FC	POST	asynchronous	/v1/clusters/{cluster_id}/nodes/spines	/v1/clusters/1/nodes/spines
				2	Getting list of Spine-nodes	010502	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/spines	/v1/clusters/1/nodes/spines
				3	Getting information of Spine-node	010503	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/spines/{node_id}	/v1/clusters/1/nodes/spines/1
				4	Delettine Spine-node	010504	host system	MFC/FC	DELETE	asynchronous	/v1/clusters/{cluster_id}/nodes/spines/{node_id}	/v1/clusters/1/nodes/spines/1
		6	RR (BGP Route Reflector) management									
				4	Getting list of RR-node	010604	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/rrs	/v1/clusters/1/nodes/rrs
				5	Getting infromation of RR-node	010605	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/rrs/{node_id}	/v1/clusters/1/nodes/rrs/1
		7	Interface information	1	Getting list of interfaces	010701	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces	/v1/clusters/1/nodes/leafs/1/interfaces
		8	Interface management (Physical interface)	1	Getting list of physical interfaces	010801	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/physical-ifs	/v1/clusters/1/nodes/leafs/1/interfaces/physical-ifs
				2	Getting information of physical	010802	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/physical-	/v1/clusters/1/nodes/leafs/1/interfaces/physical-ifs/1
				3	Updating physical interface	010803	host system	MFC/FC	PUT	synchronous	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/physical-	/v1/clusters/1/nodes/leafs/1/interfaces/physical-ifs/1
		9	Interface management (Breakout interface)	1	Creating or deleting breakout interface	010901	host system	MFC/FC	PATCH	asynchronous	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/breakout-ifs	/v1/clusters/1/nodes/leafs/1/interfaces/breakout-ifs
				2	Getting list of breakout interfaces	010902	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/breakout-ifs	/v1/clusters/1/nodes/leafs/1/interfaces/breakout-ifs
				3	Getting information of breakout interface	010903	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/breakout-ifs/{breakout if id}	/v1/clusters/1/nodes/leafs/1/interfaces/breakout-ifs/1-1
		10	Interface management (Internal-link interface)	1	Getting list of internal-link	011001	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/internal-link-ifs	/v1/clusters/1/nodes/leafs/1/interfaces/internal-link-ifs
				2	Getting information of internal-link interface	011002	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/internal-link-ifs/{internal_link_if_id}	/v1/clusters/1/nodes/leafs/1/interfaces/internal-link-ifs/1
		11	Interface management (Link aggregation interface)	1	Creating Link-aggregation interface	011101	host system	MFC/FC	POST	asynchronous	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/lag-ifs	/v1/clusters/1/nodes/leafs/1/interfaces/lag-ifs
				2	Getting list of Link-aggregation interfaces	011102	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/lag-ifs	/v1/clusters/1/nodes/leafs/1/interfaces/lag-ifs
				3	Getting information of Link-aggregation interface	011103	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/lag-ifs/{lag_if_id}	/v1/clusters/1/nodes/leafs/1/interfaces/lag-ifs/1
				5	Deleting Link-aggregation interface	011105	host system	MFC/FC	DELETE	asynchronous	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/lag-ifs/{lag_if_id}	/v1/clusters/1/nodes/leafs/1/interfaces/lag-ifs/1
		12	Interface management (Inter-cluster link interface)	1	Creating inter-cluster link interface	011201	host system	MFC/FC	POST	asynchronous	/v1/clusters/{cluster_id}/interfaces/cluster-link-ifs	/v1/clusters/1/points/cluster-link-ifs
				2	Getting list of inter-cluster link interfaces	011202	host system	MFC	GET	synchronous	/v1/clusters/{cluster_id}/interfaces/cluster-link-ifs	/v1/clusters/1/points/cluster-link-ifs
				3	Getting information of inter-cluster link interface	011203	host system	MFC	GET	synchronous	/v1/clusters/{cluster_id}/interfaces/cluster-link-ifs/{cluster_link_if_id}	/v1/clusters/1/points/cluster-link-ifs/1
				4	Deleting inter-cluster link interface	011204	host system	MFC/FC	DELETE	asynchronous	/v1/clusters/{cluster_id}/interfaces/cluster-link-ifs/{cluster link if id}	/v1/clusters/1/points/cluster-link-ifs/1
		14	Edge point management	1	Creating edge-point	011401	host system	MFC/FC	POST	synchronous	/v1/clusters/{cluster_id}/points/edge-points	/v1/clusters/1/points/edge-points
				2	Getting list of edge-points	011402	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/points/edge-points	/v1/clusters/1/points/edge-points
				3	Getting infromation of edge-point	011403	host system	MFC/FC	GET	synchronous	/v1/clusters/{cluster_id}/points/edge-points/{edge point id}	/v1/clusters/1/points/edge-points/1
				4	Deleting edge-point	011404	host system	MFC/FC	DELETE	synchronous	/v1/clusters/{cluster_id}/points/edge-points/{edge_point_id}	/v1/clusters/1/points/edge-points/1
2	Overlay Management	1	Slice	1	Creating Slice	020101	host system	MFC/FC	POST	synchronous	/v1/slices/{slice_type}	/v1/slices/l2vpn /v1/slices/l3vpn
				2	Changing Slice	020102	host system	MFC/FC	PUT	asynchronous	/v1/slices/{slice_type}/{slice_id}	/v1/slices/l2vpn/1 /v1/slices/l3vpn/100
				3	Deleting Slice	020103	host system	MFC/FC	DELETE	synchronous	/v1/slices/{slice_type}/{slice_id}	/v1/slices/l2vpn/1 /v1/slices/l3vpn/100
				4	Getting information of Slice	020104	host system	MFC/FC	GET	synchronous	/v1/slices/{slice_type}/{slice_id}	/v1/slices/l2vpn/1 /v1/slices/l3vpn/100
				5	Getting list of Slices	020105	host system	MFC/FC	GET	synchronous	/v1/slices/{slice_type}	/v1/slices/l2vpn /v1/slices/l3vpn
		2	CP	1	Creating or deleting CP	020201	host system	MFC/FC	PATCH	asynchronous	/v1/slices/{slice_type}/{slice_id}/cps	/v1/slices/l2vpn/1/cps /v1/slices/l3vpn/100/cps
				2	Creating CP	020202	host system	MFC/FC	POST	asynchronous	/v1/slices/{slice_type}/{slice_id}/cps	/v1/slices/l2vpn/1/cps /v1/slices/l3vpn/100/cps
				3	Changing CP	020203	host system	MFC/FC	PUT	asynchronous	/v1/slices/{slice_type}/{slice_id}/cps/{cp_id}	/v1/slices/l2vpn/1/cps/1 /v1/slices/l3vpn/100/cps/10
				4	Deleting CP	020204	host system	MFC/FC	DELETE	asynchronous	/v1/slices/{slice_type}/{slice_id}/cps/{cp_id}	/v1/slices/l2vpn/1/cps/1 /v1/slices/l3vpn/100/cps/10
				5	Getting information of CP	020205	host system	MFC/FC	GET	synchronous	/v1/slices/{slice_type}/{slice_id}/cps/{cp_id}	/v1/slices/l2vpn/1/cps/1
				6	Getting lists of CP	020206	host system	MFC/FC	GET	synchronous	/v1/slices/{slice_type}/{slice_id}/cps/	/v1/slices/l2vpn/1/cps /v1/slices/l3vpn/100/cps
				7	Creating or deleting static route	020207	host system	MFC/FC	PATCH	asynchronous	/v1/slices/{slice_type}/{slice_id}/cps/{cp_id}	/v1/slices/l3vpn/100/cps/1
3	Traffic Information	1	Traffic information									
				2	Getting list of IF traffic	030102	host system	MFC/FC	GET	synchronous	/v1/traffic/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces	/v1/traffic/clusters/1/nodes/1/interfaces
				3	Getting IF traffic	030103	host system	MFC/FC	GET	synchronous	/v1/traffic/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/{lif_type}/{lif id}	/v1/traffic/clusters/1/nodes/1/interfaces/physical-ifs/1
				4	Getting list of CP traffic	030104	host system	MFC/FC	GET	synchronous	/v1/traffic/slices/{slice_type}/{slice_id}/cps	/v1/traffic/slices/l3vpn/1/cps
				5	Getting CP traffic	030105	host system	MFC/FC	GET	synchronous	/v1/traffic/slices/{slice_type}/{slice_id}/cps/{cp_id}	/v1/traffic/slices/l3vpn/1/cps/1
5	Fault detection	1	Failure detection	1	Getting list of failures	050101	host system	MFC/FC	GET	synchronous	/v1/failures/failure_status	/v1/failures/failure_status

The response code list returned to MSF host system is shown below.
For the sake of simplicity, 400, 404, 409 for the response code originating from the client, and 500 for the response code attributed to the server.
It may be possible that the library you are using returns code other than the above, but it is not stipulated here.

Class	Response code		Request operation type				Overview	Other codes to include in the re
			POST	GET	PUT	DELETE		
rmal respor	200	OK	○	○	○	—	Successful resource acquisition, or resource update or processing request by	–
	201	Created	○	—	—	—	When resource creation succeeds	–
	202	Accepted	○	—	○	—	When acceptance of processing is successful by asynchronous processing	–
	204	No Contents	—	—	—	○	When the resource deletion is successful	–
ormal respo	400	Bad Request	○	○	○	○	When the data format is incorrect	401 Unauthorized 402 Payment Required 403 Forbidden 405 Method Not Allowed 406 Not Acceptable 408 Request Timeout 412 Precondition Failed 413 Request Entity Too Large 414 Request-URI Too Large 415 Unsupported Media Type
	404	Not Found	○	○	○	○	When it is desired to hide that the operation target resource does not exist or	–
	409	Conflict	○	—	○	○	If there is already a resource you want to create or the operation target resou	–
	500	Internal Server Error	○	○	○	○	Processing can not be continued due to server origin.	501 Not Implemented 503 Service Unavailable

When an error occurs, the error code list of MFC / FC to be set in the response body is shown below.
The error code shall be a character string consisting of 2 digits of "classification code" indicating the major classification of the error and 4 digits of "detailed code" indicating the detailed cause of the error, total of 6 digits.
(Example: 012345, 01 is the classification code, 2345 is the detailed code)

	Major classification		Small classification			Response information						
	code	Overview	code	Overview	Supplement	Error code	Status code	Error message	remarkss	In the cluster		Matching state
										FC	EC/EM	
Common	00	System error	0001	System status error	A control request in a state where a request can not be accepted	000001	500	System status error.	–	○	—	Matching
			0002	Process cancellation	Depending on the state of the system, the process is canceled	000002	500	Operation canceled.	–	○	—	Matching
	01	Parameter error	0001	Parameter analysis error	Parameter analysis failure	010001	400	Parameter format error.	–	○	—	Matching
			0002	Parameter set value error	The value set for the parameter is invalid	010002	400	Parameter value error.	–	○	—	Matching
			0003	Parameter setting range error	The value specified by the parameter is out of the prescribed range	010003	400	Parameter value out of range.	–	○	—	Matching
	02	DB control error	0001	DB access error	Connection error with DB	020001	500	Database connection error.	–	○	—	Matching
			0002	SQL execution error	When SQL execution fails	020002	500	Database operation error.	When data control / acquisition processing on DB	○	—	Matching
			0003	DB exclusion control error	When it is impossible to acquire the exclusive right by the row of the DB or the table lock	020003	409	Exclusive control error.	If it can not be acquired even after a predetermined number of retries	○	—	Matching
			0004	DB transaction error	When the DB transaction process fails	020004	500	Database transaction error.	–	○	—	Matching
	03	Processing control error	0001	Information acquisition error	There is no information of the control target specified by the parameter of REST	030001	404	Target resource not found.	When changing resources / acquiring / deleting	○	—	Matching
			0002	Duplicate information existence error	The information of the control target specified by the parameter of REST already exists	030002	409	Target resource already exist.	Resource generation request	○	—	Matching
			0003	Related information acquisition error	There is no information necessary for the control specified by the parameter	030003	500	Related resource not found.	Occurs when a slice ID specified by a URI is unregistered at the time of CP generatio	○	—	Matching
			0004	Information registration error	When data registration fails	030004	500	Regist information error.	When data control process on memory fails	○	—	Matching
			0005	Information update error	When data update fails	030005	500	Update information error.	When data control process on memory fails	○	—	Matching
			0006	Information deletion error	When data deletion fails	030006	500	Delete information error.	When data control process on memory fails	○	—	Matching
			0007	State transition condition error	When the state after the control and the current state can not be transitioned	030007	500	Transition status error.	The slice / CP in the slice management and the state transition of the device / IF in the configuration management, etc.	○	—	Matching
	04	File error	0001	File read error	Failed to open reading file	040001	500	File read error.	–	○	—	Matching
			0002	File creation error	Failed to open file for writing	040002	500	File write error.	–	○	—	Matching
			0003	Executable file error	Failed to execute external executable file	040003	500	Execute file error.	–	○	—	Matching
			0004	File delete error	Failed to delete the file	040004	500	File delete error.	–	○	—	Matching
	05	EC control error	0001	Connection error	Connection to control target EC failed	050001	500	EC connection error.	–	—	○	Matching
			0002	Control error	Failed to control the control target EC	050002	500	EC control error.	–	—	○	Matching
			0004	Control timeout	Control timeout to control target EC occurred	050004	500	EC control timeout.	–	—	○	unknown
	06	FC control error	0001	Connection error	Connection to control target FC failed	060001	500	FC connection error.	–	○	—	Matching
			0002	Control error	Control of the control target FC failed. However, EC / EM / device status has been rolled back.	060002	500	FC control error.	–	○	—	Matching
			0003	Control timeout	Control timeout to control target FC occurs	060003	500	FC control timeout.	–	○	—	unknown
	30	Cluster control error	0001	Cluster control error	When there is a cluster in which at least one error has occurred in the control target cluster.	300001	500	Cluster control error.	Regardless of whether the request target cluster is one or more, the MFC notifies this error to the host system when an error occurs.	—	—	Match / mismatch / unknown
Mismatch	90	System inconsistenc	0001	FC / EC control error (EM controlled)	EM has succeeded in control, but when an error occurs in the DB reflection of EC / FC	900001	500	FC, EC control error. (EM control completed.)	–	○	○	Mismatch
			0002	FC control error (EC, EM controlled)	Although EC and EM succeeded in control, when an error occurred in DB reflection in FC	900002	500	FC control error. (EC, EM control completed.)	–	○	—	Mismatch
			0003	EC control error (FC, EM controlled)	EM has succeeded in control but when an error occurs in the DB reflection in EC	900003	500	EC control error. (FC, EM control completed.)	Move error code of previous year '050004' to intersystem inconsistency error	—	○	Mismatch
			0004	FC control error (EC controlled)	Although the EC succeeded in control, when an error occurred in the DB reflection in EC (Error code that occurs in cases where control to EM (device) does not occur)	900004	500	FC control error. (EC control completed.)	Model registration / deletion is applicable	○	—	Mismatch
			0005	MFC control error (FC, EC, EM controlled)	Although it succeeded in controlling FC, EC, EM of all clusters, when an error occurred in DB reflec	900005	500	MFC control error. (FC, EC, EM control completed.)	–	—	—	Mismatch
			0006	MFC control error (FC, EC controlled)	When FC and EC control of all clusters succeeded, but an error occurred in MFC DB reflection (Error code generated in the case where control to the EM (apparatus) does not occur)	900006	500	MFC control error. (FC, EC control completed.)	Model registration / deletion is applicable	—	—	Mismatch
			0007	MFC control error (FC controlled)	Although the FC of all the clusters was successfully controlled but an error occurred in the MFC DB reflection (Error code generated in the case where control to EC or EM (apparatus) does not occur)	900007	500	MFC control error. (FC control completed.)	Slice generation / deletion is applicable Also, even when there is no CP on the relevant slice in slice change	—	—	Mismatch
Other	99	Other	0001	Unexpected error	-	990001	500	Undefined error.	–	○	—	unknown
			0002	In-system status check error	When NG is returned as the result of system status check	990002	500	System check status error.	When requested by the RA for system triggering i	○	—	Matching

＊1 In the cluster control error, although MFC is generated in the sense that error occurs in each cluster, it is checked the control result of each cluster and it is detected that this error occurred.

■ Usage policy of request operation type of interface

The usage policy of the request operation type of each interface is as follows.

Request operation type	Target operation	Assumed response code *
POST	・It is used when the server side pays out an ID and creates a new resourc	· 201 (Created): Successful resource creation (return ID which was paid out as response body) · 202 (Accepted): Request reception (asynchronous processing)
PUT	· It is used when the client specifies an ID and creates a new resource. · It is used for updating generated resources.D21	· 200 (OK): Resource update succeeded · 201 (Created): Resource creation succeeded · 202 (Accepted): Request reception (asynchronous processing)
DELETE	· It is used to delete resource information.	· 204 (No Content): Resource delete successful
GET	· It is used to acquire resource information.	· 200 (OK): Successful resource acquisition
PATCH	· Use for simultaneous request (new creation / deletion / update) of multip	· 200 (OK): Resource update succeeded · 201 (Created): Resource creation succeeded · 202 (Accepted): Request reception (asynchronous processing) · 204 (No Content): Resource delete successful

* According to the policy of the response code list, the response code at the time of error returns one of 400, 404, 409, 500

■ About the control type (action) parameter

In part of the interface, there is an interface for setting the control type parameter in the body part.

Considering that the number of URIs increases and becomes complicated, the same URI is used for requests to operate the same resource, and the policy is to control processing by control type parameter.

■About the body part definition (JSON schema definition) of the interface

1. Type definition
The element shall be of the following data type.
- String (string)
- Number (number, integer)
- Boolean
- Array (array)
- Object (object)
- Null (null)

※ "Empty array allowance" is used only for array elements
※ ○, × Setting other than the following patterns also exist

Table 1 Format of body part definition

Body		Type	Essential element	Nullable	Empty array allowance
param_string1		string	○	×	
param_string2		string	○	○	
param_array1		string[ ]	○	○	×
param_array2		string[ ]	○	×	○
param_array3		string[ ]	○	○	○
param_object1		object[ ]	○	×	×
	paramA	string	○	○	
	paramB	string	×	○	
param_object2		object[ ]	×	○	○
	paramC	string	○	○	
	paramD	string	○	○	

The rules are described for the elements whose sky or null are set from the following.

1-1. About string (string)
- Handle empty strings and null distinctly
※ null can only set elements whose "nullable" is "○"

Figure 1 Example of JSON Notation

```
{
  "param_string1" : "",        ← Empty string
  "param_string2" : null       ← null
}
```

1-2. About array
- An element that sets multiple values for one element is expressed as an array
- Treat "empty array" which is an array but has no value at all as one piece of information
※ However, only elements whose "empty array allowance" is "○" can be set
- Empty array and null are treated distinctly
※ null can only set elements whose "nullable" is "○"

Figure 1 Example of JSON Notation

```
{
  "param_array1" : [ "aaa", "bbb" ],   ← Two values in the array
  "param_array2" : [ ],                ← Empty array
  "param_array3" : null                ← null
}
```

1-3. About the object
- A group of multiple information elements is expressed as an object
※ The notation of the child element of the object is to lower the indent by one level

Figure 1 Example of JSON Notation

```
{
  "param_object1" : [                                  ← Object declaration
      { "paramA" : "aaa", "paramB" : null },           ← First array value (param B is null)
      { "paramA" : "aaa" }                             ← Second array value (param B is element omitted)
  ],
  "param_object2" : null                               ← null
}
```

2. Essential elements
- An element with "○" in the "required element" column can not be omitted and must be set
- The required settings for the child elements of the object are as follows
A) When parent element exists → The essential element setting of the child element is adapted
B) When the parent element does not exist → Required element setting of child element is not adapted (Does not exist = parent element is omitted or is empty array or null)

■ Description of the case where the usage method between the higher system – MFC / FC and MFC – FC is different
Depending on the interface, there are cases where the definition of the parameter specified when the host system makes a request to the MFC / FC and the definition of the parameter specified when the MFC makes a request to the FC are different.
For such interfaces, we shall describe each sheet as follows.

1. Whether the parameters are specified or not
If there are request parameters that are not supposed to be specified from the host system,
Describe that it will not be specified in the remarkss column as in the example in the table below.

message		code	body	Type	Required	Nullable	Empty array allowance	Overview	remarkss
request		–	param_string1	string	○	×		Parameter overview	【Parameters not shown to the top】

2. Parameter mandatory · Null allowable · Empty array tolerance handling is different
When the request is mandatory, mandatory, nullable, empty array permissible in case of MFC / FC from Master / FC and MFC to FC,
for the mandatory, nullable, empty array allowable columns, restrictions on request from the host system to the MFC / FC shall be described.
If the constraint on request from MFC to FC differs from the request from MFC / FC from higher system,
that fact shall be stated in the remarkss column as follows.

message		code	body	Type	Required	Nullable	Empty array allowance	Overview	remarkss
request		–	param_string1	string	○	×		Parameter overview	【Restriction for MFC-FC】 Required: ×, nullable: ○

3. When the specifiable values of the parameters are different
In the case of requesting from MFC / FC to MFC / FC, when requesting from MFC to FC, if the settable values of the parameters are different, the values that can be specified in each case shall be described in the remarkss column as follows.

message		code	body	Type	Required	Nullable	Empty array allowance	Overview	remarkss
request		–	param_string1	string	○	×		Parameter overview	[Setting value for higher system] "Abc": XXXXX "Def": XXXXX [Setting value between MFC and FC] "Abc": XXXXX "Ghi": XXXXX

4. If the response of the request is different
When there is a response code that is not supposed to respond to the host system, it states that it will not be specified in the remarkss column as in the example in the table below

message		code	body	Type	Required	Nullable	Empty array allowance	Overview	remarkss
response		204	param_string1	–	–	×		Parameter overview	【Response code not shown to the top】

URI options for asynchronous request are shown below.
For requests whose operation type is asynchronous, the parameters shown in this section are set as URI options.

Optional parameters	type	required	overview	remarkss
notification_address	string	○	Operation completion notification address	–
notification_port	string	○	Operation completion notification destination port	–

[Option parameter specification for URI]

URI	/xxxx?notification_address=192.168.100.10&notification_port=65000

Body uses JSON format.

The response format when an error occurs is shown below.

message	code	body	type	required(※)	Allow null	Allow empty array	overview	remarkss
response	※1	error_code	string	○	×		A value that represents details of an error	Refer to the table below for the format
		error_message	string	○	×		Failure cause (exception message)	–
		data_consistency	string	○	×		Data integrity state	By this error occurrence, it indicates whether the data has returned to the pre-request state, returned to the requested state, or inconsistent state. MFC case: data consistency between clusters In the case of FC: data consistency between CTLs / devices in the cluster Returned to the pre-request state: "rolled back" Transited to post-request state: "updated" Inconsistent state: "not consistent" Unknown state: "unknown"
		target_clusters	object[]	×	○	○	All cluster information requested	For MFC: When an error occurs in FC, set this parameter. Returning the status of all clusters, including the cluster in which no error occurred. For FC: This parameter can be omitted
		cluster_id	string	○	×		Cluster ID to be processed	–
		request_results	string	○	×		Request result	Responds to the request for each cluster unit. Success: "success" Failure: "failed"
		error_code	string	×	○		A value that represents details of an error	Responds when the request result of the processing target cluster is failed. Refer to the table below for the format
		error_message	string	×	○		Failure cause (exception message)	Responds when the request result of the processing target cluster is failed
		data_consistency	string	○	×		Data integrity state	Indicates the matching state of data between CTLs / devices in the cluster due to error occurrence. Returned to the pre-request state: "rolled back" Transited to post-request state: "updated" Inconsistent state: "not consistent" Unknown state: "unknown"

Body uses JSON format.

※1 The response code is set depending on the generated error.

Interface	Getting list of operational state
Method	GET

URI option	type	required	overview	remarkss
format	string	–	Output format	"list" : get list information "detail-list" : get detailed list information When omitted, it returns the same result as the one with "list" specified.

[list]

URI	/v1/operations
	/v1/operations?format=list

message	code	body	type	required	null	empty array	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	operation_ids	string[ ]	Y	N	Y	Operation ID	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

[detailed list]

URI	/v1/operations?format=detail-list

message	code	body	type	required	null	empty array	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	operations	object[ ]	Y	N	Y	–	–
		operation_id	string	Y	N		Operation ID	–
		occurred_time	string	Y	N		Occurrence time	format is "YYYYMMDD_hhmmss"
		last_update_time	string	Y	N		Last update time	When the status is in the completed state, the completion time is stored. format is "YYYYMMDD_hhmmss"
		status	string	Y	N		status	"unexecuted" : Unexecuted "executing" : Running "completed" : completed "failed" : failed "canceled" : System dependent execution cancellation
		sub_status	string	N	Y		sub_status	As required, each function stores the detailed state of "executing".
		request	object	Y	N		Request information	–
		uri	string	Y	N		Request URI	–
		method	string	Y	N		Request method	"POST" "PUT" "DELETE" "PATCH" ※ Only operations that can be asynchronous can be specified
		response	object	N	Y		Response information	Required when status is "completed" or "failed"
		status_code	int	Y	N		Process result information	Set the value with the same policy as REST response code Example: 200 = OK
		target_clusters	object[]	N	Y	Y	Cluster unit request/response in multi cluster	Optional for FC
		cluster_id	string	Y	N		Cluster ID of the request destination	–
		request	object	Y	N		Request information	–
		uri	string	Y	N		Request URI	–
		method	string	Y	N		Request method	"POST" "PUT" "DELETE" "PATCH" ※ Only operations that can be asynchronous can be specified
		response	object	N	Y		Response information	–
		status_code	int	N	Y		Response code	
		rollbacks	object	N	Y		Rollback information	Optional for FC
		result	string	Y	N		Rollback processing result	success : "completed"、 failure : "failed" none : "none"
		occurred_time	string	Y	N		Rollback start time	–
		target_clusters	object[]	N	Y	Y	Cluster information	ロールバック対象がいないケースでは設定されない
		cluster_id	string	Y	N		Cluster ID	–
		request	object	Y	N		Request information	–
		uri	string	Y	N		Request URI	–
		method	string	Y	N		Request method	"POST" "PUT" "DELETE" "PATCH" ※ Only operations that can be asynchronous can be specified
		response	object	N	Y		Response information	–
		status_code	int	N	Y		Response code	
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface	Getting information of detailed operation state
Method	GET

URI parameter	type	overview	remarkss
operation_id	string	Operation ID	–

URI	/v1/operations/{operation_id}

message	code	body	type	required	null	empty array	overview	remarks
request	–	–	–	–	–	–	–	–
	200	operation_id	string	Y	N	Y	Operation ID	–
		occurred_time	string	Y	N		Occurrence time	format is "YYYYMMDD_hhmmss"
		last_update_time	string	Y	N		Last update time	When the status is in the completed state, the completion time is stored. format is "YYYYMMDD_hhmmss"
		status	string	Y	N		status	"unexecuted" : Unexecuted "executing" : Running "completed" : completed "failed" : failed "canceled" : System dependent execution cancellation
		sub_status	string	N	N		sub_status	As required, each function stores the detailed state of "executing".
		request	object	Y	Y		Request information	–
		uri	string	Y	N		Request URI	–
		method	string	Y	N		Request method	"POST" "PUT" "DELETE" ※ Only operations that can be asynchronous can be specified
		body	string	Y	N		Request body part	Character string information of request body information ※ For double quotation marked from the original, it is supposed to be replaced with 『¥"』 and stored.
		response	object	N	Y		Response information	Required when status is "completed" or "failed"
		status_code	int	Y	N		Process result information	Set the value with the same policy as REST response code Example: 200 = OK
		body	string	Y	N		Response body part	Character string information of response body part created for each processing. ※ Basically it assumes the json format, but for double quotes, it is assumed to be replaced by 『¥"』 and stored. ※ In the IF case where information is not placed on the body part, it is an empty string. The created object_id to be included in the response of the POST request, The message corresponding to the processing failure is replaced and stored.
		target_clusters	object[]	N	Y	Y	Cluster unit request/response in multi cluster	Optional for FC
		cluster_id	string	Y	N		Cluster ID of the request destination	–
		request	object	Y	N		Request information	–
		uri	string	Y	N		Request URI	–
		method	string	Y	N		Request method	"POST" "PUT" "DELETE" "PATCH" ※ Only operations that can be asynchronous can be specified
		body	string	Y	N		Request body part	Character string information of response body part created for each processing. ※ Basically it assumes the json format, but for double quotes, it is assumed to be replaced by 『¥"』 and stored. ※ In the IF case where information is not placed on the body part, it is an empty string.
		response	object	N	Y		Response information	–
		status_code	int	N	Y		Response code	
		body	string	N	Y		Response body data at rollback	String information of response Body data created every rollback to the cluster
		rollbacks	object	N	Y		Rollback information	Optional for FC
		result	string	Y	N		Rollback process result	success : "completed"、 failure : "failed" none : "none"
		occurred_time	string	Y	N		Rollback start time	–
		target_clusters	object[]	N	Y	Y	Request/Response information of rollback for clusters	None in case there is no target for rollback
		cluster_id	string	Y	N		Cluster ID	–
		request	object	Y	N		Request information	–
		uri	string	Y	N		Request URI	–
		method	string	Y	N		Request method	"POST" "PUT" "DELETE" "PATCH" ※ Only operations that can be asynchronous can be specified
		body	string	N	Y		Request body part	Character string information of response body part created for each processing. ※ Basically it assumes the json format, but for double quotes, it is assumed to be replaced by 『¥"』 and stored. ※ In the IF case where information is not placed on the body part, it is an empty string.
		response	object	N	Y		Response information	–
		status_code	int	N	Y		Response code	
		body	string	N	Y		Response body data at rollback	String information of response Body data created every rollback to the cluster
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

interface	Getting controller state
method	GET

option parameter	type	required	overview	remarkss
controller	string	N	target controller	"mfc":MFC "fc":FC "ec":EC "em":EM Incase of multiple, concatenate with "+" ex) controller=fc+ec+em If you don't specified, all controllers are subject to acquisition
cluster	string	N	target cluster	Incase of multiple, concatenate with "+" ex) cluster=1+2 If you don't specified, all controllers are subject to acquisition
get_info	string	N	information to be acquired	"os-cpu": CPU utilization of operation system "os-mem": memory usage of operation system "os-disk": disk usage of operation system "os-traffic": TX/RX traffic of operation system "ctr-cpu": CPU utilization of controller "ctr-mem": memory usage of controller "ctr-state": controller status "ctr-receive_req": number of received REST requests "ctr-send_req": number of transmit REST requests Incase of multiple, concatenate with "+" ex) get_info=os-cpu+os-mem+ctr-state If you don't specified, all controllers are subject to acquisition

URI	/v1/MSFcontroller/status

message	code	body	type	required	null	empty array	overview	remarkss
request	-	-	-	-	-	-	-	-
response	200	service_status	string	N	Y		Service activation state of the controller as a whole. When the service start state of all controllers is activated, "start" is returned. Otherwise it returns	"Running": activation "Warning": warning Required if "ctr-state" is specified in acquisition information, if acquisition information is omitted
		controller_service_statuses	object[ ]	N	Y	N	Each controller and its service activation state	Required when the service activation state of the controller as a whole is "warning"
		controller_type	string	Y	N		Controller type	"mfc": MFC "fc": FC "ec": EC "em": EM
		cluster_id	string	N	Y		Cluster ID managed by the controller	Optional for MFC
		status	object	Y	N		-	-
		service_status	string	Y	N		Service activation state	"start-up in progress": Preparing to start up "running": activation "shutdown in progress": Preparing to stop "system switching": Switching system "unknown": Service start state unknown * 1 * 1 If the controller status can not be acquired, the status under that controller status is returned as unknown service activation status
		blockade_status	string	N	Y		Maintenance shutdown status of the entire controller. When all the controllers are in a maintenance shutdown state with no closure, "No blockage" is returned. If there is even one controller with blocking, "closed" is returned.	"blockade": blocked "none": no obstruction Required if "ctr-state" is specified in acquisition information, if acquisition information is omitted
		controller_blockade_statuses	object[ ]	N	Y	N	Each controller and its maintenance shutdown state	Required when the maintenance shutdown status of the controller as a whole is "blockade"
		controller_type	string	Y	N		Controller type	"mfc": MFC "fc": FC "ec": EC "em": EM
		cluster_id	string	N	Y		Cluster ID managed by the controller	Optional for MFC
		status	object	N	Y		-	-
		blockade_status	string	Y	N		Maintenance blocked state	"blockade": blocked "none": no obstruction * Required if controller type is not "em"
		audit_status	string	Y	N		Data consistency state	Not applicable in this version "Consistency": consistency "Inconsistency": inconsistency "Executing": Matching
		backup_status	string	Y	N		Backup processing state	Not applicable in this version "Not running": Not executed "Running": Backing up
		informations	object[ ]	N	Y	×	OS or controller acquisition information	Required if one of the following is specified in acquisition information "os-cpu": OS CPU usage "os-mem": OS memory usage "os-disk": OS disk usage "os-trafic": OS's NW communication traffic volume (receive / transmit) "ctr-cpu": CPU usage of controller "ctr-mem": memory usage of controller "ctr-receive_req": Number of REST requests received by the controller "ctr-send_req": Number of REST requests sent by the controller When specification of acquisition information is omitted
		controller_type	string	Y	N		Controller type	"mfc": MFC "fc": FC "ec": EC "em": EM
		cluster_id	string	N	Y		Cluster ID managed by the controller	Optional for MFC
		host_name	string	Y	N		Host name of the controller	-
		management_ip_address	string	Y	N		Controller's management IP address	-
		os	object	N	Y		Server machine resource information	Required if one of the following is specified in acquisition information "os-cpu": OS CPU usage "os-mem": OS memory usage "os-disk": OS disk usage "os-trafic": OS's NW communication traffic volume (receive / transmit) When specification of acquisition information is omitted
		cpu	object	N	Y		CPU utilization per unit time	Required if the following information is specified in acquisition information "os-cpu": OS CPU usage When specification of acquisition information is omitted
		use_rate	float	Y	N		CPU usage of the entire OS	unit:[%] If information can not be acquired, -1
		memory	object	N	Y		Memory usage at a specific time	Required if the following information is specified in acquisition information "os-mem": OS memory usage When specification of acquisition information is omitted
		used	int	Y	N		Amount of memory used	Unit: [KB] If information can not be acquired, -1
		free	int	Y	N		Amount of free memory	Unit: [KB] If information can not be acquired, -1
		buff_cache	int	Y	N		Amount of memory allocated for buffer cache and page cache	Unit: [KB] If information can not be acquired, -1
		swpd	int	Y	N		Amount of virtual memory used	Unit: [KB] If information can not be acquired, -1
		disk	object	N	Y		HDD usage at a specific time	Required if the following information is specified in acquisition information "os-disk": OS disk usage When specification of acquisition information is omitted
		devices	object[ ]	N	Y	N	Device unit information	Optional if information could not be obtained
		file_system	string	Y	N		Name of the device where the file system is located	-
		mounted_on	string	Y	N		Mount point	-
		size	int	Y	N		Total usable capacity in file system	Unit: [KB]
		used	int	Y	N		Capacity used	Unit: [KB]
		avail	int	Y	N		Usable capacity	Unit: [KB]
		traffic	object	N	Y		Traffic volume per unit time	Required if the following information is specified in acquisition information "os-trafic": OS's NW communication traffic volume (receive / transmit) When specification of acquisition information is omitted
		interfaces	object[ ]	N	Y	N	Information per interface	Optional if information could not be obtained
		ifname	string	Y	N		Interface name	-
		rxpck	float	Y	N		Number of packets received per	Unit: [packet / s]
		txpck	float	Y	N		Number of packets sent per second	Unit: [packet / s]
		rxkb	float	Y	N		Number of bytes received per second	Unit: [KB / s]
		txkb	float	Y	N		Number of bytes sent per second	Unit: [KB / s]
		controller	object	N	Y		Information on controllers	Required if one of the following is specified in acquisition information "ctr-cpu": CPU usage of controller "ctr-mem": memory usage of controller "ctr-receive_req": Number of REST requests received by the controller "ctr-send_req": Number of REST requests sent by the controller When specification of acquisition information is omitted
		cpu	float	N	Y		CPU utilization per unit time (CPU usage rate of controller process)	Required if the following information is specified in acquisition information "ctr-cpu": CPU usage of controller When specification of acquisition information is omitted unit:[%] If information can not be acquired, -1
		memory	int	N	Y		Memory usage at a specific time (memory usage of controller process)	Required if the following information is specified in acquisition information "ctr-mem": memory usage of controller When specification of acquisition information is omitted Unit: [KB] If information can not be acquired, -1
		receive_request	int	N	Y		Received REST requests per unit time	Required if the following information is specified in acquisition information "ctr-receive_req": Number of REST requests received by the controller When specification of acquisition information is omitted If information can not be acquired, -1
		send_request	int	N	Y		Number of transmission REST request	Required if the following information is specified in acquisition information "ctr-send_req": Number of REST requests sent by the controller When specification of acquisition information is omitted If information can not be acquired, -1
		Refer to the "Error response format" sheet for error response						

Body uses JSON format.

Interface name	Getting controller log
Method	GET

Optional parameters	type	required	overview	remarkss
log_type	string	–	Type of log to be acquired	"Api_access": access log "Processing": processing log When an access log is specified, logs can be acquired only from MFC logs in a multi-cluster configuration and FC from single cluster configurations. If not specified, "processing" is targeted for acquisition.
log_level	string	–	Log level to be acquired	"Error": error "Warning": warning "Info": information To specify more than one, connect with "+" Example: log_level = error + warning If not specified, "error" is targeted for acquisition.
controller	string	–	Controller to be acquired	It can be specified only when the log type is processing log. "mfc": MFC "fc" : FC "ec" : EC "em" : EM To specify more than one, connect with "+" Example: controller = fc + ec + em If not specified, all controllers are targeted for acquisition.
cluster	string	–	Obtain target SW cluster	It can be specified only when the log type is processing log. Specify the ID of the SW cluster to be acquired To specify multiple clusters, connect with "+" Example: cluster = 1 + 2 If not specified, all clusters are to be acquired. Also, when MFC only is specified as the option parameter of "controller to be acquired", designation of this parameter is invalid.
start_date	string	–	Start date of log acquisition target period	It can be specified on a daily basis. Format is "YYYYMMDD" Example: start_date = 20170101 Obtain logs from the time 00: 00: 00.000 on the specified day If not specified, the start date will be the current day
end_date	string	–	End date of log acquisition target period	It can be specified on a daily basis. Format is "YYYYMMDD" Example: end_date = 20170101 Retrieve the logs up to the time 23: 59: 59.999 on the specified day If not specified, the end date is the current day
limit_number	int	–	Maximum number of acquired logs (number of lines) upper limit	If the log that is the acquisition target exceeds the specified number of acquisitions, it responds from the most recent time of the acquisition target log to the specified number of logs. In the case of logs at the same time, the order of controllers (MFC → FC → EC → EM) is followed, and in the case of a multi-cluster configuration, further in the ascending order of the cluster ID, from the beginning to the number specified. Specification example: limit_number = 100 Depending on the value of "log merging type", the acquisition upper limit number is defined as follows. In case of "separating" logs: Respond up to 100 logs per MFC log and each controller of each cluster. When "merge" the log: Respond up to 100 items in the merged log. If not specified, 1000 is the upper limit. In addition, when a value exceeding the maximum number of acquisitions that the MSF controller can respond is specified, the number of acquired logs is assumed to be the number of responsible upper limit of the MSF controller.
search_string	string	–	Search target character string	Specify a character string included in the log to be searched. This parameter must be URL-encoded. In addition, it is assumed that multiple designation of the search target character string is prohibited, and uppercase and lowercase letters are distinguished. Regular expressions can not be used. Example: Original string: "Controller start" Specification example: search_string = Controller%20start
merge_type	string	–	Log merging type	Specify whether to separate the logs of each controller (MFC / FC / EC / EM) separately and to respond or to merge them all in chronological order and respond as one log. "Separate": to separate "Merge": to merge

URI	/v1/operations/log

request	code	body	type	required	Allow null	Allow empty array	overview	remarkss
request	–	–	–	–	–	–	–	–
response	200	msf_log	object	Y	N		Log information to respond	–
		conditions	object	Y	N		Acquisition condition information on logs to resp	–
		log_type	string	Y	N		Response log type	Either "api access" or "processing" is included in the response value
		log_levels	string[ ]	Y	N	N	Log level to respond	One or more of the following are stored in the response list. "Error", "warning", "info"
		controllers	string[ ]	Y	N	N	List of controllers subject to acquisition	One or more of the following are stored in the response list. "Mfc", "fc", "ec", "em"
		clusters	string[ ]	Y	N	Y	List of IDs of clusters to be acquired	When the acquisition target controller is MFC only, it responds with an empty array
		start_date	string	Y	Y		Start date of specified log acquisition target per	Format is "YYYYMMDD" If no condition is specified, a null value is stored.
		end_date	string	Y	Y		End date of specified log acquisition target perio	"Format is" YYYYMMDD " If no condition is specified, a null value is stored. "
		limit_number	int	Y	Y		Maximum number of acquisition log entries (num	When the condition is not specified, the upper limit value of the number of logs that the MSF controller can respond is set
		search_string	string	Y	Y		Specified search target character string	If no condition is specified, a null value is stored. If the specified character string contains characters that need to be escaped, it is escaped by the ¥ mark.
		merge_type	string	Y	N		Log merging type	The response value is either "separate" or "merge"
		merged_log	object	N	Y		Merged controller log information	Required when the log merge type is "merge". In the case of "separating", this parameter does not respond. Log information that logs of all controllers matching the specified condition are merged in chronological order.
		data_number	int	Y	N		Number of logs	Store the number of acquired logs
		over_limit_number	boolean	Y	N		Whether the number of logs to be acquired exce	It stores whether the number of logs to respond exceeds the specified upper limit number. Example: If there are 1001 acquisition subjects when there are 1,000 acquisition limit number, the number of logs to be responded (data_number) is 1000 and over_limit_number returns true. 1000 cases When getting exactly, the number of responses is 1000, over_limit_number returns false.
		log_data	object[ ]	Y	N	Y	List of log information	If the number of acquired logs is 0, respond with an empty array.
		cluster_id	string	N	Y		Cluster ID of the cluster in which the log occurr	If the controller in which the log occurred is MFC, this parameter is not responded.
		contoller	string	Y	N		The controller that generated the log	–
		server_name	string	Y	N		The host name of the server where the log occ	–
		occurred_time	string	Y	N		time of occurrence	–
		log_level	string	Y	N		Log level	–
		thread_id	string	Y	N		Thread ID of log generation location	–
		class_name	string	Y	N		Class name of log output location	–
		method_name	string	Y	N		Method name of log output part	–
		line_number	int	Y	N		Number of lines of log output location	–
		message	string	Y	N		Log message	–
		mfc_logs	object[ ]	N	Y	N	MFC log information	Required when the access log is specified as the log type, or when the log type is processing log and MFC is specified for the acquisition target controller and the log merging type is "separate". If it does not meet the above conditions, it will not respond.
		data_number	int	Y	N		Number of logs	Store the number of acquired logs
		over_limit_number	boolean	Y	N		Whether the number of logs to be acquired exce	It stores whether the number of logs to respond exceeds the specified upper limit number. Example: If there are 1001 acquisition subjects when there are 1,000 acquisition limit number, the number of logs to be responded (data_number) is 1000 and over_limit_number returns true. 1000 cases When getting exactly, the number of responses is 1000, over_limit_number returns false.
		server_name	string	Y	N		The host name of the server where the log occ	–
		log_data	object[ ]	Y	N	Y	List of log information	If the number of acquired logs is 0, respond with an empty array.
		occurred_time	string	Y	N		time of occurrence	–
		log_level	string	Y	N		Log level	–
		thread_id	string	Y	N		Thread ID of log generation location	–
		class_name	string	Y	N		Class name of log output location	–
		method_name	string	Y	N		Method name of log output part	–
		line_number	int	Y	N		Number of lines of log output location	–
		message	string	Y	N		Log message	–
		cluster_logs	object[ ]	N	Y	N	List of in-cluster log information	Required when log merging type is "separate". It does not respond when merge type "merge".
		cluster_id	string	N	N		Cluster ID of the log acquisition target cluster	–
		fc_log	object	×	Y		FC log information	Required if FC is specified for the controller to be acquired.
		The same structure as the parameter (data_number, log_data) in "mfc_log"						
		ec_log	object	N	Y		EC log information	Required if EC is specified for the controller to be acquired.
		The same structure as the parameter (data_number, log_data) in "mfc_log"						
		em_log	object	N	Y		EM log information	Required if EM is specified for the controller to be acquired.
		The same structure as the parameter (data_number, log_data) in "mfc_log"						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Registering equipment information
Method	POST

URI	/v1/equipment-types

message	code	body	type	required	Allow null	Allow empty array	overview	remarkss
request	–	equipment_type	object	○	×		Model information	–
		equipment_type_id	string	×	○		equipment type ID	–
		platform	string	○	×		platform	–
		os	string	○	×		OS	–
		firmware	string	○	×		Firmware version	–
		router_type	string	○	×		router type	"normal", "core-router"
		physical_if_name_syntax	string	×	○		Physical-IF name syntax	When router_type is "core-router", required.
		breakout_if_name_syntax	string	×	○		Breakout-IF name syntax	ex) <PORTPREFIX><IFSOLTNAME>:<BREAKOUTIFSUFFIX>"
		breakout_if_name_suffix_list	string	×	○		breakout_if_name_suffix_list	Separated list format (ex) 0:1, 2:3) Only models that can use breakout-IF
		capability	object	○	×		Capability information	–
		vpn	object	○	×		VPN capability information	–
		l2	boolean	○	×		L2VPN compatibility	–
		l3	boolean	○	×		Possibility to comply with L3VPN	–
		qos	object	○	×		QoS capability information	–
		remarks	boolean	○	×		Remark function capability	–
		remarks_capability	string[ ]	×	○	○	Remark menu list	Specify a list of configurable remark menu.
		remarks_default	string	×	○		Default remark menu	Specify the default remark menu.
		shaping	boolean	○	×		Shaping function capability	–
		egress_queue_capability	string[]	×	○	○	Egress queue menu list	Specify a list of egress queue menu.
		egress_queue_default	string	×	○		Default egress queue menu	Specify the default egress queue meny.
		dhcp	object	○	×		DHCP information	–
		dhcp_template	string	○	×		File path of "dhcpd.conf"	–
		config_template	string	○	×		File path of initial config templete	–
		initial_config	string	○	×		File path of initial config	–
		snmp	object	○	×		SNMP information	–
		if_name_oid	string	○	×		MIB information of IF name	Set OID
		snmptrap_if_name_oid	string	×	○		MIB information of IF name in the SNMP t	Set OID
		max_repetitions	int	○	×		Maximum number to get with GET Bulk	–
		boot_complete_msg	string	○	×		Syslog message for confirming the startup	–
		boot_error_msgs	string[ ]	×	○	×	Syslog message for confirming the failure	"null"
		if_definitions	object	○	×		IF information definition	–
		ports	object[ ]	○	×	○	Port information	–
		speed	string	○	×		Port speed	–
		port_prefix	string	○	×		Port name prefix	–
		lag_prefix	string	○	×		Lag IF name prefix	–
		unit_connector	string	○	×		Unit IF connector	–
		slots	object[ ]	○	×	○	Slot information	–
		if_id	string	○	×		Physical port ID	–
		if_slot	string	○	×		IF slot name	–
		speed_capabilities	string[ ]	○	×	○	Port speed type correspondence list	–
response	201	equipment_type_id	string	○	×		Model ID	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.
The content to be set on the body should be specified appropriately in accordance with the format of each model

Interface name	Getting equipment list in switch cluster
Method	GET

option parameter	type	required	overview	remarkss
format	string	–	Acquired information type	"list": list "detail-list": Detailed list When omitted, same as "list"

list

URI	/v1/equipment-types
	/v1/equipment-types?format=list

message	code	body	type	required	Allow null	Allow empty array	overview	remarkss
request	–	–	–	–	–	–	–	–
response	200	equipment_type_ids	string[ ]	○	×	○	list of equipment type ID	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed-list

URI	/v1/equipment-types?format=detail-list

message	code	body	type	required	Allow null	Allow empty array	overview	remarkss
request	–	–	–	–	–	–	–	–
response	200	equipment_types	object[ ]	○	×	○	list of equipment types	–
		Same as the information stored in the "equipment_type" of "010103: Getting equipment information" sheet.						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting equipment information
Method	GET

URI parameter	type	overview	remarkss
equipment_type_id	string	equipment type ID	–

URI	/v1/equipment-types/{equipment_type_id}

message	code	body	type	required	Allow null	Allow empty array	overview	remarkss
request	–	–	–	–	–	–	–	–
response	200	equipment_type	object	○	×		Model information	–
		equipment_type_id	string	○	×		equipment type ID	–
		platform	string	○	×		platform	–
		os	string	○	×		OS	–
		firmware	string	○	×		Firmware version	–
		router_type	string	○	×		router type	"normal", "core-router"
		physical_if_name_syntax	string	×	○		Physical-IF name syntax	When router_type is "core-router", required.
		breakout_if_name_syntax	string	×	○		Breakout-IF name syntax	ex)"<PORTPREFIX>-<IFSOLTNAME>:<BREAKOUTIFSUFFIX>" Only models that can use breakout-IF
		breakout_if_name_suffix_list	string	×	○		breakout_if_name_suffix_list	Separated list format (ex) 0:1, 2:3) Only models that can use breakout-IF
		capability	object	○	×		Capability information	–
		vpn	object	○	×		VPN capability information	–
		l2	boolean	○	×		L2VPN compatibility	–
		l3	boolean	○	×		Possibility to comply with L3VPN	–
		qos	object	○	×		QoS capability information	–
		remarks	boolean	○	×		Remark function capability	–
		remarks_capability	string[ ]	×	○	○	Remark menu list	Specify a list of configurable remark menu.
		remarks_default	string	×	○		Default remark menu	Specify the default remark menu.
		shaping	boolean	○	×		Shaping function capability	–
		egress_queue_capability	string[]	×	○	○	Egress queue menu list	Specify a list of egress queue menu.
		egress_queue_default	string	×	○		Default egress queue menu	Specify the default egress queue meny.
		dhcp	object	○	×		DHCP information	–
		dhcp_template	string	○	×		File path of "dhcpd.conf"	–
		config_template	string	○	×		File path of initial config templete	–
		initial_config	string	○	×		File path of initial config	–
		snmp	object	○	×		SNMP information	–
		if_name_oid	string	○	×		MIB information of IF name	Set OID
		snmptrap_if_name_oid	string	×	○		MIB information of IF name in the SNMP t	Set OID
		max_repetitions	int	○	×		Maximum number to get with GET Bulk	–
		boot_complete_msg	string	○	×		Syslog message for confirming the startup	–
		boot_error_msgs	string[ ]	×	○	×	Syslog message for confirming the failure	"null"
		if_definitions	object	○	×		IF information definition	–
		ports	object[ ]	○	×	○	Port information	–
		speed	string	○	×		Port speed	–
		port_prefix	string	○	×		Port name prefix	–
		lag_prefix	string	○	×		Lag IF name prefix	–
		unit_connector	string	○	×		Unit IF connector	–
		slots	object[ ]	○	×	○	Slot information	–
		if_id	string	○	×		Physical port ID	–
		if_slot	string	○	×		IF slot name	–
		speed_capabilities	string[ ]	○	×	○	Port speed type correspondence list	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Deleting equipment information
Method	DELETE

URI parameter	type	overview	remarkss
equipment_type_id	string	equipment type ID	–

URI	/v1/equipment-types/{equipment_type_id}

message	code	body	type	required	Allow null	Alllow empty array	overview	remarkss
request	–	–	–	–	–	–	–	–
response	204	–	–	–	–	–	–	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Adding Switch-cluster
Method	POST

Option parameter	type	required	overview	remarks
notification_address	string	○	Destination address to notify completion of operation	See "Asynchronous request format" sheet
notification_port	string	○	Destination port to notify completion of operation	

URI	/v1/clusters

message	code	body	type	requir	Allow	Allow	overview	remarks
request	–	cluster	object	○	×		Switch cluster information	–
		cluster_id	string	○	×		Cluster ID	–
response	202	operation_id	string	○	×		ID for acquiring information of asynchronous operation	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response
The result of the asynchronous response is set by being set in "processing result information (status_code)" and "response body part (body)" of "000103 operation detail acquisition" IF.

message	code	body	type	requir	Allow	Allow	overview	remarks
response	201	cluster_id	string	○	×		Cluster ID	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting list of Switch-cluster
Method	GET

Option parameter	type	required	overview	remarks
format	string	-	Acquired information type	"list": list "detail-list": Detailed list When omitted, same as "list"
user-type	string	-	User type	"operator": System administrator When omitted, Slice user

list

URI	/v1/clusters
	/v1/clusters?format=list

message	code	body	type	requir	Allow	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	cluster_ids	string[ ]	○	×	○	List of Cluster ID	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list for slice user

URI	/v1/clusters?format=detail-list

message	code	body	type	requir	Allow	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	clusters	object[ ]	○	×	○	List of Cluster ID	-
		Same as information in "cluster" object in the "010203" sheet(for slice user)						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list for administrator

URI	/v1/clusters?format=detail-list&user-type=operator

message	code	body	type	requir	Allow	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	clusters	object[ ]	○	×	○	List of Cluster ID	-
		Same as information in "cluster" object in the "010203" sheet(for administrator)						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting information of Switch-cluster
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	Cluster ID	-

Option parameter	type	required	overview	remarks
user-type	string	-	User type	"operator": System administrator When omitted, Slice user

detailed list for slice user

URI	/v1/clusters/{cluster_id}

message	code	body	type	requir	Allow	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	cluster	object	○	×		Switch cluster information	-
		cluster_id	string	○	×		Cluster ID	-
		edge_points	object	○	×		List of edge-point ID	-
		l2_edge_points	string[ ]	○	×	○	List of L2 edge-point ID	-
		l3_edge_points	string[ ]	○	×	○	List of L3 edge-point ID	-
		uni_support_protocols	object	○	×		Supported UNI protocol information	-
		L2	boolean	○	×		L2 capability	-
		L3	boolean	○	×		L3 capability	-
		L3_protocols	string[ ]	×	○	○	list of L3 protocol	-
		resources	object	○	×			
		unused_speed_not_set_physical_ifs_num	int	○	×			
		creatable_edge_points_num	int	○	×			
		edge_points_with_no_cps_num	int	○	×			
		creatable_l2cps_num	int	○	×			
		creatable_l3cps_num	int	○	×			
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list for administrator

URI	/v1/clusters/{cluster_id}?user-type=operator

message	code	body	type	requir	Allow	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	cluster	object	○	×		Switch cluster information	-
		cluster_id	string	○	×		Cluster ID	-
		max_leaf_num	int	○	×		Max Leaf node	-
		max_spine_num	int	○	×		Max Spine node	-
		ec_control_address	string	○	×		EC address	-
		ec_control_port	int	○	×		EC port	-
		as_number	int	○	×		AS number	-
		edge_points	object	○	×		List of edge-point ID	-
		l2_edge_points	string[ ]	○	×	○	List of L2 edge-point ID	-
		l3_edge_points	string[ ]	○	×	○	List of L3 edge-point ID	-
		uni_support_protocols	object	○	×		Supported UNI protocol information	-
		L2	boolean	○	×		L2 capability	-
		L3	boolean	○	×		L3 capability	-
		L3_protocols	string[ ]	×	○	○	list of L3 protocol	-
		address_definitions	object	○	×		Address definitions for each cluster	-
		interface_start_address	string	○	×		Interface start IP address	-
		loopback_start_address	string	○	×		Roopback start IP address	-
		management_start_address	string	○	×		Management start IP address	-
		management_address_prefix	int	○	×		Management address prefix	-
		rrs	object	○	×		peer information	-
		peer_cluster	string	○	×		Peer setting destination cluster ID	Cluster ID of RR connected by Leaf
		accommodated_clusters	string[]	○	×	○	Peer setting source cluster ID	Cluster ID of Leaf connect RR
		resources	object	○	×			
		unused_speed_not_set_physical_ifs_num	int	○	×			
		creatable_edge_points_num	int	○	×			
		edge_points_with_no_cps_num	int	○	×			
		creatable_l2cps_num	int	○	×			
		creatable_l3cps_num	int	○	×			
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Deleting Switch-cluster
Method	DELETE

URI parameter	type	overview	remarks
cluster_id	int	Cluster ID	-

Option parameter	type	required	overview	remarks
notification_address	string	○	Destination address to notify completion of operation	See "Asynchronous request format" sheet
notification_port	string	○	Destination port to notify completion of operation	

URI	/v1/clusters/{cluster_id}

message	code	body	type	requir	Allow	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	202	operation_id	string	○	×		ID for acquiring information of asynchronous operation	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response
The result of the asynchronous response is set by being set in "processing result information (status_code)" and "response body part (body)" of "000103 operation detail acquisition" IF.

message	code	body	type	requir	Allow	Allow	overview	remarks
response	204	-	-	-	-	-	-	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting list of nodes
Method	GET

URI parameter	type	overview	remarkss
cluster_id	string	cluster ID	–

option parameter	tpye	required	overivew	remarkss
format	string	–	Acquired information type	"list": list "detail-list": Detailed list When omitted, same as "list"
user-type	string	–	User type	"operator": System administrator When omitted, Slice user

list

URI	/v1/clusters/{cluster_id}/nodes
	/v1/clusters/{cluster_id}/nodes?format=list

message	code	body	type	required	Allow null	Allow empty array	overview	remarkss
request	–	–	–	–	–	–	–	–
response	200	leaf_node_ids	string[ ]	○	×	○	List of node IDs of Leaf-node	–
		spine_node_ids	string[ ]	○	×	○	List of node IDs of Spine-node	–
		rr_node_ids	string[ ]	○	×	○	List of node IDs of RR	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list for slice user

URI	/v1/clusters/{cluster_id}/nodes?format=detail-list

message	code	body	type	required	Allow null	Allow empty array	overview	remarkss
request	–	–	–	–	–	–	–	–
response	200	leafs	object[ ]	○	×	○	List of node IDs of Leaf-node	–
		Same as information in "leaf" object in the "010403" sheet						
		spines	object[ ]	○	×	○	List of node IDs of Spine-node	–
		Same as information in "spine" object in the "010503" sheet						
		rrs	object[ ]	○	×	○	List of node IDs of RR	–
		Same as information in "rr" object in the "010602" sheet						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list for administrator

URI	/v1/clusters/{cluster_id}/nodes?format=detail-list&user-type=operator

message	code	body	type	required	Allow null	Allow empty array	overview	remarkss
request	–	–	–	–	–	–	–	–
response	200	leafs	object[ ]	○	×	○	List of node IDs of Leaf-node	–
		Same as information in "leaf" object in the "010403" sheet (for administrator)						
		spines	object[ ]	○	×	○	List of node IDs of Spine-node	–
		Same as information in "spine" object in the "010503" sheet (for administrator)						
		rrs	object[ ]	○	×	○	List of node IDs of RR	–
		Same as information in "rr" object in the "010602" sheet						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Adding Leaf- node
Method	POST

URI paramter	type	overview	remarkss
cluster_id	string	cluster ID	-

option parameter	type	required	overview	remarkss
notification_address	string	○	Destination address to notify completion of operation	See "Asynchronous request format" sheet
notification_port	string	○	Destination port to notify completion of operation	

URI	/v1/clusters/{cluster_id}/nodes/leafs

message	code	body	type	required	Allow null	Allow empty array	overview	remarkss
request	-	node_id	string	○	×		Node ID	Specified by numeric character string
		equipment_type_id	string	○	×		Equipment type ID	-
		leaf_type	string	○	×		Leaf type	"BL": IP-VPN Border-Leaf(B-Leaf) "IL": IP-VPN Leaf(L3Leaf) "EL": Ethernet VPN Leaf(L2Leaf)
		host_name	string	○	×		host name	-
		mac_address	string	○	×		MAC address	format: "XX:XX:XX:XX:XX:XX"
		username	string	○	×		login user name	-
		password	string	○	×		login passward	-
		provisioning	boolean	○	×		provisioning flag	true: configure by ZTP false: already configured
		vpn_type	string	○	×		L2/L3 VPN type	"l2" or "l3"
		plane	int	○	×		Plane	"1"
		snmp_community	string	○	×		SNMP community name	-
		ntp_server_address	string	○	×		NTP server address	-
		breakout	object	×	○		BreakoutIF information	-
		local	object	×	○		BreakoutIF information on adding Leaf	-
		breakout_ifs	object[ ]	○	×	×	-	-
		breakout_if_ids	string[ ]	○	×		breakoutIF ID	Specify all breakoutIFs generated by separating one physical IF
		base_if	object	○	×		Information on physical IF to be separated	-
		physical_if_id	string	○	×		Physical IF ID to be separated	-
		division_number	int	○	×		Number to separate	-
		breakout_if_speed	string	○	×		IF speed after separation	-
		opposite	object[ ]	×	○	×	BreakoutIF information of oppsing Spine	-
		opposite_node_id	string	○	×		Opposite Spine-node ID	-
		breakout_ifs	object[ ]	○	×	×	-	-
		breakout_if_ids	string[ ]	○	×		breakoutIF ID	Specify all breakoutIFs generated by separating one physical IF
		base_if	object	○	×		Information on physical IF to be separated	-
		physical_if_id	string	○	×		Physical IF ID to be separated	-
		division_number	int	○	×		Number to separate	-
		breakout_if_speed	string	○	×		IF speed after separation	-
		internal_links	object	○	○		Internal link information	Null if there is no internal link don't specify more than one internal link where the Leaf-Spine pair is the
		physical_links	object[ ]	×	○	×	Physical link information	When the internal links are physical
		opposite_node_id	string	○	×		Opposite Spine-node ID	-
		local_traffic_threshold	double	×	○		Traffic threshold of the internal link IF of the Leaf	Gbps
		opposite_traffic_threshold	double	×	○		Traffic threshold of the internal link IF of the opposite Spine	Gbps
		internal_link_if	object	○	×		Internal link information of Leaf and opposite Spine	-
		local	object	○	×		Internal link information of Leaf	-
		physical_if	object	×	○		Physical IF information	Either physical IF or Breakout IF is required.
		physical_if_id	string	○	×		Physical IF ID	-
		physical_if_speed	string	○	×		Phsical IF speed	-
		breakout_if	object	×	○		Breakout IF information	Either physical IF or Breakout IF is required.
		breakout_if_id	string	○	×		breakoutIF ID	-
		opposite	object	○	×		Internal link information of opposite Spine	-
		physical_if	object	×	○		Physical IF information	Either physical IF or Breakout IF is required.
		physical_if_id	string	○	×		Physical IF ID	-
		physical_if_speed	string	○	×		Phsical IF speed	-
		breakout_if	object	×	○		Breakout IF information	Either physical IF or Breakout IF is required.
		breakout_if_id	string	○	×		breakoutIF ID	-
		lag_links	object[ ]	×	○	×	LAG link information	When the internal links are LAG links
		opposite_node_id	string	○	×		Opposite Spine-node ID	-
		local_traffic_threshold	double	×	○		Traffic threshold of the internal link IF of the Leaf	Gbps
		opposite_traffic_threshold	double	×	○		Traffic threshold of the internal link IF of the opposite Spine	Gbps
		member_ifs	object[ ]	○	×	×	Internal link information of Leaf and opposite Spine	When specify multiple menber links
		local	object	○	×		Internal link information of Leaf	-
		physical_if	object	×	○		Physical IF information	Either physical IF or Breakout IF is required.
		physical_if_id	string	○	×		Physical IF ID	-
		physical_if_speed	string	○	×		Phsical IF speed	-
		breakout_if	object	×	○		Breakout IF information	Either physical IF or Breakout IF is required.
		breakout_if_id	string	○	×		breakoutIF ID	-
		opposite	object	○	×		Internal link information of opposite Spine	-
		physical_if	object	×	○		Physical IF information	Either physical IF or Breakout IF is required.
		physical_if_id	string	○	×		Physical IF ID	-
		physical_if_speed	string	○	×		Phsical IF speed	-
		breakout_if	object	×	○		Breakout IF information	Either physical IF or Breakout IF is required.
		breakout_if_id	string	○	×		breakoutIF ID	-
		management_if_address	string	×	○		Management IF address	IPv4 address. Specify the management IF address of the device. If omitted, the contorller automatically pays out.
		management_if_prefix	int	×	○		Management IF prefix	0 to 32 Required if management IF address is specified
response	202	operation_id	string	○	×		ID for acquiring information of asynchronous operation	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response

message	code	body	type	required	Allow null	Allow empty array	overview	remarkss
response	201	node_id	string	○	×		Equipment type ID of adding Leaf	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting list of Leaf-nodes
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	-

option parameter	type	required	overview	remarks
format	string	-	Acquired information type	"list": list "detail-list": Detailed list When omitted, same as "list"
user-type	string	-	User type	"operator": System administrator When omitted, Slice user

list

URI	/v1/clusters/{cluster_id}/nodes/leafs
	/v1/clusters/{cluster_id}/nodes/leafs?format=list

message	code	body	type	required	Allow nul	Allow empty	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	leaf_node_ids	string[ ]	○	×	○	List of node IDs of Leaf-node	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list for slice user

URI	/v1/clusters/{cluster_id}/nodes/leafs?format=detail-list

message	code	body	type	required	Allow nul	Allow empty	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	leafs	object[ ]	○	×	○	List of node IDs of Leaf-node	-
		Same as information in "leaf" object in the "010403" sheet						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list for administrator

URI	/v1/clusters/{cluster_id}/nodes/leafs?format=detail-list&user-type=operator

message	code	body	type	required	Allow nul	Allow empty	overview	remarks
request	-	-	-	-	-	-	-	-
		leafs	object[ ]	○	×	○	List of node IDs of Leaf-node	-
		Same as information in "leaf" object in the "010403" sheet (for administrator)						

Body uses JSON format.

Interface name	Getting information of Leaf-node
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	–
node_id	string	node ID	–

option parameter	type	required	overview	remarks
user-type	string	–	User type	"operator": System administrator When omitted, Slice user

URI	/v1/clusters/{cluster_id}/nodes/leafs/{node_id}

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	leaf	object	○	×		Node information	–
		node_id	string	○	×		Node ID	–
		equipment_type_id	string	○	×		equipment type ID	–
		vpn_type	string	○	×		L2/L3 VPN type	"l2" or "l3"
		plane	int	○	×		Plane	–
		physical_ifs	object[ ]	○	×	○	Physcial IF list	–
		physical_if_id	string	○	×		Physcial IF ID	–
		speed	string	×	○		IF speed	null if speed is not set.
		breakout_ifs	object[ ]	○	×	○	breakoutIF list	–
		breakout_if_id	string	○	×		breakoutIF ID	–
		speed	string	○	×		IF speed	–
		lag_ifs	object[ ]	○	×	○	Lag IF list	–
		lag_if_id	string	○	×		LagIF ID	–
		speed	string	○	×		IF speed	–
		physical_if_ids	string[ ]	○	×	○	Physical IF ID list for LAG	–
		breakout_if_ids	string[ ]	○	×	○	Breakout IF ID list for LAG	–
		provisioning_status	string	○	×		Status of Leaf-node	"in-service" : active "before-setting" : Waiting for startup "ztp-complete":ZTP complete "node-resetting-complete" : Setting complete "failure-setting" : Expansion failed "failure-node-resetting" : Setting failed "failure-service-setting" : Service setting failed "failure-other" : out of service "failure-recover-node" : out of service
								–
								–
								–
								–
								–
		Refer to the "Error response format" sheet for error response						

Body uses JSON format.

detailed list for administrator

URI	/v1/clusters/{cluster_id}/nodes/leafs?user-type=operator

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	leaf	object	○	×		Leaf information	–
		node_id	string	○	×		Node ID	–
		equipment_type_id	string	○	×		equipment type ID	–
		leaf_type	string	○			Leaf type	"BL": IP-VPN Border-Leaf(B-Leaf) "IL": IP-VPN Leaf(L3Leaf) "EL": Ethernet VPN Leaf(L2Leaf)
		host_name	string	○	×		host name	–
		mac_address	string	○	×		MAC address	–
		username	string	○	×		login user name	–
		provisioning	boolean	○	×		provisioning flag	true: configure by ZTP false: already configured
		vpn_type	string	○	×		L2/L3 VPN type	"l2" or "l3"
		plane	int	○	×		Plane	–
		snmp_community	string	○	×		SNMP community name	–
		ntp_server_address	string	○	×		NTP server address	–
		physical_ifs	object[ ]	○	×	○	Physical IF ID list	–
		physical_if_id	string	○	×		Physical IF	–
		internal_options	object	×	○		Internal link information	–
		ipv4_address	string	○	×		IPv4 address	–
		opposite_if	object	○	×		Opposite IF	–
		fabric_type	string	○	×		equipment type	"spine": Spine
		node_id	string	○	×		Node ID	–
		if_type	string	○	×		IF type of opposite node	"physical-if", "breakout-if"
		if_id	string	○	×		IF ID of opposite node	–
		traffic_threshold	double	×	○		Traffic threshold	Gbps
		speed	string	×	○		IF speed	null if speed is not set.
		breakout_ifs	object[ ]	○	×	○	Breakout IF ID list	–
		breakout_if_id	string	○	×		breakoutIF ID	–
		internal_options	object	×	○		Internal link information	–
		ipv4_address	string	○	×		IPv4 address	–
		opposite_if	object	○	×		Opposite IF	–
		fabric_type	string	○	×		equipment type	"spine": Spine
		node_id	string	○	×		Node ID	–
		if_type	string	○	×		IF type of opposite node	"physical-if", "breakout-if"
		if_id	string	○	×		IF ID of opposite node	–
		traffic_threshold	double	×	○		Traffic threshold	Gbps
		speed	string	○	×		IF speed	–
		internal_link_ifs	object[ ]	○	×	○	Internal link IF list	–
		Same as information in "internal_link_if" object in the "010902" sheet						
		lag_ifs	object[ ]	○	×	○	LagIF ID list	–
		lag_if_id	string	○	×		LagIF ID	–
		internal_options	object	×	○		Internal link information	–
		ipv4_address	string	○	×		IPv4 address	–
		opposite_if	object	○	×		Opposite IF	–
		fabric_type	string	○	×		equipment type	"spine": Spine
		node_id	string	○	×		Node ID	–
		lag_if_id	string	○	×		LAG IF ID	–
		traffic_threshold	double	×	○		Traffic threshold	Gbps
		minimum_links	int	○	×		Number of milinum link	–
		speed	string	○	×		IF speed	–
		physical_if_ids	string[ ]	○	×	○	Physical IF ID list for LAG	–
		breakout_if_ids	string[ ]	○	×	○	Breakout IF ID list for LAG	–
		router_id	string	○	×		Router ID	–
		management_if_address	string	○	×		Management IF address	–
		provisioning_status	string	○	×		Status of Leaf-node	"in-service" : active "before-setting" : Waiting for startup "ztp-complete":ZTP complete "node-resetting-complete" : Setting complete "failure-setting" : Expansion failed "failure-node-resetting" : Setting failed "failure-service-setting" : Service setting failed "failure-other" : out of service "failure-recover-node" : out of service
		registered_rr_node_ids	string[ ]	○	×		Register RR node ID list	–
		Refer to the "Error response format" sheet for error response						

Body uses JSON format.

Interface name	Deleting Leaf-node
Method	DELETE

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	–
node_id	string	Node ID	–

option parameter	type	required	overview	remarks
notification_address	string	○	Destination address to notify completion of operation	See "Asynchronous request format" sheet
notification_port	string	○	Destination port to notify completion of operation	

URI	/v1/clusters/{cluster_id}/nodes/leafs/{node_id}

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	202	operation_id	string	○	×		ID for acquiring information of asynchronous operation	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response

message	code	body	type	required	Allow null	Allow empty	overview	remarks
response	204	–	–	–	–	–	–	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Updating Leaf-node
Method	PUT

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	-
node_id	string	Node ID	-

option parameter	type	required	overview	remarks
notification_address	string	○	Destination address to notify completion of operation	See "Asynchronous request format" sheet
notification_port	string	○	Destination port to notify completion of operation	

URI	/v1/clusters/{cluster_id}/nodes/leafs/{node_id}

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	-	action	string	○	×		control type	"chg_leaf_type": Change the type of Leaf "recover_node": Service recovery
		leaf_type_option	object	×	×		Option for changing leaf type	When control type is "chg_leaf_type"
		leaf_type	string	○	×		Leaf type	"BL": IP-VPN Border-Leaf(B-Leaf) "IL": IP-VPN Leaf(L3Leaf) "EL": Ethernet VPN Leaf(L2Leaf)
		recover_node_option	object	×	×		Option for Service recovery	When control type is "recover_node"
		equipment_type_id	string	○	×		equipment type ID	
		mac_address	string	○	×		MAC address	format: "XX:XX:XX:XX:XX:XX"
		username	string	○	×		Login user name	-
		password	string	○	×		Login password	-
response	202	operation_id	string	○	×		ID for acquiring information of asynchronous operation	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response

message	code	body	type	requi	overview	remarks
response	200	-	-	-	-	-
	Refer to the "Error response format" sheet for error response					

Body uses JSON format.

Interface name	Adding Spine-node
Method	POST

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	–

option parameter	type	required	overview	remarks
notification_address	string	○	Destination address to notify completion of operation	See "Asynchronous request format"
notification_port	string	○	Destination port to notify completion of operation	sheet

URI	/v1/clusters/{cluster_id}/nodes/spines

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	node_id	string	○	×		Node ID	Specified by numeric character string
		equipment_type_id	string	○	×		Equipment type ID	–
		host_name	string	○	×		host name	–
		mac_address	string	○	×		MAC address	format: "XX:XX:XX:XX:XX:XX"
		username	string	○	×		login user name	–
		password	string	○	×		login password	–
		provisioning	boolean	○	×		provisioning flag	true: configure by ZTP false: already configured
		snmp_community	string	○	×		SNMP community name	–
		ntp_server_address	string	○	×		NTP server address	–
		breakout	object	×	○		BreakoutIF information	–
		local	object	×	○		BreakoutIF information on adding Spine	–
		breakout_ifs	object[ ]	○	×	×	-	–
		breakout_if_ids	string[ ]	○	×		breakoutIF ID	Specify all breakoutIFs generated by separating one physical IF
		base_if	object	○	×		Information on physical IF to be separated	–
		physical_if_id	string	○	×		Physical IF ID to be separated	–
		division_number	int	○	×		Number to separate	–
		breakout_if_speed	string	○	×		IF speed after separation	–
		opposite	object[ ]	×	○	×	BreakoutIF information of oppsing Leaf	–
		opposite_node_id	string	○	×		Opposite Leaf-node ID	–
		breakout_ifs	object[ ]	○	×	×	-	–
		breakout_if_ids	string[ ]	○	×		breakoutIF ID	Specify all breakoutIFs generated by separating one physical IF
		base_if	object	○	×		Information on physical IF to be separated	–
		physical_if_id	string	○	×		Physical IF ID to be separated	–
		division_number	int	○	×		Number to separate	–
		breakout_if_speed	string	○	×		IF speed after separation	–
		internal_links	object	○	○		Internal link information	Null if there is no internal link don't specify more than one internal link where the Leaf-Spine pair is the
		physical_links	object[ ]	×	○	×	Physical link information	When the internal links are physical
		opposite_node_id	string	○	×		Opposite Leaf-node ID	–
		local_traffic_threshold	double	×	○		Traffic threshold of the internal link IF of the Spine	Gbps
		opposite_traffic_threshold	double	×	○		Traffic threshold of the internal link IF of the opposite Lea	Gbps
		internal_link_if	object	○	×		Internal link information of Spine and opposite Leaf	–
		local	object	○	×		Internal link information of Spine	–
		physical_if	object	×	○		Physical IF information	Either physical IF or Breakout IF is required.
		physical_if_id	string	○	×		Physical IF ID	–
		physical_if_speed	string	○	×		Phsical IF speed	–
		breakout_if	object	×	○		Breakout IF information	Either physical IF or Breakout IF is required.
		breakout_if_id	string	○	×		breakoutIF ID	–
		opposite	object	○	×		Internal link information of opposite Leaf	–
		physical_if	object	×	○		Physical IF information	Either physical IF or Breakout IF is required.
		physical_if_id	string	○	×		Physical IF ID	–
		physical_if_speed	string	○	×		Phsical IF speed	–
		breakout_if	object	×	○		Breakout IF information	Either physical IF or Breakout IF is required.
		breakout_if_id	string	○	×		breakoutIF ID	–
		lag_links	object[ ]	×	○	×	LAG link information	When the internal links are LAG links
		opposite_node_id	string	○	×		Opposite Leaf-node ID	–
		local_traffic_threshold	double	×	○		Traffic threshold of the internal link IF of the Spine	Gbps
		opposite_traffic_threshold	double	×	○		Traffic threshold of the internal link IF of the opposite Lea	Gbps
		member_ifs	object[ ]	○	×	×	Internal link information of Spine and opposite Leaf	When specify multiple menber links
		local	object	○	×		Internal link information of Spine	–
		physical_if	object	×	○		Physical IF information	Either physical IF or Breakout IF is required.
		physical_if_id	string	○	×		Physical IF ID	–
		physical_if_speed	string	○	×		Phsical IF speed	–
		breakout_if	object	×	○		Breakout IF information	Either physical IF or Breakout IF is required.
		breakout_if_id	string	○	×		breakoutIF ID	–
		opposite	object	○	×		Internal link information of opposite Leaf	–
		physical_if	object	×	○		Physical IF information	Either physical IF or Breakout IF is required.
		physical_if_id	string	○	×		Physical IF ID	–
		physical_if_speed	string	○	×		Phsical IF speed	–
		breakout_if	object	×	○		Breakout IF information	Either physical IF or Breakout IF is required.
		breakout_if_id	string	○	×		breakoutIF ID	–
		management_if_address	string	×	○		Management IF address	IPv4 address. Specify the management IF address of the device. If omitted, the contorller automatically pays out.
		management_if_prefix	int	×	○		Management IF prefix	0 to 32 Required if management IF address is specified
response	202	operation_id	string	○	×		ID for acquiring information of asynchronous operation	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response

message	code	body	type	required	Allow null	Allow empty	overview	remarks
response	201	node_id	string	○	×		Equipment type ID of adding Spine	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting list of Spine-nodes
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	-

option parameter	type	required	overview	remarks
format	string	-	Acquired information type	"list": list "detail-list": Detailed list When omitted, same as "list"
user-type	string	○	User type	"operator": System administrator When omitted, Slice user

list

URI	/v1/clusters/{cluster_id}/nodes/spines?user-type=operator
	/v1/clusters/{cluster_id}/nodes/spines?format=list&user-type=operator

message	code	body	type	required	Allow null	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	spine_node_ids	string[ ]	○	×	○	List of node IDs of Spine-node	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list for administrator

URI	/v1/clusters/{cluster_id}/nodes/spines?format=detail-list&user-type=operator

message	code	body	type	required	Allow null	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	spines	object[ ]	○	×	○	List of node IDs of Spine-node	-
		Same as information in "spine" object in the "010503" sheet (for administrator)						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting information of Spine-node
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	-
node_id	string	node ID	-

option parameter	type	required	overview	remarks
user-type	string	○	User type	"operator": System administrator

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URI	/v1/clusters/{cluster_id}/nodes/spines/{node_id}?user-type=operator

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	spine	object	○	×		Node information	-
		node_id	string	○	×		Node ID	-
		equipment_type_id	string	○	×		equipment type ID	-
		host_name	string	○	×		host name	-
		mac_address	string	○	×		MAC address	-
		username	string	○	×		login user name	-
		provisioning	boolean	○	×		provisioning flag	true: configure by ZTP false: already configured
		snmp_community	string	○	×		SNMP community name	-
		ntp_server_address	string	○	×		NTP server address	-
		physical_ifs	object[ ]	○	×	○	Physical IF ID list	-
		physical_if_id	string	○	×		Physical IF	-
		internal_options	object	×	○		Internal link information	-
		ipv4_address	string	○	×		IPv4 address	-
		opposite_if	object	○	×		Opposite IF	-
		fabric_type	string	○	×		equipment type	"leaf":Leaf
		node_id	string	○	×		Node ID	-
		if_type	string	○	×		IF type of opposite node	"physical-if", "breakout-if"
		if_id	string	○	×		IF ID of opposite node	-
		traffic_threshold	double	×	○		Traffic threshold	Gbps
		speed	string	×	○		IF speed	null if speed is not set.
		breakout_ifs	object[ ]	○	×	○	Breakout IF ID list	-
		breakout_if_id	string	○	×		breakoutIF ID	-
		internal_options	object	×	○		Internal link information	-
		ipv4_address	string	○	×		IPv4 address	-
		opposite_if	object	○	×		Opposite IF	-
		fabric_type	string	○	×		equipment type	"leaf":Leaf
		node_id	string	○	×		Node ID	-
		if_type	string	○	×		IF type of opposite node	"physical-if", "breakout-if"
		if_id	string	○	×		IF ID of opposite node	-
		traffic_threshold	double	×	○		Traffic threshold	Gbps
		speed	string	○	×		IF speed	-
		internal_link_ifs	object[ ]	○	×	○	Internal link IF list	-
		Same as information in "internal_link_if" object in the "010902" sheet						
		lag_ifs	object[ ]	○	×	○	LagIF ID list	-
		lag_if_id	string	○	×		LagIF ID	-
		internal_options	object	×	○		Internal link information	-
		ipv4_address	string	○	×		IPv4 address	-
		opposite_if	object	○	×		Opposite IF	-
		fabric_type	string	○	×		equipment type	"leaf": Leaf
		node_id	string	○	×		Node ID	-
		lag_if_id	string	○	×		LAG IF ID	-
		traffic_threshold	double	×	○		Traffic threshold	Gbps
		minimum_links	int	○	×		Number of milinum link	-
		speed	string	○	×		IF speed	-
		physical_if_ids	string[ ]	○	×	○	Physical IF ID list for LAG	-
		breakout_if_ids	string[ ]	○	×	○	Breakout IF ID list for LAG	-
		router_id	string	○	×		Router ID	-
		management_if_address	string	○	×		Management IF address	-
		provisioning_status	string	○	×		Status of Leaf-node	"in-service" : active "before-setting" : Waiting for startup "ztp-complete":ZTP complete "node-resetting-complete" : Setting complete "failure-setting" : Expansion failed "failure-node-resetting" : Setting failed "failure-service-setting" : Service setting failed "failure-other" : out of service "failure-recover-node" : out of service (Service Recovery failure)
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Deletting Spine-node
Method	DELETE

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	-
node_id	string	Node ID	-

option parameter	type	required	overview	remarks
notification_address	string	○	Destination address to notify completion o	See "Asynchronous request format" sheet
notification_port	string	○	Destination port to notify completion of op	

URI	/v1/clusters/{cluster_id}/nodes/spines/{node_id}

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	-	-	-	-	-	-	-	-
response	202	operation_id	string	○	×		ID for acquiring information of asynchronou	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response

message	code	body	type	required	Allow null	Allow empty	overview	remarks
response	204	-	-	-	-	-	-	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting list of RR-node
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	-

option parameter	type	required	overview	remarks
format	string	-	Acquired information type	"list": list "detail-list": Detailed list When omitted, same as "list"

option parameter	type	required	overview	remarks
user-type	string	○	user type	"operator": administrator

list

URI	/v1/clusters/{cluster_id}/nodes/rrs?user-type=operator
	/v1/clusters/{cluster_id}/nodes/rrs?format=list&user-type=operator

message	code	body	type	requir	Allow	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	rr_node_ids	string[ ]	○	×	○	List of node IDs of RR	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list

URI	/v1/clusters/{cluster_id}/nodes/rrs?format=detail-list&user-type=operator

message	code	body	type	requir	Allow	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	rrs	object[ ]	○	×	○	information of RR-node	-
		Same as information in "rr" object in the "010602" sheet						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting infromation of RR-node
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	–
node_id	string	Node ID	–

option parameter	type	required	overview	remarks
user-type	string	○	user type	"operator": administrator

detailed list for administrator

URI	/v1/clusters/{cluster_id}/nodes/rrs/{node_id}?user-type=operator

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	rr	object	○	×		RR information	–
		node id	string	○	×		Node ID	–
		router_id	string	○	×		Router ID	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Gettinig list of interfaces
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	–
fabric_type	string	Device type	"spines": Spine "leafs": Leaf
node_id	string	Node ID	–

option parameter	type	required	overview	remarks
format	string	–	Acquired information type	"list": list "detail-list": Detailed list When omitted, same as "list"

list

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces
	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces?format=list

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	physical_if_ids	string[ ]	○	×	○	Physical IF ID list	–
		breakoutl_if_ids	string[ ]	○	×	○	Breakout IF ID list	–
		internal_link_if_ids	string[ ]	○	×	○	Internal link IF ID list	–
		lag_if_ids	string[ ]	○	×	○	LAG IF ID list	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces?format=detail-list

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	physical_ifs	object[ ]	○	×	○	Physical IF ID list	–
		Same as information in "physical_if" object in the "010802" sheet						
		breakout_ifs	object[ ]	○	×	○	Breakout IF ID list	–
		Same as information in "breakout_if" object in the "010903" sheet						
		internal_link_ifs	object[ ]	○	×	○	Internal link IF ID list	–
		Same as information in "internal_link_if" object in the "010902" sheet						
		lag_ifs	object[ ]	○	×	○	LAG IF ID list	–
		Same as information in "lag_if" object in the "011003" sheet						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting list of physical interfaces
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	Switch cluster ID	–
fabric_type	string	Device type	"spines" : Spine "leafs" : Leaf
node_id	string	Device ID	–

option parameter	type	required	overview	remarks
format	string	–	Get information type	"list" : list "detail-list" : Detailed list for sliced users or detailed list for system administrator When omitted, same as "list"

list

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/physical-ifs
	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/physical-ifs?format=list

message	code	body	type	required	Allow nul	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	physical_if_ids	string[ ]	○	×	○	Physical IF ID list information	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/physical-ifs?format=detail-list

message	code	body	type	required	Allow nul	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	physical_ifs	object[ ]	○	×	○	Physical IF ID list information	–
		Same as information in "physical_if" object in the "010802" sheet						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting information of physical interface
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	Switch cluster ID	–
fabric_type	string	Device type	"spines": Spine "leafs": Leaf
node_id	string	Device ID	–
if_id	string	Physical IF ID	–

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/physical-ifs/{if_id}

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	physical_if	object	○	×		Physical IF information	–
		physical_if_id	string	○	×		Physical IF ID	–
		opposite_if	object	×	○		Counter IF information	Designated only when facing IF exists
		fabric_type	string	○	×		Device type	"spine": Spine "leaf": Leaf
		node_id	string	○	×		Device ID	–
		if_type	string	○	×		IF type of the opposite device	"physical-if": Physical IF "breakout-if": breakoutIF
		if_id	string	○	×		IF ID of the opposite device	–
		speed	string	×	○		IF speed	Specify null if speed is not set.
		if_name	string	×	○		IF name	Specify null if speed is not set.
		qos	object	○	×		QoS capability information	–
		remarks	boolean	○	×		Remark function capability	–
		remarks_capability	string[ ]	×	○	○	Remark menu list	Specify a list of configurable remark menu.
		shaping	boolean	○	×		Shaping function capability	–
		egress_queue_capability	string[ ]	×	○	○	Egress queue menu list	Specify a list of egress queue menu.
		breakout	object	×	○		Breakout IF information	Breakout IF Only when registered
		speed	string	○	×		IF speed after separation	–
		ifs	object[ ]	○	×	×	–	–
		physical_if_id	string	○	×		Breakout IF physical ID ID	–
		if_name	string	○	×		IF name of breakout IF	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Updating physical interface
Method	PUT

URI parameter	type	overview	remarks
cluster_id	string	Switch cluster ID	–
fabric_type	string	Device type	"leafs": Leaf ※Fixed leafs
node_id	string	Device ID	–
if_id	string	Physical IF ID	–

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/physical-ifs/{if_id}

message	code	body	type	required	Allow nul	Allow empty	overview	remarks
request	–	action	string	○	×		Control type	"speed_set" : Physical port registration "speed_delete" : Physical port deletion
		speed	string	×	○		IF speed	Only the port speed specified in the IF information definition can be specified when model information of the target device is registered
response	200	–						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Creating or deleting breakout interface
Method	PATCH

URI parameter	type	overview	remarks
cluster_id	string	Switch cluster ID	–
fabric_type	string	Device type	"spines": Spine "leafs": Leaf
node_id	string	Device ID	–

option parameter	type	required	overview	remarks
notification_address	string	○	Destination address to notify completion of operation	See "Asynchronous request format" sheet
notification_port	string	○	Destination port to notify completion of operation	

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/breakout-ifs

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–		object[ ]	○	×	×	List of the target breakout IF	Set breakout IF to create of delete. Don't specify both "add" and " remove" at the same time.
		op	string	○	×		Operation type for the target breakout IF	"add": Creating breakout IF "remove": Deleting breakout IF When creating, specifying "spines" in fabric_type at URI parameter results in an error.
		path	string	○	×		Breakout IF ID	"add": "/" + "breakout IF ID for creating" "remove": "/" + "breakout IF ID for deleting" - To specify multiple breakout IF ID, specify different op/path. - Specify all the breakout IF IDs to be created to separate
		value	object	×	○		Breakout IF information	Required for creating. Setting it when deleting causes an error.
		base_if	string	○	×		Information on physical IF to be separated	–
		physical_if_id	string	○	×		Physical IF ID to be separated	–
		division_number	int	○	×		Number of Ifs to separate	–
		breakout_if_speed	string	○	×		IF speed after separation	–
response	202	operation_id	string	○	×		ID for acquiring information of asynchronous operation	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response

message	code	body	type	required	Allow null	Allow empty	overview	remarks
response	201	breakout_if_ids	string[ ]	○	×	×	Breakout IF ID list	
	204	–	–	–	–	–	–	
	Refer to the "Error response format" sheet for error response							

Interface name	Getting list of breakout interfaces
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	–
fabric_type	string	Device type	"spines" : Spine "leafs" : Leaf
node_id	string	Device ID	–

option parameter	type	required	Allow null	Allow empty	overview	remarks
format	string	–	○		Get information type	"list" : list "detail-list" : Detailed list for sliced users or detailed list for system administrator When omitted, same as "list" specification

list

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/breakout-ifs
	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/breakout-ifs?format=list

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	breakout_if ids	string[ ]	○	×	○	Breakout IF ID list	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/breakout-ifs?format=detail-list

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	breakout_ifs	object[ ]	○	×	○	Breakout IF ID list	–
		Same as information in "breakout_if" object in the "010903" sheet						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting information of breakout interface
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	–
fabric_type	string	Device type	"spines" : Spine "leafs" : Leaf
node_id	string	Device ID	–

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/breakout-ifs/{breakout_if_id}

message	code	body	type	required	Allow nul	Allow empty	overview	remarks
request	–	–	–	–	–		–	–
response	200	breakout_if	object	○	×		Breakout IF information	–
		breakout_if_id	string	○	×		Breakout IF ID	–
		speed	string	○	×		IF speed	–
		if_name	string	○	×		Breakout IF name	–
		base_if	object	○	×		Base IF	–
		physical_if_id	string	○	×		Physical IF ID	–
		qos	object	○	×		QoS capability information	–
		remarks	boolean	○	×		Remark function capability	–
		remarks_capability	string[ ]	×	○	○	Remark menu list	Specify a list of configurable remark menu.
		shaping	boolean	○	×		Shaping function capability	–
		egress_queue_capability	string[ ]	×	○	○	Egress queue menu list	Specify a list of egress queue menu.
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting list of internal-link interfaces
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	–
fabric_type	string	Device type	"spines" : Spine "leafs" : Leaf
node_id	string	Device ID	–

option parameter	type	required	overview	remarks
format	string	–	Get information type	"list" : list "detail-list" : Detailed list for sliced users or detailed list for system administrator When omitted, same as "list" specification

list

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/internal-link-ifs
	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/internal-link-ifs?format=list

message	code	body	type	requir	Allow	Allow	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	internal_link_if_ids	string[ ]	○	×	○	internal link IF ID list	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/internal-link-ifs?format=detail-list

message	code	body	type	requir	Allow	Allow	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	internal_link_ifs	object[ ]	○	×	○	internal link IF ID list	–
		Same as information in "internal_link_if" object in the "011002" sheet						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting information of internal-l
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	–
fabric_type	string	Device type	"spines" : Spine "leafs" : Leaf
node_id	string	Device ID	–
internal_link_if_id	string	Internal link IF ID	–

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/internal-link-ifs/{internal_link_if_id}

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	internal_link_if	object	○	×		Internal link IF information	–
		internal_link_if_id	string	○	×		Internal link IF ID	–
		lag_if_id	string	×	○		LagIF ID	Specify one of lag_if_id, physical_if_id, and breakout_if_id.
		physical_if_id	string	×	○		Physical IF ID	
		breakout_if_id	string	×	○		BreakoutIF ID	
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Creating Link-aggregation interfac
Method	POST

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	-
fabric_type	string	Device type	"leafs" : Leaf Fixed "leaf"
node_id	string	Device ID	-

option parameter	type	required	overview	remarks
notification_address	string	○	Destination address to notify completion of operation	See "Asynchronous request format" sheet
notification_port	string	○	Destination port to notify completion of operation	

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/lag-ifs

message	code	body	type	required	Allow nu	Allow er	overview	remarks
request	-	physical_if_ids	string[ ]	○	×	○	Physical IF ID list	Specify one of physical_if_ids, breakout_if_ids.
		breakout_if_ids	string[ ]	○	×	○	breakout IF ID list	Specify one of physical_if_ids, breakout_if_ids.
response	202	operation_id	string	○	×		ID for acquiring information of asynchronous operation	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response

message	code	body	type	required	Allow nu	Allow er	overview	remarks
response	201	lag_if_id	string	○	×		LagIF ID	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting list of Link-aggregation interfa
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	–
fabric_type	string	Device type	"spines" : Spine "leafs" : Leaf
node_id	string	Device ID	–

option parameter	type	required	overview	remarks
format	string	–	Get information type	"list" : list "detail-list" : Detailed list for sliced users or detailed list for system administrator When omitted, same as "list"

list

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/lag-ifs
	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/lag-ifs?format=list

message	code	body	type	requir	Allow	Allow	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	lag_if_ids	string[ ]	○	×	○	Lag IF ID list	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/lag-ifs?format=detail-list

message	code	body	type	requir	Allow	Allow	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	lag_ifs	object[ ]	○	×	○	Lag IF ID list	–
		Same as information in "lag_if" object in the "011003" sheet						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting information of Link-aggregat
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	–
fabric_type	string	Device type	"spines" : Spine "leafs" : Leaf
node_id	string	Device ID	–
lag_if_id	string	Internal link IF ID	–

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/lag-ifs/{lag_if_id}

message	code	body	type	required	Allow	Allow	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	lag_if	object	○	×		Lag IF information	–
		lag_if_id	string	○	×		Lag IF ID	–
		internal_options	object	×	○		Lag IF information for internal link	Set only for internal link
		ipv4_address	string	○	×		IPv4 address	–
		opposite_if	object	○	×		Opposite IF information	–
		fabric_type	string	○	×		Opposite device type	"spine" : Spine "leaf" : Leaf
		node_id	string	○	×		Opposite device ID	–
		lag_if_id	string	○	×		Opposite Lag IF ID	–
		minimum_links	int	○	×		Minimum links	–
		speed	string	○	×		IF speed	–
		if_name	string	○	×		Lag IF name	–
		physical_if_ids	string[ ]	○	×	○	Physical IF ID	Specify one of physical_if_ids, breakout_if_ids.
		breakout_if_ids	string[ ]	○	×	○	Breakout IF ID	Specify one of physical_if_ids, breakout_if_ids.
		qos	object	○	×		QoS capability information	–
		remarks	boolean	○	×		Remark function capability	–
		remarks_capability	string[ ]	×	○	○	Remark menu list	Specify a list of configurable remark menu.
		shaping	boolean	○	×		Shaping function capability	–
		egress_queue_capability	string[ ]	×	○	○	Egress queue menu list	Specify a list of egress queue menu.
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Deleting Link-aggregation interface
Method	DELETE

URI parameter	type	overview	remarks
cluster_id	string	cluster ID	–
fabric_type	string	Device type	"spines" : Spine "leafs" : Leaf
node_id	string	Device ID	–
lag_if_id	string	Internal link IF ID	–

option parameter	type	required	overview	remarks
notification_address	string	○	Destination address to notify completion of operation	See "Asynchronous request format" sheet
notification_port	string	○	Destination port to notify completion of operation	

URI	/v1/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/lag-ifs/{lag_if_id}

message	code	body	type	required	Allow	Allow	overview	remarks
request	–	–	–	–	–	–	–	–
response	202	operation_id	string	○	×		ID for acquiring information of asynchronous operation	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response

message	code	body	type	required	Allow	Allow	overview	remarks
response	204	–	–	–	–	–	–	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Creating inter-cluster link interface
Method	POST

URI parameter	type	overview	remarks
cluster_id	string	Cluster ID	-

Option parameter	type	required	overview	remarks
notification_address	string	○	Operation completion notification address	Refer to "Asynchronous request format" for specification of optional parameters to URI
notification_port	string	○	Operation completion notification destination port	

URI	/v1/clusters/{cluster_id}/interfaces/cluster-link-ifs

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	-	cluster_link_if_id	string	×	○		Inter-cluster Link ID	Assigned by MFC
		opposite_cluster_id	string	○	×		Opposite cluseter ID	-
		physical_link	object	×	○		Physical link information	physical_link or lag_link
		node_id	string	○	×		Node ID(B-Leaf ID)	-
		physical_if_id	string	×	○		Physical IF ID	physical_if_id or breakout_if_id
		breakout_if_id	string	×	○		breakout IF ID	physical_if_id or breakout_if_id
		opposite_node_id	string	○	×		Opposite node ID(B-Leaf ID)	-
		opposite_if_id	string	×	○		Opposite physical IF ID	opposite_if_id or opposite_breakout_if_id
		opposite_breakout_if_id	string	×	○		Opposite breakout IF ID	opposite_if_id or opposite_breakout_if_id
		lag_link	object	×	○		LAG link information	physical_link or lag_link
		node_id	string	○	×		Node ID(B-Leaf ID)	-
		lag_if_id	string	○	×		LagIF ID	-
		opposite_node_id	string	○	×		Opposite node ID(B-Leaf ID)	-
		opposite_lag_if_id	string	○	×		Opposite LagIF ID	-
		igp_cost	int	○	×		IGP cost	-
		port_status	boolean	×	○		Port status	true:up false:down ※Default：true
		ipv4_address	string	×	○		IF address (IPv4)	※Default：Assigned by MFC Since the prefix is fixed at / 30, no parameters are required.
		traffic_threshold	double	×	○		Traffic threshold	[Gbps]
response	202	operation_id	string	○	×		ID for acquiring information of asynchronous operation	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response
The result of the asynchronous response is set by being set in "processing result information (status_code)" and "response body part (body)" of "000103 operation detail acquisition" IF.

message	code	body	type	required	Allow null	Allow empty	overview	remarks
response	201	cluster_link_if_id	string	○	×		クラスタ間リンクIF ID	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting list of inter-cluster link interfaces
Method	GET

Option parameter	type	required	overview	remarks
format	string	-	Get information type	"list" :list "detail-list" : Detailed list for sliced users or detailed list for system administrator When omitted, same as "list" specification

list for sliced users

URI	/v1/clusters/{cluster_id}/interfaces/cluster-link-ifs
	/v1/clusters/{cluster_id}/interfaces/cluster-link-ifs?format=list

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	cluster_link_if_ids	string[ ]	○	×	○	List of Inter-link IF ID	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list for administrator

URI	/v1/clusters/{cluster_id}/interfaces/cluster-link-ifs?format=detail-list

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	cluster_link_if_ids	object[ ]	○	×	○	List of Inter-link IF ID	-
		Same as information in "cluster_link_if" object in the "011203" sheet						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting information of inter-cluster link interface
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	Cluseter ID	-
cluster_link_if_id	string	Inter-cluster Link ID	-

URI	/v1/clusters/{cluster_id}/interfaces/cluster-link-ifs/{cluster_link_if_id}

message	code	body	type	required	Allow nu	Allow em	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	cluster_link_if	object	○	×	×	Inter-cluster Link information	-
		cluster_link_if_id	string	○	×		Inter-cluster Link ID	-
		opposite_cluster_id	string	○	×		Opposite cluseter ID	-
		physical_link	object	×	○		Physical link information	physical_link or lag_link
		node_id	string	○	×		Node ID(B-Leaf ID)	-
		physical_if_id	string	×	○		Physical IF ID	physical_if_id or breakout_if_id
		breakout_if_id	string	×	○		breakout IF ID	physical_if_id or breakout_if_id
		opposite_node_id	string	○	×		Opposite node ID(B-Leaf ID)	-
		opposite_if_id	string	×	○		Opposite physical IF ID	opposite_if_id or opposite_breakout_if_id
		opposite_breakout_if_id	string	×	○		Opposite breakout IF ID	opposite_if_id or opposite_breakout_if_id
		lag_link	object	×	○		LAG link information	physical_link or lag_link
		node_id	string	○	×		Node ID(B-Leaf ID)	-
		lag_if_id	string	○	×		LagIF ID	-
		opposite_node_id	string	○	×		Opposite node ID(B-Leaf ID)	-
		opposite_lag_if_id	string	○	×		Opposite LagIF ID	-
		igp_cost	int	○	×		IGP cost	-
		port_status	boolean	○	×		Port status	true:up false:down ※Default：true
		ipv4_address	string	○	×		IF address (IPv4)	※Default：Assigned by MFC Since the prefix is fixed at / 30, no parameters are required.
		traffic_threshold	double	×	○		Traffic threshold	[Gbps]
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Deleting inter-cluster link interface
Method	DELETE

URI parameter	type	overview	remarks
cluster_id	string	Cluseter ID	-
cluster_link_if_id	string	Inter-cluster Link ID	-

Option parameter	type	required	overview	remarks
notification_address	string	○	Operation completion notification address	Refer to "Asynchronous request format" for specification of optional parameters to
notification_port	string	○	Operation completion notification destination port	

URI	/v1/clusters/{cluster_id}/interfaces/cluster-link-ifs/{cluster_link_if_id}

message	code	body	type	required	Allow nul	Allow empty	overview	remarks
request	-	-	-	-	-	-	-	-
response	202	operation_id	string	○	×		ID for acquiring information of asynchronous operati	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response

The result of the asynchronous response is set by being set in "processing result information (status_code)" and "response body part (body)" of "000103 operation detail acquisition" IF.

message	code	body	type	required	Allow nul	Allow empty	overview	remarks
response	204	-	-	-	-	-	-	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Creating edge-point
Method	POST

URI parameter	type	overview	remarks
cluster_id	string	Switch cluster ID	-

URI	/v1/clusters/{cluster_id}/points/edge-points

message	code	body	type	required	Allow null	Allow	overview	remarks
request	-	leaf_node_id	string	○	×		Leaf device ID	-
		lag_if_id	string	×	○		LagIF ID	Specify one of lag_if_id, physical_if_id, and breakout_if_id.
		physical_if_id	string	×	○		Physical IF ID	
		breakout_if_id	string	×	○		breakoutIF ID	
		traffic_threshold	double	×	○		Traffic threshold	[Gbps] designation
response	201	edge_point_id	string	○	×		edge-point ID	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting list of edge-points
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	Switch cluster ID	-

option parameter	type	required	overview	remarks
format	string	-	Get information type	"list" : list "detail-list" : Detailed list for sliced users or detailed list for system administrator When omitted, same as "list" specification.
user-type	string	-	user-type	Can be specified only when "detail-list" is specified in format. "operator" : Detailed list for system administrator ※Detailed list for sliced users when omitted

list

URI	/v1/clusters/{cluster_id}/points/edge-points /v1/clusters/{cluster_id}/points/edge-points?format=list

message	code	body	type	requir	Allow	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	edge_point_ids	string[ ]	○	×	○	Edge-point ID list information	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list for slice user

URI	/v1/clusters/{cluster_id}/points/edge-points?format=detail-list

message	code	body	type	requir	Allow	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	edge_points	object[ ]	○	×	○	Edge-point ID list information	-
		Same as information in "edge-point" object in the "011403" sheet						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list for administrator

URI	/v1/clusters/{cluster_id}/points/edge-points?format=detail-list&user-type=operator

message	code	body	type	requir	Allow	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	200	edge_points	object[ ]	○	×	○	Edge-point ID list information	-
		Same as information in "edge-point" object in the "011403" sheet (for administrator)						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting infromation of edge-point
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	Switch cluster ID	–
edge_point_id	string	edge-point ID	–

option parameter	type	required	overview	remarks
user-type	string	–	user-type	"operator" : Detailed list for system administrator ※Detailed list for sliced users when omitted

detailed list for sliced user

URI	/v1/clusters/{cluster_id}/points/edge-points/{edge_point_id}

message	code	body	type	requir	Allow	Allow	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	edge_point	object	○	×		Edge-point information	–
		edge_point_id	string	○	×		edge-point ID	–
		support_protocols	object	○	×		Support UNI connection protocol informat	–
		L2	boolean	○	×		L2 correspondence propriety	Specify true only when L2 correspondence is possible
		L3	boolean	○	×		L3 correspondence propriety	Specify true only when L3 correspondence is possible ※If true is specified, it implies that it corresponds to "direct"
		L3_protocols	string[ ]	×	○	○	Protocol list for L3	Required only if L3 is true. If unsupported, return an empty list. Described protocols are as follows. "bgp", "ospf", "static", "vrrp"
		qos	object	○	×		QoS capability information	–
		remarks	boolean	○	×		Remark function capability	–
		remarks_capability	string[]	×	○	○	Remark menu list	Specify a list of configurable remark menu.
		shaping	boolean	○	×		Shaping function capability	–
		egress_queue_capability	string[]	×	○	○	Egress queue menu list	Specify a list of egress queue menu.
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

detailed list for administrator

URI	/v1/clusters/{cluster_id}/points/edge-points/{edge_point_id}?user-type=operator

message	code	body	type	requir	Allow	Allow	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	edge_point	object	○	×		Edge-point information	–
		edge_point_id	string	○	×		edge-point ID	–
		base_if	object	○	×		base_if	–
		leaf_node_id	string	○	×		leaf_node_id	–
		lag_if_id	string	×	○		LagIF ID	Set either lag_if_id or physical_if_id or breakout_if_id
		physical_if_id	string	×	○		physical_if_id	
		breakout_if_id	string	×	○		breakoutIF ID	
		support_protocols	object	○	×		Support UNI connection protocol informat	–
		L2	boolean	○	×		L2 correspondence propriety	Specify true only when L2 correspondence is possible
		L3	boolean	○	×		L3 correspondence propriety	Specify true only when L3 correspondence is possible ※If true is specified, it implies that it corresponds to "direct"
		L3_protocols	string[ ]	×	○	○	Protocol list for L3	Required only if L3 is true. If unsupported, return an empty list. Described protocols are as follows. "bgp", "static", "vrrp"
		qos	object	○	×		QoS capability information	–
		remarks	boolean	○	×		Remark function capability	–
		remarks_capability	string[]	×	○	○	Remark menu list	Specify a list of configurable remark menu.
		shaping	boolean	○	×		Shaping function capability	–
		egress_queue_capability	string[]	×	○	○	Egress queue menu list	Specify a list of egress queue menu.
		traffic_threshold	double	×	○		Traffic threshold	[Gbps]
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Deleting edge-point
Method	DELETE

URI parameter	type	overview	remarks
cluster_id	string	Switch cluster ID	-
edge_point_id	string	edge-point ID	-

URI	/v1/clusters/{cluster_id}/points/edge-points/{edge_point_id}

message	code	body	type	requir	Allow	Allow	overview	remarks
request	-	-	-	-	-	-	-	-
response	204	-	-	-	-	-	-	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Creating Slice
Method	POST

URI parameter	type	overview	remarks
slice_type	string	Slice type	"l2vpn" : L2 slice "l3vpn" : L3 slice

URI	/v1/slices/{slice_type}

【L2 slice】

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	slice_id	string	N	Y		Slice ID to create	If not specified, MFC/FC will issue payout
		remark_menu	string	N	Y		remark menu	Select Remark menu from below. "af1" "af2" "af3" "be" "packet_color" : Follow QoS value of incoming packet When null or omitted, select the default value set at registering model information
		vrf_id	int	N	Y		The VRF ID to be set for the slice to be created	If not specified, MFC / FC will issue payout 【Parameters not shown to the host】
response	201	slice_id	string	○	×		ID uniquely paid out for each slice	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

【L3 slice】

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	slice_id	string	N	Y		Slice ID to create	If not specified, MFC/FC will issue payout
		plane	int	Y	N		Belonging side	1 : "A side" 2 : "B side"
		remark_menu	string	N	Y		remark menu	Select Remark menu from below. "af1" "af2" "af3" "be" "packet_color" : Follow QoS value of incoming packet When null or omitted, select the default value set at registering model information
		vrf_id	int	N	Y		The VRF ID to be set for the slice to be created	If not specified, MFC / FC will issue payout 【Parameters not shown to the host】
response	201	slice_id	string	Y	N		ID uniquely paid out for each slice	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Changing Slice
Method	PUT

URI parameter	type	overview	remarks
slice_type	string	Slice type	"l2vpn" : L2 slice "l3vpn" : L3 slice
slice_id	string	Slice ID	-

Option parameter	type	required	overview	remarks
notification_address	string	○	Operation completion notification address	Refer to "Asynchronous request format" for specification of optional parameters to URI
notification_port	string	○	Operation completion notification destination port	

URI	/v1/slices/{slice_type}/{slice_id}

message	code	body	type	requir	Allow null	Allow empty	overview	remarks
request	-	action	string	○	×		Control type	【リマークメニュー変更系要求】(非同期) "update_remark_menu" : リマークメニュー変更
		remark_menu	string	×	○		変更するリマークメニュー値	Only when "action" is "update_remark_menu" Select Remark menu from below. "af1" "af2" "af3" "be" "packet_color" : Follow QoS value of incoming packet When null or omitted, select the default value set at registering model information In the case of the slice which already created any CPs, if capability of "remark_menu" of the switches witch any CPs is "false", it can set only "null"
response	202	operation_id	string	○	×		ID for acquiring information of asynchronous operation	-
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response

The result of the asynchronous response is set by being set in "processing result information (status_code)" and "response body part (body)" of "000103 operation detail acquisition" IF.

message	code	body	type	requir	Allow null	Allow empty	overview	remarks
response	200	updated_cp_ids	string[ ]	○	×	○	List of IDs of CPs whose statuses have been updated	If there is no updated CP, an empty list.
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Deleting Slice
Method	DELETE

URI parameter	type	overview	remarks
slice_type	string	Slice type	"l2vpn" : L2 slice "l3vpn" : L3 slice
slice_id	string	Slice ID	–

URI	/v1/slices/{slice_type}/{slice_id}

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	–	–	–	–	–	–	–
response	204	–	–	–	–	–	–	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting Slice Information
Method	GET

URI parameter	type	overview	remarks
slice_type	string	Slice type	"l2vpn" : L2 slice "l3vpn" : L3 slice
slice_id	string	Slice ID	–

URI	/v1/slices/{slice_type}/{slice_id}

【L2 slice】

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	l2_slice	object	Y	N		L2 slice information	–
		slice_id	string	Y	N		Slice ID	–
		l2_cp_ids	string[ ]	Y	N	Y	Related L2 CP list information	–
		remark_menu	string	N	Y		Remark menu set for slice	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

【L3 slice】

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	l3_slice	object	Y	N		L3 slice information	–
		slice_id	string	Y	N		Slice ID	–
		plane	int	Y	N		Belonging side	1 : "A side" 2 : "B side"
		l3_cp_ids	string[ ]	Y	N	Y	Related L3 CP list information	–
		remark_menu	string	N	Y		Remark menu set for slice	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting Slice Information Lists
Method	GET

URI parameter	type	overview	remarks
slice_type	string	Slice type	"l2vpn" : L2 slice "l3vpn" : L3 slice

Optional parameters	type	required	overview	remarks
format	string	–	Get information type	"list" : list "detail-list" : detail list ※When omitted, same as "list" specification

【Only slice list】

URI	/v1/slices/{slice_type} /v1/slices/{slice_type}?format=list

【L2 slice】

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	l2_slice_ids	string[ ]	Y	N	Y	L2 slice ID information list	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

【L3 slice】

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	l3_slice_ids	string[ ]	Y	N	Y	L3 slice ID information list	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

【Detailed information list】

URI	/v1/slices/{slice_type}?format=detail-list

【L2 slice】

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	l2_slices	object[ ]	Y	N	Y	L2 slice ID information list	–
		Information on the contents of the l2_slice object of "020104_Get slice"						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

【L3 slice】

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	l3_slices	object[ ]	Y	N	Y	L3 slice ID information list	–
		Information on the contents of the l3_slice object of "020104_Get slice"						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Creating / Deleting (/ Updating) CP
Method	PATCH

URI parameter	type	overview	remarks
slice_type	string	slice type	"l2vpn" : L2 slice "l3vpn" : L3 slice
slice_id	string	slice ID	–

Optional parameters	type	required	overview	remarks
notification_address	string	Y	Operation completion notification address	Refer to "Asynchronous request format" for specification of optional parameters to URI
notification_port	string	Y	Operation completion notification destination port	

URI	/v1/slices/{slice_type}/{slice_id}/cps

L3 CP

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	(nameless)	object[]	Y	N	N	List of operation target CP information	Set for the number of CPs to be created or deleted. CP generation and CP deletion can not be specified at the same time.
		op	string	Y	N		Operation type to be executed for the operation target CP	Specify "add" when generating CP Specify "remove" when deleting CP [Setting value not shown to the host] Specify "replace" when changing CP
		path	string	Y	N		Destination point indicating operation target CP	When CP is generated When CP ID is not specified: "/" is specified When specifying the CP ID: "/" + "Generated CP ID" When deleting CP: "/" + "Delete CP ID" [Setting value not shown to the top] CP change: "/" + "Change CP ID"
		value	object	N	Y		[For the host] Generate CP information. 【For MFC-FC Between】 CP information to generate or change	[For the host] Required when CP generation. When deleting CP it is an error if it is specified. 【For MFC-FC Between】 When creating CP, change when CP is required.
		cluster_id	string	Y	N		Switch cluster ID	[For the host] – 【For MFC-FC Between】 Required when CP generation. Can not be specified when changing CP
		edge_point_id	string	Y	N		Edge-point ID to be created for CP	[For the host] – 【For MFC-FC Between】 Required when CP generation. Can not be specified when changing CP
		vlan_id	int	Y	N		VLAN ID	[For the host] – 【For MFC-FC Between】 Required when CP generation. Can not be specified when changing CP
		pair_cp_id	string	N	Y		Pair CP ID in multihomed configuration	Designate when multihomed
		qos	object	N	Y		QoS setting information	–
		ingress_shaping_rate	float	N	Y		ingress shaping rate	Specify a value in 1 / 10th of IF to create CP. Unit is [Gbps]. Null or omitted, there is no limit.
		egress_shaping_rate	float	N	Y		engress shaping rate	Specify a value in 1 / 10th of IF to create CP. Unit is [Gbps]. Null or omitted, there is no limit.
		egress_queue_menu	string	N	Y		egress_queue_menu	Specify the egress queur menu. Null or omitted, select the default value set at registering model information.
		esi	string	N	Y		ESI value	Required when changing CP [Setting value not shown to the host]
		lacp_system_id	string	N	Y		LACP system-id	Required when changing CP [Setting value not shown to the host]
		port_mode	string	Y	N		VLAN port mode	[For the host] "Access": Access mode "Trunk": Trunk mode 【For MFC-FC Between】 Required when CP generation. Can not be specified when changing CP "Access": Access mode "Trunk": Trunk mode
response	202	operation_id	string	Y	N		ID for getting information on asynchronous operation	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response
The result of the asynchronous response is set by being set in "processing result information (status_code)" and "response body part (body)" of "000103_Getting infromation of d" IF.

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
response	201	cp_ids	string[ ]	Y	N		List of generated CP ID	Response upon generation of CP
	204	–	–	–	–		–	Response when deleting CP
	200	–	–	–	–		–	Response when only CP change is executed. When CP generation / CP deletion and CP change are executed at the same time, they respectively respond at the time of CP generation or response at response to CP deletion. 【Response code not shown to the Rest client】
	Refer to the "Error response format" sheet for error response							

L3 CP

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	(nameless)	object[]	Y	N	N	List of operation target CP information	Set for the number of CPs to be created or deleted. CP generation and CP deletion can not be specified at the same time.
		op	string	Y	N		Operation type to be executed for the operation target CP	Specify "add" when generating CP Specify "remove" when deleting CP [Setting value not shown to the top] Specify "replace" when changing CP
		path	string	Y	N		Destination point indicating operation target CP	When CP is generated When CP ID is not specified: "/" is specified When specifying the CP ID: "/" + "Generated CP ID" CP deleted: "/" + "Delete CP ID" [Setting value not shown to the top] CP change: "/" + "Change CP ID"
		value	object	–	N		Generate CP information.	Required when CP generation. When deleting CP it is an error if specified.
		cluster_id	string	Y	N		SW cluster ID	–
		edge_point_id	string	Y	N		CP creation destination edge-point ID	–
		vlan_id	int	Y	N		VLAN ID	VLAN ID of CP 0 to 4096 (0 is used as a physical port)
		mtu	int	Y	N		MTU value per CP IF	–
		qos	object	N	Y		QoS setting information	–
		ingress_shaping_rate	float	N	Y		ingress shaping rate	Specify a value in 1 / 10th of IF to create CP. Unit is [Gbps]. Null or omitted, there is no limit.
		egress_shaping_rate	float	N	Y		engress shaping rate	Specify a value in 1 / 10th of IF to create CP. Unit is [Gbps]. Null or omitted, there is no limit.
		egress_queue_menu	string	N	Y		egress_queue_menu	Specify the egress queur menu. Null or omitted, select the default value set at registering model information.
		ipv4_address	string	N	Y		Storage device IF address (IPv4)	Either ipv6_addr is required
		ipv6_address	string	N	Y		Housing equipment IF address (IPv6)	Either ipv4_addr is required
		ipv4_prefix	int	N	Y		Housing equipment IF prefix (IPv4)	0～31 Either ipv4_addr is required
		ipv6_prefix	int	N	Y		Housing equipment IF prefix (IPv6)	0～64 Either ipv6_addr is required
		bgp	object	N	Y		Information for BGP	Specified when setting "bgp"
		role	string	Y	N		Role information	"master" "slave"
		neighbor_as	int	Y	N		Opposing AS number	–
		neighbor_ipv4_address	string	N	Y		Counter device IPv4 address	Required when ipv4_addr is specified
		neighbor_ipv6_address	string	N	Y		Counter device IPv6 address	Required when ipv6_addr is specified
		static_routes	object[]	N	Y	N	Static Route Information List	Specified when setting "static"
		addr_type	string	Y	N		IP address type	"ipv4" "inv6"
		address	string	Y	N		destination address	–
		prefix	int	Y	N		Destination prefix	–
		next_hop	string	Y	N		NEXT HOP	–
		vrrp	object	N	Y		Information for VRRP	Specified when setting "vrrp"
		group_id	int	Y	N		VRRP group ID	–
		role	string	Y	N		The role of VRRP to configure	"master" "slave"
		virtual_ipv4_address	string	N	Y		Virtual IF address (IPv4)	Required when ipv4 addr is specified
		traffic_threshold	string	N	Y		traffic_threshold	[Gbps]
response	202	operation_id	string	Y	N		ID for getting information on asynchronous operation	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response
The result of the asynchronous response is set by being set in "processing result information (status_code)" and "response body part (body)" of "000103_Getting infromation of d" IF.

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
response	201	cp_ids	string[ ]	Y	N	Y	List of generated CP ID	Response upon generation of CP
	204	–	–	–	–		–	Response when deleting CP
	Refer to the "Error response format" sheet for error response							

Interface name	Creating CP
Method	POST

URI parameter	type	overview	remarks
slice_type	string	slice type	"l2vpn" : L2 slice "l3vpn" : L3 slice
slice_id	string	slice ID	–

Optional parameters	type	required	overview	remarks
notification_address	string	Y	Operation completion notification address	Refer to "Asynchronous request format" for specification
notification_port	string	Y	Operation completion notification destination port	of optional parameters to URI

URI	/v1/slices/{slice_type}/{slice_id}/cps

L2 CP

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	cluster_id	string	Y	N		Switch cluster ID	–
		edge_point_id	string	Y	N		Edge-point ID to be created for CP	–
		vlan_id	int	Y	N		VLAN ID	VLAN ID of CP
		cp_id	string	N	Y		Create CP ID	When using the specified parameter from the higher rank
		pair_cp_id	string	N	Y		Pair CP ID in multihomed configuration	When using specified parameters from the host
		qos	object	N	Y		QoS setting information	–
		ingress_shaping_rate	float	N	Y		ingress shaping rate	Specify a value in 1 / 10th of IF to create CP. Unit is [Gbps]. Null or omitted, there is no limit.
		egress_shaping_rate	float	N	Y		engress shaping rate	Specify a value in 1 / 10th of IF to create CP. Unit is [Gbps]. Null or omitted, there is no limit.
		egress_queue_menu	string	N	Y		egress_queue_menu	Specify the egress queur menu. Null or omitted, select the default value set at registering model information.
		port_mode	string	Y	N		Port mode of VLAN	"access" : Access mode "trunk" : Trunk mode
response	202	operation_id	string	Y	N		ID for getting information on asynchronous operation	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response
The result of the asynchronous response is set by being set in "processing result information (status_code)" and "response body part (body)" of "000103_Getting infromation of d" IF.

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
response	201	cp_id	string	Y	N		Generated CP ID	–
	Refer to the "Error response format" sheet for error response							

L3 CP

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	cluster_id	string	Y	N		SW cluster ID	–
		edge_point_id	string	Y	N		CP creation destination edge-point ID	–
		vlan_id	int	Y	N		VLAN ID	VLAN ID of CP 0 to 4096 (0 is used as a physical port)
		mtu	int	Y	N		MTU value per CP IF	–
		cp_id	string	N	Y		Create CP ID	When using specified parameters from the higher rank
		qos	object	N	Y		QoS setting information	–
		ingress_shaping_rate	float	N	Y		ingress shaping rate	Specify a value in 1 / 10th of IF to create CP. Unit is [Gbps]. Null or omitted, there is no limit.
		egress_shaping_rate	float	N	Y		engress shaping rate	Specify a value in 1 / 10th of IF to create CP. Unit is [Gbps]. Null or omitted, there is no limit.
		egress_queue_menu	string	N	Y		egress_queue_menu	Specify the egress queur menu. Null or omitted, select the default value set at registering model information.
		ipv4_address	string	N	Y		Storage device IF address (IPv4)	Either ipv6 addr is required
		ipv6_address	string	N	Y		Housing equipment IF address (IPv6)	Either ipv4 addr is required
		ipv4_prefix	int	N	Y		Housing equipment IF prefix (IPv4)	0～31 Either ipv4 addr is required
		ipv6_prefix	int	N	Y		Housing equipment IF prefix (IPv6)	0～64 Either ipv6 addr is required
		bgp	object	N	Y		Information for BGP	Specified when setting "bgp"
		role	string	Y	N		Role information	"master" "slave"
		neighbor_as	int	Y	N		Opposing AS number	–
		neighbor_ipv4_address	string	N	Y		Counter device IPv4 address	Required when ipv4_addr is specified
		neighbor_ipv6_address	string	N	Y		Counter device IPv6 address	Required when ipv6_addr is specified
		static_routes	object[ ]	N	Y	N	Static Route Information List	Specified when setting "static"
		addr_type	string	Y	N		IP address type	"ipv4" "ipv6"
		address	string	Y	N		destination address	–
		prefix	int	Y	N		Destination prefix	–
		next_hop	string	Y	N		NEXT HOP	–
		vrrp	object	N	Y		Information for VRRP	Specified when setting "vrrp"
		group_id	int	Y	N		VRRP group ID	–
		role	string	Y	N		The role of VRRP to configure	"master" "slave"
		virtual_ipv4_address	string	N	Y		Virtual IF address (IPv4)	Required when ipv4_addr is specified
		traffic_threshold	double	N	Y		traffic threshold	[Gbps]
response	202	operation_id	string	Y	N		ID for getting information on asynchronous operation	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.
Asynchronous response
The result of the asynchronous response is set by being set in "processing result information (status_code)" and "response body part (body)" of "000103_Getting infromation of d" IF.

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
response	201	cp_id	string	Y	N		Generated CP ID	–
	Refer to the "Error response format" sheet for error response							

Interface name	Changing CP
Method	PUT

URI parameter	type	overview	remarks
slice_type	string	Slice type	"l2vpn" : L2 slice "l3vpn" : L3 slice
slice_id	string	Slice ID	–
cp_id	string	CP ID	–

Option parameter	type	required	overview	remarks
notification_address	string	○	Operation completion notification address	Refer to "Asynchronous request format" for specification of optional parameters to URI
notification_port	string	○	Operation completion notification destination port	

URI	/v1/slices/{slice_type}/{slice_id}/cps/{cp_id}

L2 CP

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	action	string	○	×		Control type	"update"
		update_option	object	×	○		Option information	Required when "action" is "update".
		qos_update_option	object	×	○		QoS update option	–
		ingress_shaping_rate	float	×	○		ingress shaping rate	Specify a value in 1 / 10th of IF to create CP. Unit is [Gbps]. Null or omitted, there is no limit.
		egress_shaping_rate	float	×	○		engress shaping rate	Specify a value in 1 / 10th of IF to create CP. Unit is [Gbps]. Null or omitted, there is no limit.
		egress_queue_menu	string	×	○		egress_queue_menu	Specify the egress queur menu. Null or omitted, select the default value set at registering model information.
response	202	operation_id	string	○	×		ID for getting information on asynchronous operation	
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response
The result of the asynchronous response is set by being set in "processing result information (status_code)" and "response body part (body)" of "000103 operation detail acquisition" IF.

message	code	body	type	required	Allow null	Allow empty	overview	remarks
response	200	–	–	–	–	–	–	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

L3 CP

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	action	string	○	×		Control type	"update"
		update_option	object	×	○		Option information	Required when "action" is "update".
		qos_update_option	object	×	○		QoS update option	–
		ingress_shaping_rate	float	×	○		ingress shaping rate	Specify a value in 1 / 10th of IF to create CP. Unit is [Gbps]. Null or omitted, there is no limit.
		egress_shaping_rate	float	×	○		engress shaping rate	Specify a value in 1 / 10th of IF to create CP. Unit is [Gbps]. Null or omitted, there is no limit.
		egress_queue_menu	string	×	○		egress_queue_menu	Specify the egress queur menu. Null or omitted, select the default value set at registering model information.
response	202	operation_id	string	○	×		ID for getting information on asynchronous operation	
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response
The result of the asynchronous response is set by being set in "processing result information (status_code)" and "response body part (body)" of "000103 operation detail acquisition" IF.

message	code	body	type	required	Allow null	Allow empty	overview	remarks
response	200	–	–	–	–	–	–	
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Deleting CP
Method	DELETE

URI parameter	type	overview	remarks
slice_type	string	Slice type	"l2vpn" : L2 slice "l3vpn" : L3 slice
slice_id	string	Slice ID	–
cp_id	string	CP ID	–

Optional parameters	type	required	overview	remarks
notification_address	string	Y	Operation completion notification address	Refer to "Asynchronous request format" for specification of optional parameters to URI
notification_port	string	Y	Operation completion notification destination port	

URI	/v1/slices/{slice_type}/{slice_id}/cps/{cp_id}

message	code	body	type	required	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	202	operation_id	string	Y	N		ID for getting information on asynchronous operation	–
	Refer to the "Error response format" sheet for error response							

Asynchronous response
The result of the asynchronous response is set by being set in "processing result information (status_code)" and "response body part (body)" of "000103 operation detail acquisition" IF.

message	code	body	type	required	Allow null	Allow empty	overview	remarks
response	204	–	–	–	–	–	–	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting CP Information
Method	GET

URI parameter	type	overview	remarks
slice_type	string	Slice type	"l2vpn" : L2 slice "l3vpn" : L3 slice
slice_id	string	Slice ID	–
cp_id	string	CP ID	–

URI	/v1/slices/{slice_type}/{slice_id}/cps/{cp_id}

L2 CP

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	l2_cp	object	Y	N		L2CP information	–
		cp_id	string	Y	N		L 2CP ID	–
		pair_cp_id	string	N	Y		Pair L2CP ID	–
		slice_id	string	Y	N		Slice ID	–
		cluster_id	string	Y	N		SW cluster ID	–
		edge_point_id	string	Y	N		CP creation destination edge-point ID	–
		vlan_id	int	Y	N		VLAN ID	VLAN ID of CP
		port_mode	string	Y	N		Port mode of VLAN	"access" : Access mode "trunk" : Trunk mode
		esi	string	N	Y		Current ESI setting value	ESI value currently set for the device
		lacp_system_id	string	N	Y		Current LACP system id setting value	LACP system id ESI value currently set for the device
		qos	object	Y	N		QoS setting information	–
		remark	boolean	Y	N		Remark function capability	–
		remark_capability	string[]	N	Y	Y	Remark menu list	–
		shaping	boolean	Y	N		Shaping function capability	–
		ingress_shaping_rate	float	N	Y		ingress_shaping_rate	[Gbps]
		egress_shaping_rate	float	N	Y		egress_shaping_rate	[Gbps]
		egress_queue_capability	string[]	N	Y	Y	Egress queue menu list	–
		remark_menu	string	Y	Y		Remark menu	–
		egress_queue_menu	string	Y	Y		Egress_queue_menu	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

L3 CP

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	l3_cp	object	Y	N		L3CP information	–
		cp_id	string	Y	N		L3CP ID	–
		slice_id	string	Y	N		Slice ID	–
		cluster_id	string	Y	N		SW cluster ID	–
		edge_point_id	string	Y	N		CP creation destination edge-point ID	–
		vlan_id	int	Y	N		VLAN ID	VLAN ID of CP 0 to 4096 (0 is used as a physical port)
		mtu	int	Y	N		MTU value per CP IF	–
		ipv4_address	string	N	Y		Storage device IF address (IPv4)	Described only when it is set
		ipv6_address	string	N	Y		Housing equipment IF address (IPv6)	Described only when it is set
		ipv4_prefix	int	N	Y		Housing equipment IF prefix (IPv4)	0～31 Either ipv4 addr is required
		ipv6_prefix	int	N	Y		Housing equipment IF prefix (IPv6)	0～64 Either ipv6 addr is required
		bgp	object	N	Y		Information for BGP	Specified when setting "bgp"
		role	string	Y	N		Role information	"master" "slave"
		neighbor_as	int	Y	N		Opposing AS number	–
		neighbor_ipv4_address	string	N	Y		Counter device IPv4 address	Described only when it is set
		neighbor_ipv6_address	string	N	Y		Counter device IPv6 address	Described only when it is set
		static_routes	object[ ]	N	Y	N	Static Route Information List	Described only when "static" is specified
		addr_type	string	Y	N		IP address type	"ipv4" "ipv6"
		address	string	Y	N		destination address	–
		prefix	int	Y	N		Destination prefix	–
		next hop	string	Y	N		NEXT HOP	–
		vrrp	object	N	Y		Information for VRRP	Described only when "vrrp" is specified
		group_id	int	Y	N		VRRP group ID	–
		role	string	Y	N		The role of VRRP to configure	"master" "slave"
		virtual_ipv4_address	string	N	Y		Virtual IF address (IPv4)	Described only when it is set
		qos	object	Y	N		QoS setting information	–
		remark	boolean	Y	N		Remark function capability	–
		remark_capability	string[]	N	Y	Y	Remark menu list	–
		shaping	boolean	Y	N		Shaping function capability	–
		ingress_shaping_rate	float	N	Y		ingress_shaping_rate	[Gbps]
		egress_shaping_rate	float	N	Y		egress_shaping_rate	[Gbps]
		egress_queue_capability	string[]	N	Y	Y	Egress queue menu list	–
		remark_menu	string	Y	Y		Remark menu	–
		egress_queue_menu	string	Y	Y		Egress_queue_menu	–
		traffic_threshold	string	N	Y		traffic_threshold	[Gbps]
		support_protocols	string[ ]	Y	N		Support UNI connection protocol information	List of supported protocol information "Bgp" "Static" "Vrrp" ※ l3_edge_point does not describe because it always corresponds to direct
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting CP information List
Method	GET

URI parameter	type	overview	remarks
slice_type	string	Slice type	″l2vpn″：L2 slice ″l3vpn″：L3 slice
slice_id	string	Slice ID	–

Optional parameters	type	required	overview	remarks
format	string	–	Get information type	″list″：list ″detail-list″：detail list ※When omitted, same as ″list″ specification

Information list

URI	/v1/slices/{slice_type}/{slice_id}/cps/
	/v1/slices/{slice_type}/{slice_id}/cps/?format=list

L2 CP

message	code	body	type	requir	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	l2_cp_ids	string[ ]	Y	N	Y	L2CP ID list information	–
	Refer to the ″Error response format″ sheet for error response							

Body uses JSON format.

L3 CP

message	code	body	type	requir	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	l3_cp_ids	string[ ]	Y	N	Y	L3CP ID list information	–
	Refer to the ″Error response format″ sheet for error response							

Body uses JSON format.

Detailed infromation list

URI	/v1/slices/{slice_type}/{slice_id}/cps/?format=detail-list

L2 CP

message	code	body	type	requir	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	l2_cps	object[ ]	Y	N	Y	L2CP ID list information	–
		Getting information of CP on the contents of l2_cp object of information acquisition						
	Refer to the ″Error response format″ sheet for error response							

Body uses JSON format.

L3 CP

message	code	body	type	requir	Allow null	Allow empty	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	l3_cps	object[ ]	Y	N	Y	L3CP ID list information	–
		Getting information of CP on the contents of l3_cp object of information acquisition						
	Refer to the ″Error response format″ sheet for error response							

Body uses JSON format.

Interface name	Creating / Deleting Static Route
Method	PATCH

URI parameter	type	overview	remarks
slice_type	string	Slice type	Allowed only "l3vpn"
slice_id	string	Slice ID	–
cp_id	string	CP ID	–

Optional parameters	type	required	overview	remarks
notification_address	string	Y	Operation completion notification address	Refer to "Asynchronous request format" for specification
notification_port	string	Y	Operation completion notification destination po	of optional parameters to URI

URI	/v1/slices/{slice_type}/{slice_id}/cps/{cp_id}

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	(nameless)	object[]	Y	N	N	List of operation target CP information	Static route creation and deletion can not be specified at the same time.
		op	string	Y	N		Operation type to be executed for the operation target CP	Adding static route: "add" Deleting static route: "remove"
		path	string	Y	N		Destination point indicating operation target CP	Creating static route:"/static_routes" is specified. Deleting static route:"/static_routes/"+[address type (ipv4 or ipv6)] + "_"＋[destination address]＋"_"＋[prefix] + "_" + "_" + [NEXT HOP] (/static_routes/ipv4_10.0.0.0_24_100.1.1.100)
		value	object	N	Y		Created static route information	It is necessary to specify for creating static route. But, when deleting static route, error is occurred.
		static_route	object	Y	N	N	static route inforomation	–
		addr_type	string	Y	N		IP address type	"ipv4" "ipv6"
		address	string	Y	N		destination address	–
		prefix	int	Y	N		prefix	–
		next_hop	string	Y	N		NEXT HOP	–
response	202	operation_id	string	Y	N		ID for getting information on asynchronous oper	–
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Asynchronous response
The result of the asynchronous response is set by being set in "processing result information (status_code)" and "response body part (body)" of "000103 operation detail acquisition" IF.

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
response	201	static_route_ids	string[ ]	Y	N		Generated static route id list	when adding static route
	204	–	–	–	–		–	when deleting static route
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting IF traffic information list
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	Switch cluster ID	–
fabric_type	string	fabric type	"spines" : Spine "leafs" : Leaf
node_id	string	Slice ID	–

URI	/v1/traffic/clusters/{cluster_id}/nodes/{node_id}/interfaces

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	if traffics	object[]	N	Y	Y	List of CP traffic information	List information of IF traffic collected from the target device
		Information on the contents of the cp_traffic object for acquiring CP traffic information						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting IF traffic information
Method	GET

URI parameter	type	overview	remarks
cluster_id	string	Switch cluster ID	–
fabric_type	string	fabric type	"spines":Spine "leafs":Leaf
node_id	string	Slice ID	–
if_type	string	IF type	"physical-if":Physical IF "lag-if":LagIF "breakout-if":breakoutIF
if_id	string	IF ID	–

URI	/v1/traffic/clusters/{cluster_id}/nodes/{fabric_type}/{node_id}/interfaces/{if_type}/{if_id}

message	code	body	type	required	Allow null	Allow empty array	overview	remarks
response	–	–	–	–	–	–	–	–
response	200	if_traffic	object	Y	N		Slice ID	Traffic information collected from the target device
		fabric_type	string	Y	N		fabric type	"spines":Spine "leafs":Leaf
		node_id	string	Y	N		Device ID	–
		traffic_value	object	Y	N		Traffic information	
		if_type	string	Y	N		IF type	"physical-if":Physical IF "lag-if":LagIF "breakout-if":breakoutIF
		if_id	string	Y	N		IF ID	–
		receive_rate	double	Y	N		receive rate	A value obtained by converting the number of received packets into a traffic amount (Gbps)
		send_rate	double	Y	N		transmission rate	A value obtained by converting the number of transmitted packets into the traffic volume (Gbps)
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting CP traffic information list
Method	GET

URI parameter	type	overview	remarks
slice_type	string	Slice type	Fixed below "l3vpn" : L3 slice
slice_id	string	Slice ID	–

URI	/v1/traffic/slices/{slice_type}/{slice_id}/cps

message	code	body	type	required	Allow null	Allow	overview	remarks
request	–	–	–	–	–	–	–	–
response	200	cp_traffics	object[ ]	N	Y	Y	List of CP traffic information	–
		Information on the contents of the cp_traffic object for acquiring CP traffic information						
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting CP traffic information
Method	GET

URI parameter	type	overview	remarks
slice_type	string	Slice type	Fixed below "l3vpn" : L3 slice
slice_id	string	Slice ID	–
cp_id	string	CP ID	–

URI	/v1/traffic/slices/{slice_type}/{slice_id}/cps/{cp_id}

request	code	body	type	required	Allow null	Allow empty array	overview	remarks
response	–	–	–	–	–	–	List of CP traffic information	–
response	200	cp_traffic	object	Y	N		Traffic information	–
		slice_id	string	Y	N		Slice ID	–
		cp_id	string	Y	N		CP ID	–
		traffic_value	object	Y	N			
		receive_rate	double	Y	N		receive rate	A value obtained by converting the number of received packets into a traffic amount (Gbps)
		send_rate	double	Y	N		transmission rate	A value obtained by converting the number of transmitted packets into the traffic volume (Gbps)
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.

Interface name	Getting Failure Information List
Method	GET

URI	/v1/failures/failure_status

message	code	body	type	required	Allow null	Allow empty	overview	remark
request	–	–	–	–	–	–	–	–
response	200	physical_unit	object	N	Y		Failure notification information(per physical unit)	–
		nodes	object[ ]	N	Y	Y	Node infromation list	Node failure notification
		cluster_id	string	Y	N		Cluster ID	–
		fabric_type	string	Y	N		Node type(Leaf or Spine)	–
		node_id	string	Y	N		Node ID	–
		failure_status	string	Y	N		Failure status	"up" "down"
		ifs	object[ ]	N	Y	Y	IF information list	–
		cluster_id	string	Y	N		Cluster ID	–
		fabric_type	string	Y	N		Node type(Leaf or Spine)	–
		node_id	string	Y	N		Node ID	–
		if_type	string	Y	N		IF type(see remark)	"physical-if" : physical-IF "lag-if" : LAG IF "breakout-if" : breakoutIF
		if_id	string	Y	N		IF ID	–
		failure_status	string	Y	N		Failure status	"up" "down"
		cluster_unit	object	N	Y		Failure notification information(per cluster unit)	–
		clusters	object[ ]	Y	N	Y	Cluster information	–
		cluster_id	string	Y	N		Cluster ID	–
		type	string	Y	N		type(see remark)	"edge_point" : edge-point "cluster_link-if" : inter-cluster IF "internal" : internal cluster
		id	string	N	Y		ID(see remark)	Specified "type"'s ID (i.e. if type is edge-point, edge-point id is obtained.)
		failure_status	string	Y	N		Failure status	"up" "down" "warn"
		slice_unit	object	×	○		Failure notification information(per slice unit)	–
		slices	object[ ]	○	×	○	Slice information	–
		slice_type	string	○	×		Slice type	"l2vpn" : L2Slice "l3vpn" : L3Slice
		slice_id	string	○	×		Slice ID	–
		cp_ids	string[ ]	○	×	○	CP ID list	–
		failure_status	string	○	×		Failure status	"up" "down"
		reachable_statuses	object[ ]	×	○	○	Reachability status list	Reachability status list between CP <-> CP and CP <-> inter-cluster link IF.
		cp_id	string	○	×		CP ID	One CP ID
		opposite_type	string	○	×		Opposite type	"cp" : CP "cluster link-if" : Inter-cluster Link
		opposite_id	string	○	×		The Opposite ID	ID of the type specified by "opposite type"
		reachable_status	string	○	×		Reachability status	"reachable" : Reachable "unreachable" : Unreachable
		cluster_link	object	×	○		Inter-cluster link failure information	Only FC
		reachable_statuses	object[ ]	○	×	○	Reachability status list	Reachability status list between inter-cluster link IF <-> inter-cluster link IF.
		cluster_link_if_id	string	○	×		Inter-cluster link ID	–
		opposite_cluster_link_if_id	string	○	×		Opposite inter-cluster link ID	–
		reachable_status	string	○	×		Reachability status	"reachable" : Reachable "unreachable" : Unreachable
	Refer to the "Error response format" sheet for error response							

Body uses JSON format.