

Interface Groups API v1.0

Copyright © Riverbed Technology Inc. 2024

Created Jan 16, 2024 at 02:01 PM

Overview

Overview

The documentation pages in this section describe the RESTful APIs included with Riverbed NetProfiler Product. It is assumed that the reader has practical knowledge of RESTful APIs, so the documentation does not go into detail about what REST is and how to use it. Instead the documentation focuses on how to create and manage interface groups.

Interface groups are maintained in a hierarchical form and are identified by their group path, similar to files in a Linux file system. Each interface group can contain interfaces, devices and interface sub-groups within itself.

The following operations can be performed via the API:

- Create new interface groups
- Fetch details on existing interface groups
- Update existing interface groups
- Delete existing interface groups
- Add interfaces, devices and interface sub-groups to existing interface groups
- Delete interfaces, devices and interface sub-groups from existing interface groups
- Import interface groups from XML
- Export interface groups to XML

Details about REST resources can be found in the **Resources** section. This overview continues with how to run these APIs.

Authentication

All REST requests must be authenticated. The **Authentication** section of the Common API describes which authentication methods are presently supported.

Resources

Interface Groups: Get Groups

Get all interface groups

```
GET https://{device}/api/mgmt.interface_groups/1.0/groups/all
```

Authorization

This request requires authorization.

Response Body

On success, the server returns a response body with the following structure:

JSON

```
[
  {
    "name": string,
    "description": string,
    "group_path": string,
    "parent_group_path": string,
    "member_type": string,
    "members": [
      {
      }
    ]
  }
]
```

Example:

```
[
  {
    "name": "WAN",
    "description": "All WAN interfaces known to Profiler, both optimized and non-optimized",
    "members": [
      {

```

```

"name": "Non-optimized",
"description": "WAN interfaces of non-optimizing WAN devices",
"members": [],
"group_path": "/WAN/Non-optimized",
"parent_group_path": "/WAN",
"member_type": "Interface Group"
},
{
"name": "Optimized",
"description": "WAN interfaces of Steelhead and other WAN optimization devices",
"members": [],
"group_path": "/WAN/Optimized",
"parent_group_path": "/WAN",
"member_type": "Interface Group"
}
],
"group_path": "/WAN",
"parent_group_path": "/",
"member_type": "Interface Group"
},
{
"name": "Deployment",
"description": "Layout of deployed Cascade data flow products",
"members": [
{
"ipaddr": "10.1.102.23",
"member_type": "Device",
"device_type": "Cascade Gateway Virtual Edition",
"version": "M19.0",
"interface": []
}
],
"group_path": "/Deployment",
"parent_group_path": "/",
"member_type": "Interface Group"
},
{
"name": "dummy1",
"description": "Dummy 1",
"members": [
{
"ipaddr": "10.33.131.198",
"ifindex": "1",
"member_type": "Interface"
},
{
"ipaddr": "10.33.131.198",
"ifindex": "2",
"member_type": "Interface"
},
{
"ipaddr": "10.1.11.175",
"member_type": "Device",
"device_type": "Riverbed SteelFlow",
"version": "CascadeFlow",
"interface": [
{
"ipaddr": "10.1.11.175",
"ifindex": "2"
}
]
},
{
"ipaddr": "10.44.112.7",
"member_type": "Device",
"device_type": "SteelCentral AWS VPC Flow Exporter",
"version": "1.0",
"interface": [
{
"ipaddr": "10.44.112.7",
"ifindex": "1"
}
]
},
{
"ipaddr": "40.71.236.158",
"member_type": "Device",
"device_type": "SteelCentral Azure NSG Flow Exporter",
"version": "1.1",
"interface": [
{
"ipaddr": "40.71.236.158",
"ifindex": "1",
"label": "40.71.236.158:AZURE_NSG_Flow"
}
]
},
{

```

```

{
  "ipaddr": "177.217.207.71",
  "member_type": "Device",
  "device_type": "NetFlow",
  "version": "9",
  "interface": [
    {
      "ipaddr": "177.217.207.71",
      "ifindex": "271",
      "label": "71.207.217.177.isp.timbrasil.com.br:271"
    },
    {
      "ipaddr": "177.217.207.71",
      "ifindex": "2571",
      "label": "71.207.217.177.isp.timbrasil.com.br:2571"
    }
  ]
},
{
  "name": "WAN",
  "description": "All WAN interfaces known to Profiler, both optimized and non-optimized",
  "members": [
    {
      "name": "Non-optimized",
      "description": "WAN interfaces of non-optimizing WAN devices",
      "members": [],
      "group_path": "/dummy1/WAN/Non-optimized",
      "parent_group_path": "/dummy1/WAN",
      "member_type": "Interface Group"
    },
    {
      "name": "Optimized",
      "description": "WAN interfaces of Steelhead and other WAN optimization devices",
      "members": [],
      "group_path": "/dummy1/WAN/Optimized",
      "parent_group_path": "/dummy1/WAN",
      "member_type": "Interface Group"
    }
  ],
  "group_path": "/dummy1/WAN",
  "parent_group_path": "/dummy1",
  "member_type": "Interface Group"
}
],
"group_path": "/dummy1",
"parent_group_path": "/",
"member_type": "Interface Group"
}
]

```

Property Name	Type	Description	Notes
<i>GetGroups</i>	<array of <object>>	Interface groups data	
<i>GetGroups[item]</i>	<object>	Interface group data	
<i>GetGroups[item].name</i>	<string>	Group name	
<i>GetGroups[item].description</i>	<string>	Group description	
<i>GetGroups[item].group_path</i>	<string>	Group path	
<i>GetGroups[item].parent_group_path</i>	<string>	Parent group path	
<i>GetGroups[item].member_type</i>	<string>	Type of member	Values: Interface Group, Device, Interface
<i>GetGroups[item].members</i>	<array of <object>>	List of all sub-groups and member devices and interfaces	
<i>GetGroups[item].members[item]</i>	<object>	Sub-group / device / interface data	Optional

Interface Groups: Get Group

Get an interface group

```
GET https://{device}/api/mgmt.interface_groups/1.0/groups
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "group_path": string
}
```

Example:

```
{
  "group_path": "/mygroup1/mygroup2"
}
```

Property Name	Type	Description	Notes
<i>GetGroupRequest</i>	<object>	Group identifier	
<i>GetGroupRequest.group_path</i>	<string>	Group path	

Response Body

On success, the server returns a response body with the following structure:

JSON

```
{
  "name": string,
  "description": string,
  "group_path": string,
  "parent_group_path": string,
  "member_type": string,
  "members": [
    {
    }
  ]
}
```

Example:

```
{
  "name": "mygroup2",
  "description": "My Group 2",
  "members": [
    {
      "ipaddr": "10.33.131.198",
      "ifindex": "1",
      "member_type": "Interface"
    },
    {
      "ipaddr": "10.33.131.198",
      "ifindex": "2",
      "member_type": "Interface"
    },
    {
      "ipaddr": "10.1.11.175",
      "member_type": "Device",
      "device_type": "Riverbed SteelFlow",
      "version": "CascadeFlow",
      "interface": [
        {
          "ipaddr": "10.1.11.175",
          "ifindex": "2"
        }
      ]
    },
    {
      "ipaddr": "10.44.112.7",
      "member_type": "Device",
      "device_type": "SteelCentral AWS VPC Flow Exporter",
      "version": "1.0",
      "interface": [
        {
          "ipaddr": "10.44.112.7",
          "ifindex": "1"
        }
      ]
    },
    {
      "ipaddr": "40.71.236.158",
      "member_type": "Device",
      "device_type": "SteelCentral Azure NSG Flow Exporter",
      "version": "1.1",
      "interface": [
        {
          "ipaddr": "40.71.236.158",
          "ifindex": "1",
          "label": "40.71.236.158:AZURE_NSFlow"
        }
      ]
    }
  ]
}
```

```

    ],
    {
      "ipaddr": "177.217.207.71",
      "member_type": "Device",
      "device_type": "NetFlow",
      "version": "9",
      "interface": [
        {
          "ipaddr": "177.217.207.71",
          "ifindex": "271",
          "label": "71.207.217.177.isp.timbrasil.com.br:271"
        },
        {
          "ipaddr": "177.217.207.71",
          "ifindex": "2571",
          "label": "71.207.217.177.isp.timbrasil.com.br:2571"
        }
      ]
    },
    {
      "name": "WAN",
      "description": "All WAN interfaces known to Profiler, both optimized and non-optimized",
      "members": [
        {
          "name": "Non-optimized",
          "description": "WAN interfaces of non-optimizing WAN devices",
          "members": [],
          "group_path": "/mygroup1/mygroup2/WAN/Non-optimized",
          "parent_group_path": "/mygroup1/mygroup2/WAN",
          "member_type": "Interface Group"
        },
        {
          "name": "Optimized",
          "description": "WAN interfaces of Steelhead and other WAN optimization devices",
          "members": [],
          "group_path": "/mygroup1/mygroup2/WAN/Optimized",
          "parent_group_path": "/mygroup1/mygroup2/WAN",
          "member_type": "Interface Group"
        }
      ],
      "group_path": "/mygroup1/mygroup2/WAN",
      "parent_group_path": "/mygroup1/mygroup2",
      "member_type": "Interface Group"
    }
  ],
  "group_path": "/mygroup1/mygroup2",
  "parent_group_path": "/mygroup1",
  "member_type": "Interface Group"
}

```

Property Name	Type	Description	Notes
<i>GetGroupResponse</i>	<object>	Interface group data	
<i>GetGroupResponse.name</i>	<string>	Group name	
<i>GetGroupResponse.description</i>	<string>	Group description	
<i>GetGroupResponse.group_path</i>	<string>	Group path	
<i>GetGroupResponse.parent_group_path</i>	<string>	Parent group path	
<i>GetGroupResponse.member_type</i>	<string>	Type of member	Values: Interface Group, Device, Interface
<i>GetGroupResponse.members</i>	<array of <object>>	List of all sub-groups and member devices and interfaces	
<i>GetGroupResponse.members[item]</i>	<object>	Sub-group / device / interface data	Optional

Interface Groups: Create Group

Create a new interface group

POST https://{device}/api/mgmt.interface_groups/1.0/groups

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "name": string,
  "description": string,
  "parent_group_path": string
}
```

Example:

```
{
  "name": "test3",
  "description": "Test 3",
  "parent_group_path": "/test1/test2"
}
```

Property Name	Type	Description	Notes
<i>CreateGroup</i>	<object>	Group data	
<i>CreateGroup.name</i>	<string>	Group name	
<i>CreateGroup.description</i>	<string>	Group description	
<i>CreateGroup.parent_group_path</i>	<string>	Parent group path. If not specified, group will be created at the top level	Optional; Default is /

Response Body

On success, the server does not provide any body in the responses.

Interface Groups: Update Group

Update an interface group

PUT https://{device}/api/mgmt.interface_groups/1.0/groups

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "group_path": string,
  "name": string,
  "description": string
}
```

Example:

```
{
  "group_path": "/test1/test2",
  "name": "test2new",
  "description": "Test 2 new"
}
```

Property Name	Type	Description	Notes
<i>UpdateGroup</i>	<object>	Group data	
<i>UpdateGroup.group_path</i>	<string>	Current group path	
<i>UpdateGroup.name</i>	<string>	New group name. If no change, then same as old name.	
<i>UpdateGroup.description</i>	<string>	New group description	Optional

Response Body

On success, the server does not provide any body in the responses.

Interface Groups: Delete Groups

Delete multiple interface groups

DELETE https://{device}/api/mgmt.interface_groups/1.0/groups

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "group_paths": [
    string
  ]
}

Example:
{
  "group_paths": [
    "/test1/test2/test3/test4",
    "/dummy1/dummy2"
  ]
}
```

Property Name	Type	Description	Notes
DeleteGroups	<object>	Group identifiers	
DeleteGroups.group_paths	<array of <string>>	List of group paths	
DeleteGroups.group_paths[item]	<string>	Group path	

Response Body

On success, the server does not provide any body in the responses.

Interface Groups: Import Groups

Import interface groups from XML data

```
POST https://{device}/api/mgmt.interface_groups/1.0/groups/import
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "parent_group_path": string,
  "xml_data": string,
  "replace": boolean
}

Example:
{
  "parent_group_path": "/dummy1",
  "xml_data": "<?xml version='1.0' encoding='UTF-8'?>\r\n<network_grouping version='1'\>\r\n <network_group>\r\n
<name>dummy1</name>\r\n <description>Dummy 1</description>\r\n <members>\r\n <device ipaddr='10.1.11.175'
type='Riverbed SteelFlow' version='CascadeFlow' >\r\n <interface ipaddr='10.1.11.175' ifindex='2' />\r\n </device>\r\n
<interface ipaddr='10.33.131.198' ifindex='1' />\r\n <interface ipaddr='10.33.131.198' ifindex='2' />\r\n </members>\r\n
</network_group>\r\n</network_grouping>",
  "replace": true
}
```

Property Name	Type	Description	Notes
ImportGroups	<object>	Import data	
ImportGroups.parent_group_path	<string>	Parent group path. If not specified, data will be imported at the top level.	Optional; Default is /
ImportGroups.xml_data	<string>	XML data to be imported, formatted as a string. Use the XML data (as string) obtained from the export API.	
ImportGroups.replace	<boolean>	If set, replace the existing members of the group. Else, default is to merge with the existing members.	Optional

Response Body

On success, the server does not provide any body in the responses.

Interface Groups: Export Groups

Export interface groups in XML

```
GET https://{device}/api/mgmt.interface_groups/1.0/groups/export
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "group_path": string
}
```

Example:

```
{
  "group_path": "/dummy1"
}
```

Property Name	Type	Description	Notes
<i>ExportGroupsRequest</i>	<i><object></i>	Group identifier for data to be exported	
<i>ExportGroupsRequest.group_path</i>	<i><string></i>	Group path. If not specified, data for all groups will be exported.	Optional; Default is /

Response Body

On success, the server returns a response body with the following structure:

JSON

```
{
  "group_path": string,
  "xml_data": string
}
```

Example:

```
{
  "group_path": "/dummy1",
  "xml_data": "<?xml version='1.0' encoding='UTF-8'?'>\r\n<network_grouping version='1'\>\r\n  <network_group>\r\n    <name>dummy1</name>\r\n    <description>Dummy 1</description>\r\n    <members>\r\n      <device ipaddr='10.1.11.175' type='Riverbed SteelFlow' version='CascadeFlow' >\r\n        <interface ipaddr='10.1.11.175' ifindex='2' />\r\n      </device>\r\n      <interface ipaddr='10.33.131.198' ifindex='1' />\r\n      <interface ipaddr='10.33.131.198' ifindex='2' />\r\n    </members>\r\n  </network_group>\r\n</network_grouping>"
}
```

Property Name	Type	Description	Notes
<i>ExportGroupsResponse</i>	<i><object></i>	Exported data	
<i>ExportGroupsResponse.group_path</i>	<i><string></i>	Group path	
<i>ExportGroupsResponse.xml_data</i>	<i><string></i>	Exported XML data, formatted as a string. Use this in the request body for the import API.	

Interface Group Members: Add Members

Add devices and/or interfaces to an interface group

```
POST https://{device}/api/mgmt.interface_groups/1.0/members
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "group_path": string,
  "members": [
    string
  ]
}
```

Example:

```
{
  "group_path": "/test1/test2/test3/test4",
  "members": [
    "10.1.11.175",
    "10.1.124.247",
    "10.33.131.198:1",
    "10.33.131.198:2"
  ]
}
```

Property Name	Type	Description	Notes
<i>AddMembers</i>	<object>	Member details and parent group identifier	
<i>AddMembers.group_path</i>	<string>	Parent group path	
<i>AddMembers.members</i>	<array of <string>>	List of member devices and interfaces	
<i>AddMembers.members[item]</i>	<string>	Member identifier	

Response Body

On success, the server does not provide any body in the responses.

Interface Group Members: Delete Members

Delete devices and/or interfaces from an interface group

```
DELETE https://{device}/api/mgmt.interface_groups/1.0/members
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "group_path": string,
  "members": [
    string
  ]
}
```

Example:

```
{
  "group_path": "/test1/test2/test3/test4",
  "members": [
    "10.1.11.175",
    "10.1.124.247",
    "10.33.131.198:1",
    "10.33.131.198:2"
  ]
}
```

Property Name	Type	Description	Notes
<i>DeleteMembers</i>	<object>	Member details and parent group identifier	
<i>DeleteMembers.group_path</i>	<string>	Parent group path	
<i>DeleteMembers.members</i>	<array of <string>>	List of member devices and interfaces	
<i>DeleteMembers.members[item]</i>	<string>	Member identifier	

Response Body

On success, the server does not provide any body in the responses.

Error Codes

In the event that an error occurs while processing a request, the server will respond with appropriate HTTP status code and additional information in the response body:

```
{
  "error_id": "{error identifier}",
  "error_text": "{error description}",
  "error_info": {error specific data structure, optional}
}
```

The table below lists the possible errors and the associated HTTP status codes that may returned.

Error ID	HTTP Status	Comments
BAD REQUEST	400	Invalid argument
UNAUTHORIZED	401	Authentication failed
FORBIDDEN	403	No permission to access the requested resource
NOT FOUND	404	Content not found
METHOD NOT ALLOWED	405	Method not supported for the requested resource
INTERNAL SERVER ERROR	500	Internal server error
SERVICE UNAVAILABLE	503	Service is currently unavailable