Riverbed Cascade Shark REST API v5.1

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Overview

This document describes the RESTful APIs exported by Cascade Shark products.

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 what data can be accessed or modified, how to access it, and how to encode requests and responses.

The remainder of this section lists the high level functionality exposed by the REST API and describes the data encodings for objects that are used to encode information for requests and responses.

The Resources section lists the supported REST resources and the methods supported on these resources. For each operation, the document describes what the operation does, the specific HTTP method and URL used, the data types used for requests and responses (if any) and any required or optional URL parameters.

The Data Types section describes commonly used data types in the REST API, including example encodings in both JSON and XML.

The Errors section lists the various error codes that may be returned from REST API operations.

Functionality

The Shark REST API provides programmable access to virtually all of the functionality implemented by the shark appliance, including:

- Applying views and obtaining view output
- Enumerating and examining packet data sources on the appliance (interfaces, capture jobs, trace clips, and files)
- Creating and managing trace clips
- Uploading and/or extracting packet data from the appliance
- Extracting and modifiying system configuration, including user configuration, capture job management, basic system configuration, etc.
- Managing protocol definitions (port names, port groups, layer 4 mappings, and custom applications)
- Access system version information and apply system updates
- Managing interface settings, including name, description, tap type, etc.

NOTE: Resources and methods used for authentication to the shark appliance through the API, and other resources related to querying for system information are implemented by the Riverbed Common REST API. Before accessing the Shark API, please familiarize yourself with the Common API documentation.

Data Encoding

Most resources exposed by the API support both XML and JSON encoding for requests and responses. The selection of the specific encoding is accomplished through the use of HTTP headers.

The `Accept` header should be included with all API requests, and it is used to control the encoding of the response body. To specify XML encoding, the header should be set to `Accept: text/xml`, and to specify JSON encoding, the header should be set to `Accept: application/json`. If the `Accept` header is omitted, the default encoding is XML.

The `Content-Type` header must be included with all PUT or POST requests that include a request body. To specify XML encoding, the header should be set to `Content-Type: text/xml`. To specify JSON encoding, the header should be set to `Content-Type: application/json`.

Some resources support alternative content types for requests and responses, as identified in the specific resource documentation below.

Resources

info: List supported file extensions

Get the list of Shark file extensions

GET https://{device}/api/shark/5.1/info/file_extensions

Authorization

This request requires authorization.

Response Body

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

JSON

```
[
  {
    "description": string,
    "value": string
  }
]

Example:
[
  {
    "description": "Endace ERF trace file",
    "value": "erf"
  },
  {
    "description": "Pcap trace file",
    "value": "cap"
  },
  {
    "description": "Pcap trace file",
    "value": "pcap"
  },
  {
    "description": "Pcap trace file",
    "value": "cap0"
  },
  {
    "description": "Pcap-ng trace file",
    "value": "pcapng"
  },
  {
    "description": "Pcap-ng trace file",
    "value": "ntar"
  },
  {
    "description": "Shark appliance trace file",
    "value": "svt"
  },
  {
    "description": "Virtual trace file",
    "value": "pvt"
  }
]
```

Property Name	Type	Description	Notes
file_extensions	*<array of <object>>*		
file_extensions[file_extension]	*<object>*		
file_extensions[file_extension].description	*<string>*	Description of this file extension	
file_extensions[file_extension].value	*<string>*	File extension value	

info: List supported tap types

Get the list of supported tap types

GET https://{device}/api/shark/5.1/info/tap_types

Authorization

This request requires authorization.

Response Body

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

JSON

```
[
  {
    "type_pretty": string,
    "type": string,
    "description": string
  }
]

Example:
[
  {
    "type": "NONE",
    "type_pretty": "Shark Internal",
    "description": "Timestamps applied by the shark itself based on the system clock. "
  },
  {
    "type": "CPACKET",
    "type_pretty": "cPacket",
    "description": "Timestamps applied by a cPacket cVU or cTap."
  },
  {
    "type": "GIGAMON_HEADER",
    "type_pretty": "Gigamon (Header)",
    "description": "Timestamps applied by a Gigamon SMT-436 with the SMT-TSP timestamp feature enabled, configured to store
timestamps in the packet header."
  },
  {
    "type": "GIGAMON_TRAILER",
    "type_pretty": "Gigamon (Trailer)",
    "description": "Timestamps applied by a Gigamon SMT-436 with the SMT-TSP timestamp feature enabled, configured to store
timestamps in the packet trailer."
  },
  {
    "type": "GIGAMON_TRAILER_X12",
    "type_pretty": "Gigamon (Trailer X12-TS)",
    "description": "Timestamps applied by a Gigamon GigaPORT-X12-TS, configured to store timestamps in the packet trailer."
  },
  {
    "type": "VSS",
    "type_pretty": "VSS (Timestamp only)",
    "description": "Timestamps applied by a VSS Monitoring Distributed Traffic Capture System (DTCS), configured to store only
timestamps in the packet."
  }
]
```

Property Name	Type	Description	Notes
tap_types	*<array of <object>>*	List of supported tap types	
tap_types[tap_type]	*<object>*	Information describing a supported tap type	
tap_types[tap_type].type_pretty	*<string>*	User-friendly name for the specific type of tap	
tap_types[tap_type].type	*<string>*	The type code for the tap	Values: NONE, CPACKET, GIGAMON_HEADER, GIGAMON_TRAILER, GIGAMON_TRAILER_X12, VSS, VSS_PORT_ID, ANUE, ARISTA, UNKNOWN
tap_types[tap_type].description	*<string>*	Description of the specific type of tap	

info: Get job defaults

Get capture job default settings

```
GET https://{device}/api/shark/5.1/info/job_defaults
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
  "index_size_limit": number,
  "index_size_pct": number,
  "retention_size_pct": number,
  "retention_size_limit": number,
  "snap_length": number,
  "job_name": string
}

Example:
{
  "index_size_limit": 128043712,
  "retention_size_limit": 12804371251,
  "snap_length": 65535,
  "index_size_pct": 0.427825,
  "retention_size_pct": 30.0,
  "job_name": "New Job 1"
}
```

Property Name	Type	Description	Notes
job_defaults	*<object>*	Default values for a new capture job	
job_defaults.index_size_limit	*<number>*	Default size limit (bytes) of index for new capture job	
job_defaults.index_size_pct	*<number>*	Default max percent of disk for index	
job_defaults.retention_size_pct	*<number>*	Default max percent of disk for retained capture job	
job_defaults.retention_size_limit	*<number>*	Default size limit (bytes) on retained capture job	
job_defaults.snap_length	*<number>*	Default snap length	
job_defaults.job_name	*<string>*	Default name of new job	

info: List mac vendors

Get the list of supported MAC vendors (NOTE: This is a long listing.)

```
GET https://{device}/api/shark/5.1/info/mac_vendors
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
[
  {
    "code": string,
    "name": string
  }
]

Example:
[
  {
    "code": "00:00:00",
    "name": "00:00:00"
  },
  {
    "code": "00:00:01",
    "name": "Xerox"
  }
]
```

Property Name	Type	Description	Notes
mac_vendors	*<array of <object>>*	List of MAC vendor codes	
mac_vendors[mac_vendor]	*<object>*	Vendor information	
mac_vendors[mac_vendor].code	*<string>*	Vendor code	
mac_vendors[mac_vendor].name	*<string>*	Vendor name	

info: List timezones

info: List timezones

Get the list of supported timezones

```
GET https://{device}/api/shark/5.1/info/timezones
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
 "timezones": [
  string
 ],
 "selected": string
}

Example:
{
 "timezones": [
  "Africa/Abidjan",
  "Africa/Accra",
  "Africa/Addis_Ababa",
  "Africa/Algiers",
  "Africa/Asmara",
  "Africa/Bamako",
  "Africa/Bangui",
  "Africa/Banjul",
  "America/Kentucky/Louisville",
  "America/Kentucky/Monticello",
  "America/Kralendijk",
  "America/La_Paz",
  "America/Lima",
  "America/Los_Angeles",
  "America/Lower_Princes",
  "America/Maceio",
  "America/Managua",
  "America/Manaus",
  "America/Marigot",
  "America/Martinique"
 ],
 "selected": "America/Los_Angeles"
}
```

Property Name	Type	Description	Notes
timezone_config	*<object>*	Timezone information	
timezone_config.timezones	*<array of <string>>*	List of supported timezones	
timezone_config.timezones[timezone]	*<string>*		
timezone_config.selected	*<string>*	Currently selected timezone	

---

info: List supported data types

Get the list of supported Shark data types in views

```
GET https://{device}/api/shark/5.1/info/types
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
[
  {
   "name": string,
   "calculations": [
```

```
    string
   ]
  }
]

Example:
[
  {
   "name": "NONE",
   "calculations": [
    "NONE"
   ]
  },
  {
   "name": "PROTOCOL",
   "calculations": [
    "NONE"
   ]
  },
  {
   "name": "BOOLEAN",
   "calculations": [
    "NONE"
   ]
  },
  {
   "name": "UINT8",
   "calculations": [
    "NONE",
    "SUM",
    "MAX",
    "MIN",
    "AVG",
    "TIME_AVG",
    "REPLACE"
   ]
  },
  {
   "name": "UINT16",
   "calculations": [
    "NONE",
    "SUM",
    "MAX",
    "MIN",
    "AVG",
    "TIME_AVG",
    "REPLACE"
   ]
  },
  {
   "name": "UINT24",
   "calculations": [
    "NONE",
    "SUM",
    "MAX",
    "MIN",
    "AVG",
    "TIME_AVG",
    "REPLACE"
   ]
  },
  {
   "name": "UINT32",
   "calculations": [
    "NONE",
    "SUM",
    "MAX",
    "MIN",
    "AVG",
    "TIME_AVG",
    "REPLACE"
   ]
  },
  {
   "name": "UINT64",
   "calculations": [
    "NONE",
    "SUM",
    "MAX",
    "MIN",
    "AVG",
    "TIME_AVG",
    "REPLACE"
   ]
  },
  {
   "name": "INT8",
```

```
  "calculations": [
   "NONE",
   "SUM",
   "MAX",
   "MIN",
   "AVG",
   "TIME_AVG",
   "REPLACE"
  ]
 },
 {
  "name": "INT16",
  "calculations": [
   "NONE",
   "SUM",
   "MAX",
   "MIN",
   "AVG",
   "TIME_AVG",
   "REPLACE"
  ]
 },
 {
  "name": "INT24",
  "calculations": [
   "NONE",
   "SUM",
   "MAX",
   "MIN",
   "AVG",
   "TIME_AVG",
   "REPLACE"
  ]
 },
 {
  "name": "INT32",
  "calculations": [
   "NONE",
   "SUM",
   "MAX",
   "MIN",
   "AVG",
   "TIME_AVG",
   "REPLACE"
  ]
 },
 {
  "name": "INT64",
  "calculations": [
   "NONE",
   "SUM",
   "MAX",
   "MIN",
   "AVG",
   "TIME_AVG",
   "REPLACE"
  ]
 },
 {
  "name": "FLOAT",
  "calculations": [
   "NONE",
   "SUM",
   "MAX",
   "MIN",
   "AVG",
   "TIME_AVG",
   "REPLACE"
  ]
 },
 {
  "name": "DOUBLE",
  "calculations": [
   "NONE",
   "SUM",
   "MAX",
   "MIN",
   "AVG",
   "TIME_AVG",
   "REPLACE"
  ]
 },
 {
  "name": "ABSOLUTE_TIME",
  "calculations": [
   "NONE",
   "MAX",
```

```
    "MIN"
   ]
  },
  {
   "name": "RELATIVE_TIME",
   "calculations": [
    "NONE",
    "SUM",
    "MAX",
    "MIN",
    "AVG",
    "TIME_AVG",
    "REPLACE"
   ]
  },
  {
   "name": "STRING",
   "calculations": [
    "NONE"
   ]
  },
  {
   "name": "STRINGZ",
   "calculations": [
    "NONE"
   ]
  },
  {
   "name": "SHORT_STRING",
   "calculations": [
    "NONE"
   ]
  },
  {
   "name": "UINT_STRING",
   "calculations": [
    "NONE"
   ]
  },
  {
   "name": "ETHER",
   "calculations": [
    "NONE",
    "MAX",
    "MIN"
   ]
  },
  {
   "name": "BYTES",
   "calculations": [
    "NONE"
   ]
  },
  {
   "name": "UINT_BYTES",
   "calculations": [
    "NONE"
   ]
  },
  {
   "name": "IPv4",
   "calculations": [
    "NONE",
    "MAX",
    "MIN"
   ]
  },
  {
   "name": "IPv6",
   "calculations": [
    "NONE",
    "MAX",
    "MIN"
   ]
  },
  {
   "name": "UDP_PORT",
   "calculations": [
    "NONE",
    "MAX",
    "MIN"
   ]
  },
  {
   "name": "TCP_PORT",
   "calculations": [
    "NONE",
    "MAX"
```

```
    "MAX",
    "MIN"
   ]
  },
  {
   "name": "IPXNET",
   "calculations": [
    "NONE",
    "MAX",
    "MIN"
   ]
  },
  {
   "name": "FRAMENUM",
   "calculations": [
    "NONE",
    "MAX",
    "MIN"
   ]
  },
  {
   "name": "PCRE",
   "calculations": [
    "NONE"
   ]
  },
  {
   "name": "GUID",
   "calculations": [
    "NONE",
    "MAX",
    "MIN"
   ]
  },
  {
   "name": "OID",
   "calculations": [
    "NONE",
    "MAX",
    "MIN"
   ]
  },
  {
   "name": "NUM_TYPES",
   "calculations": [
    "NONE"
   ]
  },
  {
   "name": "INDEX",
   "calculations": [
    "NONE",
    "MAX",
    "MIN"
   ]
  },
  {
   "name": "EUI64",
   "calculations": [
    "NONE"
   ]
  }
 ]
```


Property Name	Type	Description	Notes
types	*<array of <object>>*	List of supported Shark types	
types[type]	*<object>*	Information for one Shark type	
types[type].name	*<string>*	Shark type ID	Values: NONE, PROTOCOL, BOOLEAN, UINT8, UINT16, UINT24, UINT32, UINT64, INT8, INT16, INT24, INT32, INT64, FLOAT, DOUBLE, ABSOLUTE_TIME, RELATIVE_TIME, STRING, STRINGZ, SHORT_STRING, UINT_STRING, ETHER, BYTES, UINT_BYTES, IPv4, IPv6, UDP_PORT, TCP_PORT, IPXNET, FRAMENUM, PCRE, GUID, OID, NUM_TYPES, INDEX, EUI64
types[type].calculations	*<array of <string>>*	List of Shark calculations	
types[type].calculations[calculation]	*<string>*	Calculation type	Values: NONE, SUM, MAX, MIN, AVG, TIME_AVG, REPLACE

info: List supported extractor fields

info: List supported extractor fields

Get the list of supported Shark view extractor fields

```
GET https://{device}/api/shark/5.1/info/fields
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
[
  {
    "index": boolean,
    "group": string,
    "description": string,
    "dimension": boolean,
    "multi_segment": boolean,
    "index_calculations": [
      string
    ],
    "display_type": string,
    "type": string,
    "id": string,
    "name": string
  }
]
```

Example:

```
[
  {
    "group": "arp",
    "description": "Byte count of ARP packets",
    "display_type": "DEC",
    "type": "UINT64",
    "id": "arp.bytes",
    "name": "ARP Bytes"
  },
  {
    "group": "cifs",
    "description": "Indication of whether the current packet contains CIFS traffic",
    "display_type": "DEC",
    "type": "BOOLEAN",
    "id": "cifs.is_cifs",
    "name": "CIFS"
  }
]
```

Property Name	Type	Description	Notes
fields	*<array of <object>>*		
fields[field]	*<object>*		
fields[field].index	*<boolean>*	Whether or not this field is supported by the index	Optional
fields[field].group	*<string>*	Group in which the field belongs	
fields[field].description	*<string>*	Description of this field	Optional
fields[field].dimension	*<boolean>*	Whether or not the field is a dimension	Optional
fields[field].multi_segment	*<boolean>*	Whether or not the field is used for multi-segment sources	Optional
fields[field].index_calculations	*<array of <string>>*	List of calculations on this field that are supported by the index	Optional
fields[field].index_calculations [index_calculation]	*<string>*	Calculation type	Values: NONE, SUM, MAX, MIN, AVG, TIME_AVG, REPLACE
fields[field].display_type	*<string>*	Display information for a numeric field	Optional; Values: NONE, DEC, HEX, OCT, DEC_HEX, HEX_DEC, PERC
fields[field].type	*<string>*	Type of the field	Values: NONE, PROTOCOL, BOOLEAN, UINT8, UINT16, UINT24, UINT32, UINT64, INT8, INT16, INT24, INT32, INT64, FLOAT, DOUBLE, ABSOLUTE_TIME, RELATIVE_TIME, STRING, STRINGZ, SHORT_STRING, UINT_STRING, ETHER, BYTES, UINT_BYTES, IPv4, IPv6, UDP_PORT, TCP_PORT, IPXNET, FRAMENUM, PCRE, GUID, OID, NUM_TYPES, INDEX, EUI64
fields[field].id	*<string>*	Identifier of the field	

fields[field].name	*<string>*	User-friendly name of the field	

users / groups: Delete user

Delete local user

```
DELETE https://{device}/api/shark/5.1/auth/users/{user_id}
```

Authorization

This request requires authorization.

Response Body

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

users / groups: List users

Get the list of local users

```
GET https://{device}/api/shark/5.1/auth/users
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
[ user ]

Example:
[
  {
    "is_locked": false,
    "can_be_locked": false,
    "is_admin": true,
    "name": "admin",
    "groups": [
      "Administrators"
    ]
  },
  {
    "is_locked": false,
    "can_be_locked": false,
    "is_admin": false,
    "name": "normaluser",
    "groups": [
      "NormalUsers"
    ]
  }
]
```

Property Name	Type	Description	Notes
users	*<array of <user>>*	List of users	
users[user]	*<user>*	Instance of a <user>	

users / groups: Update user locked state

Update locked status of user [USER_ID]

```
PUT https://{device}/api/shark/5.1/auth/users/{user_id}/locked
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
user_id	*<string>*	User identifier	

Request Body

Provide a request body with the following structure:

JSON

```
{
  "value": boolean
}

Example:
{
  "value": false
}
```

Property Name	Type	Description	Notes
locked	*<object>*	Unlock a locked user	
locked.value	*<boolean>*	'false' to unlock a locked user. 'true' value not supported as you cannot lock an unlocked user.	

Response Body

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

---

users / groups: Update user password

Update password for local user

```
PUT https://{device}/api/shark/5.1/auth/users/{user_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
user_id	*<string>*	User identifier	

Request Body

Provide a request body with the following structure:

JSON

```
{
  "existing_password": string,
  "new_password": string
}

Example:
{
  "existing_password": "old-password",
  "new_password": "new-password"
}
```

Property Name	Type	Description	Notes
password	*<object>*	Updates user password	
password.existing_password	*<string>*	Existing password	Optional
password.new_password	*<string>*	New password	

Response Body

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

---

users / groups: Get group detail

Retrieve a user group

GET https://{device}/api/shark/5.1/auth/groups/{group_id}

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
group_id	*<string>*	Group identifier	

Response Body

Returns a *group* data object.

---

users / groups: List groups

Get the list of local user groups defined for this Shark

GET https://{device}/api/shark/5.1/auth/groups

Authorization

This request requires authorization.

Response Body

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

JSON

[*group*]

Example:

```
[
  {
    "name": "Administrators",
    "capabilities": [
      "CAPABILITY_ADMINISTRATOR"
    ],
    "description": "Administrators"
  },
  {
    "name": "NormalUsers",
    "capabilities": [
      "CAPABILITY_APPLY_VIEWS_ON_FILES",
      "CAPABILITY_APPLY_VIEWS_ON_INTERFACES",
      "CAPABILITY_SHARE_VIEWS",
      "CAPABILITY_CREATE_FILES",
      "CAPABILITY_IMPORT_FILES",
      "CAPABILITY_EXPORT_FILES",
      "CAPABILITY_SCHEDULE_WATCHES",
      "CAPABILITY_ACCESS_PROBE_FILES"
    ],
    "description": "Normal unprivileged users"
  }
]
```

Property Name	Type	Description	Notes
groups	*<array of <group>>*	List of groups	
groups[group]	*<group>*	Instance of a <group>	

---

users / groups: Delete group

Delete an existing user group

DELETE https://{device}/api/shark/5.1/auth/groups/{group_id}

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
group_id	*<string>*	Group identifier	

Response Body

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

---

users / groups: Get users detail

Get info on local user

```
GET https://{device}/api/shark/5.1/auth/users/{user_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
user_id	*<string>*	User identifier	

Response Body

Returns a *user* data object.

---

users / groups: Create group

Create a new local user group

```
POST https://{device}/api/shark/5.1/auth/groups
```

Authorization

This request requires authorization.

Request Body

Provide a *group* data object.

Response Body

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

---

users / groups: Create user

Create new local user

```
POST https://{device}/api/shark/5.1/auth/users
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
 "can_be_locked": boolean,
 "password": string,
 "name": string,
 "groups": [
  string
 ]
}

Example:
{
 "can_be_locked": true,
 "password": "testing",
 "name": "test",
 "groups": [
  "NormalUsers",
  "Viewers"
 ]
}
```

Property Name	Type	Description	Notes
user	*<object>*	Information to create a new user	
user.can_be_locked	*<boolean>*	'true' if user can get locked, 'false' otherwise	
user.password	*<string>*	User password	
user.name	*<string>*	User name	
user.groups	*<array of <string>>*	List of groups of which the user is a member	
user.groups[group]	*<string>*		

Response Body

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

---

jobs: Delete job

Delete capture job

```
DELETE https://{device}/api/shark/5.1/jobs/{job_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
job_id	*<string>*	Job identifier	

Response Body

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

---

jobs: Get job information

Get information (status and config) for a capture job

```
GET https://{device}/api/shark/5.1/jobs/{job_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
job_id	*<string>*	Job identifier	

Response Body

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

JSON

```
{
  "status": job_status,
  "index": job_index_info,
  "config": job_config,
  "id": string
}

Example:
{
  "status": {
    "packet_end_time": 1345512749000000000,
    "state": "STOPPED",
    "packet_start_time": 1344456875000000000,
    "packet_size": 44781772
  },
  "index": {
    "status": "RUNNING",
    "start_time": 1344456875000000000,
    "end_time": 1345512749000000000,
    "size": 52348800
  },
  "config": {
    "packet_retention": {
      "size_limit": 5368709120
    },
    "name": "New Job 1",
    "indexing": {
      "synced": false,
      "size_limit": 52428800,
      "dpi_enabled": true,
      "time_limit": 604800
    },
    "interface_description": "mon0",
    "snap_length": 65535,
    "interface_name": "mon0"
  },
  "id": "00000001"
}
```

Property Name	Type	Description	Notes
job	*<object>*	A capture job	
job.status	*<job_status>*	Status information for this job	
job.index	*<job_index_info>*	Index information for this job	
job.config	*<job_config>*	Configuration information for this job	
job.id	*<string>*	Job ID	

---

jobs: Update job status

Update running status of capture job

```
PUT https://{device}/api/shark/5.1/jobs/{job_id}/status
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
job_id	*<string>*	Job identifier	

Request Body

Provide a request body with the following structure:

JSON

```
{
  "clear_packets": boolean,
  "state": string
}

Example:
{
  "clear_packets": true,
  "state": "STOPPED"
}
```

Property Name	Type	Description	Notes
status	*<object>*	Update job state, optionally clear packets for job	
status.clear_packets	*<boolean>*	'true' to clear packets for this job	Optional
status.state	*<string>*	Running state of a capture job	Values: ACTIVE, RUNNING, STOPPED, UNKNOWN

Response Body

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

---

jobs: Get job status

Get status information for a capture job

```
GET https://{device}/api/shark/5.1/jobs/{job_id}/status
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
job_id	*<string>*	Job identifier	

Response Body

Returns a *job_status* data object.

---

jobs: List jobs

Get the list of configured capture jobs

```
GET https://{device}/api/shark/5.1/jobs
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
[
  {
    "status": job_status,
    "index": job_index_info,
    "config": job_config,
    "id": string
  }
]

Example:
[
  {
    "status": {
      "packet_end_time": 1345512749,
      "state": "STOPPED",
      "packet_start_time": 1344456875,
      "packet_size": 44781772
    },
    "config": {
      "snap_length": 65535,
      "interface_name": "mon0",
      "packet_retention": {
        "size_limit": 5368709120
      },
      "name": "New Job 1",
      "interface_description": "mon0"
    },
    "id": "00000001"
  }
]
```

Property Name	Type	Description	Notes
jobs	*<array of <object>>*	List of capture jobs	
jobs[job]	*<object>*	A capture job	
jobs[job].status	*<job_status>*	Status information for this job	
jobs[job].index	*<job_index_info>*	Index information for this job	
jobs[job].config	*<job_config>*	Configuration information for this job	
jobs[job].id	*<string>*	Job ID	

jobs: Get job config

Get configuration for capture job

```
GET https://{device}/api/shark/5.1/jobs/{job_id}/config
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
job_id	*<string>*	Job identifier	

Response Body

Returns a *job_config* data object.

jobs: Get job index status

Index information for capture job.

```
GET https://{device}/api/shark/5.1/jobs/{job_id}/index
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
job_id	*<string>*	Job identifier	

Response Body

Returns a *job_index_info* data object.

---

jobs: Update job configuration

Update configuration of a capture job

```
PUT https://{device}/api/shark/5.1/jobs/{job_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
job_id	*<string>*	Job identifier	

Request Body

Provide a *job_config* data object.

Response Body

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

---

jobs: Get job stats

Statistics for a capture job

```
GET https://{device}/api/shark/5.1/jobs/{job_id}/stats
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
job_id	*<string>*	Job identifier	

Response Body

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

JSON

```
{
 "packets_dropped": {
  "last_minute": number,
  "last_hour": number,
  "total": number,
  "last_second": number
 },
 "packets_written": {
  "last_minute": number,
  "last_hour": number,
  "total": number,
  "last_second": number
 }
}

Example:
{
 "packets_dropped": {
  "last_minute": 0,
  "last_second": 0,
  "total": 0,
  "last_hour": 0
 },
 "packets_written": {
  "last_minute": 1815,
  "last_second": 0,
  "total": 123387,
  "last_hour": 3019
 }
}
```

Property Name	Type	Description	Notes
job_stats	*<object>*	Capture job statistics	
*job_stats.*packets_dropped	*<object>*	Statistics for the number of packets that arrived at the capture port but could not be written successfully to the packet storage	
*job_stats.*packets_dropped.last_minute	*<number>*	Number of packets in the last minute	
*job_stats.*packets_dropped.last_hour	*<number>*	Number of packets in the last hour	
*job_stats.*packets_dropped.total	*<number>*	Total number of packets since the job was started	
*job_stats.*packets_dropped.last_second	*<number>*	Number of packets in the last second	
*job_stats.*packets_written	*<object>*	Statistics for the number of packets successfully written to the packet storage	
*job_stats.*packets_written.last_minute	*<number>*	Number of packets in the last minute	
*job_stats.*packets_written.last_hour	*<number>*	Number of packets in the last hour	
*job_stats.*packets_written.total	*<number>*	Total number of packets since the job was started	
*job_stats.*packets_written.last_second	*<number>*	Number of packets in the last second	

jobs: Create job

Create a new capture job

```
POST https://{device}/api/shark/5.1/jobs
```

Authorization

This request requires authorization.

Request Body

Provide a *job_config* data object.

Response Body

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

JSON

```
{
  "id": string
}

Example:
{
  "id": "00000001"
}
```

Property Name	Type	Description	Notes
job	*<object>*	Information for a new job	
job.id	*<string>*	Job id	

---

packet export: Get job export packets

Get the packet stream for an export operation.

```
GET https://{device}/api/shark/5.1/{source_type}/{source_id}/exports/{export_id}/packets
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
source_id	*<string>*	Specific source identifier of type {source_type}. For example, if source_type is "jobs", then the {source_id} is the job identifier.	
source_type	*<string>*	Packet source type identifier. Must be one of "interfaces", "jobs", "clips", or "fs".	
export_id	*<string>*	Export operation identifier.	

Response Body

On success, the server returns a request body containing data with content type application/vnd.tcpdump.pcap.

---

packet export: List export operations

Get the list of active export operations from the given source.

```
GET https://{device}/api/shark/5.1/{source_type}/{source_id}/exports
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
source_id	*<string>*	Specific source identifier of type {source_type}. For example, if source_type is "jobs", then the {source_id} is the job identifier.	
source_type	*<string>*	Packet source type identifier. Must be one of "interfaces", "jobs", "clips", or "fs".	

Response Body

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

JSON

[*export*]

Example:

```
[
  {
    "status": {
      "owner": "admin",
      "bytes_approx": 855784,
      "state": "RUNNING",
      "creation_time": 1364334117658433000
    },
    "config": {
      "output_format": "PCAP_US",
      "start_time": 1364230933,
      "end_time": 1364317200
    },
    "id": "000193E1"
  }
]
```

Property Name	Type	Description	Notes
exports	*<array of <export>>*	List of exports currently under way	
exports[export]	*<export>*	Instance of an <export>	

packet export: Stop export operation

Stop an export operation

```
DELETE https://{device}/api/shark/5.1/{source_type}/{source_id}/exports/{export_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
source_id	*<string>*	Specific source identifier of type {source_type}. For example, if source_type is "jobs", then the {source_id} is the job identifier.	
source_type	*<string>*	Packet source type identifier. Must be one of "interfaces", "jobs", "clips", or "fs".	
export_id	*<string>*	Export operation identifier.	

Response Body

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

packet export: Download job packets

Export packets from a capture job. Response content type is 'application/vnd.tcpdump.pcap'.

```
GET https://{device}/api/shark/5.1/{source_type}/{source_id}/packets?file_format={string}&seconds={number}&bytes={number}&filename={string}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
file_format	*<string>*	Format of output file: 'PCAP_US' for PCAP format (microsecond resolution); 'PCAP_NS' for PCAP format (nanosecond resolution); 'PCAPNG_US' for PCAP-NG format (microsecond resolution); or 'PCAPNG_NS' for PCAP_NG format (nanosecond resolution).	Optional
seconds	*<number>*	Limit on total time (in seconds) of packet extraction.	Optional
packets	*<number>*	Limit on number of packets to be extracted.	Optional
bytes	*<number>*	Limit on number of bytes to be extracted.	Optional

filename	*<string>*	Name of output filename. This will appear in the 'content-disposition' header of the response.	Optional
source_type	*<string>*	Packet source type identifier. Must be one of "interfaces", "jobs", "clips", or "fs".	
source_id	*<string>*	Specific source identifier of type {source_type}. For example, if source_type is "jobs", then the {source_id} is the job identifier.	

Response Body

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

---

packet export: Get export operation status

Get status of an export operation

```
GET https://{device}/api/shark/5.1/{source_type}/{source_id}/exports/{export_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
source_id	*<string>*	Specific source identifier of type {source_type}. For example, if source_type is "jobs", then the {source_id} is the job identifier.	
source_type	*<string>*	Packet source type identifier. Must be one of "interfaces", "jobs", "clips", or "fs".	
export_id	*<string>*	Export operation identifier.	

Response Body

Returns an *export* data object.

---

packet export: Start export operation

Create a new export operation from the given source. This begins the process of extracting packets from the given source and returns a handle through which the caller can obtain status on the operation as well as download the packets themselves.

```
POST https://{device}/api/shark/5.1/{source_type}/{source_id}/exports
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
source_id	*<string>*	Specific source identifier of type {source_type}. For example, if source_type is "jobs", then the {source_id} is the job identifier.	
source_type	*<string>*	Packet source type identifier. Must be one of "interfaces", "jobs", "clips", or "fs".	

Request Body

Provide an *export_config* data object.

Response Body

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

JSON

```
{
  "id": string
}

Example:
{
  "id": "000193E1"
}
```

Property Name	Type	Description	Notes
export_id	*<object>*		
export_id.id	*<string>*	ID of created export	

interfaces: Update interface settings

Update information on capture interface {interface_id}.

PUT https://{device}/api/shark/5.1/interfaces/{interface_id}

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
interface_id	*<string>*	Interface identifier	

Request Body

Provide a request body with the following structure:

JSON

```
{
  "tap_type": string,
  "name": string,
  "pass_thru": string,
  "dedup_status": string,
  "speed_options": [
    {
      "status": string,
      "speed_mbps": string,
      "duplex_type": string
    }
  ],
  "board_speed": {
    "status": string,
    "speed_mbps": string,
    "duplex_type": string
  },
  "description": string
}

Example:
{
  "dedup_status": "ENABLED",
  "tap_type": "GIGAMON_HEADER",
  "speed_options": [
    {
      "speed_mbps": "MBPS_10",
      "duplex_type": "HALF"
    },
    {
      "speed_mbps": "MBPS_10",
      "duplex_type": "FULL"
    },
    {
      "speed_mbps": "MBPS_100",
      "duplex_type": "HALF"
    },
    {
      "speed_mbps": "MBPS_100",
      "duplex_type": "FULL"
    },
    {
      "speed_mbps": "MBPS_1000",
      "duplex_type": "FULL"
    }
  ]
}
```

Property Name	Type	Description	Notes
interface_settings	*<object>*	Update information for a Shark physical interface. Note: If new passthru mode setting is present, all other settings are ignored.	

interface_settings.tap_type	*<string>*	New tap type setting	Optional; Values: NONE, CPACKET, GIGAMON_HEADER, GIGAMON_TRAILER, GIGAMON_TRAILER_X12, VSS, VSS_PORT_ID, ANUE, ARISTA, UNKNOWN
interface_settings.name	*<string>*	New alias for this interface	Optional
interface_settings.pass_thru	*<string>*	New passthru mode status	Optional; Values: ENABLED, DISABLED, NOT_SUPPORTED
interface_settings.dedup_status	*<string>*	New packet deduplication setting	Optional; Values: ENABLED, DISABLED, NOT_SUPPORTED
interface_settings.speed_options	*<array of <object>>*	List of link speed options	Optional
interface_settings.speed_options [link_speed_option]	*<object>*	Speed, duplex type, and status of a speed option	
interface_settings.speed_options [link_speed_option].status	*<string>*	Status of this link speed option for this interface	Optional; Values: SUPPORTED, ENABLED, NEGOTIATED
interface_settings.speed_options [link_speed_option].speed_mbps	*<string>*	Throughput for this speed option	Values: MBPS_10, MBPS_100, MBPS_1000, MBPS_10000
interface_settings.speed_options [link_speed_option].duplex_type	*<string>*	Duplex type for this speed option	Values: HALF, FULL, UNKNOWN
interface_settings.board_speed	*<object>*	Speed, duplex type, and status of a speed option	Optional
interface_settings.board_speed.status	*<string>*	Status of this link speed option for this interface	Optional; Values: SUPPORTED, ENABLED, NEGOTIATED
interface_settings.board_speed. speed_mbps	*<string>*	Throughput for this speed option	Values: MBPS_10, MBPS_100, MBPS_1000, MBPS_10000
interface_settings.board_speed. duplex_type	*<string>*	Duplex type for this speed option	Values: HALF, FULL, UNKNOWN
interface_settings.description	*<string>*	New description string for this interface	Optional

Response Body

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

---

interfaces: Update interface blink status

Request update of interface blink status.

```
PUT https://{device}/api/shark/5.1/interfaces/{interface_id}/blink_status
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
interface_id	*<string>*	Interface identifier	

Request Body

Provide a request body with the following structure:

JSON

```
{
  "blink_status": string
}

Example:
{
  "blink_status": "ON"
}
```

Property Name	Type	Description	Notes
blink_settings	*<object>*	Update interface 'blink' status	
blink_settings.blink_status	*<string>*	New 'blink' status for this interface	Values: ON, OFF, UNKNOWN

Response Body

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

---

interfaces: Get interface info

Get information on capture interface {interface_id}.

```
GET https://{device}/api/shark/5.1/interfaces/{interface_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
interface_id	*<string>*	Interface identifier	

Response Body

Returns an *interface* data object.

---

interfaces: List interfaces

Get the list of capture interfaces

```
GET https://{device}/api/shark/5.1/interfaces?filter={string}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
filter	*<string>*	'device' to limit list to physical devices; 'virtual' to limit list to virtual files; 'aggregating' to limit list to aggregating ports.	Optional

Response Body

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

JSON

[*interface*]

Example:


```
[
  {
    "interface_components": [],
    "description": "TurboCap 1Gb device no.0",
    "link": {
      "status": "UP",
      "tap_type": "NONE",
      "stats": {
        "bytes_rx": 73478815,
        "packets_rx": 1007752
      },
      "dedup_status": "DISABLED",
      "speed_options": [
        {
          "status": "ENABLED",
          "speed_mbps": "MBPS_10",
          "duplex_type": "FULL"
        },
        {
          "status": "ENABLED",
          "speed_mbps": "MBPS_10",
          "duplex_type": "HALF"
        },
        {
          "status": "ENABLED",
          "speed_mbps": "MBPS_100",
          "duplex_type": "FULL"
        },
        {
          "status": "ENABLED",
          "speed_mbps": "MBPS_100",
          "duplex_type": "HALF"
        },
        {
          "status": "NEGOTIATED",
          "speed_mbps": "MBPS_1000",
          "duplex_type": "FULL"
```

```
      }
     ],
     "mac_address": "00:e0:ed:1e:9d:1a",
     "blink_status": "OFF",
     "type": "EN10MB"
    },
    "board": {
     "pass_thru": "DISABLED",
     "type": "1G_COPPER",
     "name": "TurboCap 1 Gigabit Ethernet Board (00:e0:ed:1e:9d:1a)"
    },
    "is_promiscuous_mode": true,
    "type": "TURBOCAP_ADAPTER",
    "id": "tc0",
    "name": "tc0"
   },
   {
    "interface_components": [],
    "description": "TurboCap 1Gb device no.1",
    "link": {
     "status": "DOWN",
     "tap_type": "NONE",
     "stats": {
      "bytes_rx": 0,
      "packets_rx": 0
     },
     "dedup_status": "DISABLED",
     "speed_options": [
      {
       "status": "ENABLED",
       "speed_mbps": "MBPS_10",
       "duplex_type": "FULL"
      },
      {
       "status": "ENABLED",
       "speed_mbps": "MBPS_10",
       "duplex_type": "HALF"
      },
      {
       "status": "ENABLED",
       "speed_mbps": "MBPS_100",
       "duplex_type": "FULL"
      },
      {
       "status": "ENABLED",
       "speed_mbps": "MBPS_100",
       "duplex_type": "HALF"
      },
      {
       "status": "ENABLED",
       "speed_mbps": "MBPS_1000",
       "duplex_type": "FULL"
      }
     ],
     "mac_address": "00:e0:ed:1e:9d:1b",
     "blink_status": "OFF",
     "type": "EN10MB"
    },
    "board": {
     "pass_thru": "DISABLED",
     "type": "1G_COPPER",
     "name": "TurboCap 1 Gigabit Ethernet Board (00:e0:ed:1e:9d:1a)"
    },
    "is_promiscuous_mode": true,
    "type": "TURBOCAP_ADAPTER",
    "id": "tc1",
    "name": "tc1"
   },
   {
    "interface_components": [],
    "description": "TurboCap 1Gb device no.2",
    "link": {
     "status": "UP",
     "tap_type": "NONE",
     "stats": {
      "bytes_rx": 0,
      "packets_rx": 0
     },
     "dedup_status": "DISABLED",
     "speed_options": [
      {
       "status": "ENABLED",
       "speed_mbps": "MBPS_10",
       "duplex_type": "FULL"
      },
      {
       "status": "ENABLED",
       "speed_mbps": "MBPS_10",
```

```
      "speed_mbps": "MBPS_10",
      "duplex_type": "HALF"
     },
     {
      "status": "ENABLED",
      "speed_mbps": "MBPS_100",
      "duplex_type": "FULL"
     },
     {
      "status": "ENABLED",
      "speed_mbps": "MBPS_100",
      "duplex_type": "HALF"
     },
     {
      "status": "NEGOTIATED",
      "speed_mbps": "MBPS_1000",
      "duplex_type": "FULL"
     }
    ],
    "mac_address": "00:e0:ed:1e:9d:1c",
    "blink_status": "OFF",
    "type": "EN10MB"
   },
   "board": {
    "pass_thru": "DISABLED",
    "type": "1G_COPPER",
    "name": "TurboCap 1 Gigabit Ethernet Board (00:e0:ed:1e:9d:1c)"
   },
   "is_promiscuous_mode": true,
   "type": "TURBOCAP_ADAPTER",
   "id": "tc2",
   "name": "tc2"
  },
  {
   "interface_components": [],
   "description": "TurboCap 1Gb device no.3",
   "link": {
    "status": "UP",
    "tap_type": "NONE",
    "stats": {
     "bytes_rx": 0,
     "packets_rx": 0
    },
    "dedup_status": "DISABLED",
    "speed_options": [
     {
      "status": "ENABLED",
      "speed_mbps": "MBPS_10",
      "duplex_type": "FULL"
     },
     {
      "status": "ENABLED",
      "speed_mbps": "MBPS_10",
      "duplex_type": "HALF"
     },
     {
      "status": "ENABLED",
      "speed_mbps": "MBPS_100",
      "duplex_type": "FULL"
     },
     {
      "status": "ENABLED",
      "speed_mbps": "MBPS_100",
      "duplex_type": "HALF"
     },
     {
      "status": "NEGOTIATED",
      "speed_mbps": "MBPS_1000",
      "duplex_type": "FULL"
     }
    ],
    "mac_address": "00:e0:ed:1e:9d:1d",
    "blink_status": "OFF",
    "type": "EN10MB"
   },
   "board": {
    "pass_thru": "DISABLED",
    "type": "1G_COPPER",
    "name": "TurboCap 1 Gigabit Ethernet Board (00:e0:ed:1e:9d:1c)"
   },
   "is_promiscuous_mode": true,
   "type": "TURBOCAP_ADAPTER",
   "id": "tc3",
   "name": "tc3"
  },
  {
   "interface_components": [
    "tc2",
```

```
    "tc3"
   ],
   "description": "TurboCap Board Aggregating Port",
   "board": {
    "pass_thru": "DISABLED",
    "type": "1G_COPPER",
    "name": "TurboCap 1 Gigabit Ethernet Board (00:e0:ed:1e:9d:1c)"
   },
   "is_promiscuous_mode": true,
   "type": "BOARD_AGGREGATING",
   "id": "tc_bap_00e0ed1e9d1c",
   "name": "tc_bap_00e0ed1e9d1c"
  },
  {
   "interface_components": [
    "tc0",
    "tc1"
   ],
   "description": "TurboCap Board Aggregating Port (2)",
   "board": {
    "pass_thru": "DISABLED",
    "type": "1G_COPPER",
    "name": "TurboCap 1 Gigabit Ethernet Board (00:e0:ed:1e:9d:1a)"
   },
   "is_promiscuous_mode": true,
   "type": "BOARD_AGGREGATING",
   "id": "tc_bap_00e0ed1e9d1a",
   "name": "tc_bap_00e0ed1e9d1a"
  },
  {
   "interface_components": [
    "tc0",
    "tc1",
    "tc2",
    "tc3"
   ],
   "description": "TurboCap Aggregating Port",
   "is_promiscuous_mode": true,
   "type": "AGGREGATING",
   "id": "tc_tcap",
   "name": "tc_tcap"
  }
 ]
```


Property Name	Type	Description	Notes
interfaces	*<array of <interface>>*	List of interfaces	
interfaces[interface]	*<interface>*	Instance of an <interface>	

---

views: Get view acl

Get the access control list for running view {view_id}.

```
GET https://{device}/api/shark/5.1/views/{view_id}/acl
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
 "users": [
  {
   "owner": boolean,
   "name": string
  }
 ],
 "groups": [
  string
 ]
}
```

Example:

```
{
 "users": [
  {
   "owner": true,
   "name": "admin"
  }
 ],
 "groups": []
}
```

Property Name	Type	Description	Notes
acl	*<object>*	Access Control List	
acl.users	*<array of <object>>*	Users in the access control list	
acl.users[user]	*<object>*	User in the access list	
acl.users[user].owner	*<boolean>*	True if the user is the owner of the view	
acl.users[user].name	*<string>*	User name	
acl.groups	*<array of <string>>*	Groups in the access control list	
acl.groups[group]	*<string>*		

views: Unlock view

Unlock view {view_id}.

```
POST https://{device}/api/shark/5.1/views/{view_id}/unlock
```

Authorization

This request requires authorization.

Request Body

Do not provide a request body.

Response Body

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

views: Get view statistics

Get processing statistics for view {view_id}.

```
GET https://{device}/api/shark/5.1/views/{view_id}/stats
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
  "locked": boolean,
  "data_source_type": string,
  "state": string,
  "input_size": number,
  "time_details": {
    "start": timestamp-hp,
    "end": timestamp-hp,
    "delta": number
  },
  "processed_size": number
}

Example:
{
  "locked": false,
  "data_source_type": "PACKETS",
  "state": "DONE",
  "input_size": 190654505,
  "time_details": {
    "start": 1195590481719742000,
    "end": 1195590918719742000,
    "delta": 1000000000
  },
  "processed_size": 190654505
}
```

Property Name	Type	Description	Notes
stats	*<object>*	View statistics	
*stats.*locked	*<boolean>*	True if the view is locked	
*stats.*data_source_type	*<string>*	Data source type	Values: INDEX, PACKETS
*stats.*state	*<string>*	Handle state	Values: UNINITIALIZED, LOADED, PARAMS_LOADED, INITIALIZED, READY, RUNNING, ERRORS, DONE, CLOSING, PAUSED
*stats.*input_size	*<number>*	Size (in bytes) of the input source to process	
*stats.*time_details	*<object>*	Time details	
*stats.*time_details.start	*<timestamp-hp>*	Output start time. Can be 0 if the output has no data.	
*stats.*time_details.end	*<timestamp-hp>*	Output end time. Can be 0 if the output has no data.	
*stats.*time_details.delta	*<number>*	Output sampling rate	
*stats.*processed_size	*<number>*	Size (in bytes) of the input source currently processed	

views: Get view output legend

Get data legend for the output {output_id} in view {view_id}.

```
GET https://{device}/api/shark/5.1/views/{view_id}/data/{output_id}/legend
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
[
  {
    "description": string,
    "calculation": string,
    "id": string,
    "field": string,
    "base": string,
    "type": string,
    "dimension": boolean,
    "name": string
  }
]

Example:
[
  {
    "description": "IP protocol, TCP port or UDP port converted into a traffic type string (e.g. 'Email' or 'Web').",
    "calculation": "NONE",
    "dimension": true,
    "field": "generic.application",
    "base": "NONE",
    "type": "SHORT_STRING",
    "id": "x0",
    "name": "Traffic Type"
  },
  {
    "description": "Bit Count",
    "calculation": "TIME_AVG",
    "dimension": false,
    "field": "generic.bits",
    "base": "DEC",
    "type": "UINT64",
    "id": "x1",
    "name": "Bits"
  }
]
```

Property Name	Type	Description	Notes
legend	*<array of <object>>*	Output legend	
legend[label]	*<object>*	Legend Entry	
legend[label].description	*<string>*	Description	
legend[label].calculation	*<string>*	Calculation type	Values: NONE, SUM, MAX, MIN, AVG, TIME_AVG, REPLACE
legend[label].id	*<string>*	Id	
legend[label].field	*<string>*	Field	
legend[label].base	*<string>*	Base	Values: NONE, DEC, HEX, OCT, DEC_HEX, HEX_DEC, PERC
legend[label].type	*<string>*	Type	Values: NONE, PROTOCOL, BOOLEAN, UINT8, UINT16, UINT24, UINT32, UINT64, INT8, INT16, INT24, INT32, INT64, FLOAT, DOUBLE, ABSOLUTE_TIME, RELATIVE_TIME, STRING, STRINGZ, SHORT_STRING, UINT_STRING, ETHER, BYTES, UINT_BYTES, IPv4, IPv6, UDP_PORT, TCP_PORT, IPXNET, FRAMENUM, PCRE, GUID, OID, NUM_TYPES, INDEX, EUI64
legend[label].dimension	*<boolean>*	True if dimension	
legend[label].name	*<string>*	Name	

views: Create view

Create a new view.

```
POST https://{device}/api/shark/5.1/views
```

Authorization

This request requires authorization.

Request Body

Provide a *view* data object.

Response Body

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

JSON

```
{
  "id": string,
  "data_source_type": string
}

Example:
{
  "id": "00018ED5",
  "data_source_type": "PACKETS"
}
```

Property Name	Type	Description	Notes
view_id	*<object>*	ID of the newly created view	
view_id.id	*<string>*	View ID	
view_id.data_source_type	*<string>*	Data source type	Values: INDEX, PACKETS

---

views: Update view acl

Modify the access control list for running view {view_id}.

```
POST https://{device}/api/shark/5.1/views/{view_id}/acl
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "action": string,
  "value": string
}

Example:
{
  "action": "ADD_USER",
  "value": "normaluser"
}
```

Property Name	Type	Description	Notes
acl_action	*<object>*	Action type on the access list	
acl_action.action	*<string>*	Action type on the access list	Values: ADD_USER, REMOVE_USER, ADD_GROUP, REMOVE_GROUP
acl_action.value	*<string>*	User/group name depending on the action type	

Response Body

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

---

views: List views

Get the list of currently running views.

```
GET https://{device}/api/shark/5.1/views
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
[
  {
    "locked": boolean,
    "creation_time": timestamp-hp,
    "watches": [
      {
        "last_event_time": timestamp-hp,
        "event_count": number,
        "last_error": string,
        "state": string,
        "first_event_time": timestamp-hp,
        "id": string
      }
    ],
    "state": string,
    "owner": string,
    "id": string
  }
]

Example:
[
  {
    "locked": false,
    "creation_time": 1348518372678002,
    "watches": [],
    "state": "DONE",
    "owner": "admin",
    "id": "00018ED5"
  }
]
```

Property Name	Type	Description	Notes
views	*<array of <object>>*	View list	
views[view]	*<object>*	Summary information for a view	
views[view].locked	*<boolean>*	True if locked	
views[view].creation_time	*<timestamp-hp>*	View creation time	
views[view].watches	*<array of <object>>*	Watch list for this view	
views[view].watches[watch]	*<object>*		
views[view].watches[watch].last_event_time	*<timestamp-hp>*	Time of the last triggered event	
views[view].watches[watch].event_count	*<number>*	Number of triggered events	
views[view].watches[watch].last_error	*<string>*	Error description, if the watch is in an error state	
views[view].watches[watch].state	*<string>*	Watch state	Values: UNINITIALIZED, LOADED, PARAMS_LOADED, INITIALIZED, READY, RUNNING, ERRORS, DONE, CLOSING, PAUSED
views[view].watches[watch].first_event_time	*<timestamp-hp>*	Time of the first triggered event	
views[view].watches[watch].id	*<string>*	Watch Id	
views[view].state	*<string>*	View state	Values: UNINITIALIZED, LOADED, PARAMS_LOADED, INITIALIZED, READY, RUNNING, ERRORS, DONE, CLOSING, PAUSED
views[view].owner	*<string>*	Owner user name	
views[view].id	*<string>*	View ID	

views: Lock view

Lock view {view_id}.

```
POST https://{device}/api/shark/5.1/views/{view_id}/lock
```

Authorization

This request requires authorization.

Request Body

Do not provide a request body.

Response Body

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

---

views: Get view configuration

Get configuration for view {view_id}.

```
GET https://{device}/api/shark/5.1/views/{view_id}
```

Authorization

This request requires authorization.

Response Body

Returns a *view* data object.

---

views: Get view output data

Get data for the output {output_id} in view {view_id}.

```
GET https://{device}/api/shark/5.1/views/{view_id}/data/{output_id}?countonly={number}&end={number}&toentry={number}&start={number}&fromentry={number}&delta={string}&sorttype={string}&aggregated={string}&sortby={string}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
countonly	*<number>*	(Only available when 'aggregated' = 'true'.) Return number of rows only.	Optional
end	*<number>*	Timestamp value representing end time.	Optional
toentry	*<number>*	In paged output: number of last output row.	Optional
start	*<number>*	Timestamp value representing start time.	Optional
fromentry	*<number>*	In paged output: number of first output row. NOTE: Row numbers start from 0.	Optional
delta	*<string>*	Sampling interval, in nanoseconds	Optional
sorttype	*<string>*	'ascending' or 'descending'	Optional
aggregated	*<string>*	'true' if output is in a single sample.	Optional
sortby	*<string>*	Name (x0, x1, etc.) of column used to sort output values.	Optional

Response Body

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

JSON

```
{
  "samples": [
    {
      "gap_start": timestamp-hp,
      "value_sum": number,
      "value_count": number,
      "p": number,
      "u": number,
      "t": timestamp-hp,
      "vals": [
        [
          string
        ]
      ],
      "gap_end": timestamp-hp
    }
  ]
}

Example:
{
  "samples": [
```

```
    {
     "value_count": 5,
     "p": 391,
     "vals": [
      [
       "IM",
       "776"
      ],
      [
       "ICMP",
       "3424"
      ],
      [
       "Voice/Video",
       "4480"
      ],
      [
       "Unknown",
       "126696"
      ],
      [
       "Web",
       "2649072"
      ]
     ],
     "t": 1195590481719742000,
     "value_sum": 2784448
    },
    {
     "value_count": 6,
     "p": 416,
     "vals": [
      [
       "ICMP",
       "480"
      ],
      [
       "ARP",
       "1184"
      ],
      [
       "IM",
       "2552"
      ],
      [
       "Voice/Video",
       "4480"
      ],
      [
       "Unknown",
       "111424"
      ],
      [
       "Web",
       "2685024"
      ]
     ],
     "t": 1195590482719742000,
     "value_sum": 2805144
    },
    {
     "value_count": 4,
     "p": 390,
     "vals": [
      [
       "ARP",
       "2000"
      ],
      [
       "IM",
       "7808"
      ],
      [
       "Unknown",
       "115392"
      ],
      [
       "Web",
       "2633664"
      ]
     ],
     "t": 1195590483719742000,
     "value_sum": 2758864
    }
   ]
}
```

Property Name	Type	Description	Notes
samples	*<object>*	View output	
samples.samples	*<array of <object>>*	Samples list	
samples.samples[sample]	*<object>*	Sample for a view output	
samples.samples[sample].gap_start	*<timestamp-hp>*	Timestamp at the start of a data gap, representing a period of time in which there are no output values for the view	If present, then the vals list will be empty. In XML, a gap is encoded as <gap t1="start" t2="end"/>.
samples.samples[sample].value_sum	*<number>*	Sum of all the values for the sorting column	Optional
samples.samples[sample].value_count	*<number>*	Number of distinct rows	Optional; Present only when the output is aggregated
samples.samples[sample].p	*<number>*	Processed packet count	Optional
samples.samples[sample].u	*<number>*	Unprocessed packet count	Optional
samples.samples[sample].t	*<timestamp-hp>*	Sample timestamp	
samples.samples[sample].vals	*<array of <array of <string>>>*	Values list	In XML, the values list is encoded as <val x0="val0" x1="val1" .../>, where x0..xN correspond to the columns defined in the view configuraton
samples.samples[sample].vals[val]	*<array of <string>>*	Value	
samples.samples[sample].vals[val][val]	*<string>*		
samples.samples[sample].gap_end	*<timestamp-hp>*	Timestamp at the end of a data gap, representing a period of time in which there are no output values for the view	If present, then the vals list will be empty. In XML, a gap is encoded as <gap t1="start" t2="end"/>.

views: Delete view

Delete view {view_id}. This will stop any packet processing and delete the view results.

```
DELETE https://{device}/api/shark/5.1/views/{view_id}
```

Authorization

This request requires authorization.

Response Body

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

ping: Ping (POST)

Test availability of POST method.

```
POST https://{device}/api/shark/5.1/ping
```

Authorization

This request requires authorization.

Request Body

Do not provide a request body.

Response Body

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

ping: Ping (PUT)

Test availability of PUT method.

```
PUT https://{device}/api/shark/5.1/ping
```

Authorization

This request requires authorization.

Request Body

Do not provide a request body.

Response Body

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

---

ping: Ping (DELETE)

Test availability of DELETE method.

```
DELETE https://{device}/api/shark/5.1/ping
```

Authorization

This request requires authorization.

Response Body

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

---

ping: Ping (GET)

Generic ping response.

```
GET https://{device}/api/shark/5.1/ping
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
}
```

Property Name	Type	Description	Notes
ping	*<object>*		

---

system: Upload system update iso

Upload a new ISO file for system update

```
POST https://{device}/api/shark/5.1/system/update/iso
```

Authorization

This request requires authorization.

HTTP Headers

Property Name	Type	Description	Notes
Content-Type	*<string>*	Content type	Must be 'multipart/form-data'
Content-Disposition	*<string>*	Name of the file	Must be of the form Content-Disposition: form-data; name="iso-file"; filename="[FILENAME]"

Request Body

Provide a request body containing the update ISO file with content type multipart/form-data.

Response Body

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

system: Reinitialize storage system

Request reinitialization of storage subsystem.

POST https://{device}/api/shark/5.1/system/storage/reinitialize

Authorization

This request requires authorization.

Request Body

Do not provide a request body.

Response Body

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

system: Get version info

Get version information

GET https://{device}/api/shark/5.1/system/version_info

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
  "packet_recorder_version": string,
  "shark_version": string,
  "turbocap_api_version": string,
  "serial_number": string,
  "shark_probe_version": string,
  "turbocap_driver_version": string,
  "protocol_version": string
}

Example:
{
  "packet_recorder_version": "1.8.1005.0136",
  "protocol_version": "4.0",
  "shark_version": "10.0 (10.0.1005.0136)",
  "turbocap_api_version": "1.8.1005.0136",
  "shark_probe_version": "10.0.1000.0000",
  "turbocap_driver_version": "driver not loaded",
  "serial_number": "N/A"
}
```

Property Name	Type	Description	Notes
version_info	*<object>*		
version_info.packet_recorder_version	*<string>*	Version of the packet recorder component	
version_info.shark_version	*<string>*	User-friendly version of the system	
version_info.turbocap_api_version	*<string>*	Version of the turbocap api component	
version_info.serial_number	*<string>*	Serial number of the system	
version_info.shark_probe_version	*<string>*	Version of the embedded server component	
version_info.turbocap_driver_version	*<string>*	Version of the turbocap driver component	
version_info.protocol_version	*<string>*	Highest API version supported by the system	

system: Get system info

Get detailed system information

GET https://{device}/api/shark/5.1/system/info

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
  "webui_root_path": string,
  "uptime": number,
  "build_variant": string,
  "system_type": string,
  "start_time": timestamp-hp,
  "hostname": string,
  "has_webui": boolean,
  "build_time": string,
  "embedded_wireshark": boolean,
  "webui_port": number,
  "internal_version": string,
  "version": string,
  "view_version": string,
  "timezone": string,
  "default_user_directory": string,
  "protocol_version": string,
  "build_type": string,
  "webui_SSL": boolean,
  "local_time": timestamp-hp
}

Example:
{
  "webui_port": 443,
  "uptime": 40382739000,
  "build_variant": "TurboCap",
  "start_time": 1354579018824095000,
  "hostname": "shark.localdomain",
  "has_webui": true,
  "build_time": "Dec  3 2012 15:33:46",
  "webui_root_path": "/",
  "view_version": "3.5",
  "internal_version": "10.0.1000.0000",
  "version": "10.0",
  "system_type": "Linux",
  "protocol_version": "4.0",
  "timezone": "-0800",
  "build_type": "Debug",
  "webui_SSL": true,
  "local_time": 1354579059206834000
}
```

Property Name	Type	Description	Notes
system_info	*<object>*	Information about this Shark	
system_info.webui_root_path	*<string>*	(If web UI is enabled) Root path for web UI resources	Optional
system_info.uptime	*<number>*	Elapsed time (in nanoseconds) since this Shark was started	
system_info.build_variant	*<string>*	Variant of Shark build	
system_info.system_type	*<string>*	Operating system on which this Shark is running	
system_info.start_time	*<timestamp-hp>*	Time at which this Shark started	
system_info.hostname	*<string>*	Host name of this Shark	
system_info.has_webui	*<boolean>*	'true' if the web UI is enabled for this build	
system_info.build_time	*<string>*	Date and time at which this Shark was built	
system_info.embedded_wireshark	*<boolean>*	'true' if Wireshark is embedded with this Shark	Optional
system_info.webui_port	*<number>*	(If web UI is enabled) Port on which web UI can be accessed	Optional
system_info.internal_version	*<string>*	Current long-form version of Shark software	
system_info.version	*<string>*	Current version of Shark software	
system_info.view_version	*<string>*	Current version of Shark views	
system_info.timezone	*<string>*	UTC offset for this Shark	
system_info.default_user_directory	*<string>*	Default directory for user files	Optional
system_info.protocol_version	*<string>*	Current version of Shark REST API	

system_info.build_type	*<string>*	Type of Shark build ('Final' for production, 'Debug' for testing)	
system_info.webui_SSL	*<boolean>*	(If web UI is enabled) 'true' if web UI uses SSL for transport	Optional
system_info.local_time	*<timestamp-hp>*	Current system time	

---

system: Fetch system update iso

Request fetch of update ISO from a URL

```
POST https://{device}/api/shark/5.1/system/update/url
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
 "url": string
}

Example:
{
 "url": "http://myserver.com/isos/my.iso"
}
```

Property Name	Type	Description	Notes
update_fetch	*<object>*		
update_fetch.url	*<string>*	URL of ISO to be used for update	

Response Body

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

JSON

```
{
 "shark_user_version": string,
 "comment": string,
 "need_reboot": boolean,
 "executing_job_description": string,
 "iso_name": string,
 "shark_version": string,
 "update_to": string,
 "iso_size": number,
 "state": string,
 "iso_sha_hash": string,
 "update_to_internal": string,
 "init_id": string,
 "estimate": number,
 "pre_start_message": string
}

Example:
{
 "shark_user_version": "yyyy",
 "iso_name": "my_iso_12345.iso",
 "shark_version": "xxxx",
 "iso_size": 4564564,
 "state": "RUNNING",
 "init_id": "abc123",
 "estimate": 30
}
```

Property Name	Type	Description	Notes
update	*<object>*		
update.shark_user_version	*<string>*	Currently running system version (user string)	

update.comment	*<string>*	Message from update subsystem	Optional; In case of a 'FAILED_GRACEFUL' or 'FAILED_CRITICAL', provides a reason for failure
update.need_reboot	*<boolean>*	'true' if a the update requires a reboot	Optional
update.executing_job_description	*<string>*	Description of update task currently under way	Optional
update.iso_name	*<string>*	File name of the uploaded ISO file	Optional
update.shark_version	*<string>*	Currently running system version	
update.update_to	*<string>*	Version to which update will be carried out	Optional
update.iso_size	*<number>*	Size (in bytes) of the uploaded ISO file	Optional
update.state	*<string>*	Current state of the update	Values: NEUTRAL, INITIALIZING, INITIALIZED, RUNNING, FAILED_GRACEFUL, FAILED_CRITICAL, UNKNOWN
update.iso_sha_hash	*<string>*	SHA256 hash of the uploaded ISO file	Optional
update.update_to_internal	*<string>*	Internal version string to which update will be carried out	Optional
update.init_id	*<string>*	When status is 'INITIALIZED', the ID to be provided when starting the update (i.e. to request a state change to 'RUNNING')	Optional
update.estimate	*<number>*	Estimated time to complete update	Seconds
update.pre_start_message	*<string>*	Message from update subsystem to be displayed before starting update	Optional

---

system: Modify system update state

Update state of system update

```
PUT https://{device}/api/shark/5.1/system/update/state
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "reset": boolean,
  "init_id": string,
  "state": string
}

Example:
{
  "reset": true,
  "state": "INITIALIZED"
}
```

Property Name	Type	Description	Notes
update_state	*<object>*	Request change in update state value on server	
*update_state.*reset	*<boolean>*	If 'true', uninitializes update	Optional; Only applies when requesting 'NEUTRAL' state.
*update_state.*init_id	*<string>*	Update ID provided by the update subsystem from the most recent status request	Optional; Only valid when the requested state is 'RUNNING'. Ignored in all other requested states.
*update_state.*state	*<string>*	Requested new state of update subsystem	Values: NEUTRAL, INITIALIZING, INITIALIZED, RUNNING, FAILED_GRACEFUL, FAILED_CRITICAL, UNKNOWN

Response Body

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

JSON

```
{
  "shark_user_version": string,
  "comment": string,
  "need_reboot": boolean,
  "executing_job_description": string,
  "iso_name": string,
  "shark_version": string,
  "update_to": string,
  "iso_size": number,
  "state": string,
  "iso_sha_hash": string,
  "update_to_internal": string,
  "init_id": string,
  "estimate": number,
  "pre_start_message": string
}

Example:
{
  "shark_user_version": "yyyy",
  "iso_name": "my_iso_12345.iso",
  "shark_version": "xxxx",
  "iso_size": 4564564,
  "state": "RUNNING",
  "init_id": "abc123",
  "estimate": 30
}
```

Property Name	Type	Description	Notes
update	*<object>*		
update.shark_user_version	*<string>*	Currently running system version (user string)	
update.comment	*<string>*	Message from update subsystem	Optional; In case of a 'FAILED_GRACEFUL' or 'FAILED_CRITICAL', provides a reason for failure
update.need_reboot	*<boolean>*	'true' if a the update requires a reboot	Optional
update.executing_job_description	*<string>*	Description of update task currently under way	Optional
update.iso_name	*<string>*	File name of the uploaded ISO file	Optional
update.shark_version	*<string>*	Currently running system version	
update.update_to	*<string>*	Version to which update will be carried out	Optional
update.iso_size	*<number>*	Size (in bytes) of the uploaded ISO file	Optional
update.state	*<string>*	Current state of the update	Values: NEUTRAL, INITIALIZING, INITIALIZED, RUNNING, FAILED_GRACEFUL, FAILED_CRITICAL, UNKNOWN
update.iso_sha_hash	*<string>*	SHA256 hash of the uploaded ISO file	Optional
update.update_to_internal	*<string>*	Internal version string to which update will be carried out	Optional
update.init_id	*<string>*	When status is 'INITIALIZED', the ID to be provided when starting the update (i.e. to request a state change to 'RUNNING')	Optional
update.estimate	*<number>*	Estimated time to complete update	Seconds
update.pre_start_message	*<string>*	Message from update subsystem to be displayed before starting update	Optional

system: Restart system

Restart the shark service or reboot the system.

```
POST https://{device}/api/shark/5.1/system/restart
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "type": string
}

Example:
{
  "type": "PROBE"
}
```

Property Name	Type	Description	Notes
restart	*<object>*	Configuration to restart	
restart.type	*<string>*	Type of service to restart	Values: SHARK, PROBE, PACKETRECORDER

Response Body

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

---

system: Format storage system

Request packet storage reformat.

```
POST https://{device}/api/shark/5.1/system/format_storage
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "reserved_space": number
}

Example:
{
  "reserved_space": 10
}
```

Property Name	Type	Description	Notes
format_storage	*<object>*	Configuration information to format the packet storage	
format_storage.reserved_space	*<number>*	Percentage of unused space at the end of the packet storage	

Response Body

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

---

system: Get audit log

Get the audit log as a text file. Response content type is 'text/plain'.

```
GET https://{device}/api/shark/5.1/system/audit_log
```

Authorization

This request requires authorization.

Response Body

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

---

system: Generate system dump

```
GET https://{device}/api/shark/5.1/system/sysdump?dump_type={string}&case_id={string}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
dump_type	*<string>*	'CURRENT': Includes current Shark Probe and Shark Packet Recorder logs; 'PROBE': Includes all Shark Probe logs; 'PACKETRECORDER': Includes all Shark Packet Recorder logs; 'COMPLETE': Includes all Shark Probe and Shark Packet Recorder logs.	Optional
case_id	*<string>*	Optional case ID to be attached to output file name.	Optional

Response Body

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

---

system: Get system update status

Get current system update status

```
GET https://{device}/api/shark/5.1/system/update
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
  "shark_user_version": string,
  "comment": string,
  "need_reboot": boolean,
  "executing_job_description": string,
  "iso_name": string,
  "shark_version": string,
  "update_to": string,
  "iso_size": number,
  "state": string,
  "iso_sha_hash": string,
  "update_to_internal": string,
  "init_id": string,
  "estimate": number,
  "pre_start_message": string
}

Example:
{
  "shark_user_version": "yyyy",
  "iso_name": "my_iso_12345.iso",
  "shark_version": "xxxx",
  "iso_size": 4564564,
  "state": "RUNNING",
  "init_id": "abc123",
  "estimate": 30
}
```

Property Name	Type	Description	Notes
update	*<object>*		
update.shark_user_version	*<string>*	Currently running system version (user string)	
update.comment	*<string>*	Message from update subsystem	Optional; In case of a 'FAILED_GRACEFUL' or 'FAILED_CRITICAL', provides a reason for failure
update.need_reboot	*<boolean>*	'true' if a the update requires a reboot	Optional
update.executing_job_description	*<string>*	Description of update task currently under way	Optional
update.iso_name	*<string>*	File name of the uploaded ISO file	Optional
update.shark_version	*<string>*	Currently running system version	
update.update_to	*<string>*	Version to which update will be carried out	Optional
update.iso_size	*<number>*	Size (in bytes) of the uploaded ISO file	Optional

update.state	*<string>*	Current state of the update	Values: NEUTRAL, INITIALIZING, INITIALIZED, RUNNING, FAILED_GRACEFUL, FAILED_CRITICAL, UNKNOWN
update.iso_sha_hash	*<string>*	SHA256 hash of the uploaded ISO file	Optional
update.update_to_internal	*<string>*	Internal version string to which update will be carried out	Optional
update.init_id	*<string>*	When status is 'INITIALIZED', the ID to be provided when starting the update (i.e. to request a state change to 'RUNNING')	Optional
update.estimate	*<number>*	Estimated time to complete update	Seconds
update.pre_start_message	*<string>*	Message from update subsystem to be displayed before starting update	Optional

---

system: Shutdown system

Shut down the system.

```
POST https://{device}/api/shark/5.1/system/shutdown
```

Authorization

This request requires authorization.

Request Body

Do not provide a request body.

Response Body

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

---

system: Get system storage info

Get storage monitor status

```
GET https://{device}/api/shark/5.1/system/storage
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
 "total_space": number,
 "disks": [
  {
   "expected_serial": string,
   "label": string,
   "state_type": string,
   "state": string,
   "row_id": string,
   "column_id": string,
   "model": string,
   "serial": string
  }
 ],
 "allocated_space": number,
 "used_space": number,
 "state_type": string,
 "state": string,
 "available_space": number,
 "can_reinitialize": boolean
}

Example:
{
 "total_space": 42815455232,
 "disks": [
  {
   "column_id": "0",
   "state_type": "OK",
   "state": "OK",
   "model": "N/A",
   "label": "N/A",
   "row_id": "0",
   "serial": "N/A"
  }
 ],
 "allocated_space": 11811160064,
 "used_space": 11676942336,
 "state_type": "OK",
 "state": "OK",
 "available_space": 31138512896,
 "can_reinitialize": true
}
```

Property Name	Type	Description	Notes
storage	*<object>*		
storage.total_space	*<number>*	Total space in the storage system	Optional
storage.disks	*<array of <object>>*	List of disks in the storage system	Optional
storage.disks[disk]	*<object>*	Storage system disk information	
storage.disks[disk].expected_serial	*<string>*	Expected serial number of the disk	Optional
storage.disks[disk].label	*<string>*	Label of the disk	
storage.disks[disk].state_type	*<string>*	State code of the disk	Values: OK, WARNING, ERROR
storage.disks[disk].state	*<string>*	State description of the disk	
storage.disks[disk].row_id	*<string>*	Row number for the disk	
storage.disks[disk].column_id	*<string>*	Column number for the disk	
storage.disks[disk].model	*<string>*	Model of the disk	
storage.disks[disk].serial	*<string>*	Serial number of the disk	
storage.allocated_space	*<number>*	Allocated space in the storage system	Optional
storage.used_space	*<number>*	Used space in the storage system	Optional
storage.state_type	*<string>*	State code of the storage system	Values: OK, WARNING, ERROR
storage.state	*<string>*	State description of the storage system	
storage.available_space	*<number>*	Available space in the storage system	Optional
storage.can_reinitialize	*<boolean>*	Whether or not the storage system can be reinitialized	Optional

watches: Enable watch

Enable watch {watch_id} on view {view_id}.

```
POST https://{device}/api/shark/5.1/views/{view_id}/watches/{watch_id}/enable
```

Authorization

This request requires authorization.

Request Body

Do not provide a request body.

Response Body

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

---

watches: Create watch

Create a new watch for view {view_id}.

```
POST https://{device}/api/shark/5.1/views/{view_id}/watches
```

Authorization

This request requires authorization.

Request Body

Provide a *watch* data object.

Response Body

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

---

watches: List watches

Get the list of watches for view {view_id}.

```
GET https://{device}/api/shark/5.1/views/{view_id}/watches
```

Authorization

This request requires authorization.

Response Body

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

JSON

[*watch*]

Example:


```
[
  {
    "info": {
      "name": "Watch 1"
    },
    "severity": 6,
    "triggers": [
      {
        "condition_operator": "AND",
        "conditions": [
          {
            "field": "c2",
            "condition_info": {
              "aggregation_type": "VALUE",
              "value": "0",
              "check_type": "GREATER"
            }
          }
        ],
        "bool_operator": "OR",
        "dimension_restrictions": {
          "sub_restrictions": [],
          "restrictions": [
            {
              "field": "c1",
              "value": "Web"
            }
          ],
          "bool_operator": "OR"
        },
        "uid": "Trigger 1"
      }
    ],
    "watch_uid": "watch_1",
    "enabled": true,
    "actions": {
      "fired_triggers": {
        "bool_operator": "AND",
        "triggering_mode": "LEADINGEDGE",
        "triggers": [
          "Trigger 1"
        ]
      },
      "actions": [
        {
          "type": "InternalDBLog",
          "uid": "Action 1",
          "parameters": [],
          "side": "SERVER"
        }
      ]
    },
    "timing": {
      "from": "NOW",
      "time_analysis_mode": "SAMPLE_BY_SAMPLE",
      "interval_ms": 1000
    },
    "output_uid": "OUID_Output_Over_Time"
  }
]
```


Property Name	Type	Description	Notes
watches	*<array of <watch>>*	Watch list	
watches[watch]	*<watch>*	Instance of a <watch>	

watches: Disable watch

Disable watch {watch_id} on view {view_id}.

POST https://{device}/api/shark/5.1/views/{view_id}/watches/{watch_id}/disable

Authorization

This request requires authorization.

Request Body

Do not provide a request body.

Response Body

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

---

watches: Delete watch

Delete watch {watch_id} on view {view_id}.

```
DELETE https://{device}/api/shark/5.1/views/{view_id}/watches/{watch_id}
```

Authorization

This request requires authorization.

Response Body

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

---

watches: Update watch

Update configuration for watch {watch_id} on view {view_id}.

```
PUT https://{device}/api/shark/5.1/views/{view_id}/watches/{watch_id}
```

Authorization

This request requires authorization.

Request Body

Provide a *watch* data object.

Response Body

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

---

watches: Get watch detail

Config information for watch {watch_id} on view {view_id}.

```
GET https://{device}/api/shark/5.1/views/{view_id}/watches/{watch_id}
```

Authorization

This request requires authorization.

Response Body

Returns a *watch* data object.

---

clips: Get clip index info

Index info for clip {clip_id}

```
GET https://{device}/api/shark/5.1/clips/{clip_id}/index
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
clip_id	*<string>*	Clip identifier	

Response Body

Returns an *index_info* data object.

---

clips: Get clip detail

Info on clip {clip_id}

```
GET https://{device}/api/shark/5.1/clips/{clip_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
clip_id	*<string>*	Clip identifier	

Response Body

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

JSON

```
{
 "status": clip_status,
 "index": index_info,
 "config": clip_config,
 "id": string
}

Example:
{
 "status": {
  "estimated_size": 268435456,
  "modification_time": 1345830535,
  "creation_time": 1345830425,
  "locked": true
 },
 "index": {
  "status": "OK",
  "start_time": 1345830425000000000,
  "end_time": 1345830435000000000
 },
 "config": {
  "job_id": "000000A3",
  "filters": [
   {
    "type": "TIME",
    "description": "This is a time filter.",
    "value": "1345830425000000000, 1345830435000000000"
   },
   {
    "type": "BPF",
    "value": "port 80"
   }
  ],
  "description": "This is a clip on job 000000A3"
 },
 "id": "000000A30002"
}
```

Property Name	Type	Description	Notes
clip	*<object>*	Description and status of trace clip	
*clip.*status	*<clip_status>*	Status information for this clip	
*clip.*index	*<index_info>*	Index information for this clip	
*clip.*config	*<clip_config>*	Configuration information for this clip	
*clip.*id	*<string>*	Clip id	

---

clips: Create clip

Create a new trace clip

```
POST https://{device}/api/shark/5.1/clips
```

Authorization

This request requires authorization.

Request Body

Provide a *clip_config* data object.

Response Body

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

JSON

```
{
  "id": string
}

Example:
{
  "id": "000000A30002"
}
```

Property Name	Type	Description	Notes
clip	*<object>*		
*clip.*id	*<string>*	Identifier of the newly created clip	

---

clips: Get clip status

Status info for clip {clip_id}

```
GET https://{device}/api/shark/5.1/clips/{clip_id}/status
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
clip_id	*<string>*	Clip identifier	

Response Body

Returns a *clip_status* data object.

---

clips: Get clip config

Config info for clip {clip_id}

```
GET https://{device}/api/shark/5.1/clips/{clip_id}/config
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
clip_id	*<string>*	Clip identifier	

Response Body

Returns a *clip_config* data object.

---

clips: List clips

Get the list of trace clips

```
GET https://{device}/api/shark/5.1/clips
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
[
  {
    "status": clip_status,
    "index": index_info,
    "config": clip_config,
    "id": string
  }
]

Example:
[
  {
    "status": {
      "estimated_size": 268435456,
      "modification_time": 1345830535,
      "creation_time": 1345830425,
      "locked": true
    },
    "index": {
      "status": "OK",
      "start_time": 1345830425000000000,
      "end_time": 1345830435000000000
    },
    "config": {
      "job_id": "000000A3",
      "filters": [
        {
          "type": "TIME",
          "description": "This is a time filter.",
          "value": "1345830425000000000, 1345830435000000000"
        },
        {
          "type": "BPF",
          "value": "port 80"
        }
      ],
      "description": "This is a clip on job 000000A3"
    },
    "id": "000000A30002"
  },
  {
    "status": {
      "estimated_size": 268435456,
      "modification_time": 1345830563,
      "creation_time": 1345830563,
      "locked": true
    },
    "config": {
      "job_id": "000000A3",
      "filters": [
        {
          "type": "TIME",
          "description": "This is a time filter.",
          "value": "1345830493000000000, 1345830596000000000"
        },
        {
          "type": "SHARK",
          "description": "This is a shark filter.",
          "value": "tcp.port=\"80\""
        }
      ],
      "description": "This is the third clip on job 000000A3"
    },
    "id": "000000A30003"
  }
]
```

Property Name	Type	Description	Notes
clips	*<array of <object>>*	List of clips	
clips[clip]	*<object>*	Description and status of trace clip	
clips[clip].status	*<clip_status>*	Status information for this clip	

clips[clip].index	*<index_info>*	Index information for this clip	
clips[clip].config	*<clip_config>*	Configuration information for this clip	
clips[clip].id	*<string>*	Clip id	

---

clips: Update clip lock status

Update lock status for clip {clip_id}

```
PUT https://{device}/api/shark/5.1/clips/{clip_id}/status
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
clip_id	*<string>*	Clip identifier	

Request Body

Provide a request body with the following structure:

JSON

```
{
  "locked": boolean
}

Example:
{
  "locked": true
}
```

Property Name	Type	Description	Notes
status	*<object>*		
status.locked	*<boolean>*	'true' to lock the packets and the index for this clip, 'false' otherwise	

Response Body

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

---

clips: Update clip

Update config info for clip {clip_id}

```
PUT https://{device}/api/shark/5.1/clips/{clip_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
clip_id	*<string>*	Clip identifier	

Request Body

Provide a *clip_config* data object.

Response Body

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

---

clips: Delete clip

Delete clip {clip_id}

```
DELETE https://{device}/api/shark/5.1/clips/{clip_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
clip_id	*<string>*	Clip identifier	

Response Body

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

---

certificates: Update web UI certificate

Upload a new web UI certificate.

```
PUT https://{device}/api/shark/5.1/settings/certificates/web
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "pem": string
}

Example:
{
  "pem": "-----BEGIN PRIVATE KEY-----
\nMIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAAoIBAQDB+tJ7fYFr0PiP\nfNwsQLEnRZOyk27iBHagszfdFC83nCINKAbWZqfhHMK
----END PRIVATE KEY-----\n-----BEGIN CERTIFICATE-----
\nMIIDyTCCArGgAwIBAgIRAMjqZzJo2/e4lqogFGp6IcswDQYJKoZIhvcNAQENBQAw\nZDESMBAGA1UEAxMJV1BJUkFTLVc3MRwwGgYDVQQKEx
----END CERTIFICATE-----"
}
```

Property Name	Type	Description	Notes
certificate	*<object>*	Validity days for the new self signed certificate	
certificate.pem	*<string>*	Contains the certificate in PEM format encode with Base64. This field contains both the public and private part of the new certificate.	

Response Body

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

---

certificates: Update profiler export certificate

Upload a new profiler export certificate.

```
PUT https://{device}/api/shark/5.1/settings/certificates/profiler_export
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "pem": string
}

Example:
{
  "pem": "-----BEGIN PRIVATE KEY-----
\nMIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAAoIBAQDB+tJ7fYFr0PiP\nfNwsQLEnRZOyk27iBHagszfdFC83nCINKAbWZqfhHMK
----END PRIVATE KEY-----\n-----BEGIN CERTIFICATE-----
\nMIIDyTCCArGgAwIBAgIRAMjqZzJo2/e4lqogFGp6IcswDQYJKoZIhvcNAQENBQAw\nZDESMBAGA1UEAxMJV1BJUkFTLVc3MRwwGgYDVQQKEx
----END CERTIFICATE-----"
}
```

Property Name	Type	Description	Notes
certificate	*<object>*	Validity days for the new self signed certificate	
certificate.pem	*<string>*	Contains the certificate in PEM format encode with Base64. This field contains both the public and private part of the new certificate.	

Response Body

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

---

certificates: Generate web UI certificate

Request generation of new self-signed certificate and private key for the web UI

```
POST https://{device}/api/shark/5.1/settings/certificates/web/generate
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "issued_to": {
    "locality": string,
    "country": string,
    "organization_unit": string,
    "state": string,
    "organization": string,
    "email": string
  },
  "validity": {
    "days": number
  }
}

Example:
{
  "issued_to": {
    "locality": "San%20Francisco",
    "country": "US",
    "organization_unit": "CascadeUnit",
    "state": "CA",
    "organization": "Riverbed%20Technology",
    "email": "admin%40riverbed.com"
  },
  "validity": {
    "days": 365
  }
}
```

Property Name	Type	Description	Notes
certificate_info	*<object>*	Contains info used to generate a new self signed certificate (only for Web Server and Profiler Export certificates)	
certificate_info.issued_to	*<object>*	Contains data to generate a new self-signed certificate	
certificate_info.issued_to.locality	*<string>*	Subject's locality	

*certificate_info.*issued_to.country	*<string>*	Subject's country	
*certificate_info.*issued_to. organization_unit	*<string>*	Subject's organization unit	
*certificate_info.*issued_to.state	*<string>*	Subject's state (2 letters code)	
*certificate_info.*issued_to.organization	*<string>*	Subject's organization	
*certificate_info.*issued_to.email	*<string>*	Subject's email	
*certificate_info.*validity	*<object>*	Validity days for a new self signed certificate	
*certificate_info.*validity.days	*<number>*	Validity days for a new self signed certificate	

Response Body

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

---

certificates: Copy profiler export certificate for web UI

Request that profiler export certificate be reused for the web UI.

```
POST https://{device}/api/shark/5.1/settings/certificates/web/copy_profiler_export
```

Authorization

This request requires authorization.

Request Body

Do not provide a request body.

Response Body

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

---

certificates: Delete trusted profiler certificate

Delete trusted profiler certificate {certificate_id}.

```
DELETE https://{device}/api/shark/5.1/settings/certificates/trusted_profilers/{certificate_id}
```

Authorization

This request requires authorization.

Response Body

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

---

certificates: Upload trusted profiler certificate

Upload a new trusted profiler certificate

```
POST https://{device}/api/shark/5.1/settings/certificates/trusted_profilers
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "pem": string,
  "id": string
}

Example:
{
  "pem": "-----BEGIN CERTIFICATE-----
\nMIIEPTCCAyWgAwIBAgIRAO1ZLvfw3lwCqFen5rQf7ecwDQYJKoZIhvcNAQENBQAw\ngZ0xITAfBgkqhkiG9w0BCQEWEmFkbWluQHJpdmVyYn
----END CERTIFICATE-----",
  "id": "riverbed_certificate"
}
```

Property Name	Type	Description	Notes
trusted_profiler	*<object>*	Used to upload a new trusted profiler certificate	
*trusted_profiler.*pem	*<string>*	Contains the certificate in PEM format encode with Base64. This field contains only the public part of the certificate.	
*trusted_profiler.*id	*<string>*	ID associated with the new Trusted Profiler certificate	

Response Body

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

---

certificates: Copy web UI certificate for profiler export

Request that web UI certificate be reused for profiler export.

```
POST https://{device}/api/shark/5.1/settings/certificates/profiler_export/copy_web
```

Authorization

This request requires authorization.

Request Body

Do not provide a request body.

Response Body

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

---

certificates: List certificates

Get the list of certificates

```
GET https://{device}/api/shark/5.1/settings/certificates
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
  "web_certificate": {
    "issued_to": {
      "locality": string,
      "country": string,
      "organization_unit": string,
      "state": string,
      "common_name": string,
      "organization": string,
      "email": string
    },
    "issued_by": {
      "locality": string,
      "country": string,
      "organization_unit": string,
      "state": string,
```

```
    "common_name": string,
    "organization": string,
    "email": string
   },
   "validity": {
    "issued": timestamp,
    "expire": timestamp
   },
   "pem": string,
   "key": {
    "algorithm": string,
    "size": number
   },
   "fingerprint": number
  },
  "trusted_profilers": [
   {
    "id": string,
    "certificate": {
     "issued_to": {
      "locality": string,
      "country": string,
      "organization_unit": string,
      "state": string,
      "common_name": string,
      "organization": string,
      "email": string
     },
     "issued_by": {
      "locality": string,
      "country": string,
      "organization_unit": string,
      "state": string,
      "common_name": string,
      "organization": string,
      "email": string
     },
     "validity": {
      "issued": timestamp,
      "expire": timestamp
     },
     "pem": string,
     "key": {
      "algorithm": string,
      "size": number
     },
     "fingerprint": number
    }
   }
  ],
  "profiler_export_certificate": {
   "issued_to": {
    "locality": string,
    "country": string,
    "organization_unit": string,
    "state": string,
    "common_name": string,
    "organization": string,
    "email": string
   },
   "issued_by": {
    "locality": string,
    "country": string,
    "organization_unit": string,
    "state": string,
    "common_name": string,
    "organization": string,
    "email": string
   },
   "validity": {
    "issued": timestamp,
    "expire": timestamp
   },
   "pem": string,
   "key": {
    "algorithm": string,
    "size": number
   },
   "fingerprint": number
  }
}
```


Example:


```
{
 "web_certificate": {
  "issued_to": {
   "locality": "San%20Francisco",
```

```
      "country": "US",
      "organization_unit": "",
      "state": "CA",
      "common_name": "WPIRAS-W7",
      "organization": "Riverbed%20Technology",
      "email": ""
     },
     "issued_by": {
      "locality": "San%20Francisco",
      "country": "US",
      "organization_unit": "",
      "state": "CA",
      "common_name": "WPIRAS-W7",
      "organization": "Riverbed%20Technology",
      "email": ""
     },
     "validity": {
      "issued": 1348695181,
      "expire": 1380231181
     },
     "pem": "-----BEGIN%20CERTIFICATE-----
%0AMIIDyTCCArGgAwIBAgIRAMjqZzJo2/e4lqogFGp6IcswDQYJKoZIhvcNAQENBQAw%0AZDESMBAGA1UEAxMJV1BJUkFTLVc3MRwwGgYDVQ
----END%20CERTIFICATE-----%0A",
     "key": {
      "algorithm": "RSA",
      "size": 2048
     },
     "fingerprint": {
      "algorithm": "SHA1",
      "value": "1B:FA:66:5B:B4:8C:00:4B:D4:59:02:75:30:A8:91:CB:E3:17:B2:5A"
     }
    },
    "trusted_profilers": [
     {
      "id": "default_profiler",
      "certificate": {
       "issued_to": {
        "locality": "",
        "country": "",
        "organization_unit": "",
        "state": "",
        "common_name": "Mazu",
        "organization": "",
        "email": ""
       },
       "issued_by": {
        "locality": "",
        "country": "",
        "organization_unit": "",
        "state": "",
        "common_name": "Mazu",
        "organization": "",
        "email": ""
       },
       "validity": {
        "issued": 1159807421,
        "expire": 1475167421
       },
       "pem": "-----BEGIN%20CERTIFICATE-----
%0AMIIBsTCCARqgAwIBAgIJAOqvgxZRcO+ZMA0GCSqGSIb3DQEBBAUAMA8xDTALBgNV%0ABAMTBE1henUwHhcNMDYxMDAyMTY0MzQxW
----END%20CERTIFICATE-----%0A",
       "key": {
        "algorithm": "RSA",
        "size": 1024
       },
       "fingerprint": {
        "algorithm": "SHA1",
        "value": "19:41:76:AD:7C:B3:40:01:70:5F:C8:50:85:AD:8F:F2:32:BC:D0:48"
       }
      }
     },
     {
      "id": "default_profiler_fips",
      "certificate": {
       "issued_to": {
        "locality": "",
        "country": "",
        "organization_unit": "",
        "state": "",
        "common_name": "Cascade%20MNMP%20Default%20Certificate",
        "organization": "Riverbed%20Technology,%20Inc.",
        "email": "support@riverbed.com"
       },
       "issued_by": {
        "locality": "",
        "country": "",
        "organization_unit": "",
        "state": ""
```

```
        "state": "",
        "common_name": "Cascade%20MNMP%20Default%20Certificate",
        "organization": "Riverbed%20Technology,%20Inc.",
        "email": "support@riverbed.com"
       },
       "validity": {
        "issued": 1339518445,
        "expire": 1654878445
       },
       "pem": "-----BEGIN%20CERTIFICATE-----
%0AMIID3zCCAsegAwIBAgIJALUIRiJTYgMoMA0GCSqGSIb3DQEBDQUAMHQxKTAnBgNV%0ABAMTIENhc2NhZGUgTU5NUCBEZWZhdWx0IENl
----END%20CERTIFICATE-----%0A",
       "key": {
        "algorithm": "RSA",
        "size": 2048
       },
       "fingerprint": {
        "algorithm": "SHA1",
        "value": "91:5C:1B:B7:FA:F6:CF:46:8B:EF:AE:DC:F2:4B:77:3E:30:6B:03:52"
       }
      }
     }
    ],
    "profiler_export_certificate": {
     "issued_to": {
      "locality": "",
      "country": "",
      "organization_unit": "",
      "state": "",
      "common_name": "Mazu",
      "organization": "",
      "email": ""
     },
     "issued_by": {
      "locality": "",
      "country": "",
      "organization_unit": "",
      "state": "",
      "common_name": "Mazu",
      "organization": "",
      "email": ""
     },
     "validity": {
      "issued": 1159807421,
      "expire": 1475167421
     },
     "pem": "-----BEGIN%20CERTIFICATE-----
%0AMIIBsTCCARqgAwIBAgIJAOqvgxZRcO+ZMA0GCSqGSIb3DQEBBAUAMA8xDTALBgNV%0ABAMTBE1henUwHhcNMDYxMDAyMTY0MzQxW
----END%20CERTIFICATE-----%0A",
     "key": {
      "algorithm": "RSA",
      "size": 1024
     },
     "fingerprint": {
      "algorithm": "SHA1",
      "value": "19:41:76:AD:7C:B3:40:01:70:5F:C8:50:85:AD:8F:F2:32:BC:D0:48"
     }
    }
   }
```


Property Name	Type	Description	Notes
certificates	*<object>*	Certificates info,	
*certificates.*web_certificate	*<object>*	Certificate's info	
*certificates.*web_certificate.issued_to	*<object>*	Certificate's details	
*certificates.*web_certificate.issued_to.locality	*<string>*	Subject's locality	
*certificates.*web_certificate.issued_to.country	*<string>*	Subject's state	
*certificates.*web_certificate.issued_to.organization_unit	*<string>*	Subject's organization unit	
*certificates.*web_certificate.issued_to.state	*<string>*	Subject's state (2 letters code)	
*certificates.*web_certificate.issued_to.common_name	*<string>*	Subject's common name	
*certificates.*web_certificate.issued_to.organization	*<string>*	Subject's organization	
*certificates.*web_certificate.issued_to.email	*<string>*	Subject's email	
*certificates.*web_certificate.issued_by	*<object>*	Certificate's details	

*certificates.*web_certificate.issued_by.locality	*<string>*	Subject's locality	
*certificates.*web_certificate.issued_by.country	*<string>*	Subject's state	
*certificates.*web_certificate.issued_by.organization_unit	*<string>*	Subject's organization unit	
*certificates.*web_certificate.issued_by.state	*<string>*	Subject's state (2 letters code)	
*certificates.*web_certificate.issued_by.common_name	*<string>*	Subject's common name	
*certificates.*web_certificate.issued_by.organization	*<string>*	Subject's organization	
*certificates.*web_certificate.issued_by.email	*<string>*	Subject's email	
*certificates.*web_certificate.validity	*<object>*	Certificate's validity info	
*certificates.*web_certificate.validity.issued	*<timestamp>*	Issueing date timestamp in Unix time format	Seconds since January 1, 1970
*certificates.*web_certificate.validity.expire	*<timestamp>*	Expire date timestamp in Unix time format	Seconds since January 1, 1970
*certificates.*web_certificate.pem	*<string>*	Contains the certificate in PEM format encode with Base64. This field contains only the public part of the certificate.	
*certificates.*web_certificate.key	*<object>*	Contains information about the certificate's key	
*certificates.*web_certificate.key.algorithm	*<string>*	Key algorithm	Values: RSA
*certificates.*web_certificate.key.size	*<number>*	Key length	
*certificates.*web_certificate.fingerprint	*<number>*	Certificate's fingerprint info	
*certificates.*trusted_profilers	*<array of <object>>*	List of Trusted Profiler certificates	
*certificates.*trusted_profilers [trusted_profiler]	*<object>*	Contains Trusted Profilers certificates info	
*certificates.*trusted_profilers [trusted_profiler].id	*<string>*	ID associated with the Trusted Profiler certificate	
*certificates.*trusted_profilers [trusted_profiler].certificate	*<object>*	Certificate's info	
*certificates.*trusted_profilers [trusted_profiler].certificate.issued_to	*<object>*	Certificate's details	
*certificates.*trusted_profilers [trusted_profiler].certificate.issued_to.locality	*<string>*	Subject's locality	
*certificates.*trusted_profilers [trusted_profiler].certificate.issued_to.country	*<string>*	Subject's state	
*certificates.*trusted_profilers [trusted_profiler].certificate.issued_to.organization_unit	*<string>*	Subject's organization unit	
*certificates.*trusted_profilers [trusted_profiler].certificate.issued_to.state	*<string>*	Subject's state (2 letters code)	
*certificates.*trusted_profilers [trusted_profiler].certificate.issued_to.common_name	*<string>*	Subject's common name	
*certificates.*trusted_profilers [trusted_profiler].certificate.issued_to.organization	*<string>*	Subject's organization	
*certificates.*trusted_profilers [trusted_profiler].certificate.issued_to.email	*<string>*	Subject's email	
*certificates.*trusted_profilers [trusted_profiler].certificate.issued_by	*<object>*	Certificate's details	
*certificates.*trusted_profilers [trusted_profiler].certificate.issued_by.locality	*<string>*	Subject's locality	
*certificates.*trusted_profilers [trusted_profiler].certificate.issued_by.country	*<string>*	Subject's state	
*certificates.*trusted_profilers [trusted_profiler].certificate.issued_by.organization_unit	*<string>*	Subject's organization unit	

*certificates.*trusted_profilers [trusted_profiler].certificate. issued_by.state	*<string>*	Subject's state (2 letters code)	
*certificates.*trusted_profilers [trusted_profiler].certificate. issued_by.common_name	*<string>*	Subject's common name	
*certificates.*trusted_profilers [trusted_profiler].certificate. issued_by.organization	*<string>*	Subject's organization	
*certificates.*trusted_profilers [trusted_profiler].certificate. issued_by.email	*<string>*	Subject's email	
*certificates.*trusted_profilers [trusted_profiler].certificate. validity	*<object>*	Certificate's validity info	
*certificates.*trusted_profilers [trusted_profiler].certificate. validity.issued	*<timestamp>*	Issueing date timestamp in Unix time format	Seconds since January 1, 1970
*certificates.*trusted_profilers [trusted_profiler].certificate. validity.expire	*<timestamp>*	Expire date timestamp in Unix time format	Seconds since January 1, 1970
*certificates.*trusted_profilers [trusted_profiler].certificate.pem	*<string>*	Contains the certificate in PEM format encode with Base64. This field contains only the public part of the certificate.	
*certificates.*trusted_profilers [trusted_profiler].certificate.key	*<object>*	Contains information about the certificate's key	
*certificates.*trusted_profilers [trusted_profiler].certificate.key. algorithm	*<string>*	Key algorithm	Values: RSA
*certificates.*trusted_profilers [trusted_profiler].certificate.key. size	*<number>*	Key length	
*certificates.*trusted_profilers [trusted_profiler].certificate. fingerprint	*<number>*	Certificate's fingerprint info	
*certificates.*profiler_export_certificate	*<object>*	Certificate's info	
*certificates.*profiler_export_certificate. issued_to	*<object>*	Certificate's details	
*certificates.*profiler_export_certificate. issued_to.locality	*<string>*	Subject's locality	
*certificates.*profiler_export_certificate. issued_to.country	*<string>*	Subject's state	
*certificates.*profiler_export_certificate. issued_to.organization_unit	*<string>*	Subject's organization unit	
*certificates.*profiler_export_certificate. issued_to.state	*<string>*	Subject's state (2 letters code)	
*certificates.*profiler_export_certificate. issued_to.common_name	*<string>*	Subject's common name	
*certificates.*profiler_export_certificate. issued_to.organization	*<string>*	Subject's organization	
*certificates.*profiler_export_certificate. issued_to.email	*<string>*	Subject's email	
*certificates.*profiler_export_certificate. issued_by	*<object>*	Certificate's details	
*certificates.*profiler_export_certificate. issued_by.locality	*<string>*	Subject's locality	
*certificates.*profiler_export_certificate. issued_by.country	*<string>*	Subject's state	
*certificates.*profiler_export_certificate. issued_by.organization_unit	*<string>*	Subject's organization unit	
*certificates.*profiler_export_certificate. issued_by.state	*<string>*	Subject's state (2 letters code)	
*certificates.*profiler_export_certificate. issued_by.common_name	*<string>*	Subject's common name	
*certificates.*profiler_export_certificate. issued_by.organization	*<string>*	Subject's organization	
*certificates.*profiler_export_certificate. issued_by.email	*<string>*	Subject's email	
*certificates.*profiler_export_certificate. validity	*<object>*	Certificate's validity info	
*certificates.*profiler_export_certificate. validity.issued	*<timestamp>*	Issueing date timestamp in Unix time format	Seconds since January 1, 1970

*certificates.*profiler_export_certificate.validity.expire	*<timestamp>*	Expire date timestamp in Unix time format	Seconds since January 1, 1970
*certificates.*profiler_export_certificate.pem	*<string>*	Contains the certificate in PEM format encode with Base64. This field contains only the public part of the certificate.	
*certificates.*profiler_export_certificate.key	*<object>*	Contains information about the certificate's key	
*certificates.*profiler_export_certificate.key.algorithm	*<string>*	Key algorithm	Values: RSA
*certificates.*profiler_export_certificate.key.size	*<number>*	Key length	
*certificates.*profiler_export_certificate.fingerprint	*<number>*	Certificate's fingerprint info	

certificates: Generate profiler export certificate

Request generation of new self-signed certificate and private key for profiler export

POST https://{device}/api/shark/5.1/settings/certificates/profiler_export/generate

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "issued_to": {
    "locality": string,
    "country": string,
    "organization_unit": string,
    "state": string,
    "organization": string,
    "email": string
  },
  "validity": {
    "days": number
  }
}

Example:
{
  "issued_to": {
    "locality": "San%20Francisco",
    "country": "US",
    "organization_unit": "CascadeUnit",
    "state": "CA",
    "organization": "Riverbed%20Technology",
    "email": "admin%40riverbed.com"
  },
  "validity": {
    "days": 365
  }
}
```

Property Name	Type	Description	Notes
certificate_info	*<object>*	Contains info used to generate a new self signed certificate (only for Web Server and Profiler Export certificates)	
*certificate_info.*issued_to	*<object>*	Contains data to generate a new self-signed certificate	
*certificate_info.*issued_to.locality	*<string>*	Subject's locality	
*certificate_info.*issued_to.country	*<string>*	Subject's country	
*certificate_info.*issued_to.organization_unit	*<string>*	Subject's organization unit	
*certificate_info.*issued_to.state	*<string>*	Subject's state (2 letters code)	
*certificate_info.*issued_to.organization	*<string>*	Subject's organization	
*certificate_info.*issued_to.email	*<string>*	Subject's email	
*certificate_info.*validity	*<object>*	Validity days for a new self signed certificate	

*certificate_info.*validity.days	*<number>*	Validity days for a new self signed certificate	

Response Body

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

---

definitions: Update Service Response Time ports configuration

Update the list of configured Service Response Time ports

```
PUT https://{device}/api/shark/5.1/definitions/srt_ports
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
[
  number
]

Example:
[
  20,
  25,
  69,
  80,
  139,
  143,
  443,
  465
]
```

Property Name	Type	Description	Notes
srt_ports	*<array of <number>>*	List of service response time ports	
srt_ports[port]	*<number>*		

Response Body

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

---

definitions: List Service Response Time ports

Get the list of configured lService Response Time ports

```
GET https://{device}/api/shark/5.1/definitions/srt_ports
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
[
  number
]

Example:
[
  20,
  25,
  69,
  80,
  139,
  143,
  443,
  465
]
```

Property Name	Type	Description	Notes
srt_ports	*<array of <number>>*	List of service response time ports	
srt_ports[port]	*<number>*		

definitions: List layer 4 mappings

Get the list of configured layer 4 mappings

```
GET https://{device}/api/shark/5.1/definitions/layer4_mappings
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
[ layer4_mapping ]

Example:
[
  {
    "override": true,
    "priority": 0,
    "hosts": [
      "192.168.140.18"
    ],
    "name": "My_server",
    "ports": [
      {
        "port_range": "99",
        "protocol": "TCP"
      },
      {
        "port_range": "15",
        "protocol": "TCP"
      }
    ]
  },
  {
    "override": false,
    "priority": 1,
    "hosts": [
      "192.168.141.1"
    ],
    "name": "My_server2",
    "ports": [
      {
        "port_range": "1000",
        "protocol": "UDP"
      },
      {
        "port_range": "1001",
        "protocol": "UDP"
      }
    ]
  }
]
```

Property Name	Type	Description	Notes
layer4_mappings	*<array of <layer4_mapping>>*	List of layer4 mapping definitions	
layer4_mappings[layer4_mapping]	*<layer4_mapping>*	Instance of a <layer4_mapping>	

definitions: Update port groups configuration

Update the list of configured port groups

```
PUT https://{device}/api/shark/5.1/definitions/port_groups
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

[*port_group*]

Example:

```
[
  {
    "priority": 0,
    "name": "Web",
    "ports": [
      {
        "port_range": "80",
        "protocol": "TCP"
      },
      {
        "port_range": "8080",
        "protocol": "TCP"
      },
      {
        "port_range": "443",
        "protocol": "TCP"
      }
    ]
  },
  {
    "priority": 1,
    "name": "Email",
    "ports": [
      {
        "port_range": "25",
        "protocol": "TCP"
      },
      {
        "port_range": "465",
        "protocol": "TCP"
      },
      {
        "port_range": "587",
        "protocol": "TCP"
      },
      {
        "port_range": "110",
        "protocol": "TCP"
      },
      {
        "port_range": "995",
        "protocol": "TCP"
      },
      {
        "port_range": "143",
        "protocol": "TCP"
      },
      {
        "port_range": "585",
        "protocol": "TCP"
      },
      {
        "port_range": "993",
        "protocol": "TCP"
      },
      {
        "port_range": "119",
        "protocol": "TCP"
      }
    ]
  }
]
```

Property Name	Type	Description	Notes
port_groups	*<array of <port_group>>*	List of port group definitions	
port_groups[port_group]	*<port_group>*	Instance of a <port_group>	

Response Body

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

---

definitions: Update custom applications configuration

Update the list of configured custom applications

```
PUT https://{device}/api/shark/5.1/definitions/custom_applications
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

[*custom_application*]

Example:
```
[
  {
    "name": "My_Bugzilla",
    "uri": "http://bugzilla.mydomain.com/"
  },
  {
    "name": "My_App1",
    "uri": "http://myserver.mydomain.com/app1/*"
  }
]
```

Property Name	Type	Description	Notes
applications	*<array of <custom_application>>*	List of custom L7 signature definitions	
applications[application]	*<custom_application>*	Instance of a <custom_application>	

Response Body

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

---

definitions: Update port names configuration

Update the list of configured port names

PUT https://{device}/api/shark/5.1/definitions/port_names

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

[*port_name*]

Example:
```
[
  {
    "udp": "http",
    "port": 80,
    "tcp": "http"
  },
  {
    "udp": "ms-sql-s",
    "port": 1433,
    "tcp": "ms-sql-s"
  }
]
```

Property Name	Type	Description	Notes
port_names	*<array of <port_name>>*	List of port name definitions	
port_names[port_name]	*<port_name>*	Instance of a <port_name>	

Response Body

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

---

definitions: List port groups

Get the list of configured port groups

```
GET https://{device}/api/shark/5.1/definitions/port_groups
```

Authorization

This request requires authorization.

Response Body

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

JSON

[*port_group*]

Example:


```
[
  {
    "priority": 0,
    "name": "Web",
    "ports": [
      {
        "port_range": "80",
        "protocol": "TCP"
      },
      {
        "port_range": "8080",
        "protocol": "TCP"
      },
      {
        "port_range": "443",
        "protocol": "TCP"
      }
    ]
  },
  {
    "priority": 1,
    "name": "Email",
    "ports": [
      {
        "port_range": "25",
        "protocol": "TCP"
      },
      {
        "port_range": "465",
        "protocol": "TCP"
      },
      {
        "port_range": "587",
        "protocol": "TCP"
      },
      {
        "port_range": "110",
        "protocol": "TCP"
      },
      {
        "port_range": "995",
        "protocol": "TCP"
      },
      {
        "port_range": "143",
        "protocol": "TCP"
      },
      {
        "port_range": "585",
        "protocol": "TCP"
      },
      {
        "port_range": "993",
        "protocol": "TCP"
      },
      {
        "port_range": "119",
        "protocol": "TCP"
      }
    ]
  }
]
```


Property Name	Type	Description	Notes

port_groups	*<array of <port_group>>*	List of port group definitions	
port_groups[port_group]	*<port_group>*	Instance of a <port_group>	

definitions: List applications

Get the list of configured applications

```
GET https://{device}/api/shark/5.1/definitions/applications
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
[ application ]

Example:
[
  {
    "display_name": "Facebook",
    "type": 1,
    "description": "Facebook is a social networking service.",
    "id": 206
  },
  {
    "display_name": "Google",
    "type": 1,
    "description": "Internet searching on Google's search engine site google.com (or international equivalent) and/or encrypted traffic from other Google services.",
    "id": 259
  }
]
```

Property Name	Type	Description	Notes
applications	*<array of <application>>*	List of application definitions	
applications[application]	*<application>*	Instance of an <application>	

definitions: Update layer 4 mappings configuration

Update the list of configured layer 4 mappings

```
PUT https://{device}/api/shark/5.1/definitions/layer4_mappings
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

[*layer4_mapping*]

Example:

```
[
  {
    "override": true,
    "priority": 0,
    "hosts": [
      "192.168.140.18"
    ],
    "name": "My_server",
    "ports": [
      {
        "port_range": "99",
        "protocol": "TCP"
      },
      {
        "port_range": "15",
        "protocol": "TCP"
      }
    ]
  },
  {
    "override": false,
    "priority": 1,
    "hosts": [
      "192.168.141.1"
    ],
    "name": "My_server2",
    "ports": [
      {
        "port_range": "1000",
        "protocol": "UDP"
      },
      {
        "port_range": "1001",
        "protocol": "UDP"
      }
    ]
  }
]
```

Property Name	Type	Description	Notes
layer4_mappings	*<array of <layer4_mapping>>*	List of layer4 mapping definitions	
layer4_mappings[layer4_mapping]	*<layer4_mapping>*	Instance of a <layer4_mapping>	

Response Body

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

---

definitions: List custom applications

Get the list of configured custom applications

```
GET https://{device}/api/shark/5.1/definitions/custom_applications
```

Authorization

This request requires authorization.

Response Body

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

JSON

[*custom_application*]

Example:
```
[
  {
    "name": "My_Bugzilla",
    "uri": "http://bugzilla.mydomain.com/"
  },
  {
    "name": "My_App1",
    "uri": "http://myserver.mydomain.com/app1/*"
  }
]
```

Property Name	Type	Description	Notes
applications	*<array of <custom_application>>*	List of custom L7 signature definitions	
applications[application]	*<custom_application>*	Instance of a <custom_application>	

definitions: List port names

Get the list of configured port names

```
GET https://{device}/api/shark/5.1/definitions/port_names
```

Authorization

This request requires authorization.

Response Body

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

JSON

[*port_name*]

Example:
```
[
  {
    "udp": "http",
    "port": 80,
    "tcp": "http"
  },
  {
    "udp": "ms-sql-s",
    "port": 1433,
    "tcp": "ms-sql-s"
  }
]
```

Property Name	Type	Description	Notes
port_names	*<array of <port_name>>*	List of port name definitions	
port_names[port_name]	*<port_name>*	Instance of a <port_name>	

filesystem: Delete timeskew estimate

Delete time skew estimate results for multisegment file {file_id}.

```
DELETE https://{device}/api/shark/5.1/fs/{file_id}/fs/timeskew_estimate
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
file_id	*<string>*	File path	

Response Body

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

---

filesystem: Move file or directory

Request move of file or directory resource {file_id}

```
POST https://{device}/api/shark/5.1/fs/{file_id}/move
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
file_id	*<string>*	File path	

Request Body

Provide a request body with the following structure:

JSON

```
{
  "destination": string
}

Example:
{
  "destination": "/admin/new-dir/http.cap"
}
```

Property Name	Type	Description	Notes
move	*<object>*	Contains the resource's destination id for a move operation	
move.destination	*<string>*	Resource's destination id	

Response Body

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

---

filesystem: Get file checksum

Obtain a checksum for a trace file.

```
GET https://{device}/api/shark/5.1/fs/{file_id}/checksum
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
file_id	*<string>*	File path	

Response Body

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

JSON

```
{
  "method": string,
  "value": string
}

Example:
{
  "method": "SHA256",
  "value": "db8afb5138e5dcea93092ebcb8d20ab855e68b086d6541d68a942914e2a74372"
}
```

Property Name	Type	Description	Notes
checksum	*<object>*	Contains info about a checksum calculated on a trace file	
checksum.method	*<string>*	Checksum algorithm	Values: SHA256
checksum.value	*<string>*	Trace file's checksum	

filesystem: Create file or directory

Create trace file, merged file, multisegment file, or directory on the Shark. The file path is specified in the 'Content-Disposition' HTTP header and the file type to be created is specified using the 'Content-Type' HTTP header.

```
POST https://{device}/api/shark/5.1/fs/{directory_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
directory_id	*<string>*	The directory in which the file or directory is to be created	

HTTP Headers

Property Name	Type	Description	Notes
Content-Type	*<string>*	The type of object to be created	Values: application/x-vnd.tcpdump, x-shark-directory, application/json, or text/xml
Content-Disposition	*<string>*	The name of the file or directory to be created	

Request Body Variants

Create trace file

Content-Type: application/x-vnd.tcpdump

Provide a request body containing the file contents with content type application/x-vnd.tcpdump.

Create directory

Content-Type: x-shark-directory

Do not provide a request body.

Create merged or multisegment file

Content-Type: application/json or text/xml

Provide a request body with the following structure:

JSON

```
{
 "linked_sources": [
  {
   "path": string,
   "timeskew": number,
   "description": string,
   "default_source": boolean
  }
 ],
 "type": string
}

Example:
{
 "linked_sources": [
  {
   "path": "../2-router1-in.pcap",
   "description": "This source uses a relative path",
   "default_source": true
  },
  {
   "path": "fs/admin/4-router2-in.pcap",
   "description": "This source uses an absolute path",
   "timeskew": 100000000
  },
  {
   "path": "6-router3-in.pcap",
   "description": "This source uses a file name"
  }
 ],
 "type": "MULTISEGMENT_FILE"
}
```

Property Name	Type	Description	Notes
request	*<object>*	Contains info about a new multisegment or merged file	
request.linked_sources	*<array of <object>>*	Linked sources details list	
request.linked_sources[linked_source]	*<object>*		
request.linked_sources[linked_source].path	*<string>*	Linked source path. It could be either an absolute path (fs/ID) or a relative path starting from the aggregated file folder.	
request.linked_sources[linked_source].timeskew	*<number>*	It is the packets timestamps offset associated with the linked source	Optional
request.linked_sources[linked_source].description	*<string>*	A simple description field associated with the linked source	Optional
request.linked_sources[linked_source].default_source	*<boolean>*	The default source is the reference source in a multisegment file collection and it is used as reference for the time skew calculation	Optional
request.type	*<string>*	File type	Values: MULTISEGMENT_FILE, MERGED_FILE

Response Body

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

---

filesystem: Delete file

Delete file {file_id}. NOTE: If a file to be deleted is open for any reason, the delete operation will fail.

```
DELETE https://{device}/api/shark/5.1/fs/{file_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
file_id	*<string>*	File path	

Response Body

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

---

filesystem: List directory

filesystem: List directory

Get information on directory {directory_id}.

```
GET https://{device}/api/shark/5.1/fs/{directory_id}?details={string}&recursive={string}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
details	*<string>*	'true' for details on all files, 'false' otherwise.	Optional
recursive	*<string>*	'true' for recursive directory listing, 'false' otherwise.	Optional
directory_id	*<string>*	Directory path	

Response Body

Returns a *dir* data object.

---

filesystem: Get file index info

Get index information for trace file {file_id}.

```
GET https://{device}/api/shark/5.1/fs/{file_id}/index
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
file_id	*<string>*	File path	

Response Body

Returns an *index_info* data object.

---

filesystem: Modify merged or multisegment file

Modify merged file or multisegment file {file_id} on the Shark.

```
PUT https://{device}/api/shark/5.1/fs/{file_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
file_id	*<string>*	File path	

Request Body

Provide a request body with the following structure:

JSON

```
{
 "linked_sources": [
  {
   "path": string,
   "timeskew": number,
   "description": string,
   "default_source": boolean
  }
 ],
 "type": string
}

Example:
{
 "linked_sources": [
  {
   "path": "../2-router1-in.pcap",
   "description": "This source uses a relative path",
   "default_source": true
  },
  {
   "path": "fs/admin/4-router2-in.pcap",
   "description": "This source uses an absolute path",
   "timeskew": 100000000
  },
  {
   "path": "6-router3-in.pcap",
   "description": "This source uses a file name"
  }
 ],
 "type": "MULTISEGMENT_FILE"
}
```

Property Name	Type	Description	Notes
aggregated	*<object>*	Contains info about a new multisegment or merged file	
aggregated.linked_sources	*<array of <object>>*	Linked sources details list	
aggregated.linked_sources[linked_source]	*<object>*		
aggregated.linked_sources[linked_source].path	*<string>*	Linked source path. It could be either an absolute path (fs/ID) or a relative path starting from the aggregated file folder.	
aggregated.linked_sources[linked_source].timeskew	*<number>*	It is the packets timestamps offset associated with the linked source	Optional
aggregated.linked_sources[linked_source].description	*<string>*	A simple description field associated with the linked source	Optional
aggregated.linked_sources[linked_source].default_source	*<boolean>*	The default source is the reference source in a multisegment file collection and it is used as reference for the time skew calculation	Optional
aggregated.type	*<string>*	File type	Values: MULTISEGMENT_FILE, MERGED_FILE

Response Body

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

---

filesystem: Download file contents

Download contents of trace file, merged file, or multisegment file {file_id}.

```
GET https://{device}/api/shark/5.1/fs/{file_id}/download
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
file_id	*<string>*	File path	

Response Body

On success, the server returns a request body containing data with content type application/x-vnd.tcpdump or application/xml.

---

filesystem: List root directory

Get the contents of the root filesystem directory

```
GET https://{device}/api/shark/5.1/fs
```

Authorization

This request requires authorization.

Response Body

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

JSON

[*dir*]

Example:


```
[
  {
    "files": [
      {
        "created": 1347053478,
        "modified": 1347053478,
        "type": "PCAPNG_FILE",
        "id": "/admin/http-ng.pcapng",
        "link_type": "DLT_EN10MB",
        "size": 149952
      },
      {
        "created": 1343026049,
        "modified": 1343026050,
        "type": "PCAP_FILE",
        "id": "/admin/prova.cap",
        "link_type": "DLT_EN10MB",
        "size": 145919
      }
    ],
    "dirs": [
      {
        "files": [
          {
            "created": 1342768036,
            "modified": 1342768037,
            "type": "PCAP_FILE",
            "id": "/admin/multisegment/2-router1-in.pcap",
            "link_type": "DLT_EN10MB",
            "size": 16246
          },
          {
            "created": 1342768038,
            "modified": 1342768038,
            "type": "PCAP_FILE",
            "id": "/admin/multisegment/4-router2-in.pcap",
            "link_type": "DLT_EN10MB",
            "size": 15988
          },
          {
            "created": 1342768038,
            "modified": 1342768038,
            "type": "PCAP_FILE",
            "id": "/admin/multisegment/6-router3-in.pcap",
            "link_type": "DLT_EN10MB",
            "size": 15988
          },
          {
            "created": 1342768079,
            "linked_sources": [
              {
                "path": "2-router1-in.pcap"
              },
              {
                "path": "4-router2-in.pcap"
              },
              {
                "path": "6-router3-in.pcap"
              }
            ],
            "modified": 1348764826,
            "type": "MERGED_FILE",
            "id": "/admin/multisegment/merged.pvt",
            "link_type": "DLT_EN10MB",
            "size": 243
```

```
        },
        {
         "created": 1342768084,
         "linked_sources": [
          {
           "path": "2-router1-in.pcap",
           "default_source": true
          },
          {
           "path": "4-router2-in.pcap"
          },
          {
           "path": "fs/admin/multisegment/6-router3-in.pcap"
          }
         ],
         "modified": 1348764826,
         "type": "MULTISEGMENT_FILE",
         "id": "/admin/multisegment/multisegment.pvt",
         "link_type": "DLT_EN10MB",
         "size": 264
        }
       ],
       "dirs": [],
       "description": "This is a multi-segment file",
       "created": 1342767955,
       "modified": 1343077906,
       "id": "/admin/multisegment"
      },
      {
       "files": [
        {
         "created": 1342645581,
         "modified": 1342646988,
         "type": "PCAP_FILE",
         "id": "/admin/new-dir/http.cap",
         "link_type": "DLT_EN10MB",
         "size": 147456
        }
       ],
       "dirs": [],
       "description": "This is a custom folder",
       "created": 1348764627,
       "modified": 1348764743,
       "id": "/admin/new-dir"
      }
     ],
     "description": "My Files",
     "created": 1341252038,
     "modified": 1348764743,
     "id": "/admin"
    },
    {
     "files": [],
     "dirs": [],
     "description": "normaluser Home Folder",
     "created": 1341252038,
     "modified": 1341252038,
     "id": "/normaluser"
    },
    {
     "files": [],
     "dirs": [],
     "description": "Files Shared with Administrators",
     "created": 1341252871,
     "modified": 1341252871,
     "id": "/Administrators"
    },
    {
     "files": [],
     "dirs": [],
     "description": "Files Shared with NormalUsers",
     "created": 1341252871,
     "modified": 1341252871,
     "id": "/NormalUsers"
    },
    {
     "files": [],
     "dirs": [],
     "description": "Files Shared with Viewers",
     "created": 1341252871,
     "modified": 1341252871,
     "id": "/Viewers"
    }
   ]
```

Property Name	Type	Description	Notes
fs	*<array of <dir>>*	List of directories	
fs[dir]	*<dir>*	Instance of a <dir>	

filesystem: Create file index

Create index for trace file {file_id}

```
POST https://{device}/api/shark/5.1/fs/{file_id}/index
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
file_id	*<string>*	File path	

Request Body

Do not provide a request body.

Response Body

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

filesystem: Delete file index

Delete index for trace file {file_id}.

```
DELETE https://{device}/api/shark/5.1/fs/{file_id}/index
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
file_id	*<string>*	File path	

Response Body

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

filesystem: Delete directory

Delete user directory {directory_id}. If the directory is not empty, all files in the directory will be deleted as well.
NOTE: If a file to be deleted is open for any reason, the delete operation will fail.

```
DELETE https://{device}/api/shark/5.1/fs/{directory_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
directory_id	*<string>*	Directory path	

Response Body

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

filesystem: Get timeskew estimate results

Time skew information for multisegment file {file_id}

GET https://{device}/api/shark/5.1/fs/{file_id}/timeskew_estimate

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
file_id	*<string>*	File path	

Response Body

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

JSON

```
{
 "status": {
  "first_invalid_timestamp": timestamp-hp,
  "state": string,
  "duplicated_count": number,
  "invalid_source_index": number
 },
 "results": [
  {
   "timeskew": number,
   "source_index": number
  }
 ]
}

Example:
{
 "status": {
  "state": "OK"
 },
 "results": [
  {
   "timeskew": 0,
   "source_index": 1
  },
  {
   "timeskew": -1000000,
   "source_index": 2
  },
  {
   "timeskew": 30654891,
   "source_index": 3
  }
 ]
}
```

Property Name	Type	Description	Notes
timeskew_estimate	*<object>*	Time skew estimate information	
*timeskew_estimate.*status	*<object>*	Status information for the time skew estimate	
*timeskew_estimate.*status.first_invalid_timestamp	*<timestamp-hp>*	First timestamp causing the TIMESTAMP_WARNING code	
*timeskew_estimate.*status.state	*<string>*		Values: EMPTY, COMPUTING, NO_PACKETS, UNIDIRECTIONAL, TIMESTAMP_WARNING, DUPLICATE_WARNING, OK
*timeskew_estimate.*status.duplicated_count	*<number>*	Number of packets with the same timestamp in different capture points. Check this field in order to estimate if this is a real issue or not: if the number of packets experiencing this problem is high probably at least two files contain the same packets, otherwise it means that for some packets the timeskew observed makes the delay becomes zero (timeskew = delay for that packet).	Optional
*timeskew_estimate.*status.invalid_source_index	*<number>*	Index of the file causing the TIMESTAMP_WARNING code	Optional
*timeskew_estimate.*results	*<array of <object>>*	List of linked sources	Optional
*timeskew_estimate.*results[result]	*<object>*	Time skew information for a linked source	
*timeskew_estimate.*results[result].timeskew	*<number>*	Estimated time skew compared to the default source	
*timeskew_estimate.*results[result].source_index	*<number>*	Index of the linked source	

filesystem: Create timeskew estimate

Start a timeskew estimation process for multisegment file {file_id}.

```
PUT https://{device}/api/shark/5.1/fs/{file_id}/fs/timeskew_estimate?packet_count={number}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
packet_count	*<number>*	Maximum number of packets to process	Optional
file_id	*<string>*	File path	

Request Body

Do not provide a request body.

Response Body

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

filesystem: Get file info

Get descriptive information for file or directory {file_id}

```
GET https://{device}/api/shark/5.1/fs/{file_id}
```

Authorization

This request requires authorization.

Parameters

Property Name	Type	Description	Notes
file_id	*<string>*	File or directory path	

Response Body

Returns a *file* data object.

licenses: Get license detail

Get information on license {license_key}.

```
GET https://{device}/api/shark/5.1/settings/licenses/{license_key}
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
  "status": string,
  "valid_from": timestamp,
  "valid_to": timestamp,
  "feature_name": string,
  "key": string,
  "is_platform": boolean,
  "feature_description": string
}

Example:
{
  "status": "VALID",
  "valid_from": "no_limit",
  "valid_to": "no_limit",
  "feature_name": "VLAB",
  "key": "LK1-VLAB-0000-0000-1-2644-76FE-6436",
  "is_platform": false,
  "feature_description": "VLAB License, Max Limits"
}
```

Property Name	Type	Description	Notes
license	*<object>*	Information for a Shark license	
license.status	*<string>*	Status of this license	Values: INVALID, VALID, VALID_SOON, FUTURE, EXPIRES_SOON, EXPIRED, SUPERSEDED, UNKNOWN
license.valid_from	*<timestamp>*	Date/time (seconds from epoch) at which this license becomes valid (0 if always valid)	Seconds since January 1, 1970
license.valid_to	*<timestamp>*	Date/time (seconds from epoch) at which this license expires (0 if always valid)	Seconds since January 1, 1970
license.feature_name	*<string>*	Feature covered by this license	
license.key	*<string>*	License key for this license	
license.is_platform	*<boolean>*	'true' if this is a platform license	
license.feature_description	*<string>*	Description of feature covered by this license	

licenses: Delete license

Delete license {license_key}.

```
DELETE https://{device}/api/shark/5.1/settings/licenses/{license_key}
```

Authorization

This request requires authorization.

Response Body

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

licenses: Add licenses

Add a set of licenses to the system.

```
POST https://{device}/api/shark/5.1/settings/licenses
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
[
  string
]

Example:
[
  "LK1-FEAT1-0000-0000-1-2644-76FE-6436"
]
```

Property Name	Type	Description	Notes
licenses	*<array of <string>>*	List of license keys to add to the system	
licenses[license]	*<string>*		

Response Body

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

JSON

```
[
  {
    "url": string,
    "status": string,
    "key": string
  }
]

Example:
[
  {
    "status": "VALID",
    "url": "/api/shark/4.0/settings/licenses/LK1-VLAB-0000-0000-1-2644-76FE-6436.json",
    "key": "LK1-FEAT1-0000-0000-1-2644-76FE-6436"
  }
]
```

Property Name	Type	Description	Notes
licenses	*<array of <object>>*	List of new licenses added to the system	
licenses[license]	*<object>*	Description of a new license added to the system	
licenses[license].url	*<string>*	Resource URI for the new license key	
licenses[license].status	*<string>*	Status of the new license	Values: INVALID, VALID, VALID_SOON, FUTURE, EXPIRES_SOON, EXPIRED, SUPERSEDED, UNKNOWN
licenses[license].key	*<string>*	New license key added to the system	

---

licenses: List licenses

Get the list of licenses on the system.

```
GET https://{device}/api/shark/5.1/settings/licenses
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
[
  {
    "status": string,
    "valid_from": timestamp,
    "valid_to": timestamp,
    "feature_name": string,
    "key": string,
    "is_platform": boolean,
    "feature_description": string
  }
]

Example:
[
  {
    "status": "VALID",
    "valid_from": "no_limit",
    "valid_to": "no_limit",
    "feature_name": "VLAB",
    "key": "LK1-FEAT1-0000-0000-1-2644-76FE-6436",
    "is_platform": false,
    "feature_description": "FEAT1 License, Max Limits"
  }
]
```

Property Name	Type	Description	Notes
licenses	*<array of <object>>*	List of licenses currently in system	
licenses[license]	*<object>*	Information for a Shark license	
licenses[license].status	*<string>*	Status of this license	Values: INVALID, VALID, VALID_SOON, FUTURE, EXPIRES_SOON, EXPIRED, SUPERSEDED, UNKNOWN
licenses[license].valid_from	*<timestamp>*	Date/time (seconds from epoch) at which this license becomes valid (0 if always valid)	Seconds since January 1, 1970
licenses[license].valid_to	*<timestamp>*	Date/time (seconds from epoch) at which this license expires (0 if always valid)	Seconds since January 1, 1970
licenses[license].feature_name	*<string>*	Feature covered by this license	
licenses[license].key	*<string>*	License key for this license	
licenses[license].is_platform	*<boolean>*	'true' if this is a platform license	
licenses[license].feature_description	*<string>*	Description of feature covered by this license	

licenses: Generate license request key

Request license request code.

```
POST https://{device}/api/shark/5.1/settings/licenses/request
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "token": string
}

Example:
{
  "token": "SHKDSK50-67A9DA741BE548DA151FA1F3"
}
```

Property Name	Type	Description	Notes
license_token	*<object>*	Submit a new license request	
license_token.token	*<string>*	License request token (obtained from Riverbed customer support)	

Response Body

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

JSON

```
{
  "license_req": string
}

Example:
{
  "license_req": "shark.localdom-C1239NVM-GUGQSGVL-FLHVVEQM-CQLHS1FF-FPYU9U5L-417PUN6K-9WGPHV0A-JPKS8KG6"
}
```

Property Name	Type	Description	Notes
license_request	*<object>*		
license_request.license_req	*<string>*	License request string (to be submitted to Riverbed customer support)	

licenses: Get license status

Get current licensing status of this Shark VE.

GET https://{device}/api/shark/5.1/settings/licenses/status

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
  "num_profilers": number,
  "packet_storage_size": number,
  "enterprise_pilot_level": number,
  "application_status": string,
  "profiler_export_capacity": number
}

Example:
{
  "application_status": "LICENSED",
  "num_profilers": 2,
  "profiler_export_capacity": 200,
  "packet_storage_size": 50,
  "enterprise_pilot_level": 0
}
```

Property Name	Type	Description	Notes
license_status	*<object>*	License status information for this Shark VE	
license_status.num_profilers	*<number>*	Number of profilers supported for export	
license_status.packet_storage_size	*<number>*	Packet storage capacity (GB)	
license_status.enterprise_pilot_level	*<number>*	Enterprise Pilot level	
license_status.application_status	*<string>*	License status for this Shark VE	Values: LICENSED_PHYSICAL, LICENSED, UNLICENSED, STATUS_CHANGED, UNKNOWN
license_status.profiler_export_capacity	*<number>*	Export capacity (MBPS) for profiler export	

stats: Get profiler export stats

Get profiler export information

GET https://{device}/api/shark/5.1/stats/profiler_export

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
 "last_minute": {
  "exported": {
   "ip_bytes": number,
   "packets": number,
   "flows": number
  },
  "rejected": {
   "ip_bytes": number,
   "packets": number,
   "flows": number
  }
 },
 "last_week": {
  "exported": {
   "ip_bytes": number,
   "packets": number,
   "average_flows": number,
   "flows": number,
   "peak_flows": number
  },
  "rejected": {
   "ip_bytes": number,
   "packets": number,
   "average_flows": number,
   "flows": number,
   "peak_flows": number
  }
 }
}

Example:
{
 "last_minute": {
  "exported": {
   "ip_bytes": 7945576960,
   "packets": 31037410,
   "flows": 973309
  },
  "rejected": {
   "ip_bytes": 0,
   "packets": 0,
   "flows": 0
  }
 },
 "last_week": {
  "exported": {
   "ip_bytes": 6491276748032,
   "packets": 25356549797,
   "flows": 795175093,
   "average_flows": 78886,
   "peak_flows": 1000000
  },
  "rejected": {
   "ip_bytes": 13589455872,
   "packets": 53083812,
   "flows": 1664668,
   "average_flows": 165,
   "peak_flows": 600000
  }
 }
}
```

Property Name	Type	Description	Notes
profiler_export_stats	*<object>*	Statistics on the Profiler Export	
*profiler_export_stats.*last_minute	*<object>*	Statistics on the data exported in the last minute	
*profiler_export_stats.*last_minute.exported	*<object>*	Values sent to the profiler/s in the last minute	
*profiler_export_stats.*last_minute.exported.ip_bytes	*<number>*	Cumulative number of IP bytes (IP header included) for the exported flows	
*profiler_export_stats.*last_minute.exported.packets	*<number>*	Cumulative number of packets for the exported flows	
*profiler_export_stats.*last_minute.exported.flows	*<number>*	Number of exported flows	

*profiler_export_stats.*last_minute.rejected	*<object>*	Values analyzed but not sent to the profiler/s in the last minute	
*profiler_export_stats.*last_minute.rejected.ip_bytes	*<number>*	Cumulative number of IP bytes (IP header included) for the rejected flows	
*profiler_export_stats.*last_minute.rejected.packets	*<number>*	Cumulative number of packets for the rejected flows	
*profiler_export_stats.*last_minute.rejected.flows	*<number>*	Number of rejected flows	
*profiler_export_stats.*last_week	*<object>*	Statistics on the data exported in the last week	
*profiler_export_stats.*last_week.exported	*<object>*	Values sent to the profiler/s in the last week	
*profiler_export_stats.*last_week.exported.ip_bytes	*<number>*	Cumulative number of IP bytes (IP header included) for the exported flows	
*profiler_export_stats.*last_week.exported.packets	*<number>*	Cumulative number of packets for the exported flows	
*profiler_export_stats.*last_week.exported.average_flows	*<number>*	Average number of flows exported in the last week	
*profiler_export_stats.*last_week.exported.flows	*<number>*	Number of exported flows	
*profiler_export_stats.*last_week.exported.peak_flows	*<number>*	Max number of flows exported in a minute in the last week	
*profiler_export_stats.*last_week.rejected	*<object>*	Values analyzed but not sent to the profiler/s in the last week	
*profiler_export_stats.*last_week.rejected.ip_bytes	*<number>*	Cumulative number of IP bytes (IP header included) for the rejected flows	
*profiler_export_stats.*last_week.rejected.packets	*<number>*	Cumulative number of packets for the rejected flows	
*profiler_export_stats.*last_week.rejected.average_flows	*<number>*	Average number of flows rejected in the last week	
*profiler_export_stats.*last_week.rejected.flows	*<number>*	Number of rejected flows	
*profiler_export_stats.*last_week.rejected.peak_flows	*<number>*	Max number of flows rejected in a minute in the last week	

stats: Get memory stats

Get system memory information

```
GET https://{device}/api/shark/5.1/stats/memory
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
  "status": string,
  "available": number,
  "used": number,
  "reserved": number,
  "by_category": [
    {
      "bytes": number,
      "name": string,
      "allocations": number
    }
  ],
  "by_handle": [
    {
      "by_category": [
        {
          "bytes": number,
          "name": string,
          "allocations": number
        }
      ],
      "name": string
    }
  ],
  "total": number
```

}

Example:


```
{
 "status": "OK",
 "available": 4658311920,
 "used": 1603742992,
 "reserved": 1407188992,
 "by_category": [
  {
   "bytes": 153696,
   "name": "DATAMATRIX",
   "allocations": 12
  },
  {
   "bytes": 264,
   "name": "DBTABLE",
   "allocations": 5
  },
  {
   "bytes": 41946816,
   "name": "DEMUXER",
   "allocations": 10
  },
  {
   "bytes": 181560,
   "name": "DNS_RESOLVER",
   "allocations": 9
  },
  {
   "bytes": 196554000,
   "name": "GLOBAL",
   "allocations": 75053
  },
  {
   "bytes": 153808,
   "name": "IP_FRAGMENTATION",
   "allocations": 6
  },
  {
   "bytes": 1120,
   "name": "MEMORY_REPOSITORY",
   "allocations": 2
  },
  {
   "bytes": 23581312,
   "name": "NETFLOW",
   "allocations": 75006
  },
  {
   "bytes": 130535424,
   "name": "PACKET",
   "allocations": 3
  }
 ],
 "by_handle": [
  {
   "by_category": [
    {
     "bytes": 88680,
     "name": "DATAMATRIX",
     "allocations": 7
    },
    {
     "bytes": 264,
     "name": "DBTABLE",
     "allocations": 5
    },
    {
     "bytes": 165848,
     "name": "GLOBAL",
     "allocations": 15
    },
    {
     "bytes": 76904,
     "name": "IP_FRAGMENTATION",
     "allocations": 3
    }
   ],
   "name": "00000001"
  },
  {
   "by_category": [
    {
     "bytes": 65016,
     "name": "DATAMATRIX",
     "allocations": 5
```

```
        },
        {
          "bytes": 141920,
          "name": "GLOBAL",
          "allocations": 8
        },
        {
          "bytes": 76904,
          "name": "IP_FRAGMENTATION",
          "allocations": 3
        }
      ],
      "name": "FFFFFF01"
    }
  ],
  "total": 6262054912
}
```


Property Name	Type	Description	Notes
memory	*<object>*		
memory.status	*<string>*	Memory usage status	Values: OK, WARNING, CRITICAL, CONFIGURATION_ERROR
memory.available	*<number>*	Memory available for use	
memory.used	*<number>*	Memory used by the system	
memory.reserved	*<number>*	Reserved memory	Typically reserved by the packet recorder
memory.by_category	*<array of <object>>*	List of memory usage for each category	
memory.by_category[category]	*<object>*	Memory usage for a single category	
memory.by_category[category].bytes	*<number>*	Allocated bytes for this category	
memory.by_category[category].name	*<string>*	Category name	
memory.by_category[category].allocations	*<number>*	Number of memory allocation operations for this category	
memory.by_handle	*<array of <object>>*	List of memory usage for each handle (i.e. view, etc.)	
memory.by_handle[handle]	*<object>*	Memory usage for a single handle	
memory.by_handle[handle].by_category	*<array of <object>>*	List of memory usage in each category for the given handle	
memory.by_handle[handle].by_category [category]	*<object>*	Memory usage for a single category	
memory.by_handle[handle].by_category [category].bytes	*<number>*	Allocated bytes for this category	
memory.by_handle[handle].by_category [category].name	*<string>*	Category name	
memory.by_handle[handle].by_category [category].allocations	*<number>*	Number of memory allocation operations for this category	
memory.by_handle[handle].name	*<string>*	Handle name	
memory.total	*<number>*	Total memory on the system	

---

stats: Get storage stats

Get system storage information

```
GET https://{device}/api/shark/5.1/stats/storage
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
 "packet_storage": {
  "status": string,
  "used": number,
  "reserved": number,
  "unused": number,
  "unallocated": number,
  "allocated": number,
  "total": number
 },
 "os_storage": {
  "status": string,
  "index_storage": {
   "unused": number,
   "allocated": number,
   "total": number,
   "used": number,
   "unallocated": number
  },
  "disk_storage": {
   "unused": number,
   "total": number,
   "used": number
  }
 }
}
```

Example:

```
{
 "packet_storage": {
  "status": "OK",
  "used": 0,
  "reserved": 0,
  "unused": 0,
  "unallocated": 3999688294400,
  "allocated": 0,
  "total": 3999688294400
 },
 "os_storage": {
  "status": "OK",
  "index_storage": {
   "unused": 0,
   "allocated": 0,
   "total": 457108365312,
   "used": 0,
   "unallocated": 457108365312
  },
  "disk_storage": {
   "unused": 457108365312,
   "total": 457360449536,
   "used": 252084224
  }
 }
}
```

Property Name	Type	Description	Notes
storage	*<object>*		
storage.packet_storage	*<object>*	Packet storage statistics	
storage.packet_storage.status	*<string>*	Packet storage status	Values: OK, DISK_FULL, CORRUPTED, HW_FAILURE, UNLICENSED, LICENSE_EXCEEDED, UNKNOWN
storage.packet_storage.used	*<number>*	Packet storage space currently being used	
storage.packet_storage.reserved	*<number>*	Packet storage reserved size	
storage.packet_storage.unused	*<number>*	Allocated but not yet used packet storage space	
storage.packet_storage.unallocated	*<number>*	Unallocated packet storage size	
storage.packet_storage.allocated	*<number>*	Allocated packet storage size	
storage.packet_storage.total	*<number>*	Total packet storage size	
storage.os_storage	*<object>*	System storage statistics	
storage.os_storage.status	*<string>*	System storage status	Values: OK, WARNING, CRITICAL, UNKNOWN
storage.os_storage.index_storage	*<object>*	Index storage status	
storage.os_storage.index_storage.unused	*<number>*	Unused index storage space	
storage.os_storage.index_storage.allocated	*<number>*	Allocated index storage space by all the existing jobs	
storage.os_storage.index_storage.total	*<number>*	Total index storage size (unallocated + allocated)	
storage.os_storage.index_storage.used	*<number>*	Used index storage space	

storage.os_storage.index_storage.unallocated	*<number>*	Available index storage space	
storage.os_storage.disk_storage	*<object>*	System disk status	
storage.os_storage.disk_storage.unused	*<number>*	System disk storage not being used	
storage.os_storage.disk_storage.total	*<number>*	Total system disk storage size	
storage.os_storage.disk_storage.used	*<number>*	System disk storage currently being used	

---

settings: Update firewall settings

Update firewall settings.

PUT https://{device}/api/shark/5.1/settings/firewall

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
{
  "rules": [
    {
      "action": string,
      "source": string,
      "protocol": string,
      "description": string,
      "dest_port": number
    }
  ],
  "firewall_enabled": boolean,
  "default_policy": string
}

Example:
{
  "rules": [
    {
      "action": "ACCEPT",
      "source": "10.0.0.1",
      "protocol": "TCP",
      "description": "Allow HTTPS for all the hosts",
      "dest_port": 65535
    },
    {
      "action": "ACCEPT",
      "protocol": "TCP",
      "description": "Allow SSH for all the hosts",
      "dest_port": 22
    },
    {
      "action": "ACCEPT",
      "protocol": "ICMP",
      "description": "Allow ICMP for all the hosts"
    }
  ],
  "firewall_enabled": true,
  "default_policy": "DROP"
}
```

Property Name	Type	Description	Notes
firewall_settings	*<object>*	Firewall configuration	
firewall_settings.rules	*<array of <object>>*	Rules list	
firewall_settings.rules[rule]	*<object>*		
firewall_settings.rules[rule].action	*<string>*	Rule action, what the firewall should do with the packet when it matches the rule	Values: ACCEPT, DROP, LOG_ACCEPT, LOG_DROP
firewall_settings.rules[rule].source	*<string>*	Rule IPV4 source address. It can contain a netmasks specified as CIDR format or as IPV4 address.	Optional
firewall_settings.rules[rule].protocol	*<string>*	Rule protocol	Optional; Values: TCP, UDP, ICMP, ALL
firewall_settings.rules[rule].description	*<string>*	Rule description	Optional

*firewall_settings.*rules[rule].dest_port	*<number>*	Rule destination port	Optional
*firewall_settings.*firewall_enabled	*<boolean>*	Enables or disable the firewall	
*firewall_settings.*default_policy	*<string>*	Firewall default policy	Values: ACCEPT, DROP

Response Body

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

settings: Get snmp settings

Get SNMP settings.

```
GET https://{device}/api/shark/5.1/settings/snmp
```

Authorization

This request requires authorization.

Response Body

Returns a *snmp_settings* data object.

settings: Update profiler export settings

Update profiler export settings.

```
PUT https://{device}/api/shark/5.1/settings/profiler_export
```

Authorization

This request requires authorization.

Request Body

Provide a *profilerexport_settings* data object.

Response Body

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

settings: Get profiler export settings

Get profiler export settings.

```
GET https://{device}/api/shark/5.1/settings/profiler_export
```

Authorization

This request requires authorization.

Response Body

Returns a *profilerexport_settings* data object.

settings: Update authentication settings

Update authentication settings.

```
PUT https://{device}/api/shark/5.1/settings/auth
```

Authorization

This request requires authorization.

Request Body

Provide an *auth_settings* data object.

Response Body

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

---

settings: Update basic settings

Update basic settings.

```
PUT https://{device}/api/shark/5.1/settings/basic
```

Authorization

This request requires authorization.

Request Body

Provide a *basic_settings* data object.

Response Body

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

---

settings: Get authentication settings

Get authentication settings.

```
GET https://{device}/api/shark/5.1/settings/auth
```

Authorization

This request requires authorization.

Response Body

Returns an *auth_settings* data object.

---

settings: Update cors domains

Update the list of domains enabled for Cross Origin Resource Sharing.

```
PUT https://{device}/api/shark/5.1/settings/cors_domains
```

Authorization

This request requires authorization.

Request Body

Provide a request body with the following structure:

JSON

```
[
  string
]

Example:
[
  "http://example_domain1.com",
  "http://example_domain2.com"
]
```

Property Name	Type	Description	Notes
cors_domains	*<array of <string>>*	List of CORS (Cross-Origin Resource Sharing) domains	
cors_domains[domain]	*<string>*		

Response Body

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

settings: Get basic settings

Get basic settings.

```
GET https://{device}/api/shark/5.1/settings/basic
```

Authorization

This request requires authorization.

Response Body

Returns a *basic_settings* data object.

settings: Update snmp settings

Update SNMP settings.

```
PUT https://{device}/api/shark/5.1/settings/snmp
```

Authorization

This request requires authorization.

Request Body

Provide a *snmp_settings* data object.

Response Body

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

settings: Get firewall settings

Get firewall settings.

```
GET https://{device}/api/shark/5.1/settings/firewall
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
{
 "rules": [
   {
    "action": string,
    "source": string,
    "protocol": string,
    "description": string,
    "dest_port": number
   }
 ],
 "firewall_enabled": boolean,
 "default_policy": string
}

Example:
{
 "rules": [
   {
    "action": "ACCEPT",
    "source": "10.0.0.1",
    "protocol": "TCP",
    "description": "Allow HTTPS for all the hosts",
    "dest_port": 65535
   },
   {
    "action": "ACCEPT",
    "protocol": "TCP",
    "description": "Allow SSH for all the hosts",
    "dest_port": 22
   },
   {
    "action": "ACCEPT",
    "protocol": "ICMP",
    "description": "Allow ICMP for all the hosts"
   }
 ],
 "firewall_enabled": true,
 "default_policy": "DROP"
}
```

Property Name	Type	Description	Notes
firewall_settings	*<object>*	Firewall configuration	
*firewall_settings.*rules	*<array of <object>>*	Rules list	
*firewall_settings.*rules[rule]	*<object>*		
*firewall_settings.*rules[rule].action	*<string>*	Rule action, what the firewall should do with the packet when it matches the rule	Values: ACCEPT, DROP, LOG_ACCEPT, LOG_DROP
*firewall_settings.*rules[rule].source	*<string>*	Rule IPV4 source address. It can contain a netmasks specified as CIDR format or as IPV4 address.	Optional
*firewall_settings.*rules[rule].protocol	*<string>*	Rule protocol	Optional; Values: TCP, UDP, ICMP, ALL
*firewall_settings.*rules[rule]. description	*<string>*	Rule description	Optional
*firewall_settings.*rules[rule].dest_port	*<number>*	Rule destination port	Optional
*firewall_settings.*firewall_enabled	*<boolean>*	Enables or disable the firewall	
*firewall_settings.*default_policy	*<string>*	Firewall default policy	Values: ACCEPT, DROP

settings: List cors domains

Get the list of domains enabled for Cross Origin Resource Sharing.

```
GET https://{device}/api/shark/5.1/settings/cors_domains
```

Authorization

This request requires authorization.

Response Body

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

JSON

```
[
  string
]

Example:
[
  "http://example_domain1.com",
  "http://example_domain2.com"
]
```

Property Name	Type	Description	Notes
cors_domains	*<array of <string>>*	List of CORS (Cross-Origin Resource Sharing) domains	
cors_domains[domain]	*<string>*		

---

settings: Update audit settings

Update audit settings.

```
PUT https://{device}/api/shark/5.1/settings/audit
```

Authorization

This request requires authorization.

Request Body

Provide an *audit_settings* data object.

Response Body

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

---

settings: Get notification settings

Management daemon configuration parameters.

```
GET https://{device}/api/shark/5.1/settings/notification
```

Authorization

This request requires authorization.

Response Body

Returns a *notification_settings* data object.

---

settings: Get audit settings

Get audit settings.

```
GET https://{device}/api/shark/5.1/settings/audit
```

Authorization

This request requires authorization.

Response Body

Returns an *audit_settings* data object.

---

settings: Update notification settings

Update management daemon configuration parameters.

```
PUT https://{device}/api/shark/5.1/settings/notification
```

Authorization

This request requires authorization.

Request Body

Provide a *notification_settings* data object.

Response Body

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

Data types

application

JSON

```
{
  "type": number,
  "display_name": string,
  "description": string,
  "id": number
}

Example:
{
  "display_name": "Facebook",
  "type": 1,
  "description": "Facebook is a social networking service.",
  "id": 206
}
```

Property Name	Type	Description	Notes
application	*<object>*		
application.type	*<number>*	Application type, it can be either '1' for system applications or '2' for custom applications	
application.display_name	*<string>*	Application name	
application.description	*<string>*	Application description	Optional
application.id	*<number>*	Application unique identifier	

audit_settings

Audit system settings

JSON

```
{
  "audit_categories": [
    {
      "min_remote_server_level": string,
      "audit_type": string,
      "min_syslog_level": string,
      "name": string,
      "description": string
    }
  ],
  "remote_log_servers": [
    {
      "protocol": string,
      "port": number,
      "server_name": string,
      "severity": string
    }
  ]
}

Example:
{
  "audit_categories": [
    {
      "min_remote_server_level": "DISABLED",
      "audit_type": "AUTHENTICATION",
      "description": "Audits login attempts.",
      "name": "AUTHENTICATION",
```

```
    "min_syslog_level": "INFO"
   },
   {
    "min_remote_server_level": "DISABLED",
    "audit_type": "CAPTURE_JOBS",
    "description": "Audits capture jobs.",
    "name": "CAPTURE JOBS",
    "min_syslog_level": "INFO"
   },
   {
    "min_remote_server_level": "DISABLED",
    "audit_type": "CRYPTOGRAPHY",
    "description": "Audits cryptographic functions.",
    "name": "CRYPTOGRAPHY",
    "min_syslog_level": "INFO"
   },
   {
    "min_remote_server_level": "DISABLED",
    "audit_type": "COMMUNICATIONS",
    "description": "Audits HTTPS requests.",
    "name": "COMMUNICATIONS",
    "min_syslog_level": "DISABLED"
   },
   {
    "min_remote_server_level": "DISABLED",
    "audit_type": "FILE_OPERATIONS",
    "description": "Audits file operations.",
    "name": "FILE OPERATIONS",
    "min_syslog_level": "INFO"
   },
   {
    "min_remote_server_level": "DISABLED",
    "audit_type": "LICENSING",
    "description": "Audits license operations.",
    "name": "LICENSING",
    "min_syslog_level": "INFO"
   },
   {
    "min_remote_server_level": "DISABLED",
    "audit_type": "SETTINGS",
    "description": "Audits modification to settings.",
    "name": "SETTINGS",
    "min_syslog_level": "INFO"
   },
   {
    "min_remote_server_level": "DISABLED",
    "audit_type": "SYSTEM_OPERATIONS",
    "description": "Audits system operations.",
    "name": "SYSTEM OPERATIONS",
    "min_syslog_level": "INFO"
   },
   {
    "min_remote_server_level": "DISABLED",
    "audit_type": "USER_MANAGEMENT",
    "description": "Audits users and groups setting.",
    "name": "USER MANAGEMENT",
    "min_syslog_level": "INFO"
   },
   {
    "min_remote_server_level": "DISABLED",
    "audit_type": "VIEWS",
    "description": "Audits view operations.",
    "name": "VIEWS",
    "min_syslog_level": "INFO"
   },
   {
    "min_remote_server_level": "DISABLED",
    "audit_type": "WATCHES",
    "description": "Audits watch operations.",
    "name": "WATCHES",
    "min_syslog_level": "INFO"
   }
  ],
  "remote_log_servers": [
   {
    "protocol": "UDP",
    "severity": "WARNING",
    "server_name": "test",
    "port": 62471
   }
  ]
 }
```


Property Name	Type	Description	Notes
audit_settings	*<object>*	Audit system settings	

audit_settings.audit_categories	*<array of <object>>*	List of audit categories	
audit_settings.audit_categories [audit_category]	*<object>*	Information for each audit category	
audit_settings.audit_categories [audit_category]. min_remote_server_level	*<string>*	Audit levels for each audit category	Values: INFO, ERROR, DISABLED
audit_settings.audit_categories [audit_category].audit_type	*<string>*	Audit categories	Values: AUTHENTICATION, CAPTURE_JOBS, CRYPTOGRAPHY, COMMUNICATIONS, FILE_OPERATIONS, LICENSING, SETTINGS, SYSTEM_OPERATIONS, USER_MANAGEMENT, VIEWS, WATCHES
audit_settings.audit_categories [audit_category].min_syslog_level	*<string>*	Audit levels for each audit category	Values: INFO, ERROR, DISABLED
audit_settings.audit_categories [audit_category].name	*<string>*	Audit category name	
audit_settings.audit_categories [audit_category].description	*<string>*	Description of events captured by this audit category	
audit_settings.remote_log_servers	*<array of <object>>*	List of remote log server configurations	
audit_settings.remote_log_servers [remote_server]	*<object>*	Information for each remote log server	
audit_settings.remote_log_servers [remote_server].protocol	*<string>*	TCP or UDP protocol	Values: TCP, UDP
audit_settings.remote_log_servers [remote_server].port	*<number>*	TCP/UDP port on the server	
audit_settings.remote_log_servers [remote_server].server_name	*<string>*	Remote server name	
audit_settings.remote_log_servers [remote_server].severity	*<string>*	Severity levels	Values: INFO, NOTICE, WARNING, ERROR, CRITICAL, ALERT, EMERGENCY

auth_settings

Authentication settings

JSON


```
{
 "local_settings": {
  "min_password_length": number,
  "password_change_history": number,
  "min_password_special_character": number,
  "min_password_upper_letter": number,
  "max_unsuccessful_login_attempts": number,
  "min_password_lower_letter": number,
  "max_password_lifetime_days": number,
  "min_password_numeric_character": number
 },
 "password_settings": {
  "allow_password_save": boolean
 },
 "radius_settings": {
  "client_port": string,
  "servers": [
   {
    "shared_secret": string,
    "port": number,
    "address": string
   }
  ],
  "encryption_protocol": string,
  "accounting_enabled": boolean
 },
 "tacacs_settings": {
  "accounting_terminator": string,
  "accounting_enabled": boolean,
  "accounting_value": string,
  "authorization_value": string,
  "servers": [
   {
    "shared_secret": string,
    "port": number,
    "address": string
   }
  ],
  "client_port": string,
  "authorization_response_attribute": string,
```

```
    "authorization_attribute": string,
    "accounting_attribute": string
   },
   "auth_sequence": [
    string
   ],
   "remote_auth_settings": {
    "fallback_on_unavailable_only": boolean,
    "default_group": string
   },
   "webui_settings": {
    "login_banner": string,
    "need_purpose": boolean,
    "session_duration": number
   }
}

Example:
{
 "local_settings": {
   "min_password_length": 8,
   "password_change_history": 10,
   "min_password_special_character": 1,
   "min_password_upper_letter": 1,
   "max_unsuccessful_login_attempts": 3,
   "min_password_lower_letter": 1,
   "max_password_lifetime_days": 90,
   "min_password_numeric_character": 1
 },
 "password_settings": {
   "allow_password_save": false
 },
 "radius_settings": {
   "client_port": "na",
   "accounting_enabled": false,
   "encryption_protocol": "PAP",
   "servers": []
 },
 "tacacs_settings": {
   "accounting_terminator": "2>&1",
   "accounting_enabled": true,
   "accounting_value": "cace",
   "authorization_value": "cace",
   "servers": [
     {
       "address": "10.1.1.1",
       "port": 49,
       "shared_secret": "key"
     }
   ],
   "client_port": "ttyp6",
   "accounting_attribute": "task_id",
   "authorization_attribute": "service",
   "authorization_response_attribute": "*"
 },
 "auth_sequence": [
   "LOCAL",
   "TACACS"
 ],
 "remote_auth_settings": {
   "fallback_on_unavailable_only": true,
   "default_group": "Administrators"
 },
 "webui_settings": {
   "login_banner": "Welcome to Shark.",
   "need_purpose": false,
   "session_duration": 60
 }
}
```


Property Name	Type	Description	Notes
auth_settings	*<object>*	Authentication settings	
auth_settings.local_settings	*<object>*	Local authentication type parameters	
auth_settings.local_settings. min_password_length	*<number>*	Minimum password length	
auth_settings.local_settings. password_change_history	*<number>*	Number of previous user passwords stored in history	
auth_settings.local_settings. min_password_special_character	*<number>*	Minimum number of special characters	
auth_settings.local_settings. min_password_upper_letter	*<number>*	Minimum number of upper-case letters	

auth_settings.local_settings.max_unsuccessful_login_attempts	*<number>*	Number of unsuccessful attempts before user is locked out	
auth_settings.local_settings.min_password_lower_letter	*<number>*	Minimum number of lower-case letters	
auth_settings.local_settings.max_password_lifetime_days	*<number>*	Number of days after which password expires	
auth_settings.local_settings.min_password_numeric_character	*<number>*	Minimum number of numeric characters	
auth_settings.password_settings	*<object>*	Settings for password managenent	Optional
auth_settings.password_settings.allow_password_save	*<boolean>*	Indicates if the user is allowed to store the client password locally	Optional
auth_settings.radius_settings	*<object>*	RADIUS authentication configuration	
auth_settings.radius_settings.client_port	*<string>*	Client port	
auth_settings.radius_settings.servers	*<array of <object>>*	List of server mappings	
auth_settings.radius_settings.servers[server]	*<object>*		
auth_settings.radius_settings.servers[server].shared_secret	*<string>*	Shared secret key	
auth_settings.radius_settings.servers[server].port	*<number>*	Port number	
auth_settings.radius_settings.servers[server].address	*<string>*	IP Address	
auth_settings.radius_settings.encryption_protocol	*<string>*	Encryption protocol	Values: PAP, CHAP, MSCHAP1, MSCHAP2
auth_settings.radius_settings.accounting_enabled	*<boolean>*	'true' to enable RADIUS accounting, 'false' otherwise	
auth_settings.tacacs_settings	*<object>*	TACACS+ authentication configuration	
auth_settings.tacacs_settings.accounting_terminator	*<string>*	Accounting terminator	
auth_settings.tacacs_settings.accounting_enabled	*<boolean>*	'true' to enable TACACS+ accounting, 'false' otherwise	
auth_settings.tacacs_settings.accounting_value	*<string>*	Accounting value	
auth_settings.tacacs_settings.authorization_value	*<string>*	Authorization value	
auth_settings.tacacs_settings.servers	*<array of <object>>*	List of server mappings	
auth_settings.tacacs_settings.servers[server]	*<object>*		
auth_settings.tacacs_settings.servers[server].shared_secret	*<string>*	Shared secret key	
auth_settings.tacacs_settings.servers[server].port	*<number>*	Port number	
auth_settings.tacacs_settings.servers[server].address	*<string>*	IP Address	
auth_settings.tacacs_settings.client_port	*<string>*	Client port	
auth_settings.tacacs_settings.authorization_response_attribute	*<string>*	Authorization response attribute. If set to '*', only the first attribute-value pair returned by the server will be considered during authorization.	
auth_settings.tacacs_settings.authorization_attribute	*<string>*	Authorization attribute	
auth_settings.tacacs_settings.accounting_attribute	*<string>*	Acccounting attribute	
auth_settings.auth_sequence	*<array of <string>>*	List of authentication mechanisms used by Shark	
auth_settings.auth_sequence[auth_type]	*<string>*	Authentication Mode	Values: LOCAL, TACACS, RADIUS
auth_settings.remote_auth_settings	*<object>*	Additional authentication parameter settings for TACACS+ and RADIUS servers	Optional
auth_settings.remote_auth_settings.fallback_on_unavailable_only	*<boolean>*	'true' fallbacks to the next authentication mechanism if TACACS+ or RADIUS servers are unavailable, 'false' otherwise	
auth_settings.remote_auth_settings.default_group	*<string>*	Default group used for remote authentication	
auth_settings.webui_settings	*<object>*	WebUI configuration settings for this Shark	
auth_settings.webui_settings.login_banner	*<string>*	Login banner	

*auth_settings.*webui_settings.need_purpose	*<boolean>*	Enabled if the user should be prompted to specify a purpose during login	
*auth_settings.*webui_settings.session_duration	*<number>*	Session inactivity timeout	In minutes

basic_settings

Basic Shark configuration options

JSON

```
{
  "ntp_config": {
    "profiler_mode": boolean,
    "servers": [
      string
    ]
  },
  "domain": string,
  "ptp_config": {
    "interface": string,
    "transport": string
  },
  "primary_dns": string,
  "hostname": string,
  "fips_enabled": boolean,
  "mgmt_ports": [
    {
      "enabled": boolean,
      "netmask": string,
      "interface": string,
      "dhcp": boolean,
      "ip_address": string,
      "gateway": string
    }
  ],
  "time_synchronization": string,
  "timezone": string,
  "secondary_dns": string,
  "ssh_enabled": boolean
}

Example:
{
  "ntp_config": {
    "profiler_mode": false,
    "servers": [
      "10.0.0.1",
      "10.0.0.2"
    ]
  },
  "domain": "riverbed.com",
  "ptp_config": {
    "interface": "eth0",
    "transport": "IPV4"
  },
  "primary_dns": "10.1.0.1",
  "hostname": "shark",
  "fips_enabled": false,
  "mgmt_ports": [
    {
      "enabled": true,
      "netmask": "",
      "interface": "eth0",
      "dhcp": true,
      "ip_address": "",
      "gateway": ""
    },
    {
      "enabled": false,
      "netmask": "255.255.255.0",
      "interface": "eth1",
      "dhcp": false,
      "ip_address": "172.16.22.33",
      "gateway": "172.16.22.11"
    }
  ],
  "time_synchronization": "PTP",
  "timezone": "America/Los_Angeles",
  "secondary_dns": "172.16.1.1",
  "ssh_enabled": true
}
```

Property Name	Type	Description	Notes
basic_settings	*<object>*	Basic Shark configuration options	
*basic_settings.*ntp_config	*<object>*	Shark NTP Configuration	
*basic_settings.*ntp_config.profiler_mode	*<boolean>*	'true' if Profiler acts as NTP server, 'false' otherwise	
*basic_settings.*ntp_config.servers	*<array of <string>>*	List of NTP Servers	
*basic_settings.*ntp_config.servers [server]	*<string>*		
*basic_settings.*domain	*<string>*	Network domain	
*basic_settings.*ptp_config	*<object>*	Transport options for PTP configuration	Optional
*basic_settings.*ptp_config.interface	*<string>*	Network interface card on which to connect for time synchronization	
*basic_settings.*ptp_config.transport	*<string>*	Type of transport for PTP configuration	Optional; Values: IPV4, IPV6, ETHERNET
*basic_settings.*primary_dns	*<string>*	Primary DNS server	
*basic_settings.*hostname	*<string>*	Shark host name	
*basic_settings.*fips_enabled	*<boolean>*	'true' if FIPS mode is enabled, 'false' otherwise	
*basic_settings.*mgmt_ports	*<array of <object>>*	List of management ports	
*basic_settings.*mgmt_ports[port]	*<object>*	Shark management port configuration	
*basic_settings.*mgmt_ports[port].enabled	*<boolean>*	'true' if enabled, 'false' if disabled	Optional
*basic_settings.*mgmt_ports[port].netmask	*<string>*	Network mask for this interface (empty of DHCP is enabled)	
*basic_settings.*mgmt_ports[port]. interface	*<string>*	Interface name	
*basic_settings.*mgmt_ports[port].dhcp	*<boolean>*	'true' if DHCP is enabled on this interface, 'false' otherwise	
*basic_settings.*mgmt_ports[port]. ip_address	*<string>*	IPV4 address for this interface (empty if DHCP is enabled)	
*basic_settings.*mgmt_ports[port].gateway	*<string>*	Network gateway for this interface (empty if DHCP is enabled)	
*basic_settings.*time_synchronization	*<string>*	Protocol for time synchronization	Optional; Values: NTP, PTP
*basic_settings.*timezone	*<string>*	Time zone (from IANA Time Zone Database) of this Shark	
*basic_settings.*secondary_dns	*<string>*	Secondary DNS server	Optional
*basic_settings.*ssh_enabled	*<boolean>*	'true' if SSH access to this shark is enabled, 'false' otherwise	

clip_config

Configuration of a clip

JSON

```
{
  "job_id": string,
  "filters": [
    {
      "type": string,
      "description": string,
      "value": string
    }
  ],
  "description": string
}

Example:
{
  "job_id": "000000A3",
  "filters": [
    {
      "type": "TIME",
      "description": "This is a time filter.",
      "value": "1345830425000000000, 1345830435000000000"
    },
    {
      "type": "BPF",
      "value": "port 80"
    }
  ],
  "description": "This is a clip on job 000000A3"
}
```

Property Name	Type	Description	Notes
clip_config	*<object>*	Configuration of a clip	
clip_config.job_id	*<string>*	Job ID on which the clip is applied	Optional
clip_config.filters	*<array of <object>>*	List of clip filters	Optional
clip_config.filters[filters]	*<object>*	Configuration for a clip filter	
clip_config.filters[filters].type	*<string>*	Clip configuration filter type	Values: TIME, SHARK, BPF, WIRESHARK_DISPLAY
clip_config.filters[filters].description	*<string>*	Description of this filter	Optional
clip_config.filters[filters].value	*<string>*	Value of this filter	
clip_config.description	*<string>*	Description of this clip configuration	Optional

clip_status

Status information for a clip

JSON

```
{
  "estimated_size": number,
  "modification_time": timestamp,
  "creation_time": timestamp,
  "locked": boolean
}

Example:
{
  "estimated_size": 268435456,
  "modification_time": 1345830535,
  "creation_time": 1345830425,
  "locked": true
}
```

Property Name	Type	Description	Notes
clip_status	*<object>*	Status information for a clip	
clip_status.estimated_size	*<number>*	Estimated size for this clip in packet storage	Optional
clip_status.modification_time	*<timestamp>*	Clip last modified time	Optional; Seconds since January 1, 1970
clip_status.creation_time	*<timestamp>*	Clip creation time	Optional; Seconds since January 1, 1970
clip_status.locked	*<boolean>*	'true' if packets and the index for this clip are locked, 'false' otherwise	

custom_application

JSON

```
{
  "name": string,
  "uri": string
}

Example:
{
  "name": "My_Bugzilla",
  "uri": "http://bugzilla.mydomain.com/"
}
```

Property Name	Type	Description	Notes
custom_application	*<object>*		
*custom_application.*name	*<string>*	Custom L7 signature name	
*custom_application.*uri	*<string>*	Custom L7 signature URI rule	

dimension_restrictions

Specification of dimension restrictions for a watch. Dimension restrictions can be used to narrow down what the watch checks, so that, for example, only some bars in a barchart are observed. If multiple restrictions are present in the list, the server ANDs them.

JSON

```
{
  "sub_restrictions": [ dimension_restrictions ],
  "restrictions": [
    {
      "field": string,
      "value": string
    }
  ],
  "bool_operator": string
}

Example:
{
  "sub_restrictions": [],
  "restrictions": [
    {
      "field": "c1",
      "value": "Web"
    },
    {
      "field": "c1",
      "value": "DNS"
    }
  ],
  "bool_operator": "OR"
}
```

Property Name	Type	Description	Notes
dimension_restrictions	*<object>*	Specification of dimension restrictions for a watch. Dimension restrictions can be used to narrow down what the watch checks, so that, for example, only some bars in a barchart are observed. If multiple restrictions are present in the list, the server ANDs them.	
*dimension_restrictions.*sub_restrictions	*<array of <dimension_restrictions>>*	Sub-restriction list	
*dimension_restrictions.*sub_restrictions [sub_restriction]	*<dimension_restrictions>*	Instance of a <dimension_restrictions>	
*dimension_restrictions.*restrictions	*<array of <object>>*	Restriction list	
*dimension_restrictions.*restrictions [restriction]	*<object>*		
*dimension_restrictions.*restrictions [restriction].field	*<string>*	The dimension field identified by the database column name (e.g. c2 or c5)	Column numbering starts with 1 and the field must be a dimension
*dimension_restrictions.*restrictions [restriction].value	*<string>*	The matching value	

*dimension_restrictions.*bool_operator	*<string>*	The boolean operation to apply: "And" or "Or"	Values: NOT_INITIALIZED, AND, OR

dir

Directory details

JSON


```
{
 "files": [ file ],
 "dirs": [ dir ],
 "description": string,
 "created": timestamp,
 "modified": timestamp,
 "id": string
}
```


Example:


```
{
 "files": [
  {
   "created": 1347053478,
   "modified": 1347053478,
   "type": "PCAPNG_FILE",
   "id": "/admin/http-ng.pcapng",
   "link_type": "DLT_EN10MB",
   "size": 149952
  },
  {
   "created": 1343026049,
   "modified": 1343026050,
   "type": "PCAP_FILE",
   "id": "/admin/prova.cap",
   "link_type": "DLT_EN10MB",
   "size": 145919
  }
 ],
 "dirs": [
  {
   "files": [
    {
     "created": 1342768036,
     "modified": 1342768037,
     "type": "PCAP_FILE",
     "id": "/admin/multisegment/2-router1-in.pcap",
     "link_type": "DLT_EN10MB",
     "size": 16246
    },
    {
     "created": 1342768038,
     "modified": 1342768038,
     "type": "PCAP_FILE",
     "id": "/admin/multisegment/4-router2-in.pcap",
     "link_type": "DLT_EN10MB",
     "size": 15988
    },
    {
     "created": 1342768038,
     "modified": 1342768038,
     "type": "PCAP_FILE",
     "id": "/admin/multisegment/6-router3-in.pcap",
     "link_type": "DLT_EN10MB",
     "size": 15988
    },
    {
     "created": 1342768079,
     "linked_sources": [
      {
       "path": "2-router1-in.pcap"
      },
      {
       "path": "4-router2-in.pcap"
      },
      {
       "path": "6-router3-in.pcap"
      }
     ],
     "modified": 1348764826,
     "type": "MERGED_FILE",
     "id": "/admin/multisegment/merged.pvt",
     "link_type": "DLT_EN10MB",
     "size": 243
    },
    {
```

```
      {
       "created": 1342768084,
       "linked_sources": [
         {
          "path": "2-router1-in.pcap",
          "default_source": true
         },
         {
          "path": "4-router2-in.pcap"
         },
         {
          "path": "fs/admin/multisegment/6-router3-in.pcap"
         }
       ],
       "modified": 1348764826,
       "type": "MULTISEGMENT_FILE",
       "id": "/admin/multisegment/multisegment.pvt",
       "link_type": "DLT_EN10MB",
       "size": 264
      }
     ],
     "dirs": [],
     "description": "This is a multi-segment file",
     "created": 1342767955,
     "modified": 1343077906,
     "id": "/admin/multisegment"
    },
    {
     "files": [
      {
       "created": 1342645581,
       "modified": 1342646988,
       "type": "PCAP_FILE",
       "id": "/admin/new-dir/http.cap",
       "link_type": "DLT_EN10MB",
       "size": 147456
      }
     ],
     "dirs": [],
     "description": "This is a custom folder",
     "created": 1348764627,
     "modified": 1348764743,
     "id": "/admin/new-dir"
    }
   ],
   "description": "My Files",
   "created": 1341252038,
   "modified": 1348764743,
   "id": "/admin"
}
```


Property Name	Type	Description	Notes
dir	*<object>*	Directory details	
dir.files	*<array of <file>>*	List of files	
dir.files[file]	*<file>*	Instance of a <file>	
dir.dirs	*<array of <dir>>*	List of directories	
dir.dirs[dir]	*<dir>*	Instance of a <dir>	
dir.description	*<string>*	Directory description. It is used when the directory has an alias name.	Optional
dir.created	*<timestamp>*	Creation time in Unix time format	Optional; Seconds since January 1, 1970
dir.modified	*<timestamp>*	Modification time in Unix time format	Optional; Seconds since January 1, 1970
dir.id	*<string>*	Directory id	

export

Information about an export

JSON

```
{
 "status": export_status,
 "config": export_config,
 "id": string
}

Example:
{
 "status": {
  "owner": "admin",
  "bytes_approx": 855784,
  "state": "RUNNING",
  "creation_time": 1364334117658433000
 },
 "config": {
  "output_format": "PCAP_US",
  "start_time": 1364230933,
  "end_time": 1364317200
 },
 "id": "000193E1"
}
```

Property Name	Type	Description	Notes
export	*<object>*	Information about an export	
export.status	*<export_status>*	Status of this export	
export.config	*<export_config>*	Configuration of this export	
export.id	*<string>*	ID of export	

export_config

JSON

```
{
 "stop_rule": {
  "packet_limit": number,
  "size_limit": number,
  "time_limit": number
 },
 "output_format": string,
 "output_filename": string,
 "end_time": timestamp,
 "filters": [ filter ],
 "snap_length": number,
 "start_time": timestamp
}

Example:
{
 "output_format": "PCAP_US",
 "start_time": 1364230800,
 "end_time": 1364317200
}
```

Property Name	Type	Description	Notes
export_config	*<object>*		
export_config.stop_rule	*<object>*	Stop rule for a job	Optional
export_config.stop_rule.packet_limit	*<number>*	Max number of packets	Optional
export_config.stop_rule.size_limit	*<number>*	Max bytes of packet data	Optional
export_config.stop_rule.time_limit	*<number>*	Max time in seconds	Optional
export_config.output_format	*<string>*	Output format (PCAP or PCAP-NG) and resolution of packet stream	Values: PCAP_US, PCAP_NS, PCAPNG_US, PCAPNG_NS
export_config.output_filename	*<string>*	If sending packets to file, the filename within the Shark file system	Optional
export_config.end_time	*<timestamp>*	Time (seconds from epoch) at which export is to end	Optional; Seconds since January 1, 1970
export_config.filters	*<array of <filter>>*	Collection of filters to apply to packets prior to export	Optional
export_config.filters[filter]	*<filter>*	Instance of a <filter>	
export_config.snap_length	*<number>*	Packet snap length for this export	Optional; Default is 65535
export_config.start_time	*<timestamp>*	Time (seconds from epoch) at which export is to begin	Optional; Seconds since January 1, 1970

export_status

JSON

```
{
  "owner": string,
  "creation_time": timestamp-hp,
  "state": string,
  "bytes_approx": number
}

Example:
{
  "owner": "admin",
  "bytes_approx": 855784,
  "state": "RUNNING",
  "creation_time": 1364334117658433000
}
```

Property Name	Type	Description	Notes
export_status	*<object>*		
*export_status.*owner	*<string>*	User who initiated the export	
*export_status.*creation_time	*<timestamp-hp>*	Time at which the export was created	
*export_status.*state	*<string>*	State of the export	Values: UNINITIALIZED, LOADED, PARAMS_LOADED, INITIALIZED, READY, RUNNING, ERRORS, DONE, CLOSING, PAUSED
*export_status.*bytes_approx	*<number>*	For exports from a job, approximate number of bytes in the export	Optional

file

File's details

JSON

```
{
  "index": index_info,
  "created": timestamp,
  "linked_sources": [
    {
      "path": string,
      "timeskew": number,
      "description": string,
      "default_source": boolean
    }
  ],
  "format": string,
  "modified": timestamp,
  "type": string,
  "id": string,
  "link_type": string,
  "size": number
}

Example:
{
  "created": 1342768079,
  "linked_sources": [
    {
      "path": "2-router1-in.pcap"
    },
    {
      "path": "4-router2-in.pcap"
    },
    {
      "path": "6-router3-in.pcap"
    }
  ],
  "modified": 1348764826,
  "type": "MERGED_FILE",
  "id": "/admin/multisegment/merged.pvt",
  "link_type": "DLT_EN10MB",
  "size": 243
}
```

Property Name	Type	Description	Notes

file	*<object>*	File's details	
file.index	*<index_info>*	Index info	
file.created	*<timestamp>*	Creation time in Unix time format	Optional; Seconds since January 1, 1970
file.linked_sources	*<array of <object>>*	Linked sources details list	Optional
file.linked_sources[linked_source]	*<object>*		
file.linked_sources[linked_source].path	*<string>*	Linked source path. It could be either an absolute path (fs/ID) or a relative path starting from the aggregated file folder.	
file.linked_sources[linked_source].timeskew	*<number>*	It is the packets timestamps offset associated with the linked source	Optional
file.linked_sources[linked_source].description	*<string>*	A simple description field associated with the linked source	Optional
file.linked_sources[linked_source].default_source	*<boolean>*	The default source is the reference source in a multisegment file collection and it is used as reference for the time skew calculation	Optional
file.format	*<string>*	File time format	Optional; Values: PCAP_US, PCAP_NS, PCAPNG_US, PCAPNG_NS, UNKNOWN
file.modified	*<timestamp>*	Modification time in Unix time format	Optional; Seconds since January 1, 1970
file.type	*<string>*	File type	Values: MULTISEGMENT_FILE, MERGED_FILE, PCAP_FILE, PCAPNG_FILE, ERF_FILE, UNKNOWN_FILE
file.id	*<string>*	File id	
file.link_type	*<string>*	Link layer type	Optional
file.size	*<number>*	File size in bytes	Optional

filter

JSON

```
{
  "type": string,
  "description": string,
  "value": string
}

Example:
{
  "type": "BPF",
  "description": "BPF filter on port 80",
  "value": "port 80"
}
```

Property Name	Type	Description	Notes
filter	*<object>*		
filter.type	*<string>*	Filter type	Values: TIME, SHARK, BPF, WIRESHARK_DISPLAY, DECRYPT, STATE
filter.description	*<string>*	Description, if needed	Optional
filter.value	*<string>*	Filter value	

group

Definition of a user group

JSON

```
{
  "name": string,
  "capabilities": [
    string
  ],
  "description": string
}

Example:
{
  "name": "Administrators",
  "capabilities": [
    "CAPABILITY_ADMINISTRATOR"
  ],
  "description": "Administrators"
}
```

Property Name	Type	Description	Notes
group	*<object>*	Definition of a user group	
group.name	*<string>*	Group name	
group.capabilities	*<array of <string>>*	Specifies the list of capabilities for the group	
group.capabilities[capability]	*<string>*	Specifies the capabilities of the group	Values: CAPABILITY_ADMINISTRATOR, CAPABILITY_APPLY_VIEWS_ON_FILES, CAPABILITY_APPLY_VIEWS_ON_INTERFACES, CAPABILITY_SHARE_VIEWS, CAPABILITY_CREATE_FILES, CAPABILITY_IMPORT_FILES, CAPABILITY_EXPORT_FILES, CAPABILITY_CREATE_JOBS, CAPABILITY_SCHEDULE_WATCHES, CAPABILITY_ACCESS_PROBE_FILES
group.description	*<string>*	Group description	

index_info

Information for one index

JSON

```
{
  "status": string,
  "start_time": timestamp-hp,
  "end_time": timestamp-hp
}

Example:
{
  "status": "OK",
  "start_time": 1345830425000000000,
  "end_time": 1345830435000000000
}
```

Property Name	Type	Description	Notes
index_info	*<object>*	Information for one index	
index_info.status	*<string>*	Running state of an index	Values: OK, RUNNING, ERROR
index_info.start_time	*<timestamp-hp>*	First packet timestamp for this index	
index_info.end_time	*<timestamp-hp>*	Last packet timestamp for this index	

interface

Information on a Shark interface

JSON

```
{
  "interface_components": [
    string
  ],
  "description": string,
  "virtual_info": {
    "file_name": string,
    "job_handle": string
```

```
  "job_handle": string,
  "device_name": string
 },
 "link": {
  "status": string,
  "tap_type": string,
  "stats": {
   "bytes_rx": number,
   "packets_rx": number
  },
  "addresses": [
   {
    "broadcast": string,
    "netmask": string,
    "destination": string,
    "family": string,
    "address": string
   }
  ],
  "dedup_status": string,
  "speed_options": [
   {
    "status": string,
    "speed_mbps": string,
    "duplex_type": string
   }
  ],
  "mac_address": string,
  "is_profiler_export_enabled": boolean,
  "blink_status": string,
  "type": string
 },
 "board": {
  "pass_thru": string,
  "type": string,
  "name": string
 },
 "is_promiscuous_mode": boolean,
 "type": string,
 "id": string,
 "name": string
}
```


Example:


```
{
 "interface_components": [],
 "description": "TurboCap 1Gb device no.0",
 "link": {
  "status": "UP",
  "tap_type": "NONE",
  "stats": {
   "bytes_rx": 73479647,
   "packets_rx": 1007765
  },
  "dedup_status": "DISABLED",
  "speed_options": [
   {
    "status": "ENABLED",
    "speed_mbps": "MBPS_10",
    "duplex_type": "FULL"
   },
   {
    "status": "ENABLED",
    "speed_mbps": "MBPS_10",
    "duplex_type": "HALF"
   },
   {
    "status": "ENABLED",
    "speed_mbps": "MBPS_100",
    "duplex_type": "FULL"
   },
   {
    "status": "ENABLED",
    "speed_mbps": "MBPS_100",
    "duplex_type": "HALF"
   },
   {
    "status": "NEGOTIATED",
    "speed_mbps": "MBPS_1000",
    "duplex_type": "FULL"
   }
  ],
  "mac_address": "00:e0:ed:1e:9d:1a",
  "blink_status": "OFF",
  "type": "EN10MB"
 },
 "board": {
  "pass_thru": "DISABLED",
```

```
    "type": "1G_COPPER",
    "name": "TurboCap 1 Gigabit Ethernet Board (00:e0:ed:1e:9d:1a)"
   },
   "is_promiscuous_mode": true,
   "type": "TURBOCAP_ADAPTER",
   "id": "tc0",
   "name": "tc0"
  }
```


Property Name	Type	Description	Notes
interface	*<object>*	Information on a Shark interface	
interface.interface_components	*<array of <string>>*	For aggregating ports, list of physical ports making up the aggregation	
interface.interface_components [component_interface]	*<string>*		
interface.description	*<string>*	String describing this interface	
interface.virtual_info	*<object>*	Information on a virtual interface (used internally by Shark)	Optional
interface.virtual_info.file_name	*<string>*	File name corresponding to virtual interface	
interface.virtual_info.job_handle	*<string>*	If virtual interface is a capture job, handle of the job	Optional
interface.virtual_info.device_name	*<string>*	Device name corresponding to virtual interface	
interface.link	*<object>*	Information on a physical interface link	Optional
interface.link.status	*<string>*	Indicates whether this link is up or down	Optional; Values: UP, DOWN, UNKNOWN
interface.link.tap_type	*<string>*	Tap type used on this link	Values: NONE, CPACKET, GIGAMON_HEADER, GIGAMON_TRAILER, GIGAMON_TRAILER_X12, VSS, VSS_PORT_ID, ANUE, ARISTA, UNKNOWN
interface.link.stats	*<object>*	Low-level statistics on traffic over this interface	Optional
interface.link.stats.bytes_rx	*<number>*	Bytes received	
interface.link.stats.packets_rx	*<number>*	Packets received	
interface.link.addresses	*<array of <object>>*	List of link addresses	Optional
interface.link.addresses[link_address]	*<object>*	Address information for a physical interface	
interface.link.addresses[link_address]. broadcast	*<string>*	Broadcast address for this interface	
interface.link.addresses[link_address]. netmask	*<string>*	Netmask for this interface	
interface.link.addresses[link_address]. destination	*<string>*	Destination address for this interface	Optional
interface.link.addresses[link_address]. family	*<string>*	Protocol family served by this interface	
interface.link.addresses[link_address]. address	*<string>*	IP address for this interface	
interface.link.dedup_status	*<string>*	Indicates whether or not packet deduplication has been enabled for this link	Optional; Values: ENABLED, DISABLED, NOT_SUPPORTED
interface.link.speed_options	*<array of <object>>*	List of link speed options	Optional
interface.link.speed_options [link_speed_option]	*<object>*	Speed, duplex type, and status of a speed option	
interface.link.speed_options [link_speed_option].status	*<string>*	Status of this link speed option for this interface	Optional; Values: SUPPORTED, ENABLED, NEGOTIATED
interface.link.speed_options [link_speed_option].speed_mbps	*<string>*	Throughput for this speed option	Values: MBPS_10, MBPS_100, MBPS_1000, MBPS_10000
interface.link.speed_options [link_speed_option].duplex_type	*<string>*	Duplex type for this speed option	Values: HALF, FULL, UNKNOWN
interface.link.mac_address	*<string>*	MAC address of this link	
interface.link. is_profiler_export_enabled	*<boolean>*	'true' if profiler export has been enabled for this link, 'false' otherwise	Optional
interface.link.blink_status	*<string>*	Indicates 'blink' status for this link	Optional; Values: ON, OFF, UNKNOWN
interface.link.type	*<string>*	Link layer type of this link	Values: NONE, EN10MB, RAW, IEEE802_11_RADIO, PPI, PPP_WITH_DIR, LINUX_SLL, C_HDLC, UNKNOWN
interface.board	*<object>*	Information on a physical packet capture board	Optional
interface.board.pass_thru	*<string>*	Enabled status of pass-thru mode (only supported on 1GB Copper TurboCap cards)	Values: ENABLED, DISABLED, NOT_SUPPORTED
interface.board.type	*<string>*	Type of this board	Values: 1G_COPPER, 1G_FIBER, 10G_FIBER, PCAP, UNKNOWN
interface.board.name	*<string>*	Name of this board	

interface.is_promiscuous_mode	*<boolean>*	'true' if interface is in promiscuous mode, 'false' otherwise	Optional
interface.type	*<string>*	Type of this interface	Values: TURBOCAP_ADAPTER, PCAP_ADAPTER, AIRPCAP_ADAPTER, VIRTUAL, BOARD_AGGREGATING, AGGREGATING, UNKNOWN
interface.id	*<string>*	ID of this interface	
interface.name	*<string>*	Name of this interface	

job_config

Configuration information for a job

JSON

```
{
  "bpf_filter": string,
  "packet_retention": {
    "packet_limit": number,
    "size_limit": number,
    "time_limit": number
  },
  "name": string,
  "start_immediately": boolean,
  "requested_start_time": timestamp,
  "stop_rule": {
    "packet_limit": number,
    "size_limit": number,
    "time_limit": number
  },
  "indexing": {
    "synced": boolean,
    "size_limit": number,
    "dpi_enabled": boolean,
    "time_limit": number
  },
  "interface_description": string,
  "requested_end_time": timestamp,
  "snap_length": number,
  "interface_name": string
}

Example:
{
  "snap_length": 65535,
  "interface_name": "mon0",
  "packet_retention": {
    "size_limit": 5368709120
  },
  "name": "New Job 1",
  "interface_description": "mon0"
}
```

Property Name	Type	Description	Notes
job_config	*<object>*	Configuration information for a job	
job_config.bpf_filter	*<string>*	BPF filter applied to this capture job	Optional
job_config.packet_retention	*<object>*	Packet retention info for a job	
job_config.packet_retention.packet_limit	*<number>*	Max number of packets to be retained	Optional
job_config.packet_retention.size_limit	*<number>*	Max bytes of packet data to be retained	
job_config.packet_retention.time_limit	*<number>*	Time period for which packet data will be retained	Optional
job_config.name	*<string>*	Job name	
job_config.start_immediately	*<boolean>*	'true' if job is to start immediately upon creation, 'false' otherwise	Optional
job_config.requested_start_time	*<timestamp>*	Specific time at which job is to start	Optional; Seconds since January 1, 1970
job_config.stop_rule	*<object>*	Stop rule for a job	Optional
job_config.stop_rule.packet_limit	*<number>*	Max number of packets	Optional
job_config.stop_rule.size_limit	*<number>*	Max bytes of packet data	Optional
job_config.stop_rule.time_limit	*<number>*	Max time in seconds	Optional
job_config.indexing	*<object>*	Job index configuration	Optional
job_config.indexing.synced	*<boolean>*	'true' if index is synced with packet storage	Optional
job_config.indexing.size_limit	*<number>*	Max number of bytes for this index	Optional

job_config.indexing.dpi_enabled	*<boolean>*	'true' if dpi taggging is enabled	Optional
job_config.indexing.time_limit	*<number>*	Max time this index can exist	Optional
job_config.interface_description	*<string>*	Description of interface on which job is collecting packet data	Optional
job_config.requested_end_time	*<timestamp>*	Specific time at which job is to end	Optional; Seconds since January 1, 1970
job_config.snap_length	*<number>*	Packet snap length for this capture job	Optional; Default is 65535
job_config.interface_name	*<string>*	Name of interface on which job is collecting packet data	

job_index_info

JSON

```
{
  "status": string,
  "start_time": timestamp-hp,
  "end_time": timestamp-hp,
  "synced_with_job": boolean,
  "size": number
}

Example:
{
  "status": "RUNNING",
  "start_time": 1354054943377117000,
  "end_time": 1354657734848519000,
  "synced_with_job": false,
  "size": 3065578
}
```

Property Name	Type	Description	Notes
job_index_info	*<object>*		
job_index_info.status	*<string>*	Running state of an index	Values: OK, RUNNING, ERROR
job_index_info.start_time	*<timestamp-hp>*	Start time of the index	
job_index_info.end_time	*<timestamp-hp>*	End time of the index	
job_index_info.synced_with_job	*<boolean>*	'true' if index is synced with packet storage	Optional
job_index_info.size	*<number>*	Size of index on the OS file system	Optional

job_status

Status information for a job

JSON

```
{
  "state": string,
  "packet_size": number,
  "packet_start_time": timestamp-hp,
  "packet_end_time": timestamp-hp
}

Example:
{
  "packet_end_time": 1345512749000000000,
  "state": "STOPPED",
  "packet_start_time": 1344456875000000000,
  "packet_size": 44781772
}
```

Property Name	Type	Description	Notes
job_status	*<object>*	Status information for a job	
job_status.state	*<string>*	Running state of a capture job	Values: ACTIVE, RUNNING, STOPPED, UNKNOWN
job_status.packet_size	*<number>*	Size of this job in packet storage	
job_status.packet_start_time	*<timestamp-hp>*	First packet timestamp for this job	
job_status.packet_end_time	*<timestamp-hp>*	Last packet timestamp for this job	

layer4_mapping

JSON

```
{
  "override": boolean,
  "priority": number,
  "hosts": [
    string
  ],
  "name": string,
  "ports": [
    {
      "port_range": string,
      "protocol": string
    }
  ]
}

Example:
{
  "override": true,
  "priority": 0,
  "hosts": [
    "192.168.140.18"
  ],
  "name": "My_server",
  "ports": [
    {
      "port_range": "99",
      "protocol": "TCP"
    },
    {
      "port_range": "15",
      "protocol": "TCP"
    }
  ]
}
```

Property Name	Type	Description	Notes
layer4_mapping	*<object>*		
*layer4_mapping.*override	*<boolean>*	If true this L4 mapping rule overrides the L7 applications	Optional
*layer4_mapping.*priority	*<number>*	Layer4 mapping priority: smaller values have higher priority	Optional
*layer4_mapping.*hosts	*<array of <string>>*	List of hosts: each host can be defined as 'address[/mask]'	
*layer4_mapping.*hosts[host]	*<string>*		
*layer4_mapping.*name	*<string>*	Layer4 mapping name	Optional
*layer4_mapping.*ports	*<array of <object>>*	List of port range definitions for this layer4 mapping	
*layer4_mapping.*ports[port_range]	*<object>*		
*layer4_mapping.*ports[port_range].port_range	*<string>*	Port range definition: portA[-portB]	
*layer4_mapping.*ports[port_range].protocol	*<string>*		Values: TCP, UDP

notification_settings

Configuration for email notifications

JSON

```
{
  "mail": {
    "smtp_server_port": number,
    "smtp_server_address": string,
    "to_address": string,
    "from_address": string
  },
  "trap": {
    "receivers": [
      {
        "username": string,
        "engine_id": string,
```

```
      "address": string,
      "community": string,
      "privacy": {
        "protocol": string,
        "passphrase": string
      },
      "authentication": {
        "protocol": string,
        "passphrase": string
      },
      "version": string,
      "security_level": string
    }
   ]
  },
  "notifier": {
   "notifications": [
    {
     "enabled": boolean,
     "id": string,
     "description": string
    }
   ],
   "enabled": boolean,
   "trap_notification_enabled": boolean
  }
}
```


Example:


```
{
 "mail": {
  "smtp_server_port": 25,
  "to_address": "admin@foo.com",
  "smtp_server_address": "smtp.foo.com",
  "from_address": "shark@foo.com"
 },
 "trap": {
  "receivers": [
   {
    "version": "V1",
    "community": "public",
    "address": "1.2.3.4"
   },
   {
    "version": "V1",
    "community": "public",
    "address": "1.2.3.5"
   }
  ]
 },
 "notifier": {
  "notifications": [
   {
    "enabled": true,
    "id": "m_clock_monitor.time_shift",
    "description": "Notify every time the system clock is modified"
   },
   {
    "enabled": true,
    "id": "m_link_state_monitor.link_up_down",
    "description": "Notify when link up/down state changes"
   },
   {
    "enabled": true,
    "id": "m_reboot_monitor.reboot",
    "description": "Notify every time this Shark appliance is rebooted"
   },
   {
    "enabled": true,
    "id": "m_sa_events.job_change",
    "description": "Notify whenever there is job status change"
   },
   {
    "enabled": true,
    "id": "m_sa_events.disk_pressure",
    "description": "Notify whenever there is disk pressure event"
   },
   {
    "enabled": true,
    "id": "m_sa_events.memory_pressure",
    "description": "Notify whenever there is memory pressure event"
   },
   {
    "enabled": true,
    "id": "m_sa_events.watch_events",
    "description": "Notify whenever there is watch event"
   },
```

```
      {
        "enabled": true,
        "id": "m_sa_events.view_killed_events",
        "description": "Notify whenever there is a view killed"
      },
      {
        "enabled": true,
        "id": "m_storage_monitor.bad_storage",
        "description": "Notify whenever there is a change in the packet storage status"
      }
    ],
    "enabled": true,
    "trap_notification_enabled": true
  }
}
```

Property Name	Type	Description	Notes
notification_settings	*<object>*	Configuration for email notifications	
*notification_settings.*mail	*<object>*	SMTP settings for email notifications	Optional
*notification_settings.*mail.smtp_server_port	*<number>*	SMTP server port (defaults to 25)	Optional
*notification_settings.*mail.smtp_server_address	*<string>*	SMTP server IP address	
*notification_settings.*mail.to_address	*<string>*	SMTP 'to' address	
*notification_settings.*mail.from_address	*<string>*	SMTP 'from' address	
*notification_settings.*trap	*<object>*	Trap notification settings	Optional
*notification_settings.*trap.receivers	*<array of <object>>*	A list of trap receivers	
*notification_settings.*trap.receivers[trap]	*<object>*	SNMP trap receiver configuration	
*notification_settings.*trap.receivers[trap].username	*<string>*	(Required for V3) SNMP user name	Optional
*notification_settings.*trap.receivers[trap].engine_id	*<string>*	(Required for V3) Unique ID associated with the trap receiver	Optional
*notification_settings.*trap.receivers[trap].address	*<string>*	Receiver address (hostname or IP address)	
*notification_settings.*trap.receivers[trap].community	*<string>*	(Required for V1 and V2C) SNMP community string	Optional
*notification_settings.*trap.receivers[trap].privacy	*<object>*	(Required with SNMP privacy) SNMP privacy information	Optional
*notification_settings.*trap.receivers[trap].privacy.protocol	*<string>*	Privacy protocol	Values: DES, AES
*notification_settings.*trap.receivers[trap].privacy.passphrase	*<string>*	Privacy passphrase (must be at least 8 characters long)	
*notification_settings.*trap.receivers[trap].authentication	*<object>*	(Required with SNMP authentication) SNMP authentication information	Optional
*notification_settings.*trap.receivers[trap].authentication.protocol	*<string>*	Authentication protocol	Values: MD5, SHA
*notification_settings.*trap.receivers[trap].authentication.passphrase	*<string>*	Authentication passphrase (must be at least 8 characters long)	
*notification_settings.*trap.receivers[trap].version	*<string>*	SNMP version	Values: V1, V2C, V3
*notification_settings.*trap.receivers[trap].security_level	*<string>*	(Required for V3) SNMP security level	Optional; Values: NO_AUTH_NO_PRIVACY, AUTH_NO_PRIVACY, AUTH_PRIVACY
*notification_settings.*notifier	*<object>*	Notification settings	
*notification_settings.*notifier.notifications	*<array of <object>>*	A list of notification descriptors	
*notification_settings.*notifier.notifications[notification]	*<object>*	A single notification descriptor	
*notification_settings.*notifier.notifications[notification].enabled	*<boolean>*	'true' if notification is enabled, 'false' otherwise	
*notification_settings.*notifier.notifications[notification].id	*<string>*	Unique ID for the notification (assigned by the system)	
*notification_settings.*notifier.notifications[notification].description	*<string>*	(Optional) Description for the notification	Optional
*notification_settings.*notifier.enabled	*<boolean>*	'true' if SMTP notifications are enabled, 'false' otherwise	
*notification_settings.*notifier.trap_notification_enabled	*<boolean>*	'true' if trap notifications are enabled, 'false' otherwise	Optional

port_group

JSON

```
{
 "priority": number,
 "name": string,
 "ports": [
  {
   "port_range": string,
   "protocol": string
  }
 ]
}

Example:
{
 "priority": 0,
 "name": "Web",
 "ports": [
  {
   "port_range": "80",
   "protocol": "TCP"
  },
  {
   "port_range": "8080",
   "protocol": "TCP"
  },
  {
   "port_range": "443",
   "protocol": "TCP"
  }
 ]
}
```

Property Name	Type	Description	Notes
port_group	*<object>*		
port_group.priority	*<number>*	Port group priority: smaller values have higher priority	Optional
port_group.name	*<string>*	Port group name	Optional
port_group.ports	*<array of <object>>*	List of port range definitions for this group	
port_group.ports[port_range]	*<object>*		
port_group.ports[port_range].port_range	*<string>*	Port range definition: portA[-portB]	
port_group.ports[port_range].protocol	*<string>*		Values: TCP, UDP

port_name

JSON

```
{
 "udp": string,
 "port": number,
 "tcp": string
}

Example:
{
 "udp": "http",
 "port": 80,
 "tcp": "http"
}
```

Property Name	Type	Description	Notes
port_name	*<object>*		
port_name.udp	*<string>*	UDP port name for this port number	Optional
port_name.port	*<number>*	Transport port number	Optional
port_name.tcp	*<string>*	TCP port name for this port number	Optional

profilerexport_settings

Configuration of the Profiler Export

JSON

```
{
 "profilers": [
  {
   "status": {
    "state": string,
    "cause": string
   },
   "sync": {
    "sync_port_groups": boolean,
    "sync_layer4_mappings": boolean,
    "sync_custom_applications": boolean,
    "sync_port_names": boolean
   },
   "address": string
  }
 ],
 "enabled": boolean,
 "adapter_ports": [
  {
   "bpf_filter": string,
   "voip_enabled": boolean,
   "name": string,
   "dpi_enabled": boolean,
   "enabled": boolean,
   "description": string
  }
 ],
 "valid_license": boolean
}

Example:
{
 "valid_license": true,
 "enabled": true,
 "adapter_ports": [
  {
   "enabled": true,
   "voip_enabled": true,
   "name": "tc0",
   "description": "TurboCap 1Gb device no.0"
  },
  {
   "enabled": true,
   "bpf_filter": "tcp",
   "voip_enabled": false,
   "name": "tc1",
   "description": "TurboCap 1Gb device no.1"
  }
 ],
 "profilers": [
  {
   "status": {
    "state": "ERROR",
    "cause": "Host not found: myprofiler.mydomain.com"
   },
   "address": "myprofiler.mydomain.com"
  },
  {
   "status": {
    "state": "OK"
   },
   "address": "myprofiler1.mydomain.com"
  }
 ]
}
```

Property Name	Type	Description	Notes
profilerexport_settings	*<object>*	Configuration of the Profiler Export	
profilerexport_settings.profilers	*<array of <object>>*	List of profilers	
profilerexport_settings.profilers [profiler]	*<object>*	Description of a single profiler	
profilerexport_settings.profilers [profiler].status	*<object>*	Information on a profiler connection	Optional
profilerexport_settings.profilers [profiler].status.state	*<string>*	Connection state of a profiler	Values: OK, ERROR, DISABLED

profilerexport_settings.profilers [profiler].status.cause	*<string>*	In case of connection error this field contains the cause	Optional
profilerexport_settings.profilers [profiler].sync	*<object>*		Optional
profilerexport_settings.profilers [profiler].sync.sync_port_groups	*<boolean>*		
profilerexport_settings.profilers [profiler].sync.sync_layer4_mappings	*<boolean>*		
profilerexport_settings.profilers [profiler].sync. sync_custom_applications	*<boolean>*		
profilerexport_settings.profilers [profiler].sync.sync_port_names	*<boolean>*		
profilerexport_settings.profilers [profiler].address	*<string>*	Address of a profiler, either IP or full qualified name	
profilerexport_settings.enabled	*<boolean>*	Enable/disable the Profiler Export	
profilerexport_settings.adapter_ports	*<array of <object>>*	List of the capture physical ports installed on the appliance	
profilerexport_settings.adapter_ports [adapter_port]	*<object>*	Description of a single physical capture port	
profilerexport_settings.adapter_ports [adapter_port].bpf_filter	*<string>*	BPF filter applied on the traffic captured on the capture port	Optional
profilerexport_settings.adapter_ports [adapter_port].voip_enabled	*<boolean>*	Enable/disable the export of VoIP metrics to profiler	
profilerexport_settings.adapter_ports [adapter_port].name	*<string>*	Name of the capture port, unique on the appliance	
profilerexport_settings.adapter_ports [adapter_port].dpi_enabled	*<boolean>*	Enable/disable the export of Application tags to profiler	Optional
profilerexport_settings.adapter_ports [adapter_port].enabled	*<boolean>*	Enable/disable the export on the capture port	
profilerexport_settings.adapter_ports [adapter_port].description	*<string>*	Description of the capture port	Optional
profilerexport_settings.valid_license	*<boolean>*		Optional

snmp_settings

SNMP configuration for this Shark

JSON

```
{
  "username": string,
  "version": string,
  "privacy": {
    "protocol": string,
    "passphrase": string
  },
  "enabled": boolean,
  "community": string,
  "authentication": {
    "protocol": string,
    "passphrase": string
  },
  "contact": string,
  "location": string,
  "security_level": string,
  "description": string
}

Example:
{
  "username": "admin",
  "description": "shark",
  "enabled": true,
  "contact": "admin@foo.com",
  "authentication": {
    "protocol": "SHA",
    "passphrase": "passphrase123"
  },
  "version": "V3",
  "location": "6th Floor West",
  "security_level": "AUTH_NO_PRIVACY"
}
```

Property Name	Type	Description	Notes
snmp_settings	*<object>*	SNMP configuration for this Shark	
*snmp_settings.*username	*<string>*	(Required for V3) SNMP user name	Optional
*snmp_settings.*version	*<string>*	SNMP version	Values: V1, V2C, V3
*snmp_settings.*privacy	*<object>*	(Required with SNMP privacy) SNMP privacy information	Optional
*snmp_settings.*privacy.protocol	*<string>*	Privacy protocol	Values: DES, AES
*snmp_settings.*privacy.passphrase	*<string>*	Privacy passphrase (must be at least 8 characters long)	
*snmp_settings.*enabled	*<boolean>*	'true' if SNMP is enabled, 'false' otherwise	
*snmp_settings.*community	*<string>*	(Required for V1 and V2C) SNMP community string	Optional
*snmp_settings.*authentication	*<object>*	(Required with SNMP authentication) SNMP authentication information	Optional
*snmp_settings.*authentication.protocol	*<string>*	Authentication protocol	Values: MD5, SHA
*snmp_settings.*authentication.passphrase	*<string>*	Authentication passphrase (must be at least 8 characters long)	
*snmp_settings.*contact	*<string>*	(Optional) SNMP contact string	Optional
*snmp_settings.*location	*<string>*	(Optional) SNMP location string	Optional
*snmp_settings.*security_level	*<string>*	(Required for V3) SNMP security level	Optional; Values: NO_AUTH_NO_PRIVACY, AUTH_NO_PRIVACY, AUTH_PRIVACY
*snmp_settings.*description	*<string>*	(Optional) SNMP description string	Optional

timestamp-hp

High precision timestamp value.

Since REST API clients may have very different needs and capabilitities when it comes to handling high-precision timestamps, the API supports multiple encodings for timestamps with higher precision than a seconds.

The format of a high-precision timestamp value in a request or response object is defined by three attributes: <units>.<precision> <type>

- units: s, ms, us, ns
- precision: .ms, .us, .ns *(optional)*
- type: string, number *(only relevant for JSON)*

Here are a few examples:

Format	Value	XML	JSON
s string	1336086278.462862235	1336086278	"1336086278"
s number	1336086278.462862235	1336086278	1336086278
s.ns string	1336086278.462862235	1336086278.462862235	"1336086278.462862235"
s.ns number	1336086278.462862235	1336086278.462862235	1336086278.462862235
s.ms string	1336086278.462862235	1336086278.462	"1336086278.462"
ns string	1336086278.462862235	1336086278462862235	"1336086278462862235"
ns number	1336086278.462862235	1336086278462862235	1336086278462862235

To select a specific timestamp format to be used in the request and response body for any REST API call, the client must indicate the desired format in the X-RBT-High-Precision-Timestamp-Format HTTP Header. The same value applies to both the request and response structures.

For example, to select nanosecond units formatted as a string (for JSON), the header would be specified as X-RBT-High-Precision-Timestamp-Format: ns string.

If the header is not supplied by the client, the default encoding is ns number.

> *The selection of the type "string" versus "number" is only relevant for JSON (since in XML everything is a string), and the choice depends on the client's particular characteristics. For example, JavaScript can only represent a 53-bit integer value before losing precision. That corresponds to roughly microsecond resolution, so it is not possible to store "ns number" values in a JavaScript integer with full precision, hence a a JavaScript client that requires sub-microsecond precision must use a string encoding and parse the number manually. However, since Python has no such constraints, the easiest encoding to work with would be a nanosecond number.*

user

Information about a user account

JSON

```
{
  "is_locked": boolean,
  "can_be_locked": boolean,
  "is_admin": boolean,
  "name": string,
  "groups": [
    string
  ]
}

Example:
{
  "is_locked": false,
  "can_be_locked": false,
  "is_admin": true,
  "name": "admin",
  "groups": [
    "Administrators"
  ]
}
```

Property Name	Type	Description	Notes
user	*<object>*	Information about a user account	
user.is_locked	*<boolean>*	Indication if the user account is locked	
user.can_be_locked	*<boolean>*	Indication if the user account can be locked	
user.is_admin	*<boolean>*	Indication if the user is an administrator	
user.name	*<string>*	User name	
user.groups	*<array of <string>>*	List of groups of which the user is a member	
user.groups[group]	*<string>*		

view

View configuration

JSON

```
{
  "info": {
    "description": string,
    "title": string
  },
  "processors": [
    {
      "keys": [
        {
          "default_value": string,
          "field": string,
          "id": string
        }
      ],
      "metrics": [
        {
          "default_value": string,
          "field": string,
          "operation": string,
          "id": string
        }
      ],
      "id": string,
      "filters": [ filter ],
      "outputs": [
        {
          "fields": [
            {
              "operation": string,
              "id": string,
              "description": string
            }
          ],
          "id": string
        }
      ]
    }
```

```
  ],
  "parameters": {
    "sampling_time_msec": number,
    "autoclose_idle_timeout_msec": number,
    "retention_time_msec": number
  },
  "watches": [ watch ],
  "client_config": string,
  "input_source": {
    "disable_index": boolean,
    "path": string,
    "filters": [ filter ]
  }
}

Example:
{
  "info": {
    "description": "Network Usage by Traffic Type",
    "title": "Network Usage by Traffic Type"
  },
  "processors": [
    {
      "keys": [
        {
          "field": "generic.application",
          "id": "c1"
        }
      ],
      "metrics": [
        {
          "field": "generic.bits",
          "operation": "TIME_AVG",
          "id": "c2"
        },
        {
          "field": "generic.bits",
          "operation": "SUM",
          "id": "c3"
        }
      ],
      "id": "PUID_Overview_Grid",
      "filters": [],
      "outputs": [
        {
          "fields": [
            {
              "id": "c1",
              "description": "Traffic Type"
            },
            {
              "id": "c2",
              "description": "Bits"
            }
          ],
          "id": "OUID_Output_Over_Time"
        },
        {
          "fields": [
            {
              "id": "c1",
              "description": "Traffic Type"
            },
            {
              "id": "c3",
              "description": "Bits"
            }
          ],
          "id": "OUID_Output_Aggregated"
        }
      ]
    }
  ],
  "parameters": {
    "sampling_time_msec": 1000,
    "retention_time_msec": 86400000
  },
  "watches": [],
  "client_config": "<CACEPilotConfiguration xmlns:xsi=\"http://www.w3.org/2001/XMLSchema-instance\"
xsi:noNamespaceSchemaLocation=\"..\\..\\..\\..\\..\\specs\\XML\\PilotConfig.xsd\">\n\t<Version
Client=\"3.6\"/>\n\t<Info>\n\t\t<Title>Network Usage by Traffic Type</Title>\n\t\t<Description>Network Usage by Traffic
Type</Description>\n\t\t<Info>This view gives a great overview of how the network is utilized by the different protocols and
applications. It breaks the network traffic into the following categories: Routing, Web, Email, Data Transfer, SSH/Telnet, MS networking,
SNMP, VPN/Tunnel, Remote-Desktop, VoIP, Database, IM.</Info>\n\t\t<Notes Subject=\"Warning\">The protocol transported by TCP or
UDP are discovered by a port lookup, not by payload inspection. This makes this view very fast and suitable for high speed networks.
On the other side, it could cause false positives. For example, all the traffic on TCP port 80 will be reported as &amp;quot;Web&amp;quot;.
</Notes>\n\t</Info>\n\t<DisplaysData>\n\t\t<DisplayData
```

DisplayUId=\"DUID_Over_Time\">\n\t\t\t<DataSources>\n\t\t\t\t<DataSource OutputUId=\"OUID_Output_Over_Time\"
RefreshInterval=\"1000\"/>\n\t\t\t</DataSources>\n\t\t</DisplayData>\n\t\t<DisplayData
DisplayUId=\"DUID_Total\">\n\t\t\t<DataSources>\n\t\t\t\t<DataSource OutputUId=\"OUID_Output_Aggregated\"
RefreshInterval=\"1000\"/>\n\t\t\t</DataSources>\n\t\t</DisplayData>\n\t\t<DisplayData
DisplayUId=\"DUID_Total_Pie\">\n\t\t\t<DataSources>\n\t\t\t\t<DataSource OutputUId=\"OUID_Output_Aggregated\"
RefreshInterval=\"1000\"/>\n\t\t\t</DataSources>\n\t\t</DisplayData>\n\t</DisplaysData>\n\t<DisplaysUI>\n\t\t<DisplayUI
ComponentName=\"StripChart\" DisplayUId=\"DUID_Over_Time\">\n\t\t\t<DisplayProperties>\n\t\t\t\t<Property Name=\"Title\"
Value=\"Bits Over Time\"/>\n\t\t\t\t<Property Name=\"ColorRule\" Value=\"Dimension\"/>\n\t\t\t\t<Property Name=\"ColorParameter\"
Value=\"x0\"/>\n\t\t\t\t<Property Name=\"TimeFormatStr\" Value=\"HH:mm:ss \"/>\n\t\t\t\t<Property Name=\"LegendDimension\"
Value=\"113\"/>\n\t\t\t\t<Property Name=\"YAxisLabel\"
Value=\"Bits/s\"/>\n\t\t\t</DisplayProperties>\n\t\t<Help>\n\t\t\t<Text>Amount of bits per second for each type of network traffic,
charted over time.</Text>\n\t\t</Help>\n\t\t</DisplayUI>\n\t\t<DisplayUI ComponentName=\"SingleBars\"
DisplayUId=\"DUID_Total\">\n\t\t\t<DisplayProperties>\n\t\t\t\t<Property Name=\"Title\" Value=\"Total Bits\"/>\n\t\t\t\t<Property
Name=\"ShowLegend\" Value=\"False\"/>\n\t\t\t\t<Property Name=\"LegendDimension\" Value=\"105\"/>\n\t\t\t\t<Property
Name=\"YAxisLabel\" Value=\"Total Bits\"/>\n\t\t\t\t<Property Name=\"PxFromBottomBorder\" Value=\"60\"/>\n\t\t\t\t<Property
Name=\"UserPageSize\" Value=\"30\"/>\n\t\t\t\t<Property Name=\"ColorRule\" Value=\"Dimension\"/>\n\t\t\t\t<Property
Name=\"ColorParameter\" Value=\"x0\"/>\n\t\t\t</DisplayProperties>\n\t\t<Help Visible=\"False\">\n\t\t\t<Text>Total network
usage for the different types of network traffic, during the visualized time interval.
</Text>\n\t\t</Help>\n\t</DisplayUI>\n\t<DisplayUI ComponentName=\"Pie\"
DisplayUId=\"DUID_Total_Pie\">\n\t\t<DisplayProperties>\n\t\t\t<Property Name=\"Title\" Value=\"Relative Network
Usage\"/>\n\t\t\t<Property Name=\"LegendPosition\" Value=\"Right\"/>\n\t\t\t<Property Name=\"PieLabelType\"
Value=\"Percentage\"/>\n\t\t\t<Property Name=\"ColorParameter\" Value=\"x0\"/>\n\t\t\t<Property Name=\"ColorRule\"
Value=\"Dimension\"/>\n\t\t</DisplayProperties>\n\t\t<Help>\n\t\t\t<Text>Relative network usage for the different types of
network traffic, during the visualized time interval.
</Text>\n\t\t</Help>\n\t</DisplayUI>\n\t<DisplaysUILayout>\n\t\t<dotnetbarlayout version=\"6\"
zorder=\"3,4,1,2\">\n\t\t\t<documents>\n\t\t\t\t<dockcontainer h=\"0\" orientation=\"1\" w=\"0\">\n\t\t\t\t<barcontainer
h=\"311\" w=\"978\">\n\t\t\t\t<bar dockline=\"0\" dockoffset=\"0\" dockside=\"5\" layout=\"2\" name=\"BaseBar\"
seldocktab=\"0\" state=\"2\" visible=\"true\">\n\t\t\t\t<items>\n\t\t\t\t<item name=\"DUID_Over_Time\" origBar=\"\"
origPos=\"-1\" pos=\"0\"/>\n\t\t\t</items>\n\t\t</bar>\n\t\t</barcontainer>\n\t\t<dockcontainer h=\"311\"
orientation=\"0\" w=\"978\">\n\t\t\t<barcontainer h=\"279\" w=\"487\">\n\t\t\t<bar ahanim=\"0\"
autocaptionsync=\"true\" cancust=\"false\" candockbottom=\"false\" candockdoc=\"true\" candockleft=\"false\" candockright=\"false\"
candocktab=\"true\" candocktop=\"false\" canhide=\"false\" canundock=\"false\" custom=\"true\" dockline=\"0\" dockside=\"5\"
eqbutton=\"false\" fontemsize=\"8.25\" fontname=\"Microsoft Sans Serif\" fontstyle=\"0\" grabhandle=\"0\" imagesize=\"0\"
itemsp=\"0\" layout=\"2\" menubar=\"false\" name=\"DUID_Total\" seldocktab=\"0\" showtab=\"true\" state=\"2\" stretch=\"true\"
style=\"4\" tabalign=\"2\" tabnav=\"true\" text=\"Total Bits\" themes=\"false\" visible=\"true\" wrapdock=\"false\"
wrapfloat=\"true\">\n\t\t\t\t<items>\n\t\t\t\t<item name=\"DUID_Total\" origBar=\"\" origPos=\"-1\"
pos=\"0\"/>\n\t\t\t</items>\n\t\t</bar>\n\t\t</barcontainer>\n\t\t<barcontainer h=\"279\"
w=\"488\">\n\t\t\t<bar ahanim=\"0\" autocaptionsync=\"true\" cancust=\"false\" candockbottom=\"false\" candockdoc=\"true\"
candockleft=\"false\" candockright=\"false\" candocktab=\"true\" candocktop=\"false\" canhide=\"false\" canundock=\"false\"
custom=\"true\" dockline=\"0\" dockside=\"5\" eqbutton=\"false\" fontemsize=\"8.25\" fontname=\"Microsoft Sans Serif\"
fontstyle=\"0\" grabhandle=\"0\" imagesize=\"0\" itemsp=\"0\" layout=\"2\" menubar=\"false\" name=\"DUID_Total_Pie\"
seldocktab=\"0\" showtab=\"true\" state=\"2\" stretch=\"true\" style=\"4\" tabalign=\"2\" tabnav=\"true\" text=\"Relative Network
Usage\" themes=\"false\" visible=\"true\" wrapdock=\"false\" wrapfloat=\"true\">\n\t\t\t\t<items>\n\t\t\t\t<item
name=\"DUID_Total_Pie\" origBar=\"\" origPos=\"-1\"
pos=\"0\"/>\n\t\t\t</items>\n\t\t</bar>\n\t\t</barcontainer>\n\t\t</dockcontainer>\n\t\t\t</dockcontai

```
 "input_source": {
  "disable_index": false,
  "path": "fs/admin/pcap/noon.cap",
  "filters": [
   {
    "type": "SHARK",
    "value": "generic.frame.valid = true"
   },
   {
    "type": "DECRYPT",
    "value": "true"
   }
  ]
 }
}
```

Property Name	Type	Description	Notes
view	*<object>*	View configuration	
view.info	*<object>*	View information section	Optional
view.info.description	*<string>*	View description	Optional
view.info.title	*<string>*	View title	Optional
view.processors	*<array of <object>>*	Processors configuration	Minimum: 1
view.processors[processor]	*<object>*	Processor configuration	
view.processors[processor].keys	*<array of <object>>*	List of fields that will act as keys in this configuration	
view.processors[processor].keys[key]	*<object>*		
view.processors[processor].keys[key].default_value	*<string>*	Default value, if needed	Optional
view.processors[processor].keys[key].field	*<string>*	Field name according to the Shark syntax	

view.processors[processor].keys[key].id	*<string>*	Alias that can be given to the field, used as identifier in the output configuration	
view.processors[processor].metrics	*<array of <object>>*	List of fields that will act as metrics in this configuration	
view.processors[processor].metrics [metric]	*<object>*		
view.processors[processor].metrics [metric].default_value	*<string>*	Default value, if needed	Optional
view.processors[processor].metrics [metric].field	*<string>*	Field name according to the Shark syntax	
view.processors[processor].metrics [metric].operation	*<string>*	Calculation type	Values: NONE, SUM, MAX, MIN, AVG, TIME_AVG, REPLACE
view.processors[processor].metrics [metric].id	*<string>*	Alias that can be given to the field, used as identifier in the output configuration	
view.processors[processor].id	*<string>*	Processor Id	
view.processors[processor].filters	*<array of <filter>>*	Filter list for the processor	
view.processors[processor].filters [filter]	*<filter>*	Instance of a <filter>	
view.processors[processor].outputs	*<array of <object>>*	Output list for the processor	
view.processors[processor].outputs [output]	*<object>*		
view.processors[processor].outputs [output].fields	*<array of <object>>*	List of requested fields in the output	
view.processors[processor].outputs [output].fields[field]	*<object>*		
view.processors[processor].outputs [output].fields[field].operation	*<string>*	Further output operation, if needed. Notice that using this might reduce performance.	Optional; Default is NONE; Values: NONE, AVG, COUNT, MAX, MIN, SUM
view.processors[processor].outputs [output].fields[field].id	*<string>*	Id of the field. This is the same of the processor configuration.	
view.processors[processor].outputs [output].fields[field].description	*<string>*	Description, if needed	Optional
view.processors[processor].outputs [output].id	*<string>*	Output Id	
view.parameters	*<object>*	View main configuration parameters section	
view.parameters.sampling_time_msec	*<number>*	View data sampling time	Optional; Default is 1000
view.parameters. autoclose_idle_timeout_msec	*<number>*	Autoclose timeout: if set, the view will be closed if it is not accessed for a period of time equal to the timeout value	Optional; Default is 0
view.parameters.retention_time_msec	*<number>*	Data retention time: data collected for a view will be deleted after the retention time elapsed	Optional; Default is 86400000
view.watches	*<array of <watch>>*	Watch list	
view.watches[watch]	*<watch>*	Instance of a <watch>	
view.client_config	*<string>*	Client-specific section, not used by Shark	Optional; Encoded as CDATA in XML
view.input_source	*<object>*	Input source configuration	
view.input_source.disable_index	*<boolean>*	If true, the source will not be allowed to use an index to speed up the processing	Optional
view.input_source.path	*<string>*	Path of the source to open	Specifies a job, clip, file or live device. Must start with the source type, e.g. fs/admin/trace.pcap or interfaces/tc0
view.input_source.filters	*<array of <filter>>*	List or filters for this input	
view.input_source.filters[filter]	*<filter>*	Instance of a <filter>	

watch

Watch configuration

JSON

```
{
 "info": {
   "group": string,
   "name": string,
   "description": string
 },
 "conversation_dimensions": [
   [
```

```
    string
   ]
  ],
  "severity": number,
  "triggers": [
   {
    "duration_info": {
     "duration_ms": number,
     "duration_type": string
    },
    "uid": string,
    "dimension_restrictions": dimension_restrictions,
    "repetition_info": {
     "number_of_times": number
    },
    "condition_operator": string,
    "bool_operator": string,
    "conditions": [
     {
      "field": string,
      "condition_info": {
       "aggregation_type": string,
       "check_type": string,
       "value": string,
       "second_value": string
      }
     }
    ]
   }
  ],
  "watch_uid": string,
  "enabled": boolean,
  "validity": {
   "to": {
    "value_type": string,
    "value_us": number
   },
   "from": {
    "value_type": string,
    "value_us": number
   }
  },
  "actions": {
   "actions": [
    {
     "type": string,
     "uid": string,
     "parameters": [
      {
       "name": string,
       "value": string,
       "custom": boolean
      }
     ],
     "side": string
    }
   ],
   "fired_triggers": {
    "bool_operator": string,
    "triggering_mode": string,
    "triggers": [
     string
    ]
   }
  },
  "timing": {
   "sampling_ms": number,
   "time_analysis_mode": string,
   "from": string,
   "interval_ms": number
  },
  "output_uid": string
}
```


Example:


```
{
  "info": {
    "name": "Watch 1"
  },
  "severity": 6,
  "triggers": [
    {
      "condition_operator": "AND",
      "conditions": [
        {
          "field": "c2",
          "condition_info": {
```

```
          "aggregation_type": "VALUE",
          "value": "0",
          "check_type": "GREATER"
        }
       }
     ],
     "bool_operator": "OR",
     "dimension_restrictions": {
      "sub_restrictions": [],
      "restrictions": [
       {
        "field": "c1",
        "value": "Web"
       }
      ],
      "bool_operator": "OR"
     },
     "uid": "Trigger 1"
    }
   ],
   "watch_uid": "watch_1",
   "enabled": true,
   "actions": {
    "fired_triggers": {
     "bool_operator": "AND",
     "triggering_mode": "LEADINGEDGE",
     "triggers": [
      "Trigger 1"
     ]
    },
    "actions": [
     {
      "type": "InternalDBLog",
      "uid": "Action 1",
      "parameters": [],
      "side": "SERVER"
     }
    ]
   },
   "timing": {
    "from": "NOW",
    "time_analysis_mode": "SAMPLE_BY_SAMPLE",
    "interval_ms": 1000
   },
   "output_uid": "OUID_Output_Over_Time"
}
```

Property Name	Type	Description	Notes
watch	*<object>*	Watch configuration	
watch.info	*<object>*	Watch info section	
watch.info.group	*<string>*	Watch group. Can be used to organize the watches.	Optional
watch.info.name	*<string>*	Watch human-friendly name	
watch.info.description	*<string>*	Watch human-friendly description	Optional
watch.conversation_dimensions	*<array of <array of <string>>>*	This is used when the watch is supposed to treat two dimensions as if they are part of a single connection. For example, the source and destination ip addresses of a conversation ring. The watch will detect a connection and include the traffic coming from both the senders in a single value to check.	Optional
watch.conversation_dimensions [conversation_group]	*<array of <string>>*		
watch.conversation_dimensions [conversation_group][field_name]	*<string>*		
watch.severity	*<number>*	Severity, specified as an integer number with with syslog convention	Optional; Default is 5
watch.triggers	*<array of <object>>*	List of the events that are watched. An event is something like "bandwdth bigger than 1000" or "packets for host 1.2.3.4 smaller than 10 for more than a minute".	
watch.triggers[trigger]	*<object>*		

*watch.*triggers[trigger].duration_info	*<object>*	Information about the amount of time the value crosses the threshold before the event is triggered. If this field is not present, the server event will be triggered after the first sampling interval in which the value is beyond the threshold. The duration must be a multiple of the view sampling time, otherwise the server will return an error.	Optional
*watch.*triggers[trigger].duration_info.duration_ms	*<number>*	The duration time, in milliseconds. This must be a multiple of the view sampling time.	
*watch.*triggers[trigger].duration_info.duration_type	*<string>*	Type of duration	Values: NOT_INITIALIZED, MORE_THAN, EQUALS
*watch.*triggers[trigger].uid	*<string>*	The unique identifier of the event	
*watch.*triggers[trigger].dimension_restrictions	*<dimension_restrictions>*	The list of dimension restrictions	
*watch.*triggers[trigger].repetition_info	*<object>*	Information about how many times the treshold needs to be crossed in order for the event to become signaled	Optional
*watch.*triggers[trigger].repetition_info.number_of_times	*<number>*	How many times the treshold needs to be crossed in order for the event to become signaled	
*watch.*triggers[trigger].condition_operator	*<string>*	The boolean operation to apply: "And" or "Or"	Values: NOT_INITIALIZED, AND, OR
*watch.*triggers[trigger].bool_operator	*<string>*	The boolean operation to apply: "And" or "Or"	Values: NOT_INITIALIZED, AND, OR
*watch.*triggers[trigger].conditions	*<array of <object>>*	The list of conditions that will have to be validated in order for the event to be satisfied. If multiple conditions are present, the event is satisfied according to the operation value.	
*watch.*triggers[trigger].conditions[condition]	*<object>*		
*watch.*triggers[trigger].conditions[condition].field	*<string>*	The numeric (or non-numeric) value that will be checked against the threshold. Non numeric values can be checked with the Equal, NotEqual and Exists operators. NOTE: the field name refers to the database column name (e.g. c2 or c5) (the base number is 1).	
*watch.*triggers[trigger].conditions[condition].condition_info	*<object>*	Generic information about this threshold	
*watch.*triggers[trigger].conditions[condition].condition_info.aggregation_type	*<string>*	The type of threshold value	Values: VALUE, PERCENTAGE, SUMVALUE, SUMPERCENTAGE, COUNT
*watch.*triggers[trigger].conditions[condition].condition_info.check_type	*<string>*	The type of check to perform	Values: EQUAL, NOT_EQUAL, LESS, LESS_OR_EQUAL, GREATER, GREATER_OR_EQUAL, INSIDE_RANGE, OUTSIDE_RANGE, EXISTS, TOPN_CHANGED
*watch.*triggers[trigger].conditions[condition].condition_info.value	*<string>*	The threshold value	Optional
*watch.*triggers[trigger].conditions[condition].condition_info.second_value	*<string>*	Second threshold value, when supported (e.g. Inside/Outside range).	Optional
*watch.*watch_uid	*<string>*	Watch Id	
*watch.*enabled	*<boolean>*	True if enabled	
*watch.*validity	*<object>*	Timing information for the watch. It specifies when the watch must be considered valid and keep under control.	Optional
*watch.*validity.to	*<object>*	Watch validity end time. If not specified, End time will be used.	
*watch.*validity.to.value_type	*<string>*	Validity type	Values: DEFAULT, NOT_SPECIFIED, START, END, RELATIVE, ABSOLUTE
*watch.*validity.to.value_us	*<number>*	Validity value, can be expressed as the absolute timestamp or relative time span depending on the type	
*watch.*validity.from	*<object>*	Watch validity start time. If not specified, Start time will be used.	
*watch.*validity.from.value_type	*<string>*	Validity type	Values: DEFAULT, NOT_SPECIFIED, START, END, RELATIVE, ABSOLUTE
*watch.*validity.from.value_us	*<number>*	Validity value, can be expressed as the absolute timestamp or relative time span depending on the type	

*watch.*actions	*<object>*	The actions to be performed when one or more events are signaled. Action examples are: start dumping to disk, create a report, start a view, etc.	
*watch.*actions.actions	*<array of <object>>*	Action list	
*watch.*actions.actions[action]	*<object>*		
*watch.*actions.actions[action].type	*<string>*	The type of action. This must correspond to the name of a Shark Probe's action plugin.	
*watch.*actions.actions[action].uid	*<string>*	Action Id	
*watch.*actions.actions[action].parameters	*<array of <object>>*	Parameter list	
*watch.*actions.actions[action].parameters [parameter]	*<object>*		
*watch.*actions.actions[action].parameters [parameter].name	*<string>*	Parameter name	
*watch.*actions.actions[action].parameters [parameter].value	*<string>*	Parameter value	
*watch.*actions.actions[action].parameters [parameter].custom	*<boolean>*	True if it is a custom parameter	Optional
*watch.*actions.actions[action].side	*<string>*	Who is in charge of performing the action, either server or client	Values: CLIENT, SERVER
*watch.*actions.fired_triggers	*<object>*	The list of events that need to be signaled AT THE SAME TIME in order for the watch actions to run	
*watch.*actions.fired_triggers. bool_operator	*<string>*	The boolean operation to apply: "And" or "Or"	Values: NOT_INITIALIZED, AND, OR
*watch.*actions.fired_triggers. triggering_mode	*<string>*	The condition that will cause a line to be considered true	Values: ONESHOT, LEADINGEDGE, CONTINUOUS, TRAILINGEDGE, LEADING_AND_TRAILING_EDGE
*watch.*actions.fired_triggers.triggers	*<array of <string>>*	The List of unique ids of the events that need to be signaled	
*watch.*actions.fired_triggers.triggers [trigger_uid]	*<string>*		
*watch.*timing	*<object>*	Information about the window that is considered by the watch during every check	
*watch.*timing.sampling_ms	*<number>*		Optional
*watch.*timing.time_analysis_mode	*<string>*	Specification of the type of analysis for the data samples	Optional; Values: SAMPLE_BY_SAMPLE, AGGREGATED; If SAMPLE_BY_SAMPLE, checks every sample and applies the conditions to it (stripchart style). If AGGREGATED, aggregates per interval_ms to calculate the value for the conditions (barchart style).
*watch.*timing.from	*<string>*	The time interval that the watch will cover	Optional; Values: NOT_INITIALIZED, NOW, BEGINNING_OF_VIEW, SECOND, MINUTE, HOUR, DAY, WEEK, MONTH, YEAR; This is the time window that the watch must consider during every check.
*watch.*timing.interval_ms	*<number>*	The time interval that the watch will cover. This is the time window that the watch must consider during every check.	Optional
*watch.*output_uid	*<string>*	Output Id that the watch refers to	

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
REQUEST_INVALID_INPUT	400	The request is invalid
AUTH_REQUIRED	401	Missing authentication credentials
AUTH_INVALID_CREDENTIALS	401	Invalid user name or password

AUTH_INVALID_SESSION	401	The authentication session has timed out or is invalid
AUTH_EXPIRED_PASSWORD	401	Account password has expired
AUTH_INVALID_CODE	401	The Oauth access code is invalid
AUTH_EXPIRED_TOKEN	401	The Oauth token has expired
AUTH_EXPIRED_CODE	401	The Oauth access code has expired
AUTH_DISABLED_ACCOUNT	403	Account has been disabled
AUTH_FORBIDDEN	403	Account does not have privileges for this request
AUTH_INVALID_TOKEN	403	The Oauth token is invalid
RESOURCE_NOT_FOUND	404	The requested resource was not found
HTTP_INVALID_METHOD	405	The requested method is not supported by this resouce
INTERNAL_ERROR	500	Internal error occurred