

Working with Elements

Summary

List all Elements and attached service monitors; display an Element's information and attached service monitors; display an Element's information and its current status; [determine the topological parent of an Element](#):

```
GET
GET
GET
/api/v1/elements
/api/v1/elements /{id}
/api/v1/elements /{id} /status
```

Update an Element configuration:

```
PUT
/api/v1/elements/{id}
```

Add or delete an Element:

```
POST
POST
POST
POST
POST
DELE
TE
/api/v1/elements (Agent Server)
/api/v1/elements (WMI Server)
/api/v1/elements (Hyper-V Server)
/api/v1/elements (SNMP v2 Network Device)
/api/v1/elements (SNMP v3 Network Device)
/api/v1/elements/{id}
```

GET /api/v1/elements

List all Elements visible to the authenticated user account.

Returned Fields

For each returned Element the following fields are provided:

| Field | Type | Description |
|---------------------|---------|--|
| description | String | Description of this Element. |
| groupid | Integer | ID for this Element's parent Element group. |
| hostname | String | Hostname used to contact this Element. |
| id | Integer | ID for this Element. |
| isMonitored | Boolean | Monitoring status for this Element. |
| monitors | Array | An array listing all monitors that belong to this Element (see Monitors Array below for details). |
| name | String | The display name of this Element. |
| tags | Array | An array listing all views/tags that this Element belongs to (see Tags Array below for details). |
| topologicalChildren | Array | An array listing all Elements that are a topological dependency of this Element in Uptime Infrastructure Monitor (see Topological Children Array below for details). |

| | | |
|--------------------|--------|---|
| topologicalParents | Array | An array listing all Elements that are topological parents of this Element in Uptime Infrastructure Monitor (see Topological Parents Array below for details). |
| typeName | String | A basic type definition for the Element. The following types are supported: <ul style="list-style-type: none"> server network device Application |
| typeOs | String | Returns basic operating system information for this Element: <ul style="list-style-type: none"> server: operating system network device: <code>sysDescr</code> value Application: no result is returned <p>Elements of other types are not currently supported by the API.</p> |
| typeSubtype | String | Basic type information for this Element. This value should be used for matching Elements based on subtype. The following subtypes are supported: <ul style="list-style-type: none"> server <ul style="list-style-type: none"> AIX Linux Netware Solaris Windows Hpux EsxServer IbmPowerSystems VcenterServer VcenterHostSystem Unknown network device <ul style="list-style-type: none"> switch Application <ul style="list-style-type: none"> Application |
| typeSubtype Name | String | Detailed descriptions of the subtype, ideally used for display purposes. The values provided for this field are open to change and should not be used for matching purposes. |

Monitors Array

The monitors array is the same across all end points. For each monitor associated with this Element the following fields are provided:

| Field | Type | Description |
|-------------|---------|---|
| elementId | Integer | ID of the Element this monitor is related to |
| id | Integer | ID of the service monitor |
| isHidden | Boolean | hidden monitors are internal monitors that Uptime Infrastructure Monitor uses, and can be ignored |
| isMonitored | Boolean | monitoring status for the service monitor |
| name | String | name of the service monitor |

Tags Array

For each tag or view associated with this Element, the following fields are provided:

| Field | Type | Description |
|-------|---------|-------------------------|
| id | Integer | ID of the tag or view |
| name | String | name of the tag or view |

Topological Children Array

For each Element that is topologically dependent on this Element, the following fields are provided:

| Field | Type | Description |
|-------|---------|-------------------------|
| id | Integer | ID of the child Element |

| | | |
|-------------|---------|-----------------------------------|
| isMonitored | Boolean | monitoring status for the Element |
| name | String | name of the Element |

Topological Parents Array

For each Element on which this Element is topologically dependent, the following fields are provided:

| Field | Type | Description |
|-------------|---------|-----------------------------------|
| id | Integer | ID of the parent Element |
| isMonitored | Boolean | monitoring status for the Element |
| name | String | name of the Element |

Response Codes

The following common response codes may result from this operation:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|-----------------------|------------------|--|
| UT-0400 | Bad Request | 400 | The request could not be processed by the server due to incorrect syntax. API commands can be accessed with this format: <code>https://<hostname>:<port>/api/<api_version>/<end_point>/<id>/<task></code> If you encounter this error, ensure the referencing URL is correct. |
| UT-0404 | Resource Not Found | 404 | The request could not be processed because an object is missing. The endpoint may be omitted from the command, or was spelled incorrectly. |
| UT-0405 | Method Not Allowed | 405 | The user does not have permission to perform the requested action. The user's Uptime Infrastructure Monitor permissions (for example, not permitted to Add Elements, Edit, or Delete Elements) stops them from doing the same though the API (POST, PUT, DELETE, respectively). |
| UT-0500 | Unknown | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. View the <code>uptime_controller.log</code> file for possible issues. |
| UT-0555 | Unknown Exception | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception has occurred; as a starting point, look for this exception in the <code>uptime_controller.log</code> file. |
| UT-0560 | Internal Server Error | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception caused a stack trace; as a starting point, look for this stack trace in the <code>uptime_controller.log</code> file. |

Other response codes that may occur include the following:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|------------------------|------------------|--|
| | OK | 200 | Information retrieved successfully. |
| UT-1010 | Element Filter Expired | 410 | The filter you are referencing is expired. Created filters persist, by default, for five minutes. |
| UT-1013 | Invalid Element Filter | 400 | The JSON used to create an Element filter is invalid, and could not be parsed. Check to ensure you are posting well-formed JSON. |
| UT-1028 | URL ID Body Mismatch | 400 | The Element ID in the URL and the JSON object do not match. |

Example

List all visible Elements:

GET <https://youruptime/api/v1/elements>

```
[
  {
    "description": "QA Windows 2008 64bit",
    "groupId": 1,
    "hostname": "qa-w2k8-x64",
    "id": 1,
```

```

    "isMonitored": true,
    "monitors": [
      {
        "elementId": 1,
        "id": 55,
        "isHidden": true,
        "isMonitored": true,
        "name": "Configuration Update Gatherer"
      },
      {
        "elementId": 1,
        "id": 54,
        "isHidden": true,
        "isMonitored": true,
        "name": "Platform Performance Gatherer"
      },
      {
        "elementId": 1,
        "id": 52,
        "isHidden": false,
        "isMonitored": true,
        "name": "PING-qa-w2k8-x64"
      },
      {
        "elementId": 1,
        "id": 53,
        "isHidden": false,
        "isMonitored": true,
        "name": "UPTIME-qa-w2k8-x64"
      }
    ],
    "name": "qa-w2k8-x64",
    "tags": [ ],
    "topologicalChildren": [ ],
    "topologicalParents": [ ],
    "type": "Server",
    "typeName": "Server",
    "typeOs": "Windows Vista/Server 2008",
    "typeSubtype": "Windows",
    "typeSubtypeName": "Microsoft Windows"
  },
  ...

  {
    "description": null,
    "groupId": 1,
    "hostname": "vmh-rd7",
    "id": 8,
    "isMonitored": true,
    "monitors": [
      {
        "elementId": 8,
        "id": 180,
        "isHidden": true,
        "isMonitored": true,
        "name": "Advanced Platform Performance Gatherer"
      },
      {
        "elementId": 8,
        "id": 24,
        "isHidden": false,
        "isMonitored": true,
        "name": "PING-vmh-rd7"
      },
      {
        "elementId": 8,
        "id": 23,
        "isHidden": true,
        "isMonitored": true,
        "name": "Platform Performance Gatherer"
      }
    ]
  }

```

```

    },
    {
        "elementId": 8,
        "id": 179,
        "isHidden": true,
        "isMonitored": true,
        "name": "vSphere ESX Server Configuration Gatherer"
    }
],
"name": "VMH RD7",
"tags": [ ],
"topologicalChildren": [ ],
"topologicalParents": [
    {
        "id": 48,
        "isMonitored": true,
        "name": "VC4"
    }
],
"type": "Server",
"typeName": "Server",
"typeOs": "VMware ESXi 5.1.0 build-1312873",
"typeSubtype": "VcenterHostSystem",
"typeSubtypeName": "VMware vSphere Server"
},

```

...

```

{
    "description": "VMware vCenter Server",
    "groupId": 1,
    "hostname": "rd-vc4",
    "id": 48,
    "isMonitored": true,
    "monitors": [
        {
            "elementId": 48,
            "id": 168,
            "isHidden": true,
            "isMonitored": true,
            "name": "Configuration Update Gatherer"
        },
        {
            "elementId": 48,
            "id": 167,
            "isHidden": true,
            "isMonitored": true,
            "name": "vCenter Health Check Monitor"
        },
        {
            "elementId": 48,
            "id": 166,
            "isHidden": true,
            "isMonitored": true,
            "name": "Storage Data Gatherer"
        },
        {
            "elementId": 48,
            "id": 165,
            "isHidden": true,
            "isMonitored": true,
            "name": "Platform Performance Gatherer"
        }
    ],
    "name": "VC4",
    "tags": [ ],
    "topologicalChildren": [
        {
            "id": 12,
            "isMonitored": true,
            "name": "VMH RD15"
        }
    ]
}

```

```

    },
    {
      "id": 6,
      "isMonitored": true,
      "name": "VMH RD13"
    },
    ...

    {
      "id": 8,
      "isMonitored": true,
      "name": "VMH RD7"
    },
    {
      "id": 5,
      "isMonitored": true,
      "name": "VMH RD12"
    },
    {
      "id": 4,
      "isMonitored": true,
      "name": "VMH RD6"
    }
  ],
  "topologicalParents": [ ],
  "type": "Server",
  "typeName": "Server",
  "typeOs": "VMware vCenter Server 5.1.0 build-1364037",
  "typeSubtype": "VcenterServer",
  "typeSubtypeName": "VMware vCenter Server"
},
...
]

```

GET /api/v1/elements/{id}

List a specific Element.

Returned Fields

For each returned Element the following fields are provided:

| Field | Type | Description |
|---------------------|---------|--|
| description | String | Description of this Element. |
| groupid | Integer | ID for this Element's parent Element group. |
| hostname | String | Hostname used to contact this Element. |
| id | Integer | ID for this Element. |
| isMonitored | Boolean | Monitoring status for this Element. |
| monitors | Array | An array listing all monitors that belong to this Element (see Monitors Array below for details). |
| name | String | The display name of this Element. |
| tags | Array | An array listing all views/tags that this Element belongs to (see Tags Array below for details). |
| topologicalChildren | Array | An array listing all Elements that are a topological dependency of this Element in Uptime Infrastructure Monitor (see Topological Children Array below for details). |
| topologicalParents | Array | An array listing all Elements that are topological parents of this Element in Uptime Infrastructure Monitor (see Topological Parents Array below for details). |

| | | |
|------------------|--------|---|
| typeName | String | A basic type definition for the Element. The following types are supported: <ul style="list-style-type: none"> server network device Application |
| typeOs | String | Returns basic operating system information for this Element: <ul style="list-style-type: none"> server: operating system network device: <code>sysDescr</code> value Application: no result is returned <p>Elements of other types are not currently supported by the API.</p> |
| typeSubtype | String | Basic type information for this Element. This value should be used for matching Elements based on subtype. The following subtypes are supported: <ul style="list-style-type: none"> server <ul style="list-style-type: none"> AIX Linux Netware Solaris Windows Hpux EsxServer IbmPowerSystems VcenterServer VcenterHostSystem Unknown network device <ul style="list-style-type: none"> switch Application <ul style="list-style-type: none"> Application |
| typeSubtype Name | String | Detailed descriptions of the subtype, ideally used for display purposes. The values provided for this field are open to change and should not be used for matching purposes. |

Monitors Array

The monitors array is the same across all end points. For each monitor associated with this Element the following fields are provided:

| Field | Type | Description |
|-------------|---------|---|
| elementId | Integer | ID of the Element this monitor is related to |
| id | Integer | ID of the service monitor |
| isHidden | Boolean | hidden monitors are internal monitors that Uptime Infrastructure Monitor uses, and can be ignored |
| isMonitored | Boolean | monitoring status for the service monitor |
| name | String | name of the service monitor |

Tags Array

For each tag or view associated with this Element, the following fields are provided:

| Field | Type | Description |
|-------|---------|-------------------------|
| id | Integer | ID of the tag or view |
| name | String | name of the tag or view |

Topological Children Array

For each Element that is topologically dependent on this Element, the following fields are provided:

| Field | Type | Description |
|-------------|---------|-----------------------------------|
| id | Integer | ID of the child Element |
| isMonitored | Boolean | monitoring status for the Element |
| name | String | name of the Element |

Topological Parents Array

For each Element on which this Element is topologically dependent, the following fields are provided:

| Field | Type | Description |
|-------------|---------|-----------------------------------|
| id | Integer | ID of the parent Element |
| isMonitored | Boolean | monitoring status for the Element |
| name | String | name of the Element |

Response Codes

The following common response codes may result from this operation:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|-----------------------|------------------|--|
| UT-0400 | Bad Request | 400 | The request could not be processed by the server due to incorrect syntax. API commands can be accessed with this format: <code>https://<hostname>:<port>/api/<api_version>/<end_point>/<id>/<task></code> If you encounter this error, ensure the referencing URL is correct. |
| UT-0404 | Resource Not Found | 404 | The request could not be processed because an object is missing. The endpoint may be omitted from the command, or was spelled incorrectly. |
| UT-0405 | Method Not Allowed | 405 | The user does not have permission to perform the requested action. The user's Uptime Infrastructure Monitor permissions (for example, not permitted to Add Elements, Edit, or Delete Elements) stops them from doing the same though the API (POST, PUT, DELETE, respectively). |
| UT-0500 | Unknown | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. View the <code>uptime_controller.log</code> file for possible issues. |
| UT-0555 | Unknown Exception | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception has occurred; as a starting point, look for this exception in the <code>uptime_controller.log</code> file. |
| UT-0560 | Internal Server Error | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception caused a stack trace; as a starting point, look for this stack trace in the <code>uptime_controller.log</code> file. |

Other response codes that may occur include the following:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|------------------------------|------------------|---|
| | OK | 200 | Information retrieved successfully. |
| UT-1000 | Element Does Not Exist | 404 | A specifically referenced Element ID does not exist. In such a case, referencing <code>https://youruptime:9997/api/v1/elements/12345</code> would return the following: The element id '12345' does not exist. The Element ID endpoint may be omitted, was inputted incorrectly, or is ignored in Uptime Infrastructure Monitor. |
| UT-1010 | Element Filter Expired | 410 | The filter you are referencing is expired. Created filters persist, by default, for five minutes. |
| UT-1012 | Element Group Filter Expired | 410 | The group filter you are referencing is expired. Created filters persist, by default, for five minutes. |
| UT-1013 | Invalid Element Filter | 400 | The JSON used to create an Element filter is invalid, and could not be parsed. Check to ensure you are posting well-formed JSON. |
| UT-1015 | Invalid Element Group Filter | 400 | The JSON used to create an Element group filter is invalid, and could not be parsed. Check to ensure you are posting well-formed JSON. |
| UT-1028 | URL ID Body Mismatch | 400 | The Element ID in the URL and the JSON object do not match. |

Example

List a specific Element (for example, ID #16):

GET <https://youruptime/api/v1/elements/16>

```
{
  "description": "QA Windows 2008 64bit",
  "groupId": 1,
  "hostname": "qa-w2k8-x64",
  "id": 16,
  "isMonitored": true,
  "monitors": [
    {
      "elementId": 16,
      "id": 54,
      "isHidden": true,
      "isMonitored": true,
      "name": "Platform Performance Gatherer"
    },
    {
      "elementId": 16,
      "id": 53,
      "isHidden": false,
      "isMonitored": true,
      "name": "UPTIME-qa-w2k8-x64"
    },
    {
      "elementId": 16,
      "id": 52,
      "isHidden": false,
      "isMonitored": true,
      "name": "PING-qa-w2k8-x64"
    },
    {
      "elementId": 16,
      "id": 55,
      "isHidden": true,
      "isMonitored": true,
      "name": "Configuration Update Gatherer"
    }
  ],
  "name": "qa-w2k8-x64",
  "tags": [ ],
  "topologicalChildren": [ ],
  "topologicalParents": [ ],
  "type": "Server",
  "typeName": "Server",
  "typeOs": "Windows Vista/Server 2008",
  "typeSubtype": "Windows",
  "typeSubtypeName": "Microsoft Windows"
}
```

Example: Determining an Element's Topological Parent

To determine the status of an Element's topological parent, refer to the Element listing's `topologicalParents` array. Consider the following example:

GET <https://youruptime/api/v1/elements/42>

The response indicates this Element's parent, RDBuilds, has an ID of 40:

```

{
  "description": "uptime agent on production test with ssl (port 5556)",
  "groupId": 1,
  "hostname": "qa-agent01",
  "id": 42,
  "isMonitored": true,
  "monitors": [
    {
      "elementId": 42,
      "id": 141,
      "isHidden": false,
      "isMonitored": true,
      "name": "PING-qa-agent01"
    },
    {
      "elementId": 42,
      "id": 142,
      "isHidden": true,
      "isMonitored": true,
      "name": "Platform Performance Gatherer"
    },
    {
      "elementId": 42,
      "id": 144,
      "isHidden": true,
      "isMonitored": true,
      "name": "Configuration Update Gatherer"
    },
    {
      "elementId": 42,
      "id": 143,
      "isHidden": false,
      "isMonitored": true,
      "name": "UPTIME-qa-agent01"
    }
  ],
  "name": "qa-agent01.rd.local",
  "tags": [],
  "topologicalChildren": [],
  "topologicalParents": [
    {
      "id": 40,
      "isMonitored": true,
      "name": "RDBuilds"
    }
  ],
  "type": "Server",
  "typeName": "Server",
  "typeOs": "Red Hat Linux 5.2",
  "typeSubtype": "Linux",
  "typeSubtypeName": "Linux"
}

```

Use the status task on the Element (in this case, ID=40) to retrieve its status:

GET <https://youruptime/api/v1/elements/40/status>

```

{
  "id": 40,
  "isMonitored": true,
  "lastCheckTime": "2016-01-15T09:07:45",
  "lastTransitionTime": "2016-01-14T22:22:05",
  "message": "",
  "monitorStatus": [
    {
      "acknowledgedComment": null,
      "elementId": 40,
      "id": 133,
      "isAcknowledged": false,
      "isHidden": false,
      "isHostCheck": false,
      "isMonitored": true,
      "lastCheckTime": "2016-01-15T09:08:58",
      "lastTransitionTime": "2016-01-14T22:18:18",
      "message": "uptime agent running on RDBuilds, uptime agent 5.3.0 (build 3) linux",
      "name": "UPTIME-RDBuilds",
      "status": "OK"
    },
    {
      "acknowledgedComment": null,
      "elementId": 40,
      "id": 135,
      "isAcknowledged": false,
      "isHidden": true,
      "isHostCheck": false,
      "isMonitored": true,
      "lastCheckTime": "2016-01-15T09:08:25",
      "lastTransitionTime": "2016-01-14T22:22:45",
      "message": "Information received from Agent: uptime agent 5.3.0 (build 3) linux ",
      "name": "Platform Performance Gatherer",
      "status": "OK"
    },
    {
      "acknowledgedComment": null,
      "elementId": 40,
      "id": 134,
      "isAcknowledged": false,
      "isHidden": false,
      "isHostCheck": true,
      "isMonitored": true,
      "lastCheckTime": "2016-01-15T09:07:45",
      "lastTransitionTime": "2016-01-14T22:22:05",
      "message": "Ping completed: 5 sent, 0.0% loss, 0.4ms average round trip time",
      "name": "PING-RDBuilds",
      "status": "OK"
    },
    {
      "acknowledgedComment": null,
      "elementId": 40,
      "id": 136,
      "isAcknowledged": false,
      "isHidden": true,
      "isHostCheck": false,
      "isMonitored": true,
      "lastCheckTime": "2016-01-15T03:45:01",
      "lastTransitionTime": "2016-01-15T03:45:01",
      "message": "Information received from Agent: uptime agent 5.3.0 (build 3) linux ",
      "name": "Configuration Update Gatherer",
      "status": "OK"
    }
  ],
  "name": "RDBuilds",
  "powerState": null,
  "status": "OK",
  "topologyParentStatus": []
}

```

GET /api/v1/elements/{id}/status

Produces basic availability information, similar to the status shown on Global Scan. Using the standard API format, the `status` task can only be called against one Element at a time, based on ID:

GET <https://youruptime/api/v1/elements/<id>/status>

Multiple Elements can first be filtered before calling by a `status` task. (See [Filtering Objects](#) for more information.)

Returned Fields

For the returned Element the following fields are provided:

| Field | Type | Description |
|----------------------|--------------------|--|
| id | Integer | ID for this service monitor |
| isMonitored | Boolean | monitoring status for this service monitor |
| lastCheckTime | String - Date Time | the last time this service monitor was executed successfully |
| lastTransitionTime | String - Date Time | the last time this service monitor changed status; this field can be used to determine time in the current status |
| message | String | the output message produced the last time the service monitor was executed |
| name | String | display name of this Element |
| powerState | String | the current power state of the Element (only provided for virtual Elements; all other Elements return null) |
| status | String | the last known status of this Element |
| monitorStatus | Array | an array listing the status of all monitors related to this Element (see Monitor Status Arrays below for more detail) |
| topologyParentStatus | Array | an array listing the status of all topological parent Elements that this Element is a child to (see Topology Status Arrays for more detail) Note: this field is deprecated |
| masterMonitorsStatus | Array | an array listing the status of all master service monitors, available if the Element type is an Application (see Monitor Status Arrays below for more detail) |
| memberMonitorStatus | Array | an array listing the status of all member service monitors, available if the Element type is an Application (see Monitor Status Arrays below for more detail) |

Monitor Status Arrays

The `monitorStatus`, `masterMonitorStatus`, and `memberMonitorStatus` arrays all provide the same response fields for each service monitor listed in the array:

| Field | Type | Description |
|--------------------|--------------------|---|
| elementId | Integer | ID of the Element this monitor is related to |
| id | Integer | ID of the service monitor |
| isHidden | Boolean | hidden monitors are internal monitors that Uptime Infrastructure Monitor uses, and can be ignored |
| isMonitored | Boolean | monitoring status for the service monitor |
| name | String | name of the service monitor |
| message | String | the output message produced the last time the service monitor was executed |
| status | String | the last known status of this service monitor |
| lastCheckTime | String - Date Time | the last time this service monitor was executed successfully |
| lastTransitionTime | String - Date Time | the last time this service monitor changed status; this field can be used to determine time in the current status |

Topology Status Arrays

The `topologyParentStatus` array can be used to map topological dependency failures using identified parent child Element relationships.



Note: This field has is deprecated. You should instead use the [topologicalChildren](#) and [topologicalParents](#) arrays in an [Element's specific listing](#).

| Field | Type | Description |
|--------------------|--------------------|--|
| id | Integer | ID for the parent Element |
| isMonitored | Boolean | monitoring status for the parent Element |
| lastCheckTime | String - Date Time | the last time the parent Element was checked successfully |
| lastTransitionTime | String - Date Time | the last time this parent Element changed status; this field can be used to determine time in the current status |
| message | String | the output message produced the last time the parent's status changed |
| name | String | display name of the parent Element |
| powerState | String | the current power state of the parent Element (only provided for virtual Elements; all other Elements return null) |
| status | String | the last known status of the parent Element |

Response Codes

The following common response codes may result from this operation:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|-----------------------|------------------|--|
| UT-0400 | Bad Request | 400 | The request could not be processed by the server due to incorrect syntax. API commands can be accessed with this format: <code>https://<hostname>:<port>/api/<api_version>/<end_point>/<id>/<task></code> If you encounter this error, ensure the referencing URL is correct. |
| UT-0404 | Resource Not Found | 404 | The request could not be processed because an object is missing. The endpoint may be omitted from the command, or was spelled incorrectly. |
| UT-0405 | Method Not Allowed | 405 | The user does not have permission to perform the requested action. The user's Uptime Infrastructure Monitor permissions (for example, not permitted to Add Elements, Edit, or Delete Elements) stops them from doing the same though the API (POST, PUT, DELETE, respectively). |
| UT-0500 | Unknown | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. View the <code>uptime_controller.log</code> file for possible issues. |
| UT-0555 | Unknown Exception | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception has occurred; as a starting point, look for this exception in the <code>uptime_controller.log</code> file. |
| UT-0560 | Internal Server Error | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception caused a stack trace; as a starting point, look for this stack trace in the <code>uptime_controller.log</code> file. |

Other response codes that may occur include the following:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|------------------------------|------------------|---|
| | OK | 200 | Information retrieved successfully. |
| UT-1000 | Element Does Not Exist | 404 | A specifically referenced Element ID does not exist. In such a case, referencing <code>https://youruptime:9997/api/v1/elements/12345</code> would return the following: The element id '12345' does not exist. The Element ID endpoint may be omitted, was inputted incorrectly, or is ignored in Uptime Infrastructure Monitor. |
| UT-1010 | Element Filter Expired | 410 | The filter you are referencing is expired. Created filters persist, by default, for five minutes. |
| UT-1012 | Element Group Filter Expired | 410 | The group filter you are referencing is expired. Created filters persist, by default, for five minutes. |
| UT-1013 | Invalid Element Filter | 400 | The JSON used to create an Element filter is invalid, and could not be parsed. Check to ensure you are posting well-formed JSON. |

| | | | |
|---------|------------------------------|-----|--|
| UT-1015 | Invalid Element Group Filter | 400 | The JSON used to create an Element group filter is invalid, and could not be parsed. Check to ensure you are posting well-formed JSON. |
| UT-1028 | URL ID Body Mismatch | 400 | The Element ID in the URL and the JSON object do not match. |

Example

GET <https://youruptime/api/v1/elements/1/status>

```

{
  "id": 1,
  "isMonitored": true,
  "lastCheckTime": "2016-09-17T14:13:56",
  "lastTransitionTime": "2016-09-13T11:34:38",
  "message": "",
  "monitorStatus":
  [
    {
      "elementId": 1,
      "id": 7,
      "isHidden": false,
      "isHostCheck": false,
      "isMonitored": true,
      "lastCheckTime": "2016-09-17T14:13:56",
      "lastTransitionTime": "2016-09-17T14:05:56",
      "message": "",
      "name": "Default File System Capacity",
      "status": "UNKNOWN"
    },
    {
      "elementId": 1,
      "id": 8,
      "isHidden": false,
      "isHostCheck": false,
      "isMonitored": true,
      "lastCheckTime": "2016-09-17T14:13:56",
      "lastTransitionTime": "2016-09-17T14:13:56",
      "message": "",
      "name": "Default Agent Service Check",
      "status": "UNKNOWN"
    },
    ...
  ],
  "name": "win-dleith",
  "powerState": "On",
  "status": "OK",
  "topologyParentStatus":
  [
    {
      "id": 2,
      "isMonitored": true,
      "lastCheckTime": "2016-09-17T14:14:17",
      "lastTransitionTime": "2016-09-13T11:34:24",
      "message": "",
      "name": "rd-vc2",
      "powerState": null,
      "status": "OK"
    },
    {
      "id": 15,
      "isMonitored": true,
      "lastCheckTime": "2016-09-17T14:09:33",
      "lastTransitionTime": "2016-09-13T11:34:32",
      "message": "",
      "name": "vmh-rd6.rd.local",
      "powerState": "On",
      "status": "OK"
    }
  ]
}

```

PUT /api/v1/elements/{id}

JSON Request

The Element is updated based on fields defined in a JSON object. The Element ID is required, and any other field is used to update the Element configuration:

| Property | Description | Requirements |
|-------------|---|---|
| id | the id of the Element you want to update | <ul style="list-style-type: none">required propertymust match an Element ID |
| name | display name for the Element anywhere in the Uptime Infrastructure Monitor Web interface | <ul style="list-style-type: none">must be uniquemaximum 50 characters |
| description | description for the Element | <ul style="list-style-type: none">maximum 255 characters |
| hostname | resolvable network hostname or IP address of the Element | <ul style="list-style-type: none">must be uniquemaximum 255 characterscontains no whitespace characters |
| groupId | the Element Group to which the Element belongs | <ul style="list-style-type: none">must match valid groupIdend-user's user group is able to see the Element group |
| isMonitored | enables and disables monitoring for the Element, determining whether it appears in Global Scan and other dashboards | <ul style="list-style-type: none">must be Boolean |

Notes

In Uptime Infrastructure Monitor, vCenter-based Elements (specifically, VMs and ESX hosts) are typically managed via vSync. This synchronization includes an Element's display name and hostname. Modifying either property through the API automatically disables its synchronization. Re-enabling the property must be done manually through the Uptime Infrastructure Monitor Web interface (using the Element's **Sync Display Name** and **Sync Hostname** option).

If you move an Element into a new group, note that the Element inherits whichever associations the group may presently have, such as maintenance windows, service groups, or parent infrastructure groups; the Element likewise drops associations from the old group.

Disabling monitoring for a vCenter stops data collection for the vCenter host, and vCenter inventory objects such as clusters, resource pools, and vApps. Data collection for ESX hosts and VMs continue to occur.

Response Codes

The following common response codes may result from this operation:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|--------------------|------------------|--|
| UT-0400 | Bad Request | 400 | The request could not be processed by the server due to incorrect syntax. API commands can be accessed with this format: <code>https://<hostname>:<port>/api/<api_version>/<end_point>/<id>/<task></code> If you encounter this error, ensure the referencing URL is correct. |
| UT-0404 | Resource Not Found | 404 | The request could not be processed because an object is missing. The endpoint may be omitted from the command, or was spelled incorrectly. |
| UT-0405 | Method Not Allowed | 405 | The user does not have permission to perform the requested action. The user's Uptime Infrastructure Monitor permissions (for example, not permitted to Add Elements, Edit, or Delete Elements) stops them from doing the same through the API (POST, PUT, DELETE, respectively). |
| UT-0500 | Unknown | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. View the <code>uptime_controller.log</code> file for possible issues. |
| UT-0555 | Unknown Exception | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception has occurred; as a starting point, look for this exception in the <code>uptime_controller.log</code> file. |

| | | | |
|---------|-----------------------|-----|--|
| UT-0560 | Internal Server Error | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception caused a stack trace; as a starting point, look for this stack trace in the <code>uptime_controller.log</code> file. |
|---------|-----------------------|-----|--|

Other response codes that may occur include the following:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|------------------------------|-----------------------|--|
| UT-0200 | OK | 200 | Operation performed successfully. |
| UT-1000 | Element Does Not Exist | 404 | A specifically referenced Element ID does not exist. In such a case, referencing https://youruptime:9997/api/v1/elements/12345 would return the following: The element id '12345' does not exist. The Element ID endpoint may be omitted, was inputted incorrectly, or is ignored in Uptime Infrastructure Monitor. |
| UT-1002 | Element Group Does Not Exist | 400 | The referenced group ID does not exist. |
| UT-1025 | Invalid Request Body JSON | 400 | The JSON object is not well formed. |
| UT-1028 | URL ID Body Mismatch | 400 | The Element ID in the URL and the JSON object do not match. |
| UT-1029 | Duplicate Hostname | 200 | Another Element (which you may not have permission to view) already exists with this hostname. |
| UT-1030 | Duplicate Element Name | 200 | Another Element (which you may not have permission to view) already exists with this display name. |
| UT-1033 | License Violation | 400 | Setting this Element to <code>isMonitored</code> exceeds the current license. |
| UT-1040 | Spaces in Hostname | n/a (JSON validation) | The Element hostname cannot contain whitespace. |
| UT-1041 | Proxy Error | 400 | This error can occur when your deployment includes a UI instance. |
| UT-1042 | HMC Violation | 400 | This error can occur when updating a pSeries-based Element that uses the HMC. |
| UT-1043 | Missing Field | n/a (JSON validation) | One or more of the Element ID, name, or hostname is missing. |
| UT-1044 | Field Number out of Range | n/a (JSON validation) | The declared Element group ID needs to be equal to or greater than 1. |
| UT-1045 | Field Too Long | n/a (JSON validation) | One or more of the Element's name, description, or hostname exceed the maximum number of characters. |

Examples

Change the display name, description, and hostname of an Element (for example, ID #3):

PUT <https://youruptime/api/v1/elements/3>

```
{
  "id": 3,
  "name": "pserv2",
  "description": "print server new location",
  "hostname": "10.1.1.100"
}
```

Disable monitoring for the same Element:

PUT <https://youruptime/api/v1/elements/3>

```
{
  "id": 3,
  "isMonitored": false
}
```

Move the Element from the default Infrastructure (with a `groupId` of 1) to another group:

PUT <https://youruptime/api/v1/elements/3>

```
{
  "id": 3,
  "groupId": 2
}
```

POST /api/v1/elements (Agent server)

JSON Request

The Element is created based on fields defined in a JSON object. Most of the following fields must be provided (refer to the Requirements column for information); any additional fields are ignored:

| Property | Description | Requirements |
|-----------------------------|--|---|
| name | display name for the Element anywhere in the Uptime Infrastructure Monitor Web interface | <ul style="list-style-type: none"> required property must be unique maximum 50 characters |
| description | optional description for the Element | <ul style="list-style-type: none"> maximum 255 characters |
| hostname | resolvable network hostname or IP address of the Element | <ul style="list-style-type: none"> required property must be unique maximum 255 characters contains no whitespace characters |
| groupId | the Element Group the Element is placed in upon creation | <ul style="list-style-type: none"> required property must match valid groupId end-user's user group is able to see the Element group |
| type | the basic Element type: <ul style="list-style-type: none"> Server Network Device | <ul style="list-style-type: none"> required property must match one of the basic Element types (in this case, <i>Server</i>) |
| collectionMethod | array of data-collection properties describing how Uptime Infrastructure Monitor communicates with the Element | <ul style="list-style-type: none"> required property |
| connectionType | the connection method for the Element: <ul style="list-style-type: none"> agent wmi snmp | <ul style="list-style-type: none"> required property must match one of the Element connection methods (in this case, <i>agent</i>) |
| useGlobalConnectionSettings | Boolean determining whether the Uptime Infrastructure Monitor Agent Global Configuration is enabled in Global Credentials Settings if <i>true</i> , all other connection properties are ignored | <ul style="list-style-type: none"> defaults to <i>false</i> if property is not defined |
| port | the port through which the Uptime Infrastructure Monitor Agent communicates with the Monitoring Station | <ul style="list-style-type: none"> required if <i>useGlobalConnectionSettings</i> property is <i>false</i> must be a valid port number (default 9998) |
| useSSL | Boolean indicating whether the Uptime Infrastructure Monitor Agent securely communicates with the Monitoring Station using SSL | <ul style="list-style-type: none"> required if <i>useGlobalConnectionSettings</i> property is <i>false</i> must be Boolean |

Response Codes

The following common response codes may result from this operation:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|-----------------------|------------------|--|
| UT-0400 | Bad Request | 400 | The request could not be processed by the server due to incorrect syntax. API commands can be accessed with this format: <code>https://<hostname>:<port>/api/<api_version>/<end_point>/<id>/<task></code> If you encounter this error, ensure the referencing URL is correct. |
| UT-0404 | Resource Not Found | 404 | The request could not be processed because an object is missing. The endpoint may be omitted from the command, or was spelled incorrectly. |
| UT-0405 | Method Not Allowed | 405 | The user does not have permission to perform the requested action. The user's Uptime Infrastructure Monitor permissions (for example, not permitted to Add Elements, Edit, or Delete Elements) stops them from doing the same through the API (POST, PUT, DELETE, respectively). |
| UT-0500 | Unknown | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. View the <code>uptime_controller.log</code> file for possible issues. |
| UT-0555 | Unknown Exception | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception has occurred; as a starting point, look for this exception in the <code>uptime_controller.log</code> file. |
| UT-0560 | Internal Server Error | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception caused a stack trace; as a starting point, look for this stack trace in the <code>uptime_controller.log</code> file. |

Other response codes that may occur include the following:

| Error Code | Error | HTTP Code | Details |
|------------|---------------------------|-----------------------|--|
| | OK | 200 | Operation performed successfully. |
| UT-1025 | Invalid Request Body JSON | 400 | The JSON object is not well formed. |
| UT-1029 | Duplicate Hostname | 400 | Another Element (which you may not have permission to view) already exists with this hostname. |
| UT-1030 | Duplicate Element Name | 400 | Another Element (which you may not have permission to view) already exists with this display name. |
| UT-1033 | License Violation | 400 | Adding this Element exceeds the current license. |
| UT-1035 | Add Element Error | 400 | An exception occurred when trying to add the Element. Verify the Element details, such as hostname, are correct. |
| UT-1037 | Duplicate VMware UUID | 400 | The Element added already exists as part of the VMware vCenter inventory. |
| UT-1040 | Spaces in Hostname | n/a (JSON validation) | The Element hostname cannot contain whitespace. |
| UT-1043 | Missing Field | n/a (JSON validation) | One or more of the Element ID, name, hostname, or group ID is missing. |
| UT-1044 | Field Number out of Range | n/a (JSON validation) | The declared Element group ID needs to be equal to or greater than 1. |
| UT-1045 | Field Too Long | n/a (JSON validation) | One or more of the Element's name, description, or hostname exceed the maximum number of characters. |

Example

Add a server that has an Uptime Infrastructure Monitor Agent installed for data collection:

```

POST https://youruptime/api/v1/elements
{
  "name": "linux-apache1",
  "description": "apache demo server",
  "hostname": "apache1",
  "groupId": 1,
  "type": "Server",
  "collectionMethod": {
    "connectionType": "agent",
    "useGlobalConnectionSettings": false,
    "port": 9998,
    "useSSL": false
  }
}


```

POST /api/v1/elements (WMI server)

JSON Request

The Element is created based on fields defined in a JSON object. All of the following fields must be provided, and any additional fields are ignored:

| Field | Description | Requirements |
|-----------------------------|--|---|
| name | display name for the Element anywhere in the Uptime Infrastructure Monitor Web interface | <ul style="list-style-type: none"> required property must be unique maximum 50 characters |
| description | optional description for the Element | <ul style="list-style-type: none"> maximum 255 characters |
| hostname | resolvable network hostname or IP address of the Element | <ul style="list-style-type: none"> required property must be unique maximum 255 characters contains no whitespace characters |
| groupId | the Element Group the Element is placed in upon creation | <ul style="list-style-type: none"> required property must match valid groupId end-user's user group is able to see the Element group |
| type | the basic Element type: <ul style="list-style-type: none"> Server Network Device | <ul style="list-style-type: none"> required property must match one of the basic Element types (in this case, <code>Server</code>) |
| collectionMethod | array of data-collection properties describing how Uptime Infrastructure Monitor communicates with the Element | <ul style="list-style-type: none"> required property |
| connectionType | the connection method for the Element: <ul style="list-style-type: none"> agent wmi snmp | <ul style="list-style-type: none"> required property must match one of the Element connection methods (in this case, <code>wmi</code>) |
| useGlobalConnectionSettings | Boolean determining whether the Uptime Infrastructure Monitor Agent Global Configuration is enabled in Global Credentials Settings if <code>true</code> , all other connection properties are ignored | <ul style="list-style-type: none"> defaults to <code>false</code> if property is not defined |

| | | |
|-------------|--|--|
| wmiDomain | the Windows domain in which WMI is implemented | <ul style="list-style-type: none"> required if useGlobalConnectionSettings property is <code>false</code> |
| wmiUsername | the name of the account with access to WMI on the Windows domain | <ul style="list-style-type: none"> required if useGlobalConnectionSettings property is <code>false</code> |
| wmiPassword | the password for the username above <div>  the plain-text password is passed to Uptime Infrastructure Monitor using an encrypted connection </div> | <ul style="list-style-type: none"> required if useGlobalConnectionSettings property is <code>false</code> |

Response Codes

The following common response codes may result from this operation:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|-----------------------|------------------|--|
| UT-0400 | Bad Request | 400 | The request could not be processed by the server due to incorrect syntax. API commands can be accessed with this format: <code>https://<hostname>:<port>/api/<api_version>/<end_point>/<id>/<task></code> If you encounter this error, ensure the referencing URL is correct. |
| UT-0404 | Resource Not Found | 404 | The request could not be processed because an object is missing. The endpoint may be omitted from the command, or was spelled incorrectly. |
| UT-0405 | Method Not Allowed | 405 | The user does not have permission to perform the requested action. The user's Uptime Infrastructure Monitor permissions (for example, not permitted to Add Elements, Edit, or Delete Elements) stops them from doing the same though the API (POST, PUT, DELETE, respectively). |
| UT-0500 | Unknown | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. View the <code>uptime_controller.log</code> file for possible issues. |
| UT-0555 | Unknown Exception | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception has occurred; as a starting point, look for this exception in the <code>uptime_controller.log</code> file. |
| UT-0560 | Internal Server Error | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception caused a stack trace; as a starting point, look for this stack trace in the <code>uptime_controller.log</code> file. |

Other response codes that may occur include the following:

| Error Code | Error | HTTP Code | Details |
|------------|---------------------------|-----------------------|--|
| | OK | 200 | Operation performed successfully. |
| UT-1025 | Invalid Request Body JSON | 400 | The JSON object is not well formed. |
| UT-1029 | Duplicate Hostname | 400 | Another Element (which you may not have permission to view) already exists with this hostname. |
| UT-1030 | Duplicate Element Name | 400 | Another Element (which you may not have permission to view) already exists with this display name. |
| UT-1033 | License Violation | 400 | Adding this Element exceeds the current license. |
| UT-1035 | Add Element Error | 400 | An exception occurred when trying to add the Element. Verify the Element details, such as hostname, are correct. |
| UT-1037 | Duplicate VMware UUID | 400 | The Element added already exists as part of the VMware vCenter inventory. |
| UT-1040 | Spaces in Hostname | n/a (JSON validation) | The Element hostname cannot contain whitespace. |
| UT-1043 | Missing Field | n/a (JSON validation) | One or more of the Element ID, name, hostname, or group ID is missing. |

| | | | |
|---------|---------------------------|-----------------------|--|
| UT-1044 | Field Number out of Range | n/a (JSON validation) | The declared Element group ID needs to be equal to or greater than 1. |
| UT-1045 | Field Too Long | n/a (JSON validation) | One or more of the Element's name, description, or hostname exceed the maximum number of characters. |
| UT-1034 | WMI Not Supported | 400 | You are most likely trying to add a WMI-based Element to a non-Windows host. |

Example

Add a server whose metrics are reported via WMI:

```
POST https://youruptime/api/v1/elements
{
  "name": "Win7 agentless/WMI",
  "description": "Windows 7 Production",
  "hostname": "Win7-Production",
  "groupId": 1,
  "type": "Server",
  "collectionMethod": {
    "connectionType": "wmi",
    "useGlobalConnectionSettings": false,
    "wmiDomain": "windomain",
    "wmiUsername": "administrator",
    "wmiPassword": "password"
  }
}
```

POST /api/v1/elements (Hyper-V Server)

JSON Request

The Element is created based on fields defined in a JSON object. All of the following fields must be provided, and any additional fields are ignored:

| Field | Description | Requirements |
|------------------|--|---|
| name | display name for the Element anywhere in the Uptime Infrastructure Monitor Web interface | <ul style="list-style-type: none"> required property must be unique maximum 50 characters |
| description | optional description for the Element | <ul style="list-style-type: none"> maximum 255 characters |
| hostname | resolvable network hostname or IP address of the Element | <ul style="list-style-type: none"> required property must be unique maximum 255 characters contains no whitespace characters |
| groupid | the Element Group the Element is placed in upon creation | <ul style="list-style-type: none"> required property must match valid groupId end-user's user group is able to see the Element group |
| type | the basic Element type: <ul style="list-style-type: none"> Server Network Device | <ul style="list-style-type: none"> required property must match one of the basic Element types (in this case, <code>Server</code>) |
| collectionMethod | array of data-collection properties describing how Uptime Infrastructure Monitor communicates with the Element | <ul style="list-style-type: none"> required property |

| | | |
|-----------------------------|---|--|
| connectionType | <p>the connection method for the Element:</p> <ul style="list-style-type: none"> • agent • wmi • Snmp • hyperv | <ul style="list-style-type: none"> • required property • must match one of the element connection methods (in this case, <code>hyperv</code>) |
| useGlobalConnectionSettings | <p>Boolean determining whether the Uptime Infrastructure Monitor Agent Global Configuration is enabled in Global Element Settings</p> <p>if true, all other connection properties are ignored</p> | <ul style="list-style-type: none"> • defaults to <code>false</code> if property is not defined |
| hypervDomain | the Windows domain in which WMI is implemented | <ul style="list-style-type: none"> • required if <code>useGlobalConnectionSettings</code> is <code>false</code> |
| hypervUsername | the name of the account with access to WMI on the Windows domain | <ul style="list-style-type: none"> • required if <code>useGlobalConnectionSettings</code> is <code>false</code> |
| hypervPassword | <p>the password for the username above</p> <p>the plain-text password is passed to Uptime Infrastructure Monitor using an encrypted connection</p> | <ul style="list-style-type: none"> • required if <code>useGlobalConnectionSettings</code> is <code>false</code> |

Response Codes

The following common response codes may result from this operation:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|-----------------------|------------------|--|
| UT-0400 | Bad Request | 400 | <p>The request could not be processed by the server due to incorrect syntax.</p> <p>API commands can be accessed with this format:</p> <pre>https://<hostname>:<port>/api/<api_version>/<end_point>/<id>/<task></pre> <p>If you encounter this error, ensure the referencing URL is correct.</p> |
| UT-0404 | Resource Not Found | 404 | The request could not be processed because an object is missing. The endpoint may be omitted from the command, or was spelled incorrectly. |
| UT-0405 | Method Not Allowed | 405 | The user does not have permission to perform the requested action. The user's Uptime Infrastructure Monitor permissions (for example, not permitted to Add Elements, Edit, or Delete Elements) stops them from doing the same through the API (POST, PUT, DELETE, respectively). |
| UT-0500 | Unknown | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. View the <code>uptime_controller.log</code> file for possible issues. |
| UT-0555 | Unknown Exception | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception has occurred; as a starting point, look for this exception in the <code>uptime_controller.log</code> file. |
| UT-0560 | Internal Server Error | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception caused a stack trace; as a starting point, look for this stack trace in the <code>uptime_controller.log</code> file. |

Other response codes that may occur include the following:

| Error Code | Error | HTTP Code | Details |
|------------|---------------------------|-----------|---|
| | OK | 200 | Operation performed successfully. |
| UT-1025 | Invalid Request Body JSON | 400 | The JSON object is not well formed. |
| UT-1029 | Duplicate Hostname | 400 | Another Element (which you may not have permission to view) already exists with this hostname. |
| UT-1030 | Duplicate Element Name | 400 | Another Element (which you may not have permission to view) already exists with this display name. |
| UT-1033 | License Violation | 400 | Adding this Element exceeds the current license. |
| UT-1035 | Add Element Error | 400 | An exception occurred when trying to add the Element. Could not add Hyper-V Server: This server has already been added. |

| | | | |
|---------|---------------------------|--------------------------|---|
| UT-1040 | Spaces in Hostname | n/a (JSON validation) | The Element hostname cannot contain whitespace. |
| UT-1043 | Missing Field | n/a (JSON validation) | One or more of the Element ID, name, hostname, or group ID is missing. |
| UT-1044 | Field Number out of Range | n/a (JSON validation) | The declared Element group ID needs to be equal to or greater than 1. |
| UT-1045 | Field Too Long | n/a (JSON validation) | One or more of the Element's name, description, or hostname exceeds the maximum number of characters. |
| UT-1034 | WMI Not Supported | 400 | You are most likely trying to add a WMI-based Element to a non-Windows host. |

Example

Add a Hyper-V server whose metrics are reported via WMI:

```
POST https://youruptime/api/v1/elements
{
  "name": "Win 7 Hyper-V Host Server",
  "description": "Windows 7 Production",
  "hostname": "Win7-Production",
  "groupId": 1,
  "type": "Server",
  "collectionMethod": {
    "connectionType": "hyperv",
    "useGlobalConnectionSettings": false,
    "hypervDomain": "windomain",
    "hypervUsername": "administrator",
    "hypervPassword": "password",
  }
}
```

After the Hyper-V Host is successfully added, please perform following steps:

1. In Uptime Infrastructure Monitor, click **Infrastructure**.
2. View the newly added Hyper-V Host Server.
3. Edit the Sync settings to turn on Collect Virtual Machine data.
4. Uptime Infrastructure Monitor starts collecting Guest VMs data.



All the existing service requests detailed out in this topic will work for Hyper-V with the addition of newly created, above mentioned POST service request.

POST /api/v1/elements (SNMP v2 Network Device)

JSON Request

The Element is created based on fields defined in a JSON object. All of the following fields must be provided, and any additional fields are ignored:

| Field | Description | Requirements |
|-------------|--|--|
| name | display name for the Element anywhere in the Uptime Infrastructure Monitor Web interface | <ul style="list-style-type: none"> • required property • must be unique • maximum 50 characters |
| description | optional description for the Element | <ul style="list-style-type: none"> • maximum 255 characters |

| | | |
|-----------------------------|---|---|
| hostname | resolvable network hostname or IP address of the Element | <ul style="list-style-type: none"> required property must be unique maximum 255 characters contains no whitespace characters |
| groupId | the Element Group the Element is placed in upon creation | <ul style="list-style-type: none"> required property must match valid groupId end-user's user group is able to see the Element group |
| type | the basic Element type: <ul style="list-style-type: none"> Server Network Device | <ul style="list-style-type: none"> required property must match one of the basic Element types (in this case, <code>Server</code>) |
| collectionMethod | array of data-collection properties describing how Uptime Infrastructure Monitor communicates with the Element | <ul style="list-style-type: none"> required property |
| connectionType | the connection method for the Element: <ul style="list-style-type: none"> agent wmi snmp | <ul style="list-style-type: none"> required property must match one of the Element connection methods (in this case, <code>snmp</code>) |
| useGlobalConnectionSettings | Boolean determining whether Global SNMP Configuration Settings are set in Global Credentials Settings if <code>true</code> , all other connection properties are ignored | <ul style="list-style-type: none"> defaults to <code>false</code> if property is not defined |
| snmpVersion | the SNMP version used to connect to the network device: <ul style="list-style-type: none"> v2 v3 | <ul style="list-style-type: none"> required if <code>useGlobalConnectionSettings</code> is <code>false</code> must match one of the valid SNMP versions (in this case, <code>v2</code>) |
| snmpPort | the port on which the device is listening | <ul style="list-style-type: none"> required if <code>useGlobalConnectionSettings</code> is <code>false</code> must be a valid port number (default 161) |
| snmpV2ReadCommunity | the SNMP community to use for the connection, typically set to <code>public</code> | <ul style="list-style-type: none"> required if <code>useGlobalConnectionSettings</code> is <code>false</code> |
| isPingable | determines whether Uptime Infrastructure Monitor can contact the device using the ping utility | <ul style="list-style-type: none"> required if <code>useGlobalConnectionSettings</code> is <code>false</code> must be Boolean |

Response Codes

The following common response codes may result from this operation:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|--------------------|------------------|--|
| UT-0400 | Bad Request | 400 | <p>The request could not be processed by the server due to incorrect syntax.</p> <p>API commands can be accessed with this format:</p> <pre>https://<hostname>:<port>/api/<api_version>/<end_point>/<id>/<task></pre> <p>If you encounter this error, ensure the referencing URL is correct.</p> |
| UT-0404 | Resource Not Found | 404 | <p>The request could not be processed because an object is missing. The endpoint may be omitted from the command, or was spelled incorrectly.</p> |

| | | | |
|---------|-----------------------|-----|--|
| UT-0405 | Method Not Allowed | 405 | The user does not have permission to perform the requested action. The user's Uptime Infrastructure Monitor permissions (for example, not permitted to Add Elements, Edit, or Delete Elements) stops them from doing the same through the API (POST, PUT, DELETE, respectively). |
| UT-0500 | Unknown | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. View the <code>uptime_controller.log</code> file for possible issues. |
| UT-0555 | Unknown Exception | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception has occurred; as a starting point, look for this exception in the <code>uptime_controller.log</code> file. |
| UT-0560 | Internal Server Error | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception caused a stack trace; as a starting point, look for this stack trace in the <code>uptime_controller.log</code> file. |

Other response codes that may occur include the following:

| Error Code | Error | HTTP Code | Details |
|------------|---------------------------|-----------------------|--|
| | OK | 200 | Operation performed successfully. |
| UT-1025 | Invalid Request Body JSON | 400 | The JSON object is not well formed. |
| UT-1029 | Duplicate Hostname | 400 | Another Element (which you may not have permission to view) already exists with this hostname. |
| UT-1030 | Duplicate Element Name | 400 | Another Element (which you may not have permission to view) already exists with this display name. |
| UT-1033 | License Violation | 400 | Adding this Element exceeds the current license. |
| UT-1035 | Add Element Error | 400 | An exception occurred when trying to add the Element. Verify the Element details, such as hostname, are correct. |
| UT-1040 | Spaces in Hostname | n/a (JSON validation) | The Element hostname cannot contain whitespace. |
| UT-1043 | Missing Field | n/a (JSON validation) | One or more of the Element ID, name, hostname, or group ID is missing. |
| UT-1044 | Field Number out of Range | n/a (JSON validation) | The declared Element group ID needs to be equal to or greater than 1. |
| UT-1045 | Field Too Long | n/a (JSON validation) | One or more of the Element's name, description, or hostname exceed the maximum number of characters. |

Example


Add an SNMP v2 network device:


```
POST https://youruptime/api/v1/elements
{
  "name": "gatewaySNMP",
  "description": "snmp v2",
  "hostname": "gateway.mydomain.com",
  "groupId": 1,
  "type": "Network Device",
  "collectionMethod": {
    "connectionType": "snmp",
    "useGlobalConnectionSettings": false,
    "snmpVersion": "v2",
    "snmpPort": "161",
    "snmpV2ReadCommunity": "myCo-pub",
    "isPingable": true
  }
}
```

POST /api/v1/elements (SNMP v3 Network Device)

JSON Request

The Element is created based on fields defined in a JSON object. All of the following fields must be provided, and any additional fields are ignored:

| Field | Description | Requirements |
|------------------------------|---|--|
| name | display name for the Element anywhere in the Uptime Infrastructure Monitor Web interface | <ul style="list-style-type: none"> required property must be unique maximum 50 characters |
| description | optional description for the Element | <ul style="list-style-type: none"> maximum 255 characters |
| hostname | resolvable network hostname or IP address of the Element | <ul style="list-style-type: none"> required property must be unique maximum 255 characters contains no whitespace characters |
| groupId | the Element Group the Element is placed in upon creation | <ul style="list-style-type: none"> required property must match valid groupId end-user's user group is able to see the Element group |
| type | the basic Element type: <ul style="list-style-type: none"> Server Network Device | <ul style="list-style-type: none"> required property must match one of the basic Element types (in this case, <code>Server</code>) |
| collectionMethod | array of data-collection properties describing how Uptime Infrastructure Monitor communicates with the Element | <ul style="list-style-type: none"> required property |
| connectionType | the connection method for the Element: <ul style="list-style-type: none"> agent wmi snmp | <ul style="list-style-type: none"> required property must match one of the Element connection methods (in this case, <code>snmp</code>) |
| useGlobalConnectionSettings | Boolean determining whether Global SNMP Configuration Settings are set in Global Credentials Settings if <code>true</code> , all other connection properties are ignored | <ul style="list-style-type: none"> defaults to <code>false</code> if property is not defined |
| snmpVersion | the SNMP version used to connect to the network device: <ul style="list-style-type: none"> v2 v3 | <ul style="list-style-type: none"> required property must match one of the valid SNMP versions (in this case, <code>v3</code>) |
| snmpPort | the port on which the device is listening | <ul style="list-style-type: none"> required if <code>useGlobalConnectionSettings</code> is <code>false</code> must be a valid port number (default 161) |
| snmpV3Username | the name required to connect to the network device | <ul style="list-style-type: none"> required if <code>useGlobalConnectionSettings</code> is <code>false</code> |
| snmpV3AuthenticationPassword | the password required to connect to the network device <div>  the plain-text password is passed to Uptime Infrastructure Monitor using an encrypted connection </div> | <ul style="list-style-type: none"> required if <code>useGlobalConnectionSettings</code> is <code>false</code> |
| snmpV3AuthenticationMethod | determines how encrypted data moving between the network device and Uptime Infrastructure Monitor is authenticated: <ul style="list-style-type: none"> MD5 SHA | <ul style="list-style-type: none"> required if <code>useGlobalConnectionSettings</code> is <code>false</code> must match one of the valid authentication methods |

| | | |
|-----------------------|--|---|
| snmpV3PrivacyPassword | <p>the password used to encrypt data moving between the network device and Uptime Infrastructure Monitor</p> <div>  the plain-text password is passed to Uptime Infrastructure Monitor using an encrypted connection </div> | <ul style="list-style-type: none"> required if useGlobalConnectionSettings is false |
| snmpV3PrivacyType | <p>determines how data moving between the network device and Uptime Infrastructure Monitor is encrypted:</p> <ul style="list-style-type: none"> DES AES | <ul style="list-style-type: none"> required if useGlobalConnectionSettings is false must match one of the valid privacy types |
| isPingable | <p>determines whether Uptime Infrastructure Monitor can contact the device using the ping utility</p> | <ul style="list-style-type: none"> required if useGlobalConnectionSettings is false must be Boolean |

Response Codes

The following common response codes may result from this operation:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|-----------------------|------------------|---|
| UT-0400 | Bad Request | 400 | <p>The request could not be processed by the server due to incorrect syntax.</p> <p>API commands can be accessed with this format:</p> <p><code>https://<hostname>:<port>/api/<api_version>/<end_point>/<id>/<task></code></p> <p>If you encounter this error, ensure the referencing URL is correct.</p> |
| UT-0404 | Resource Not Found | 404 | The request could not be processed because an object is missing. The endpoint may be omitted from the command, or was spelled incorrectly. |
| UT-0405 | Method Not Allowed | 405 | The user does not have permission to perform the requested action. The user's Uptime Infrastructure Monitor permissions (for example, not permitted to Add Elements, Edit, or Delete Elements) stops them from doing the same though the API (POST, PUT, DELETE, respectively). |
| UT-0500 | Unknown | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. View the <code>uptime_controller.log</code> file for possible issues. |
| UT-0555 | Unknown Exception | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception has occurred; as a starting point, look for this exception in the <code>uptime_controller.log</code> file. |
| UT-0560 | Internal Server Error | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception caused a stack trace; as a starting point, look for this stack trace in the <code>uptime_controller.log</code> file. |

Other response codes that may occur include the following:

| Error Code | Error | HTTP Code | Details |
|------------|---------------------------|-----------------------|--|
| | OK | 200 | Operation performed successfully. |
| UT-1025 | Invalid Request Body JSON | 400 | The JSON object is not well formed. |
| UT-1029 | Duplicate Hostname | 400 | Another Element (which you may not have permission to view) already exists with this hostname. |
| UT-1030 | Duplicate Element Name | 400 | Another Element (which you may not have permission to view) already exists with this display name. |
| UT-1033 | License Violation | 400 | Adding this Element exceeds the current license. |
| UT-1035 | Add Element Error | 400 | An exception occurred when trying to add the Element. Verify the Element details, such as hostname, are correct. |
| UT-1040 | Spaces in Hostname | n/a (JSON validation) | The Element hostname cannot contain whitespace. |
| UT-1043 | Missing Field | n/a (JSON validation) | One or more of the Element ID, name, hostname, or group ID is missing. |

| | | | |
|---------|---------------------------|-----------------------|--|
| UT-1044 | Field Number out of Range | n/a (JSON validation) | The declared Element group ID needs to be equal to or greater than 1. |
| UT-1045 | Field Too Long | n/a (JSON validation) | One or more of the Element's name, description, or hostname exceed the maximum number of characters. |

Example

Add an SNMP v3 network device:

```
POST https://youruptime/api/v1/elements
{
  "name": "gatewaySNMP",
  "description": "snmp v3",
  "hostname": "gateway.mydomain.com",
  "groupId": 1,
  "type": "Network Device",
  "collectionMethod": {
    "connectionType": "snmp",
    "useGlobalConnectionSettings": false,
    "snmpVersion": "v3",
    "snmpPort": "161",
    "snmpV3Username": "myUsername",
    "snmpV3AuthenticationPassword": "myPassword",
    "snmpV3AuthenticationMethod": "MD5",
    "snmpV3PrivacyPassword": "myOtherPassword",
    "snmpV3PrivacyType": "DES",
    "isPingable": true
  }
}
```

DELETE /api/v1/elements/{id}

Delete an Element. No content is returned.

Notes on vCenter Elements

vCenter-based Elements mirrored in Uptime Infrastructure Monitor via vSync cannot be deleted, only ignored:

- deleting a monitored VM through the API marks it as ignored
- deleting an ignored VM through the API returns an error
- deleting an ESX host that is part of a cluster returns an error

Response Codes

The following common response codes may result from this operation:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|--------------------|------------------|--|
| UT-0400 | Bad Request | 400 | The request could not be processed by the server due to incorrect syntax. API commands can be accessed with this format: <code>https://<hostname>:<port>/api/<api_version>/<end_point>/<id>/<task></code> If you encounter this error, ensure the referencing URL is correct. |
| UT-0404 | Resource Not Found | 404 | The request could not be processed because an object is missing. The endpoint may be omitted from the command, or was spelled incorrectly. |
| UT-0405 | Method Not Allowed | 405 | The user does not have permission to perform the requested action. The user's Uptime Infrastructure Monitor permissions (for example, not permitted to Add Elements, Edit, or Delete Elements) stops them from doing the same though the API (POST, PUT, DELETE, respectively). |
| UT-0500 | Unknown | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. View the <code>uptime_controller.log</code> file for possible issues. |

| | | | |
|---------|-----------------------|-----|--|
| UT-0555 | Unknown Exception | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception has occurred; as a starting point, look for this exception in the <code>uptime_controller.log</code> file. |
| UT-0560 | Internal Server Error | 500 | The corresponding HTTP error code (500) is a catch-all error generated by the Web server where an unexpected condition prevented fulfilling the request. In this case, an exception caused a stack trace; as a starting point, look for this stack trace in the <code>uptime_controller.log</code> file. |

Other response codes that may occur include the following:

| Response Code | Code Description | HTTP Status Code | Details |
|---------------|----------------------------|------------------|--|
| | No Content | 204 | Operation performed successfully. |
| UT-1000 | Element Does Not Exist | 404 | <p>A specifically referenced Element ID does not exist.</p> <p>In such a case, referencing <code>https://youruptime:9997/api/v1/elements/12345</code> would return the following:</p> <p>The element id '12345' does not exist.</p> <p>The Element ID endpoint may be omitted, was inputted incorrectly, or is ignored in Uptime Infrastructure Monitor.</p> |
| UT-1025 | Invalid Request Body JSON | 400 | The JSON object is not well formed. |
| UT-1026 | VM Not Deleted | 403 | VMs and ESX hosts that are ignored cannot be deleted. |
| UT-1027 | Element Not Deleted | 403 | You are trying to delete an ESX host that is part of a cluster. |
| UT-1032 | Manual Monitor Not Deleted | 403 | Manually monitored hosts cannot be deleted. |

Example

Delete a specific Element (for example, ID #16):

DELETE `https://youruptime/api/v1/elements/16`

Additional references:

- [API Overview](#)
- [Programming Guide](#)
- [API Reference](#)