

---

# Infoblox

CONTROL YOUR NETWORK



## WAPI Documentation

*Release 2.5*

**Infoblox**

October 19, 2016

# CONTENTS

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Notation	1
1.2	Transport and Authentication	1
1.3	Backward Compatibility	2
1.4	General Syntax and Options	2
1.5	Naming and Values	3
1.6	Object Reference	4
1.7	Function Calls	4
1.8	Extensible Attributes	5
1.9	Use Flags	5
1.10	Data Formats	6
1.11	XML Format	6
1.12	Error Handling	7
<b>2</b>	<b>Methods</b>	<b>9</b>
2.1	GET	9
2.2	POST	13
2.3	PUT	14
2.4	DELETE	15
<b>3</b>	<b>Objects</b>	<b>16</b>
3.1	ad_auth_service : Active Directory Authentication Service object.	16
3.2	admingroup : Admin Group object.	19
3.3	adminrole : Admin Role object.	23
3.4	adminuser : Admin User object.	25
3.5	csvimporttask : CSV Import task object.	32
3.6	extensibleattributedef : Extensible Attribute Definition object.	39
3.7	fileop : File operations object.	45
3.8	grid : Grid object.	53
3.9	grid:x509certificate : X509Certificate object.	67
3.10	localuser:authservice : Local user authentication service object.	70
3.11	member : Member object.	72
3.12	member:license : Member License object.	96
3.13	mgm:grid : The MGM Grid object.	101
3.14	mgm:member : The MGM Member object.	113
3.15	mgm:monitordata : The MGM Member Monitor Data object.	119
3.16	mgm:network : The MGM Network object.	121
3.17	mgm:networkview : The MGM Network View object.	127
3.18	mgm:usermapping : The MGM User Mapping object.	130

3.19	namedacl : Named ACL object. . . . .	133
3.20	permission : Permissions object. . . . .	135
3.21	request : WAPI handler object. . . . .	142
3.22	scheduledtask : Scheduled Task object. . . . .	144
3.23	search : Search object. . . . .	156
3.24	snmpuser : SNMP user object. . . . .	162
<b>4</b>	<b>Structs</b>	<b>167</b>
4.1	ad_auth_server : Active Directory Authentication Server. . . . .	167
4.2	addressac : Address ac. . . . .	169
4.3	changedobject : Changed object information. . . . .	169
4.4	emailsetting : email Setting for a grid member. . . . .	171
4.5	extensibleattributedef.descendants : Descendants. . . . .	172
4.6	extensibleattributedef.listvalues : List of values. . . . .	174
4.7	extsyslogbackupserver : External syslog backup server. . . . .	174
4.8	interface : IPv6/IPv4 interfaces settings. . . . .	176
4.9	ipv6setting : IPv6 Settings. . . . .	178
4.10	lan2portsetting : LAN2 Port Setting. . . . .	180
4.11	lanhaportsetting : LAN/HA Port Settings. . . . .	182
4.12	member:pnodetoken : Physical Node Token. . . . .	183
4.13	memberservicecommunication : Member Service Communication. . . . .	184
4.14	memberservicestatus : Member Service Status. . . . .	185
4.15	mgm:monitorentry : Monitor Entry. . . . .	187
4.16	mgmtportsetting : MGMT Port Setting. . . . .	188
4.17	nodeinfo : Node Info. . . . .	189
4.18	physicalportsetting : Physical Port Settings. . . . .	193
4.19	preprovision : Pre-provisioning Settings. . . . .	194
4.20	preprovisionhardware : Pre-provisioning Hardware Settings. . . . .	195
4.21	queriesuser : Queries user. . . . .	196
4.22	servicestatus : Node Service Status. . . . .	197
4.23	setting:dnsresolver : DNS resolver Setting. . . . .	200
4.24	setting:email : The email settings for the Grid member. . . . .	200
4.25	setting:httpproxyserver : HTTP Proxy Server Setting. . . . .	201
4.26	setting:network : Network settings. . . . .	204
4.27	setting:password : Password settings. . . . .	206
4.28	setting:security : Security settings. . . . .	208
4.29	setting:securitybanner : Security banner settings. . . . .	212
4.30	setting:snmp : SNMP setting. . . . .	213
4.31	setting:syslogproxy : Syslog proxy settings. . . . .	217
4.32	syslogserver : Syslog server. . . . .	218
4.33	thresholdtrap : The Grid SNMP threshold trap structure. . . . .	223
4.34	trapnotification : The Grid SNMP trap notification structure. . . . .	224
4.35	trapreceiver : Trap receiver. . . . .	227
4.36	tsigac : TSIG ac. . . . .	228
<b>5</b>	<b>Additional Information and Examples</b>	<b>230</b>
5.1	Examples accessing WAPI using Curl . . . . .	230
5.2	Examples using object body requests . . . . .	240
5.3	Valid values for extensible attributes . . . . .	242
5.4	Extensible attributes inheritance . . . . .	242
5.5	Extensible attributes search . . . . .	244
5.6	Extensible attributes update . . . . .	244
5.7	Glossary . . . . .	244
5.8	Object restrictions . . . . .	245

**WAPI Objects Index**

**247**

**Index**

**248**

# INTRODUCTION

The Infoblox WAPI is an interface based on REST (REpresentational State Transfer), also called a RESTful web API. It uses HTTP methods for operations and supports input and output in JSON and XML.

## 1.1 Notation

The following conventions are used to describe syntax for WAPI methods and objects:

What	Description
objref	A reference to an object. This must be a reference returned from an earlier call. For more information, see <a href="#">Object Reference</a> .
WAPI	Used as a generic start in an URL. In real calls, this needs to be replaced with <code>/wapi/v2.5</code> or similar syntax.
objtype	The name of an object type, such as <code>network</code> .
field	The name of a field, such as <code>comment</code> .
value	The value of an item, such as a field. The value must be quoted according to where it is used. For information, see <a href="#">Naming and Values</a> .
[ <i>thing</i> ]	These brackets are used to signify an optional value.
<i>a</i>   <i>b</i>	The symbol   is used to indicate that either <i>a</i> or <i>b</i> can be used.
<i>thing</i> ...	. . . is used at the end of an item to signify that it can be repeated multiple times. Items must be separated in accordance with where they are used, such as <code>&amp;</code> in arguments.
{ }	These brackets are used to group information in descriptions.

## 1.2 Transport and Authentication

WAPI uses HTTPS (HTTP over SSL/TLS) as the transport mechanism. The server certificate used for WAPI is the same certificate used by NIOS for the GUI and PAPI.

WAPI supports only authentication that uses HTTP Basic Authentication. It is supported to use the connection for multiple requests. In this case, authentication is handled by supplying the cookie (`ibapauth`) that was returned after the initial authentication. This cookie can be invalidated by sending a POST request to `/wapi/v2.5/logout`

WAPI supports the same underlying authentication methods that NIOS supports for username and password. All WAPI users must have permissions that grant them access to the API (same as PAPI).

## 1.3 Backward Compatibility

The Infoblox WAPI has a versioning scheme that is independent of the NIOS versioning scheme. The current WAPI version is 2.5.

A current WAPI version is backward compatible with WAPI releases that have the same major WAPI version or with designated earlier major versions. Though the protocol itself may not be strictly backward compatible, the server emulates the correct behavior, when necessary.

For example, a client that uses WAPI version *X* behaves the same way in version *Y* if *X* is supported by *Y* (that is *X* is lower than *Y* and *X* has the same major version as *Y* or *X* uses a major version that is supported by *Y*).

The WAPI protocol is versioned (see URL in [General Syntax and Options](#)) independently from NIOS. Refer to the release notes for information about the WAPI version.

Requirements and exceptions:

- Rely on errors returned by HTTP Error Status only, not by text messages or other components.
- New objects and fields may exist in a later WAPI version. Thus, additional fields may be returned and must be ignored.
- New syntaxes and values may be supported. Do not rely on receiving errors for illegal usage.
- In the URL, use the WAPI version that corresponds to the behavior you expect. Do not combine requests using different WAPI versions in the same session or connection.

## 1.4 General Syntax and Options

All WAPI requests consist of three parts; URL, Arguments and Data (body).

### URL

The first part of the URL identifies the requests as a WAPI request and specifies the expected version of WAPI. The URL syntax is **wapi/v major.minor**, e.g. `wapi/v3.4/`. The current version of the API is 2.5.

The second part of the URL identifies the resource, such as a network, on which the request operates.

### Arguments

CGI query arguments (after `?`) can be used to specify general options and method specific options and data for the request. All options start with the character `_` (underscore).

The general options are:

Option	Description
<code>_return_type</code>	Data format for returned values; defaults to <b>json</b> . Valid choices: <b>json</b> , <b>json-pretty</b> , <b>xml</b> , <b>xml-pretty</b> . <b>-pretty</b> variants are the same except that they are formatted for readability. For more information, see <a href="#">Data Formats</a> .
<code>_method</code>	An alternative way of specifying HTTP method and overrides the method used. The default is to use the actual HTTP method. Valid choices: <b>GET</b> , <b>PUT</b> , <b>DELETE</b> and <b>POST</b>

Argument *key = value* pairs must be separated with **&**. The values must be quoted using `% xx` notation if they contain the following: `=`, `&`, `+`, `%`, or space.

You can specify only atomic values as arguments (i.e. booleans, integers, or strings). You must use a method that contains a body if lists or structures are needed. Example: POST with `_method=GET` can be used for searching.

In all method descriptions, you can use general options with all requests unless specifically noted.

The methods have additional options as described in their respective sections.

The following table lists the scheduling and approval specific options. Note that you can apply these options only to PUT, POST and DELETE requests.

Option	Description
<code>_schedinfo.scheduled_time</code>	If set, the requested operation will be scheduled for later execution at the specified time (specified in Epoch seconds). A reference to the created <i>scheduledtask object</i> will be returned. Only one of <code>scheduled_time</code> and <code>schedule_now</code> can be set in the request.
<code>_schedinfo.schedule_now</code>	If set to True, the operation will be scheduled for execution at the current time. Note that only <code>scheduled_time</code> or <code>schedule_now</code> can be set in the request.
<code>_schedinfo.predecessor_task</code>	Optional reference to a scheduled task that will be executed before the submitted task.
<code>_schedinfo.warnlevel</code>	Optional warning level for the operation, valid values are 'WARN' and 'NONE'. If not specified, 'NONE' will be used.
<code>_approvalinfo.comment</code>	Comment for the approval operation (this can be optional or required depending on the settings for the approval workflow).
<code>_approvalinfo.query_mode</code>	Optional query mode for the approval operation. Valid values are "true" or "false", if this is set to true and the request would have required approval, an error message will be returned. The default value for this is "false".
<code>_approvalinfo.ticket_number</code>	Ticket number for the approval operation (this can be optional or required depending on the settings for the approval workflow).

### Data (Body)

Contains data that is dependent on the method. For information about data format and how to specify it, see [Data Formats](#). Only, PUT, and POST methods can have a Body on input. All methods have Body on output.

### Example

The GET request:

```
https://1.2.3.4/wapi/v2.5/networkview?
_return_type=xml-pretty&name=default
```

Returns with a body:

```
<?xml version="1.0"?>
<list>
  <value type="object">
    <is_default type="boolean">true</is_default>
    <_ref>networkview/ZG5zLm5ldHdvcmtfdmllldyQw:default/true</_ref>
    <name>default</name>
  </value>
</list>
```

## 1.5 Naming and Values

WAPI uses a leading underscore ( `_` ) for all reserved arguments, fields, and items. Example: `_return_type` and `_ref`.

Fields in objects always start with a letter (a-z) and are followed by a zero or more letters, digits, and underscores. No other characters are used in field identifiers.

Field and argument values must be quoted according to where they are used. Examples:

URL/CGI args, x-www-form-urlencoded:

Use %xx encoding for “%”, “;”, “/”, “?”, “:”, “@”, “&”, “=”, “+”, “\$”, “,” and ” ” (a space)

JSON Data:

Use JSON quoting, as specified at <http://json.org>

XML Data

Use XML quoting (& etc.) as needed for XML.

Values set in WAPI object fields might differ from the effective value used for that particular field during product operation, which could be a value inherited from the Grid or the Grid Member depending on the particular object in question and the state of the object use flags.

## 1.6 Object Reference

WAPI Objects are referenced using their Object References. WAPI returns this reference when an object is created, modified, deleted or read. This reference is used to identify the object for the same operations.

An object reference is a string with the following format, without spaces:

*wapitype / refdata [ : name1 [ { / nameN }... ] ]*

Component	Description
wapitype	The object type being referenced. Example: <b>network</b> .
refdata	Opaque internal object identifier. A sequence of letters, digits, “-” (dash) and “_” (underscore).
nameN	Object type dependent name component <i>N</i> . The component describes the object being referenced. This is only returned for objects with a defined name format. It is always optional on input and never used by the server.

The documentation for each object type describes the format of its *name* components. Name components are separated by “/” (or only one component without a “/”). Each name component uses the URL quoting method (%xx notation) when necessary (for example if it contains a “/” character).

If the name is defined for the object type, it can be used by a client to get basic information about an object without retrieving the full object. Example: the name of a host. However, an object’s name is not guaranteed to uniquely identify an object unless specifically noted in its description.

The name is not used by the WAPI server on input, and any supplied value is disregarded. For example, a client is free to send a previously returned reference to the server, with or without the name part, including the leading colon (:). The result is not affected.

Note that non-ascii values in name are returned using % notation, and should be interpreted as hex-encoded utf-8.

Example:

```
record:cname/ZG5 . . . . DE:t1.webapi16.foo.bar/default
```

## 1.7 Function Calls

Functions are associated with particular objects. The method specific option **\_function** should be used to specify the name of function to call. Only POST method allows function calls. You can use either CGI argument key = value pairs or request’s data(body) to specify values for function arguments. Simultaneous use of CGI arguments and data(body) is not supported.



## Example 1

The POST request:

```
https://1.2.3.4/wapi/v2.5/network/  
ZG5zLm5ldHdvcmskMTAuMC4wLjAvMjQvMA:10.0.0.0/24/default?  
_function=next_available_ip&num=3
```

Returns with a body:

```
{  
  "ips": [  
    "10.0.0.1",  
    "10.0.0.2",  
    "10.0.0.3"  
  ]  
}
```

## Example 2

The POST request:

```
https://1.2.3.4/wapi/v2.5/network/  
ZG5zLm5ldHdvcmskMTAuMC4wLjAvMjQvMA:10.0.0.0/24/default?  
_function=next_available_ip
```

Sent with a body:

```
{  
  "num": 3  
}
```

Returns with a body:

```
{  
  "ips": [  
    "10.0.0.1",  
    "10.0.0.2",  
    "10.0.0.3"  
  ]  
}
```

## 1.8 Extensible Attributes

Object types that allow for extensible attributes have a field called `extattrs`, which can be read by including the name in the `_return_fields` option of the GET method.

Extensible attributes are sets of name value pairs in which the values can be lists, if the attribute allows for multiple values.

Searching for extensible attributes requires the use of a special syntax, as described under the GET method.

## 1.9 Use Flags

Some fields are associated with a corresponding boolean flag value that has the prefix `use_`. For example, `t1l` is associated with the flag `use_t1l`. In an object, the value of this field will only take effect when its use flag is true. Otherwise, the value will be inherited from a higher level setting.

Use flags and fields that contain the flags behave mostly like other object fields. They are special in the following ways:

- All use flags have names such as “use\_\*”, where “\*” is typically the name of the associated field. Multiple fields may share the same use flag.
- Use flags can be read using **\_return\_fields**.
- If a field is part of the default fields returned on read (“basic object”), its associated use flag (if any) will also be included in the default set.
- Use flags can be written by PUT or POST requests.
- Writing a field that has a corresponding use flag will automatically set the use flag to true, unless the same request also sets the use flag to false.

## 1.10 Data Formats

### Input

The body of the HTTP request contains data for the PUT and POST requests only. The format of the data defaults to JSON, but it can be changed using Content-Type: header. The valid content types are:

Content Type	Description
application/json	JSON format, see <a href="http://json.org">http://json.org</a> for more information.
application/xml	XML format, see <a href="#">XML Format</a> for more information.
text/xml	Alternative way to specify application/xml.
application/x-www-form-urlencoded	Arguments to method encoded in body. This is the same as specification after <code>?</code> , but it can handle longer sequences and is directly supported by HTML forms. If arguments are encoded in the body, CGI query arguments won't be allowed.

### Output

Data returned to the client defaults to JSON, but can be changed using either Accept: header or **\_return\_type**. Accept: takes the same values as Content-Type, listed above (for exceptions to this, see Error Handling); **\_return\_type** overrides any Accept: header.

## 1.11 XML Format

WAPI uses the following XML constructs:

Element	Description
<list>	Array, child nodes are items in list. Names of child elements are not significant (and can be same).
<X type="object">	Object X, child nodes are members of object. X can be any value if used outside an object context
<X type="T">	Field X of object. Its value is the text of the element. Allowed types (T) are int, float, boolean and string (as in XML Schema Definition). String is the default and is not explicitly specified using <code>type=</code> on output.
<X null="true"/>	Field X with value null/None.

Field syntax is used for “bare” values in list/array or as single values. X is not significant and will always be **value** on output.

No name spaces are used or specified.

Example: XML (xml-pretty style):

```

<?xml version="1.0"?>
<list>
  <value type="object">
    <comment null="true"/>
    <_ref>network/ZG5zLm5ldHdvcmskMTAuMC4wLjAvOC8w:20.0.0.0/8/default</_ref>
    <disable type="boolean">>false</disable>
    <network>20.0.0.0/8</network>
    <network_view>default</network_view>
  </value>
</list>

```

If X is considered an illegal XML tag name, or if it begins with “tag” and is followed by a number it will be renamed to tag0-N and an additional “name” property will be added on retrieval and expected on input. For example, the XML for an object with extensible attributes that contain spaces in their names would look like the following:

```

<?xml version="1.0"?>
<list>
  <value type="object">
    <network>8.0.0.0/8</network>
    <extattrs type="object">
      <tag0 name="12345" type="object">
        <value>d</value>
      </tag0>
      <tag1 name="tag0" type="object">
        <value>c</value>
      </tag1>
      <tag2 name="this is a test" type="object">
        <value>b</value>
      </tag2>
    </extattrs>
    <_ref>network/ZG5zLm5ldHdvcmskOC4wLjAuMC84LzA:8.0.0.0/8/default</_ref>
  </value>
</list>

```

## 1.12 Error Handling

All errors return a HTTP status code of 400 or higher.

All methods use the following generic error status codes. Specific return codes used for a method are specified for each method.

Sta-tus	Description
400	<b>Bad Request.</b> The request from the client is incorrect. This could be syntax errors in the request or data conflict issues on the server side. The request should not be repeated as is unless the error condition has been cleared (i.e. either the request syntax corrected or the state of the database changed.)
500	<b>Server Error.</b> The error was not caused by any error in the request. Depending on the error the request may be successfully repeated as is. If not possible to resolve, please report to Infoblox (including the full error return with the “trace”).

4xx codes refer to errors caused by the request or the data. To some extent, all of these are user errors.

5xx codes refer to server or internal errors. These errors point to deficiency in the server code and are not usually possible under normal conditions.

When the server returns an error with status code  $\geq 400$ , the body is always in JSON format, irrespective of any Accept or `_return_types`.

The returned message conforms to JSON, but is formatted to ensure that the first line of the body always contains the text "Error," an error type, and an error message.

A client that only gives a description of the error can simply show the first returned line.

The full returned error data is an object with the following fields (all values are strings):

Field	Value
Error	Error type (followed by an explanation after :).
code	Symbolic error code.
text	Explanation of the error.
trace	Debug trace from the server, only if debug is on.

Example of Error Return (trace shortened):

```
{ "Error": "AdmConProtoError: Unknown argument/field: netwdork",
  "code": "Client.Ibap.Proto",
  "text": "Unknown argument/field: netwdork",
  "trace": "  File \"/infoblox/common/lib/python/info..."
}
```

# METHODS

## 2.1 GET

Search and Read Objects: GET Method

HTTP GET is used to read a single object or to search for objects.

### Syntax

**GET** *WAPI / objref* [ ? *option...* ]

or

**GET** *WAPI / objtype* [ ? { *option* | *condition* }... ]

### Description

GET is used to read objects. The objects to read can be specified either by using an [Object Reference](#) (*objref*) to read one specific object or by searching for objects of a specific type (*objtype*) with the given search conditions.

Arguments to the search (*objtype*) form are field names and values to match. If no arguments are used, all object for the object type *objtype* are returned.

The number of objects returned is limited by the option `_max_results` or, if `_max_results` is not specified, 1000 objects. If `_max_results` is not specified, the appliance returns an error when the number of returned objects would exceed 1000. Similarly, if `_max_results` is set to -500 (maximum of 500 objects) the appliance returns an error if the number of returned objects would exceed 500.

### Options

Method Option	Description
_max_results	Maximum number of objects to be returned. If set to a negative number the appliance will return an error when the number of returned objects would exceed the setting. The default is -1000. If this is set to a positive number, the results will be truncated when necessary.
_return_fields	List of returned fields separated by commas. The use of _return_fields repeatedly is the same as listing several fields with commas. The default is the basic fields of the object.
_return_fields+	Specified list of fields (comma separated) will be returned in addition to the basic fields of the object (documented for each object).
_return_as_object	If set to 1, a results object will be returned (see below for more information). If not specified, it defaults to 0.
_paging	If set to 1, the request is considered a paging request (see below for more information). If not specified, it defaults to 0. If set, _max_results must also be set.
_page_id	If set, the specified page of results will be returned.
_proxy_search	If set to 'GM', the request is redirected to Grid master for processing. If set to 'LOCAL', the request is processed locally. This option is applicable only on vConnector grid members. The default is 'LOCAL'.
_schema	If this option is specified, a WAPI schema will be returned (see below for more information).

## Arguments

There can be no arguments to objtype or it can have one or multiple conditions in the following format:

```
{ field | * attribute [ <space> ] } [ modifiers ] = value
```

Where:

field is a documented field of the object.

attribute is the name of an extensible attribute. Must be prefixed by an asterisk (\*) and optionally followed by a single space.

modifiers is optional and can be one or more search modifiers supported by the field or extensible attribute value type.

value is the value or regular expression to search for.

When combining multiple conditions, all must be satisfied in order to match an object (i.e. conditions are combined with AND).

When a field is a list or an extensible attribute that can have multiple values, the condition is true if any value in the list matches.

If no modifiers are used, it is an exact match.

## Search Modifiers

A search argument can use the following modifiers:

Modifier	Functionality
!	Negates the condition.
:	Makes string matching case insensitive.
~	Regular expression search. Expressions are unanchored.
<	Less than or equal.
>	Greater than or equal.

Only one of the following can be specified at one time: greater than, less than, and regular expressions.

You can find the modifiers that are supported by each field in the respective documentation. Unsupported combinations will result in an error.

Depending on the attribute type, following are modifiers supported by extensible attributes:

integer and date support `!`, `<` and `>`. All other types behave like strings and support `!`, `~` and `:`.

### Data Returned

In the object reference form (*objref*) only one object is returned (as an object, not a list). In the search form (*objtype*) the request always returns a list of objects (even if zero or one objects is returned).

Objects returned will by default consist of a set of basic fields, as listed in the documentation. The option `_return_fields` can be used to request a specific set of fields to return.

Fields that have no value (not set in the NIOS database) or that are not allowed to be accessed by the user because of group access rights will not be returned (i.e. silently left out of the result).

Returned objects will also contain a `_ref` field, containing the reference of the object. This can be used in subsequent calls that require a reference.

If a search matches no objects, an empty list will be returned.

If a results object is requested, an object with the following fields will be returned:

Field	Present	Description
result	Always	Actual result of the read operation, this is a list of objects.
next_page_id	Optional	If there was a paging request, this is the ID for the next page of results.

Some fields refer to other subobjects. Some of these fields also support nested return fields (see the field's 'Type' section for more information). In the case of nested return fields, you can request specific fields of the subobject by concatenating them to the parent field using the `.` (period) character.

For example, during a search for `record:host`, you can request the return of the `'bootserver'` field in subobject `'ipv4addr'` by passing a return field in the form of `'ipv4addr.bootserver'`. You can also specify subobject fields as part of a `_return_fields+` invocation. In this case, the specified return field will be returned in addition to the standard fields for the specified subobject.

If an empty subobject field is passed, and the subobject field is a reference-only field, it is equivalent to asking for the standard fields of that subobject. This can be useful if the subobject field returns only the reference of the subobject by default. For example, in the `'permission'` object, the `'object'` field normally contains only the reference of the object to which the permission applies. To request the standard fields for the object, you can pass the following return field to the search: `'object.'` (Note the trailing period).

If a field can support multiple object types, for example `'record'` inside `allrecords`, only fields common to all the multiple object types should be specified as subobject fields. Otherwise if a subobject for which the subfield is not valid exists, an error would be returned.

### Return Status/Errors

Status	Description
200	Normal return. Referenced object or result of search in body.
400	Results set would contain more than <code>_max_results</code> objects (only generated if <code>_max_results</code> is negative).
404	Referenced object not found (if <i>objref</i> form is used, empty list and 200 is returned for empty search result)

### Results paging

For searches that return a large number of results, paging is desirable.

To start a paging request, the initial search request must have `_paging` and `_return_as_object` set to 1, and `_max_results` set to the desired page size.

The server will then return a results object that contains the `next_page_id` field and the result field set to the first page of results.

Note that the `next_page_id` field only contains URL-safe characters so it can be used as is and no quotation characters are required for subsequent requests.

To get more results, you should send GET requests to the original object and set `_page_id` to the ID string returned in the previous page of results.

The server does not return a `next_page_id` field in the last page of results. Paging requests are considered independent requests, so the set of results might change between requests if objects are added or removed from the server at the same time when the requests are occurring.

For an invocation example, see the sample code section in the manual [here](#).

### WAPI Schema Fetching

If the `_schema` option is passed, the request will execute a schema fetch. Other options, such as `_max_results`, `_return_fields`, etc., will be ignored.

The WAPI schema returned in the format requested using either the Accept: header or `_return_type` as specified by WAPI.

Note that this is not intended to be a schema as defined by JSON or XML standards.

If a WAPI schema is requested using the `_schema` option without specifying `objtype`, an object with the following fields will be returned:

Field	Description
<code>requested_version</code>	Actual requested version of the WAPI schema.
<code>supported_objects</code>	List of supported objects in the requested version.
<code>supported_versions</code>	List of all supported versions.

Example. Use a GET request to get the WAPI schema:

```
https://1.2.3.4/wapi/v1.0/?_schema
```

Returns with a body (lists shortened):

```
{ "requested_version": "1.0",
  "supported_objects": ["ipv4address", "ipv6address", "ipv6network",
                       "ipv6networkcontainer", "ipv6range",
                       "macfilteraddress", "network", ...],
  "supported_versions": ["1.0", "1.1", "1.2", "1.2.1", ...]
}
```

If the `objtype` is specified for WAPI schema fetching, an object with the following fields will be returned:



Field	Description
cloud_additional_restrictions	List of cloud restrictions.
fields	List of fields of the object.
restrictions	List of object restrictions.
type	Requested <i>objtype</i> .
version	Actual requested version of the WAPI object schema.

The list of object restrictions that contain supported operations for the object. Example of operations: “create”, “delete”, “read”, “update”, “function call”, “permissions”, “global search”, “scheduling”, “csv”.

The cloud\_additional\_restrictions field contains the list of additional unsupported operations when using Cloud Network Automation. Example of operations: “all”, “create”, “delete”, “read”, “update”, “function call”, “permissions”, “global search”, “scheduling”, “csv”.

The returned **fields** list is composed by individual objects each describing a field of the API object. These objects have the following members:

Parameter	Description
is_array	True if this field is an array.
name	Name of this field.
searchable_by	String with supported search modifiers: “=”, “!”, “:”, “~”, “<”, “>”.
standard_field	True for fields that are returned by default.
supports	List of supported operations: “s”, “w”, “u”, “r”.
type	List of supported types.

Example. Use a GET request to get the ‘networkview’ WAPI object schema for WAPI version 1.4:

```
https://1.2.3.4/wapi/v1.4/networkview?_schema
```

Returns with a body (lists shortened):

```
{ "cloud_additional_restrictions": ["all"],
  "fields": [{
    "is_array": false,
    "name": "comment",
    "searchable_by": ":=~",
    "standard_field": true,
    "supports": "rwus",
    "type": ["string"]
  }, {
    "is_array": false,
    "name": "name",
    "searchable_by": ":=~",
    "standard_field": true,
    "supports": "rwus",
    "type": ["string"]
  }, ...],
  "restrictions": ["scheduling", "csv"],
  "type": "networkview",
  "version": "1.4"
}
```

## 2.2 POST

Create Object: POST Method

The POST method is used to create a new object. It can also be used for all other operations via the *the wapi object*

**Syntax** `POST WAPI / objtype [ ? { options | field = value }... ]`

**Description** The data for the request must contain all required fields of the *objtype*. Data can be given as arguments as shown above or as the body of the request (but not both).

	Method Option	Description
Options	_return_fields	A list of returned fields separated by commas. The use of _return_fields repeatedly is the same as listing several fields with commas. The default is the basic fields of the object.
	_return_fields+	Specified list of fields (comma separated) will be returned in addition to the basic fields of the object (documented for each object).

Options can be given only as query arguments as shown above, they cannot be included in the body of the request.

**Arguments** Arguments can be used to supply the object instead of using the body.

**Data (Body)** Data for object to be created. Can be used as alternative to arguments. All fields marked as required for the object must be supplied. All fields not supplied will be defaulted as specified for the object. See [Use Flags](#) for information about special handling for these fields.

**Data Returned** [Object Reference](#) of the object created, returned as a string.

If required, specify the ‘\_return\_fields’ option to examine the values of fields that were set by the appliance as part of the insertion. It is possible for the appliance to return the newly inserted object, instead of a reference string.

Passing an empty value to the ‘\_return\_fields’ option will cause only the object reference to be set inside the returned object. Passing an empty value to the ‘\_return\_fields+’ option will cause the returned object to contain its standard fields. Passing any other values will return the specified fields.

**Return Status/Errors**

Status	Description
201	Object created (success)

## 2.3 PUT

Update Object: PUT Method

The PUT method is used to update an existing object. The syntax of PUT is:

**Syntax** `PUT WAPI / objref [ ? { option | field = value }... ]`

**Description** PUT is used to update an existing object (given by the [Object Reference](#), *objref* in the request). Only the fields supplied are updated (except as described for [Use Flags](#)).

	Method Option	Description
Options	_return_fields	List of returned fields separated by commas. The use of _return_fields repeatedly is the same as listing several fields with commas. The default is the basic fields of the object.
	_return_fields+	Specified list of fields (comma separated) will be returned in addition to the basic fields of the object (documented for each object).

Options can be given only as query arguments as shown above, they cannot be included in the body of the request.

**Arguments** The data to be updated can be given as argument as shown in the syntax or as the body of the request (but not both).

**Data (Body)** Data for object to be updated. Can be used as alternative to arguments.

#### Data Returned

**Object Reference of the object modified, returned as a string.** The object reference may have been changed by the operation.

If required, specify the ‘\_return\_fields’ option to examine the values of fields that were set by the appliance as part of the update. It is possible for the appliance to return the newly updated object, instead of a reference string.

Passing an empty value to the ‘\_return\_fields’ option will cause only the object reference to be set inside the returned object. Passing an empty value to the ‘\_return\_fields+’ option will cause the returned object to contain its standard fields. Passing any other values will return the specified fields.

#### Return Status/Errors

Status	Description
200	Object updated (success)

## 2.4 DELETE

Delete Object: DELETE Method

The DELETE method is used to delete an object.

**Syntax** `DELETE WAPI / objref [ ? option... ]`

**Description** DELETE is used to delete an existing object (given by the [Object Reference](#), *objref* in the request).

**Options** There are no DELETE specific options.

**Arguments** There are no general DELETE arguments. Some of the objects has object-specific DELETE arguments, which are described in the ‘Delete arguments’ section of their respective documentation.

**Data Returned** Returns the [Object Reference](#) of the deleted object as a string.

#### Return Status/Errors

Status	Description
200	Object deleted (success)

# OBJECTS

## 3.1 ad\_auth\_service : Active Directory Authentication Service object.

This object allows you to specify an Active Directory (AD) authentication method and the AD authentication servers that Infoblox uses to authenticate administrators.

### Object Reference

References to ad\_auth\_service are *object references*. The *name* part of the Active Directory Authentication Service object reference has the following components:

- The name of the Active Directory authentication service.

Example: ad\_auth\_service/ZG5zLm5ldHdvcmtfdmldyQxMTk:Infoblox

### Restrictions

The object does not support:

- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

### Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **name**.

The following fields are required to create this object:

Field	Notes
name	

## ad\_domain

### ad\_domain

The Active Directory domain to which this server belongs.

#### Type

String.

#### Create

The default value is *undefined*.

#### Search

The field is searchable via

- ':= ' (case insensitive search)
- '= ' (exact equality)
- '~=' (regular expression)

## comment

### comment

The descriptive comment for the AD authentication service.

#### Type

String.

Values with leading or trailing whitespace are not valid for this field.

#### Create

The default value is *empty*.

#### Search

The field is searchable via

- ':= ' (case insensitive search)
- '= ' (exact equality)
- '~=' (regular expression)

## disabled

### disabled

Determines if Active Directory Authentication Service is disabled.

#### Type

Bool.

#### Create

The default value is *False*.

#### Search

The field is not searchable.

## domain\_controllers

### domain\_controllers

The AD authentication server list.

#### Type

A/An *Active Directory Authentication Server* struct array.

#### Create

The default value is *undefined*.

#### Search

The field is not searchable.

## name

### name

The AD authentication service name.

#### Type

String.

Values with leading or trailing whitespace are not valid for this field.

#### Create

The field is required on creation.

#### Search

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=’ (regular expression)

#### Notes

name is part of the base object.

## timeout

### timeout

The number of seconds that the appliance waits for a response from the AD server.

#### Type

Unsigned integer.

#### Create

The default value is 5.

#### Search

The field is not searchable.

## Fields List

Field	Type	Req	R/O	Base	Search
ad_domain	String	N	N	N	: = ~
comment	String	N	N	N	: = ~
disabled	Bool	N	N	N	N/A
domain_controllers	[struct]	N	N	N	N/A
name	String	Y	N	Y	: = ~
timeout	Unsigned int	N	N	N	N/A

## 3.2 admingroup : Admin Group object.

An Admin Group object creates and manages a local admin group on the Infoblox appliance. The privileges and properties that are set for the group apply to all the admin accounts that are assigned to the group.

## Object Reference

References to admingroup are *object references*.

## Restrictions

The object does not support:

- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **comment, name**.

The following fields are required to create this object:

Field	Notes
name	

## access\_method

### access\_method

Access methods specify whether an admin group can use the GUI and the API to access the appliance or to send Taxii messages to the appliance. Note that API includes both the Perl API and RESTful API.

### Type

Enum values array.

**Valid values are:**

- API
- CLOUD\_API
- GUI
- TAXII

**Create**

The default value is [*'GUI'*, *'API'*, *'TAXII'*].

**Search**

The field is not searchable.

## comment

**comment**

Comment for the Admin Group; maximum 256 characters.

**Type**

String.

Values with leading or trailing whitespace are not valid for this field.

**Create**

The default value is *empty*.

**Search**

The field is searchable via

- *':='* (case insensitive search)
- *'='* (exact equality)
- *'~='* (regular expression)

**Notes**

comment is part of the base object.

## disable

**disable**

Determines whether the Admin Group is disabled or not. When this is set to False, the Admin Group is enabled.

**Type**

Bool.

**Create**

The default value is *False*.

**Search**

The field is not searchable.



## email\_addresses

### email\_addresses

The e-mail addresses for the Admin Group.

#### Type

String array.

#### Create

The default value is *empty*.

#### Search

The field is not searchable.

## extattrs

### extattrs

Extensible attributes associated with the object.

For valid values for extensible attributes, see *the following information*.

#### Type

Extensible attributes.

This field allows +/- to be specified as part of the field name when updating the object, see *the following information*.

#### Create

The default value is *empty*.

#### Search

For how to search extensible attributes, see *the following information*.

## name

### name

The name of the Admin Group.

#### Type

String.

Values with leading or trailing whitespace are not valid for this field.

#### Create

The field is required on creation.

#### Search

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=’ (regular expression)

## Notes

name is part of the base object.

## roles

### roles

The names of roles this Admin Group applies to.

#### Type

String array.

#### Create

The default value is *empty*.

#### Search

The field is searchable via

- '=' (exact equality)

## superuser

### superuser

Determines whether this Admin Group is a superuser group. A superuser group can perform all operations on the appliance, and can view and configure all types of data.

#### Type

Bool.

#### Create

The default value is *False*.

#### Search

The field is searchable via

- '=' (exact equality)

## Fields List

Field	Type	Req	R/O	Base	Search
access_method	[Enum]	N	N	N	N/A
comment	String	N	N	Y	: = ~
disable	Bool	N	N	N	N/A
email_addresses	[String]	N	N	N	N/A
extattrs	Extattr	N	N	N	ext
name	String	Y	N	Y	: = ~
roles	[String]	N	N	N	=
superuser	Bool	N	N	N	=

### 3.3 adminrole : Admin Role object.

An Admin Role object creates and manages a local admin role on the Infoblox appliance. A Role object is used to aggregate a set of permissions (represented by Permission objects).

The *name* part of the admin role object reference has the following components:

- Name of the Admin Role object

Example: adminrole/ZG5zLm5ldHdvcmtfdmlddyQxMTk:default

#### Object Reference

References to adminrole are *object references*.

#### Restrictions

The object does not support:

- Scheduling

The object cannot be managed on Cloud Platform members.

#### Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **comment, name**.

The following fields are required to create this object:

Field	Notes
name	

#### comment

##### comment

The descriptive comment of the Admin Role object.

##### Type

String.

##### Create

The default value is *empty*.

##### Search

The field is searchable via

- `:=` (case insensitive search)
- `=` (exact equality)
- `~` (regular expression)

## Notes

comment is part of the base object.

## disable

### disable

The disable flag.

### Type

Bool.

### Create

The default value is *False*.

### Search

The field is not searchable.

## extattrs

### extattrs

Extensible attributes associated with the object.

For valid values for extensible attributes, see *the following information*.

### Type

Extensible attributes.

This field allows +/- to be specified as part of the field name when updating the object, see *the following information*.

### Create

The default value is *empty*.

### Search

For how to search extensible attributes, see *the following information*.

## name

### name

The name of an admin role.

### Type

String.

Values with leading or trailing whitespace are not valid for this field.

### Create

The field is required on creation.

### Search

The field is searchable via

- ‘:=’ (case insensitive search)

- '=' (exact equality)
- '~=' (regular expression)

#### Notes

name is part of the base object.

### Fields List

Field	Type	Req	R/O	Base	Search
comment	String	N	N	Y	: = ~
disable	Bool	N	N	N	N/A
extattrs	Extattr	N	N	N	ext
name	String	Y	N	Y	: = ~

## 3.4 adminuser : Admin User object.

An admin account provides access to the Infoblox appliance. An admin account inherits the privileges and properties of the group to which it belongs.

### Object Reference

References to adminuser are *object references*. The *name* part of a dmin User properties object reference has the following components:

- The name of the admin user

Example: adminuser/ZG5zLm5ldHdvcmtfdmlldyQxMTk:user1

### Restrictions

The object does not support:

- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

### Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **admin\_groups, comment, name**.

The following fields are required to create this object:

Field	Notes
admin_groups	
name	
password	See the field description for more information

## admin\_groups

### admin\_groups

The names of the Admin Groups to which this Admin User belongs. Currently, this is limited to only one Admin Group.

#### Type

String array. The array supports a maximum of 1 element(s).

#### Create

The field is required on creation.

#### Search

The field is searchable via

- '=' (exact equality)

#### Notes

admin\_groups is part of the base object.

## auth\_type

### auth\_type

The authentication type for the admin user.

#### Type

String.

#### Valid values are:

- LOCAL
- REMOTE

#### Create

The default value is *LOCAL*.

#### Search

The field is not searchable.

## comment

### comment

Comment for the admin user; maximum 256 characters.

#### Type

String.

Values with leading or trailing whitespace are not valid for this field.

#### Create

The default value is *empty*.

#### Search

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=' (regular expression)

#### Notes

comment is part of the base object.

## disable

### disable

Determines whether the admin user is disabled or not. When this is set to `False`, the admin user is enabled.

#### Type

Bool.

#### Create

The default value is *False*.

#### Search

The field is not searchable.

## email

### email

The e-mail address for the admin user.

#### Type

String.

#### Create

The default value is *empty*.

#### Search

The field is not searchable.

## extattrs

### extattrs

Extensible attributes associated with the object.

For valid values for extensible attributes, see *the following information*.

#### Type

Extensible attributes.

This field allows +/- to be specified as part of the field name when updating the object, see *the following information*.

#### Create

The default value is *empty*.

## Search

For how to search extensible attributes, see *the following information*.

### name

#### name

The name of the admin user.

#### Type

String.

Values with leading or trailing whitespace are not valid for this field.

#### Create

The field is required on creation.

#### Search

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=' (regular expression)

#### Notes

name is part of the base object.

### password

#### password

The password for the administrator to use when logging in.

#### Type

String.

Values with leading or trailing whitespace are not valid for this field.

#### Create

The password field is required if auth\_type is not REMOTE.

#### Search

The field is not searchable.

#### Notes

password is not readable.

### time\_zone

#### time\_zone



The time zone for this admin user.

**Type**

String.

**Valid values are:**

- (UTC + 10:00) Brisbane
- (UTC + 10:00) Canberra, Sydney
- (UTC + 10:00) Guam
- (UTC + 10:00) Hobart
- (UTC + 10:00) Melbourne, Victoria
- (UTC + 10:00) Vladivostok
- (UTC + 11:00) Magadan
- (UTC + 11:00) Solomon Islands
- (UTC + 12:00) Anadyr
- (UTC + 12:00) Auckland
- (UTC + 12:00) Fiji
- (UTC + 12:00) Marshall Islands
- (UTC + 1:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna
- (UTC + 1:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague
- (UTC + 1:00) Brussels, Copenhagen, Madrid, Paris
- (UTC + 1:00) Sarajevo, Skopje, Sofija, Warsaw, Zagreb
- (UTC + 2:00) Athens, Istanbul, Vilnius
- (UTC + 2:00) Bucharest
- (UTC + 2:00) Cairo
- (UTC + 2:00) Harare
- (UTC + 2:00) Helsinki
- (UTC + 2:00) Jerusalem
- (UTC + 2:00) Kaliningrad
- (UTC + 3:00) Baghdad, Kuwait, Riyadh, Minsk
- (UTC + 3:00) Moscow, St. Petersburg, Volgograd
- (UTC + 3:00) Nairobi
- (UTC + 3:30) Tehran
- (UTC + 4:00) Baku
- (UTC + 4:00) Dubai
- (UTC + 4:00) Samara
- (UTC + 4:30) Kabul
- (UTC + 5:00) Ekaterinburg

- (UTC + 5:00) Islamabad, Karachi
- (UTC + 5:30) Bombay, Calcutta, Madras, New Delhi
- (UTC + 5:30) Colombo
- (UTC + 6:00) Dhaka
- (UTC + 6:00) Omsk
- (UTC + 6:30) Rangoon
- (UTC + 7:00) Bangkok, Hanoi
- (UTC + 7:00) Krasnoyarsk
- (UTC + 8:00) Beijing, Chongqing, Shanghai
- (UTC + 8:00) Hong Kong
- (UTC + 8:00) Irkutsk
- (UTC + 8:00) Perth
- (UTC + 8:00) Singapore
- (UTC + 8:00) Taipei
- (UTC + 9:00) Osaka, Sapporo, Tokyo
- (UTC + 9:00) Seoul
- (UTC + 9:00) Yakutsk
- (UTC + 9:30) Adelaide
- (UTC + 9:30) Darwin
- (UTC - 10:00) Hawaii
- (UTC - 11:00) Midway Island, Samoa
- (UTC - 12:00)
- (UTC - 1:00) Azores
- (UTC - 2:00) Mid-Atlantic
- (UTC - 3:00) Brasilia
- (UTC - 3:00) Buenos Aires
- (UTC - 3:30) Newfoundland
- (UTC - 4:00) Atlantic Time (Canada)
- (UTC - 4:00) Caracas
- (UTC - 4:00) Santiago
- (UTC - 5:00) Bogota, Lima, Quito
- (UTC - 5:00) Eastern Time (US and Canada)
- (UTC - 5:00) Indiana (East)
- (UTC - 6:00) Central Time (US and Canada)
- (UTC - 6:00) Mexico City, Tegucigalpa
- (UTC - 6:00) Saskatchewan

- (UTC - 7:00) Arizona
- (UTC - 7:00) Mountain Time (US and Canada)
- (UTC - 8:00) Pacific Time (US and Canada), Tijuana
- (UTC - 9:00) Alaska
- (UTC) Casablanca
- (UTC) Coordinated Universal Time
- (UTC) Dublin
- (UTC) Lisbon
- (UTC) London

#### Create

The default value is *(UTC) Coordinated Universal Time*.

#### Search

The field is not searchable.

#### Notes

`time_zone` is associated with the field `use_time_zone` (see *use flag*).

### use\_time\_zone

#### use\_time\_zone

Use flag for: `time_zone`

#### Type

Bool.

#### Create

The default value is *False*.

#### Search

The field is not searchable.

### Search-only Fields

These fields are used only for searching. They are not actual members of the object and therefore will never be returned by the server with this name unless they are nested return fields.

### role

#### role

The Role name to search for. If an empty string is specified, all users without Roles will be searched.

#### Type

String.

#### Search

The field is searchable via

- ‘=’ (exact equality)

#### Notes

role is a search-only field.

### Fields List

Field	Type	Req	R/O	Base	Search
admin_groups	[String]	Y	N	Y	=
auth_type	String	N	N	N	N/A
comment	String	N	N	Y	: = ~
disable	Bool	N	N	N	N/A
email	String	N	N	N	N/A
extattrs	Extattr	N	N	N	ext
name	String	Y	N	Y	: = ~
password	String	Y*	N	N	N/A
time_zone	String	N	N	N	N/A
use_time_zone	Bool	N	N	N	N/A

\* Required in some cases, see detailed field description above.

### Search-only Fields List

Field	Type	Search
role	String	=

## 3.5 csvimporttask : CSV Import task object.

This object represents a CSV import task, if the task was created but not started by an import operation, it can be started by modifying it and assigning the value ‘START’ to the ‘action’ field.

### Object Reference

References to csvimporttask are *object references*. The *name* part of a csvimporttask object reference has the following components:

- The import id.

Example: csvimporttask/ZG5zLm5ldHdvcmtfdmllldyQxMTk:1

### Restrictions

The object does not support:

- Create (insert)
- Delete
- Permissions

- Global search (searches via *the search object*)
- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **action, admin\_name, end\_time, file\_name, file\_size, import\_id, lines\_failed, lines\_processed, lines\_warning, on\_error, operation, separator, start\_time, status, update\_method.**

### action

#### **action**

The action to execute.

#### **Type**

String.

#### **Valid values are:**

- SAVE
- START

#### **Create**

The default value is *START*.

#### **Search**

The field is not searchable.

#### **Notes**

action is part of the base object.

action is not readable.

### admin\_name

#### **admin\_name**

The login name of the administrator.

#### **Type**

String.

#### **Search**

The field is not searchable.

#### **Notes**

admin\_name is part of the base object.

admin\_name cannot be updated.

admin\_name cannot be written.

## **end\_time**

### **end\_time**

The end time of this import operation.

#### **Type**

Timestamp.

#### **Search**

The field is not searchable.

#### **Notes**

end\_time is part of the base object.

end\_time cannot be updated.

end\_time cannot be written.

## **file\_name**

### **file\_name**

The name of the file used for the import operation.

#### **Type**

String.

#### **Search**

The field is not searchable.

#### **Notes**

file\_name is part of the base object.

file\_name cannot be updated.

file\_name cannot be written.

## **file\_size**

### **file\_size**

The size of the file used for the import operation.

#### **Type**

Unsigned integer.

#### **Search**

The field is not searchable.

#### **Notes**

file\_size is part of the base object.

file\_size cannot be updated.

file\_size cannot be written.

## **import\_id**

### **import\_id**

The ID of the current import task.

#### **Type**

Unsigned integer.

#### **Search**

The field is searchable via

- '=' (exact equality)

#### **Notes**

import\_id is part of the base object.

import\_id cannot be updated.

import\_id cannot be written.

## **lines\_failed**

### **lines\_failed**

The number of lines that encountered an error.

#### **Type**

Unsigned integer.

#### **Search**

The field is not searchable.

#### **Notes**

lines\_failed is part of the base object.

lines\_failed cannot be updated.

lines\_failed cannot be written.

## **lines\_processed**

### **lines\_processed**

The number of lines that have been processed.

#### **Type**

Unsigned integer.

#### **Search**

The field is not searchable.

#### **Notes**

lines\_processed is part of the base object.

lines\_processed cannot be updated.

lines\_processed cannot be written.

## lines\_warning

### lines\_warning

The number of lines that encountered a warning.

#### Type

Unsigned integer.

#### Search

The field is not searchable.

#### Notes

lines\_warning is part of the base object.

lines\_warning cannot be updated.

lines\_warning cannot be written.

## on\_error

### on\_error

The action to take when an error is encountered.

#### Type

String.

#### Valid values are:

- CONTINUE
- STOP

#### Create

The default value is *STOP*.

#### Search

The field is not searchable.

#### Notes

on\_error is part of the base object.

## operation

### operation

The operation to execute.

#### Type

String.



**Valid values are:**

- CUSTOM
- DELETE
- INSERT
- REPLACE
- UPDATE

**Create**

The default value is *INSERT*.

**Search**

The field is not searchable.

**Notes**

operation is part of the base object.

**separator****separator**

The separator to be used for the data in the CSV file.

**Type**

String.

**Valid values are:**

- COMMA
- SEMICOLON
- SPACE
- TAB

**Search**

The field is not searchable.

**Notes**

separator is part of the base object.

separator cannot be updated.

separator cannot be written.

**start\_time****start\_time**

The start time of the import operation.

**Type**

Timestamp.

**Search**

The field is not searchable.

#### Notes

start\_time is part of the base object.

start\_time cannot be updated.

start\_time cannot be written.

## status

### status

The status of the import operation

#### Type

String.

#### Valid values are:

- COMPLETED
- FAILED
- PENDING
- RUNNING
- STOPPED
- TEST\_COMPLETED
- TEST\_FAILED
- TEST\_RUNNING
- TEST\_STOPPED
- UPLOADED

#### Search

The field is not searchable.

#### Notes

status is part of the base object.

status cannot be updated.

status cannot be written.

## update\_method

### update\_method

The update method to be used for the operation.

#### Type

String.

#### Valid values are:

- MERGE

- OVERRIDE

### Create

The default value is *OVERRIDE*.

### Search

The field is not searchable.

### Notes

update\_method is part of the base object.

## Function Calls

### stop

This function stops the current CSV import task.

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

None

### Output fields

None

## Fields List

Field	Type	Req	R/O	Base	Search
action	String	N	N	Y	N/A
admin_name	String	N	Y	Y	N/A
end_time	Timestamp	N	Y	Y	N/A
file_name	String	N	Y	Y	N/A
file_size	Unsigned int	N	Y	Y	N/A
import_id	Unsigned int	N	Y	Y	=
lines_failed	Unsigned int	N	Y	Y	N/A
lines_processed	Unsigned int	N	Y	Y	N/A
lines_warning	Unsigned int	N	Y	Y	N/A
on_error	String	N	N	Y	N/A
operation	String	N	N	Y	N/A
separator	String	N	Y	Y	N/A
start_time	Timestamp	N	Y	Y	N/A
status	String	N	Y	Y	N/A
update_method	String	N	N	Y	N/A

## 3.6 extensibleattributedef : Extensible Attribute Definition object.

The Extensible Attribute Definition object is used to retrieve the definition of an extensible attribute.

Defined attributes can be associated with other Infoblox objects: DHCP Fixed Address, DHCP Fixed Address Template, DHCP Network, DHCP Network Template, DHCP Range, DHCP Range Template, DNS Host, DHCP Failover and DNS Zone objects that support extensible attributes

## Object Reference

References to extensibleattributedef are *object references*.

## Restrictions

The object does not support:

- Global search (searches via *the search object*)
- Scheduling
- CSV export

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **comment, default\_value, name, type**.

The following fields are required to create this object:

Field	Notes
name	
type	

## allowed\_object\_types

### allowed\_object\_types

The object types this extensible attribute is allowed to associate with.

#### Type

String array.

#### Create

The default value is *undefined*.

#### Search

The field is not searchable.

## comment

### comment

Comment for the Extensible Attribute Definition; maximum 256 characters.

#### Type

String.

#### Create

The default value is *undefined*.

#### Search

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=' (regular expression)

#### Notes

comment is part of the base object.

### default\_value

#### default\_value

Default value used to pre-populate the attribute value in the GUI. For email, URL, and string types, the value is a string with a maximum of 256 characters. For an integer, the value is an integer from -2147483648 through 2147483647. For a date, the value is the number of seconds that have elapsed since January 1st, 1970 UTC.

#### Type

String.

#### Create

The default value is *undefined*.

#### Search

The field is not searchable.

#### Notes

default\_value is part of the base object.

### descendants\_action

#### descendants\_action

This option describes the action that must be taken on the extensible attribute by its descendant in case the ‘Inheritable’ flag is set.

#### Type

A/An *Descendants* struct.

#### Create

The default value is *undefined*.

#### Search

The field is not searchable.

#### Notes

descendants\_action is not readable.

## flags

### flags

This field contains extensible attribute flags. Possible values: (A)udited, (C)loud API, Cloud (G)master, (I)nheritable, (L)isted, (M)andatory value, MGM (P)ivate, (R)ead Only, (S)ort enum values, Multiple (V)alues If there are two or more flags in the field, you must list them according to the order they are listed above.

For example, 'CR' is a valid value for the 'flags' field because C = Cloud API is listed before R = Read only. However, the value 'RC' is invalid because the order for the 'flags' field is broken.

#### Type

String.

#### Create

The default value is *undefined*.

#### Search

The field is not searchable.

## list\_values

### list\_values

List of Values. Applicable if the extensible attribute type is ENUM.

#### Type

A/An *List of values* struct array.

#### Create

The default value is *undefined*.

#### Search

The field is not searchable.

## max

### max

Maximum allowed value of extensible attribute. Applicable if the extensible attribute type is INTEGER.

#### Type

Unsigned integer.

#### Create

The default value is *undefined*.

#### Search

The field is not searchable.

## min

### min

Minimum allowed value of extensible attribute. Applicable if the extensible attribute type is INTEGER.

### Type

Unsigned integer.

### Create

The default value is *undefined*.

### Search

The field is not searchable.

## name

### name

The name of the Extensible Attribute Definition.

### Type

String.

### Create

The field is required on creation.

### Search

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~’ (regular expression)

### Notes

name is part of the base object.

## namespace

### namespace

Namespace for the Extensible Attribute Definition.

### Type

String.

### Valid values are:

- CLOUD
- CLOUD\_GM
- MSADSITES
- RIPE

- default

### **Search**

The field is searchable via

- '=' (exact equality)

### **Notes**

namespace cannot be updated.

namespace cannot be written.

## **type**

### **type**

Type for the Extensible Attribute Definition.

### **Type**

String.

### **Valid values are:**

- DATE
- EMAIL
- ENUM
- INTEGER
- STRING
- URL

### **Create**

The field is required on creation.

### **Search**

The field is searchable via

- '=' (exact equality)

### **Notes**

type is part of the base object.



## Fields List

Field	Type	Req	R/O	Base	Search
allowed_object_types	[String]	N	N	N	N/A
comment	String	N	N	Y	: = ~
default_value	String	N	N	Y	N/A
descendants_action	struct	N	N	N	N/A
flags	String	N	N	N	N/A
list_values	[struct]	N	N	N	N/A
max	Unsigned int	N	N	N	N/A
min	Unsigned int	N	N	N	N/A
name	String	Y	N	Y	: = ~
namespace	String	N	Y	N	=
type	String	Y	N	Y	=

## 3.7 fileop : File operations object.

This object controls uploading and downloading data from the appliance.

### File uploading

If a call to 'uploadinit' is made, this will return a token and a URL, and the file will be uploaded to the URL. Depending on what the file is used for, the appropriate uploading function call will be executed. Example: setfiledest.

For an invocation example, see the sample code section in the manual [here](#).

### File downloading

If a call to the function that provides the requested data (such as getgriddata) is made, the appliance will return a token and a URL, and the file will be downloaded from the URL. Afterwards, 'downloadcomplete' needs to be called.

For an invocation example, see the sample code section in the manual [here](#).

Note: the returned URL should be used as-is, without further processing. Some functions, for example csv\_snapshot\_file, will return URLs with embedded %-encoded characters.

### Object Reference

This object cannot be retrieved from the appliance, hence it does not support references.

### Scheduling

The 'read' and 'csv\_export' functions support scheduling, other functions don't; 'csv\_export' supports scheduling only if exporting to a file.

## Restrictions

The object does not support:

- Create (insert)
- Delete
- Read (retrieve)
- Modify (update)
- Permissions
- Global search (searches via *the search object*)
- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

The object does not support any fields.

## Function Calls

### downloadcomplete

This function is used to signal to the appliance that a file download operation was completed.

This function does not support multiple object matches when called as part of an atomic insertion operation.

#### Input fields

**token** ( String. ). This parameter is mandatory. The token returned by the function call used to request the data.

#### Output fields

None

### update\_licenses

This function is used to upload a license file.

This function does not support multiple object matches when called as part of an atomic insertion operation.

#### Input fields

**token** ( String. ). This parameter is mandatory. Upload information. Used to upload license file.

#### Output fields

None

## uploadinit

This function is used to begin an upload operation.

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

**filename** ( String. ) This is an optional parameter governing the name of the file that is being uploaded to the appliance. Unless specified in the description of the uploaded function that is used, this is going to be ignored. The default value is “import\_file”.

### Output fields

**token** ( String. ) The token used for calling the upload function.

**url** ( String. ) The URL to which the file is being uploaded.

## (upload) csv\_import

This function is used to import objects to the appliance in CSV format.

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

**action** ( String. Valid values are: “START”, “TEST” ) The action to execute. ‘TEST’ is valid only when operation is set to ‘REPLACE’. The default value is “START”.

**doimport** ( Bool. ) If this is set to True, the import will begin immediately. The default value is “True”.

**on\_error** ( String. Valid values are: “CONTINUE”, “STOP” ) The action to be taken if the import operation encounters an error. The default value is “STOP”.

**operation** ( String. Valid values are: “INSERT”, “UPDATE”, “REPLACE”, “DELETE”, “CUSTOM” ) The operation to execute. The default value is “INSERT”.

**separator** ( String. Valid values are: “COMMA”, “SEMICOLON”, “SPACE”, “TAB” ) The separator to be used for the data in the CSV file. The default value is “COMMA”.

**token** ( String. ). This parameter is mandatory. The token returned by the uploadinit function call.

**update\_method** ( String. Valid values are: “MERGE”, “OVERRIDE” ) The update method to be used for the operation. The default value is “OVERRIDE”.

### Output fields

**csv\_import\_task** ( String. ) The *the csvimporttask object* that can be used to control this import task.

## (upload) restapi\_template\_import

This function is used to import REST API template parameters.

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

**overwrite** ( Bool. ) Determines if existing templates have to be overwritten.

**token** ( String. ). This parameter is mandatory. The token used for calling the restapi\_template\_import function.

### Output fields

**error\_message** ( String. ) The description of an error occurred if import operation fails.

**overall\_status** ( String. Valid values are: “FAILED”, “SUCCESS” ) The overall status of import procedure.

#### **(upload) set\_downgrade\_file**

This function is used to upload a downgrade file to the appliance.

This function does not support multiple object matches when called as part of an atomic insertion operation.

##### **Input fields**

**token** ( String. ). This parameter is mandatory. The token returned by the uploadinit function call.

##### **Output fields**

None

#### **(upload) set\_upgrade\_file**

This function is used to upload an upgrade file to the appliance.

This function does not support multiple object matches when called as part of an atomic insertion operation.

##### **Input fields**

**token** ( String. ). This parameter is mandatory. The token returned by the uploadinit function call.

##### **Output fields**

None

#### **(upload) setfiledest**

This function is used to upload a file to the appliance.

This function does not support multiple object matches when called as part of an atomic insertion operation.

##### **Input fields**

**dest\_path** ( String. ). This parameter is mandatory. The location on the appliance to which the uploaded file should be moved. For TFTP\_FILE files this is relative to the TFTP file distribution directory.

**extract** ( Bool. ) If set to True, the uploaded archive is extracted. The default value is “False”.

**token** ( String. ). This parameter is mandatory. The token returned by the uploadinit function call.

**type** ( String. Valid values are: “TFTP\_FILE” ) The type of file that was uploaded. The default value is “TFTP\_FILE”.

##### **Output fields**

None

#### **(download) csv\_error\_log**

This function is used to export objects from the appliance in CSV format.

This function does not support multiple object matches when called as part of an atomic insertion operation.

##### **Input fields**

**import\_id** ( Unsigned integer. ) The import\_id of the operation to download the error log for.

##### **Output fields**

**token** ( String. ) The token used for calling the downloadcomplete function.

**url** ( String. ) For local (not remote) uploads, the URL from which the requested file is downloaded.

### (download) csv\_export

This function is used to export objects from the appliance in CSV format.

Any parameter passed to this function and is not included in the list of input parameters below will be treated as a search parameter for the object type specified in `_object`. For example, if `_object` is set to 'record:a' and an additional search parameter of zone 'zone.com' is passed, all A record objects in zone.com will be exported.

#### Local file export

This function also supports exporting the CSV file to a named file in a subdirectory called `wapi_output` in the file distribution area.

If the `_filename` or `_fileprefix` argument is passed, the function exports the named file and does not return a token/url. The caller also does not need to call `downloadcomplete` afterwards.

Exports older than a week are removed automatically from the file area. Additional older exports are also removed automatically to keep the size of the WAPI export file directory under 50% of the TFTP file distribution area storage limit. The default value of the file distribution storage limit is 500MB and can be configured in the file distribution settings.

This function does not support multiple object matches when called as part of an atomic insertion operation.

#### Input fields

**\_filename** ( String. ) The filename to be used when exporting the data. Only `_filename` or `_fileprefix` can be specified.

**\_fileprefix** ( String. ) The prefix to be used for the filename created when exporting the data. The object type used in the export and the date/time the export was executed are appended to the value. The extension ".txt" is automatically added as well.

**\_gzipfile** ( Bool. ) Only used when exporting to a local file. If set to True, the exported file is gzipped. In that case, the extension ".gz" is automatically added. The default value is "False".

**\_object** ( String. ). This parameter is mandatory. The WAPI object to be exported.

**\_separator** ( String. Valid values are: "COMMA", "SEMICOLON", "SPACE", "TAB" ) The separator to be used for the data in the CSV file. The default value is "COMMA".

#### Output fields

**token** ( String. ) The token used for calling the downloadcomplete function. Only present if `_filename` and `_fileprefix` are not specified.

**url** ( String. ) The URL from which the requested file is downloaded. Only present if `_filename` and `_fileprefix` are not specified.

### (download) csv\_snapshot\_file

This function is used to download the snapshot file for a zone which has been overwritten. If a zone is overwritten the server will take a snapshot before the overwriting operation starts, and after it completes it will be made available to download.

This function does not support multiple object matches when called as part of an atomic insertion operation.

**Input fields**

**import\_id** ( Unsigned integer. ) The import\_id of the operation to download the snapshot file for.

**Output fields**

**token** ( String. ) The token used for calling the downloadcomplete function.

**url** ( String. ) For local (not remote) uploads, the URL from which the requested file is downloaded.

**(download) csv\_uploaded\_file**

This function is used to download the original file uploaded by the user for the CSV Import operation.

This function does not support multiple object matches when called as part of an atomic insertion operation.

**Input fields**

**import\_id** ( Unsigned integer. ) The import\_id of the operation to download the CSV file for.

**Output fields**

**token** ( String. ) The token used for calling the downloadcomplete function.

**url** ( String. ) For local (not remote) uploads, the URL from which the requested file is downloaded.

**(download) download\_pool\_status**

This function is used to download a signed file with license pools/static licenses.

This function does not support multiple object matches when called as part of an atomic insertion operation.

**Input fields**

**None**

**Output fields**

**token** ( String. ) Download information. Used to download license file.

**url** ( String. ) For local (not remote) uploads, the URL from which the requested file is downloaded.

**(download) get\_file\_url**

This function is used to retrieve the file url which was created in fileop read request.

This function does not support multiple object matches when called as part of an atomic insertion operation.

**Input fields**

**task\_id** ( Unsigned integer. ) The task\_id of the operation to download the url for.

**Output fields**

**url** ( String. ) The URL from which the requested file is downloaded.

## (download) get\_log\_files

This function is used to download log files from the Grid members, Microsoft servers or endpoints.

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

**endpoint** ( String. ) The endpoint is to be used to gather log files. You must specify the endpoint if log\_type is 'OUTBOUND'. You must specify only a member, a Microsoft(r) server, or an endpoint.

**include\_rotated** ( Bool. ) Determines if rotated files are to be included. The default value is "False".

**log\_type** ( String. Valid values are: "SYSLOG", "AUDITLOG", "MSMGMTLOG", "DELTALOG", "OUTBOUND" ). This parameter is mandatory. The type of log files are to be downloaded.

**member** ( String. ) The member from which you are downloading the logs. You must specify only a member, a Microsoft(r) server, or an endpoint.

**msserver** ( String. ) The Microsoft server from which you are downloading the logs. You must specify only a member, a Microsoft(r) server, or an endpoint.

**node\_type** ( String. Valid values are: "ACTIVE", "BACKUP" ) The node type.

### Output fields

**token** ( String. ) The token used for calling the downloadcomplete function.

**url** ( String. ) The URL to download files.

## (download) get\_support\_bundle

Export the support bundle from a member. Exported file is in "tar.gz" format.

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

**cached\_zone\_data** ( Bool. ) Include cached zone data files. The default value is "False".

**core\_files** ( Bool. ) Include core files in support bundle. The default value is "False".

**log\_files** ( Bool. ) Include log files in support bundle. The default value is "False".

**member** ( String. ). This parameter is mandatory. The member from which the support bundle will be downloaded.

**nm\_snmp\_logs** ( Bool. ) Include NetMRI SNMP logs. The default value is "False".

**recursive\_cache\_file** ( Bool. ) Include DNS recursive cache dump. The default value is "False".

**remote\_url** ( String. ) If set, the data will be uploaded to the specified location, the format is [ftp|ftps|scp]://user:password@hostip/path/filename

**rotate\_log\_files** ( Bool. ) Include rotate\_log files in support bundle. The default value is "False".

### Output fields

**token** ( String. ) The token used for calling the downloadcomplete function.

**url** ( String. ) For local (not remote) uploads, the URL from which the requested file is downloaded.

## (download) getgriddata

This function is used to download data from the appliance ( for example a backup).

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

**discovery\_data** ( Bool. ) This flag controls whether Network Automation data should be exported. The field is valid only when type is set to BACKUP. The default value is “False”.

**nios\_data** ( Bool. ) This flag controls whether NIOS data should be exported. The field is valid only when type is set to BACKUP. The default value is “True”.

**remote\_url** ( String. ) If set, the data will be uploaded to the specified location, the format is [ftptftplscp]://user:password@hostip/path/filename

**type** ( String. Valid values are: “NTP\_KEY\_FILE”, “SNMP\_MIBS\_FILE”, “BACKUP” ). This parameter is mandatory. The type of data to download.

### Output fields

**token** ( String. ) The token used for calling the downloadcomplete function.

**url** ( String. ) For local (not remote) uploads, the URL from which the requested file is downloaded.

## (download) read

This function is used to read objects from the appliance and write them to a named file.

Any parameter passed to this function and is not included in the list of input parameters below is treated as a search parameter for the object type specified in `_object`. For example, if `_object` is set to ‘record:a’ and an additional search parameter of zone ‘zone.com’ is passed, all A record objects in zone.com are exported.

If `_output_location` is specified as LOCAL, `_filename` or `_fileprefix` argument should not be passed, the name of exported file will be generated automatically and function will return the URL to exported file and token for downloadcomplete function. In case of scheduling, the reference to scheduling task will be returned instead. When scheduling task is complete, the `get_file_url` function should be used to retrieve URL of the exported file, no need for calling the downloadcomplete function.

If `_output_location` is specified as FILE\_DISTRIBUTION (default value), file with the results of the read is placed in a subdirectory called “wapi\_output” in the file distribution area. In this case, `_filename` or `_fileprefix` argument must be passed. This function version does not return a token/url. The caller also does not need to call downloadcomplete afterwards.

Reads older than a week are removed automatically from the file area. Additional older reads are also removed automatically to keep the size of the WAPI export file directory under 50% of the TFTP file distribution area storage limit. The default value of the file distribution storage limit is 500MB and can be configured in the file distribution settings.

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

**\_encoding** ( String. Valid values are: “JSON”, “XML”, “ROWJSON”, “ROWXML” ) The format that will be used when writing the file. The default value is “JSON”.

**\_filename** ( String. ) The name of the file.

**\_fileprefix** ( String. ) The prefix to be used for the filename. The object type read and the date/time the read was executed are appended to the value. The extension “.txt” is automatically added as well.



**\_gzipfile** ( Bool. ) If set to True, the exported file is gzipped. In that case, the extension “.gz” is automatically added. The default value is “False”.

**\_max\_results** ( Integer. ) The maximum number of objects to be returned in the read. The default value is “-1000”.

**\_object** ( String. ). This parameter is mandatory. The WAPI object to be read.

**\_output\_location** ( String. Valid values are: “FILE\_DISTRIBUTION”, “LOCAL” ) The output location for the file. The default value is “FILE\_DISTRIBUTION”.

**\_return\_fields** ( String. ) The return fields to be used for the read.

### Output fields

**token** ( String. ) The token used for calling the downloadcomplete function. Only present if `_output_location` is passed as LOCAL and `_filename`, `_fileprefix` and scheduling information are not specified.

**url** ( String. ) The URL from which the requested file is downloaded. Only present if `_output_location` is passed as LOCAL and `_filename`, `_fileprefix` and scheduling information are not specified.

## (download) restapi\_template\_export

This function is used to export REST API template parameters.

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

**restapi\_template** ( String. ). This parameter is mandatory. The name of REST API template to be exported.

### Output fields

**token** ( String. ) The token used for calling the downloadcomplete function.

**url** ( String. ) For local (not remote) uploads, the URL from which the requested file is downloaded.

## (download) restapi\_template\_export\_schema

This function is used to export REST API template schema.

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

**schema\_type** ( String. Valid values are: “REST\_EVENT”, “REST\_ENDPOINT” ). This parameter is mandatory. The type of REST API template schema to be exported.

### Output fields

**token** ( String. ) The token used for calling the downloadcomplete function.

**url** ( String. ) For local (not remote) uploads, the URL from which the requested file is downloaded.

## 3.8 grid : Grid object.

This object represents the Infoblox Grid.

## Object Reference

References to grid are *object references*. The *name* part of a Grid object reference has the following components:

- The name of the Infoblox Grid.

Example: `grid/ZG5zLm5ldHdvcmtfdmllldyQxMTk:Infoblox`

## Restrictions

The object does not support:

- Create (insert)
- Delete
- Permissions
- Global search (searches via *the search object*)
- Scheduling
- CSV export

In addition the object does not support the following operations when managed on Cloud Platform members:

- Modify (update)

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

### `audit_log_format`

#### `audit_log_format`

Determines the audit log format.

#### Type

String.

#### Valid values are:

- BRIEF
- DETAILED

#### Create

The default value is *DETAILED*.

#### Search

The field is not searchable.

## audit\_to\_syslog\_enable

### audit\_to\_syslog\_enable

If set to True, audit log messages are also copied to the syslog.

#### Type

Bool.

#### Create

The default value is *False*.

#### Search

The field is not searchable.

## dns\_resolver\_setting

### dns\_resolver\_setting

The DNS resolver setting.

#### Type

A/An *DNS resolver Setting* struct.

#### Create

The default value is:

```
{ 'resolvers': [], 'search_domains': [] }
```

#### Search

The field is not searchable.

## dscp

### dscp

The DSCP value.

Valid values are integers between 0 and 63 inclusive.

#### Type

Unsigned integer.

#### Create

The default value is *0*.

#### Search

The field is not searchable.

## email\_setting

### email\_setting

The e-mail settings for the Grid.

#### Type

A/An *The email settings for the Grid member* struct.

#### Create

The default value is:

```
{ 'enabled': False, 'relay_enabled': False}
```

#### Search

The field is not searchable.

## enable\_gui\_api\_for\_lan\_vip

### enable\_gui\_api\_for\_lan\_vip

If set to True, GUI and API access are enabled on the LAN/VIP port and MGMT port (if configured).

#### Type

Bool.

#### Create

The default value is *False*.

#### Search

The field is not searchable.

## enable\_lom

### enable\_lom

Determines if the LOM functionality is enabled or not.

#### Type

Bool.

#### Create

The default value is *False*.

#### Search

The field is not searchable.

## enable\_member\_redirect

### enable\_member\_redirect

Determines redirections is enabled or not for members.

**Type**

Bool.

**Create**

The default value is *True*.

**Search**

The field is not searchable.

### **enable\_recycle\_bin**

**enable\_recycle\_bin**

Determines if the Recycle Bin is enabled or not.

**Type**

Bool.

**Create**

The default value is *True*.

**Search**

The field is not searchable.

### **external\_syslog\_backup\_servers**

**external\_syslog\_backup\_servers**

The list of external backup syslog servers.

**Type**

A/An *External syslog backup server* struct array.

**Create**

The default value is:

empty

**Search**

The field is not searchable.

### **external\_syslog\_server\_enable**

**external\_syslog\_server\_enable**

If set to True, external syslog servers are enabled.

**Type**

Bool.

**Create**

The default value is *False*.

#### **Search**

The field is not searchable.

### **http\_proxy\_server\_setting**

#### **http\_proxy\_server\_setting**

The Grid HTTP proxy server settings.

#### **Type**

A/An *HTTP Proxy Server Setting* struct.

#### **Create**

The default value is *empty*.

#### **Search**

The field is not searchable.

### **is\_grid\_visualization\_visible**

#### **is\_grid\_visualization\_visible**

If set to True, graphical visualization of the Grid is enabled.

#### **Type**

Bool.

#### **Create**

The default value is *False*.

#### **Search**

The field is not searchable.

### **name**

#### **name**

The grid name.

#### **Type**

String.

#### **Create**

The default value is *Infoblox*.

#### **Search**

The field is searchable via

- '=' (exact equality)
- '~=' (regular expression)

## password\_setting

### password\_setting

The Grid password settings.

#### Type

A/An *Password settings* struct.

#### Create

The default value is:

```
{ 'chars_to_change': 0,  
'expire_days': 30,  
'expire_enable': False,  
'force_reset_enable': False,  
'num_lower_char': 0,  
'num_numeric_char': 0,  
'num_symbol_char': 0,  
'num_upper_char': 0,  
'password_min_length': 4,  
'reminder_days': 15}
```

#### Search

The field is not searchable.

## secret

### secret

The shared secret of the Grid. This is a write-only attribute.

#### Type

String.

#### Create

The default value is *undefined*.

#### Search

The field is not searchable.

#### Notes

secret is not readable.

## security\_banner\_setting

### security\_banner\_setting

The Grid security banner settings.

#### Type

A/An *Security banner settings* struct.

#### Create

The default value is:

```
{ 'color': 'GREEN', 'enable': False, 'level': 'UNCLASSIFIED' }
```

### Search

The field is not searchable.

## security\_setting

### security\_setting

The Grid security settings.

### Type

A/An *Security settings* struct.

### Create

The default value is:

```
{ 'admin_access_items': [],  
'audit_log_rolling_enable': True,  
'http_redirect_enable': False,  
'lcd_input_enable': True,  
'login_banner_enable': True,  
'login_banner_text': 'Disconnect NOW if you have not been expressly authorized to use this system.',  
'remote_console_access_enable': False,  
'security_access_enable': False,  
'security_access_remote_console_enable': True,  
'session_timeout': 600,  
'ssh_perm_enable': True,  
'support_access_enable': False}
```

### Search

The field is not searchable.

## snmp\_setting

### snmp\_setting

The Grid SNMP settings.

### Type

A/An *SNMP setting* struct.

### Create

The default value is:

```
{ 'queries_enable': False,  
'snmpv3_queries_enable': False,  
'snmpv3_traps_enable': False,  
'syscontact': [],  
'sysdescr': [],  
'syslocation': [],  
'sysname': [],  
'trap_receivers': [],  
'traps_enable': False}
```



## Search

The field is not searchable.

## syslog\_facility

### syslog\_facility

If 'audit\_to\_syslog\_enable' is set to True, the facility that determines the processes and daemons from which the log messages are generated.

### Type

String.

### Valid values are:

- DAEMON
- LOCAL0
- LOCAL1
- LOCAL2
- LOCAL3
- LOCAL4
- LOCAL5
- LOCAL6
- LOCAL7

### Create

The default value is *DAEMON*.

### Search

The field is not searchable.

## syslog\_servers

### syslog\_servers

The list of external syslog servers.

### Type

A/An *Syslog server* struct array.

### Create

The default value is:

empty

### Search

The field is not searchable.

## syslog\_size

### syslog\_size

The maximum size for the syslog file expressed in megabytes.

#### Type

Unsigned integer.

#### Create

The default value is *300*.

#### Search

The field is not searchable.

## threshold\_traps

### threshold\_traps

Determines the list of threshold traps. The user can only change the values for each trap or remove traps.

#### Type

A/An *The Grid SNMP threshold trap structure* struct array.

#### Create

The default value is *All threshold traps*.

#### Search

The field is not searchable.

## time\_zone

### time\_zone

The time zone of the Grid. The UTC string that represents the time zone, such as “(UTC - 5:00) Eastern Time (US and Canada)”.

#### Type

String.

#### Create

The default value is *(UTC) Coordinated Universal Time*.

#### Search

The field is not searchable.

## token\_usage\_delay

### token\_usage\_delay

The delayed usage (in minutes) of a permission token.

**Type**

Unsigned integer.

**Create**

The default value is *10*.

**Search**

The field is not searchable.

## trap\_notifications

### trap\_notifications

Determines configuration of the trap notifications.

**Type**

A/An *The Grid SNMP trap notification structure* struct array.

**Create**

The default value is *All trap notifications*.

**Search**

The field is not searchable.

## vpn\_port

### vpn\_port

The VPN port.

**Type**

Unsigned integer.

**Create**

The default value is *1194*.

**Search**

The field is not searchable.

## Function Calls

### control\_ip\_address

Use this function to control selected IP addresses.

This function does not support multiple object matches when called as part of an atomic insertion operation.

**Input fields**

**addresses** ( String array. ). This parameter is mandatory. The IP addresses list.

**exclude** ( Bool. ) This flag controls whether selected IP addresses should be excluded.

**network\_view** ( String. ) The name of the network view in which this IP addresses resides.

**Output fields**

None

### empty\_recycle\_bin

Empty the recycle bin.

This function does not support multiple object matches when called as part of an atomic insertion operation.

**Input fields**

None

**Output fields**

None

### get\_all\_template\_vendor\_id

Get all unique Vendor identifiers of REST API templates.

This function does not support multiple object matches when called as part of an atomic insertion operation.

**Input fields**

None

**Output fields**

**vendor\_identifiers** ( String array. ) The vendor identifiers.

### member\_upgrade

Use this function to upgrade a single member that was reverted during the staged upgrade process or to revert a single member if it does not behave properly after an upgrade.

This function does not support multiple object matches when called as part of an atomic insertion operation.

**Input fields**

**action** ( String. Valid values are: “UPGRADE”, “REVERT” ) The action to execute. The default value is “UPGRADE”.

**member** ( String. ). This parameter is mandatory. The FQDN of the member to be upgraded.

**Output fields**

None

### node\_registration

This function does not support multiple object matches when called as part of an atomic insertion operation.

**Input fields**

**hardware\_id** ( String. ). This parameter is mandatory. Hardware ID.

**hardware\_model** ( String. ). This parameter is mandatory. Hardware Model

**hardware\_type** ( String. ). This parameter is mandatory. Hardware Type

**licenses** ( String array. ). This parameter is mandatory. List Of Licenses

**token** ( String. ). This parameter is mandatory. Identifier of the Physical Node that is used to Join to the Grid.

#### Output fields

**gm\_ip\_join** ( String. ) Grid Master IP address that must be used for joining

**grid\_name** ( String. ) Grid Name

**grid\_secret** ( String. ) Grid Secret

**hardware\_id** ( String. ). This parameter is mandatory. Hardware ID.

**licenses** ( String array. ). This parameter is mandatory. List Of Licenses

**use\_mgmt\_port\_to\_join** ( Bool. ) Set to True if member must use its MGMT port while joining the Grid. The default value is "False".

### query\_fqdn\_on\_member

Invokes dig command on member on specific FQDN.

This function does not support multiple object matches when called as part of an atomic insertion operation.

#### Input fields

**fqdn** ( String. ). This parameter is mandatory. The FQDN to query.

**member** ( String. ) The host name of the member. Default is Grid Master host name. The default value is "None".

**name\_server** ( String. ) The Name Server to query, either a name or IPv4/6 address. The default value is "".

**record\_type** ( String. Valid values are: "ANY", "A", "AAAA", "CNAME", "DNAME", "MX", "NAPTR", "NS", "PTR", "SRV", "TXT", "AXFR" ) The Resource record type. The default value is "ANY".

**recursive\_query** ( Bool. ) Determines if this query is recursive or not. The default value is "True".

#### Output fields

**dig\_started** ( Timestamp. ) The timestamp since dig started.

**result** ( String. Valid values are: "NOERROR", "FORMERR", "SERVFAIL", "NXDOMAIN", "NOTIMP", "REFUSED", "INTERNAL\_ERROR" ) The dig request return code.

**result\_text** ( String. ) The dig result text, multi-lined text.

**source\_address** ( String. ) The source IP address of the query.

### skip\_member\_upgrade

This function allows the specified member to skip the upgrade process.

This function does not support multiple object matches when called as part of an atomic insertion operation.

#### Input fields

**member** ( String. ). This parameter is mandatory. The FQDN of the member that will skip the upgrade process.

#### Output fields

None

## start\_discovery

Use this function to start the discovery on selected objects.

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

**objects** ( String array. ). This parameter is mandatory. The list of refs to the relevant IPAM objects (Network, Network Container, IP Address, Fixed Address, Host Record, Range).

### Output fields

None

## test\_syslog\_backup\_server\_connection

This function can be used to test the connection to the external backup syslog server.

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

**member** ( String. ) The member for testing the connection.

**syslog\_backup\_server** ( A/An *External syslog backup server* struct. ). This parameter is mandatory. The syslog backup server for testing the connection.

### Output fields

**result** ( String. Valid values are: “CANNOT\_CONNECT”, “TEST\_OK” ) The result of connection testing to the syslog server.

## test\_syslog\_connection

Use this function to test a connection to the syslog server.

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

**syslog\_server** ( A/An *Syslog server* struct. ). This parameter is mandatory. The syslog server for testing the connection.

### Output fields

**result** ( String. Valid values are: “CANNOT\_CONNECT”, “TEST\_OK”, “CERTIFICATE\_IS\_NOT\_VALID” ) The result of connection testing to the syslog server.

## upgrade

This function provides control over the Grid upgrade. The upgrade process normally is as follows: 1) Upload the upgrade file using *the set\_upgrade\_file function call in object fileop* 2) call this function with ‘action’ set to ‘UPLOAD’, this will prepare the uploaded file for deployment 3) call this function with ‘action’ set to ‘DISTRIBUTION\_START’ which will start the Grid distribution process. 4) call this function with ‘action’ set to ‘UPGRADE’ which will restart the appliances with the new NIOS version.

This function does not support multiple object matches when called as part of an atomic insertion operation.

### Input fields

**action** ( String. Valid values are: “UPGRADE\_PAUSE”, “UPGRADE\_RESUME”, “DISTRIBUTION\_PAUSE”, “DISTRIBUTION\_RESUME”, “DISTRIBUTION\_START”, “DISTRIBUTION\_STOP”, “DOWNGRADE”, “REVERT”, “UPGRADE”, “UPGRADE\_TEST\_START”, “UPGRADE\_TEST\_STOP”, “UPLOAD” ). This parameter is mandatory. Upgrade action.

### Output fields

None

## Fields List

Field	Type	Req	R/O	Base	Search
audit_log_format	String	N	N	N	N/A
audit_to_syslog_enable	Bool	N	N	N	N/A
dns_resolver_setting	struct	N	N	N	N/A
dscp	Unsigned int	N	N	N	N/A
email_setting	struct	N	N	N	N/A
enable_gui_api_for_lan_vip	Bool	N	N	N	N/A
enable_lom	Bool	N	N	N	N/A
enable_member_redirect	Bool	N	N	N	N/A
enable_recycle_bin	Bool	N	N	N	N/A
external_syslog_backup_servers	[struct]	N	N	N	N/A
external_syslog_server_enable	Bool	N	N	N	N/A
http_proxy_server_setting	struct	N	N	N	N/A
is_grid_visualization_visible	Bool	N	N	N	N/A
name	String	N	N	N	= ~
password_setting	struct	N	N	N	N/A
secret	String	N	N	N	N/A
security_banner_setting	struct	N	N	N	N/A
security_setting	struct	N	N	N	N/A
snmp_setting	struct	N	N	N	N/A
syslog_facility	String	N	N	N	N/A
syslog_servers	[struct]	N	N	N	N/A
syslog_size	Unsigned int	N	N	N	N/A
threshold_traps	[struct]	N	N	N	N/A
time_zone	String	N	N	N	N/A
token_usage_delay	Unsigned int	N	N	N	N/A
trap_notifications	[struct]	N	N	N	N/A
vpn_port	Unsigned int	N	N	N	N/A

## 3.9 grid:x509certificate : X509Certificate object.

In the X.509 system, a certification authority issues a certificate binding a public key to a particular distinguished name in the X.500 tradition, or to an alternative name such as an e-mail address or a DNS entry.

### Object Reference

References to grid:x509certificate are *object references*.

The *name* part of the Grid x509certificate object reference has the following components:

- Serial number of Gird x509certificate

Example: grid:x509certificate/ZGldHdvcmtfdmlldyQxMTk:serialnum1

## Restrictions

The object does not support:

- Create (insert)
- Delete
- Modify (update)
- Permissions
- Global search (searches via *the search object*)
- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **issuer, serial, subject**.

### issuer

#### **issuer**

Certificate issuer.

#### **Type**

String.

#### **Search**

The field is searchable via

- `':='` (case insensitive search)
- `'='` (exact equality)
- `'~='` (regular expression)

#### **Notes**

issuer is part of the base object.

issuer cannot be updated.

issuer cannot be written.



## **serial**

### **serial**

X509Certificate serial number.

#### **Type**

String.

#### **Search**

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=' (regular expression)

#### **Notes**

serial is part of the base object.

serial cannot be updated.

serial cannot be written.

## **subject**

### **subject**

A Distinguished Name that is made of multiple relative distinguished names (RDNs).

#### **Type**

String.

#### **Search**

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=' (regular expression)

#### **Notes**

subject is part of the base object.

subject cannot be updated.

subject cannot be written.

## **valid\_not\_after**

### **valid\_not\_after**

Certificate expiry date.

#### **Type**

Timestamp.

## Search

The field is searchable via

- '!= ' (negative search)
- '=' (exact equality)
- '<=' (less than search)
- '>=' (greater than search)

## Notes

valid\_not\_after cannot be updated.

valid\_not\_after cannot be written.

## valid\_not\_before

### valid\_not\_before

Certificate validity start date.

## Type

Timestamp.

## Search

The field is searchable via

- '!= ' (negative search)
- '=' (exact equality)
- '<=' (less than search)
- '>=' (greater than search)

## Notes

valid\_not\_before cannot be updated.

valid\_not\_before cannot be written.

## Fields List

Field	Type	Req	R/O	Base	Search
issuer	String	N	Y	Y	: = ~
serial	String	N	Y	Y	: = ~
subject	String	N	Y	Y	: = ~
valid_not_after	Timestamp	N	Y	N	! < = >
valid_not_before	Timestamp	N	Y	N	! < = >

## 3.10 localuser:authservice : Local user authentication service object.

The object represents a local authentication service for authenticating users against the local database.

Note that read by reference is not supported.

## Object Reference

References to localuser:authservice are *object references*.

The *name* part of a local user authentication service reference has the following components:

- The local user authentication service name.

Example: localuser:authservice/ZG5zLm5ldHdvcmtfdmldyQxMTk:local1

## Restrictions

The object does not support:

- Create (insert)
- Delete
- Modify (update)
- Permissions
- Global search (searches via *the search object*)
- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **comment, disabled, name**.

### comment

#### comment

The local user authentication service comment.

#### Type

String.

#### Search

The field is not searchable.

#### Notes

comment is part of the base object.

comment cannot be updated.

comment cannot be written.

## disabled

### disabled

Flag that indicates whether the local user authentication service is enabled or not.

#### Type

Bool.

#### Search

The field is not searchable.

#### Notes

disabled is part of the base object.

disabled cannot be updated.

disabled cannot be written.

## name

### name

The name of the local user authentication service.

#### Type

String.

#### Search

The field is not searchable.

#### Notes

name is part of the base object.

name cannot be updated.

name cannot be written.

## Fields List

Field	Type	Req	R/O	Base	Search
comment	String	N	Y	Y	N/A
disabled	Bool	N	Y	Y	N/A
name	String	N	Y	Y	N/A

## 3.11 member : Member object.

This object represents the Infoblox Grid Member.

## Object Reference

References to member are *object references*. The *name* part of a member object reference has the following components:

- The member host name.

Example: member/ZG5zLm5ldHdvcmtfdmldyQxMTk:member.com

## Restrictions

The object does not support:

- Scheduling
- CSV export

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **config\_addr\_type, host\_name, platform, service\_type\_configuration**.

The following fields are required to create this object:

Field	Notes
host_name	
ipv6_setting	See the field description for more information
vip_setting	See the field description for more information

## active\_position

### **active\_position**

The active server of a Grid member.

#### **Type**

String.

#### **Search**

The field is not searchable.

#### **Notes**

active\_position cannot be updated.

active\_position cannot be written.

## additional\_ip\_list

### **additional\_ip\_list**

The additional IP list of a Grid member. This list contains additional interface information that can be used at the member level.

Note that interface structure(s) with interface type set to 'MGMT' are not supported.

### Type

A/An *IPv6/IPv4 interfaces settings* struct array.

### Create

The default value is:

`empty`

### Search

The field is not searchable.

## comment

### comment

A descriptive comment of the Grid member.

### Type

String.

### Create

The default value is *empty*.

### Search

The field is searchable via

- ':= ' (case insensitive search)
- '= ' (exact equality)
- '~=' (regular expression)

## config\_addr\_type

### config\_addr\_type

Address configuration type.

### Type

String.

### Valid values are:

- BOTH
- IPV4
- IPV6

### Create

The default value is *IPV4*.

### Search

The field is searchable via

- '=' (exact equality)

#### Notes

config\_addr\_type is part of the base object.

### dns\_resolver\_setting

#### dns\_resolver\_setting

DNS resolver setting for member.

#### Type

A/An *DNS resolver Setting* struct.

#### Create

The default value is *See the dns resolver setting struct for default values.*

#### Search

The field is not searchable.

#### Notes

dns\_resolver\_setting is associated with the field *use\_dns\_resolver\_setting* (see *use flag*).

### dscp

#### dscp

The DSCP (Differentiated Services Code Point) value.

#### Type

Unsigned integer.

#### Create

The default value is *0*.

#### Search

The field is not searchable.

#### Notes

dscp is associated with the field *use\_dscp* (see *use flag*).

### email\_setting

#### email\_setting

The email setting for member.

#### Type

A/An *email Setting for a grid member* struct.

#### Create

The default value is:

```
{ 'enabled': False, 'relay_enabled': False }
```

### Search

The field is not searchable.

### Notes

email\_setting is associated with the field *use\_email\_setting* (see *use flag*).

## enable\_ha

### enable\_ha

If set to True, the member has two physical nodes (HA pair).

### Type

Bool.

### Create

The default value is *False*.

### Search

The field is searchable via

- '=' (exact equality)

## enable\_member\_redirect

### enable\_member\_redirect

Determines if the member will redirect GUI connections to the Grid Master or not.

### Type

Bool.

### Create

The default value is *False*.

### Search

The field is not searchable.

### Notes

enable\_member\_redirect is associated with the field *use\_enable\_member\_redirect* (see *use flag*).

## enable\_ro\_api\_access

### enable\_ro\_api\_access

If set to True and the member object is a Grid Master Candidate, then read-only API access is enabled.

### Type

Bool.



### Create

The default value is *False*.

### Search

The field is searchable via

- '=' (exact equality)

## extattrs

### extattrs

Extensible attributes associated with the object.

For valid values for extensible attributes, see *the following information*.

### Type

Extensible attributes.

This field allows +/- to be specified as part of the field name when updating the object, see *the following information*.

### Create

The default value is *empty*.

### Search

For how to search extensible attributes, see *the following information*.

## external\_syslog\_backup\_servers

### external\_syslog\_backup\_servers

The list of external syslog backup servers.

### Type

A/An *External syslog backup server* struct array.

### Create

The default value is:

empty

### Search

The field is not searchable.

### Notes

external\_syslog\_backup\_servers is associated with the field *use\_external\_syslog\_backup\_servers* (see *use flag*).

## external\_syslog\_server\_enable

### external\_syslog\_server\_enable

Determines if external syslog servers should be enabled.

**Type**

Bool.

**Create**

The default value is *False*.

**Search**

The field is not searchable.

**Notes**

external\_syslog\_server\_enable is associated with the field *use\_syslog\_proxy\_setting* (see *use flag*).

## host\_name

**host\_name**

The host name of the Grid member.

**Type**

String.

Values with leading or trailing whitespace are not valid for this field.

**Create**

The field is required on creation.

**Search**

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=’ (regular expression)

**Notes**

host\_name is part of the base object.

## ipv6\_setting

**ipv6\_setting**

IPV6 setting for member.

**Type**

A/An *IPv6 Settings* struct.

**Create**

At least one of vip\_setting and ipv6\_setting is required.

**Search**

The field is not searchable.

## ipv6\_static\_routes

### ipv6\_static\_routes

List of IPv6 static routes.

#### Type

A/An *IPv6 Settings* struct array.

#### Create

The default value is:

empty

#### Search

The field is not searchable.

## is\_dscp\_capable

### is\_dscp\_capable

Determines if a Grid member supports DSCP (Differentiated Services Code Point).

#### Type

Bool.

#### Search

The field is not searchable.

#### Notes

is\_dscp\_capable cannot be updated.

is\_dscp\_capable cannot be written.

## lan2\_enabled

### lan2\_enabled

If this is set to “true”, the LAN2 port is enabled as an independent port or as a port for failover purposes.

#### Type

Bool.

#### Create

The default value is *False*.

#### Search

The field is not searchable.

## lan2\_port\_setting

### lan2\_port\_setting

Settings for the Grid member LAN2 port if 'lan2\_enabled' is set to "true".

#### Type

A/An *LAN2 Port Setting* struct.

#### Create

The default value is *undefined*.

#### Search

The field is not searchable.

## lcd\_input

### lcd\_input

Determines if the Liquid Crystal Display (LCD) input buttons on the front panel of the appliance are enabled or not.

#### Type

Bool.

#### Create

The default value is *True*.

#### Search

The field is not searchable.

#### Notes

lcd\_input is associated with the field *use\_lcd\_input* (see *use flag*).

## master\_candidate

### master\_candidate

Determines if a Grid member is a Grid Master Candidate or not. This flag enables the Grid member to assume the role of the Grid Master as a disaster recovery measure.

#### Type

Bool.

#### Create

The default value is *True*.

#### Search

The field is searchable via

- '=' (exact equality)

## member\_service\_communication

### member\_service\_communication

Configure communication type for various services.

#### Type

A/An *Member Service Communication* struct array.

#### Create

The default value is *undefined*.

#### Search

The field is not searchable.

## mgmt\_port\_setting

### mgmt\_port\_setting

Settings for the member MGMT port.

#### Type

A/An *MGMT Port Setting* struct.

#### Create

The default value is *undefined*.

#### Search

The field is not searchable.

## node\_info

### node\_info

The node information list with detailed status report on the operations of the Grid Member.

#### Type

A/An *Node Info* struct array.

#### Create

The default value is:

```
[{ }]
```

#### Search

The field is not searchable.

## passive\_ha\_arp\_enabled

### passive\_ha\_arp\_enabled

The ARP protocol setting on the passive node of an HA pair. If you do not specify a value, the default value is “false”. You can only set this value to “true” if the member is an HA pair.

**Type**

Bool.

**Create**

The default value is *False*.

**Search**

The field is not searchable.

## platform

**platform**

Hardware Platform.

**Type**

String.

**Valid values are:**

- CISCO
- IBVM
- INFOBLOX
- RIVERBED
- VNIOS

**Create**

The default value is *INFOBLOX*.

**Search**

The field is searchable via

- ‘=’ (exact equality)

**Notes**

platform is part of the base object.

## pre\_provisioning

**pre\_provisioning**

Pre-provisioning information.

**Type**

A/An *Pre-provisioning Settings* struct.

**Create**

The default value is *empty*.

**Search**

The field is not searchable.

## **preserve\_if\_owns\_delegation**

### **preserve\_if\_owns\_delegation**

Set this flag to “true” to prevent the deletion of the member if any delegated object remains attached to it.

#### **Type**

Bool.

#### **Create**

The default value is *False*.

#### **Search**

The field is searchable via

- ‘=’ (exact equality)

## **remote\_console\_access\_enable**

### **remote\_console\_access\_enable**

If set to True, superuser admins can access the Infoblox CLI from a remote location using an SSH (Secure Shell) v2 client.

#### **Type**

Bool.

#### **Create**

The default value is *False*.

#### **Search**

The field is not searchable.

#### **Notes**

remote\_console\_access\_enable is associated with the field [use\\_remote\\_console\\_access\\_enable](#) (see *use flag*).

## **router\_id**

### **router\_id**

Virtual router identifier. Provide this ID if “ha\_enabled” is set to “true”. This is a unique VRID number (from 1 to 255) for the local subnet.

#### **Type**

Unsigned integer.

#### **Create**

The default value is *undefined*.

#### **Search**

The field is searchable via

- '=' (exact equality)

## service\_status

### service\_status

The service status list of a grid member.

#### Type

A/An *Member Service Status* struct array.

#### Search

The field is not searchable.

#### Notes

service\_status cannot be updated.

service\_status cannot be written.

## service\_type\_configuration

### service\_type\_configuration

Configure all services to the given type.

#### Type

String.

#### Valid values are:

- ALL\_V4
- ALL\_V6
- CUSTOM

#### Create

The default value is *ALL\_V4*.

#### Search

The field is searchable via

- '=' (exact equality)

#### Notes

service\_type\_configuration is part of the base object.

## snmp\_setting

### snmp\_setting

The Grid Member SNMP settings.

#### Type

A/An *SNMP setting* struct.

#### Create



The default value is *See the SNMP settings struct for default values.*

#### **Search**

The field is not searchable.

#### **Notes**

snmp\_setting is associated with the field *use\_snmp\_setting* (see *use flag*).

### **static\_routes**

#### **static\_routes**

List of static routes.

#### **Type**

A/An *Network settings* struct array.

#### **Create**

The default value is:

empty

#### **Search**

The field is not searchable.

### **support\_access\_enable**

#### **support\_access\_enable**

Determines if support access for the Grid member should be enabled.

#### **Type**

Bool.

#### **Create**

The default value is *False*.

#### **Search**

The field is not searchable.

#### **Notes**

support\_access\_enable is associated with the field *use\_support\_access\_enable* (see *use flag*).

### **support\_access\_info**

#### **support\_access\_info**

The information string for support access.

#### **Type**

String.

#### **Search**

The field is not searchable.

#### Notes

support\_access\_info cannot be updated.

support\_access\_info cannot be written.

## syslog\_proxy\_setting

### syslog\_proxy\_setting

The Grid Member syslog proxy settings.

#### Type

A/An *Syslog proxy settings* struct.

#### Create

The default value is *See the syslog proxy settings struct for default values.*

#### Search

The field is not searchable.

#### Notes

syslog\_proxy\_setting is associated with the field *use\_syslog\_proxy\_setting* (see *use flag*).

## syslog\_servers

### syslog\_servers

The list of external syslog servers.

#### Type

A/An *Syslog server* struct array.

#### Create

The default value is:

empty

#### Search

The field is not searchable.

#### Notes

syslog\_servers is associated with the field *use\_syslog\_proxy\_setting* (see *use flag*).

## syslog\_size

### syslog\_size

The maximum size for the syslog file expressed in megabytes.

#### Type

Unsigned integer.

### Create

The default value is 300.

### Search

The field is not searchable.

### Notes

syslog\_size is associated with the field *use\_syslog\_proxy\_setting* (see *use flag*).

## threshold\_traps

### threshold\_traps

Determines the list of threshold traps. The user can only change the values for each trap or remove traps.

### Type

A/An *The Grid SNMP threshold trap structure* struct array.

### Create

The default value is *All threshold traps*.

### Search

The field is not searchable.

### Notes

threshold\_traps is associated with the field *use\_threshold\_traps* (see *use flag*).

## time\_zone

### time\_zone

The time zone of the Grid member. The UTC string that represents the time zone, such as “(UTC - 5:00) Eastern Time (US and Canada)”.

### Type

String.

### Create

The default value is *(UTC) Coordinated Universal Time*.

### Search

The field is not searchable.

### Notes

time\_zone is associated with the field *use\_time\_zone* (see *use flag*).

## trap\_notifications

### trap\_notifications

Determines configuration of the trap notifications.

**Type**

A/An *The Grid SNMP trap notification structure* struct array.

**Create**

The default value is *All trap notifications*.

**Search**

The field is not searchable.

**Notes**

trap\_notifications is associated with the field *use\_trap\_notifications* (see *use flag*).

## upgrade\_group

**upgrade\_group**

The name of the upgrade group to which this Grid member belongs.

**Type**

String.

**Create**

The default value is *Default*.

**Search**

The field is not searchable.

## use\_dns\_resolver\_setting

**use\_dns\_resolver\_setting**

Use flag for: dns\_resolver\_setting

**Type**

Bool.

**Create**

The default value is *False*.

**Search**

The field is not searchable.

## use\_dscp

**use\_dscp**

Use flag for: dscp

**Type**

Bool.

**Create**

The default value is *False*.

#### **Search**

The field is not searchable.

### **use\_email\_setting**

#### **use\_email\_setting**

Use flag for: email\_setting

#### **Type**

Bool.

#### **Create**

The default value is *False*.

#### **Search**

The field is not searchable.

### **use\_enable\_member\_redirect**

#### **use\_enable\_member\_redirect**

Use flag for: enable\_member\_redirect

#### **Type**

Bool.

#### **Create**

The default value is *False*.

#### **Search**

The field is not searchable.

### **use\_external\_syslog\_backup\_servers**

#### **use\_external\_syslog\_backup\_servers**

Use flag for: external\_syslog\_backup\_servers

#### **Type**

Bool.

#### **Create**

The default value is *False*.

#### **Search**

The field is not searchable.

## **use\_lcd\_input**

### **use\_lcd\_input**

Use flag for: lcd\_input

#### **Type**

Bool.

#### **Create**

The default value is *False*.

#### **Search**

The field is not searchable.

## **use\_remote\_console\_access\_enable**

### **use\_remote\_console\_access\_enable**

Use flag for: remote\_console\_access\_enable

#### **Type**

Bool.

#### **Create**

The default value is *False*.

#### **Search**

The field is not searchable.

## **use\_snmp\_setting**

### **use\_snmp\_setting**

Use flag for: snmp\_setting

#### **Type**

Bool.

#### **Create**

The default value is *False*.

#### **Search**

The field is not searchable.

## **use\_support\_access\_enable**

### **use\_support\_access\_enable**

Use flag for: support\_access\_enable

#### **Type**

Bool.

**Create**

The default value is *False*.

**Search**

The field is not searchable.

**use\_syslog\_proxy\_setting****use\_syslog\_proxy\_setting**

Use flag for: external\_syslog\_server\_enable , syslog\_servers, syslog\_proxy\_setting, syslog\_size

**Type**

Bool.

**Create**

The default value is *False*.

**Search**

The field is not searchable.

**use\_threshold\_traps****use\_threshold\_traps**

Use flag for: threshold\_traps

**Type**

Bool.

**Create**

The default value is *False*.

**Search**

The field is not searchable.

**use\_time\_zone****use\_time\_zone**

Use flag for: time\_zone

**Type**

Bool.

**Create**

The default value is *False*.

**Search**

The field is not searchable.

## use\_trap\_notifications

### use\_trap\_notifications

Use flag for: trap\_notifications

#### Type

Bool.

#### Create

The default value is *False*.

#### Search

The field is not searchable.

## use\_v4\_vrrp

### use\_v4\_vrrp

Specify “true” to use VRRPv4 or “false” to use VRRPv6.

#### Type

Bool.

#### Create

The default value is *True*.

#### Search

The field is not searchable.

## vip\_setting

### vip\_setting

The network settings for the Grid member.

#### Type

A/An *Network settings* struct.

#### Create

At least one of vip\_setting and ipv6\_setting is required.

#### Search

The field is not searchable.

## vpn\_mtu

### vpn\_mtu

The VPN maximum transmission unit (MTU).

#### Type

Unsigned integer.



## Create

The default value is *1450*.

## Search

The field is not searchable.

## Function Calls

### capture\_traffic\_control

Starts/Stops a traffic capture session on the specified member node.

This function does not support multiple object matches when called as part of an atomic insertion operation.

#### Input fields

**action** ( String. Valid values are: “START”, “STOP” ). This parameter is mandatory. The traffic capture action.

**interface** ( String. Valid values are: “ALL”, “HA”, “LAN1”, “LAN2”, “MGMT” ). This parameter is mandatory. The interface on which the traffic is captured.

**seconds\_to\_run** ( Unsigned integer. ) The number of seconds for which the traffic capture is going to run. The default value is “30”.

#### Output fields

None

### capture\_traffic\_status

Gets traffic capture status on the specified member node.

This function does not support multiple object matches when called as part of an atomic insertion operation.

#### Input fields

None

#### Output fields

**file\_exists** ( Bool. ) Determines if the capture file for the member exist or not.

**file\_size** ( Unsigned integer. ) The size of the traffic capture file for the member.

**status** ( String. Valid values are: “STOPPED”, “RUNNING”, “UNKNOWN” ) The status of the capture operation for the member.

### create\_token

Creates tokens for all available physical nodes on the member (virtual\_node) and returns an array of records for pnode\_token (physical\_oid, token, and token\_exp\_date).

This function does not support multiple object matches when called as part of an atomic insertion operation.

#### Input fields

None

#### Output fields

**pnnode\_tokens** ( A/An *Physical Node Token* struct array. ) An array of tokens. One token for each physical node of the Grid member.

### read\_token

Returns tokens for all available physical nodes on the member (virtual\_node).

This function does not support multiple object matches when called as part of an atomic insertion operation.

#### Input fields

None

#### Output fields

**pnnode\_tokens** ( A/An *Physical Node Token* struct array. ) An array of tokens. One token for each physical node of the Grid member.

## Search-only Fields

These fields are used only for searching. They are not actual members of the object and therefore will never be returned by the server with this name unless they are nested return fields.

### ipv4\_address

#### ipv4\_address

The member's *IPv4 Address*.

#### Type

String.

#### Search

The field is searchable via

- '=' (exact equality)

#### Notes

ipv4\_address is a search-only field.

### ipv6\_address

#### ipv6\_address

The member's *IPv6 Address*.

#### Type

String.

#### Search

The field is searchable via

- '=' (exact equality)

## Notes

ipv6\_address is a search-only field.

## Fields List

Field	Type	Req	R/O	Base	Search
active_position	String	N	Y	N	N/A
additional_ip_list	[struct]	N	N	N	N/A
comment	String	N	N	N	: = ~
config_addr_type	String	N	N	Y	=
dns_resolver_setting	struct	N	N	N	N/A
dscp	Unsigned int	N	N	N	N/A
email_setting	struct	N	N	N	N/A
enable_ha	Bool	N	N	N	=
enable_member_redirect	Bool	N	N	N	N/A
enable_ro_api_access	Bool	N	N	N	=
extattrs	Extattr	N	N	N	ext
external_syslog_backup_servers	[struct]	N	N	N	N/A
external_syslog_server_enable	Bool	N	N	N	N/A
host_name	String	Y	N	Y	: = ~
ipv6_setting	struct	Y*	N	N	N/A
ipv6_static_routes	[struct]	N	N	N	N/A
is_dscp_capable	Bool	N	Y	N	N/A
lan2_enabled	Bool	N	N	N	N/A
lan2_port_setting	struct	N	N	N	N/A
lcd_input	Bool	N	N	N	N/A
master_candidate	Bool	N	N	N	=
member_service_communication	[struct]	N	N	N	N/A
mgmt_port_setting	struct	N	N	N	N/A
node_info	[struct]	N	N	N	N/A
passive_ha_arp_enabled	Bool	N	N	N	N/A
platform	String	N	N	Y	=
pre_provisioning	struct	N	N	N	N/A
preserve_if_owns_delegation	Bool	N	N	N	=
remote_console_access_enable	Bool	N	N	N	N/A
router_id	Unsigned int	N	N	N	=
service_status	[struct]	N	Y	N	N/A
service_type_configuration	String	N	N	Y	=
snmp_setting	struct	N	N	N	N/A
static_routes	[struct]	N	N	N	N/A
support_access_enable	Bool	N	N	N	N/A
support_access_info	String	N	Y	N	N/A
syslog_proxy_setting	struct	N	N	N	N/A
syslog_servers	[struct]	N	N	N	N/A
syslog_size	Unsigned int	N	N	N	N/A
threshold_traps	[struct]	N	N	N	N/A
time_zone	String	N	N	N	N/A
trap_notifications	[struct]	N	N	N	N/A
upgrade_group	String	N	N	N	N/A

Continued on next page

Table 3.1 – continued from previous page

Field	Type	Req	R/O	Base	Search
use_dns_resolver_setting	Bool	N	N	N	N/A
use_dscp	Bool	N	N	N	N/A
use_email_setting	Bool	N	N	N	N/A
use_enable_member_redirect	Bool	N	N	N	N/A
use_external_syslog_backup_servers	Bool	N	N	N	N/A
use_lcd_input	Bool	N	N	N	N/A
use_remote_console_access_enable	Bool	N	N	N	N/A
use_snmp_setting	Bool	N	N	N	N/A
use_support_access_enable	Bool	N	N	N	N/A
use_syslog_proxy_setting	Bool	N	N	N	N/A
use_threshold_traps	Bool	N	N	N	N/A
use_time_zone	Bool	N	N	N	N/A
use_trap_notifications	Bool	N	N	N	N/A
use_v4_vrrp	Bool	N	N	N	N/A
vip_setting	struct	Y*	N	N	N/A
vpn_mtu	Unsigned int	N	N	N	N/A

\* Required in some cases, see detailed field description above.

## Search-only Fields List

Field	Type	Search
ipv4_address	String	=
ipv6_address	String	=

## 3.12 member:license : Member License object.

This object represents the member license.

### Object Reference

References to member:license are *object references*. The *name* part of a Member License object reference has the following components:

- Type of license e.g. DNS, DHCP.
- Kind of license - Static/Dynamic.

Example: member:license/b25iLnByb2R1Y3RfbGljZW5zZSQwLGRoY3AsMA:DHCP/Static

### Restrictions

The object does not support:

- Create (insert)
- Modify (update)
- Global search (searches via *the search object*)

- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **type**.

### expiration\_status

#### expiration\_status

The license expiration status.

#### Type

String.

#### Valid values are:

- DELETED
- EXPIRED
- EXPIRING\_SOON
- EXPIRING\_VERY\_SOON
- NOT\_EXPIRED
- PERMANENT

#### Search

The field is not searchable.

#### Notes

expiration\_status cannot be updated.

expiration\_status cannot be written.

### expiry\_date

#### expiry\_date

The license expiration timestamp.

#### Type

Timestamp.

#### Search

The field is not searchable.

#### Notes

expiry\_date cannot be updated.

expiry\_date cannot be written.

## hwid

### hwid

The hardware ID of the physical node on which the license is installed.

#### Type

String.

#### Search

The field is searchable via

- '=' (exact equality)

#### Notes

hwid cannot be updated.

hwid cannot be written.

## key

### key

License string.

#### Type

String.

#### Search

The field is searchable via

- '=' (exact equality)

#### Notes

key cannot be updated.

key cannot be written.

## kind

### kind

The overall type of license: static or dynamic.

#### Type

String.

#### Valid values are:

- Dynamic
- Gridwide
- Payg
- Static

## Search

The field is searchable via

- '=' (exact equality)

## Notes

kind cannot be updated.

kind cannot be written.

## limit

### limit

The license limit value.

### Type

String.

### Search

The field is searchable via

- '=' (exact equality)

### Notes

limit cannot be updated.

limit cannot be written.

## limit\_context

### limit\_context

The license limit context.

### Type

String.

### Valid values are:

- LEASES
- MODEL
- NONE
- TIER

### Search

The field is not searchable.

### Notes

limit\_context cannot be updated.

limit\_context cannot be written.

## **type**

### **type**

The license type.

### **Type**

String.

### **Valid values are:**

- ANYCAST
- CLOUD
- CLOUD\_API
- DCA
- DDI\_TRIAL
- DHCP
- DISCOVERY
- DNS
- DNSQRW
- DNS\_CACHE\_ACCEL
- DTC
- FIREEYE
- FREQ\_CONTROL
- GRID
- GRID\_MAINTENANCE
- IPAM
- IPAM\_FREEWARE
- LDAP
- LOAD\_BALANCER
- MGM
- MSMGMT
- NIOS
- NIOS\_MAINTENANCE
- NTP
- OEM
- QRD
- REPORTING
- REPORTING\_SUB
- RPZ
- SECURITY\_ECOSYSTEM



- TAE
- TFTP
- THREAT\_ANALYTICS
- TP
- TP\_SUB
- UNBOUND
- VNIOS

### Search

The field is searchable via

- '=' (exact equality)

### Notes

type is part of the base object.

type cannot be updated.

type cannot be written.

## Fields List

Field	Type	Req	R/O	Base	Search
expiration_status	String	N	Y	N	N/A
expiry_date	Timestamp	N	Y	N	N/A
hwid	String	N	Y	N	=
key	String	N	Y	N	=
kind	String	N	Y	N	=
limit	String	N	Y	N	=
limit_context	String	N	Y	N	N/A
type	String	N	Y	Y	=

## 3.13 mgm:grid : The MGM Grid object.

The MGM Grid object represents a Grid that is managed by the Master Grid.

## Object Reference

References to mgm:grid are *object references*.

The *name* part of the MGM Grid object reference has the following components:

- The name of a MGM Grid object.

**Example:** mgm:grid/ZG5zLmRoY3Bfb3B0aW9uXzgyX2ZpbHRlciRCbG94:bloxgrid

## Restrictions

The object does not support:

- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **id, name**.

The following fields are required to create this object:

Field	Notes
name	

## alternate\_version

### alternate\_version

The alternative version.

#### Type

String.

#### Search

The field is not searchable.

#### Notes

alternate\_version cannot be updated.

alternate\_version cannot be written.

## comment

### comment

Comment for the sub grid, maximum 256 characters.

#### Type

String.

#### Create

The default value is *empty*.

#### Search

The field is searchable via

- `:=` (case insensitive search)
- `=` (exact equality)
- `~` (regular expression)

## completed\_members

### completed\_members

The number of members that have finished current operation.

#### Type

Unsigned integer.

#### Search

The field is not searchable.

#### Notes

completed\_members cannot be updated.

completed\_members cannot be written.

## connection\_status

### connection\_status

The sub grid connection status.

#### Type

String.

#### Valid values are:

- ATTACHED
- ATTACHED\_FAILED
- ATTACHING
- DETACHED
- DETACHED\_FAILED
- DETACHING
- SNAPSHOT\_FAILED

#### Search

The field is not searchable.

#### Notes

connection\_status cannot be updated.

connection\_status cannot be written.

## disable

### disable

Determines whether a sub grid is disabled or not. When this is set to False, the sub grid is enabled.

#### Type

Bool.

**Create**

The default value is *False*.

**Search**

The field is not searchable.

**extattrs****extattrs**

Extensible attributes associated with the object.

For valid values for extensible attributes, see *the following information*.

**Type**

Extensible attributes.

This field allows +/- to be specified as part of the field name when updating the object, see *the following information*.

**Create**

The default value is *empty*.

**Search**

For how to search extensible attributes, see *the following information*.

**gm\_host\_name****gm\_host\_name**

The name of a host name of the sub grid master.

**Type**

String.

**Search**

The field is searchable via

- ':= ' (case insensitive search)
- '=' (exact equality)
- '~=' (regular expression)

**Notes**

gm\_host\_name cannot be updated.

gm\_host\_name cannot be written.

**gm\_virtual\_ip****gm\_virtual\_ip**

The IP address of the sub grid master.

**Type**

String.

**Search**

The field is not searchable.

**Notes**

gm\_virtual\_ip cannot be updated.

gm\_virtual\_ip cannot be written.

**id**

**id**

The Unique ID of the sub grid.

**Type**

Unsigned integer.

**Search**

The field is not searchable.

**Notes**

id is part of the base object.

id cannot be updated.

id cannot be written.

**is\_strict\_delegate\_mode**

**is\_strict\_delegate\_mode**

Determines whether a sub grid is in strict delegation mode or not. If true put this sub grid into strict delegation mode.

**Type**

Bool.

**Create**

The default value is *False*.

**Search**

The field is not searchable.

**join\_error\_string**

**join\_error\_string**

The description of the failure of join super grid operation.

**Type**

String.

**Search**

The field is not searchable.

**Notes**

join\_error\_string cannot be updated.

join\_error\_string cannot be written.

## join\_status

**join\_status**

The sub grid status of join operation.

**Type**

String.

**Valid values are:**

- INITIAL
- JOINED
- JOIN\_FAILED

**Search**

The field is not searchable.

**Notes**

join\_status cannot be updated.

join\_status cannot be written.

## join\_token

**join\_token**

The join token.

**Type**

String.

**Search**

The field is not searchable.

**Notes**

join\_token cannot be updated.

join\_token cannot be written.

## **join\_token\_expiration**

### **join\_token\_expiration**

The timestamp when the sub grid join token expires.

#### **Type**

Timestamp.

#### **Search**

The field is not searchable.

#### **Notes**

join\_token\_expiration cannot be updated.

join\_token\_expiration cannot be written.

## **last\_sync\_time**

### **last\_sync\_time**

The timestamp when the last sync was performed.

#### **Type**

Timestamp.

#### **Search**

The field is not searchable.

#### **Notes**

last\_sync\_time cannot be updated.

last\_sync\_time cannot be written.

## **last\_upgrade\_date**

### **last\_upgrade\_date**

The date when the sub grid was upgraded last time.

#### **Type**

Timestamp.

#### **Search**

The field is not searchable.

#### **Notes**

last\_upgrade\_date cannot be updated.

last\_upgrade\_date cannot be written.

## **name**

### **name**

The name of a sub grid object.

### **Type**

String.

Values with leading or trailing whitespace are not valid for this field.

### **Create**

The field is required on creation.

### **Search**

The field is searchable via

- ':= ' (case insensitive search)
- '= ' (exact equality)
- '~=' (regular expression)

### **Notes**

name is part of the base object.

## **overall\_service\_status**

### **overall\_service\_status**

The overall status for the sub grid.

### **Type**

String.

### **Valid values are:**

- FAILED
- INACTIVE
- OFFLINE
- UNKNOWN
- WARNING
- WORKING

### **Search**

The field is not searchable.

### **Notes**

overall\_service\_status cannot be updated.

overall\_service\_status cannot be written.



## **sync\_status**

### **sync\_status**

The sub grid status of synchronization.

#### **Type**

String.

#### **Valid values are:**

- FAILED
- UNKNOWN
- WARNING
- WORKING

#### **Search**

The field is not searchable.

#### **Notes**

sync\_status cannot be updated.

sync\_status cannot be written.

## **total\_members**

### **total\_members**

The total number of members in this sub grid.

#### **Type**

Unsigned integer.

#### **Search**

The field is not searchable.

#### **Notes**

total\_members cannot be updated.

total\_members cannot be written.

## **total\_network\_containers**

### **total\_network\_containers**

The total number of network containers in this sub grid.

#### **Type**

Unsigned integer.

#### **Search**

The field is not searchable.

#### **Notes**

total\_network\_containers cannot be updated.

total\_network\_containers cannot be written.

## **total\_networks**

### **total\_networks**

The total number of networks in this sub grid.

#### **Type**

Unsigned integer.

#### **Search**

The field is not searchable.

#### **Notes**

total\_networks cannot be updated.

total\_networks cannot be written.

## **upgrade\_status**

### **upgrade\_status**

The sub grid status of synchronization.

#### **Type**

String.

#### **Valid values are:**

- DEFAULT
- DISTRIBUTING
- DISTRIBUTING\_COMPLETE
- DISTRIBUTING\_ENDED
- DISTRIBUTING\_FAILED
- DISTRIBUTING\_PAUSED
- DISTRIBUTION\_SCHEDULED
- DOWNGRADING\_COMPLETE
- DOWNGRADING\_FAILED
- NONE
- REVERTING
- REVERTING\_COMPLETE
- REVERTING\_FAILED
- TEST\_UPGRADING
- UPGRADE\_SCHEDULED
- UPGRADING

- UPGRADING\_COMPLETE
- UPGRADING\_FAILED
- UPGRADING\_PAUSED
- UPLOADED

**Search**

The field is not searchable.

**Notes**

upgrade\_status cannot be updated.

upgrade\_status cannot be written.

**upgrade\_status\_time****upgrade\_status\_time**

The timestamp when the upgrade status is returned.

**Type**

Timestamp.

**Search**

The field is not searchable.

**Notes**

upgrade\_status\_time cannot be updated.

upgrade\_status\_time cannot be written.

**version****version**

The version of NIOS installed in the sub grid master.

**Type**

String.

**Search**

The field is not searchable.

**Notes**

version cannot be updated.

version cannot be written.

## Function Calls

### download\_join\_file

This function retrieves join file for the grid. See the file downloading sample code in the manual [here](#) and *the fileop object* for more information.

This function does not support multiple object matches when called as part of an atomic insertion operation.

#### Input fields

None

#### Output fields

**token** ( String. ) The token is used for calling the downloadcomplete function.

**url** ( String. ) For local (not remote) uploads, the URL from which the requested file is downloaded.

### generate\_join\_info

This function retrieves join information for the grid.

This function does not support multiple object matches when called as part of an atomic insertion operation.

#### Input fields

None

#### Output fields

**expiration** ( Timestamp. ) The timestamp when the sub grid join token expires.

**join\_token** ( String. ) The join token.

### user\_mapping\_control

This function is used to manage the mapping of users to grids.

This function does not support multiple object matches when called as part of an atomic insertion operation.

#### Input fields

**auth\_user\_name** ( String. ) Username to authenticate to sub-grids. Valid if ignore is False.

**ignore** ( Bool. ). This parameter is mandatory. Whether to ignore above sub grids for the user mapping.

**password** ( String. ) Password to authenticate to sub-grids. Valid if ignore is False.

**sub\_grids** ( String array. ). This parameter is mandatory. List of sub grids for user mapping setting.

#### Output fields

**failure** ( String array. ) List of sub grids that failed validation.

**ignored** ( String array. ) List of sub grids that ignored validation.

**success** ( String array. ) List of sub grids that succeeded validation.

## Fields List

Field	Type	Req	R/O	Base	Search
alternate_version	String	N	Y	N	N/A
comment	String	N	N	N	: = ~
completed_members	Unsigned int	N	Y	N	N/A
connection_status	String	N	Y	N	N/A
disable	Bool	N	N	N	N/A
extattrs	Extattr	N	N	N	ext
gm_host_name	String	N	Y	N	: = ~
gm_virtual_ip	String	N	Y	N	N/A
id	Unsigned int	N	Y	Y	N/A
is_strict_delegate_mode	Bool	N	N	N	N/A
join_error_string	String	N	Y	N	N/A
join_status	String	N	Y	N	N/A
join_token	String	N	Y	N	N/A
join_token_expiration	Timestamp	N	Y	N	N/A
last_sync_time	Timestamp	N	Y	N	N/A
last_upgrade_date	Timestamp	N	Y	N	N/A
name	String	Y	N	Y	: = ~
overall_service_status	String	N	Y	N	N/A
sync_status	String	N	Y	N	N/A
total_members	Unsigned int	N	Y	N	N/A
total_network_containers	Unsigned int	N	Y	N	N/A
total_networks	Unsigned int	N	Y	N	N/A
upgrade_status	String	N	Y	N	N/A
upgrade_status_time	Timestamp	N	Y	N	N/A
version	String	N	Y	N	N/A

### 3.14 mgm:member : The MGM Member object.

The MGM Member object represents an member attached to the Grid. The MGM Member object is generated automatically when the grid synchronizes with the Multi-Grid master. It is a read-only object.

#### Object Reference

References to mgm:member are *object references*.

The *name* part of the MGM Member object reference has the following components:

- The name of a Grid object this MGM Member belongs to.
- Host name of the MGM Member object.

**Example:** mgm:member/ZG5zLmRoY3Bfb3B0aW9uXzgyX2ZpbHRlciRCbG94:grid/member.com

#### Restrictions

The object does not support:

- Create (insert)

- Delete
- Modify (update)
- Permissions
- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **grid, host\_name**.

## comment

### comment

Comment for the member, maximum 256 characters.

### Type

String.

### Search

The field is searchable via

- `':='` (case insensitive search)
- `'='` (exact equality)
- `'~='` (regular expression)

### Notes

comment cannot be updated.

comment cannot be written.

## enable\_ha

### enable\_ha

If set to True, the member has two physical nodes (HA pair).

### Type

Bool.

### Search

The field is not searchable.

### Notes

enable\_ha cannot be updated.

enable\_ha cannot be written.

## extattrs

### extattrs

Extensible attributes associated with the object.

For valid values for extensible attributes, see *the following information*.

#### Type

Extensible attributes.

This field allows +/- to be specified as part of the field name when updating the object, see *the following information*.

#### Search

For how to search extensible attributes, see *the following information*.

#### Notes

extattrs cannot be updated.

extattrs cannot be written.

## grid

### grid

The reference to the sub grid this member belongs to.

#### Type

String.

This field supports nested return fields as described *here*.

#### Search

The field is searchable via

- '=' (exact equality)

#### Notes

grid is part of the base object.

grid cannot be updated.

grid cannot be written.

## ha\_status

### ha\_status

The HA pair replication status of the member.

#### Type

String.

#### Valid values are:

- NA
- OFFLINE

- ONLINE
- SYNCHRONIZING

### **Search**

The field is not searchable.

### **Notes**

ha\_status cannot be updated.

ha\_status cannot be written.

## **host\_name**

### **host\_name**

The host name of the member.

### **Type**

String.

### **Search**

The field is searchable via

- ':= ' (case insensitive search)
- '= ' (exact equality)
- '~=' (regular expression)

### **Notes**

host\_name is part of the base object.

host\_name cannot be updated.

host\_name cannot be written.

## **is\_master**

### **is\_master**

The flag that defines if the member is an HA master in its grid.

### **Type**

Bool.

### **Search**

The field is not searchable.

### **Notes**

is\_master cannot be updated.

is\_master cannot be written.



## **master\_candidate\_enabled**

### **master\_candidate\_enabled**

The flag that defines if the member is an HA master candidate in its grid.

#### **Type**

Bool.

#### **Search**

The field is not searchable.

#### **Notes**

master\_candidate\_enabled cannot be updated.

master\_candidate\_enabled cannot be written.

## **member\_status**

### **member\_status**

The overall status of the grid member.

#### **Type**

String.

#### **Valid values are:**

- FAILED
- INACTIVE
- OFFLINE
- WARNING
- WORKING

#### **Search**

The field is not searchable.

#### **Notes**

member\_status cannot be updated.

member\_status cannot be written.

## **member\_type**

### **member\_type**

The HA pair replication status of the member.

#### **Type**

String.

#### **Valid values are:**

- CISCO

- IBVM
- INFOBLOX
- RIVERBED
- VNIOS

#### **Search**

The field is not searchable.

#### **Notes**

member\_type cannot be updated.

member\_type cannot be written.

### **service\_status**

#### **service\_status**

The service status list of a grid member.

#### **Type**

A/An *Member Service Status* struct array.

#### **Search**

The field is not searchable.

#### **Notes**

service\_status cannot be updated.

service\_status cannot be written.

### **uptime**

#### **uptime**

The uptime for this member.

#### **Type**

Timestamp.

#### **Search**

The field is not searchable.

#### **Notes**

uptime cannot be updated.

uptime cannot be written.

### **virtual\_ip**

#### **virtual\_ip**

The virtual IP address for this member.

#### Type

String.

#### Search

The field is not searchable.

#### Notes

virtual\_ip cannot be updated.

virtual\_ip cannot be written.

### virtual\_oid

#### virtual\_oid

The OID of the virtual node.

#### Type

String.

#### Search

The field is not searchable.

#### Notes

virtual\_oid cannot be updated.

virtual\_oid cannot be written.

### Fields List

Field	Type	Req	R/O	Base	Search
comment	String	N	Y	N	: = ~
enable_ha	Bool	N	Y	N	N/A
extattrs	Extattr	N	Y	N	ext
grid	String	N	Y	Y	=
ha_status	String	N	Y	N	N/A
host_name	String	N	Y	Y	: = ~
is_master	Bool	N	Y	N	N/A
master_candidate_enabled	Bool	N	Y	N	N/A
member_status	String	N	Y	N	N/A
member_type	String	N	Y	N	N/A
service_status	[struct]	N	Y	N	N/A
uptime	Timestamp	N	Y	N	N/A
virtual_ip	String	N	Y	N	N/A
virtual_oid	String	N	Y	N	N/A

## 3.15 mgm:monitordata : The MGM Member Monitor Data object.

The MGM Member Monitor Data object provides information about status for each monitor that is running on a particular MGM Member.

## Object Reference

References to `mgm:monitordata` are *object references*.

The *name* part of the MGM Member Monitor Data object reference has the following components:

- The name of a MGM Grid object this MGM Member Monitor Data belongs to.
- The host name of a MGM Member this MGM Member Monitor Data object is associated with.

**Example:** `mgm:monitordata/ZG5zLmRoY3Bfb3B0aW9uXzgyX2ZpbHRlciRCbG94:grid/node1.com`

## Restrictions

The object does not support:

- Create (insert)
- Delete
- Modify (update)
- Permissions
- Global search (searches via *the search object*)
- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **grid, virtual\_node**.

### grid

#### grid

The reference to the sub grid this monitor data belongs to.

#### Type

String.

This field supports nested return fields as described *here*.

#### Search

The field is searchable via

- '=' (exact equality)

#### Notes

grid is part of the base object.

grid cannot be updated.

grid cannot be written.

## monitors

### monitors

The list of monitor entries for this monitor data.

#### Type

A/An *Monitor Entry* struct array.

#### Search

The field is not searchable.

#### Notes

monitors cannot be updated.

monitors cannot be written.

## virtual\_node

### virtual\_node

The host name of a member this monitor data is associated with.

#### Type

String.

#### Search

The field is searchable via

- '=' (exact equality)

#### Notes

virtual\_node is part of the base object.

virtual\_node cannot be updated.

virtual\_node cannot be written.

## Fields List

Field	Type	Req	R/O	Base	Search
grid	String	N	Y	Y	=
monitors	[struct]	N	Y	N	N/A
virtual_node	String	N	Y	Y	=

## 3.16 mgm:network : The MGM Network object.

The MGM Network object represents an network located at one of the Grids. A MGM Network object can be created by an admin or generated automatically when a grid synchronizes with the Multi-Grid Master.

## Object Reference

References to mgm:network are *object references*.

The *name* part of the MGM Network object reference has the following components:

- Address of the network
- CIDR of the network
- The name of a Grid object this MGM Network belongs to
- Name of the Network View object this MGM Network belongs to

**Example:** mgm:network/ZG5zLmRoY3Bfb3B0aW9uXzgyX2ZpbHRlciRCbG94: 10.0.0.0/16/grid/netview

## Restrictions

The object does not support:

- Delete
- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **address, grid, netmask, network\_view**.

The following fields are required to create this object:

Field	Notes
address	
grid	
netmask	
network_view	

### address

#### address

The address of the network.

#### Type

String.

Values with leading or trailing whitespace are not valid for this field.

#### Create

The field is required on creation.

#### Search

The field is searchable via

- ‘=’ (exact equality)
- ‘~=’ (regular expression)

### Notes

address is part of the base object.

## comment

### comment

The comment for the network, maximum 256 characters.

### Type

String.

### Create

The default value is *undefined*.

### Search

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=’ (regular expression)

## disable

### disable

Determines whether a network is disabled or not. When this is set to *False*, the network is enabled.

### Type

Bool.

### Create

The default value is *False*.

### Search

The field is not searchable.

## extattrs

### extattrs

Extensible attributes associated with the object.

For valid values for extensible attributes, see *the following information*.

### Type

Extensible attributes.

This field allows +/- to be specified as part of the field name when updating the object, see *the following information*.

### Create

The default value is *empty*.

### Search

For how to search extensible attributes, see [the following information](#).

## grid

### grid

The reference to the sub grid this network belongs to.

### Type

String.

This field supports nested return fields as described [here](#).

### Create

The field is required on creation.

### Search

The field is searchable via

- '=' (exact equality)

### Notes

grid is part of the base object.

## is\_container

### is\_container

The flag that indicates if this network is a network container.

### Type

Bool.

### Search

The field is not searchable.

### Notes

is\_container cannot be updated.

is\_container cannot be written.

## is\_ipv4

### is\_ipv4

The flag that indicates if this is IPv4 or IPv6 network.

### Type

Bool.

### Search

The field is not searchable.



## Notes

is\_ipv4 cannot be updated.

is\_ipv4 cannot be written.

## netmask

### netmask

The netmask of the network in *CIDR* format.

### Type

Unsigned integer.

### Create

The field is required on creation.

### Search

The field is searchable via

- '=' (exact equality)
- '<=' (less than search)
- '>=' (greater than search)

## Notes

netmask is part of the base object.

## network\_view

### network\_view

The name of a network view this network belongs to.

### Type

String.

### Create

The field is required on creation.

### Search

The field is searchable via

- '=' (exact equality)

## Notes

network\_view is part of the base object.

## Function Calls

### resize

This function performs a resize operation for this network container. Only network containers but not networks can be resized.

This function does not support multiple object matches when called as part of an atomic insertion operation.

#### Input fields

**prefix** ( Unsigned integer. ). This parameter is mandatory. The netbits of network after resizing.

#### Output fields

None

## Search-only Fields

These fields are used only for searching. They are not actual members of the object and therefore will never be returned by the server with this name unless they are nested return fields.

### contains\_address

#### contains\_address

When specified in searches, the returned network is the smallest network that contains this address.

If specified, all other search attributes are ignored, except for network\_view.

#### Type

String.

#### Search

The field is searchable via

- '=' (exact equality)

#### Notes

contains\_address is a search-only field.

## Fields List

Field	Type	Req	R/O	Base	Search
address	String	Y	N	Y	= ~
comment	String	N	N	N	: = ~
disable	Bool	N	N	N	N/A
extattrs	Extattr	N	N	N	ext
grid	String	Y	N	Y	=
is_container	Bool	N	Y	N	N/A
is_ipv4	Bool	N	Y	N	N/A
netmask	Unsigned int	Y	N	Y	< = >
network_view	String	Y	N	Y	=

## Search-only Fields List

Field	Type	Search
contains_address	String	=

### 3.17 mgm:networkview : The MGM Network View object.

The MGM Network View object provides the ability to manage multiple views of IP address spaces managed by the grids. These address spaces can overlap. When the network view is not specified during a write operation, the objects are automatically associated with the system-defined default network view. The MGM Network View object is generated automatically when the grid synchronizes with the Multi-Grid master. It is a read-only object.

## Object Reference

References to mgm:networkview are *object references*.

The *name* part of the MGM Network View object reference has the following components:

- The name of a MGM Grid object this MGM Network View belongs to.
- The name of a MGM Network View object.

**Example:** mgm:networkview/ZG5zLmRoY3Bfb3B0aW9uXzgyX2ZpbHRlciRCbG94:grid/netview

## Restrictions

The object does not support:

- Create (insert)
- Delete
- Modify (update)
- Permissions
- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **grid, id, name**.

## comment

`comment`

Comment for the sub grid network view, maximum 256 characters.

**Type**

String.

**Search**

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=' (regular expression)

**Notes**

comment cannot be updated.

comment cannot be written.

## extattrs

**extattrs**

Extensible attributes associated with the object.

For valid values for extensible attributes, see *the following information*.

**Type**

Extensible attributes.

This field allows +/- to be specified as part of the field name when updating the object, see *the following information*.

**Search**

For how to search extensible attributes, see *the following information*.

**Notes**

extattrs cannot be updated.

extattrs cannot be written.

## grid

**grid**

The reference to the sub grid this network view belongs to.

**Type**

String.

This field supports nested return fields as described *here*.

**Search**

The field is searchable via

- ‘=’ (exact equality)

## Notes

grid is part of the base object.

grid cannot be updated.

grid cannot be written.

## id

### id

The Unique ID of the sub grid network view.

### Type

String.

### Search

The field is searchable via

- '=' (exact equality)

### Notes

id is part of the base object.

id cannot be updated.

id cannot be written.

## name

### name

The name of a sub grid network view object.

### Type

String.

### Search

The field is searchable via

- ':=' (case insensitive search)
- '=' (exact equality)
- '~=' (regular expression)

### Notes

name is part of the base object.

name cannot be updated.

name cannot be written.

## Fields List

Field	Type	Req	R/O	Base	Search
comment	String	N	Y	N	: = ~
extattrs	Extattr	N	Y	N	ext
grid	String	N	Y	Y	=
id	String	N	Y	Y	=
name	String	N	Y	Y	: = ~

### 3.18 mgm:usermapping : The MGM User Mapping object.

The MGM User Mapping object provides information users mapped to a grid. The MGM User Mapping object is generated automatically when a user is mapped to a grid via `user_mapping_control` function call for MGM Grid object. It is a read-only object.

## Object Reference

References to `mgm:usermapping` are *object references*.

The *name* part of the MGM User Mapping object reference has the following components:

- The name of a Grid object this MGM User Mapping belongs to.
- The user name used for authentication to a Grid.
- The user name that was used to log in to the Multi-Grid Master.

**Example:** `mgm:usermapping/ZG5zLmRoY3Bfb3B0aW9uXzgyX2ZpbHRlcjRCbG94: grid/admin/ibadmin`

## Restrictions

The object does not support:

- Create (insert)
- Delete
- Modify (update)
- Permissions
- Global search (searches via *the search object*)
- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **auth\_user\_name**, **grid**, **user\_name**.

## auth\_admin\_group

### auth\_admin\_group

The user group used for authentication to a grid.

#### Type

String.

#### Search

The field is not searchable.

#### Notes

auth\_admin\_group cannot be updated.

auth\_admin\_group cannot be written.

## auth\_user\_name

### auth\_user\_name

The user name used for authentication to a grid.

#### Type

String.

#### Search

The field is searchable via

- '=' (exact equality)

#### Notes

auth\_user\_name is part of the base object.

auth\_user\_name cannot be updated.

auth\_user\_name cannot be written.

## grid

### grid

The reference to the sub grid this user mapping belongs to.

#### Type

String.

This field supports nested return fields as described [here](#).

#### Search

The field is searchable via

- '=' (exact equality)

## Notes

grid is part of the base object.

grid cannot be updated.

grid cannot be written.

## ignore

### ignore

This indicates whether this grid is ignored when users are mapped to grids.

### Type

Bool.

### Search

The field is not searchable.

### Notes

ignore cannot be updated.

ignore cannot be written.

## user\_name

### user\_name

The user name that was used to log in to the Multi-Grid Master.

### Type

String.

### Search

The field is searchable via

- '=' (exact equality)

### Notes

user\_name is part of the base object.

user\_name cannot be updated.

user\_name cannot be written.

## Fields List

Field	Type	Req	R/O	Base	Search
auth_admin_group	String	N	Y	N	N/A
auth_user_name	String	N	Y	Y	=
grid	String	N	Y	Y	=
ignore	Bool	N	Y	N	N/A
user_name	String	N	Y	Y	=



## 3.19 namedacl : Named ACL object.

A named ACL (Access Control List) is a list of IPv4/IPv6 addresses, networks, TSIG-based anonymous access controls, and other named ACLs, to which you can grant or deny permission for operations such as dynamic DNS updates or zone transfers.

### Object Reference

References to namedacl are *object references*.

### Restrictions

The object does not support:

- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

### Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **comment, name**.

The following fields are required to create this object:

Field	Notes
name	

### access\_list

#### access\_list

The access control list of IPv4/IPv6 addresses, networks, TSIG-based anonymous access controls, and other named ACLs.

#### Type

One of the following: *Address ac* struct, *TSIG ac* struct array.

#### Create

The default value is:

`empty`

#### Search

The field is not searchable.

## comment

### comment

Comment for the named ACL; maximum 256 characters.

### Type

String.

Values with leading or trailing whitespace are not valid for this field.

### Create

The default value is *empty*.

### Search

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=' (regular expression)

### Notes

comment is part of the base object.

## exploded\_access\_list

### exploded\_access\_list

The exploded access list for the named ACL. This list displays all the access control entries in a named ACL and its nested named ACLs, if applicable.

### Type

One of the following: *Address ac* struct, *TSIG ac* struct array.

### Search

The field is not searchable.

### Notes

exploded\_access\_list cannot be updated.

exploded\_access\_list cannot be written.

## extattrs

### extattrs

Extensible attributes associated with the object.

For valid values for extensible attributes, see *the following information*.

### Type

Extensible attributes.

This field allows +/- to be specified as part of the field name when updating the object, see *the following information*.

### Create

The default value is *empty*.

### Search

For how to search extensible attributes, see *the following information*.

## name

### name

The name of the named ACL.

### Type

String.

Values with leading or trailing whitespace are not valid for this field.

### Create

The field is required on creation.

### Search

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=” (regular expression)

### Notes

name is part of the base object.

## Fields List

Field	Type	Req	R/O	Base	Search
access_list	[struct]	N	N	N	N/A
comment	String	N	N	Y	: = ~
exploded_access_list	[struct]	N	Y	N	N/A
extattrs	Extattr	N	N	N	ext
name	String	Y	N	Y	: = ~

## 3.20 permission : Permissions object.

Limited-access admin groups can access certain DHCP resources only if their administrative permissions are defined. By default, the appliance denies access when a limited-access admin group does not have defined permissions. You can grant admin groups read-only or read/write permission, or deny access by using this object.

### Note

Only supported resource\_type and object combinations are allowed. Refer to the Infoblox NIOS Administrator Guide for more information.

For example, the following resource types are not supported when creating a global permission:

- FILE\_DIST\_DIRECTORY
- FIXED\_ADDRESS\_TEMPLATE
- IPV6\_NETWORK\_CONTAINER
- IPV6\_FIXED\_ADDRESS\_TEMPLATE
- IPV6\_NETWORK\_TEMPLATE
- IPV6\_RANGE\_TEMPLATE
- MEMBER\_AAA\_PROPERTIES
- MEMBER\_DHCP\_PROPERTIES
- MEMBER\_DNS\_PROPERTIES
- MEMBER\_FILE\_DIST\_PROPERTIES
- MEMBER\_SECURITY\_PROPERTIES
- NETWORK\_CONTAINER
- NETWORK\_TEMPLATE
- RANGE\_TEMPLATE
- RESTART\_SERVICE
- SUB\_GRID\_NETWORK\_VIEW\_PARENT

## Examples

To create object permission for a specific zone, send the reference in the object field: {"group": "1", "permission": "READ", "object": "zone\_auth/ZG5zLnpvbmUkL19kZWZhdWx0LmF6:az/default"}

To create global permission for all IPv6 Network objects, send IPV6\_NETWORK in the resource\_type field: {"group": "1", "permission": "READ", "resource\_type": "IPV6\_NETWORK"}

To create permission for all IPv4 DHCP ranges inside a specific network container, send the reference in the object field and RANGE in the resource\_type field: {"group": "1", "permission": "READ", "object": "networkcontainer/ZG5zLm5ldHdvcmtfY29lui4yMC4wLzI0LzA:2.2.20.0/24/default", "resource\_type": "RANGE"}

## Object Reference

References to permission are *object references*. The *name* part of a permission object reference has the following components:

- Group name
- Permission

Example: permission:cname/ZG5zLmJpbmRfY25h:group1/WRITE

## Restrictions

The object does not support:

- Global search (searches via *the search object*)
- Scheduling

- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **group, permission, resource\_type, role**.

The following fields are required to create this object:

Field	Notes
group	One of group or role is required.
object	At least one of object or resource_type is required.
permission	
resource_type	At least one of object or resource_type is required.
role	One of group or role is required.

## group

### group

The name of the admin group this permission applies to.

#### Type

String.

#### Create

One of group or role is required.

#### Search

The field is searchable via

- '=' (exact equality)

#### Notes

group is part of the base object.

## object

### object

A reference to a WAPI object, which will be the object this permission applies to.

#### Type

String.

This field supports nested return fields as described [here](#).

#### Create

At least one of object or resource\_type is required.

#### Search

The field is searchable via

- '=' (exact equality)

## permission

### permission

The type of permission.

#### Type

String.

#### Valid values are:

- DENY
- READ
- WRITE

#### Create

The field is required on creation.

#### Search

The field is searchable via

- '=' (exact equality)

#### Notes

permission is part of the base object.

## resource\_type

### resource\_type

The type of resource this permission applies to. If 'object' is set, the permission is going to apply to child objects of the specified type, for example if 'object' was set to an authoritative zone reference and 'resource\_type' was set to 'A', the permission would apply to A Resource Records within the specified zone.

#### Type

String.

#### Valid values are:

- A
- AAAA
- AAA\_EXTERNAL\_SERVICE
- ADD\_A\_RR\_WITH\_EMPTY\_HOSTNAME
- BFD\_TEMPLATE
- BULKHOST
- CA\_CERTIFICATE
- CLUSTER

- CNAME
- CSV\_IMPORT\_TASK
- DASHBOARD\_TASK
- DATACOLLECTOR\_CLUSTER
- DEFINED\_ACL
- DELETED\_OBJS\_INFO\_TRACKING
- DEVICE
- DHCP\_FINGERPRINT
- DHCP\_LEASE\_HISTORY
- DHCP\_MAC\_FILTER
- DNAME
- DNS64\_SYNTHESIS\_GROUP
- FILE\_DIST\_DIRECTORY
- FIREEYE\_PUBLISH\_ALERT
- FIXED\_ADDRESS
- FIXED\_ADDRESS\_TEMPLATE
- GRID\_AAA\_PROPERTIES
- GRID\_ANALYTICS\_PROPERTIES
- GRID\_DHCP\_PROPERTIES
- GRID\_DNS\_PROPERTIES
- GRID\_FILE\_DIST\_PROPERTIES
- GRID\_REPORTING\_PROPERTIES
- GRID\_SECURITY\_PROPERTIES
- HOST
- HOST\_ADDRESS
- HSM\_GROUP
- IDNS\_CERTIFICATE
- IDNS\_GEO\_IP
- IDNS\_LBDN
- IDNS\_LBDN\_RECORD
- IDNS\_MONITOR
- IDNS\_POOL
- IDNS\_SERVER
- IDNS\_TOPOLOGY
- IPV6\_DHCP\_LEASE\_HISTORY
- IPV6\_FIXED\_ADDRESS

- IPV6\_FIXED\_ADDRESS\_TEMPLATE
- IPV6\_HOST\_ADDRESS
- IPV6\_NETWORK
- IPV6\_NETWORK\_CONTAINER
- IPV6\_NETWORK\_TEMPLATE
- IPV6\_RANGE
- IPV6\_RANGE\_TEMPLATE
- IPV6\_SHARED\_NETWORK
- IPV6\_TEMPLATE
- KERBEROS\_KEY
- MEMBER
- MEMBER\_ANALYTICS\_PROPERTIES
- MEMBER\_CLOUD
- MEMBER\_DHCP\_PROPERTIES
- MEMBER\_DNS\_PROPERTIES
- MEMBER\_FILE\_DIST\_PROPERTIES
- MEMBER\_SECURITY\_PROPERTIES
- MSSERVER
- MS\_ADSITES\_DOMAIN
- MS\_SUPERSCOPE
- MX
- NAPTR
- NETWORK
- NETWORK\_CONTAINER
- NETWORK\_DISCOVERY
- NETWORK\_TEMPLATE
- NETWORK\_VIEW
- OCSP\_SERVICE
- OPTION\_SPACE
- PORT\_CONTROL
- PTR
- RANGE
- RANGE\_TEMPLATE
- RECLAMATION
- REPORTING\_DASHBOARD
- REPORTING\_SEARCH



- RESPONSE\_POLICY\_RULE
- RESPONSE\_POLICY\_ZONE
- RESTART\_SERVICE
- RESTORABLE\_OPERATION
- ROAMING\_HOST
- RULESET
- SCHEDULE\_TASK
- SG\_IPV4\_NETWORK
- SG\_IPV6\_NETWORK
- SG\_NETWORK\_VIEW
- SHARED\_A
- SHARED\_AAAA
- SHARED\_CNAME
- SHARED\_MX
- SHARED\_NETWORK
- SHARED\_RECORD\_GROUP
- SHARED\_SRV
- SHARED\_TXT
- SRV
- SUB\_GRID
- SUB\_GRID\_NETWORK\_VIEW\_PARENT
- TEMPLATE
- TENANT
- TLSA
- TXT
- VIEW
- ZONE

### **Create**

At least one of object or resource\_type is required.

### **Search**

The field is searchable via

- '=' (exact equality)

### **Notes**

resource\_type is part of the base object.

## role

### role

The name of the role this permission applies to.

### Type

String.

### Create

One of group or role is required.

### Search

The field is searchable via

- '=' (exact equality)

### Notes

role is part of the base object.

## Fields List

Field	Type	Req	R/O	Base	Search
group	String	Y*	N	Y	=
object	String	Y*	N	N	=
permission	String	Y	N	Y	=
resource_type	String	Y*	N	Y	=
role	String	Y*	N	Y	=

\* Required in some cases, see detailed field description above.

## 3.21 request : WAPI handler object.

This object allows the control of WAPI through a single entry point. The object supports only the POST method and does not support URI arguments.

### Single object body requests

The following fields are supported for single object body requests:

Field	Description
data	Dictionary. Data that is dependent on the method and is sent in the body of a normal WAPI request.
args	Dictionary. Arguments for object body requests. These arguments are appended to the URI in a normal WAPI request, such as <code>_max_results</code> , <code>_return_fields</code> , etc.
method	String. Method of the operation (see below for more information).
object	String. The object used for the operation. For a normal WAPI, this can either be an object type such as 'network' for a GET operation, or a WAPI object such as 'network/dAs4...' for a PUT operation.

Single object body requests can be used for any supported WAPI operations, including scheduling and approval. Scheduling and approval specific options should be added to the arguments field of the request.

Only HTTP methods (GET, PUT, DELETE and POST) are valid methods for the single object body requests.

For a single object body request example, see [the sample code section in the manual](#).

### Multiple object body requests

Multiple object body requests are composed of a list of single requests. Each single request supports the same fields as the single object body request (with some limitations) and the following fields:

Field	Description
enable_substitution	Boolean. Determines if the variables created in the stated request can be used for the current operation.
assign_state	Dictionary. Fields of the result object in the current operation, which should be saved in the request state object for the next operation in the multiple object body request. This also supports saving the extensible attribute value and a specific array member. See below for more information.
discard	Boolean. Result of the current operation will be skipped and will not be added to the returned result list.

Only the following arguments are supported for each individual request: ‘\_function’, ‘\_schema’, ‘\_return\_fields’, ‘\_return\_fields+’, ‘\_return\_as\_object’, ‘\_max\_results’.

If the ‘assign\_state’ field is set, ‘\_return\_as\_object’ will be automatically added to the request arguments.

In addition to the standard HTTP methods, single request inside a multiple object body request can be set to these values:

Method	Description
STATE:ASSIGN	Copy fields in the data object to the state object.
STATE:DISPLAY	Added the state object to the returned result list.

For a multiple object body request example, see [the sample code section in the manual](#).

To save the extensible attribute value to the request state object, the ‘extattrs’ field must be specified in the ‘\_return\_fields’ argument. To select and save a specific extensible attribute, prefix the extensible attribute name with an asterisk (\*). See [an example in the manual](#).

## Object Reference

This object does not support references.

## Restrictions

The object does not support:

- Delete
- Read (retrieve)
- Modify (update)
- Function calls
- Permissions
- Global search (searches via [the search object](#))
- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

## 3.22 scheduledtask : Scheduled Task object.

This object represents a scheduled task.

### Object Reference

References to scheduledtask are *object references*. The *name* part of a scheduled task object reference has the following components:

- The Task ID of the task
- Execution status of the task

Example: scheduledtask/ZG5zLm5ldHdvcmtfdmllldyQxMTk:12/PENDING

### Restrictions

The object does not support:

- Create (insert)
- Permissions
- Global search (searches via *the search object*)
- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

### Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **approval\_status, execution\_status, task\_id**.

### approval\_status

#### approval\_status

The approval status of the task.

#### Type

String.

#### Valid values are:

- APPROVED
- NONE
- PENDING
- REJECTED

**Create**

The default value is *empty*.

**Search**

The field is searchable via

- '=' (exact equality)

**Notes**

approval\_status is part of the base object.

**approver****approver**

The approver of the task.

**Type**

String.

Values with leading or trailing whitespace are not valid for this field.

**Search**

The field is searchable via

- ':=' (case insensitive search)
- '=' (exact equality)
- '~=' (regular expression)

**Notes**

approver cannot be updated.

approver cannot be written.

**approver\_comment****approver\_comment**

The comment specified by the approver of the task.

**Type**

String.

Values with leading or trailing whitespace are not valid for this field.

**Create**

The default value is *empty*.

**Search**

The field is not searchable.

## automatic\_restart

### automatic\_restart

Indicates whether there will be an automatic restart when the appliance executes the task.

#### Type

Bool.

#### Create

The default value is *False*.

#### Search

The field is not searchable.

## changed\_objects

### changed\_objects

A list of objects that are affected by the task.

#### Type

A/An *Changed object information* struct array.

#### Search

The field is not searchable.

#### Notes

changed\_objects cannot be updated.

changed\_objects cannot be written.

## dependent\_tasks

### dependent\_tasks

If this scheduled task has dependent tasks, their references will be returned in this field.

#### Type

A/An *scheduledtask* object array.

This field supports nested return fields as described [here](#).

#### Search

The field is not searchable.

#### Notes

dependent\_tasks cannot be updated.

dependent\_tasks cannot be written.

## execute\_now

### execute\_now

If this field is set to True the specified task will be executed immediately.

#### Type

Bool.

#### Create

The default value is *False*.

#### Search

The field is not searchable.

#### Notes

execute\_now is not readable.

## execution\_details

### execution\_details

Messages generated by the execution of the scheduled task after its completion.

#### Type

String array.

Values with leading or trailing whitespace are not valid for this field.

#### Search

The field is not searchable.

#### Notes

execution\_details cannot be updated.

execution\_details cannot be written.

## execution\_details\_type

### execution\_details\_type

The type of details generated by the execution of the scheduled task after its completion.

#### Type

String.

#### Valid values are:

- NONE
- WARNING

#### Search

The field is not searchable.

#### Notes

execution\_details\_type cannot be updated.

execution\_details\_type cannot be written.

## **execution\_status**

### **execution\_status**

The execution status of the task.

#### **Type**

String.

#### **Valid values are:**

- COMPLETED
- FAILED
- PENDING
- WAITING\_EXECUTION

#### **Search**

The field is searchable via

- '=' (exact equality)

#### **Notes**

execution\_status is part of the base object.

execution\_status cannot be updated.

execution\_status cannot be written.

## **execution\_time**

### **execution\_time**

The time when the appliance executed the task.

#### **Type**

Timestamp.

#### **Search**

The field is searchable via

- '=' (exact equality)
- '<=' (less than search)
- '>=' (greater than search)

#### **Notes**

execution\_time cannot be updated.

execution\_time cannot be written.



## **is\_network\_insight\_task**

### **is\_network\_insight\_task**

Indicates whether this is a Network Insight scheduled task.

#### **Type**

Bool.

#### **Search**

The field is not searchable.

#### **Notes**

is\_network\_insight\_task cannot be updated.

is\_network\_insight\_task cannot be written.

## **member**

### **member**

The member where this task got created.

#### **Type**

String.

#### **Search**

The field is searchable via

- '=' (exact equality)

#### **Notes**

member cannot be updated.

member cannot be written.

## **predecessor\_task**

### **predecessor\_task**

If this scheduled task has a predecessor task set, its reference will be returned in this field.

#### **Type**

String.

This field supports nested return fields as described [here](#).

#### **Search**

The field is not searchable.

#### **Notes**

predecessor\_task cannot be updated.

predecessor\_task cannot be written.

## re\_execute\_task

### re\_execute\_task

If set to True, if the scheduled task is a Network Insight task and it failed, a new task will be cloned from this task and re-executed.

#### Type

Bool.

#### Create

The default value is *empty*.

#### Search

The field is not searchable.

## scheduled\_time

### scheduled\_time

The time when the task is scheduled to occur.

#### Type

Timestamp.

#### Create

The default value is *The scheduled time*.

#### Search

The field is searchable via

- '=' (exact equality)
- '<=' (less than search)
- '>=' (greater than search)

## submit\_time

### submit\_time

The time when the task was submitted.

#### Type

Timestamp.

#### Search

The field is searchable via

- '=' (exact equality)
- '<=' (less than search)
- '>=' (greater than search)

## Notes

submit\_time cannot be updated.

submit\_time cannot be written.

## submitter

### submitter

The submitter of the task.

### Type

String.

Values with leading or trailing whitespace are not valid for this field.

### Search

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=' (regular expression)

## Notes

submitter cannot be updated.

submitter cannot be written.

## submitter\_comment

### submitter\_comment

The comment specified by the submitter of the task.

### Type

String.

Values with leading or trailing whitespace are not valid for this field.

### Create

The default value is *empty*.

### Search

The field is not searchable.

## task\_id

### task\_id

The task ID.

### Type

Unsigned integer.

### Search

The field is searchable via

- '=' (exact equality)

#### Notes

task\_id is part of the base object.

task\_id cannot be updated.

task\_id cannot be written.

## task\_type

### task\_type

The task type.

#### Type

String.

#### Valid values are:

- OBJECT\_CHANGE
- PORT\_CONTROL

#### Search

The field is not searchable.

#### Notes

task\_type cannot be updated.

task\_type cannot be written.

## ticket\_number

### ticket\_number

The task ticket number.

#### Type

String.

Values with leading or trailing whitespace are not valid for this field.

#### Search

The field is not searchable.

#### Notes

ticket\_number cannot be updated.

ticket\_number cannot be written.

## Search-only Fields

These fields are used only for searching. They are not actual members of the object and therefore will never be returned by the server with this name unless they are nested return fields.

## changed\_objects.action

changed\_objects.action

The action to search for, valid values are:

- Convert IPv4 Lease
- Delete
- Restart Services
- Add
- Convert IPv6 Lease
- Lock/Unlock Zone
- Reset Grid
- Configure Grid
- Restart Services
- Network Discovery
- Upgrade Grid
- Modify

### Type

String.

### Search

The field is searchable via

- '=' (exact equality)

### Notes

changed\_objects.action is a search-only field.

## changed\_objects.name

changed\_objects.name

The name of the changed object

### Type

String.

### Search

The field is searchable via

- ':=' (case insensitive search)
- '=' (exact equality)
- '~=' (regular expression)

### Notes

changed\_objects.name is a search-only field.

## changed\_objects.object\_type

`changed_objects.object_type`

The WAPI object type of the specified object.

### Type

String.

### Search

The field is searchable via

- '=' (exact equality)

### Notes

`changed_objects.object_type` is a search-only field.

## changed\_objects.type

`changed_objects.type`

The object type. Following are samples of valid type values:

- A Record
- AAAA Record
- Authoritative Zone
- Bulk Host
- CNAME Record
- Delegated Zone
- DHCP Range
- DNAME Record
- DNS View
- Fixed Address
- Forward Zone
- Host Record
- IPv4 Network
- IPv4 Network Container
- IPv6 Network
- IPv6 Network Container
- MX Record
- NS Record
- PTR Record
- Reservation
- Roaming Host

- Shared A Record
- Shared AAAA Record
- Shared MX Record
- Shared Network
- Shared Record Group
- Shared SRV Record
- Shared TXT Record
- SRV Record
- Stub Zone
- TXT Record

**Type**

String.

**Search**

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=’ (regular expression)

**Notes**

changed\_objects.type is a search-only field.

## Fields List

Field	Type	Req	R/O	Base	Search
approval_status	String	N	N	Y	=
approver	String	N	Y	N	: = ~
approver_comment	String	N	N	N	N/A
automatic_restart	Bool	N	N	N	N/A
changed_objects	[struct]	N	Y	N	N/A
dependent_tasks	[obj]	N	Y	N	N/A
execute_now	Bool	N	N	N	N/A
execution_details	[String]	N	Y	N	N/A
execution_details_type	String	N	Y	N	N/A
execution_status	String	N	Y	Y	=
execution_time	Timestamp	N	Y	N	< = >
is_network_insight_task	Bool	N	Y	N	N/A
member	String	N	Y	N	=
predecessor_task	String	N	Y	N	N/A
re_execute_task	Bool	N	N	N	N/A
scheduled_time	Timestamp	N	N	N	< = >
submit_time	Timestamp	N	Y	N	< = >
submitter	String	N	Y	N	: = ~
submitter_comment	String	N	N	N	N/A
task_id	Unsigned int	N	Y	Y	=
task_type	String	N	Y	N	N/A
ticket_number	String	N	Y	N	N/A

## Search-only Fields List

Field	Type	Search
changed_objects.action	String	=
changed_objects.name	String	: = ~
changed_objects.object_type	String	=
changed_objects.type	String	: = ~

### 3.23 search : Search object.

The **search** object is used to perform global searches for multiple object types in the database. This object contains only search parameters and returns objects that match the search criteria. The returned objects are base objects for the respective object types.

Search is the only allowed operation for **search** objects.

NOTE: Only one of the following can be used each time: 'address', 'mac\_address', 'duid' or 'fqdn'.

## Object Reference

**search** objects are search only and will not be returned. They can not be referenced.



## Restrictions

The object does not support:

- Create (insert)
- Delete
- Modify (update)
- Permissions
- Global search (searches via *the search object*)
- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

## Search-only Fields

These fields are used only for searching. They are not actual members of the object and therefore will never be returned by the server with this name unless they are nested return fields.

### address

#### address

IP address is used as the search criterion.

#### Type

String.

#### Search

The field is searchable via

- '=' (exact equality)

#### Notes

address is a search-only field.

### duid

#### duid

DUID is used as the search criterion.

#### Type

String.

#### Search

The field is searchable via

- '=' (exact equality)

## Notes

duid is a search-only field.

## fqdn

### fqdn

FQDN is used as the search criterion.

### Type

String.

### Search

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=' (regular expression)

## Notes

fqdn is a search-only field.

## mac\_address

### mac\_address

MAC address is used as the search criterion.

### Type

String.

### Search

The field is searchable via

- ‘=’ (exact equality)

## Notes

mac\_address is a search-only field.

## objtype

### objtype

Type of object to search for. If not specified, all object types will be searched.

### Type

String.

### Valid values are:

- All
- AllNetwork

- AllZone
- IPAMObjects
- ad\_auth\_service
- admingroup
- adminrole
- adminuser
- allendpoints
- allnsgroup
- awsrte53taskgroup
- awsuser
- bulkhost
- certificate:authservice
- ciscoise:notificationrule
- dhcpfailover
- dhcptionspace
- discovery:device
- discovery:deviceinterface
- discovery:memberproperties
- dtc:lbdn
- dtc:monitor:http
- dtc:monitor:icmp
- dtc:monitor:pdp
- dtc:monitor:sip
- dtc:monitor:snmp
- dtc:monitor:tcp
- dtc:pool
- dtc:server
- dtc:topology
- filterfingerprint
- filtermac
- filternac
- filteroption
- filterrelayagent
- fingerprint
- fixedaddress
- fixedaddressstemplate

- grid:dhcpproperties
- grid:dns
- grid:servicerestart:group
- ipv6fixedaddress
- ipv6network
- ipv6networkcontainer
- ipv6networktemplate
- ipv6range
- ipv6sharednetwork
- lease
- macfilteraddress
- member
- member:dhcpproperties
- member:dns
- member:threatprotection
- mgm:grid
- mgm:member
- mgm:network
- mgm:networkview
- msserver:adsites:domain
- msserver:adsites:site
- namedacl
- network
- networkcontainer
- networktemplate
- networkuser
- networkview
- notification:rule
- nsgroup
- nsgroup:delegation
- nsgroup:forwardingmember
- nsgroup:forwardstubservers
- nsgroup:stubmember
- range
- rangetemplate
- record:a

- record:aaaa
- record:cname
- record:dhcid
- record:host
- record:host\_ipv4addr
- record:host\_ipv6addr
- record:mx
- record:naptr
- record:ns
- record:ptr
- record:rpz:a
- record:rpz:a:ipaddress
- record:rpz:aaaa
- record:rpz:aaaa:ipaddress
- record:rpz:cname
- record:rpz:cname:clientipaddress
- record:rpz:cname:clientipaddressdn
- record:rpz:cname:ipaddress
- record:rpz:cname:ipaddressdn
- record:rpz:mx
- record:rpz:naptr
- record:rpz:ptr
- record:rpz:srv
- record:rpz:txt
- record:srv
- record:tlsa
- record:txt
- roaminghost
- ruleset
- sharednetwork
- sharedrecord:a
- sharedrecord:aaaa
- sharedrecord:cname
- sharedrecord:mx
- sharedrecord:srv
- sharedrecord:txt

- sharedrecordgroup
- snmpuser
- vdiscoverytask
- view

### Search

The field is searchable via

- '=' (exact equality)

### Notes

objtype is a search-only field.

## search\_string

### search\_string

Pattern to search for. In most cases, using regular expression (~=) will be the preferred method. Using equal match (=) matches only complete, not partial, fields.

### Type

String.

### Search

The field is searchable via

- ':= ' (case insensitive search)
- '=' (exact equality)
- '~=' (regular expression)

### Notes

search\_string is a search-only field.

## Search-only Fields List

Field	Type	Search
address	String	=
duid	String	=
fqdn	String	:= ~
mac_address	String	=
objtype	String	=
search_string	String	:= ~

## 3.24 snmpuser : SNMP user object.

This object contains information related to SNMPv3 users.

## Object Reference

References to snmpuser are *object references*.

## Restrictions

The object does not support:

- Scheduling
- CSV export

The object cannot be managed on Cloud Platform members.

## Fields

These fields are actual members of the object; thus, they can be requested by using `_return_fields`, if the fields are readable.

The basic version of the object contains the field(s): **comment, name**.

The following fields are required to create this object:

Field	Notes
authentication_password	See the field description for more information
authentication_protocol	
name	
privacy_password	See the field description for more information
privacy_protocol	

## authentication\_password

### authentication\_password

Determines an authentication password for the user. This is a write-only attribute.

#### Type

String.

#### Create

Password for Authentication is required when Authentication protocol is set.

#### Search

The field is not searchable.

#### Notes

authentication\_password is not readable.

## authentication\_protocol

### authentication\_protocol

The authentication protocol to be used for this user.

**Type**

String.

**Valid values are:**

- MD5
- NONE
- SHA

**Create**

The field is required on creation.

**Search**

The field is not searchable.

## comment

**comment**

A descriptive comment for the SNMPv3 User.

**Type**

String.

Values with leading or trailing whitespace are not valid for this field.

**Create**

The default value is *empty*.

**Search**

The field is searchable via

- ‘:=’ (case insensitive search)
- ‘=’ (exact equality)
- ‘~=' (regular expression)

**Notes**

comment is part of the base object.

## disable

**disable**

Determines if SNMPv3 user is disabled or not.

**Type**

Bool.

**Create**

The default value is *False*.

**Search**



The field is not searchable.

## extattrs

### extattrs

Extensible attributes associated with the object.

For valid values for extensible attributes, see *the following information*.

#### Type

Extensible attributes.

This field allows +/- to be specified as part of the field name when updating the object, see *the following information*.

#### Create

The default value is *empty*.

#### Search

For how to search extensible attributes, see *the following information*.

## name

### name

The name of the user.

#### Type

String.

Values with leading or trailing whitespace are not valid for this field.

#### Create

The field is required on creation.

#### Search

The field is searchable via

- '=' (exact equality)
- '~=' (regular expression)

#### Notes

name is part of the base object.

## privacy\_password

### privacy\_password

Determines a password for the privacy protocol.

#### Type

String.

#### Create

Password for Privacy is required when Privacy protocol is set.

## Search

The field is not searchable.

## Notes

privacy\_password is not readable.

## privacy\_protocol

### privacy\_protocol

The privacy protocol to be used for this user.

## Type

String.

## Valid values are:

- AES
- DES
- NONE

## Create

The field is required on creation.

## Search

The field is not searchable.

## Fields List

Field	Type	Req	R/O	Base	Search
authentication_password	String	Y*	N	N	N/A
authentication_protocol	String	Y	N	N	N/A
comment	String	N	N	Y	: = ~
disable	Bool	N	N	N	N/A
extattrs	Extattr	N	N	N	ext
name	String	Y	N	Y	= ~
privacy_password	String	Y*	N	N	N/A
privacy_protocol	String	Y	N	N	N/A

\* Required in some cases, see detailed field description above.

# STRUCTS

## 4.1 `ad_auth_server` : Active Directory Authentication Server.

Represents an AD authentication server (i.e., domain controller) that is used to authenticate administrators.

### `auth_port`

#### `auth_port`

The authentication port.

#### Type

Unsigned integer.

#### Create

The default value is *undefined*.

### `comment`

#### `comment`

The descriptive comment for the AD authentication server.

#### Type

String.

Values with leading or trailing whitespace are not valid for this field.

#### Create

The default value is *empty*.

### `disabled`

#### `disabled`

Determines if the AD authorization server is disabled.

#### Type

Bool.

### Create

The default value is *False*.

## encryption

### encryption

The type of encryption to use.

#### Type

String.

#### Valid values are:

- NONE
- SSL

### Create

The default value is *NONE*.

## fqdn\_or\_ip

### fqdn\_or\_ip

The FQDN (Fully Qualified Domain Name) or IP address of the server.

#### Type

String.

Values with leading or trailing whitespace are not valid for this field.

### Create

The field is required on creation.

## mgmt\_port

### mgmt\_port

Determine if the MGMT port is enabled for the AD authentication server.

#### Type

Bool.

### Create

The default value is *False*.

### Notes

mgmt\_port is associated with the field *use\_mgmt\_port* (see *use flag*).

## use\_mgmt\_port

**use\_mgmt\_port**

Use flag for: mgmt\_port

### Type

Bool.

### Create

The default value is *False*.

## 4.2 addressac : Address ac.

This struct represents an access control rule for an address.

## address

**address**

The address this rule applies to or “Any”.

### Type

String.

Values with leading or trailing whitespace are not valid for this field.

### Create

The field is required on creation.

## permission

**permission**

The permission to use for this address.

### Type

String.

### Valid values are:

- ALLOW
- DENY

### Create

The default value is *ALLOW*.

## 4.3 changedobject : Changed object information.

This struct contains information about changes to be made to the specified object.

## action

### action

This is a description of the action that is applied to this object.

### Type

String.

### Valid values are:

- Add
- Configure Grid
- Convert IPv4 Lease
- Convert IPv6 Lease
- Delete
- Lock/Unlock Zone
- Modify
- Network Discovery
- Reset Grid
- Restart Services
- Restart Services
- Upgrade Grid

### Notes

action cannot be updated.

action cannot be written.

## name

### name

The object name.

### Type

String.

### Notes

name cannot be updated.

name cannot be written.

## object\_type

### object\_type

The object type. This is undefined if the object is not yet supported.

**Type**

String.

**Notes**

object\_type cannot be updated.

object\_type cannot be written.

## properties

**properties**

A list of properties that are being changed.

**Type**

String array.

**Notes**

properties cannot be updated.

properties cannot be written.

## type

**type**

A value of the object type, this may contain objects that are not yet available in WAPI.

**Type**

String.

**Notes**

type cannot be updated.

type cannot be written.

## 4.4 emailsetting : email Setting for a grid member.

### address

**address**

The notification email address for a Grid member.

**Type**

String.

Values with leading or trailing whitespace are not valid for this field.

**Create**

The default value is *empty*.

## enabled

### enabled

Determines if email notification is enabled or not.

### Type

Bool.

### Create

The default value is *False*.

## relay

### relay

The relay name or IP address.

### Type

String.

### Create

The default value is *empty*.

## relay\_enabled

### relay\_enabled

Determines if email relay is enabled or not.

### Type

Bool.

### Create

The default value is *False*.

## 4.5 extensibleattributedef:descendants : Descendants.

The structure describes what to do with descendant's extensible attribute, if the value is different from the parent's.

There are three possible cases, for each of them there is a specific option in the structure.

## option\_delete\_ea

### option\_delete\_ea

This option describes which action must be taken if the extensible attribute exists for the descendant, but is absent for the parent object:

- RETAIN: retain the extensible attribute value for the descendant object.
- REMOVE: remove this extensible attribute from the descendant object.



**Type**

String.

**Valid values are:**

- REMOVE
- RETAIN

**Create**

The default value is *undefined*.

**option\_with\_ea****option\_with\_ea**

This option describes which action must be taken if the extensible attribute exists for both the parent and descendant objects:

- INHERIT: inherit the extensible attribute from the parent object.
- RETAIN: retain the value of an extensible attribute that was set for the child object.
- CONVERT: the value of the extensible attribute must be copied from the parent object.

**Type**

String.

**Valid values are:**

- CONVERT
- INHERIT
- RETAIN

**Create**

The default value is *undefined*.

**option\_without\_ea****option\_without\_ea**

This option describes which action must be taken if the extensible attribute exists for the parent, but is absent from the descendant object:

- INHERIT: inherit the extensible attribute from the parent object.
- NOT\_INHERIT: do nothing.

**Type**

String.

**Valid values are:**

- INHERIT
- NOT\_INHERIT

### **Create**

The default value is *undefined*.

## **4.6 extensibleattributedef:listvalues : List of values.**

The structure contains the list of extensible attribute values.

### **value**

#### **value**

Enum value

#### **Type**

String.

#### **Create**

The default value is *undefined*.

## **4.7 extsyslogbackupserver : External syslog backup server.**

This structure contains information about the external server for backing up the rotated syslog files.

### **address**

#### **address**

The IPv4 or IPv6 address of the backup syslog server.

#### **Type**

String.

#### **Create**

The field is required on creation.

### **directory\_path**

#### **directory\_path**

The directory path for the replication of the rotated syslog files.

#### **Type**

String.

#### **Create**

The default value is *undefined*.

## enable

### enable

If set to True, the syslog backup server is enabled.

### Type

Bool.

### Create

The default value is *True*.

## password

### password

The password of the backup syslog server.

### Type

String.

### Create

The default value is *undefined*.

### Notes

password is not readable.

## port

### port

The port used to connect to the backup syslog server.

### Type

Unsigned integer.

### Create

The default value is 22.

## protocol

### protocol

The transport protocol used to connect to the backup syslog server.

### Type

String.

### Valid values are:

- FTP
- SCP

### Create

The default value is *SCP*.

## username

### username

The username of the backup syslog server.

### Type

String.

### Create

The default value is *undefined*.

## 4.8 interface : IPv6/IPv4 interfaces settings.

The interface settings represent additional interface information that can be used for a Grid member. A single IP address may be added to each member by using these settings.

## anycast

### anycast

Determines if anycast for the Interface object is enabled or not.

### Type

Bool.

### Create

The default value is *False*.

## comment

### comment

A descriptive comment of this structure.

### Type

String.

### Create

The default value is *empty*.

## enable\_bgp

### enable\_bgp

Determines if the BGP advertisement setting is enabled for this interface or not.

**Type**

Bool.

**Create**

The default value is *False*.

## enable\_ospf

**enable\_ospf**

Determines if the OSPF advertisement setting is enabled for this interface or not.

**Type**

Bool.

**Create**

The default value is *False*.

## interface

**interface**

The interface type for the Interface object.

**Type**

String.

**Valid values are:**

- LAN2
- LAN\_HA
- LOOPBACK
- MGMT

**Create**

The default value is *LOOPBACK*.

## ipv4\_network\_setting

**ipv4\_network\_setting**

The IPv4 network settings of the Grid Member.

**Type**

A/An *Network settings* struct.

**Create**

You must create the IPv4 settings field if the IPv6 settings are missing.

## ipv6\_network\_setting

### ipv6\_network\_setting

The IPv6 network settings of the Grid Member.

#### Type

A/An *IPv6 Settings* struct.

#### Create

You must create the IPv6 settings field if the IPv4 settings are missing.

## 4.9 ipv6setting : IPv6 Settings.

The structure contains IPv6 settings for a member.

## auto\_router\_config\_enabled

### auto\_router\_config\_enabled

Determines if automatic router configuration should be enabled.

#### Type

Bool.

#### Create

The default value is *undefined*.

## cidr\_prefix

### cidr\_prefix

IPv6 cidr prefix

#### Type

Unsigned integer.

#### Create

The default value is *undefined*.

## dscp

### dscp

The DSCP (Differentiated Services Code Point) value determines relative priorities for the type of services on your network. The appliance implements QoS (Quality of Service) rules based on this configuration. Valid values are from 0 to 63.

#### Type

Unsigned integer.

#### Create

The default value is *0*.

#### Notes

dscp is associated with the field *use\_dscp* (see *use\_flag*).

### enabled

#### enabled

Determines if IPv6 networking should be enabled.

#### Type

Bool.

#### Create

The default value is *undefined*.

### gateway

#### gateway

Gateway address.

#### Type

String.

#### Create

The default value is *undefined*.

### primary

#### primary

Determines if the current address is the primary VLAN address or not.

#### Type

Bool.

#### Create

The default value is *True*.

### use\_dscp

#### use\_dscp

Use flag for: dscp

#### Type

Bool.

#### Create

The default value is *False*.

## virtual\_ip

### virtual\_ip

IPv6 address.

#### Type

String.

#### Create

The default value is *undefined*.

## vlan\_id

### vlan\_id

The identifier for the VLAN. Valid values are from 1 to 4096.

#### Type

Unsigned integer.

#### Create

The default value is *empty*.

## 4.10 lan2portsetting : LAN2 Port Setting.

Settings used to configure IP parameters for the LAN2 port.

## enabled

### enabled

If this field is set to True, then it has its own IP settings. Otherwise, port redundancy mechanism is used, in which the LAN1 and LAN2 ports share the same IP settings for failover purposes.

#### Type

Bool.

#### Create

The default value is *False*.

## network\_setting

### network\_setting

If the 'enable' field is set to True, this defines IPv4 network settings for LAN2.

#### Type

A/An *Network settings* struct.

#### Create



The default value is:

```
{ }
```

## nic\_failover\_enable\_primary

### nic\_failover\_enable\_primary

Prefer LAN1 when available.

#### Type

Bool.

#### Create

The default value is *False*.

## nic\_failover\_enabled

### nic\_failover\_enabled

Determines if NIC failover is enabled or not.

#### Type

Bool.

#### Create

The default value is *False*.

## v6\_network\_setting

### v6\_network\_setting

If the 'enable' field is set to True, this defines IPv6 network settings for the LAN2 port.

#### Type

A/An *IPv6 Settings* struct.

#### Create

The default value is:

```
{ }
```

## virtual\_router\_id

### virtual\_router\_id

If the 'enabled' field is set to True, this defines the virtual router ID for the LAN2 port.

#### Type

Unsigned integer.

#### Create

The default value is *undefined*.

## 4.11 lanhaportsetting : LAN/HA Port Settings.

This structure contains LAN/HA port settings for the HA node.

### ha\_ip\_address

#### ha\_ip\_address

HA IP address.

#### Type

String.

#### Create

The default value is *undefined*.

### ha\_port\_setting

#### ha\_port\_setting

Physical port settings for the HA interface.

#### Type

A/An *Physical Port Settings* struct.

#### Create

The default value is *undefined*.

### lan\_port\_setting

#### lan\_port\_setting

Physical port settings for the LAN interface.

#### Type

A/An *Physical Port Settings* struct.

#### Create

The default value is *undefined*.

### mgmt\_ipv6addr

#### mgmt\_ipv6addr

Public IPv6 address for the LAN1 interface.

#### Type

String.

#### Create

The default value is *undefined*.

## mgmt\_lan

### mgmt\_lan

Public IPv4 address for the LAN1 interface.

#### Type

String.

#### Create

The default value is *undefined*.

#### Notes

mgmt\_lan is part of the base object.

## 4.12 member:pnodetoken : Physical Node Token.

This structure contains information required for a physical node to join the Grid using a one-time token.

## physical\_oid

### physical\_oid

OID of the physical node.

#### Type

String.

#### Notes

physical\_oid cannot be updated.

physical\_oid cannot be written.

## token

### token

Identifier that should be used by the physical node to join the Grid.

#### Type

String.

#### Notes

token cannot be updated.

token cannot be written.

## **token\_exp\_date**

### **token\_exp\_date**

Time when the token expires.

#### **Type**

Timestamp.

#### **Notes**

token\_exp\_date cannot be updated.

token\_exp\_date cannot be written.

## **4.13 memberservicecommunication : Member Service Communication.**

The structure contains service type communication options for a Grid member.

## **option**

### **option**

The option for communication type.

#### **Type**

String.

#### **Valid values are:**

- FORCE
- PREFER

#### **Notes**

option is part of the base object.

option cannot be updated.

option cannot be written.

## **service**

### **service**

The service for a Grid member.

#### **Type**

String.

#### **Valid values are:**

- AD
- GRID

- GRID\_BACKUP
- MAIL
- NTP
- OCSP
- REPORTING
- REPORTING\_BACKUP

**Create**

The default value is *undefined*.

**type**

**type**

Communication type.

**Type**

String.

**Valid values are:**

- IPV4
- IPV6

**Create**

The default value is *undefined*.

## 4.14 memberservicestatus : Member Service Status.

This structure contains a service status of the Grid Member.

**description**

**description**

The description of the current service status.

**Type**

String.

**Notes**

description cannot be updated.

description cannot be written.

## service

### service

The service identifier.

### Type

String.

### Valid values are:

- ANALYTICS
- ATP
- BLOXTOOLS
- CAPTIVE\_PORTAL
- CLOUD\_API
- DHCP
- DISCOVERY
- DNS
- DNS\_CACHE\_ACCELERATION
- FTP
- HSM
- HTTP\_FILE\_DIST
- NTP
- REPORTING
- TAXII
- TFTP

### Notes

service cannot be updated.

service cannot be written.

## status

### status

The service status.

### Type

String.

### Valid values are:

- FAILED
- INACTIVE
- OFFLINE

- UNKNOWN
- WARNING
- WORKING

**Notes**

status cannot be updated.

status cannot be written.

## 4.15 mgm:monitorentry : Monitor Entry.

The Monitor Entry provides information for a single monitor in MGM Member Monitor Data object.

### description

**description**

The description for this monitor.

**Type**

String.

**Notes**

description cannot be updated.

description cannot be written.

### monitor\_type

**monitor\_type**

The type of a monitor.

**Type**

String.

**Valid values are:**

- BGP
- BLOXTOOLS
- BOOT\_TIME
- CAPTIVE\_PORTAL
- DHCP
- DNS
- FTP
- HA\_STATUS
- HTTP\_FILE\_DIST
- NTP

- OVERALL
- REPORTING
- TFTP

#### Notes

monitor\_type cannot be updated.

monitor\_type cannot be written.

## status

### status

The status for this monitor.

#### Type

String.

#### Valid values are:

- FAILED
- INACTIVE
- OFFLINE
- UNKNOWN
- WARNING
- WORKING

#### Notes

status cannot be updated.

status cannot be written.

## 4.16 mgmtportsetting : MGMT Port Setting.

The structure that defines whether the MGMT port settings must be used.

## enabled

### enabled

Determines if MGMT port settings should be enabled.

#### Type

Bool.

#### Create

The default value is *False*.



## security\_access\_enabled

### security\_access\_enabled

Determines if security access on the MGMT port is enabled or not.

#### Type

Bool.

#### Create

The default value is *False*.

## vpn\_enabled

### vpn\_enabled

Determines if VPN on the MGMT port is enabled or not.

#### Type

Bool.

#### Create

The default value is *False*.

## 4.17 nodeinfo : Node Info.

This structure contains a detailed status report about Grid member operations.

## ha\_status

### ha\_status

Status about the node of an HA pair.

#### Type

String.

#### Valid values are:

- ACTIVE
- NOT\_CONFIGURED
- PASSIVE

#### Notes

ha\_status cannot be updated.

ha\_status cannot be written.

## hwid

### hwid

Hardware ID.

### Type

String.

### Notes

hwid cannot be updated.

hwid cannot be written.

## hwmodel

### hwmodel

Hardware model.

### Type

String.

### Notes

hwmodel cannot be updated.

hwmodel cannot be written.

## hwplatform

### hwplatform

The platform on which NIOS is running on.

### Type

String.

### Valid values are:

- AWS
- AZURE
- HYPERV
- KVM
- PHYSICAL
- UNKNOWN
- VMWARE
- XEN

### Notes

hwplatform cannot be updated.

hwplatform cannot be written.

## hwtype

### hwtype

Hardware type.

### Type

String.

### Notes

hwtype cannot be updated.

hwtype cannot be written.

## lan2\_physical\_setting

### lan2\_physical\_setting

Physical port settings for the LAN2 interface.

### Type

A/An *Physical Port Settings* struct.

### Create

The default value is *undefined*.

## lan\_ha\_port\_setting

### lan\_ha\_port\_setting

LAN/HA port settings for the node.

### Type

A/An *LAN/HA Port Settings* struct.

### Create

The default value is *undefined*.

## mgmt\_network\_setting

### mgmt\_network\_setting

Network settings for the MGMT port of the node.

### Type

A/An *Network settings* struct.

### Create

The default value is *undefined*.

## mgmt\_physical\_setting

### mgmt\_physical\_setting

Physical port settings for the MGMT interface.

#### Type

A/An *Physical Port Settings* struct.

#### Create

The default value is *undefined*.

## nat\_external\_ip

### nat\_external\_ip

The NAT external IP address for the node.

#### Type

String.

#### Create

The default value is *empty*.

## paid\_nios

### paid\_nios

True if node is Paid NIOS.

#### Type

Bool.

#### Notes

paid\_nios cannot be updated.

paid\_nios cannot be written.

## physical\_oid

### physical\_oid

The OID of the physical node.

#### Type

String.

#### Notes

physical\_oid cannot be updated.

physical\_oid cannot be written.

## service\_status

### service\_status

The service status list of the Grid Member.

#### Type

A/An *Node Service Status* struct array.

#### Notes

service\_status cannot be updated.

service\_status cannot be written.

## v6\_mgmt\_network\_setting

### v6\_mgmt\_network\_setting

The network settings for the IPv6 MGMT port of the node.

#### Type

A/An *IPv6 Settings* struct.

#### Create

The default value is *undefined*.

## 4.18 physicalportsetting : Physical Port Settings.

This structure contains settings for an appliance physical port.

## auto\_port\_setting\_enabled

### auto\_port\_setting\_enabled

Enable or disalbe the auto port setting.

#### Type

Bool.

#### Create

The default value is *undefined*.

## duplex

### duplex

The port duplex; if speed is 1000, duplex must be FULL.

#### Type

String.

#### Valid values are:

- FULL
- HALF

#### Create

The default value is *undefined*.

### speed

#### speed

The port speed; if speed is 1000, duplex is FULL.

#### Type

String.

#### Valid values are:

- 10
- 100
- 1000

#### Create

The default value is *undefined*.

## 4.19 preprovision : Pre-provisioning Settings.

The structure contains pre-provisioning settings.

### hardware\_info

#### hardware\_info

An array of structures that describe the hardware being pre-provisioned.

#### Type

A/An *Pre-provisioning Hardware Settings* struct array.

#### Create

The field is required on creation.

### licenses

#### licenses

An array of license types the pre-provisioned member should have in order to join the Grid, or the licenses that must be allocated to the member when it joins the Grid using the token-based authentication.

#### Type

Enum values array.

#### Valid values are:

- cloud\_api
- dhcp
- dns
- dtc
- enterprise
- fireeye
- ms\_management
- rpz
- vnios

### Create

The field is required on creation.

## 4.20 preprovisionhardware : Pre-provisioning Hardware Settings.

The structure contains hardware information for a pre-provisioned member.

### hwmodel

#### hwmodel

Hardware model - for 'IB-4010' are 'Rev1', 'Rev2'; for 'IB-4030' are 'Rev1', 'Rev2'; for 'PT-4000' is 'Rev2'; for 'IB-VNIOS' are 'IB-VM-100', 'IB-VM-810', 'IB-VM-820', 'IB-VM-RSP', 'IB-VM-1410', 'IB-VM-1420', 'IB-VM-2210', 'IB-VM-2220', 'IB-VM-4010', 'CP-V800', 'CP-V1400', 'CP-V2200';

#### Type

String.

#### Valid values are:

- CP-V1400
- CP-V2200
- CP-V800
- IB-VM-100
- IB-VM-1410
- IB-VM-1420
- IB-VM-2210
- IB-VM-2220
- IB-VM-4010
- IB-VM-810
- IB-VM-820
- IB-VM-RSP
- Rev1

- Rev2

#### **Create**

The field is required on creation.

### **hwtype**

#### **hwtype**

Hardware type.

#### **Type**

String.

#### **Valid values are:**

- IB-100
- IB-1410
- IB-1420
- IB-2210
- IB-2220
- IB-4010
- IB-4030
- IB-810
- IB-820
- IB-RSP2
- IB-VM
- IB-VNIOS
- PT-1400
- PT-2200
- PT-4000

#### **Create**

The field is required on creation.

## **4.21 queriesuser : Queries user.**

This structure contains information about the SNMPv3 queries user.

### **comment**

#### **comment**



A descriptive comment for this queries user.

**Type**

String.

Values with leading or trailing whitespace are not valid for this field.

**Create**

The default value is *empty*.

**user**

**user**

The SNMPv3 user.

**Type**

String.

**Create**

The default value is *empty*.

## 4.22 servicestatus : Node Service Status.

This structure contains a service status of the Grid Member's node.

**description**

**description**

The description of the current service status.

**Type**

String.

**Notes**

description cannot be updated.

description cannot be written.

**service**

**service**

The service identifier.

**Type**

String.

**Valid values are:**

- AUTH\_NAMED
- BFD

- BGP
- CORE\_FILES
- CPU1\_TEMP
- CPU2\_TEMP
- CPU\_USAGE
- CPU\_USAGE
- DB\_OBJECT
- DISCOVERY\_CAPACITY
- DISK\_SIZE
- DISK\_USAGE
- ENET\_HA
- ENET\_LAN
- ENET\_LAN2
- ENET\_MGMT
- EXTERNAL\_STORAGE
- FAN1
- FAN2
- FAN3
- FAN4
- FAN5
- FAN6
- FAN7
- FAN8
- JOIN\_STATUS
- LCD
- MEMORY
- MGM\_SERVICE
- NETWORK\_CAPACITY
- NODE\_STATUS
- NTP\_SYNC
- OSPF
- OSPF6
- PASSIVE\_HA\_CONNECTIVITY
- POWER1
- POWER2
- POWER3

- POWER4
- POWER\_SUPPLY
- RAID\_BATTERY
- RAID\_DISK1
- RAID\_DISK2
- RAID\_DISK3
- RAID\_DISK4
- RAID\_DISK5
- RAID\_DISK6
- RAID\_DISK7
- RAID\_DISK8
- RAID\_SUMMARY
- REPLICATION
- SFP\_HA
- SFP\_LAN
- SFP\_LAN2
- SFP\_MGMT
- SNIC\_CHIP\_TEMP
- SNIC\_CORE\_UTIL
- SNIC\_PCB\_TEMP
- SNIC\_UTIL
- SUBGRID\_CONN
- SWAP\_USAGE
- SYS\_TEMP
- VPN\_CERT

#### Notes

service cannot be updated.

service cannot be written.

## status

### status

The service status.

### Type

String.

### Valid values are:

- FAILED

- INACTIVE
- WARNING
- WORKING

#### Notes

status cannot be updated.

status cannot be written.

## 4.23 setting:dnsresolver : DNS resolver Setting.

### resolvers

#### resolvers

The resolvers of a Grid member. The Grid member sends queries to the first name server address in the list. The second name server address is used if first one does not response.

#### Type

String array. The array supports a maximum of 2 element(s).

#### Create

The default value is *empty*.

### search\_domains

#### search\_domains

The Search Domain Group, which is a group of domain names that the Infoblox device can add to partial queries that do not specify a domain name. Note that you can set this parameter only when *prefer\_resolver* or *alternate\_resolver* is set.

#### Type

String array.

#### Create

The default value is *empty*.

## 4.24 setting:email : The email settings for the Grid member.

### address

#### address

The notification email address of a Grid member.

#### Type

String.

Values with leading or trailing whitespace are not valid for this field.

### Create

The default value is *empty*.

## enabled

### enabled

Determines if email notification is enabled or not.

### Type

Bool.

### Create

The default value is *False*.

## relay

### relay

The relay name or IP address.

### Type

String.

### Create

The default value is *empty*.

## relay\_enabled

### relay\_enabled

Determines if email relay is enabled or not.

### Type

Bool.

### Create

The default value is *False*.

## 4.25 setting:httpproxyserver : HTTP Proxy Server Setting.

The Grid HTTP Proxy Server Setting object provides information about the HTTP proxy server configuration.

## address

### address

The address of the HTTP proxy server.

**Type**

String.

**Create**

The field is required on creation.

## certificate

**certificate**

The token returned by *the uploadinit function call in object fileop* for the CA certificate file used in the content inspection by an HTTP proxy server.

**Type**

String.

**Create**

The default value is *undefined*.

**Notes**

certificate is not readable.

## comment

**comment**

The descriptive comment for the HTTP proxy server configuration.

**Type**

String.

**Create**

The default value is *empty*.

## enable\_content\_inspection

**enable\_content\_inspection**

Determines if HTTPS content inspection by the HTTP proxy server is enabled or not.

**Type**

Bool.

**Create**

The default value is *False*.

## **enable\_proxy**

### **enable\_proxy**

Determines if the HTTP proxy server is enabled or not.

#### **Type**

Bool.

#### **Create**

The default value is *False*.

## **enable\_username\_and\_password**

### **enable\_username\_and\_password**

Determines if username and password for HTTP Proxy Server connectivity is used or not.

#### **Type**

Bool.

#### **Create**

The default value is *False*.

## **password**

### **password**

The password for the HTTP proxy server.

#### **Type**

String.

#### **Create**

The default value is *undefined*.

#### **Notes**

password is not readable.

## **port**

### **port**

The port on which the HTTP proxy server listens.

#### **Type**

Unsigned integer.

#### **Create**

The field is required on creation.

## username

### username

The user name for the HTTP proxy server.

#### Type

String.

#### Create

The default value is *empty*.

## verify\_cname

### verify\_cname

Determines if the CNAME record query verification is enabled or not.

#### Type

Bool.

#### Create

The default value is *False*.

## 4.26 setting:network : Network settings.

This structure contains a network settings for the member.

## address

### address

The *IPv4 Address* of the Grid Member.

#### Type

String.

#### Create

The default value is *empty*.

## dscp

### dscp

The DSCP (Differentiated Services Code Point) value determines relative priorities for the type of services on your network. The appliance implements QoS (Quality of Service) rules based on this configuration. Valid values are from 0 to 63.

#### Type

Unsigned integer.

#### Create



The default value is *0*.

#### Notes

dscp is associated with the field *use\_dscp* (see *use\_flag*).

### gateway

#### gateway

The default gateway for the Grid Member.

#### Type

String.

#### Create

The default value is *empty*.

### primary

#### primary

Determines if the current address is the primary VLAN address or not.

#### Type

Bool.

#### Create

The default value is *True*.

### subnet\_mask

#### subnet\_mask

The subnet mask for the Grid Member.

#### Type

String.

#### Create

The default value is *empty*.

### use\_dscp

#### use\_dscp

Use flag for: dscp

#### Type

Bool.

#### Create

The default value is *False*.

## **vlan\_id**

### **vlan\_id**

The identifier for the VLAN. Valid values are from 1 to 4096.

#### **Type**

Unsigned integer.

#### **Create**

The default value is *empty*.

## **4.27 setting:password : Password settings.**

This structure contains settings related to the Grid admin passwords.

## **chars\_to\_change**

### **chars\_to\_change**

The minimum number of characters that must be changed when revising an admin password.

#### **Type**

Unsigned integer.

#### **Create**

The default value is *0*.

## **expire\_days**

### **expire\_days**

The number of days of the password expiration period (if enabled).

#### **Type**

Unsigned integer.

#### **Create**

The default value is *30*.

## **expire\_enable**

### **expire\_enable**

If set to True, password expiration is enabled.

#### **Type**

Bool.

#### **Create**

The default value is *False*.

## **force\_reset\_enable**

### **force\_reset\_enable**

If set to True, all new users must change their passwords when they first log in to the system, and existing users must change the passwords that were just reset.

#### **Type**

Bool.

#### **Create**

The default value is *False*.

## **num\_lower\_char**

### **num\_lower\_char**

The minimum number of lowercase characters.

#### **Type**

Unsigned integer.

#### **Create**

The default value is *0*.

## **num\_numeric\_char**

### **num\_numeric\_char**

The minimum number of numeric characters.

#### **Type**

Unsigned integer.

#### **Create**

The default value is *0*.

## **num\_symbol\_char**

### **num\_symbol\_char**

The minimum number of symbol characters. The allowed characters are ! @ # \$ % ^ & \* ( ).

#### **Type**

Unsigned integer.

#### **Create**

The default value is *0*.

## num\_upper\_char

### num\_upper\_char

The minimum number of uppercase characters.

#### Type

Unsigned integer.

#### Create

The default value is *0*.

## password\_min\_length

### password\_min\_length

The minimum length of the password.

#### Type

Unsigned integer.

#### Create

The default value is *4*.

## reminder\_days

### reminder\_days

The number of days before the password expiration date when the appliance sends a reminder.

#### Type

Unsigned integer.

#### Create

The default value is *15*.

## 4.28 setting:security : Security settings.

This structure contains the Grid security settings.

## admin\_access\_items

### admin\_access\_items

A list of access control settings used for security access.

#### Type

One of the following: *Address ac* struct, *TSIG ac* struct array.

#### Create

The default value is:

empty

## **audit\_log\_rolling\_enable**

### **audit\_log\_rolling\_enable**

If set to True, rolling of audit logs is enabled.

#### **Type**

Bool.

#### **Create**

The default value is *True*.

## **http\_redirect\_enable**

### **http\_redirect\_enable**

If set to True, HTTP connections are redirected to HTTPS.

#### **Type**

Bool.

#### **Create**

The default value is *False*.

## **lcd\_input\_enable**

### **lcd\_input\_enable**

If set to True, the LCD buttons on the front panel of the NIOS appliance can be used for IP address settings of the LAN1 port.

#### **Type**

Bool.

#### **Create**

The default value is *True*.

## **login\_banner\_enable**

### **login\_banner\_enable**

If set to True, the login banner is enabled.

#### **Type**

Bool.

#### **Create**

The default value is *True*.

## **login\_banner\_text**

### **login\_banner\_text**

The login banner text.

#### **Type**

String.

#### **Create**

The default value is *Disconnect NOW if you have not been expressly authorized to use this system.*

## **remote\_console\_access\_enable**

### **remote\_console\_access\_enable**

If set to True, superuser admins can access the Infoblox CLI from a remote location using an SSH (Secure Shell) v2 client.

#### **Type**

Bool.

#### **Create**

The default value is *False*.

## **security\_access\_enable**

### **security\_access\_enable**

If set to True, HTTP access restrictions are enabled.

#### **Type**

Bool.

#### **Create**

The default value is *False*.

## **security\_access\_remote\_console\_enable**

### **security\_access\_remote\_console\_enable**

If set to True, remote console access restrictions will be enabled.

#### **Type**

Bool.

#### **Create**

The default value is *True*.

## **session\_timeout**

### **session\_timeout**

The session timeout interval in seconds.

#### **Type**

Unsigned integer.

#### **Create**

The default value is *600*.

## **ssh\_perm\_enable**

### **ssh\_perm\_enable**

If set to False, SSH access is permanently disabled.

#### **Type**

Bool.

#### **Notes**

ssh\_perm\_enable cannot be updated.

ssh\_perm\_enable cannot be written.

## **support\_access\_enable**

### **support\_access\_enable**

If set to True, support access for the Grid has been enabled.

#### **Type**

Bool.

#### **Create**

The default value is *False*.

## **support\_access\_info**

### **support\_access\_info**

Information string to be used for support access requests.

#### **Type**

String.

#### **Create**

The default value is *empty*.

## 4.29 setting:securitybanner : Security banner settings.

This structure contains settings related to the Grid security level banner.

### color

#### color

The security level color.

#### Type

String.

#### Valid values are:

- BLACK
- BLUE
- BROWN
- CYAN
- GREEN
- MAGENTA
- ORANGE
- PURPLE
- RED
- YELLOW

#### Create

The default value is *GREEN*.

### enable

#### enable

If set to True, the security banner will be displayed on the header and footer of the Grid Manager screen, including the Login screen.

#### Type

Bool.

#### Create

The default value is *False*.

### level

#### level



The security level.

**Type**

String.

**Valid values are:**

- CONFIDENTIAL
- RESTRICTED
- SECRET
- TOP\_SECRET
- UNCLASSIFIED

**Create**

The default value is *UNCLASSIFIED*.

## message

**message**

The classification message to be displayed.

**Type**

String.

Values with leading or trailing whitespace are not valid for this field.

**Create**

The default value is *empty*.

## 4.30 setting:snmp : SNMP setting.

This structure contains information about the SNMP subsystem.

## engine\_id

**engine\_id**

The engine ID of the appliance that manages the SNMP agent.

**Type**

String array.

**Notes**

engine\_id cannot be updated.

engine\_id cannot be written.

## queries\_community\_string

### queries\_community\_string

The community string for SNMP queries.

#### Type

String.

#### Create

The default value is *empty*.

## queries\_enable

### queries\_enable

If set to True, SNMP queries are enabled.

#### Type

Bool.

#### Create

The default value is *empty*.

## snmpv3\_queries\_enable

### snmpv3\_queries\_enable

If set to True, SNMPv3 queries are enabled.

#### Type

Bool.

#### Create

The default value is *empty*.

## snmpv3\_queries\_users

### snmpv3\_queries\_users

A list of SNMPv3 queries users.

#### Type

A/An *Queries user* struct array.

#### Create

The default value is *empty*.

## snmpv3\_traps\_enable

### snmpv3\_traps\_enable

If set to True, SNMPv3 traps are enabled.

#### Type

Bool.

#### Create

The default value is *empty*.

## syscontact

### syscontact

The name of the contact person for the appliance. Second value is applicable only for HA pair. Otherwise second value is ignored.

#### Type

String array. The array supports a maximum of 2 element(s).

#### Create

The default value is *empty*.

## sysdescr

### sysdescr

Useful information about the appliance. Second value is applicable only for HA pair. Otherwise second value is ignored.

#### Type

String array. The array supports a maximum of 2 element(s).

#### Create

The default value is *empty*.

## syslocation

### syslocation

The physical location of the appliance. Second value is applicable only for HA pair. Otherwise second value is ignored.

#### Type

String array. The array supports a maximum of 2 element(s).

#### Create

The default value is *empty*.

## sysname

### sysname

The FQDN (Fully Qualified Domain Name) of the appliance. Second value is applicable only for HA pair. Otherwise second value is ignored.

### Type

String array. The array supports a maximum of 2 element(s).

### Create

The default value is *empty*.

## trap\_receivers

### trap\_receivers

A list of trap receivers.

### Type

A/An *Trap receiver* struct array.

### Create

The default value is *empty*.

## traps\_community\_string

### traps\_community\_string

A string the NIOS appliance sends to the management system together with its traps. Note that this community string must match exactly what you enter in the management system.

### Type

String.

Values with leading or trailing whitespace are not valid for this field.

### Create

The default value is *empty*.

## traps\_enable

### traps\_enable

If set to True, SNMP traps are enabled.

### Type

Bool.

### Create

The default value is *empty*.

## 4.31 setting:syslogproxy : Syslog proxy settings.

This structure contains the syslog proxy settings for the Grid Member.

### client\_acls

#### client\_acls

This list controls the IP addresses and networks that are allowed to access the syslog proxy.

#### Type

One of the following: *Address ac* struct, *TSIG ac* struct array.

#### Create

The default value is:

empty

### enable

#### enable

If set to True, the member receives syslog messages from specified devices, such as syslog servers and routers, and then forwards these messages to an external syslog server.

#### Type

Bool.

#### Create

The default value is *False*.

### tcp\_enable

#### tcp\_enable

If set to True, the appliance can receive messages from other devices via TCP.

#### Type

Bool.

#### Create

The default value is *False*.

### tcp\_port

#### tcp\_port

The TCP port the appliance must listen on.

#### Type

Unsigned integer.

**Create**

The default value is *514*.

**udp\_enable****udp\_enable**

If set to *True*, the appliance can receive messages from other devices via UDP.

**Type**

Bool.

**Create**

The default value is *False*.

**udp\_port****udp\_port**

The UDP port the appliance must listen on.

**Type**

Unsigned integer.

**Create**

The default value is *514*.

## 4.32 syslogserver : Syslog server.

This structure contains information about a remote syslog server.

**address****address**

The server address.

**Type**

String.

**Create**

The field is required on creation.

**category\_list****category\_list**

The list of all syslog logging categories.

**Type**

Enum values array.

**Valid values are:**

- ATP
- AUTH\_ACTIVE\_DIRECTORY
- AUTH\_COMMON
- AUTH\_LDAP
- AUTH\_NON\_SYSTEM
- AUTH\_RADIUS
- AUTH\_TACACS
- AUTH\_UI\_API
- CLOUD\_API
- DHCPD
- DNS\_CLIENT
- DNS\_CONFIG
- DNS\_DATABASE
- DNS\_DNSSEC
- DNS\_GENERAL
- DNS\_LAME\_SERVERS
- DNS\_NETWORK
- DNS\_NOTIFY
- DNS\_QUERIES
- DNS\_QUERY\_REWRITE
- DNS\_RESOLVER
- DNS\_RESPONSES
- DNS\_RPZ
- DNS\_SCAVENGING
- DNS\_SECURITY
- DNS\_UNBOUND
- DNS\_UPDATE
- DNS\_UPDATE\_SECURITY
- DNS\_XFER\_IN
- DNS\_XFER\_OUT
- DTC\_HEALTHD
- DTC\_IDNSD

- FTPD
- MS\_AD\_USERS
- MS\_CONNECT\_STATUS
- MS\_DHCP\_CLEAR\_LEASE
- MS\_DHCP\_LEASE
- MS\_DHCP\_SERVER
- MS\_DNS\_SERVER
- MS\_DNS\_ZONE
- MS\_SITES
- NON\_CATEGORIZED
- NTP
- TFTP

### Create

The default value is *empty*.

## certificate

### certificate

Reference to the underlying *X509Certificate* object.

### Type

String.

This field supports nested return fields as described [here](#).

### Notes

certificate cannot be updated.

certificate cannot be written.

## certificate\_token

### certificate\_token

The token returned by *the uploadinit* function call in *object fileop*.

### Type

String.

### Create

Field returned is required if *connection\_type* is "STCP".

### Notes

certificate\_token is not readable.



## connection\_type

### connection\_type

The connection type for communicating with this server.

#### Type

String.

#### Valid values are:

- STCP
- TCP
- UDP

#### Create

The default value is *UDP*.

## local\_interface

### local\_interface

The local interface through which the appliance sends syslog messages to the syslog server.

#### Type

String.

#### Valid values are:

- ANY
- LAN
- MGMT

#### Create

The default value is *ANY*.

## message\_node\_id

### message\_node\_id

Identify the node in the syslog message.

#### Type

String.

#### Valid values are:

- HOSTNAME
- IP\_HOSTNAME
- LAN
- MGMT

## Create

The default value is *LAN*.

## message\_source

### message\_source

The source of syslog messages to be sent to the external syslog server. If set to 'INTERNAL', only messages the appliance generates will be sent to the syslog server.

If set to 'EXTERNAL', the appliance sends syslog messages that it receives from other devices, such as syslog servers and routers.

If set to 'ANY', the appliance sends both internal and external syslog messages.

### Type

String.

### Valid values are:

- ANY
- EXTERNAL
- INTERNAL

## Create

The default value is *ANY*.

## only\_category\_list

### only\_category\_list

The list of selected syslog logging categories. The appliance forwards syslog messages that belong to the selected categories.

### Type

Bool.

## Create

The default value is *False*.

## port

### port

The port this server listens on.

### Type

Unsigned integer.

## Create

The default value is *514*.

## severity

### severity

The severity filter. The appliance sends log messages of the specified severity and above to the external syslog server.

#### Type

String.

#### Valid values are:

- ALERT
- CRIT
- DEBUG
- EMERG
- INFO
- NOTICE
- WARNING

#### Create

The default value is *DEBUG*.

## 4.33 thresholdtrap : The Grid SNMP threshold trap structure.

This structure is used to set the values of the thresholds of the SNMP traps.

## trap\_reset

### trap\_reset

Determines the threshold value to reset the trap.

#### Type

Unsigned integer.

#### Create

The default value is *The default value depends on the trap\_type*.

## trap\_trigger

### trap\_trigger

Determines the threshold value to trigger the trap.

#### Type

Unsigned integer.

#### Create

The default value is *The default value depends on the trap\_type*.

## trap\_type

### trap\_type

Determines the type of a given trap.

### Type

String.

### Valid values are:

- CpuUsage
- DBObjects
- Disk
- ExtStorage
- FDUsage
- IPAMUtilization
- Memory
- NetworkCapacity
- RPZHitRate
- RecursiveClients
- Reporting
- ReportingVolume
- Rootfs
- SwapUsage
- TcpUdpFloodAlertRate
- TcpUdpFloodDropRate
- ThreatProtectionDroppedTraffic
- ThreatProtectionTotalTraffic

### Create

The field is required on creation.

## 4.34 trapnotification : The Grid SNMP trap notification structure.

This structure represents the trap notification settings of the Grid and Member objects. The structure determines which trap categories are enabled, and for which trap categories mail notification will be sent.

## enable\_email

### enable\_email

Determines if the email notifications for the given trap are enabled or not.

**Type**

Bool.

**Create**

The default value is *False*.

## enable\_trap

**enable\_trap**

Determines if the trap is enabled or not.

**Type**

Bool.

**Create**

The default value is *True*.

## trap\_type

**trap\_type**

Determines the type of a given trap.

**Type**

String.

**Valid values are:**

- AnalyticsRPZ
- BFD
- BGP
- Backup
- Bloxtools
- CPU
- CaptivePortal
- CiscoISEServer
- Clear
- CloudAPI
- Cluster
- Controld
- DHCP
- DNS
- DNSAttack
- DNSIntegrityCheck

- DNSIntegrityCheckConnection
- Database
- DisconnectedGrid
- Discovery
- DiscoveryConflict
- DiscoveryUnmanaged
- Disk
- DuplicateIP
- ENAT
- FDUsage
- FTP
- Fan
- HA
- HSM
- HTTP
- IFMAP
- IPAMUtilization
- IPMIDevice
- LCD
- LDAPServers
- License
- Login
- MGM
- MSServer
- Memory
- NTP
- Network
- OCSPResponders
- OSPF
- OSPF6
- Outbound
- PowerSupply
- RAID
- RIRSWIP
- RPZHitRate
- RecursiveClients

- Reporting
- RootFS
- SNMP
- SSH
- SerialConsole
- SwapUsage
- Syslog
- System
- TFTP
- Taxii
- ThreatAnalytics
- ThreatProtection

**Create**

The field is required on creation.

## 4.35 trapreceiver : Trap receiver.

This structure contains information about an SNMP trap receiver.

### address

**address**

The address of the trap receiver.

**Type**

String.

**Create**

The default value is *empty*.

### comment

**comment**

A descriptive comment for this trap receiver.

**Type**

String.

Values with leading or trailing whitespace are not valid for this field.

**Create**

The default value is *empty*.

## user

### user

The SNMPv3 user for this trap receiver.

### Type

String.

### Create

The default value is *empty*.

## 4.36 tsigac : TSIG ac.

This struct represents a TSIG key.

## tsig\_key

### tsig\_key

A generated TSIG key. If the external primary server is a NIOS appliance running DNS One 2.x code, this can be set to :2xCOMPAT.

### Type

String.

Values with leading or trailing whitespace are not valid for this field.

### Create

The default value is *empty*.

## tsig\_key\_alg

### tsig\_key\_alg

The TSIG key algorithm.

### Type

String.

### Valid values are:

- HMAC-MD5
- HMAC-SHA256

### Create

The default value is *HMAC-MD5*.



## tsig\_key\_name

### tsig\_key\_name

The name of the TSIG key. If 2.x TSIG compatibility is used, this is set to 'tsig\_xfer' on retrieval, and ignored on insert or update.

#### Type

String.

Values with leading or trailing whitespace are not valid for this field.

#### Create

The default value is *empty*.

#### Notes

tsig\_key\_name is associated with the field *use\_tsig\_key\_name* (see *use flag*).

## use\_tsig\_key\_name

### use\_tsig\_key\_name

Use flag for: tsig\_key\_name

#### Type

Bool.

#### Create

The default value is *False*.

# ADDITIONAL INFORMATION AND EXAMPLES

## 5.1 Examples accessing WAPI using Curl

The following sections demonstrate how to interact with WAPI through **curl** ( see <http://curl.haxx.se/> for more information). This sample code shows you how to create an object, modify it, search for it, and delete it. The sample code uses the network object and assumes that no other networks exist on the appliance.

Use **-k1** in curl to allow connections even if the appliance SSL certificate is not signed by a recognized SSL authority and to force TLS negotiation. If you want to capture the actual traffic, use the **-trace** or **-trace-ascii** options to invoke curl.

These tests assume that the appliance ip is 192.168.1.2, and that you have a valid user name of 'admin' and a password of 'testpw'.

\ at the end of the line means the line was wrapped for documentation purposes but should be joined with the previous line(s) when entering the command in your shell.

Note that some shells can interact with quote characters inside the requests. In case of a failure, consider using the curl **-v** and **-trace-ascii** options to inspect what has been sent to the server to ensure that your shell did not affect the requested data.

### Standard sample code

#### Create a network

To create networks, use a POST request:

```
curl -k1 -u admin:testpw -X POST https://192.168.1.2/wapi/v2.5/network \  
-d network=10.1.0.0/16
```

The server returns a reference of the created network:

```
"network/ZG5zLm5ldHdvcmskMTAuMS4wLjAvMTYvMA:10.1.0.0%2F16"
```

To create another network, send another POST request:

```
curl -k1 -u admin:testpw -X POST https://192.168.1.2/wapi/v2.5/network \  
-d network=10.2.0.0/16
```

## Read a network

To verify that both networks have been created, send a GET request:

```
curl -k1 -u admin:testpw -X GET https://192.168.1.2/wapi/v2.5/network
```

The server returns a list with both networks:

```
[
  {
    "_ref": "network/ZG5zLm5ldHdvcmskMTAuMS4wLjAvMTYvMA:10.1.0.0%2F16",
    "network": "10.1.0.0/16",
    "network_view": "default"
  },
  {
    "_ref": "network/ZG5zLm5ldHdvcmskMTAuMi4wLjAvMTYvMA:10.2.0.0%2F16",
    "network": "10.2.0.0/16",
    "network_view": "default"
  }
]
```

Note that the returned references could be different in your installation. The sample code uses references returned in the above example. Depending on your installation, make sure that you use the references your server returns.

## Modify a network

To modify a network, send a PUT request. Send the following to modify its comment:

```
curl -k1 -u admin:testpw -X PUT \
  https://192.168.1.2/wapi/v2.5/network/ZG5zLm5ldHdvcmskMTAuMS4wLjAvMTYvMA:\
  10.1.0.0%2F16 -d comment='Sample comment'
```

The server still returns the network reference. Note that this could be different from before:

```
"network/ZG5zLm5ldHdvcmskMTAuMS4wLjAvMTYvMA:10.1.0.0%2F16"
```

Check that the network was modified, since comment is not a field that is returned by default add `_return_fields` to the GET request:

```
curl -k1 -u admin:testpw -X GET https://192.168.1.2/wapi/v2.5/network \
  -d _return_fields=network,network_view,comment
```

Note that the 10.1.0.0/16 network has been modified:

```
[
  {
    "_ref": "network/ZG5zLm5ldHdvcmskMTAuMS4wLjAvMTYvMA:10.1.0.0%2F16",
    "comment": "Sample comment",
    "network": "10.1.0.0/16",
    "network_view": "default"
  },
  {
    "_ref": "network/ZG5zLm5ldHdvcmskMTAuMi4wLjAvMTYvMA:10.2.0.0%2F16",
    "network": "10.2.0.0/16",
    "network_view": "default"
  }
]
```

## Search for a network

To find networks with comments that contain the word sample in a case-insensitive way:

```
curl -k1 -u admin:testpw -X GET https://192.168.1.2/wapi/v2.5/network \
  -d comment~:=sample
```

The server returns the network we just modified:

```
[
  {
    "_ref": "network/ZG5zLm5ldHdvcmskMTAuMS4wLjAvMTYvMA:10.1.0.0%2F16",
    "comment": "Sample comment",
    "network": "10.1.0.0/16",
    "network_view": "default"
  }
]
```

If there is no match, the server returns an empty list:

```
curl -k1 -u admin:testpw -X GET https://192.168.1.2/wapi/v2.5/network \
  -d comment~:=nomatch
```

The server returns the following:

```
[]
```

## Delete a network

To delete a network, send a DELETE request using a reference you have retrieved by searching. For example, to delete the networks we created above, send the following:

```
curl -k1 -u admin:testpw -X DELETE \
  https://192.168.1.2/wapi/v2.5/network/ZG5zLm5ldHdvcmskMTAuMS4wLjAvMTYvMA:\
  10.1.0.0%2F16
```

The server returns the reference of the object it just deleted, if the deletion was successful:

```
"network/ZG5zLm5ldHdvcmskMTAuMS4wLjAvMTYvMA:10.1.0.0%2F16"
```

To delete the other network, send the following:

```
curl -k1 -u admin:testpw -X DELETE \
  https://192.168.1.2/wapi/v2.5/network/ZG5zLm5ldHdvcmskMTAuMi4wLjAvMTYvMA:\
  10.2.0.0%2F16
```

Note that both networks have been removed:

```
curl -k1 -u admin:testpw -X GET https://192.168.1.2/wapi/v2.5/network
```

The server returns the following:

```
[]
```

## Create a host record

To create a host record in a specified zone, first send the following request to create the zone:

```
curl -k1 -u admin:testpw -H "Content-Type: application/json" \
-X POST https://192.168.1.2/wapi/v2.5/zone_auth \
-d '{"fqdn": "zone.com}"'
```

Then send the following request to create the host:

```
curl -k1 -u admin:testpw -H "Content-Type: application/json" \
-X POST https://192.168.1.2/wapi/v2.5/record:host -d \
'{"ipv4addrs":[{"ipv4addr":"10.222.0.12"}], "name":"host.zone.com}"'
```

Note that it might be necessary to specify the content type explicitly when using the `-d` option in `curl`.

### Schedule an object creation.

To schedule an object creation, use a POST request with the `_schedinfo.scheduled_time` parameter:

```
curl -k1 -u admin:testpw -X POST https://192.168.1.2/wapi/v2.5/network \
-d network=10.1.0.0/16 -d _schedinfo.scheduled_time=1367752903
```

The server returns a reference of the created scheduled task:

```
"scheduledtask/b251LnF1ZXV1ZF90YXNrJDY:6/PENDING"
```

### Execute a function call.

To execute a function call, use a POST request with the `_function` parameter. For example, first create a network:

```
curl -k1 -u admin:testpw -X POST https://192.168.1.2/wapi/v2.5/network \
-d network=10.1.0.0/16
```

the server will then return a reference to the network that was just created:

```
"network/ZG5zLm5ldHdvcmskMTAuMS4wLjAvMTYvMA:10.1.0.0/16/default"
```

now use this reference to retrieve the next three available /24 networks in this network excluding 10.1.1.0/24 and 10.1.3.0/24:

```
curl -k1 -u admin:testpw -X POST \
https://192.168.1.2/wapi/v2.5/network/ZG5zLm5ldHdvcmskMTAuMS4wLjAvMTYvMA:10.1.0.0\
/16/default?_function=next_available_network -H "Content-Type: application/json" \
-d '{"exclude": ["10.1.1.0/24", "10.1.3.0/24"], "cidr": 24, "num": 3}'
```

The server returns a list of available networks with the above constraints:

```
{
  "networks": [
    "10.1.0.0/24",
    "10.1.2.0/24",
    "10.1.4.0/24"
  ]
}
```

### Uploading a file to the appliance

To upload a file to the appliance, first tell the appliance so:

```
curl -k1 -u admin:testpw -X POST \  
'https://192.168.1.2/wapi/v2.5/fileop?_function=uploadinit'
```

The appliance will return the URL and a token value:

```
{  
  "token": "eJydkMFOwzAMhu9+k.....",  
  "url": "https://192.168.1.2/...."  
}
```

The file can then be uploaded to the specified URL:

```
curl -k1 -u admin:testpw -F name=somefile.txt -F filedata=@somefile.txt \  
'https://192.168.1.2/...'
```

Finally, we need to signal to the appliance that the upload has been completed and that it needs to perform the requested action on the uploaded file. In this example, we will use `setfiledest`:

```
curl -k1 -u admin:testpw -X POST \  
'https://192.168.1.2/wapi/v2.5/fileop?_function=setfiledest' \  
-H "Content-Type: application/json" \  
-d '{ "dest_path": "/somefile.txt", "type": "TFTP_FILE", '  
  ' "token": "eJydkMFOwzAMhu9+k..." }'
```

## Downloading a file from the appliance

To download a file from the appliance, first select what to download. In this example, we will download a backup:

```
curl -k1 -u admin:testpw -X POST \  
'https://192.168.1.2/wapi/v2.5/fileop?_function=getgriddata' \  
-H "Content-Type: application/json" -d '{"type": "BACKUP"}'
```

The appliance will return a token and a URL from which the file should be downloaded:

```
{  
  "token": "eJydUMtuwyAQvO....",  
  "url": "https://192.168.1.2/...."  
}
```

We can then download the file:

```
curl -k1 -u admin:testpw -H "Content-type:application/force-download" -O \  
"https://192.168.1.2/...."
```

After the download has been completed, we can signal to the appliance that the operation is done by calling `dataget-complete` and passing the token we have retrieved in the first step:

```
curl -k1 -u admin:testpw -X POST \  
'https://192.168.1.2/wapi/v2.5/fileop?_function=downloadcomplete' \  
-H "Content-Type: application/json" -d '{ "token": "eJydUMtuwyAQvO+...."}'
```

## Executing a paging request

First insert a zone and some A records:

```

curl -k1 -u admin:testpw -X POST https://127.0.0.1/wapi/v2.5/zone_auth \
-d fqdn=test1.com
curl -k1 -u admin:testpw -X POST https://127.0.0.1/wapi/v2.5/network \
-d network=10.1.0.0/16
curl -k1 -u admin:testpw -X POST https://127.0.0.1/wapi/v2.5/record:a \
-d ipv4addr=10.1.0.1 -d name=a1.test1.com
curl -k1 -u admin:testpw -X POST https://127.0.0.1/wapi/v2.5/record:a \
-d ipv4addr=10.1.0.2 -d name=a2.test1.com
curl -k1 -u admin:testpw -X POST https://127.0.0.1/wapi/v2.5/record:a \
-d ipv4addr=10.1.0.3 -d name=a3.test1.com
curl -k1 -u admin:testpw -X POST https://127.0.0.1/wapi/v2.5/record:a \
-d ipv4addr=10.1.0.4 -d name=a4.test1.com
curl -k1 -u admin:testpw -X POST https://127.0.0.1/wapi/v2.5/record:a \
-d ipv4addr=10.1.0.5 -d name=a5.test1.com

```

Then check that all records have been inserted correctly:

```

curl -k1 -u admin:testpw -X GET \
'https://127.0.0.1/wapi/v2.5/record:a?name~=test1.com&_return_fields=name'
[
  {
    "_ref": "record:a/ZG5zLmJpbmRfYSQuXY29tLn3DEwLjEuMC4x:a1.test1.com/default",
    "name": "a1.test1.com"
  },
  {
    "_ref": "record:a/ZG5zLmJpbmRLnRlc3QxLGE1LDEwLjEuMC41:a5.test1.com/default",
    "name": "a5.test1.com"
  },
  {
    "_ref": "record:a/ZG5zLmJpbmRfYSQc3QxLGE0LDEwLjEuMC40:a4.test1.com/default",
    "name": "a4.test1.com"
  },
  {
    "_ref": "record:a/ZG5zLmuY29tLnRlc3QxLGEzLDEwLjEuMC4z:a3.test1.com/default",
    "name": "a3.test1.com"
  },
  {
    "_ref": "record:a/ZG5zLmJpbmRfYSQuX2RLGEyLDEwLjEuMC4y:a2.test1.com/default",
    "name": "a2.test1.com"
  }
]

```

Now request two records at a time:

```

curl -k1 -u admin:testpw -X GET \
'https://127.0.0.1/wapi/v2.5/record:a?name~test1.com&_return_fields=name&_paging=1&_max_results=2&_return_as_object=1'
{
  "next_page_id": "789c5590...4efc1732",
  "result": [
    {
      "_ref": "record:a/ZG5zLmJpbmRfYSQuXY29tLn3DEwLjEuMC4x:a1.test1.com/default",
      "name": "a1.test1.com"
    },
    {
      "_ref": "record:a/ZG5zLmJpbmRLnRlc3QxLGE1LDEwLjEuMC41:a5.test1.com/default",
      "name": "a5.test1.com"
    }
  ]
}

```

```
}
```

The server has returned the first page of results and a `next_page_id` to be used for the next page request. Note that the actual `next_page_id` will not contain periods (.). The periods are used here to shorten the actual ID:

```
curl -k1 -u admin:testpw -X GET \  
'https://127.0.0.1/wapi/v2.5/record:a?_page_id=789c5590...4efc1732'  
{  
  "next_page_id": "789c5590...3e113c3d4d",  
  "result": [  
    {  
      "_ref": "record:a/ZG5zLmJpbmRfYSQc3QxLGE0LDEwLjEuMC40:a4.test1.com/default",  
      "name": "a4.test1.com"  
    },  
    {  
      "_ref": "record:a/ZG5zLmuY29tLnRlc3QxLGEzLDEwLjEuMC4z:a3.test1.com/default",  
      "name": "a3.test1.com"  
    }  
  ]  
}
```

Let's now fetch the last page of results using the `page_id` that was just returned:

```
curl -k1 -u admin:testpw -X GET \  
'https://127.0.0.1/wapi/v2.5/record:a?_page_id=789c5590...3e113c3d4d'  
{  
  "result": [  
    {  
      "_ref": "record:a/ZG5zLmJpbmRfYSQuX2RLGEyLDEwLjEuMC4y:a2.test1.com/default",  
      "name": "a2.test1.com"  
    }  
  ]  
}
```

Note that the server has not returned a `next_page_id` because this was the last page of results.

## XML Sample code

### Create a network

To create networks, use a POST request:

```
curl -k1 -u admin:testpw -X POST -HContent-Type:text/xml --data-binary \  
'<value type="object"><network>10.1.0.0/16</network></value>' \  
https://192.168.1.2/wapi/v2.5/network?_return_type=xml-pretty
```

The server returns a reference of the created network:

```
<?xml version="1.0"?>  
<value>network/ZG5zLm5ldHdvMS4wLjAvMTYvMA:10.1.0.0%2F16</value>
```

To create another network, send another POST request:

```
curl -k1 -u admin:testpw -X POST -HAccept:text/xml -HContent-Type:text/xml \  
--data-binary '<value type="object"><network>10.2.0.0/16</network></value>' \  
https://192.168.1.2/wapi/v2.5/network?_return_type=xml-pretty
```



## Read a network

To verify that both networks have been created, send a GET request:

```
curl -k1 -u admin:testpw -X GET \
https://192.168.1.2/wapi/v2.5/network?_return_type=xml-pretty
```

The server returns a list with both networks:

```
<?xml version="1.0"?>
<list>
  <value type="object">
    <network_view>default</network_view>
    <_ref>network/ZG5zLm5ldHdvMS4wLjAvMTYvMA:10.1.0.0%2F16</_ref>
    <network>10.1.0.0/16</network>
  </value>
  <value type="object">
    <network_view>default</network_view>
    <_ref>network/ZG5zLm5ldHduMi4wLjAvMTYvMA:10.2.0.0%2F16</_ref>
    <network>10.2.0.0/16</network>
  </value>
</list>
```

Note that the returned references could be different in your installation. The sample code uses references returned in the above example. Depending on your installation, make sure that you use the references your server returns.

## Modify a network

To modify a network, send a PUT request. Send the following to modify its comment:

```
curl -k1 -u admin:testpw -X PUT -HAccept:text/xml -HContent-Type:text/xml \
  --data-binary '<value type="object"><comment>Sample comment</comment></value>' \
  https://192.168.1.2/wapi/v2.5/network/ZG5zLm5ldHdvMS4wLjAvMTYvMA:10.1.0.0%2F16? \
  _return_type=xml-pretty
```

The server still returns the network reference. Note that this could be different from before:

```
<?xml version="1.0"?>
<value>network/ZG5zLm5ldHdvMS4wLjAvMTYvMA:10.1.0.0%2F16</value>
```

Check that the network was modified, since comment is not a field that is returned by default add `_return_fields` to the GET request:

```
curl -k1 -u admin:testpw -X GET -HAccept:text/xml \
  https://192.168.1.2/wapi/v2.5/network \
  -d _return_fields=network,network_view,comment -d _return_type=xml-pretty
```

Note that the 10.1.0.0/16 network has been modified:

```
<?xml version="1.0"?>
<list>
  <value type="object">
    <comment>Sample comment</comment>
    <network_view>default</network_view>
    <_ref>network/ZG5zLm5ldHdvMS4wLjAvMTYvMA:10.1.0.0%2F16</_ref>
    <network>10.1.0.0/16</network>
  </value>
  <value type="object">
    <network_view>default</network_view>
```

```
<_ref>network/ZG5zLm5ldHduMi4wLjAvMTYvMA:10.2.0.0%2F16</_ref>
<network>10.2.0.0/16</network>
</value>
</list>
```

## Search for a network

To find networks with comments that contain the word sample in a case-insensitive way:

```
curl -k1 -u admin:testpw -X GET -HAccept:text/xml \
  https://192.168.1.2/wapi/v2.5/network -d comment~:=sample \
  -d _return_type=xml-pretty
```

The server returns the network we just modified:

```
<?xml version="1.0"?>
<list>
  <value type="object">
    <comment>Sample comment</comment>
    <network_view>default</network_view>
    <_ref>network/ZG5zLm5ldHdvcmSkMTAuMS4wLjAvMTYvMA:10.1.0.0%2F16</_ref>
    <network>10.1.0.0/16</network>
  </value>
</list>
```

If there is no match, the server returns an empty list:

```
curl -k1 -u admin:testpw -X GET -HAccept:text/xml \
  https://192.168.1.2/wapi/v2.5/network -d comment~:=nomatch \
  -d _return_type=xml-pretty
```

The server returns the following:

```
<?xml version="1.0"?>
<list>
</list>
```

## Delete a network

To delete a network, send a DELETE request using a reference you have retrieved by searching. For example, to delete the networks we created above, send the following:

```
curl -k1 -u admin:testpw -X DELETE -HAccept:text/xml \
  https://192.168.1.2/wapi/v2.5/network/ZG5zLm5ldHdvcmSkMLjAvMTYvMA:10.1.0.0%2F16 \
  -d _return_type=xml-pretty
```

The server returns the reference of the object it just deleted, if the deletion was successful:

```
<?xml version="1.0"?>
<value>network/ZG5zLm5ldHdvcmSkMLjAvMTYvMA:10.1.0.0%2F16</value>
```

To delete the other network, send the following:

```
curl -k1 -u admin:testpw -X DELETE -HAccept:text/xml \
  https://192.168.1.2/wapi/v2.5/network/ZG5zLm5ldHduMi4wLjAvMTYvMA:10.2.0.0%2F16 \
  -d _return_type=xml-pretty
```

Note that both networks have been removed:

```
curl -k1 -u admin:testpw -X GET -HAccept:text/xml \
https://192.168.1.2/wapi/v2.5/network -d _return_type=xml-pretty
```

The server returns the following:

```
<?xml version="1.0"?>
<list>
</list>
```

## Create a host record

To create a host record in a specified zone, first send the following request to create the zone:

```
curl -k1 -u admin:testpw -H "Content-Type: application/xml" -X POST \
https://192.168.1.2/wapi/v2.5/zone_auth -d \
'<?xml version="1.0"?><value type="object"><fqdn>zone.com</fqdn></value>'
```

Then send the following request to create the host:

```
curl -k1 -u admin:testpw -H "Content-Type: application/xml" -X POST \
https://192.168.1.2/wapi/v2.5/record:host -d \
'<?xml version="1.0"?><value type="object"><name>host.zone.com</name>' \
'<ipv4addrs><list><value type="object"><ipv4addr>10.222.0.12</ipv4addr>' \
'</value></list></ipv4addrs></value>'
```

Note that it might be necessary to specify the content type explicitly when using the -d option in curl.

## Schedule an object creation.

To schedule an object creation, use a POST request with the `_schedinfo.scheduled_time` parameter:

```
curl -k1 -u admin:testpw -X POST -HContent-Type:text/xml --data-binary \
'<value type="object"><network>10.1.0.0/16</network></value>' \
'https://192.168.1.2/wapi/v2.5/network' \
'?_return_type=xml-pretty&_schedinfo.scheduled_time=1367752903'
```

The server returns a reference of the created scheduled task:

```
<?xml version="1.0"?>
<value>scheduledtask/b251LnF1ZXVlZF90YXNrJDA:0/PENDING</value>
```

## Execute a function call.

To execute a function call, use a POST request with the `_function` parameter. For example, first create a network:

```
curl -k1 -u admin:testpw -X POST -HContent-Type:text/xml --data-binary \
'<value type="object"><network>10.2.0.0/16</network></value>' \
https://192.168.1.2/wapi/v2.5/network?_return_type=xml-pretty
```

the server will then return a reference to the network that was just created:

```
<?xml version="1.0"?>
<value>network/ZG5zLm5ldHdvcmskMTAuMS4wLjAvMTYvMA:10.1.0.0/16/default</value>
```

now use this reference to retrieve the next three available /24 networks in this network excluding 10.1.1.0/24 and 10.1.3.0/24:

```
curl -k1 -u admin:testpw -X POST -HContent-Type:text/xml --data-binary \
'<value type="object"><exclude><list><value>10.1.1.0/24</value>' \
'<value>10.1.3.0/24</value></list></exclude><cidr type="int">24</cidr>' \
'<num type="int">3</num></value>' \
'https://192.168.1.2/wapi/v2.5/network/ZG5zLm5ldHdvcm5kaWwMTAuMS4wLjAvMTYvMA:' \
'10.1.0.0/16/default?_function=next_available_network&_return_type=xml-pretty'
```

The server returns a list of available networks with the above constraints:

```
<?xml version="1.0"?>
<value type="object">
<networks> <list>
  <value>10.1.0.0/24</value>
  <value>10.1.2.0/24</value>
  <value>10.1.4.0/24</value>
</list>
</networks></value>
```

## 5.2 Examples using object body requests

The following sections demonstrate how to interact with WAPI via a single entry point.

### Single object body request example

Use a POST request to get the Host record with the name “test.somewhere.com”:

```
https://1.2.3.4/wapi/v2.5/request
```

With a body:

```
{
  "data": {
    "name": "test.somewhere.com"
  },
  "method": "GET",
  "object": "record:host"
}
```

### Multiple object body request example

Use a POST request to get the Host record with the name “test.somewhere.com”, save its reference to the state object and use it for an update operation:

```
https://1.2.3.4/wapi/v2.5/request
```

With a body:

```
[{
  "method": "STATE:ASSIGN",
  "data": {
    "host_name": "test.somewhere.com"
  }
},
{
```

```

    "method": "GET",
    "object": "record:host",
    "data": {
        "name": "##STATE:host_name:##"
    },
    "assign_state": {
        "host_ref": "_ref"
    },
    "enable_substitution": true,
    "discard": true
},
{
    "method": "PUT",
    "object": "##STATE:host_ref:##",
    "enable_substitution": true,
    "data": {
        "comment": "new comment"
    },
    "args": {
        "_return_fields": "comment"
    },
    "assign_state": {
        "updated_comment": "comment"
    },
    "discard": true
},
{
    "method": "STATE:DISPLAY"
}
]

```

Returns with a body:

```

{
    "host_name": "test.somewhere.com",
    "host_ref": "record:host/ZG5...zdA:test.somewhere.com/default",
    "updated_comment": "new comment"
}

```

## Extensible attribute example

Use a POST request to copy extensible attribute “Building” from an existing network to a new one using “assign\_state” to save the value in the state object:

<https://1.2.3.4/wapi/v2.5/request>

With a body:

```

[ {
    "method": "GET",
    "object": "network",
    "data": {
        "network": "10.1.0.0/16"
    },
    "args": {
        "_return_fields+": "extattrs"
    },
}

```

```

    "assign_state": {
      "ea_value": "*Building"
    },
    "discard": true
  },
  {
    "method": "POST",
    "object": "network",
    "data": {
      "network": "20.1.0.0/16",
      "extattrs": {
        "Building": {
          "value": "##STATE:ea_value:##"
        }
      }
    }
  },
  "enable_substitution": true
}
]

```

### 5.3 Valid values for extensible attributes

Extensible attributes are sets of name/value pairs associated with an object. The name and the type of value are defined in the extensible attribute definition.

Objects that support extensible attributes have an **extattrs** field, which is a dictionary that contains the name/value dictionary pairs.

Following is an example of using JSON to encode the extensible attributes field:

```

"extattrs": {
  "attrstring": {"value": "test string"},
  "attrinteger": {"value": -1},
  "attremail": {"value": "test@test.com"},
  "attrdate": {"value": "2011-11-23T11:01:00Z"},
  "attrenum": {"value": "Enum Value"},
}

```

where each attribute has a valid type described by its name.

### 5.4 Extensible attributes inheritance

If inheritance is enabled for this extensible attribute, the following fields are supported in the extensible attribute value object:

```

"attr": {
  "value": <the extattr value>,
  # The following is a read-only field
  "inheritance_source": <reference to the object this EA is inheriting from>,

  # The following are write-only fields
  "inheritance_operation": one of 'INHERIT', 'DELETE' or 'OVERRIDE'
  "descendants_action": {
    "option_delete_ea": one of 'REMOVE' or 'RETAIN'
    "option_with_ea": one of 'CONVERT', 'INHERIT' or 'RETAIN'
  }
}

```

```

    "option_without_ea": one of 'INHERIT' or 'NOT_INHERIT'
  }
}

```

Following is an example of using JSON to insert a set of extensible attributes exercising the above fields:

```

"extattrs": {
  "EName": {
    "descendants_action": {
      "option_with_ea": "RETAIN",
      "option_without_ea": "NOT_INHERIT"},
    "value": "EValue"}}

```

**Note:** For extensible attributes inheritance to work correctly with Host Record object (record:host) use\_for\_ea\_inheritance should be set to true for one of its IP host addresses: IPv4 Host address object (record:host\_ipv4addr) or IPv6 Host address object (record:host\_ipv6addr).

## inheritance\_operation

By default, this field is set to 'OVERRIDE' if it is not specified. If it is set to 'INHERIT', the value field will be ignored or omitted, and the value will be set to inherit from the object's parent.

## inheritance\_source

This is a read-only field. If present, it contains the reference to the object from which the value of the extensible attribute is inherited.

## descendants\_action:option\_delete\_ea

This field determines the action to be taken for the object's children when the extensible attribute is removed. This field is meaningful only when inheritance\_operation is set to 'DELETE'.

If this field is set to 'REMOVE', the extensible attributes of the object's children will also be removed. If it set to 'RETAIN', they will be retained.

## descendants\_action:option\_with\_ea

This field determines the action to be taken for the object's children when the extensible attribute is added or modified. This field is meaningful only when inheritance\_operation is set to 'INHERIT'.

If this field is set to 'CONVERT' and the extensible attribute value of the object's children is the same as that of the parent, the value will change to an inherited attribute. If the value is different, it will not be changed.

If this field is set to 'INHERIT', the extensible attribute value of the object's children will be set to inherit from the parent, regardless of its previous value.

If the field is set to 'RETAIN', the extensible attribute value of the object's children will not be modified.

## descendants\_action:option\_without\_ea

This field determines the action to be taken for the object's children when the extensible attribute is added or modified. This field is meaningful only when inheritance\_operation is set to 'INHERIT' or 'OVERRIDE' and the object's children do not have values set for this extensible attribute.

If this field is set to 'INHERIT', the object's children will have a new extensible attribute added, which is inherited from its parent.

If this field is set to 'NOT\_INHERIT', no changes will be made to the object's children.

## 5.5 Extensible attributes search

Extensible attributes require a special search syntax. Searches for extensible attributes are sent by prefixing the extensible attribute name with an asterisk (\*). Standard search suffixes can be applied to the extensible attribute if they are supported by the attribute type.

For example, a search for all networks that contain a string extensible attribute named 'Building' with a case-insensitive value 'data center' should be sent to the server as follows (using HTTP GET):

```
GET /wapi/v2.5/network?*Building:='Data Center'
```

## 5.6 Extensible attributes update

The extensible attributes field allows +/- to be specified as part of the field name while updating the object, which will respectively add/modify or remove the specified extensible attribute. The appliance returns an error when the specified extensible attribute does not exist. Note that this is supported only when using JSON to access WAPI.

Following is an example of unconditionally removing the "attrstring" and "attrinteger" extensible attributes:

```
"extattrs-": {
  "attrstring": {},
  "attrinteger": {}
}
```

To remove an extensible attribute that has a specific value, the value should be passed to the request as follows:

```
"extattrs-": {
  "attrstring": {"value": "test string"},
}
```

If the specified value is different than the existing value, the appliance returns an error.

Following is an example of adding or updating (if the extensible attribute already exists) the "attrstring" extensible attribute:

```
"extattrs+": {
  "attrstring": {"value": "new string"}
}
```

## 5.7 Glossary

### 32-bit unsigned integers

32-bit unsigned integers range from 0 to 4294967295.



## CIDR

A way to specify an IPv4 netmask using an integer from 0 to 32 and an IPv6 netmask using an integer from 0 to 128.

## Epoch seconds

The number of seconds since midnight UTC on January 1, 1970.

## FQDN

An FQDN consists of the host name followed by the domain name (Example: abc.com).

Unless otherwise specified, FQDNs are limited to 256 characters.

## IPv4 Address

An IPv4 address is a 32-bit number in dotted decimal notation. It consists of four 8-bit groups of decimal digits separated by decimal points (Example: 192.168.1.2).

## IPv6 Address

An IPv6 address is a string that consists of eight groups of four hexadecimal digits in which each group is separated by a colon (:) (Example: 2001:0db8:85a3:0000:0000:8a2e:0370:7334).

Various shortcuts exist to shorten the string representation of an IPv6 address. For example, you can omit the leading zeros of each group and replace one or any number of consecutive groups of 0 value with two colons (::). The previous example can be re-written as 2001:db8:85a3::8a2e:370:7334.

## Override/use flags

If a field has an associated use flag, it becomes effective only if the corresponding use flag is set to True. Otherwise, the default inherited from the “parent” is applied (this could be either the parent or Grid-level object).

When a field is first set to a value and the associated use flag is false, it will be automatically set to true.

## 5.8 Object restrictions

### CSV export

The following objects support CSV import/export:

*adminrole*

### Global search

The following objects support global search:

*ad\_auth\_service* , *admingroup* , *adminrole* , *adminuser* , *member* , *mgm:grid* , *mgm:member* , *mgm:network* , *mgm:networkview* , *namedacl* , *snmpuser*

## Scheduling

The following objects support scheduling:

*ad\_auth\_service* , *admingroup* , *adminrole* , *adminuser* , *member* , *mgm:grid* , *mgm:member* , *mgm:network* , *mgm:networkview* , *namedacl* , *snmpuser*

# WAPI OBJECTS INDEX

## a

ad\_auth\_service, 16  
admingroup, 19  
adminrole, 22  
adminuser, 25

## c

csvimporttask, 32

## e

extensibleattributedef, 39

## f

fileop, 45

## g

grid, 53  
grid:x509certificate, 67

## l

localuser:authservice, 70

## m

member, 72  
member:license, 96  
mgm:grid, 101  
mgm:member, 113  
mgm:monitordata, 119  
mgm:network, 121  
mgm:networkview, 127  
mgm:usermapping, 130

## n

namedacl, 132

## p

permission, 135

## r

request, 142

## s

scheduledtask, 143  
search, 156  
snmpuser, 162

# INDEX

## A

access\_list (in object namedacl), 133  
access\_method (in object admingroup), 19  
action (in object csvimporttask), 33  
action (in struct changedobject), 170  
action (scheduledtask.changed\_objects field), 153  
active\_position (in object member), 73  
ad\_auth\_server (module), 167  
ad\_auth\_service (module), 16  
ad\_domain (in object ad\_auth\_service), 17  
additional\_ip\_list (in object member), 73  
address (in object mgm:network), 122  
address (in object search), 157  
address (in struct addressac), 169  
address (in struct emailsetting), 171  
address (in struct extsyslogbackupserver), 174  
address (in struct setting.email), 200  
address (in struct setting.httpproxyserver), 201  
address (in struct setting.network), 204  
address (in struct syslogserver), 218  
address (in struct trapreceiver), 227  
addressac (module), 169  
admin\_access\_items (in struct setting.security), 208  
admin\_groups (in object adminuser), 26  
admin\_name (in object csvimporttask), 33  
admingroup (module), 19  
adminrole (module), 22  
adminuser (module), 25  
allowed\_object\_types (in object extensibleattributedef), 40  
alternate\_version (in object mgm:grid), 102  
anycast (in struct interface), 176  
approval\_status (in object scheduledtask), 144  
approver (in object scheduledtask), 145  
approver\_comment (in object scheduledtask), 145  
audit\_log\_format (in object grid), 54  
audit\_log\_rolling\_enable (in struct setting.security), 209  
audit\_to\_syslog\_enable (in object grid), 55  
auth\_admin\_group (in object mgm:usermapping), 131  
auth\_port (in struct ad\_auth\_server), 167  
auth\_type (in object adminuser), 26

auth\_user\_name (in object mgm:usermapping), 131  
authentication\_password (in object snmpuser), 163  
authentication\_protocol (in object snmpuser), 163  
auto\_port\_setting\_enabled (in struct physicalportsetting), 193  
auto\_router\_config\_enabled (in struct ipv6setting), 178  
automatic\_restart (in object scheduledtask), 146

## C

category\_list (in struct syslogserver), 218  
certificate (in struct setting.httpproxyserver), 202  
certificate (in struct syslogserver), 220  
certificate\_token (in struct syslogserver), 220  
changed\_objects (in object scheduledtask), 146  
changedobject (module), 169  
chars\_to\_change (in struct setting.password), 206  
cidr\_prefix (in struct ipv6setting), 178  
client\_acls (in struct setting.syslogproxy), 217  
color (in struct setting.securitybanner), 212  
comment (in object ad\_auth\_service), 17  
comment (in object admingroup), 20  
comment (in object adminrole), 23  
comment (in object adminuser), 26  
comment (in object extensibleattributedef), 40  
comment (in object localuser:authservice), 71  
comment (in object member), 74  
comment (in object mgm:grid), 102  
comment (in object mgm:member), 114  
comment (in object mgm:network), 123  
comment (in object mgm:networkview), 127  
comment (in object namedacl), 134  
comment (in object snmpuser), 164  
comment (in struct ad\_auth\_server), 167  
comment (in struct interface), 176  
comment (in struct queriesuser), 196  
comment (in struct setting.httpproxyserver), 202  
comment (in struct trapreceiver), 227  
completed\_members (in object mgm:grid), 103  
config\_addr\_type (in object member), 74  
connection\_status (in object mgm:grid), 103  
connection\_type (in struct syslogserver), 221  
contains\_address (in object mgm:network), 126

csvimporttask (module), 32

## D

default\_value (in object extensibleattributedef), 41  
dependent\_tasks (in object scheduledtask), 146  
descendants\_action (in object extensibleattributedef), 41  
description (in struct memberservicestatus), 185  
description (in struct mgm.monitorentry), 187  
description (in struct servicestatus), 197  
directory\_path (in struct extsyslogbackupserver), 174  
disable (in object admingroup), 20  
disable (in object adminrole), 24  
disable (in object adminuser), 27  
disable (in object mgm:grid), 103  
disable (in object mgm:network), 123  
disable (in object snmpuser), 164  
disabled (in object ad\_auth\_service), 17  
disabled (in object localuser:authservice), 72  
disabled (in struct ad\_auth\_server), 167  
dns\_resolver\_setting (in object grid), 55  
dns\_resolver\_setting (in object member), 75  
domain\_controllers (in object ad\_auth\_service), 18  
dscp (in object grid), 55  
dscp (in object member), 75  
dscp (in struct ipv6setting), 178  
dscp (in struct setting.network), 204  
duid (in object search), 157  
duplex (in struct physicalportsetting), 193

## E

email (in object adminuser), 27  
email\_addresses (in object admingroup), 21  
email\_setting (in object grid), 56  
email\_setting (in object member), 75  
emailsetting (module), 171  
enable (in struct extsyslogbackupserver), 175  
enable (in struct setting.securitybanner), 212  
enable (in struct setting.syslogproxy), 217  
enable\_bgp (in struct interface), 176  
enable\_content\_inspection (in struct setting.httpproxyserver), 202  
enable\_email (in struct trapnotification), 224  
enable\_gui\_api\_for\_lan\_vip (in object grid), 56  
enable\_ha (in object member), 76  
enable\_ha (in object mgm:member), 114  
enable\_lom (in object grid), 56  
enable\_member\_redirect (in object grid), 56  
enable\_member\_redirect (in object member), 76  
enable\_ospf (in struct interface), 177  
enable\_proxy (in struct setting.httpproxyserver), 203  
enable\_recycle\_bin (in object grid), 57  
enable\_ro\_api\_access (in object member), 76  
enable\_trap (in struct trapnotification), 225

enable\_username\_and\_password (in struct setting.httpproxyserver), 203  
enabled (in struct emailsetting), 172  
enabled (in struct ipv6setting), 179  
enabled (in struct lan2portsetting), 180  
enabled (in struct mgmtportsetting), 188  
enabled (in struct setting.email), 201  
encryption (in struct ad\_auth\_server), 168  
end\_time (in object csvimporttask), 34  
engine\_id (in struct setting.snmp), 213  
execute\_now (in object scheduledtask), 147  
execution\_details (in object scheduledtask), 147  
execution\_details\_type (in object scheduledtask), 147  
execution\_status (in object scheduledtask), 148  
execution\_time (in object scheduledtask), 148  
expiration\_status (in object member:license), 97  
expire\_days (in struct setting.password), 206  
expire\_enable (in struct setting.password), 206  
expiry\_date (in object member:license), 97  
exploded\_access\_list (in object namedacl), 134  
extattrs (in object admingroup), 21  
extattrs (in object adminrole), 24  
extattrs (in object adminuser), 27  
extattrs (in object member), 77  
extattrs (in object mgm:grid), 104  
extattrs (in object mgm:member), 115  
extattrs (in object mgm:network), 123  
extattrs (in object mgm:networkview), 128  
extattrs (in object namedacl), 134  
extattrs (in object snmpuser), 165  
extensibleattributedef (module), 39  
extensibleattributedef.descendants (module), 172  
extensibleattributedef.listvalues (module), 174  
external\_syslog\_backup\_servers (in object grid), 57  
external\_syslog\_backup\_servers (in object member), 77  
external\_syslog\_server\_enable (in object grid), 57  
external\_syslog\_server\_enable (in object member), 77  
extsyslogbackupserver (module), 174

## F

file\_name (in object csvimporttask), 34  
file\_size (in object csvimporttask), 34  
fileop (module), 45  
flags (in object extensibleattributedef), 42  
force\_reset\_enable (in struct setting.password), 207  
fqdn (in object search), 158  
fqdn\_or\_ip (in struct ad\_auth\_server), 168

## G

gateway (in struct ipv6setting), 179  
gateway (in struct setting.network), 205  
gm\_host\_name (in object mgm:grid), 104  
gm\_virtual\_ip (in object mgm:grid), 104  
grid (in object mgm:member), 115

grid (in object mgm:monitordata), 120  
grid (in object mgm:network), 124  
grid (in object mgm:networkview), 128  
grid (in object mgm:usermapping), 131  
grid (module), 53  
grid:x509certificate (module), 67  
group (in object permission), 137

## H

ha\_ip\_address (in struct lanhaportsetting), 182  
ha\_port\_setting (in struct lanhaportsetting), 182  
ha\_status (in object mgm:member), 115  
ha\_status (in struct nodeinfo), 189  
hardware\_info (in struct preprovision), 194  
host\_name (in object member), 78  
host\_name (in object mgm:member), 116  
http\_proxy\_server\_setting (in object grid), 58  
http\_redirect\_enable (in struct setting.security), 209  
hwid (in object member:license), 98  
hwid (in struct nodeinfo), 190  
hwmodel (in struct nodeinfo), 190  
hwmodel (in struct preprovisionhardware), 195  
hwplatform (in struct nodeinfo), 190  
hwtype (in struct nodeinfo), 191  
hwtype (in struct preprovisionhardware), 196

## I

id (in object mgm:grid), 105  
id (in object mgm:networkview), 129  
ignore (in object mgm:usermapping), 132  
import\_id (in object csvimporttask), 35  
interface (in struct interface), 177  
interface (module), 176  
ipv4\_address (in object member), 94  
ipv4\_network\_setting (in struct interface), 177  
ipv6\_address (in object member), 94  
ipv6\_network\_setting (in struct interface), 178  
ipv6\_setting (in object member), 78  
ipv6\_static\_routes (in object member), 79  
ipv6setting (module), 178  
is\_container (in object mgm:network), 124  
is\_dscp\_capable (in object member), 79  
is\_grid\_visualization\_visible (in object grid), 58  
is\_ipv4 (in object mgm:network), 124  
is\_master (in object mgm:member), 116  
is\_network\_insight\_task (in object scheduledtask), 149  
is\_strict\_delegate\_mode (in object mgm:grid), 105  
issuer (in object grid:x509certificate), 68

## J

join\_error\_string (in object mgm:grid), 105  
join\_status (in object mgm:grid), 106  
join\_token (in object mgm:grid), 106  
join\_token\_expiration (in object mgm:grid), 107

## K

key (in object member:license), 98  
kind (in object member:license), 98

## L

lan2\_enabled (in object member), 79  
lan2\_physical\_setting (in struct nodeinfo), 191  
lan2\_port\_setting (in object member), 80  
lan2portsetting (module), 180  
lan\_ha\_port\_setting (in struct nodeinfo), 191  
lan\_port\_setting (in struct lanhaportsetting), 182  
lanhaportsetting (module), 181  
last\_sync\_time (in object mgm:grid), 107  
last\_upgrade\_date (in object mgm:grid), 107  
lcd\_input (in object member), 80  
lcd\_input\_enable (in struct setting.security), 209  
level (in struct setting.securitybanner), 212  
licenses (in struct preprovision), 194  
limit (in object member:license), 99  
limit\_context (in object member:license), 99  
lines\_failed (in object csvimporttask), 35  
lines\_processed (in object csvimporttask), 35  
lines\_warning (in object csvimporttask), 36  
list\_values (in object extensibleattributedef), 42  
local\_interface (in struct syslogserver), 221  
localuser:authservice (module), 70  
login\_banner\_enable (in struct setting.security), 209  
login\_banner\_text (in struct setting.security), 210

## M

mac\_address (in object search), 158  
master\_candidate (in object member), 80  
master\_candidate\_enabled (in object mgm:member), 117  
max (in object extensibleattributedef), 42  
member (in object scheduledtask), 149  
member (module), 72  
member.pnodetoken (module), 183  
member:license (module), 96  
member\_service\_communication (in object member), 81  
member\_status (in object mgm:member), 117  
member\_type (in object mgm:member), 117  
memberservicecommunication (module), 184  
memberservicestatus (module), 185  
message (in struct setting.securitybanner), 213  
message\_node\_id (in struct syslogserver), 221  
message\_source (in struct syslogserver), 222  
mgm.monitorentry (module), 187  
mgm:grid (module), 101  
mgm:member (module), 113  
mgm:monitordata (module), 119  
mgm:network (module), 121  
mgm:networkview (module), 127  
mgm:usermapping (module), 130

mgmt\_ipv6addr (in struct lanhaportsetting), 182  
mgmt\_lan (in struct lanhaportsetting), 183  
mgmt\_network\_setting (in struct nodeinfo), 191  
mgmt\_physical\_setting (in struct nodeinfo), 192  
mgmt\_port (in struct ad\_auth\_server), 168  
mgmt\_port\_setting (in object member), 81  
mgmtportsetting (module), 188  
min (in object extensibleattributedef), 43  
monitor\_type (in struct mgm.monitorentry), 187  
monitors (in object mgm:monitordata), 121

## N

name (in object ad\_auth\_service), 18  
name (in object admingroup), 21  
name (in object adminrole), 24  
name (in object adminuser), 28  
name (in object extensibleattributedef), 43  
name (in object grid), 58  
name (in object localuser:authservice), 72  
name (in object mgm:grid), 108  
name (in object mgm:networkview), 129  
name (in object namedacl), 135  
name (in object snmpuser), 165  
name (in struct changedobject), 170  
name (scheduledtask.changed\_objects field), 153  
namedacl (module), 132  
namespace (in object extensibleattributedef), 43  
nat\_external\_ip (in struct nodeinfo), 192  
netmask (in object mgm:network), 125  
network\_setting (in struct lan2portsetting), 180  
network\_view (in object mgm:network), 125  
nic\_failover\_enable\_primary (in struct lan2portsetting), 181  
nic\_failover\_enabled (in struct lan2portsetting), 181  
node\_info (in object member), 81  
nodeinfo (module), 189  
num\_lower\_char (in struct setting.password), 207  
num\_numeric\_char (in struct setting.password), 207  
num\_symbol\_char (in struct setting.password), 207  
num\_upper\_char (in struct setting.password), 208

## O

object (in object permission), 137  
object\_type (in struct changedobject), 170  
object\_type (scheduledtask.changed\_objects field), 154  
objtype (in object search), 158  
on\_error (in object csvimporttask), 36  
only\_category\_list (in struct syslogserver), 222  
operation (in object csvimporttask), 36  
option (in struct memberservicecommunication), 184  
option\_delete\_ea (in struct extensibleattributedef.descendants), 172  
option\_with\_ea (in struct extensibleattributedef.descendants), 173

option\_without\_ea (in struct extensibleattributedef.descendants), 173  
overall\_service\_status (in object mgm:grid), 108

## P

paid\_nios (in struct nodeinfo), 192  
passive\_ha\_arp\_enabled (in object member), 81  
password (in object adminuser), 28  
password (in struct extsyslogbackupserver), 175  
password (in struct setting.httpproxyserver), 203  
password\_min\_length (in struct setting.password), 208  
password\_setting (in object grid), 59  
permission (in object permission), 138  
permission (in struct addressac), 169  
permission (module), 135  
physical\_oid (in struct member.pnodetoken), 183  
physical\_oid (in struct nodeinfo), 192  
physicalportsetting (module), 193  
platform (in object member), 82  
port (in struct extsyslogbackupserver), 175  
port (in struct setting.httpproxyserver), 203  
port (in struct syslogserver), 222  
pre\_provisioning (in object member), 82  
predecessor\_task (in object scheduledtask), 149  
preprovision (module), 194  
preprovisionhardware (module), 195  
preserve\_if\_owns\_delegation (in object member), 83  
primary (in struct ipv6setting), 179  
primary (in struct setting.network), 205  
privacy\_password (in object snmpuser), 165  
privacy\_protocol (in object snmpuser), 166  
properties (in struct changedobject), 171  
protocol (in struct extsyslogbackupserver), 175

## Q

queries\_community\_string (in struct setting.snmp), 214  
queries\_enable (in struct setting.snmp), 214  
queriesuser (module), 196

## R

re\_execute\_task (in object scheduledtask), 150  
relay (in struct emailsetting), 172  
relay (in struct setting.email), 201  
relay\_enabled (in struct emailsetting), 172  
relay\_enabled (in struct setting.email), 201  
reminder\_days (in struct setting.password), 208  
remote\_console\_access\_enable (in object member), 83  
remote\_console\_access\_enable (in struct setting.security), 210  
request (module), 142  
resolvers (in struct setting.dnsresolver), 200  
resource\_type (in object permission), 138  
role (in object adminuser), 31  
role (in object permission), 142

roles (in object admingroup), 22  
router\_id (in object member), 83

## S

scheduled\_time (in object scheduledtask), 150  
scheduledtask (module), 143  
search (module), 156  
search\_domains (in struct setting.dnsresolver), 200  
search\_string (in object search), 162  
secret (in object grid), 59  
security\_access\_enable (in struct setting.security), 210  
security\_access\_enabled (in struct mgmtportsetting), 189  
security\_access\_remote\_console\_enable (in struct setting.security), 210  
security\_banner\_setting (in object grid), 59  
security\_setting (in object grid), 60  
separator (in object csvimporttask), 37  
serial (in object grid:x509certificate), 69  
service (in struct memberservicecommunication), 184  
service (in struct memberservicestatus), 186  
service (in struct servicestatus), 197  
service\_status (in object member), 84  
service\_status (in object mgm:member), 118  
service\_status (in struct nodeinfo), 193  
service\_type\_configuration (in object member), 84  
servicestatus (module), 197  
session\_timeout (in struct setting.security), 211  
setting.dnsresolver (module), 200  
setting.email (module), 200  
setting.httpproxyserver (module), 201  
setting.network (module), 204  
setting.password (module), 206  
setting.security (module), 208  
setting.securitybanner (module), 211  
setting.snmp (module), 213  
setting.syslogproxy (module), 216  
severity (in struct syslogserver), 223  
snmp\_setting (in object grid), 60  
snmp\_setting (in object member), 84  
snmpuser (module), 162  
snmpv3\_queries\_enable (in struct setting.snmp), 214  
snmpv3\_queries\_users (in struct setting.snmp), 214  
snmpv3\_traps\_enable (in struct setting.snmp), 215  
speed (in struct physicalportsetting), 194  
ssh\_perm\_enable (in struct setting.security), 211  
start\_time (in object csvimporttask), 37  
static\_routes (in object member), 85  
status (in object csvimporttask), 38  
status (in struct memberservicestatus), 186  
status (in struct mgm.monitorentry), 188  
status (in struct servicestatus), 199  
subject (in object grid:x509certificate), 69  
submit\_time (in object scheduledtask), 150  
submitter (in object scheduledtask), 151

submitter\_comment (in object scheduledtask), 151  
subnet\_mask (in struct setting.network), 205  
superuser (in object admingroup), 22  
support\_access\_enable (in object member), 85  
support\_access\_enable (in struct setting.security), 211  
support\_access\_info (in object member), 85  
support\_access\_info (in struct setting.security), 211  
sync\_status (in object mgm:grid), 109  
syscontact (in struct setting.snmp), 215  
sysdescr (in struct setting.snmp), 215  
syslocation (in struct setting.snmp), 215  
syslog\_facility (in object grid), 61  
syslog\_proxy\_setting (in object member), 86  
syslog\_servers (in object grid), 61  
syslog\_servers (in object member), 86  
syslog\_size (in object grid), 62  
syslog\_size (in object member), 86  
syslogserver (module), 218  
sysname (in struct setting.snmp), 216

## T

task\_id (in object scheduledtask), 151  
task\_type (in object scheduledtask), 152  
tcp\_enable (in struct setting.syslogproxy), 217  
tcp\_port (in struct setting.syslogproxy), 217  
threshold\_traps (in object grid), 62  
threshold\_traps (in object member), 87  
thresholdtrap (module), 223  
ticket\_number (in object scheduledtask), 152  
time\_zone (in object adminuser), 28  
time\_zone (in object grid), 62  
time\_zone (in object member), 87  
timeout (in object ad\_auth\_service), 18  
token (in struct member.pnodetoken), 183  
token\_exp\_date (in struct member.pnodetoken), 184  
token\_usage\_delay (in object grid), 62  
total\_members (in object mgm:grid), 109  
total\_network\_containers (in object mgm:grid), 109  
total\_networks (in object mgm:grid), 110  
trap\_notifications (in object grid), 63  
trap\_notifications (in object member), 87  
trap\_receivers (in struct setting.snmp), 216  
trap\_reset (in struct thresholdtrap), 223  
trap\_trigger (in struct thresholdtrap), 223  
trap\_type (in struct thresholdtrap), 224  
trap\_type (in struct trapnotification), 225  
trapnotification (module), 224  
trapreceiver (module), 227  
traps\_community\_string (in struct setting.snmp), 216  
traps\_enable (in struct setting.snmp), 216  
tsig\_key (in struct tsigac), 228  
tsig\_key\_alg (in struct tsigac), 228  
tsig\_key\_name (in struct tsigac), 229  
tsigac (module), 228



type (in object extensibleattributedef), 44  
type (in object member:license), 100  
type (in struct changedobject), 171  
type (in struct memberservicecommunication), 185  
type (scheduledtask.changed\_objects field), 154

## U

udp\_enable (in struct setting.syslogproxy), 218  
udp\_port (in struct setting.syslogproxy), 218  
update\_method (in object csvimporttask), 38  
upgrade\_group (in object member), 88  
upgrade\_status (in object mgm:grid), 110  
upgrade\_status\_time (in object mgm:grid), 111  
uptime (in object mgm:member), 118  
use\_dns\_resolver\_setting (in object member), 88  
use\_dscp (in object member), 88  
use\_dscp (in struct ipv6setting), 179  
use\_dscp (in struct setting.network), 205  
use\_email\_setting (in object member), 89  
use\_enable\_member\_redirect (in object member), 89  
use\_external\_syslog\_backup\_servers (in object member),  
89  
use\_lcd\_input (in object member), 90  
use\_mgmt\_port (in struct ad\_auth\_server), 169  
use\_remote\_console\_access\_enable (in object member),  
90  
use\_snmp\_setting (in object member), 90  
use\_support\_access\_enable (in object member), 90  
use\_syslog\_proxy\_setting (in object member), 91  
use\_threshold\_traps (in object member), 91  
use\_time\_zone (in object adminuser), 31  
use\_time\_zone (in object member), 91  
use\_trap\_notifications (in object member), 92  
use\_tsig\_key\_name (in struct tsigac), 229  
use\_v4\_vrrp (in object member), 92  
user (in struct queriesuser), 197  
user (in struct trapreceiver), 228  
user\_name (in object mgm:usermapping), 132  
username (in struct extsyslogbackupserver), 176  
username (in struct setting.httpproxyserver), 204

## V

v6\_mgmt\_network\_setting (in struct nodeinfo), 193  
v6\_network\_setting (in struct lan2portsetting), 181  
valid\_not\_after (in object grid:x509certificate), 69  
valid\_not\_before (in object grid:x509certificate), 70  
value (in struct extensibleattributedef.listvalues), 174  
verify\_cname (in struct setting.httpproxyserver), 204  
version (in object mgm:grid), 111  
vip\_setting (in object member), 92  
virtual\_ip (in object mgm:member), 118  
virtual\_ip (in struct ipv6setting), 180  
virtual\_node (in object mgm:monitordata), 121  
virtual\_oid (in object mgm:member), 119

virtual\_router\_id (in struct lan2portsetting), 181  
vlan\_id (in struct ipv6setting), 180  
vlan\_id (in struct setting.network), 206  
vpn\_enabled (in struct mgmtportsetting), 189  
vpn\_mtu (in object member), 92  
vpn\_port (in object grid), 63