Nomad Secure Variables v1.4.0

## Nomad Secure Variables v1.4.0

Partial API specification for Nomad’s secure variables feature

#### Base URLs:

* {scheme}://{address}:{port}/v1
  + **address** - Default: 127.0.0.1
  + **port** - Default: 4646
  + **scheme** - Default: http
    - http
    - https

Email: Nomad Engineering Web: Nomad Engineering License: Mozilla 2.0

#### Authentication

* API Key (X-Nomad-Token)
  + Parameter Name: **X-Nomad-Token**, in: header.

#### Variable Operations

API Endpoints for users to create, read, update, and delete variable bags from the Nomad secure variables subsystem.

##### ListVars

GET /vars

*List the variable bags*

##### Parameters

| Name | In | Type | Required | Description |
| --- | --- | --- | --- | --- |
| region | query | string | false | Filters results based on the specified region. |
| namespace | query | string | false | Filters results based on the specified namespace. |
| index | query | integer | false | If set, wait until query exceeds given index. Must be provided with WaitParam. |
| wait | query | string | false | Provided with IndexParam to wait for change. |
| stale | query | string | false | If present, results will include stale reads. |
| prefix | query | string | false | Constrains results to jobs that start with the defined prefix |
| per\_page | query | integer | false | Maximum number of results to return. |
| next\_token | query | string | false | Indicates where to start paging for queries that support pagination. |

## Example responses

200 Response

[  
 {  
 "Namespace": "default",  
 "Path": "path/to/var",  
 "CreateIndex": 98,  
 "CreateTime": "2018-02-10T09:30Z",  
 "ModifyIndex": 100,  
 "ModifyTime": "2018-02-11T09:30Z",  
 "Meta": {  
 "userkey1": "some user value",  
 "anotheruserkey": "additional user value"  
 },  
 "Version": 1  
 }  
]

Internal server error

"unexpected EOF"

#### Responses

| Status | Meaning | Description | Schema |
| --- | --- | --- | --- |
| 200 | [OK](https://tools.ietf.org/html/rfc7231#section-6.3.1) | A list of SecureVariableStub objects. | Inline |
| 403 | [Forbidden](https://tools.ietf.org/html/rfc7231#section-6.5.3) | Forbidden | None |
| 500 | [Internal Server Error](https://tools.ietf.org/html/rfc7231#section-6.6.1) | Internal server error | string |

#### Response Schema

Status Code **200**

| Name | Type | Required | Restrictions | Description |
| --- | --- | --- | --- | --- |
| *anonymous* | [[SecureVariableStub](#schemasecurevariablestub)] | false | none | [A SecureVariableStub object contains:- the UserMeta collection- version information- create and modify index and timestamp] |
| » Namespace | string | false | none | Nomad namespace containing the variable. |
| » Path | string | false | none | The path at which the variable is stored. |
| » CreateIndex | [RaftIndex](#schemaraftindex)(int64) | false | read-only | none |
| » CreateTime | [Timestamp](#schematimestamp)(date-time) | false | read-only | none |
| » ModifyIndex | [RaftIndex](#schemaraftindex)(int64) | false | read-only | none |
| » ModifyTime | [Timestamp](#schematimestamp)(date-time) | false | read-only | none |
| » Meta | object | false | none | Collection of user provided key/value pairs. These are stored unencrypted andcan be seen by any user possessing the list permission. |
| »» **additionalProperties** | string | false | none | none |
| » Version | integer | false | none | **RESERVED FOR FUTURE USE** The version index for this secure variable. Currently, all objects will have aversion of 1 |

### Response Headers

| Status | Header | Type | Format | Description |
| --- | --- | --- | --- | --- |
| 200 | X-Nomad-Index | integer |  | A unique identifier representing the current state of the requested resource. On a new Nomad cluster the value of this index starts at 1. |
| 200 | X-Nomad-KnownLeader | boolean |  | Boolean indicating if there is a known cluster leader. |
| 200 | X-Nomad-LastContact | integer | int64 | The time in milliseconds that a server was last contacted by the leader node. |

To perform this operation, you must be authenticated by means of one of the following methods: X-Nomad-Token

##### GetSecureVariable

GET /var/{pathToVariable}

*Fetch a secure variables bag*

##### Parameters

| Name | In | Type | Required | Description |
| --- | --- | --- | --- | --- |
| pathToVariable | path | string | true | Slash-delimited path to the read, store, or delete a variable |

## Example responses

200 Response

{  
 "Namespace": "default",  
 "Path": "path/to/var",  
 "CreateIndex": 98,  
 "CreateTime": "2018-02-10T09:30Z",  
 "ModifyIndex": 100,  
 "ModifyTime": "2018-02-11T09:30Z",  
 "Items": {  
 "secureKey1": "secure value 1",  
 "anothersecurekey": "passw0rd"  
 },  
 "Meta": {  
 "userkey1": "some user value",  
 "anotheruserkey": "additional user value"  
 },  
 "Version": 1  
}

404 Response

"string"

Internal server error

"unexpected EOF"

#### Responses

| Status | Meaning | Description | Schema |
| --- | --- | --- | --- |
| 200 | [OK](https://tools.ietf.org/html/rfc7231#section-6.3.1) | A secure variable bag object. Key-value pairs in the Items map are stored |  |

in an encrypted format. Key-value pairs in the Meta map are stored in the clear and can be used to provide additional information about the secrets stored in the bag, for example: maintainer contact information.|[SecureVariable](#schemasecurevariable)| |403|[Forbidden](https://tools.ietf.org/html/rfc7231#section-6.5.3)|Forbidden|None| |404|[Not Found](https://tools.ietf.org/html/rfc7231#section-6.5.4)|Secure variable not found response.|string| |500|[Internal Server Error](https://tools.ietf.org/html/rfc7231#section-6.6.1)|Internal server error|string|

### Response Headers

| Status | Header | Type | Format | Description |
| --- | --- | --- | --- | --- |
| 200 | X-Nomad-Index | integer |  | A unique identifier representing the current state of the requested resource. On a new Nomad cluster the value of this index starts at 1. |
| 200 | X-Nomad-KnownLeader | boolean |  | Boolean indicating if there is a known cluster leader. |
| 200 | X-Nomad-LastContact | integer | int64 | The time in milliseconds that a server was last contacted by the leader node. |

To perform this operation, you must be authenticated by means of one of the following methods: X-Nomad-Token

##### UpsertSecureVariable

PUT /var/{pathToVariable}

*Store a secure variable bag*

###### Body parameter

{  
 "Items": {  
 "some\_secret\_key1": "some secret value 1",  
 "some\_secret\_key2": "some secret value 2"  
 },  
 "Meta": {  
 "some\_metadata\_key1": "some metadata value 1",  
 "some\_metadata\_key2": "some metadata value 2"  
 }  
}

##### Parameters

| Name | In | Type | Required | Description |
| --- | --- | --- | --- | --- |
| pathToVariable | path | string | true | Slash-delimited path to the read, store, or delete a variable |
| region | query | string | false | Filters results based on the specified region. |
| namespace | query | string | false | Filters results based on the specified namespace. |
| body | body | [SecureVariable](#schemasecurevariable) | true | none |

## Example responses

Internal server error

"unexpected EOF"

#### Responses

| Status | Meaning | Description | Schema |
| --- | --- | --- | --- |
| 200 | [OK](https://tools.ietf.org/html/rfc7231#section-6.3.1) | The response body will be empty when the variable creation succeeds. The |  |

X-Nomad-Index header will contain the index at which the variable bag was written to the server state.|None| |400|[Bad Request](https://tools.ietf.org/html/rfc7231#section-6.5.1)|Bad request|None| |403|[Forbidden](https://tools.ietf.org/html/rfc7231#section-6.5.3)|Forbidden|None| |500|[Internal Server Error](https://tools.ietf.org/html/rfc7231#section-6.6.1)|Internal server error|string|

### Response Headers

| Status | Header | Type | Format | Description |
| --- | --- | --- | --- | --- |
| 200 | X-Nomad-Index | integer |  | A unique identifier representing the current state of the requested resource. On a new Nomad cluster the value of this index starts at 1. |

To perform this operation, you must be authenticated by means of one of the following methods: X-Nomad-Token

##### DeleteSecureVariable

DELETE /var/{pathToVariable}

*Delete a secure variable bag*

##### Parameters

| Name | In | Type | Required | Description |
| --- | --- | --- | --- | --- |
| pathToVariable | path | string | true | Slash-delimited path to the read, store, or delete a variable |
| region | query | string | false | Filters results based on the specified region. |
| namespace | query | string | false | Filters results based on the specified namespace. |

## Example responses

Internal server error

"unexpected EOF"

#### Responses

| Status | Meaning | Description | Schema |
| --- | --- | --- | --- |
| 200 | [OK](https://tools.ietf.org/html/rfc7231#section-6.3.1) | The response body will be empty for a successful operation. Deleting a |  |

variable bag that does not exist will always succeeed. The X-Nomad-Index header will contain the index at which the variable bag was written to the server state.|None| |400|[Bad Request](https://tools.ietf.org/html/rfc7231#section-6.5.1)|Bad request|None| |403|[Forbidden](https://tools.ietf.org/html/rfc7231#section-6.5.3)|Forbidden|None| |500|[Internal Server Error](https://tools.ietf.org/html/rfc7231#section-6.6.1)|Internal server error|string|

### Response Headers

| Status | Header | Type | Format | Description |
| --- | --- | --- | --- | --- |
| 200 | X-Nomad-Index | integer |  | A unique identifier representing the current state of the requested resource. On a new Nomad cluster the value of this index starts at 1. |

To perform this operation, you must be authenticated by means of one of the following methods: X-Nomad-Token

### Schemas

#### RaftIndex

0

##### Properties

| Name | Type | Required | Restrictions | Description |
| --- | --- | --- | --- | --- |
| *anonymous* | integer(int64) | false | read-only | none |

#### Duration

0

##### Properties

| Name | Type | Required | Restrictions | Description |
| --- | --- | --- | --- | --- |
| *anonymous* | integer(int64) | false | none | none |

#### Timestamp

"2019-08-24T14:15:22Z"

##### Properties

| Name | Type | Required | Restrictions | Description |
| --- | --- | --- | --- | --- |
| *anonymous* | string(date-time) | false | read-only | none |

#### SecureVariableStub

{  
 "Namespace": "default",  
 "Path": "path/to/var",  
 "CreateIndex": 98,  
 "CreateTime": "2018-02-10T09:30Z",  
 "ModifyIndex": 100,  
 "ModifyTime": "2018-02-11T09:30Z",  
 "Meta": {  
 "userkey1": "some user value",  
 "anotheruserkey": "additional user value"  
 },  
 "Version": 1  
}

A SecureVariableStub object contains: - the UserMeta collection - version information - create and modify index and timestamp

##### Properties

| Name | Type | Required | Restrictions | Description |
| --- | --- | --- | --- | --- |
| Namespace | string | false | none | Nomad namespace containing the variable. |
| Path | string | false | none | The path at which the variable is stored. |
| CreateIndex | [RaftIndex](#schemaraftindex) | false | none | Server index at which the object was created. |
| CreateTime | [Timestamp](#schematimestamp) | false | none | Date and time at which the object was created. This is stored as a conveniencefor the operator. |
| ModifyIndex | [RaftIndex](#schemaraftindex) | false | none | Server index at which the object was last modified. If the object has neverbeen modified, ModifyIndex will equal CreateIndex. |
| ModifyTime | [Timestamp](#schematimestamp) | false | none | Server date and time at which the object was last modified. If the object hasnever been modified, ModifyTime will equal CreateTime.This is stored as aconvenience for the operator. |
| Meta | object | false | none | Collection of user provided key/value pairs. These are stored unencrypted andcan be seen by any user possessing the list permission. |
| » **additionalProperties** | string | false | none | none |
| Version | integer | false | none | **RESERVED FOR FUTURE USE** The version index for this secure variable. Currently, all objects will have aversion of 1 |

#### SecureVariable

{  
 "Namespace": "default",  
 "Path": "path/to/var",  
 "CreateIndex": 98,  
 "CreateTime": "2018-02-10T09:30Z",  
 "ModifyIndex": 100,  
 "ModifyTime": "2018-02-11T09:30Z",  
 "Items": {  
 "secureKey1": "secure value 1",  
 "anothersecurekey": "passw0rd"  
 },  
 "Meta": {  
 "userkey1": "some user value",  
 "anotheruserkey": "additional user value"  
 },  
 "Version": 1  
}

A SecureVariable object contains an Items collection, which is encrypted at rest in the Servers’ data files. It also contains a UserMeta collection, which is stored in the clear and available to operators with the list permission.

##### Properties

| Name | Type | Required | Restrictions | Description |
| --- | --- | --- | --- | --- |
| Namespace | string | false | none | Nomad namespace containing the variable. |
| Path | string | false | none | The path at which the variable is stored. |
| CreateIndex | [RaftIndex](#schemaraftindex) | false | none | Server index at which the object was created. |
| CreateTime | [Timestamp](#schematimestamp) | false | none | Date and time at which the object was created. This is stored as a conveniencefor the operator. |
| ModifyIndex | [RaftIndex](#schemaraftindex) | false | none | Server index at which the object was last modified. If the object has neverbeen modified, ModifyIndex will equal CreateIndex. |
| ModifyTime | [Timestamp](#schematimestamp) | false | none | Server date and time at which the object was last modified. If the object hasnever been modified, ModifyTime will equal CreateTime.This is stored as aconvenience for the operator. |
| Items | object | false | none | Collection of key/value pairs to be encrypted at rest. These values can only beretrieved by direct fetch of the variable from its path. |
| » **additionalProperties** | string | false | none | none |
| Meta | object | false | none | Collection of user provided key/value pairs. These are stored unencrypted andcan be seen by any user possessing the list permission. |
| » **additionalProperties** | string | false | none | none |
| Version | integer | false | none | **RESERVED FOR FUTURE USE** The version index for this secure variable. Currently, all objects will have aversion of 1 |