



# **View IPsec security associations**

## REST API reference

NetApp  
September 09, 2025

This PDF was generated from [https://docs.netapp.com/us-en/ontap-restapi-9161/security\\_ipsec\\_security-associations\\_endpoint\\_overview.html](https://docs.netapp.com/us-en/ontap-restapi-9161/security_ipsec_security-associations_endpoint_overview.html) on September 09, 2025. Always check [docs.netapp.com](https://docs.netapp.com) for the latest.

# Table of Contents

|  |    |
|--|----|
| View IPsec security associations . . . . .                       | 1  |
| Security IPsec security-associations endpoint overview . . . . . | 1  |
| Overview . . . . .   | 1  |
| Retrieve IPsec and IKE security associations . . . . .           | 1  |
| Related ONTAP commands . . . . .                                 | 1  |
| Parameters . . . . .   | 1  |
| Response . . . . .   | 4  |
| Error . . . . .  | 6  |
| Definitions . . . . .  | 7  |
| Retrieve an IPsec or IKE security association . . . . .          | 12 |
| Related ONTAP commands . . . . .                                 | 12 |
| Parameters . . . . .   | 12 |
| Response . . . . .   | 13 |
| Error . . . . .  | 16 |
| Definitions . . . . .  | 16 |

# View IPsec security associations

## Security IPsec security-associations endpoint overview

### Overview

- Collection Get: GET security/ipsec/security-associations
- Instance Get: GET security/ipsec/security-associations/uuid

## Retrieve IPsec and IKE security associations

GET /security/ipsec/security-associations

**Introduced In:** 9.8

Retrieves the IPsec and IKE (Internet Key Exchange) security associations.

### Related ONTAP commands

- security ipsec show-ipsecsa
- security ipsec show-ikesa

### Parameters

| Name                                   | Type    | In    | Required | Description                                      |
|--|---------|-------|----------|--|
| ike.version                            | integer | query | False    | Filter by ike.version                            |
| ike.initiator_security_parameter_index | string  | query | False    | Filter by ike.initiator_security_parameter_index |
| ike.is_initiator                       | boolean | query | False    | Filter by ike.is_initiator                       |
| ike.state                              | string  | query | False    | Filter by ike.state                              |
| ike.responder_security_parameter_index | string  | query | False    | Filter by ike.responder_security_parameter_index |
| ike.authentication                     | string  | query | False    | Filter by ike.authentication                     |
| local_address                          | string  | query | False    | Filter by local_address                          |

| Name                                   | Type    | In    | Required | Description   |
|--|---------|-------|----------|---|
| cipher_suite                           | string  | query | False    | Filter by cipher_suite  |
| svm.name                               | string  | query | False    | Filter by svm.name  |
| svm.uuid                               | string  | query | False    | Filter by svm.uuid  |
| uuid                                   | string  | query | False    | Filter by uuid  |
| remote_address                         | string  | query | False    | Filter by remote_address  |
| type                                   | string  | query | False    | Filter by type  |
| policy_name                            | string  | query | False    | Filter by policy_name   |
| ipsec.state                            | string  | query | False    | Filter by ipsec.state   |
| ipsec.inbound.packets                  | integer | query | False    | Filter by ipsec.inbound.packets   |
| ipsec.inbound.offloaded_packets        | integer | query | False    | Filter by ipsec.inbound.offloaded_packets <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> </ul> |
| ipsec.inbound.bytes                    | integer | query | False    | Filter by ipsec.inbound.bytes   |
| ipsec.inbound.offloaded_bytes          | integer | query | False    | Filter by ipsec.inbound.offloaded_bytes <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> </ul>   |
| ipsec.inbound.security_parameter_index | string  | query | False    | Filter by ipsec.inbound.security_parameter_index  |
| ipsec.outbound.bytes                   | integer | query | False    | Filter by ipsec.outbound.bytes  |

| Name                                    | Type          | In    | Required | Description  |
|---|---------------|-------|----------|--|
| ipsec.outbound.offload_packets          | integer       | query | False    | Filter by ipsec.outbound.offload_packets <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> </ul>   |
| ipsec.outbound.packets                  | integer       | query | False    | Filter by ipsec.outbound.packets   |
| ipsec.outbound.security_parameter_index | string        | query | False    | Filter by ipsec.outbound.security_parameter_index  |
| ipsec.outbound.offload_bytes            | integer       | query | False    | Filter by ipsec.outbound.offload_bytes <ul style="list-style-type: none"> <li>• Introduced in: 9.16</li> </ul>   |
| ipsec.action                            | string        | query | False    | Filter by ipsec.action   |
| scope                                   | string        | query | False    | Filter by scope  |
| lifetime                                | integer       | query | False    | Filter by lifetime   |
| node.uuid                               | string        | query | False    | Filter by node.uuid  |
| node.name                               | string        | query | False    | Filter by node.name  |
| fields                                  | array[string] | query | False    | Specify the fields to return.  |
| max_records                             | integer       | query | False    | Limit the number of records returned.  |
| return_records                          | boolean       | query | False    | The default is true for GET calls. When set to false, only the number of records is returned. <ul style="list-style-type: none"> <li>• Default value: 1</li> </ul> |

| Name           | Type          | In    | Required | Description  |
|----------------|---------------|-------|----------|--|
| return_timeout | integer       | query | False    | <p>The number of seconds to allow the call to execute before returning. When iterating over a collection, the default is 15 seconds. ONTAP returns earlier if either max records or the end of the collection is reached.</p> <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul> |
| order_by       | array[string] | query | False    | Order results by specified fields and optional [asc]   |

## Response

Status: 200, Ok

| Name        | Type                             | Description       |
|-------------|----------------------------------|-------------------|
| _links      | <a href="#">_links</a>           |                   |
| error       | <a href="#">error</a>            |                   |
| num_records | integer                          | Number of records |
| records     | array[ <a href="#">records</a> ] |                   |

## Example response

```
{  
  "_links": {  
    "next": {  
      "href": "/api/resourcelink"  
    },  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "error": {  
    "arguments": [  
      {  
        "code": "string",  
        "message": "string"  
      }  
    ],  
    "code": "4",  
    "message": "entry doesn't exist"  
  },  
  "num_records": 1,  
  "records": [  
    {  
      "cipher_suite": "string",  
      "ike": {  
        "authentication": "string",  
        "initiator_security_parameter_index": "string",  
        "responder_security_parameter_index": "string",  
        "state": "string"  
      },  
      "ipsec": {  
        "action": "string",  
        "inbound": {  
          "security_parameter_index": "string"  
        },  
        "outbound": {  
          "security_parameter_index": "string"  
        },  
        "state": "string"  
      },  
      "local_address": "string",  
      "node": {  
        "_links": {  
          "self": {  
            "href": "/api/resourcelink"  
          }  
        }  
      }  
    }  
  ]  
}
```

```

        }
    },
    "name": "node1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"policy_name": "string",
"remote_address": "string",
"scope": "string",
"svm": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"type": "string",
"uuid": "string"
}
]
}

```

## Error

Status: Default, Error

| Name  | Type           | Description |
|-------|----------------|-------------|
| error | returned_error |             |

## Example error

```
{  
  "error": {  
    "arguments": [  
      {  
        "code": "string",  
        "message": "string"  
      }  
    ],  
    "code": "4",  
    "message": "entry doesn't exist",  
    "target": "uuid"  
  }  
}
```

## Definitions

## See Definitions

href

| Name | Type   | Description |
|------|--------|-------------|
| href | string |             |

\_links

| Name | Type                 | Description |
|------|----------------------|-------------|
| next | <a href="#">href</a> |             |
| self | <a href="#">href</a> |             |

error\_arguments

| Name    | Type   | Description      |
|---------|--------|------------------|
| code    | string | Argument code    |
| message | string | Message argument |

error

| Name      | Type                   | Description       |
|-----------|------------------------|-------------------|
| arguments | array[error_arguments] | Message arguments |
| code      | string                 | Error code        |
| message   | string                 | Error message     |

ike

Objects containing parameters specific to IKE (Internet Key Exchange) security association.

| Name                               | Type    | Description  |
|------------------------------------|---------|--|
| authentication                     | string  | Authentication method for internet key exchange protocol.              |
| initiator_security_parameter_index | string  | Initiator's security parameter index for the IKE security association. |
| is_initiator                       | boolean | Indicates whether or not IKE has been initiated by this node.          |

| Name                               | Type    | Description  |
|------------------------------------|---------|--|
| responder_security_parameter_index | string  | Responder's security parameter index for the IKE security association. |
| state                              | string  | State of the IKE connection.   |
| version                            | integer | Internet key exchange protocol version.                                |

## inbound

Status for inbound parameters for the IPsec security association.

| Name                     | Type    | Description  |
|--------------------------|---------|--|
| bytes                    | integer | Number of inbound bytes for the IPsec security association.                        |
| offload_bytes            | integer | Number of inbound bytes processed by offload for the IPsec security association.   |
| offload_packets          | integer | Number of inbound packets processed by offload for the IPsec security association. |
| packets                  | integer | Number of inbound packets for the IPsec security association.                      |
| security_parameter_index | string  | Inbound security parameter index for the IPsec security association.               |

## outbound

Status for outbound parameters for the IPsec security association.

| Name          | Type    | Description   |
|---------------|---------|---|
| bytes         | integer | Number of outbound bytes for the IPsec security association.                      |
| offload_bytes | integer | Number of outbound bytes processed by offload for the IPsec security association. |

| Name                     | Type    | Description   |
|--------------------------|---------|---|
| offload_packets          | integer | Number of outbound packets processed by offload for the IPsec security association. |
| packets                  | integer | Number of outbound packets for the IPsec security association.                      |
| security_parameter_index | string  | Outbound security parameter index for the IPsec security association.               |

## ipsec

Objects containing parameters specific to IPsec security association.

| Name     | Type     | Description  |
|----------|----------|--|
| action   | string   | Action for the IPsec security association.                         |
| inbound  | inbound  | Status for inbound parameters for the IPsec security association.  |
| outbound | outbound | Status for outbound parameters for the IPsec security association. |
| state    | string   | State of the IPsec security association.                           |

## \_links

| Name | Type | Description |
|------|------|-------------|
| self | href |             |

## node

Node with the security association.

| Name   | Type   | Description |
|--------|--------|-------------|
| _links | _links |             |
| name   | string |             |
| uuid   | string |             |

## svm

SVM, applies only to SVM-scoped objects.

| Name   | Type                   | Description   |
|--------|------------------------|---|
| _links | <a href="#">_links</a> |   |
| name   | string                 | The name of the SVM. This field cannot be specified in a PATCH method.              |
| uuid   | string                 | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

## records

Security association object for IPsec security association and IKE (Internet Key Exchange) security association.

| Name           | Type                  | Description   |
|----------------|-----------------------|---|
| cipher_suite   | string                | Cipher suite for the security association.  |
| ike            | <a href="#">ike</a>   | Objects containing parameters specific to IKE (Internet Key Exchange) security association. |
| ipsec          | <a href="#">ipsec</a> | Objects containing parameters specific to IPsec security association.                       |
| lifetime       | integer               | Lifetime for the security association in seconds.   |
| local_address  | string                | Local address of the security association.  |
| node           | <a href="#">node</a>  | Node with the security association.   |
| policy_name    | string                | Policy name for the security association.   |
| remote_address | string                | Remote address of the security association.   |
| scope          | string                | Set to "svm" for interfaces owned by an SVM. Otherwise, set to "cluster".                   |

| Name | Type   | Description   |
|------|--------|---|
| svm  | svm    | SVM, applies only to SVM-scoped objects.                                      |
| type | string | Type of security association, it can be IPsec or IKE (Internet Key Exchange). |
| uuid | string | Unique identifier of the security association.                                |

returned\_error

| Name      | Type                   | Description                                 |
|-----------|------------------------|---|
| arguments | array[error_arguments] | Message arguments                           |
| code      | string                 | Error code                                  |
| message   | string                 | Error message                               |
| target    | string                 | The target parameter that caused the error. |

## Retrieve an IPsec or IKE security association

GET /security/ipsec/security-associations/{uuid}

**Introduced In:** 9.8

Retrieves a specific IPsec or IKE (Internet Key Exchange) security association.

### Related ONTAP commands

- `security ipsec show-ipsecsa`
- `security ipsec show-ikesa`

### Parameters

| Name | Type   | In   | Required | Description                                |
|------|--------|------|----------|--|
| uuid | string | path | True     | UUID of IPsec or IKE security association. |

| Name   | Type          | In    | Required | Description                   |
|--------|---------------|-------|----------|-------------------------------|
| fields | array[string] | query | False    | Specify the fields to return. |

## Response

Status: 200, Ok

| Name           | Type    | Description   |
|----------------|---------|---|
| cipher_suite   | string  | Cipher suite for the security association.  |
| ike            | ike     | Objects containing parameters specific to IKE (Internet Key Exchange) security association. |
| ipsec          | ipsec   | Objects containing parameters specific to IPsec security association.                       |
| lifetime       | integer | Lifetime for the security association in seconds.   |
| local_address  | string  | Local address of the security association.  |
| node           | node    | Node with the security association.   |
| policy_name    | string  | Policy name for the security association.   |
| remote_address | string  | Remote address of the security association.   |
| scope          | string  | Set to "svm" for interfaces owned by an SVM. Otherwise, set to "cluster".                   |
| svm            | svm     | SVM, applies only to SVM-scoped objects.  |
| type           | string  | Type of security association, it can be IPsec or IKE (Internet Key Exchange).               |

| Name | Type   | Description                                    |
|------|--------|--|
| uuid | string | Unique identifier of the security association. |

## Example response

```
{  
  "cipher_suite": "string",  
  "ike": {  
    "authentication": "string",  
    "initiator_security_parameter_index": "string",  
    "responder_security_parameter_index": "string",  
    "state": "string"  
  },  
  "ipsec": {  
    "action": "string",  
    "inbound": {  
      "security_parameter_index": "string"  
    },  
    "outbound": {  
      "security_parameter_index": "string"  
    },  
    "state": "string"  
  },  
  "local_address": "string",  
  "node": {  
    "_links": {  
      "self": {  
        "href": "/api/resourcelink"  
      }  
    },  
    "name": "node1",  
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"  
  },  
  "policy_name": "string",  
  "remote_address": "string",  
  "scope": "string",  
  "svm": {  
    "_links": {  
      "self": {  
        "href": "/api/resourcelink"  
      }  
    },  
    "name": "svml1",  
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"  
  },  
  "type": "string",  
  "uuid": "string"  
}
```

## Error

Status: Default, Error

| Name  | Type           | Description |
|-------|----------------|-------------|
| error | returned_error |             |

### Example error

```
{
  "error": {
    "arguments": [
      {
        "code": "string",
        "message": "string"
      }
    ],
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}
```

## Definitions

## See Definitions

### ike

Objects containing parameters specific to IKE (Internet Key Exchange) security association.

| Name                               | Type    | Description  |
|------------------------------------|---------|--|
| authentication                     | string  | Authentication method for internet key exchange protocol.              |
| initiator_security_parameter_index | string  | Initiator's security parameter index for the IKE security association. |
| is_initiator                       | boolean | Indicates whether or not IKE has been initiated by this node.          |
| responder_security_parameter_index | string  | Responder's security parameter index for the IKE security association. |
| state                              | string  | State of the IKE connection.   |
| version                            | integer | Internet key exchange protocol version.                                |

### inbound

Status for inbound parameters for the IPsec security association.

| Name            | Type    | Description  |
|-----------------|---------|--|
| bytes           | integer | Number of inbound bytes for the IPsec security association.                        |
| offload_bytes   | integer | Number of inbound bytes processed by offload for the IPsec security association.   |
| offload_packets | integer | Number of inbound packets processed by offload for the IPsec security association. |
| packets         | integer | Number of inbound packets for the IPsec security association.                      |

| Name                     | Type   | Description  |
|--------------------------|--------|--|
| security_parameter_index | string | Inbound security parameter index for the IPsec security association. |

## outbound

Status for outbound parameters for the IPsec security association.

| Name                     | Type    | Description   |
|--------------------------|---------|---|
| bytes                    | integer | Number of outbound bytes for the IPsec security association.                        |
| offload_bytes            | integer | Number of outbound bytes processed by offload for the IPsec security association.   |
| offload_packets          | integer | Number of outbound packets processed by offload for the IPsec security association. |
| packets                  | integer | Number of outbound packets for the IPsec security association.                      |
| security_parameter_index | string  | Outbound security parameter index for the IPsec security association.               |

## ipsec

Objects containing parameters specific to IPsec security association.

| Name     | Type     | Description  |
|----------|----------|--|
| action   | string   | Action for the IPsec security association.                         |
| inbound  | inbound  | Status for inbound parameters for the IPsec security association.  |
| outbound | outbound | Status for outbound parameters for the IPsec security association. |
| state    | string   | State of the IPsec security association.                           |

## href

| Name | Type   | Description |
|------|--------|-------------|
| href | string |             |

\_links

| Name | Type | Description |
|------|------|-------------|
| self | href |             |

node

Node with the security association.

| Name   | Type   | Description |
|--------|--------|-------------|
| _links | _links |             |
| name   | string |             |
| uuid   | string |             |

svm

SVM, applies only to SVM-scoped objects.

| Name   | Type   | Description   |
|--------|--------|---|
| _links | _links |   |
| name   | string | The name of the SVM. This field cannot be specified in a PATCH method.              |
| uuid   | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error\_arguments

| Name    | Type   | Description      |
|---------|--------|------------------|
| code    | string | Argument code    |
| message | string | Message argument |

returned\_error

| Name      | Type                   | Description       |
|-----------|------------------------|-------------------|
| arguments | array[error_arguments] | Message arguments |

| Name    | Type   | Description                                 |
|---------|--------|---|
| code    | string | Error code                                  |
| message | string | Error message                               |
| target  | string | The target parameter that caused the error. |

## Copyright information

Copyright © 2025 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

**LIMITED RIGHTS LEGEND:** Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

## Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.