



# Qualys Container Security

## API Release Notes

Version 1.29

August 21, 2023

Qualys Cloud Suite API gives you many ways to integrate your programs and API calls with Qualys capabilities. You'll find all the details in our user guides, available at the time of release. Just log in to your Qualys account and go to Help > Resources.

### **What's New**

[Introducing Qualys Admission Controller for Kubernetes Clusters \(Beta\)](#)

### **Qualys API URL**

The Qualys API URL you should use for API requests depends on the Qualys platform where your account is located.

[Click here to identify your Qualys platform and get the API URL](#)

## Introducing Qualys Admission Controller for Kubernetes Clusters (Beta)

With this release, we are introducing the Qualys admission controller to verify and authenticate the CREATE and UPDATE requests made to the Kubernetes API server. You can create security policies and enforce them on the admission controller to ensure that only valid requests are authorized to the Kubernetes cluster API server.

Here are a few benefits offered by the Qualys admission controller:

- Allows images to deploy only from a trusted registry.
- Allows or denies images with vulnerabilities depending on the vulnerability management policies.
- Adds an extra layer of security and validation for the Kubernetes cluster.

The following new APIs are introduced for to know your clusters, associate registries with a cluster, and show details of the admission controller:

[Show a List of Kubernetes Clusters](#)

[Show Details of a Kubernetes Cluster](#)

[Update a Kubernetes Cluster](#)

[Show Details of a Kubernetes Admission Controller](#)

[Update a Kubernetes Admission Controller](#)

The following policy management APIs have been updated to support policies for the admission controller:

[Create a New Policy](#)

[Show a List of Policies](#)

[Show Details of a Policy](#)

[Update a Policy](#)

[Show Details of the Default Policy \(New API\)](#)

## Show a List of Kubernetes Clusters

|                     |                         |
|---------------------|-------------------------|
| API affected        | /csapi/v1.3/k8sClusters |
| Operator            | GET                     |
| New or Updated APIs | New                     |

Shows a list of Kubernetes clusters available in your account.

### Input Parameters

| Parameter  | Mandatory? | Data Type | Description                                                                                                                                                     |
|------------|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| filter     | Optional   | string    | Filter the list by providing a query using Qualys syntax.<br><br>Refer to the “How to Search” topic in the online help for assistance with creating your query. |
| pageNumber | Optional   | integer   | Specify the page to be returned. Page numbers start with 1.                                                                                                     |
| pageSize   | Optional   | integer   | Specify the number of records per page to be included in the response.                                                                                          |
| sort       | Optional   | string    | Sort the results using a Qualys token.<br><br>Default value: created:desc                                                                                       |

### Sample: List Clusters Available in Your Account

#### API Request:

```
curl -X 'GET'
'<qualys_base_url>/csapi/v1.3/k8sClusters?pageNumber=1&pageSize=50&sort=c
reated%3Adesc'
-H 'accept: application/json'
-H 'Authorization: Bearer <token>'
```

#### Response:

```
{
  "data": [
    {
      "customerUuid": "d046a1ee-a982-d5d2-8381-3537a11a5629",
      "clusterUuid": "11121212-a982-d5d2-8381-3537a11a5629",
      "clusterName": "Cluster12",
```

```
    "registries": [
      {
        "registryUuid": "6129e39e-0338-4cdc-95f3-bad0df808210"
      }
    ],
    "k8sAdmissionControllerUuid": "b34a4150-b9bb-4b16-8748-
08902d04489e",
    "status": "ACTIVE",
    "recordCreated": "1689935661167",
    "recordUpdated": "1689946933162",
    "updatedBy": "user1"
  },
  {
    "customerUuid": "d046alee-a982-d5d2-8381-3537a11a5629",
    "clusterUuid": "88888888-a982-d5d2-8381-3537a11a5629",
    "clusterName": "Cluster8",
    "registries": [
      {
        "registryUuid": "1d5ce0ad-a136-4048-8e22-90a597998bad"
      }
    ],
    "k8sAdmissionControllerUuid": "3ae13c80-3859-48d3-a61f-
efd0bb819292",
    "status": "ACTIVE",
    "recordCreated": "1689928221077",
    "recordUpdated": "1689946655783",
    "updatedBy": "user1"
  },
  ...
],
"count": 23,
"groups": {}
}
```

## Show Details of a Kubernetes Cluster

|                     |                                      |
|---------------------|--------------------------------------|
| API affected        | /csapi/v1.3/k8sClusters/{clusterUid} |
| Operator            | GET                                  |
| New or Updated APIs | New                                  |

Shows the details of a Kubernetes cluster.

### Input Parameter

| Parameter  | Mandatory? | Data Type      | Description                    |
|------------|------------|----------------|--------------------------------|
| clusterUid | Mandatory  | string(\$uuid) | Specify the UUID of a cluster. |

### Sample: Show Details of a Cluster

#### API Request:

```
curl -X 'GET'
'<qualys_base_url>/csapi/v1.3/k8sClusters/88888888-a982-d5d2-8381-3537a11a5629'
-H 'accept: application/json'
-H 'Authorization: Bearer <token>'
```

#### Response:

```
{
  "customerUid": "d046a1ee-a982-d5d2-8381-3537a11a5629",
  "clusterUid": "88888888-a982-d5d2-8381-3537a11a5629",
  "clusterName": "Cluster8",
  "registries": [
    {
      "registryUid": "1d5ce0ad-a136-4048-8e22-90a597998bad"
    }
  ],
  "k8sAdmissionControllerUid": "3ae13c80-3859-48d3-a61f-efd0bb819292",
  "status": "ACTIVE",
  "recordCreated": "1689928221077",
  "recordUpdated": "1689946655783",
  "updatedBy": "user1"
}
```

## Update a Kubernetes Cluster

|                     |                                      |
|---------------------|--------------------------------------|
| API affected        | /csapi/v1.3/k8sClusters/{clusterUid} |
| Operator            | PUT                                  |
| New or Updated APIs | New                                  |

Lets you update a Kubernetes cluster to modify the association with registries.

### Input Parameter

| Parameter  | Mandatory? | Data Type      | Description                         |
|------------|------------|----------------|-------------------------------------|
| clusterUid | Mandatory  | string(\$uuid) | Specify the unique ID of a cluster. |

### Sample: Update Registries Associated with a Cluster

#### API Request:

```
curl -X 'PUT'
'<qualys_base_url>/csapi/v1.3/k8sClusters/88888888-a982-d5d2-8381-
3537a11a5629'
-H 'accept: application/json'
-H 'Authorization: Bearer <token>'
-H 'Content-Type: application/json'
-d '{
  "registries": [
    {
      "registryUuid": "bb9cbc60-50b5-4693-a8d1-839d308d2a2f"
    }
  ]
}'
```

#### Response:

```
{
  "clusterUid ": "88888888-a982-d5d2-8381-3537a11a5629"
}
```

## Show Details of a Kubernetes Admission Controller

|                     |                                            |
|---------------------|--------------------------------------------|
| API affected        | /csapi/v1.3/k8sAdmissionControllers/{uuid} |
| Operator            | GET                                        |
| New or Updated APIs | New                                        |

Shows details of a Kubernetes admission controller.

### Input Parameter

| Parameter | Mandatory? | Data Type      | Description                                            |
|-----------|------------|----------------|--------------------------------------------------------|
| uuid      | Mandatory  | string(\$uuid) | Provide the UUID of a Kubernetes admission controller. |

### Sample: Fetch Details of the Admission Controller

#### API Request:

```
curl -X 'GET'  
'<qualys_base_url>/csapi/v1.3/k8sAdmissionControllers/3ae13c80-3859-48d3-a61f-efd0bb819292'  
-H 'accept: application/json'  
-H 'Authorization: Bearer <token>'
```

#### Response:

```
{  
  "customerUuid": "d046a1ee-a982-d5d2-8381-3537a11a5629",  
  "uuid": "3ae13c80-3859-48d3-a61f-efd0bb819292",  
  "clusterUid": "88888888-a982-d5d2-8381-3537a11a5629",  
  "passthrough": true,  
  "failurePolicy": "Ignore",  
  "dataRetention": 20,  
  "detectedPlatforms": [  
    {  
      "platform": "amd64",  
      "isSupported": false  
    },  
    {  
      "platform": "arm64",  
      "isSupported": true  
    }  
  ],  
  "status": "RUNNING",  
  "version": "1.1.1",  
}
```

```
"created": "1689928229475",  
"updatedBy": "",  
"updated": "1689928241927",  
"lastSynced": "1689928241927"  
}
```



## Update a Kubernetes Admission Controller

|                     |                                            |
|---------------------|--------------------------------------------|
| API affected        | /csapi/v1.3/k8sAdmissionControllers/{uuid} |
| Operator            | PUT                                        |
| New or Updated APIs | New                                        |

Lets you update a Kubernetes admission controller. Currently, you can update only the value for the passthrough mode.

### Input Parameter

| Parameter | Mandatory? | Data Type      | Description                                            |
|-----------|------------|----------------|--------------------------------------------------------|
| uuid      | Mandatory  | string(\$uuid) | Provide the UUID of a Kubernetes admission controller. |

### Sample: Enable the Passthrough Mode for an Admission Controller

#### API Request:

```
curl -X 'PUT'
'<qualys_base_url>/csapi/v1.3/k8sAdmissionControllers/3ae13c80-3859-48d3-
a61f-efd0bb819292'
-H 'accept: application/json'
-H 'Authorization: Bearer <token>'
-H 'Content-Type: application/json'
-d '{
  "passthrough": true
}'
```

#### Response:

```
{
  "uuid ": "3ae13c80-3859-48d3-a61f-efd0bb819292"
}
```

## Show a List of Policies

|                     |                               |
|---------------------|-------------------------------|
| API affected        | /csapi/v1.3/centralizedPolicy |
| Operator            | GET                           |
| New or Updated APIs | Updated                       |

The "assetType" parameter is now renamed "policyType". The policy type for the admission controller is: "K8S\_ADMISSION\_CONTROLLER".

### Sample: List Policies

#### API Request:

```
curl -X 'GET'
'<qualys_base_url>/csapi/v1.3/centralizedPolicy?pageNumber=1&pageSize=50&
sort=created%3Adesc'
-H 'accept: application/json'
-H 'Authorization: Bearer <token>'
```

#### Response:

```
{
  "data": [
    {
      "uuid": "e83007d9-6ba6-4c7b-adbe-1814a6d6a10b",
      "policyName": "org level",
      "description": "",
      "policyMode": "ACTIVE",
      "createdBy": "user1",
      "created": "1692345477947",
      "updatedBy": "user1",
      "updated": "1692345477947",
      "policyType": "K8S_ADMISSION_CONTROLLER",
      "isDefault": true
    },
    {
      "uuid": "545c5e0a-4d77-4e1d-953b-8f1c234fca88",
      "policyName": "Policy_k8s_namespaceLevel",
      "description": "Policy_k8s_namespaceLevel",
      "policyMode": "ACTIVE",
      "createdBy": "user1",
      "created": "1692176350944",
      "updatedBy": "user1",
      "updated": "1692215918699",
      "policyType": "K8S_ADMISSION_CONTROLLER",
      "isDefault": false
    }
  ]
}
```

```
    },  
    {  
      "uuid": "32592ffb-d261-4fa8-80b3-05e595b0b23e",  
      "policyName": "Policy_k8s_clusterLevel",  
      "description": "Policy_k8s_clusterLevel",  
      "policyMode": "ACTIVE",  
      "createdBy": "user1",  
      "created": "1692176000819",  
      "updatedBy": "user1",  
      "updated": "1692215923387",  
      "policyType": "K8S_ADMISSION_CONTROLLER",  
      "isDefault": false  
    }  
    ...  
  ],  
  "count": 7,  
  "groups": {}  
}
```

## Create a New Policy

|                     |                               |
|---------------------|-------------------------------|
| API affected        | /csapi/v1.3/centralizedPolicy |
| Operator            | POST                          |
| New or Updated APIs | Updated                       |

The "assetType" parameter is now renamed "policyType". The policy type for the admission controller is: "K8S\_ADMISSION\_CONTROLLER".

Also, a new parameter, "k8sFilters" has been added to associate the admission controller policy with clusters or namespaces.

## Sample: Create a Namespace-Level Admission Controller Policy

### API Request:

```
curl -X 'POST'
'https:<podurl>/csapi/v1.3/centralizedPolicy'
-H 'accept: application/json'
-H 'Authorization: Bearer <token>'
-H 'Content-Type: application/json'
-d '{
  "policyName": "test1",
  "description": "test1",
  "policyType": "K8S_ADMISSION_CONTROLLER",
  "centralizedPolicyRules": [
    {
      "name": "rule1",
      "type": "IMAGESCAN_VULN_SEVERITYCOUNT",
      "action": "ALLOW",
      "isEnabled": true,
      "stopProcessing": true,
      "sortOrder": 0,
      "metaData": {
        "operator": "GREATER_THAN",
        "threshold": 4,
        "severityLevel": 2
      }
    }
  ],
  "policyMode": "ACTIVE",
  "isDefault": false,
  "tagIds": [],
  "k8sFilters": [
    {
      "namespace": {
        "namespaceUuid": "",
```

```

        "namespaceValue": "kube-flannel1",
        "clusterUid": "0233a30c-6ccb-447c-8694-0e6d9e7e5a83"
      }
    ]
  }

```

#### Response:

```

{
  "uuid": "f825bea2-be63-464c-ae8c-8fb78f4ecdbf"
}

```

## Sample: Create a Default (Organization-Level) Admission Controller Policy

This policy applies to all clusters and their namespaces by default.

#### API Request:

```

curl -X 'POST' \
  '<qualys_base_url>/csapi/v1.3/centralizedPolicy' \
  -H 'accept: application/json' \
  -H 'Authorization: Bearer <token>' \
  -H 'Content-Type: application/json' \
  -d '{
    "policyName": "test-org-level-policy",
    "description": "test-org-level-policy",
    "policyType": "K8S_ADMISSION_CONTROLLER",
    "centralizedPolicyRules": [
      {
        "name": "rule1",
        "type": "IMAGESCAN_VULN_SEVERITYCOUNT",
        "action": "ALLOW",
        "isEnabled": true,
        "stopProcessing": true,
        "sortOrder": 0,
        "metaData": {
          "operator": "GREATER_THAN",
          "threshold": 4,
          "severityLevel": 2
        }
      }
    ],
    "policyMode": "ACTIVE",
    "isDefault": true,
    "tagIds": [],
    "k8sFilters": []
  }'

```

```
}'
```

### Response:

```
{
  "uuid": "33022ad0-b9d0-4160-a0dd-b01aba45ba30"
}
```

## Sample: Create a Cluster-Level Admission Controller Policy

### API Request:

```
curl -X 'POST' \
  '<qualys_base_url>/csapi/v1.3/centralizedPolicy'
-H 'accept: application/json'
-H 'Authorization: Bearer <token>'
-H 'Content-Type: application/json'
-d '{
  "policyName": "cluster_policy_01",
  "description": "cluster_policy_01",
  "policyType": "K8S_ADMISSION_CONTROLLER",
  "centralizedPolicyRules": [
    {
      "name": "testrule",
      "type": "IMAGESCAN_VULN_SEVERITYCOUNT",
      "action": "ALLOW",
      "isEnabled": true,
      "stopProcessing": false,
      "sortOrder": 0,
      "metaData": {
        "operator": "GREATER_THAN",
        "threshold": 4,
        "severityLevel": 2
      }
    }
  ],
  "policyMode": "ACTIVE",
  "isDefault": false,
  "tagIds": [],
  "k8sFilters": [
    {
      "cluster": {
        "clusterUid": "0233a30c-6ccb-447c-8694-0e6d9e7e5a83",
        "clusterName": "ntest-cluster"
      }
    }
  ]
}
```

Response:

```
{  
  "uuid": "1d328061-336f-4279-90eb-25b85bdc3aac"  
}
```

## Show Details of a Policy

|                     |                                          |
|---------------------|------------------------------------------|
| API affected        | /csapi/v1.3/centralizedPolicy/{policyId} |
| Operator            | GET                                      |
| New or Updated APIs | Updated                                  |

The "assetType" parameter is now renamed "policyType". The policy type for the admission controller is: "K8S\_ADMISSION\_CONTROLLER".

Also, a new parameter, "k8sFilters" has been added to associate the admission controller policy with clusters or namespaces.

## Sample: Show Details of a Policy

### API Request:

```
curl -X 'GET'
'<qualys_base_url>/csapi/v1.3/centralizedPolicy/32592ffb-d261-4fa8-80b3-05e595b0b23e'
-H 'accept: application/json'
-H 'Authorization: Bearer <token>'
```

### Response:

```
{
  "uuid": "32592ffb-d261-4fa8-80b3-05e595b0b23e",
  "policyName": "Policy_k8s_clusterLevel",
  "policyType": "K8S_ADMISSION_CONTROLLER",
  "policyMode": "ACTIVE",
  "description": "Policy_k8s_clusterLevel",
  "createdBy": "user1",
  "created": "1692176000819",
  "updatedBy": "user1",
  "updated": "1692215923387",
  "centralizedPolicyRules": [
    {
      "name": "Rule1",
      "type": "IMAGESCAN_VULN_SEVERITYCOUNT",
      "action": "DENY",
      "isEnabled": true,
      "stopProcessing": false,
      "sortOrder": 0,
      "metaData":
        "{\\"operator\\":\\"GREATER_THAN\\",\\"severityLevel\\":1,\\"threshold\\":1}"
    },
    {

```



```
      "name": "Rule3",
      "type": "IMAGESCAN_VULN_SEVERITYCOUNT",
      "action": "ALLOW",
      "isEnabled": true,
      "stopProcessing": false,
      "sortOrder": 0,
      "metaData":
    "{\\"operator\\":\\"GREATER_THAN\\",\\"severityLevel\\":3,\\"threshold\\":\\"1\\"}"
  },
  ],
  "version": 6,
  "isDefault": false,
  "tagIds": null,
  "k8sFilters": [
    {
      "cluster": {
        "clusterUid": "ca47c256-35b9-44d8-8d47-13aa95dbd081",
        "clusterName": "microk8s"
      },
      "namespace": null
    }
  ]
}
```

## Update a Policy

|                     |                                          |
|---------------------|------------------------------------------|
| API affected        | /csapi/v1.3/centralizedPolicy/{policyId} |
| Operator            | PUT                                      |
| New or Updated APIs | Updated                                  |

The "assetType" parameter is now renamed "policyType". The policy type for the admission controller is: "K8S\_ADMISSION\_CONTROLLER".

Also, a new parameter, "k8sFilters" has been added to associate the admission controller policy with clusters or namespaces.

### Sample: Update a Default Policy to the Namespace Level

#### API Request:

```
curl -X 'PUT' \
  '<qualys_base_url>/csapi/v1.3/centralizedPolicy/e83007d9-6ba6-4c7b-
adbe-1814a6d6a10b' \
  -H 'accept: application/json' \
  -H 'Authorization: Bearer <token>' \
  -H 'Content-Type: application/json' \
  -d '{
    "policyName": "org level policy 2",
    "description": "change this policy to the namespace level",
    "policyType": "K8S_ADMISSION_CONTROLLER",
    "centralizedPolicyRules": [
      {
        "name": "r1",
        "type": "IMAGESCAN_VULN_SEVERITYCOUNT",
        "action": "DENY",
        "isEnabled": true,
        "stopProcessing": false,
        "sortOrder": 0,
        "metaData": {
          "operator": "GREATER_THAN",
          "threshold": 1,
          "severityLevel": 1
        }
      }
    ],
    "policyMode": "ACTIVE",
    "isDefault": false,
    "tagIds": [],
    "k8sFilters": [
      {
        "namespace": {
```

```
        "namespaceUuid": "",  
        "namespaceValue": "kubernetes-test",  
        "clusterUid": "0233a30c-6ccb-447c-8694-0e6d9e7e5a83"  
    }  
}  
]  
'
```

Response:

```
{  
  "policyUUID ": "e83007d9-6ba6-4c7b-adbe-1814a6d6a10b"  
}
```

## Show Details of the Default Policy

|                     |                                                          |
|---------------------|----------------------------------------------------------|
| API affected        | /csapi/v1.3/centralizedPolicy/defaultPolicy/{policyType} |
| Operator            | GET                                                      |
| New or Updated APIs | New                                                      |

Shows details of the default policy.

### Input Parameter

| Parameter  | Mandatory? | Data Type | Description                                                                       |
|------------|------------|-----------|-----------------------------------------------------------------------------------|
| policyType | Mandatory  | string    | Specify the policy type. The valid values are: CICD and K8S_ADMISSION_CONTROLLER. |

### Sample: Show Details of the Default Policy for Admission Controller

#### API Request:

```
curl -X 'GET'
'<qualys_base_url>/csapi/v1.3/centralizedPolicy/defaultPolicy/K8S_ADMISSION_CONTROLLER'
-H 'accept: application/json'
-H 'Authorization: Bearer <token>'
```

#### Response:

```
{
  "uuid": "e83007d9-6ba6-4c7b-adbe-1814a6d6a10b",
  "policyName": "org level",
  "policyType": "K8S_ADMISSION_CONTROLLER",
  "policyMode": "ACTIVE",
  "description": "",
  "createdBy": "user1",
  "created": "1692345477947",
  "updatedBy": "user1",
  "updated": "1692345477947",
  "centralizedPolicyRules": [
    {
      "name": "r1",
      "type": "IMAGESCAN_VULN_SEVERITYCOUNT",
      "action": "DENY",
      "isEnabled": true,
      "stopProcessing": false,
      "sortOrder": 0,
      "metaData":
```

```
"{"operator\":"GREATER_THAN","\severityLevel\:1,\threshold\:1}"
  }
],
"version": 1,
"isDefault": true,
>tagIds": null,
"k8sFilters": []
}
```