

# View and create Vscan configuration

ONTAP 9.12.1 REST API reference

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# View and create Vscan configuration

# **Protocols Vscan endpoint overview**

#### Overview

Use Vscan to protect data from being compromised by viruses or other malicious code. Vscan combines best-in-class third party antivirus software with ONTAP features that give you the flexibility you need to control which files get scanned and when. Storage systems offload scanning operations to external servers hosting antivirus software from third party vendors. An Antivirus Connector on the external server handles communications between the storage system and the antivirus software.

### **Examples**

#### Retrieving all of the Vscan configurations

```
# The API:
/api/protocols/vscan
# The call:
curl -X GET "https://<mgmt-
ip>/api/protocols/vscan?fields=*&return records=true&return timeout=15" -H
"accept: application/json"
# The response:
"records": [
    "svm": {
      "uuid": "03ce5c36-f269-11e8-8852-0050568e5298",
      "name": "vs1"
    },
    "enabled": true,
    "scanner pools": [
        "name": "scanner-1",
        "servers": [
          "1.1.1.1",
          "10.72.204.27"
        ],
        "privileged users": [
          "cifs\\u1",
          "cifs\\u2"
        ],
        "role": "primary",
        "cluster": {
```

```
"name": "Cluster1",
      "uuid": "0228714d-f268-11e8-8851-0050568e5298"
    }
  },
    "name": "scanner-2",
    "servers": [
      "1.1.1.1",
      "10.72.204.27"
    ],
    "privileged users": [
     "cifs\\u1",
     "cifs\\u2"
    ],
    "role": "primary",
    "cluster": {
     "name": "Cluster1",
     "uuid": "0228714d-f268-11e8-8851-0050568e5298"
],
"on_access_policies": [
    "name": "default CIFS",
    "vsName": "vs1",
    "enabled": true,
    "mandatory": true,
    "scope": {
      "max file size": 2147483648,
      "include extensions": [
      1,
      "scan without extension": true,
      "scan_readonly_volumes": false,
      "only execute access": false
  },
    "name": "on-access-test1",
    "vsName": "vs1",
    "enabled": false,
    "mandatory": true,
    "scope": {
      "max file size": 10000,
      "exclude paths": [
        "\\dir"
```

```
"include_extensions": [
        "mp*",
       "txt"
      "exclude extensions": [
        "mp*",
       "txt"
      "scan without extension": true,
      "scan readonly volumes": false,
      "only execute access": false
   }
  },
    "name": "on-access-test2",
    "vsName": "vs1",
    "enabled": false,
    "mandatory": true,
    "scope": {
      "max file_size": 10000,
      "exclude paths": [
       "\\dir"
      ],
      "include extensions": [
       "mp*",
       "txt"
      ],
      "exclude extensions": [
       "mp*",
       "txt"
      ],
      "scan without extension": true,
      "scan_readonly_volumes": false,
      "only execute access": false
 }
],
"on_demand_policies": [
    "name": "task-1",
    "scan paths": [
     "/vol1"
    "log path": "/vol1",
    "scope": {
```

```
"max file size": 10000,
        "exclude paths": [
          "/vol1"
        ],
        "include_extensions": [
          "vmdk",
          "mp*"
        ],
        "exclude extensions": [
          "mp3",
         "mp4"
        ],
        "scan without extension": true
      }
    },
      "name": "task-2",
      "scan paths": [
        "/vol1"
      ],
      "log path": "/vol2",
      "scope": {
        "max_file_size": 10000,
        "exclude paths": [
         "/vol2"
        ],
        "include extensions": [
          "vmdk",
          "mp*"
        "exclude extensions": [
          "mp3",
          "mp4"
        "scan without extension": true
    }
  ]
},
    "uuid": "24c2567a-f269-11e8-8852-0050568e5298",
    "name": "vs2"
  },
  "enabled": false,
  "scanner pools": [
```

```
"name": "sp2",
    "servers": [
     "1.1.1.1"
    "privileged_users": [
     "cifs\\u1"
    ],
    "role": "idle"
],
"on access policies": [
    "name": "default CIFS",
    "vsName": "vs2",
    "enabled": true,
    "mandatory": true,
    "scope": {
      "max file size": 2147483648,
      "include extensions": [
      "scan without extension": true,
      "scan readonly volumes": false,
      "only execute access": false
  },
    "name": "ap1",
    "vsName": "vs2",
    "enabled": false,
    "mandatory": true,
    "scope": {
      "max file_size": 2147483648,
      "include extensions": [
        11 * 11
      "scan_without_extension": true,
      "scan readonly volumes": false,
      "only execute access": false
"on demand policies": [
    "name": "t1",
```

#### Retrieving all Vscan configurations for a particular SVM

```
# The API:
/api/protocols/vscan/{svm.uuid}
# The call:
curl -X GET "https://<mgmt-ip>/api/protocols/vscan/24c2567a-f269-11e8-
8852-0050568e5298?fields=*" -H "accept: application/json"
# The response:
"svm": {
  "uuid": "24c2567a-f269-11e8-8852-0050568e5298",
 "name": "vs2"
"enabled": false,
"scanner pools": [
    "name": "sp2",
    "servers": [
     "1.1.1.1"
    "privileged_users": [
     "cifs\\u1"
    "role": "idle"
```

```
"on access policies": [
    "name": "default CIFS",
    "vsName": "vs2",
    "enabled": true,
    "mandatory": true,
    "scope": {
      "max file size": 2147483648,
      "include extensions": [
        11 * 11
      ],
      "scan without extension": true,
      "scan readonly_volumes": false,
      "only execute access": false
  },
    "name": "ap1",
    "vsName": "vs2",
    "enabled": false,
    "mandatory": true,
    "scope": {
      "max file size": 2147483648,
      "include extensions": [
      "scan without extension": true,
      "scan readonly volumes": false,
      "only execute access": false
  }
],
"on demand policies": [
    "name": "t1",
    "scan paths": [
      "/vol1"
    "log path": "/vol1",
    "scope": {
      "max file size": 10737418240,
      "include extensions": [
      "scan without extension": true
```

#### Creating a Vscan configuration

```
# The API:
/api/protocols/vscan
# The call:
curl -X POST "https://<mgmt-ip>/api/protocols/vscan?return records=true"
-H "accept: application/json" -H "Content-Type: application/json" -d "{
\"enabled\": true, \"on access policies\": [ { \"enabled\": true,
\"mandatory\": true, \"name\": \"on-access-test\", \"scope\": {
\"exclude extensions\": [ \"mp*\", \"txt\" ], \"exclude paths\": [
\"\\\vol\" ], \"include extensions\": [ \"mp*\", \"txt\" ],
\"max file size\": 21474, \"only execute access\": false,
\"scan readonly volumes\": false, \"scan without extension\": true } } ],
\"on demand policies\": [ { \"log path\": \"/vol\", \"name\": \"task-1\",
\"scan paths\": [ \"/vol\" ], \"schedule\": { \"name\": \"daily\",
\"uuid\": \"d4984822-17b7-11e9-b450-0050568ecd85\" }, \"scope\": {
\"exclude extensions\": [ \"mp3\", \"mp4\" ], \"exclude paths\": [
"/vol" ], "include extensions": [ <math>"vmdk", \mp*" ],
\"max file size\": 10737, \"scan without extension\": true } } ],
\"scanner pools\": [ { \"cluster\": { \"name\": \"Cluster1\", \"uuid\":
\adjust{1.5} \ad
\"privileged users\": [ \"cifs\\\u1\", \"cifs\\\\u2\" ], \"role\":
\"primary\", \"servers\": [ \"1.1.1.1\", \"10.72.204.27\" ] } ], \"svm\":
{ \"name\": \"vs1\", \"uuid\": \"b103be27-17b8-11e9-b451-0050568ecd85\"
} } "
# The response:
"num records": 1,
"records": [
         "svm": {
         "uuid": "b103be27-17b8-11e9-b451-0050568ecd85",
         "name": "vs1"
         "enabled": true,
         "scanner pools": [
                  "name": "scanner-1",
```

```
"servers": [
      "1.1.1.1",
      "10.72.204.27"
    ],
    "privileged_users": [
      "cifs\\u1",
      "cifs\\u2"
    ],
    "role": "primary",
    "cluster": {
      "name": "Cluster1",
      "uuid": "ab746d77-17b7-11e9-b450-0050568ecd85"
  }
],
"on access policies": [
    "name": "on-access-test",
    "enabled": true,
    "mandatory": true,
    "scope": {
      "max file size": 21474,
      "exclude paths": [
        "\\vol"
      ],
      "include_extensions": [
        "mp*",
       "txt"
      ],
      "exclude extensions": [
        "mp*",
        "txt"
      ],
      "scan_without_extension": true,
      "scan readonly volumes": false,
      "only execute access": false
"on demand policies": [
    "name": "task-1",
    "scan paths": [
     "/vol"
    "log path": "/vol",
```

```
"schedule": {
          "uuid": "d4984822-17b7-11e9-b450-0050568ecd85",
          "name": "daily"
        },
        "scope": {
          "max file size": 10737,
          "exclude paths": [
            " / / "
          ],
          "include extensions": [
            "vmdk",
            "*qm"
          ],
          "exclude extensions": [
            "mp3",
            "mp4"
          ],
          "scan without extension": true
      }
    1
 }
1
}
```

#### Creating multiple Vscan scanner-pools for the specified SVM

```
# The API:
/api/protocols/vscan

# The call:
curl -X POST "https://<mgmt-ip>/api/protocols/vscan?return_records=true"
-H "accept: appication/json" -H "Content-Type: application/json" -d "{
    "scanner_pools\": [ { \"cluster\": { \"name\": \"Cluster1\", \"uuid\":
    \"ab746d77-17b7-11e9-b450-0050568ecd85\" }, \"name\": \"scanner-1\",
    \"privileged_users\": [ \"cifs\\\u1\", \"cifs\\\u2\" ], \"role\":
    \"primary\", \"servers\": [ \"1.1.1.1\", \"10.72.204.27\" ] }, {
    \"cluster\": { \"name\": \"Cluster1\", \"uuid\": \"ab746d77-17b7-11e9-
    b450-0050568ecd85\" }, \"name\": \"scanner-2\", \"privileged_users\": [
    \"cifs\\\u3\", \"cifs\\\u4\" ], \"role\": \"primary\", \"servers\": [
    \"1.1.1.5\", \"10.72.3.27\" ] } ], \"svm\": { \"name\": \"vs1\", \"uuid\":
    \"b103be27-17b8-11e9-b451-0050568ecd85\" }}"

# The response:
{
```

```
"num_records": 1,
"records": [
 {
    "svm": {
    "uuid": "b103be27-17b8-11e9-b451-0050568ecd85",
    "name": "vs1"
    },
    "scanner pools": [
        "name": "scanner-1",
        "servers": [
         "1.1.1.1",
          "10.72.204.27"
        ],
        "privileged users": [
          "cifs\\u1",
         "cifs\\u2"
        "role": "primary",
        "cluster": {
          "name": "Cluster1",
          "uuid": "ab746d77-17b7-11e9-b450-0050568ecd85"
        }
      },
        "name": "scanner-2",
        "servers": [
         "1.1.1.5",
         "10.72.3.27"
        "privileged users": [
         "cifs\\u3",
         "cifs\\u4"
        "role": "primary",
        "cluster": {
          "name": "Cluster1",
          "uuid": "ab746d77-17b7-11e9-b450-0050568ecd85"
 }
]
}
```

```
# The API:
/api/protocols/vscan
# The call:
curl -X POST "https://<mgmt-ip>/api/protocols/vscan?return records=true"
-H "accept: application/json" -H "Content-Type: application/json" -d "{
\"on access policies\": [ { \"enabled\": false, \"mandatory\": true,
\"name\": \"on-access-test11\", \"scope\": { \"exclude extensions\": [
\"mp*\", \"txt\" ], \"exclude paths\": [ \"\\\vol\" ],
\"include extensions\": [ \"mp*\", \"txt\" ], \"max file size\": 214748,
\"only execute access\": false, \"scan readonly volumes\": false,
\"scan without extension\": true } }, { \"enabled\": false, \"mandatory\":
true, \"name\": \"on-access-test10\", \"scope\": { \"exclude extensions\":
[ \"mp*\", \"txt\" ], \"exclude_paths\": [ \"\\\vol\" ],
\"include extensions\": [ \"mp*\", \"txt\" ], \"max file size\": 21474,
\"only execute access\": false, \"scan readonly volumes\": false,
\"scan without extension\": true } ], \"svm\": { \"name\": \"vs1\",
\"uuid\": \"b103be27-17b8-11e9-b451-0050568ecd85\" }}"
# The response:
"num records": 1,
"records": [
      "uuid": "b103be27-17b8-11e9-b451-0050568ecd85",
      "name": "vs1"
    },
    "on access policies": [
        "name": "on-access-test11",
        "enabled": false,
        "mandatory": true,
        "scope": {
          "max file size": 214748,
          "exclude paths": [
           "\\vol"
          ],
          "include extensions": [
            "mp*",
           "txt"
          "exclude extensions": [
            "mp*",
```

```
"txt"
          "scan without extension": true,
          "scan readonly volumes": false,
          "only execute access": false
      },
        "name": "on-access-test10",
        "enabled": false,
        "mandatory": true,
        "scope": {
          "max file size": 21474,
          "exclude paths": [
            "\\vol"
          ],
          "include extensions": [
            "mp*",
            "txt"
          ],
          "exclude extensions": [
            "mp*",
            "txt"
          ],
          "scan without extension": true,
          "scan readonly volumes": false,
          "only execute access": false
      }
  }
1
}
```

#### Creating multiple Vscan On-demand policies for a specified SVM

```
# The API:
/api/protocols/vscan

# The call:
curl -X POST "https://<mgmt-ip>/api/protocols/vscan?return_records=true"
-H "accept: application/json" -H "Content-Type: application/json" -d "{
    \"on_demand_policies\": [ { \"log_path\": \"/vol\", \"name\": \"task-1\",
    \"scan_paths\": [ \"/vol\" ], \"schedule\": { \"name\": \"daily\",
    \"uuid\": \"d4984822-17b7-11e9-b450-0050568ecd85\" }, \"scope\": {
```

```
\"exclude extensions\": [ \"mp3\", \"mp4\" ], \"exclude_paths\": [
\"/vol1\" ], \"include extensions\": [ \"vmdk\", \"mp*\" ],
\"max file size\": 107374, \"scan without extension\": true } }, {
\"log path\": \"/vol\", \"name\": \"task-2\", \"scan paths\": [ \"/vol\"
], \"scope\": { \"exclude extensions\": [ \"mp3\", \"mp4\" ],
\"exclude paths\": [ \"/vol1\" ], \"include extensions\": [ \"vmdk\",
\"mp*\" ], \"max file size\": 107374, \"scan without extension\": true } }
], \"svm\": { \"name\": \"vs1\", \"uuid\": \"b103be27-17b8-11e9-b451-
0050568ecd85\" }}"
# The response:
"num records": 1,
"records": [
    "svm": {
      "uuid": "b103be27-17b8-11e9-b451-0050568ecd85",
      "name": "vs1"
    "on demand policies": [
        "name": "task-1",
        "scan paths": [
         "/vol"
        ],
        "log path": "/vol",
        "schedule": {
          "uuid": "d4984822-17b7-11e9-b450-0050568ecd85",
          "name": "daily"
        },
        "scope": {
          "max file size": 107374,
          "exclude paths": [
           "/vol1"
          ],
          "include extensions": [
            "vmdk",
            "mp*"
          ],
          "exclude extensions": [
            "mp3",
            "mp4"
          "scan without extension": true
        }
      },
```

```
"name": "task-2",
        "scan paths": [
          "/vol"
        ],
        "log path": "/vol",
        "scope": {
          "max file size": 107374,
          "exclude paths": [
           "/vol1"
          ],
          "include extensions": [
            "vmdk",
            "mp*"
          ],
          "exclude extensions": [
            "mp3",
            "mp4"
          "scan without extension": true
  }
]
}
```

#### **Enabling Vscan for a specified SVM**

```
# The API:
/api/protocols/vscan/{svm.uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/protocols/vscan/03ce5c36-f269-11e8-
8852-0050568e5298" -H "accept: application/json" -H "Content-Type:
application/json" -d "{ \"enabled\": true}"
```

#### Clearing the Vscan cache for the specified SVM

```
# The call:
curl -X PATCH "https://<mgmt-ip>/api/protocols/vscan/03ce5c36-f269-11e8-
8852-0050568e5298" -H "accept: application/json" -H "Content-Type:
application/json" -d "{ \"cache_clear\": true}"
```

#### Deleting the Vscan configuration for a specified SVM

```
# The API:
/api/protocols/vscan/{svm.uuid}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/protocols/vscan/03ce5c36-f269-11e8-
8852-0050568e5298" -H "accept: application/json"
```

## Retrieve the Vscan configuration

GET /protocols/vscan

Introduced In: 9.6

Retrieves the Vscan configuration. This includes scanner-pools, On-Access policies, On-Demand policies, and information about whether a Vscan is enabled or disabled on an SVM.

Important notes:

- You can enable only one Vscan configuration at a time for an SVM.
- You can only query using svm.uuid or svm.name.

#### **Related ONTAP commands**

- vserver vscan show
- vserver vscan scanner-pool show
- vserver vscan scanner-pool servers show
- vserver vscan scanner-pool privileged-users show
- vserver vscan on-access-policy show
- vserver vscan on-access-policy file-ext-to-exclude show
- \* vserver vscan on-access-policy file-ext-to-include show
- vserver vscan on-access-policy paths-to-exclude show
- vserver vscan on-demand-task show

#### Learn more

- DOC /protocols/vscan
- DOC /protocols/vscan/{svm.uuid}/scanner-pools

#### **Parameters**

Name	Туре	In	Required	Description
svm.uuid	string	query	False	Filter by svm.uuid
svm.name	string	query	False	Filter by svm.name
on_demand_policies .scan_paths	string	query	False	Filter by on_demand_policies .scan_paths
on_demand_policies .name	string	query	False	Filter by on_demand_policies .name  • maxLength: 256 • minLength: 1
on_demand_policies .scope.scan_without _extension	boolean	query	False	Filter by on_demand_policies .scope.scan_without _extension
on_demand_policies .scope.exclude_exte nsions	string	query	False	Filter by on_demand_policies .scope.exclude_exte nsions
on_demand_policies .scope.include_exte nsions	string	query	False	Filter by on_demand_policies .scope.include_exte nsions
on_demand_policies .scope.exclude_path s	string	query	False	Filter by on_demand_policies .scope.exclude_path s
on_demand_policies .scope.max_file_size	integer	query	False	Filter by on_demand_policies .scope.max_file_siz e  • Max value: 1099511627776 • Min value: 1024
on_demand_policies .schedule.name	string	query	False	Filter by on_demand_policies .schedule.name

Name	Туре	In	Required	Description
on_demand_policies .schedule.uuid	string	query	False	Filter by on_demand_policies .schedule.uuid
on_demand_policies .log_path	string	query	False	Filter by on_demand_policies .log_path
on_access_policies. mandatory	boolean	query	False	Filter by on_access_policies. mandatory
on_access_policies. scope.exclude_exte nsions	string	query	False	Filter by on_access_policies. scope.exclude_exte nsions
on_access_policies. scope.scan_without_ extension	boolean	query	False	Filter by on_access_policies. scope.scan_without _extension
on_access_policies. scope.only_execute _access	boolean	query	False	Filter by on_access_policies. scope.only_execute _access
on_access_policies. scope.include_exten sions	string	query	False	Filter by on_access_policies. scope.include_exten sions
on_access_policies. scope.exclude_path s	string	query	False	Filter by on_access_policies. scope.exclude_path s  • maxLength: 255 • minLength: 1
on_access_policies. scope.scan_readonl y_volumes	boolean	query	False	Filter by on_access_policies. scope.scan_readonl y_volumes

Name	Туре	In	Required	Description
on_access_policies. scope.max_file_size	integer	query	False	Filter by on_access_policies. scope.max_file_size  • Max value: 1099511627776  • Min value: 1024
on_access_policies. name	string	query	False	Filter by on_access_policies. name  • maxLength: 256  • minLength: 1
on_access_policies. enabled	boolean	query	False	Filter by on_access_policies. enabled
scanner_pools.role	string	query	False	Filter by scanner_pools.role
scanner_pools.serve rs	string	query	False	Filter by scanner_pools.serve rs
scanner_pools.privil eged_users	string	query	False	Filter by scanner_pools.privil eged_users
scanner_pools.clust er.name	string	query	False	Filter by scanner_pools.clust er.name
scanner_pools.clust er.uuid	string	query	False	Filter by scanner_pools.clust er.uuid
scanner_pools.name	string	query	False	Filter by scanner_pools.nam e  • maxLength: 256 • minLength: 1
enabled	boolean	query	False	Filter by enabled

Name	Туре	In	Required	Description
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.  • Default value: 1
return_timeout	integer	query	False	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.  • Max value: 120  • Min value: 0  • Default value: 1
order_by	array[string]	query	False	Order results by specified fields and optional [asc

# Response

Status: 200, Ok

Name	Туре	Description
_links	_links	
num_records	integer	Number of records
records	array[vscan]	

```
" links": {
  "next": {
   "href": "/api/resourcelink"
 },
 "self": {
   "href": "/api/resourcelink"
 }
},
"num records": 1,
"records": {
  " links": {
   "self": {
     "href": "/api/resourcelink"
  },
  "on access policies": {
   "name": "on-access-test",
    "scope": {
      "exclude extensions": [
        "mp*",
       "txt"
      ],
      "exclude paths": [
       "\\dir1\\dir2\\name",
       "\\vol\\a b",
       "\\vol\\a,b\\"
      ],
      "include extensions": [
        "mp*",
       "txt"
      ],
      "max file size": 2147483648
    }
  },
  "on demand policies": {
    "log path": "/vol0/report dir",
    "name": "task-1",
    "scan paths": [
     "/vol1/",
     "/vol2/cifs/"
    "schedule": {
      " links": {
```

```
"self": {
        "href": "/api/resourcelink"
     }
   },
    "name": "weekly",
   "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
 },
 "scope": {
    "exclude extensions": [
     "mp3",
     "mp4"
   ],
    "exclude paths": [
     "/vol1/cold-files/",
     "/vol1/cifs/names"
    "include extensions": [
     "vmdk",
     "*qm"
   ],
   "max file size": 10737418240
 }
"scanner pools": {
 "cluster": {
   " links": {
     "self": {
      "href": "/api/resourcelink"
     }
   "name": "cluster1",
   "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
 },
 "name": "scanner-1",
 "privileged users": [
   "cifs\\u1",
   "cifs\\u2"
 ],
 "role": "primary",
 "servers": [
   "1.1.1.1",
   "10.72.204.27",
  "vmwin204-27.fsct.nb"
 1
},
"svm": {
```

```
"_links": {
    "self": {
        "href": "/api/resourcelink"
     }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    }
}
```

#### **Error**

```
Status: Default, Error
```

Name	Туре	Description
error	error	

#### **Example error**

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

## **Definitions**

#### **See Definitions**

href

Name	Туре	Description
href	string	

\_links

Name	Туре	Description
next	href	
self	href	

\_links

Name	Туре	Description
self	href	

#### scope

Name	Туре	Description
exclude_extensions	array[string]	List of file extensions for which scanning is not performed.
exclude_paths	array[string]	List of file paths for which scanning must not be performed.
include_extensions	array[string]	List of file extensions to be scanned.
max_file_size	integer	Maximum file size, in bytes, allowed for scanning.
only_execute_access	boolean	Scan only files opened with execute-access.
scan_readonly_volumes	boolean	Specifies whether or not read- only volume can be scanned.
scan_without_extension	boolean	Specifies whether or not files without any extension can be scanned.

vscan\_on\_access

An On-Access policy that defines the scope of an On-Access scan. Use On-Access scanning to check for

viruses when clients open, read, rename, or close files over CIFS. By default, ONTAP creates an On-Access policy named "default\_CIFS" and enables it for all the SVMs in a cluster.

Name	Туре	Description
enabled	boolean	Status of the On-Access Vscan policy
mandatory	boolean	Specifies if scanning is mandatory. File access is denied if there are no external virus-scanning servers available for virus scanning.
name	string	On-Access policy ame
scope	scope	

## schedule

Schedule of the task.

Name	Туре	Description
_links	_links	
name	string	Job schedule name
uuid	string	Job schedule UUID

#### scope

Name	Туре	Description
exclude_extensions	array[string]	List of file extensions for which scanning is not performed.
exclude_paths	array[string]	List of file paths for which scanning must not be performed.
include_extensions	array[string]	List of file extensions to be scanned.
max_file_size	integer	Maximum file size, in bytes, allowed for scanning.
scan_without_extension	boolean	Specifies whether or not files without any extension can be scanned.

#### vscan\_on\_demand\_policy

Use On-Demand scanning to check files for viruses on a schedule. An On-Demand policy defines the scope of an On-Demand scan.

Name	Туре	Description
log_path	string	The path from the Vserver root where the task report is created.
name	string	On-Demand task name
scan_paths	array[string]	List of paths that need to be scanned.
schedule	schedule	Schedule of the task.
scope	scope	

## cluster\_reference

Name	Туре	Description
_links	_links	
name	string	
uuid	string	

#### scanner\_pool

Scanner pool is a set of attributes which are used to validate and manage connections between clustered ONTAP and external virus-scanning server, or "Vscan server".

Name	Туре	Description
cluster	cluster_reference	
name	string	Specifies the name of the scanner pool. Scanner pool name can be up to 256 characters long and is a string that can only contain any combination of ASCII-range alphanumeric characters a-z, A-Z, 0-9), "_", "-" and ".".

Name	Туре	Description
privileged_users	array[string]	Specifies a list of privileged users. A valid form of privileged user-name is "domain-name\user-name". Privileged user-names are stored and treated as case-insensitive strings. Virus scanners must use one of the registered privileged users for connecting to clustered Data ONTAP for exchanging virus-scanning protocol messages and to access file for scanning, remedying and quarantining operations.  • example: ["cifs\u1", "cifs\u2"]  • Introduced in: 9.10
role	string	<ul> <li>Specifies the role of the scanner pool. The possible values are:</li> <li>primary - Always active.</li> <li>secondary - Active only when none of the primary external virus-scanning servers are connected.</li> <li>idle - Always inactive.</li> </ul>
servers	array[string]	Specifies a list of IP addresses or FQDN for each Vscan server host names which are allowed to connect to clustered ONTAP.  • example: ["1.1.1.1", "10.72.204.27", "vmwin204-27.fsct.nb"]  • Introduced in: 9.10

#### svm

Name	Туре	Description
_links	_links	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

#### vscan

Vscan can be used to protect data from being compromised by viruses or other malicious code. This combines best-in-class third-party antivirus software with ONTAP features that give you the flexibility you need to control which files get scanned and when. Storage systems offload scanning operations to external servers hosting antivirus software from thirdparty vendors. An Antivirus Connector on the external server handles communications between the storage system and the antivirus software.

Name	Туре	Description
_links	_links	
cache_clear	boolean	Discards the cached information of the files that have been successfully scanned. Once the cache is cleared, files are scanned again when they are accessed. PATCH only
enabled	boolean	Specifies whether or not Vscan is enabled on the SVM.
on_access_policies	array[vscan_on_access]	
on_demand_policies	array[vscan_on_demand_policy]	
scanner_pools	array[scanner_pool]	
svm	svm	

#### error\_arguments

Name	Туре	Description
code	string	Argument code
message	string	Message argument

#### error

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

# **Create a Vscan configuration**

POST /protocols/vscan

Introduced In: 9.6

Creates a Vscan configuration, which includes a list of scanner-pools, Vscan On-Access policies and Vscan On-Demand policies. Defines whether the Vscan configuration you create is enabled or disabled for a specified SVM.

#### Important notes:

- You can enable only one Vscan configuration at a time for an SVM.
- There needs to be at least one active scanner-pool and one enabled On-Access policy to enable Vscan successfully.
- By default, a Vscan is enabled when it's created.
- By default, the Vscan On-Access policies created from this endpoint are in the disabled state. You can use
  the On-Access policy PATCH endpoint to enable a particular On-Access policy. In ONTAP 9.6, only one
  Vscan On-Access policy can be enabled and only one Vscan On-Demand policy can be scheduled on an
  SVM.

## Required properties

• svm.uuid or svm.name - Existing SVM in which to create the Vscan configuration.

### **Recommended optional properties**

• scanner\_pools - There must be at least one active scanner-pool for Vscan configuration. Created either through Vscan POST operation or scanner-pools POST operation.

## **Default property values**

If not specified in POST, the following default property value is assigned:

• enabled - true

#### **Related ONTAP commands**

- vserver vscan enable
- vserver vscan scanner-pool create
- vserver vscan scanner-pool apply-policy
- vserver vscan scanner-pool servers add
- \* vserver vscan scanner-pool privileged-users add
- vserver vscan on-access-policy create
- \* vserver vscan on-access-policy file-ext-to-exclude add
- vserver vscan on-access-policy file-ext-to-include add

- vserver vscan on-access-policy paths-to-exclude add
- vserver vscan on-demand-task create

## Learn more

- DOC /protocols/vscan
- DOC /protocols/vscan/{svm.uuid}/scanner-pools

## **Parameters**

Name	Туре	In	Required	Description
return_records	boolean	query	False	The default is false. If set to true, the records are returned.  • Default value:

## **Request Body**

Name	Туре	Description
_links	_links	
cache_clear	boolean	Discards the cached information of the files that have been successfully scanned. Once the cache is cleared, files are scanned again when they are accessed. PATCH only
enabled	boolean	Specifies whether or not Vscan is enabled on the SVM.
on_access_policies	array[vscan_on_access]	
on_demand_policies	array[vscan_on_demand_policy]	
scanner_pools	array[scanner_pool]	
svm	svm	

```
" links": {
  "self": {
    "href": "/api/resourcelink"
  }
},
"on access policies": {
  "name": "on-access-test",
  "scope": {
    "exclude extensions": [
     "mp*",
      "txt"
    ],
    "exclude paths": [
     "\\dir1\\dir2\\name",
     "\\vol\\a b",
     "\\vol\\a,b\\"
    ],
    "include extensions": [
      "mp*",
     "txt"
    ],
    "max file size": 2147483648
},
"on demand policies": {
  "log path": "/vol0/report dir",
  "name": "task-1",
  "scan paths": [
   "/vol1/",
   "/vol2/cifs/"
  ],
  "schedule": {
    " links": {
     "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "weekly",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "scope": {
    "exclude extensions": [
      "mp3",
```

```
"mp4"
      ],
      "exclude paths": [
       "/vol1/cold-files/",
       "/vol1/cifs/names"
      ],
      "include extensions": [
       "vmdk",
       "mp*"
      ],
      "max file size": 10737418240
    }
 } ,
  "scanner pools": {
    "cluster": {
      " links": {
       "self": {
         "href": "/api/resourcelink"
       }
     },
     "name": "cluster1",
     "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    "name": "scanner-1",
    "privileged users": [
     "cifs\\u1",
    "cifs\\u2"
    ],
    "role": "primary",
    "servers": [
     "1.1.1.1",
     "10.72.204.27",
     "vmwin204-27.fsct.nb"
   ]
  },
  "svm": {
   " links": {
     "self": {
       "href": "/api/resourcelink"
     }
    },
    "name": "svm1",
   "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
 }
}
```

## Response

Status: 201, Created

Name	Туре	Description
_links	_links	
num_records	integer	Number of records
records	array[vscan]	

```
" links": {
  "next": {
   "href": "/api/resourcelink"
 },
 "self": {
   "href": "/api/resourcelink"
 }
},
"num records": 1,
"records": {
  " links": {
   "self": {
     "href": "/api/resourcelink"
   }
  },
  "on access policies": {
   "name": "on-access-test",
    "scope": {
      "exclude extensions": [
        "mp*",
       "txt"
      ],
      "exclude paths": [
       "\\dir1\\dir2\\name",
       "\\vol\\a b",
       "\\vol\\a,b\\"
      ],
      "include extensions": [
        "mp*",
       "txt"
      ],
      "max file size": 2147483648
    }
  },
  "on demand policies": {
    "log path": "/vol0/report dir",
    "name": "task-1",
    "scan paths": [
     "/vol1/",
     "/vol2/cifs/"
    "schedule": {
      " links": {
```

```
"self": {
        "href": "/api/resourcelink"
     }
   } ,
    "name": "weekly",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
 },
 "scope": {
    "exclude extensions": [
     "mp3",
     "mp4"
   ],
    "exclude paths": [
     "/vol1/cold-files/",
     "/vol1/cifs/names"
    "include extensions": [
     "vmdk",
     "mp*"
   ],
   "max file size": 10737418240
 }
"scanner pools": {
 "cluster": {
   " links": {
     "self": {
      "href": "/api/resourcelink"
     }
   "name": "cluster1",
   "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
 },
 "name": "scanner-1",
 "privileged users": [
   "cifs\\u1",
   "cifs\\u2"
 ],
 "role": "primary",
 "servers": [
   "1.1.1.1",
   "10.72.204.27",
   "vmwin204-27.fsct.nb"
 1
},
"svm": {
```

```
"_links": {
    "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    }
}
```

#### Headers

Name	Description	Туре
Location	Useful for tracking the resource location	string

## **Error**

```
Status: Default
```

## ONTAP Error Response Codes

Error Code	Description
10027259	A scanner-pool, an On-Access policy, or an On-Demand policy might fail to get created due to either a systematic error or some hardware failure. The error code returned details the failure along with the reason for the failure. For example, if a scanner-pool fails due to an incorrect cluster name, then the error might read: "Failed to create scanner-pool "scanner-1". Reason: "Cluster uuid points to different cluster name instead of the cluster-name supplied.". Retry the operation."
10027260	If a scanner-pool, an On-Access policy or an On-Demand policy specified in the input already exists, then a duplicate error is returned. For example, if a scanner-pool "scanner-1" already exists for an SVM and is again specified in the input, the error message will read: "Failed to create scanner-pool "scanner-1" as the specified entry already exists. Delete the entry and retry the POST operation."
2621462	The specified SVM name is invalid
2621706	The specified svm.uuid is either invalid or belongs to a different SVM

Error Code	Description
10027015	Attempting to enable a Vscan but no active scanner-pool exists for the specified SVM
10027011	Attempting to enable a Vscan for an SVM for which no CIFS server exists
10027023	Attempting to enable a Vscan for an SVM for which no active Vscan On-Access policy exist

Name	Туре	Description
error	error	

## **Example error**

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

## **Definitions**

#### **See Definitions**

href

Name	Туре	Description
href	string	

#### links

Name	Туре	Description
self	href	

#### scope

Name	Туре	Description
exclude_extensions	array[string]	List of file extensions for which scanning is not performed.
exclude_paths	array[string]	List of file paths for which scanning must not be performed.
include_extensions	array[string]	List of file extensions to be scanned.
max_file_size	integer	Maximum file size, in bytes, allowed for scanning.
only_execute_access	boolean	Scan only files opened with execute-access.
scan_readonly_volumes	boolean	Specifies whether or not read- only volume can be scanned.
scan_without_extension	boolean	Specifies whether or not files without any extension can be scanned.

#### vscan\_on\_access

An On-Access policy that defines the scope of an On-Access scan. Use On-Access scanning to check for viruses when clients open, read, rename, or close files over CIFS. By default, ONTAP creates an On-Access policy named "default\_CIFS" and enables it for all the SVMs in a cluster.

Name	Туре	Description
enabled	boolean	Status of the On-Access Vscan policy

Name	Туре	Description
mandatory	boolean	Specifies if scanning is mandatory. File access is denied if there are no external virusscanning servers available for virus scanning.
name	string	On-Access policy ame
scope	scope	

#### schedule

Schedule of the task.

Name	Туре	Description
_links	_links	
name	string	Job schedule name
uuid	string	Job schedule UUID

#### scope

Name	Туре	Description
exclude_extensions	array[string]	List of file extensions for which scanning is not performed.
exclude_paths	array[string]	List of file paths for which scanning must not be performed.
include_extensions	array[string]	List of file extensions to be scanned.
max_file_size	integer	Maximum file size, in bytes, allowed for scanning.
scan_without_extension	boolean	Specifies whether or not files without any extension can be scanned.

vscan\_on\_demand\_policy

Use On-Demand scanning to check files for viruses on a schedule. An On-Demand policy defines the scope of an On-Demand scan.

Name	Туре	Description
log_path	string	The path from the Vserver root where the task report is created.
name	string	On-Demand task name
scan_paths	array[string]	List of paths that need to be scanned.
schedule	schedule	Schedule of the task.
scope	scope	

## cluster\_reference

Name	Туре	Description
_links	_links	
name	string	
uuid	string	

## scanner\_pool

Scanner pool is a set of attributes which are used to validate and manage connections between clustered ONTAP and external virus-scanning server, or "Vscan server".

Name	Туре	Description
cluster	cluster_reference	
name	string	Specifies the name of the scanner pool. Scanner pool name can be up to 256 characters long and is a string that can only contain any combination of ASCII-range alphanumeric characters a-z, A-Z, 0-9), "_", "-" and ".".

Name	Туре	Description
privileged_users	array[string]	Specifies a list of privileged users. A valid form of privileged user-name is "domain-name\user-name". Privileged user-names are stored and treated as case-insensitive strings. Virus scanners must use one of the registered privileged users for connecting to clustered Data ONTAP for exchanging virus-scanning protocol messages and to access file for scanning, remedying and quarantining operations.  • example: ["cifs\u1", "cifs\u2"]  • Introduced in: 9.10
role	string	Specifies the role of the scanner pool. The possible values are:  • primary - Always active.  • secondary - Active only when none of the primary external virus-scanning servers are connected.  • idle - Always inactive.
servers	array[string]	Specifies a list of IP addresses or FQDN for each Vscan server host names which are allowed to connect to clustered ONTAP.  • example: ["1.1.1.1", "10.72.204.27", "vmwin204-27.fsct.nb"]  • Introduced in: 9.10

#### svm

Name	Туре	Description
_links	_links	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

#### vscan

Vscan can be used to protect data from being compromised by viruses or other malicious code. This combines best-in-class third-party antivirus software with ONTAP features that give you the flexibility you need to control which files get scanned and when. Storage systems offload scanning operations to external servers hosting antivirus software from thirdparty vendors. An Antivirus Connector on the external server handles communications between the storage system and the antivirus software.

Name	Туре	Description
_links	_links	
cache_clear	boolean	Discards the cached information of the files that have been successfully scanned. Once the cache is cleared, files are scanned again when they are accessed. PATCH only
enabled	boolean	Specifies whether or not Vscan is enabled on the SVM.
on_access_policies	array[vscan_on_access]	
on_demand_policies	array[vscan_on_demand_policy]	
scanner_pools	array[scanner_pool]	
svm	svm	

#### \_links

Name	Туре	Description
next	href	
self	href	

#### error\_arguments

Name	Туре	Description
code	string	Argument code
message	string	Message argument

#### error

Name	Туре	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code

Name	Туре	Description
message	string	Error message
target	string	The target parameter that caused the error.

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