Qualys API Release Notes

Version 8.10

Qualys 8.10 includes improvements to the Qualys API, giving you more ways to integrate your programs and API calls with Qualys Vulnerability Management (VM) and Qualys Policy Compliance (PC). Looking for our API user guides? Just log in to your Qualys account and go to Help > Resources.

What's New

Copyright 2017 by Qualys, Inc. All Rights Reserved.

URL to the Qualys API Server

Qualys maintains multiple Qualys platforms. The Qualys API server URL that you should use for API requests depends on the platform where your account is located.

Account Location	API Server URL
Qualys US Platform 1	https://qualysapi.qualys.com
Qualys US Platform 2	https://qualysapi.qg2.apps.qualys.com
Qualys US Platform 3	https://qualysapi.qg3.apps.qualys.com
Qualys EU Platform 1	https://qualysapi.qualys.eu
Qualys EU Platform 2	https://qualysapi.qg2.apps.qualys.eu
Qualys India Platform 1	https://qualysapi.qg1.apps.qualys.in
Qualys Private Cloud Platform	https://qualysapi.<customer_base_url>

The Qualys API documentation and sample code use the API server URL for the Qualys US Platform 1. If your account is located on another platform, please replace this URL with the appropriate server URL for your account.

Change API Rate Limit to 300 per hour

The Qualys API enforces limits on the API calls a customer can make based on their subscription settings. With this release we've updated the default API Rate Limit to 300 API calls per hour. The Rate Limit Period per Subscription control has been updated in all subscriptions that have the default set.

Tell me about API Rate Limits

Rate Limit per Subscription (per API): The maximum number of API calls allowed within the subscription per day (or a customized period, in seconds) for each API. The rate limit is calculated based on the settings for rate limit count and period.

- Rate Limit Count per Subscription (per API): The maximum number of API calls allowed within the subscription during the configured rate limit period. Default is 300.

- Rate Limit Period per Subscription (per API): The period of time, in seconds, that defines a window when API calls are counted within the subscription for each API. The window starts from the moment each API call is received by the service and extends backwards 24 hours (or some customized period, in seconds). **New default is 3600 seconds, i.e. 1 hour** (previously this default was 86400 seconds, i.e. 24 hours).

Concurrency Limit per Subscription (per API): The maximum number of concurrent API call instances allowed within the subscription for each API. Default is 2.

New Support for BeyondTrust PBPS Vaults

This new vault type can be used to retrieve authentication credentials from a BeyondTrust PowerBroker Password Safe (PBPS). We updated the authentication vault API (create, update, list, view) and the authentication record API (create, update, list) to support the new vault type. There are new input parameters for create/update vault, and a DTD change for view vault output. We also updated the DTDs for listing Windows and Unix authentication records.

Authentication Vault API

You can now create, update, list and view BeyondTrust PBPS authentication vaults.

Create BeyondTrust PBPS Authentication Vault

Use the parameter "action=create" to create a new vault in your account.

Parameter	Description
action=create	(Required)
title={value}	(Required) The vault title.
type={value}	(Required) Specify type=BeyondTrust PBPS.
comments={value}	(Optional) User defined comments.
appkey={value}	(Required) The application key (alpha-numeric string) for the BeyondTrust PBPS web services API. The maximum length is 128 bytes. A leading and/or trailing space or periods in the input value will be removed.
url={value}	(Required) The HTTP or HTTPS URL to access the BeyondTrust PBPS web services API.
ssl_verify={1|0}	(Optional) When set to 1, our service will verify the SSL certificate of the web server to make sure the certificate is valid and trusted. When set to 0, our service will not verify the certificate of the web server.
username={value}	(Required) The user account that can call the BeyondTrust PBPS web services API. The maximum length is 64 characters. This special character cannot be included: @
password={value}	(Optional) Specify a user password when required by the Application API Key configuration in BeyondTrust.

Parameter	Description
cert={value}	(Optional) Provide an X.509 client certificate with your private key when required by the Application API Key configuration in BeyondTrust. The certificate must be trusted by the PBPS web server. Enter the certificate block after the key block and be sure to include the first and last line (-----BEGIN CERTIFICATE----- and -----END CERTIFICATE-----).
	For a create/update request, if the cert parameter is specified, then the private_key parameter must also be specified.
private_key={value}	(Optional) Specify the private key for authentication. Copy the contents of private key file (id_rsa) and be sure to include the first and last line (-----BEGIN PRIVATE KEY----- and -----END PRIVATE KEY-----).
	For a create/update request, if the private_key parameter is specified, then the cert parameter must also be specified.
private_key_pwd={value}	(Optional) Specify a password for your private key if it's encrypted.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl" -d
"action=create&type=BeyondTrust
PBPS&appkey=181979e5c72b7f5f91906cfe7c92745a3c9b865a9786bbaf4868a8dc01987
f69c3db13d66ab013811b175c3a724b3267ebbb81d64d9cd5b29d512ceefc6d5f01&usern
ame=joe_user&url=https://host.domain/eEye.RetinaCS.Server/api/public/v3&p
assword=bt12345&ssl_verify=0&title=My-BeyondTrust-Vault"
"https://qualysapi.qualys.com/api/2.0/fo/vault/index.php"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE SIMPLE_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/simple_return.dtd">
<SIMPLE_RETURN>
  <RESPONSE>
    <DATETIME>2017-02-21T20:41:12Z</DATETIME>
    <TEXT>Success</TEXT>
    <ITEM_LIST>
      <ITEM>
        <KEY>ID</KEY>
        <VALUE>105356922</VALUE>
      </ITEM>
    </ITEM_LIST>
```

```
  </RESPONSE>
</SIMPLE_RETURN>
```

Update BeyondTrust PBPS Authentication Vault

Use the parameter "action=update" to update a BeyondTrust PBPS authentication vault in your account. You'll need to include the ID for the vault you're updating.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl" -d
"action=update&id=105356922&type=BeyondTrust PBPS&title=My-New-Title"
"https://qualysapi.qualys.com/api/2.0/fo/vault/index.php"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE SIMPLE_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/simple_return.dtd">
<SIMPLE_RETURN>
  <RESPONSE>
    <DATETIME>2017-02-22T00:08:09Z</DATETIME>
    <TEXT>Success</TEXT>
    <ITEM_LIST>
      <ITEM>
        <KEY>ID</KEY>
        <VALUE>105356922</VALUE>
      </ITEM>
    </ITEM_LIST>
  </RESPONSE>
</SIMPLE_RETURN>
```

List Authentication Vaults

Use the parameter "action=list" to list the vault defined in your account. To view a specific BeyondTrust PBPS vault, specify the ID or title of the vault.

API request (Windows):

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl" -d
"action=list&title=My-BeyondTrust-Vault"
"https://qualysapi.qualys.com/api/2.0/fo/vault/index.php"
```

XML output (Windows):

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE AUTH_VAULT_LIST_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/vault/vault_output.dtd">
<AUTH_VAULT_LIST_OUTPUT>
  <RESPONSE>
    <DATETIME>2017-02-22T00:52:00Z</DATETIME>
```

```
    <STATUS>Success</STATUS>
    <COUNT>1</COUNT>
    <AUTH_VAULTS>
      <AUTH_VAULT>
        <TITLE><![CDATA[My-BeyondTrust-Vault]]></TITLE>
        <VAULT_TYPE><![CDATA[BeyondTrust PBPS]]></VAULT_TYPE>
        <LAST_MODIFIED>
          <DATETIME>2017-02-22T00:08:09Z</DATETIME>
          <BY>joe_user</BY>
        </LAST_MODIFIED>
        <ID>105356922</ID>
      </AUTH_VAULT>
    </AUTH_VAULTS>
  </RESPONSE>
</AUTH_VAULT_LIST_OUTPUT>
```

View BeyondTrust PBPS Authentication Vault

Use the parameter "action=view" and specify the ID of the BeyondTrust authentication vault to view its details.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl" -d
"action=view&id=105356922"
"https://qualysapi.qualys.com/api/2.0/fo/vault/index.php"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE VAULT_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/vault/vault_view.dtd">
<VAULT_OUTPUT>
  <RESPONSE>
    <DATETIME>2017-02-22T01:24:40Z</DATETIME>
    <VAULT_QUEST>
      <TITLE><![CDATA[My-BeyondTrust-Vault]]></TITLE>
      <COMMENTS><![CDATA[]]></COMMENTS>
      <VAULT_TYPE><![CDATA[BeyondTrust PBPS]]></VAULT_TYPE>
      <CREATED_ON>2017-02-21T20:41:12Z</CREATED_ON>
      <OWNER>joe_user</OWNER>
      <LAST_MODIFIED>
        <DATETIME>2017-02-22T00:08:09Z</DATETIME>
        <BY>joe_user</BY>
      </LAST_MODIFIED>
<APPKEY><![CDATA[181979e5c72b7f5f91906cfe7c92745a3c9b865a9786bbaf4868a8dc
01987f69c3db13d66ab013811b175c3a724b3267ebbb81d64d9cd5b29d512ceefc6d5f01]
]></APPKEY>
      <USERNAME><![CDATA[joe_user]]></USERNAME>
      <SSL_VERIFY><![CDATA[0]]></SSL_VERIFY>
```

```
<URL><![CDATA[https://host.domain/eEye.RetinaCS.Server/api/public/v3]]></
URL>
      <ID>105356922</ID>
    </VAULT_QUEST>
  </RESPONSE>
</VAULT_OUTPUT>
```

DTD update:

We added APPKEY to the Vault View DTD (vault_view.dtd).

```
<!-- QUALYS VAULT_VIEW DTD -->
...
<!ELEMENT VAULT_QUEST (TITLE, COMMENTS, VAULT_TYPE, CREATED_ON?, OWNER?,
LAST_MODIFIED?, APPID?, APPKEY?, USERNAME?, URL?, SSL_VERIFY?, DOMAIN?,
API_USERNAME?, WEB_USERNAME?, SERVER_ADDRESS?, PORT?, SAFE?, (UUID|ID))>
<!ELEMENT UUID (#PCDATA)>
<!ELEMENT ID (#PCDATA)>
<!ELEMENT TITLE (#PCDATA)>
<!ELEMENT COMMENTS (#PCDATA)>
<!ELEMENT VAULT_TYPE (#PCDATA)>
<!ELEMENT CREATED_ON (#PCDATA)>
<!ELEMENT OWNER (#PCDATA)>
<!ELEMENT APPID (#PCDATA)>
<!ELEMENT APPKEY (#PCDATA)>
<!ELEMENT USERNAME (#PCDATA)>
<!ELEMENT URL (#PCDATA)>
<!ELEMENT SSL_VERIFY (#PCDATA)>
<!ELEMENT DOMAIN (#PCDATA)>
<!ELEMENT API_USERNAME (#PCDATA)>
<!ELEMENT WEB_USERNAME (#PCDATA)>
<!ELEMENT SERVER_ADDRESS (#PCDATA)>
<!ELEMENT PORT (#PCDATA)>
<!ELEMENT SAFE (#PCDATA)>
<!ELEMENT LAST_MODIFIED (DATETIME, BY?)>
<!ELEMENT BY (#PCDATA)>
<!-- EOF -->
```

Authentication Record API

You can now create, update, list authentication records with BeyondTrust PBPS vaults.

Create Authentication Record

Use these input parameters when creating/updating an authentication record and getting credentials from your BeyondTrust PBPS vault.

Parameter	Description
action=create/update	(Required)
login_type={value}	(Required to create/update vault information) Specify login_type=vault to add vault information. By default, the parameter is set to basic.
vault_id={value}	(Required when action=create and login_type=vault) A vault ID.
vault_type={value}	(Required when action=create and login_type=vault) Specify vault_type=BeyondTrust PBPS.
system_name={value}	(Optional) The managed system name (also known as asset name). When not specified, we'll attempt to auto-discover the system name for you at scan time.
account_name={value}	(Optional) The account name. When not specified, we'll try the username specified in the authentication record.

API request (Windows):

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl" -d
"action=create&title=WINDOWS_AUTH_BT_PBPS&username=joe_user&ips=10.10.25.
2&login_type=vault&vault_id=105306922&vault_type=BeyondTrust
PBPS&system_name=my_bt_system&account_name=bt_account"
"https://qualysapi.qualys.com/api/2.0/fo/auth/windows/"
```

XML output (Windows):

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE BATCH_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/batch_return.dtd">
<BATCH_RETURN>
  <RESPONSE>
    <DATETIME>2017-02-22T02:11:54Z</DATETIME>
    <BATCH_LIST>
      <BATCH>
        <TEXT>Successfully Created</TEXT>
        <ID_SET>
          <ID>2696966922</ID>
        </ID_SET>
```

```
      </BATCH>
    </BATCH_LIST>
  </RESPONSE>
</BATCH_RETURN>
```

Update Authentication Record

API request (Windows):

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl" -d
"action=update&ids=2727086922&login_type=vault&vault_id=125286922&vault_t
ype=BeyondTrust
PBPS&system_name=my_bt_system&account_name=bt_account&title=My-Windows-
Record&username=admin&ips=10.10.10.28"
"https://qualysapi.qualys.com/api/2.0/fo/auth/windows/"
```

XML output (Windows):

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE BATCH_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/batch_return.dtd">
<BATCH_RETURN>
  <RESPONSE>
    <DATETIME>2017-03-09T23:56:12Z</DATETIME>
    <BATCH_LIST>
      <BATCH>
        <TEXT>Successfully Updated</TEXT>
        <ID_SET>
          <ID>2727086922</ID>
        </ID_SET>
      </BATCH>
    </BATCH_LIST>
  </RESPONSE>
</BATCH_RETURN>
```

List Authentication Records

API request (Windows):

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl" -d
"action=list&details=All&ids=2727086922"
"https://qualysapi.qualys.com/api/2.0/fo/auth/windows/"
```

XML output (Windows):

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE AUTH_WINDOWS_LIST_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/auth/windows/auth_windows_list_o
utput.dtd">
<AUTH_WINDOWS_LIST_OUTPUT>
    <RESPONSE>
```

```
            <DATETIME>2017-03-10T00:04:12Z</DATETIME>
            <AUTH_WINDOWS_LIST>
                <AUTH_WINDOWS>
                    <ID>2727086922</ID>
                    <TITLE>
                        <![CDATA[My-Windows-Record]]>
                    </TITLE>
                    <USERNAME>
                        <![CDATA[joe_user]]>
                    </USERNAME>
                    <NTLM_V2>1</NTLM_V2>
                    <IP_SET>
                        <IP>10.10.10.28</IP>
                    </IP_SET>
                    <LOGIN_TYPE>
                        <![CDATA[vault]]>
                    </LOGIN_TYPE>
                    <DIGITAL_VAULT>
                        <DIGITAL_VAULT_ID>
                            <![CDATA[125286922]]>
                        </DIGITAL_VAULT_ID>
                        <DIGITAL_VAULT_TYPE>
                            <![CDATA[BeyondTrust PBPS]]>
                        </DIGITAL_VAULT_TYPE>
                        <DIGITAL_VAULT_TITLE>
                            <![CDATA[My-BeyondTrust-Vault]]>
                        </DIGITAL_VAULT_TITLE>
                        <VAULT_SYSTEM_NAME>
                            <![CDATA[my_bt_system]]>
                        </VAULT_SYSTEM_NAME>
                        <VAULT_ACCOUNT_NAME>
                            <![CDATA[bt_account]]>
                        </VAULT_ACCOUNT_NAME>
                    </DIGITAL_VAULT>
                    <CREATED>
                        <DATETIME>2017-02-21T20:41:12Z</DATETIME>
                        <BY>joe_user</BY>
                    </CREATED>
                    <LAST_MODIFIED>
                        <DATETIME>2017-02-22T00:08:09Z</DATETIME>
                    </LAST_MODIFIED>
                    <COMMENTS>
                        <![CDATA[]]>
                    </COMMENTS>
                </AUTH_WINDOWS>
            </AUTH_WINDOWS_LIST>
        </RESPONSE>
    </AUTH_WINDOWS_LIST_OUTPUT>
```

DTD updates:

We added VAULT_ACCOUNT_NAME to both the Windows and Unix Authentication Record List Output DTDs.

Windows Authentication Records List Output DTD

```
<!-- QUALYS AUTH_WINDOWS_LIST_OUTPUT DTD -->
...
<!ELEMENT DIGITAL_VAULT (DIGITAL_VAULT_ID, DIGITAL_VAULT_TYPE,
DIGITAL_VAULT_TITLE, VAULT_FOLDER?, VAULT_FILE?, VAULT_SECRET_NAME?,
VAULT_SYSTEM_NAME?, VAULT_EP_NAME?, VAULT_EP_TYPE?, VAULT_EP_CONT?,
VAULT_NS_TYPE?, VAULT_NS_NAME?, VAULT_ACCOUNT_NAME?)>
<!ELEMENT DIGITAL_VAULT_ID (#PCDATA)>
<!ELEMENT DIGITAL_VAULT_TYPE (#PCDATA)>
<!ELEMENT DIGITAL_VAULT_TITLE (#PCDATA)>
<!ELEMENT VAULT_FOLDER (#PCDATA)>
<!ELEMENT VAULT_FILE (#PCDATA)>
<!ELEMENT VAULT_SECRET_NAME (#PCDATA)>
<!ELEMENT VAULT_SYSTEM_NAME (#PCDATA)>
<!ELEMENT VAULT_EP_NAME (#PCDATA)>
<!ELEMENT VAULT_EP_TYPE (#PCDATA)>
<!ELEMENT VAULT_EP_CONT (#PCDATA)>
<!ELEMENT VAULT_NS_TYPE (#PCDATA)>
<!ELEMENT VAULT_NS_NAME (#PCDATA)>
<!ELEMENT VAULT_ACCOUNT_NAME (#PCDATA)>
...
```

Unix Authentication Records List Output DTD

```
<!-- QUALYS AUTH_UNIX_LIST_OUTPUT DTD -->
...
<!ELEMENT DIGITAL_VAULT (DIGITAL_VAULT_ID, DIGITAL_VAULT_TYPE,
DIGITAL_VAULT_TITLE, VAULT_USERNAME?, VAULT_FOLDER?, VAULT_FILE?,
VAULT_SECRET_NAME?, VAULT_SYSTEM_NAME?, VAULT_EP_NAME?, VAULT_EP_TYPE?,
VAULT_EP_CONT?, VAULT_NS_TYPE?, VAULT_NS_NAME?, VAULT_ACCOUNT_NAME?)>
<!ELEMENT DIGITAL_VAULT_ID (#PCDATA)>
<!ELEMENT DIGITAL_VAULT_TYPE (#PCDATA)>
<!ELEMENT DIGITAL_VAULT_TITLE (#PCDATA)>
<!ELEMENT VAULT_USERNAME (#PCDATA)>
<!ELEMENT VAULT_FOLDER (#PCDATA)>
<!ELEMENT VAULT_FILE (#PCDATA)>
<!ELEMENT VAULT_SECRET_NAME (#PCDATA)>
<!ELEMENT VAULT_SYSTEM_NAME (#PCDATA)>
<!ELEMENT VAULT_EP_NAME (#PCDATA)>
<!ELEMENT VAULT_EP_TYPE (#PCDATA)>
<!ELEMENT VAULT_EP_CONT (#PCDATA)>
<!ELEMENT VAULT_NS_TYPE (#PCDATA)>
<!ELEMENT VAULT_NS_NAME (#PCDATA)>
<!ELEMENT VAULT_ACCOUNT_NAME (#PCDATA)>
```

New API Support for Option Profiles

The new Option Profile API allows customers to import/export option profiles from one subscription to another in XML format. The API user must have the Manager role.

Export Option Profile API

The Export Option Profile API (/api/2.0/fo/subscription/option_profile/?action=export) allows the user to export one option profile or all option profiles in the subscription to an XML file. The output of an Export Option Profile API call is proving as POST Raw Data.

Parameters:

Parameter	Description
action=export	(Required) The GET or POST method may be used.
output_format={XML}	(Optional) XML format is supported. When unspecified, output format is XML.
option_profile_id={value}	(Optional) By default all option profiles will be exported. Specify an option profile ID and we'll export the option profile matching this ID only.
option_profile_title={value}	(Optional) By default all option profiles will be exported. Specify a title and we'll export the option profile matching this title only - exact match is required.
option_profile_type={value}	(Optional) Option profile group name/type, e.g. user (for user defined), compliance (for compliance profile), pci (for PCI vulnerabilities profile). Note: "option_profile_type" parameter can be specified with "option_profile_id" or "option_profile_title".

Example 1: Export Option Profile

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl"
-X GET "action=export"
"https://qualysapi.qualys.com/api/2.0/fo/subscription/option_profile"
```

All the option profiles in the user's account get exported in XML format.

XML Response:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE OPTION_PROFILES SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/subscription/option_profile/opti
on_profile_info.dtd">
```

```
<OPTION_PROFILES>
  <OPTION_PROFILE>
    <BASIC_INFO>
      <ID>111186</ID>
      <GROUP_NAME><![CDATA[OP-SCAN]]></GROUP_NAME>
      <GROUP_TYPE>user</GROUP_TYPE>
      <USER_ID><![CDATA[John Doe(john_doe)]]></USER_ID>
      <UNIT_ID>0</UNIT_ID>
      <SUBSCRIPTION_ID>44</SUBSCRIPTION_ID>
      <IS_DEFAULT>0</IS_DEFAULT>
      <IS_GLOBAL>1</IS_GLOBAL>
      <IS_OFFLINE_SYNCABLE>0</IS_OFFLINE_SYNCABLE>
      <UPDATE_DATE>N/A</UPDATE_DATE>
    </BASIC_INFO>
    <SCAN>
      <PORTS>
        <TCP_PORTS>
          <TCP_PORTS_TYPE>full</TCP_PORTS_TYPE>
          <THREE_WAY_HANDSHAKE>1</THREE_WAY_HANDSHAKE>
        </TCP_PORTS>
        <UDP_PORTS>
          <UDP_PORTS_TYPE>none</UDP_PORTS_TYPE>
          <UDP_PORTS_ADDITIONAL>
            <HAS_ADDITIONAL>1</HAS_ADDITIONAL>
            <ADDITIONAL_PORTS>1-1024,8080,8181</ADDITIONAL_PORTS>
          </UDP_PORTS_ADDITIONAL>
        </UDP_PORTS>
        <AUTHORITATIVE_OPTION>1</AUTHORITATIVE_OPTION>
      </PORTS>
      <SCAN_DEAD_HOSTS>1</SCAN_DEAD_HOSTS>
      <CLOSE_VULNERABILITIES>
        <HAS_CLOSE_VULNERABILITIES>1</HAS_CLOSE_VULNERABILITIES>
        <HOST_NOT_FOUND_ALIVE>7</HOST_NOT_FOUND_ALIVE>
      </CLOSE_VULNERABILITIES>
      <PURGE_OLD_HOST_OS_CHANGED>1</PURGE_OLD_HOST_OS_CHANGED>
      <PERFORMANCE>
        <PARALLEL_SCALING>1</PARALLEL_SCALING>
        <OVERALL_PERFORMANCE>Custom</OVERALL_PERFORMANCE>
        <HOSTS_TO_SCAN>
          <EXTERNAL_SCANNERS>30</EXTERNAL_SCANNERS>
          <SCANNER_APPLIANCES>48</SCANNER_APPLIANCES>
        </HOSTS_TO_SCAN>
        <PROCESSES_TO_RUN>
          <TOTAL_PROCESSES>18</TOTAL_PROCESSES>
          <HTTP_PROCESSES>18</HTTP_PROCESSES>
        </PROCESSES_TO_RUN>
        <PACKET_DELAY>Minimum</PACKET_DELAY>

<PORT_SCANNING_AND_HOST_DISCOVERY>Minimum</PORT_SCANNING_AND_HOST_DISCOVE
```

```
RY>
      </PERFORMANCE>
      <LOAD_BALANCER_DETECTION>1</LOAD_BALANCER_DETECTION>
      <PASSWORD_BRUTE_FORCING>
        <SYSTEM>
          <HAS_SYSTEM>1</HAS_SYSTEM>
          <SYSTEM_LEVEL>Standard</SYSTEM_LEVEL>
        </SYSTEM>
        <CUSTOM_LIST>
          <CUSTOM>
            <ID>3001</ID>
            <TITLE><![CDATA[123]]></TITLE>
            <TYPE>FTP</TYPE>

<LOGIN_PASSWORD><![CDATA[L:temp,P:123123123]]></LOGIN_PASSWORD>
          </CUSTOM>
        </CUSTOM_LIST>
      </PASSWORD_BRUTE_FORCING>
      <VULNERABILITY_DETECTION>
        <CUSTOM_LIST>
          <CUSTOM>
            <ID>2094</ID>
            <TITLE><![CDATA[Option Profile: Qualys Top 20
Options]]></TITLE>
          </CUSTOM>
          <CUSTOM>
            <ID>2095</ID>
           <TITLE><![CDATA[Option Profile: 2008 SANS20 Options]]></TITLE>
          </CUSTOM>
          <CUSTOM>
            <ID>2096</ID>
            <TITLE><![CDATA[Scan Report Template: High Severity
Report]]></TITLE>
          </CUSTOM>
          <CUSTOM>
            <ID>5230</ID>
            <TITLE><![CDATA[118960]]></TITLE>
          </CUSTOM>
          <CUSTOM>
            <ID>87936</ID>
            <TITLE><![CDATA[Bash Shellshock Detection]]></TITLE>
          </CUSTOM>
          <CUSTOM>
            <ID>87937</ID>
            <TITLE><![CDATA[Heartbleed Detection]]></TITLE>
          </CUSTOM>
          <CUSTOM>
            <ID>87938</ID>
            <TITLE><![CDATA[Windows Authentication Results v.1]]></TITLE>
```

```
            </CUSTOM>
            <CUSTOM>
              <ID>87939</ID>
              <TITLE><![CDATA[Unix Authentication Results v.1]]></TITLE>
            </CUSTOM>
            <CUSTOM>
              <ID>87940</ID>
              <TITLE><![CDATA[Inventory Results v.1]]></TITLE>
            </CUSTOM>
            <CUSTOM>
              <ID>87941</ID>
              <TITLE><![CDATA[SSL Certificates]]></TITLE>
            </CUSTOM>
          </CUSTOM_LIST>
          <DETECTION_INCLUDE>
            <BASIC_HOST_INFO_CHECKS>1</BASIC_HOST_INFO_CHECKS>
            <OVAL_CHECKS>1</OVAL_CHECKS>
          </DETECTION_INCLUDE>
          <DETECTION_EXCLUDE>
            <CUSTOM_LIST>
              <CUSTOM>
                <ID>2099</ID>
                <TITLE><![CDATA[DL]]></TITLE>
              </CUSTOM>
            </CUSTOM_LIST>
          </DETECTION_EXCLUDE>
        </VULNERABILITY_DETECTION>
        <AUTHENTICATION><![CDATA[Windows,Unix,Oracle,Oracle
Listener,SNMP,VMware,DB2,HTTP,MySQL]]></AUTHENTICATION>
        <ADDL_CERT_DETECTION>1</ADDL_CERT_DETECTION>
        <DISSOLVABLE_AGENT>
          <DISSOLVABLE_AGENT_ENABLE>1</DISSOLVABLE_AGENT_ENABLE>

<WINDOWS_SHARE_ENUMERATION_ENABLE>1</WINDOWS_SHARE_ENUMERATION_ENABLE>
        </DISSOLVABLE_AGENT>
        <LITE_OS_SCAN>1</LITE_OS_SCAN>
        <CUSTOM_HTTP_HEADER>
          <VALUE>AFCD</VALUE>
        </CUSTOM_HTTP_HEADER>
      </SCAN>
      <MAP>
        <BASIC_INFO_GATHERING_ON>netblockonly</BASIC_INFO_GATHERING_ON>
        <TCP_PORTS>
          <TCP_PORTS_STANDARD_SCAN>1</TCP_PORTS_STANDARD_SCAN>
          <TCP_PORTS_ADDITIONAL>
            <HAS_ADDITIONAL>1</HAS_ADDITIONAL>
            <ADDITIONAL_PORTS>1,2,3,80</ADDITIONAL_PORTS>
          </TCP_PORTS_ADDITIONAL>
        </TCP_PORTS>
```

```
        <UDP_PORTS>
          <UDP_PORTS_STANDARD_SCAN>1</UDP_PORTS_STANDARD_SCAN>
          <UDP_PORTS_ADDITIONAL>
            <HAS_ADDITIONAL>1</HAS_ADDITIONAL>
            <ADDITIONAL_PORTS>4,5,6,8181</ADDITIONAL_PORTS>
          </UDP_PORTS_ADDITIONAL>
        </UDP_PORTS>
        <MAP_OPTIONS>
          <PERFORM_LIVE_HOST_SWEEP>1</PERFORM_LIVE_HOST_SWEEP>
          <DISABLE_DNS_TRAFFIC>1</DISABLE_DNS_TRAFFIC>
        </MAP_OPTIONS>
        <MAP_PERFORMANCE>
          <OVERALL_PERFORMANCE>Custom</OVERALL_PERFORMANCE>
          <MAP_PARALLEL>
            <EXTERNAL_SCANNERS>16</EXTERNAL_SCANNERS>
            <SCANNER_APPLIANCES>14</SCANNER_APPLIANCES>
            <NETBLOCK_SIZE>64</NETBLOCK_SIZE>
          </MAP_PARALLEL>
          <PACKET_DELAY>Maximum</PACKET_DELAY>
        </MAP_PERFORMANCE>
        <MAP_AUTHENTICATION>VMware</MAP_AUTHENTICATION>
      </MAP>
      <ADDITIONAL>
        <HOST_DISCOVERY>
          <TCP_PORTS>
            <STANDARD_SCAN>1</STANDARD_SCAN>
            <TCP_ADDITIONAL>
              <HAS_ADDITIONAL>1</HAS_ADDITIONAL>
              <ADDITIONAL_PORTS>1-6,1024</ADDITIONAL_PORTS>
            </TCP_ADDITIONAL>
          </TCP_PORTS>
          <UDP_PORTS>
            <STANDARD_SCAN>1</STANDARD_SCAN>
          </UDP_PORTS>
          <ICMP>1</ICMP>
        </HOST_DISCOVERY>
        <BLOCK_RESOURCES>

<WATCHGUARD_DEFAULT_BLOCKED_PORTS>1</WATCHGUARD_DEFAULT_BLOCKED_PORTS>
          <ALL_REGISTERED_IPS>1</ALL_REGISTERED_IPS>
        </BLOCK_RESOURCES>
        <PACKET_OPTIONS>

<IGNORE_FIREWALL_GENERATED_TCP_RST>1</IGNORE_FIREWALL_GENERATED_TCP_RST>
          <IGNORE_ALL_TCP_RST>1</IGNORE_ALL_TCP_RST>

<IGNORE_FIREWALL_GENERATED_TCP_SYN_ACK>1</IGNORE_FIREWALL_GENERATED_TCP_S
YN_ACK>
```

```
<NOT_SEND_TCP_ACK_OR_SYN_ACK_DURING_HOST_DISCOVERY>1</NOT_SEND_TCP_ACK_OR
_SYN_ACK_DURING_HOST_DISCOVERY>
      </PACKET_OPTIONS>
    </ADDITIONAL>
  </OPTION_PROFILE>
</OPTION_PROFILES>
```

Example 2: Export Option Profile with specific title and ID

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl"
-X GET "action=export&option_profile_title=OP-
COMP&option_profile_id=111235"
"https://qualysapi.qualys.com/api/2.0/fo/subscription/option_profile"
```

The option profile with the specified id and title in the user's account get exported in XML format.

XML Response:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE OPTION_PROFILES SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/subscription/option_profile/opti
on_profile_info.dtd">
<OPTION_PROFILES>
  <OPTION_PROFILE>
    <BASIC_INFO>
      <ID>111235</ID>
      <GROUP_NAME><![CDATA[OP-COMP]]></GROUP_NAME>
      <GROUP_TYPE>compliance</GROUP_TYPE>
      <USER_ID><![CDATA[John Doe (john_doe)]]></USER_ID>
      <UNIT_ID>0</UNIT_ID>
      <SUBSCRIPTION_ID>44</SUBSCRIPTION_ID>
      <IS_GLOBAL>0</IS_GLOBAL>
      <UPDATE_DATE>N/A</UPDATE_DATE>
    </BASIC_INFO>
    <SCAN>
      <PORTS>
        <TARGETED_SCAN>1</TARGETED_SCAN>
      </PORTS>
      <PERFORMANCE>
        <PARALLEL_SCALING>0</PARALLEL_SCALING>
        <OVERALL_PERFORMANCE>Normal</OVERALL_PERFORMANCE>
        <HOSTS_TO_SCAN>
          <EXTERNAL_SCANNERS>5</EXTERNAL_SCANNERS>
          <SCANNER_APPLIANCES>30</SCANNER_APPLIANCES>
        </HOSTS_TO_SCAN>
        <PROCESSES_TO_RUN>
```

```
            <TOTAL_PROCESSES>10</TOTAL_PROCESSES>
            <HTTP_PROCESSES>10</HTTP_PROCESSES>
          </PROCESSES_TO_RUN>
          <PACKET_DELAY>Short</PACKET_DELAY>

<PORT_SCANNING_AND_HOST_DISCOVERY>Minimum</PORT_SCANNING_AND_HOST_DISCOVE
RY>
      </PERFORMANCE>
      <DISSOLVABLE_AGENT>
        <DISSOLVABLE_AGENT_ENABLE>1</DISSOLVABLE_AGENT_ENABLE>
        <PASSWORD_AUDITING_ENABLE>
          <HAS_PASSWORD_AUDITING_ENABLE>1</HAS_PASSWORD_AUDITING_ENABLE>
          <CUSTOM_PASSWORD_DICTIONARY>asdf</CUSTOM_PASSWORD_DICTIONARY>
        </PASSWORD_AUDITING_ENABLE>

<WINDOWS_SHARE_ENUMERATION_ENABLE>1</WINDOWS_SHARE_ENUMERATION_ENABLE>

<WINDOWS_DIRECTORY_SEARCH_ENABLE>1</WINDOWS_DIRECTORY_SEARCH_ENABLE>
      </DISSOLVABLE_AGENT>
      <CONTROL_TYPES>
        <FIM_CONTROLS_ENABLED>1</FIM_CONTROLS_ENABLED>
        <CUSTOM_WMI_QUERY_CHECKS>1</CUSTOM_WMI_QUERY_CHECKS>
      </CONTROL_TYPES>
    </SCAN>
    <ADDITIONAL>
      <HOST_DISCOVERY>
        <TCP_PORTS>
          <STANDARD_SCAN>1</STANDARD_SCAN>
        </TCP_PORTS>
        <UDP_PORTS>
          <STANDARD_SCAN>1</STANDARD_SCAN>
        </UDP_PORTS>
        <ICMP>1</ICMP>
      </HOST_DISCOVERY>
      <BLOCK_RESOURCES>

<WATCHGUARD_DEFAULT_BLOCKED_PORTS>1</WATCHGUARD_DEFAULT_BLOCKED_PORTS>
        <ALL_REGISTERED_IPS>1</ALL_REGISTERED_IPS>
      </BLOCK_RESOURCES>
      <PACKET_OPTIONS>

<IGNORE_FIREWALL_GENERATED_TCP_RST>1</IGNORE_FIREWALL_GENERATED_TCP_RST>

<IGNORE_FIREWALL_GENERATED_TCP_SYN_ACK>1</IGNORE_FIREWALL_GENERATED_TCP_S
YN_ACK>

<NOT_SEND_TCP_ACK_OR_SYN_ACK_DURING_HOST_DISCOVERY>1</NOT_SEND_TCP_ACK_OR
_SYN_ACK_DURING_HOST_DISCOVERY>
      </PACKET_OPTIONS>
```

```
    </ADDITIONAL>
  </OPTION_PROFILE>
</OPTION_PROFILES>
```

Example 3: Export Option Profile of type PCI

API request (export with option profile type):

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl"
-X GET "action=export&option_profile_type=pci"
"https://qualysapi.qualys.com/api/2.0/fo/subscription/option_profile"
```

The option profile with PCI type in the user's account get exported in XML format.

XML Response:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE OPTION_PROFILES SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/subscription/option_profile/opti
on_profile_info.dtd">
<OPTION_PROFILES>
  <OPTION_PROFILE>
    <BASIC_INFO>
      <ID>111223</ID>
      <GROUP_NAME><![CDATA[PCI-Example]]></GROUP_NAME>
      <GROUP_TYPE>pci</GROUP_TYPE>
      <USER_ID><![CDATA[John Doe (john_doe)]]></USER_ID>
      <UNIT_ID>0</UNIT_ID>
      <SUBSCRIPTION_ID>44</SUBSCRIPTION_ID>
      <IS_GLOBAL>1</IS_GLOBAL>
      <IS_OFFLINE_SYNCABLE>0</IS_OFFLINE_SYNCABLE>
      <UPDATE_DATE>N/A</UPDATE_DATE>
    </BASIC_INFO>
    <SCAN>
      <SCAN_DEAD_HOSTS>1</SCAN_DEAD_HOSTS>
      <CLOSE_VULNERABILITIES>
        <HAS_CLOSE_VULNERABILITIES>1</HAS_CLOSE_VULNERABILITIES>
        <HOST_NOT_FOUND_ALIVE>4</HOST_NOT_FOUND_ALIVE>
      </CLOSE_VULNERABILITIES>
      <PURGE_OLD_HOST_OS_CHANGED>1</PURGE_OLD_HOST_OS_CHANGED>
      <PERFORMANCE>
        <PARALLEL_SCALING>1</PARALLEL_SCALING>
        <OVERALL_PERFORMANCE>Low</OVERALL_PERFORMANCE>
        <HOSTS_TO_SCAN>
          <EXTERNAL_SCANNERS>5</EXTERNAL_SCANNERS>
          <SCANNER_APPLIANCES>10</SCANNER_APPLIANCES>
        </HOSTS_TO_SCAN>
        <PROCESSES_TO_RUN>
          <TOTAL_PROCESSES>4</TOTAL_PROCESSES>
```

```
          <HTTP_PROCESSES>2</HTTP_PROCESSES>
        </PROCESSES_TO_RUN>
        <PACKET_DELAY>Long</PACKET_DELAY>

<PORT_SCANNING_AND_HOST_DISCOVERY>Minimum</PORT_SCANNING_AND_HOST_DISCOVE
RY>
      </PERFORMANCE>
    </SCAN>
    <ADDITIONAL>
      <HOST_DISCOVERY>
        <TCP_PORTS>
          <STANDARD_SCAN>1</STANDARD_SCAN>
          <TCP_ADDITIONAL>
            <HAS_ADDITIONAL>1</HAS_ADDITIONAL>
            <ADDITIONAL_PORTS>1-6,1024</ADDITIONAL_PORTS>
          </TCP_ADDITIONAL>
        </TCP_PORTS>
      </HOST_DISCOVERY>
    </ADDITIONAL>
  </OPTION_PROFILE>
</OPTION_PROFILES>
```

Import Option Profile API

The Import Option Profile API (/api/2.0/fo/subscription/option_profile/?action=import) allows the user to import all option profiles defined in input XML file.

When calling the Import Option Profile API the user needs to pass the proper XML with Content-Type XML. This will create option profiles in that user's subscription. All validations are applied as in the Qualys portal UI while creating option profiles using the Import Option Profile API.

Validations and Constraints:

1) The Option Profile DTD file is used to validate a generated/exported Option Profile XML file.

2) An XSD file is used to validate a proper format and required elements of the option profile XML file when importing this file.

3) While importing, any Search Lists defined for Vulnerability Detection, Custom and/or Excluded Lists, must be created in the user's subscription before making an Import Option Profile call. At import time we try to match the Search List "title" to a search list title in the user's subscription. If a match is found the search list is used, otherwise "Complete" Vulnerability Detection is assigned.

4) Password Brute Force Lists are not imported and will always be empty assigned, regardless of Option Profile XML content.

5) Policies defined for the PC Scan Restriction feature are not imported and will be empty assigned, regardless of Option Profile XML content.

Parameters:

Parameter	Description
action=import	(Required) The POST method must be used.

Example: Import option profiles in the input file into the user's account.

API request:

```
curl -u "USERNAME:PASSWORD" -H "content-type: text/xml"-X "POST"
--data-binary @Export_OP.xml
"https://qualysapi.qualys.com/api/2.0/fo/subscription/option_profile"
```

Note: "Export_OP.xml" contains the request POST data.

Request POST data:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE OPTION_PROFILES SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/subscription/option_profile/opti
on_profile_info.dtd">
<OPTION_PROFILES>
  <OPTION_PROFILE>
    <BASIC_INFO>
      <ID>11123</ID>
      <GROUP_NAME><![CDATA[OP-SCAN]]></GROUP_NAME>
      <GROUP_TYPE>user</GROUP_TYPE>
      <USER_ID><![CDATA[John Doe (john_doe)]]></USER_ID>
      <UNIT_ID>0</UNIT_ID>
      <SUBSCRIPTION_ID>76084</SUBSCRIPTION_ID>
      <IS_DEFAULT>0</IS_DEFAULT>
      <IS_GLOBAL>1</IS_GLOBAL>
      <IS_OFFLINE_SYNCABLE>0</IS_OFFLINE_SYNCABLE>
      <UPDATE_DATE>N/A</UPDATE_DATE>
    </BASIC_INFO>
    <SCAN>
      <PORTS>
        <TCP_PORTS>
          <TCP_PORTS_TYPE>full</TCP_PORTS_TYPE>
          <THREE_WAY_HANDSHAKE>1</THREE_WAY_HANDSHAKE>
        </TCP_PORTS>
        <UDP_PORTS>
          <UDP_PORTS_TYPE>none</UDP_PORTS_TYPE>
          <UDP_PORTS_ADDITIONAL>
            <HAS_ADDITIONAL>1</HAS_ADDITIONAL>
            <ADDITIONAL_PORTS>1-1024,8080,8181</ADDITIONAL_PORTS>
```

```
            </UDP_PORTS_ADDITIONAL>
          </UDP_PORTS>
          <AUTHORITATIVE_OPTION>1</AUTHORITATIVE_OPTION>
        </PORTS>
        <SCAN_DEAD_HOSTS>1</SCAN_DEAD_HOSTS>
        <CLOSE_VULNERABILITIES>
          <HAS_CLOSE_VULNERABILITIES>1</HAS_CLOSE_VULNERABILITIES>
          <HOST_NOT_FOUND_ALIVE>7</HOST_NOT_FOUND_ALIVE>
        </CLOSE_VULNERABILITIES>
        <PURGE_OLD_HOST_OS_CHANGED>1</PURGE_OLD_HOST_OS_CHANGED>
        <PERFORMANCE>
          <PARALLEL_SCALING>1</PARALLEL_SCALING>
          <OVERALL_PERFORMANCE>Custom</OVERALL_PERFORMANCE>
          <HOSTS_TO_SCAN>
            <EXTERNAL_SCANNERS>30</EXTERNAL_SCANNERS>
            <SCANNER_APPLIANCES>48</SCANNER_APPLIANCES>
          </HOSTS_TO_SCAN>
          <PROCESSES_TO_RUN>
            <TOTAL_PROCESSES>18</TOTAL_PROCESSES>
            <HTTP_PROCESSES>18</HTTP_PROCESSES>
          </PROCESSES_TO_RUN>
          <PACKET_DELAY>Maximum</PACKET_DELAY>

<PORT_SCANNING_AND_HOST_DISCOVERY>Minimum</PORT_SCANNING_AND_HOST_DISCOVE
RY>
        </PERFORMANCE>
        <LOAD_BALANCER_DETECTION>1</LOAD_BALANCER_DETECTION>
        <PASSWORD_BRUTE_FORCING>
          <SYSTEM>
            <HAS_SYSTEM>1</HAS_SYSTEM>
            <SYSTEM_LEVEL>Standard</SYSTEM_LEVEL>
          </SYSTEM>
          <CUSTOM_LIST>
            <CUSTOM>
              <ID>3001</ID>
              <TITLE><![CDATA[123]]></TITLE>
              <TYPE>FTP</TYPE>

<LOGIN_PASSWORD><![CDATA[L:temp,P:123123123]]></LOGIN_PASSWORD>
            </CUSTOM>
          </CUSTOM_LIST>
        </PASSWORD_BRUTE_FORCING>
        <VULNERABILITY_DETECTION>
          <CUSTOM_LIST>
            <CUSTOM>
              <ID>2094</ID>
              <TITLE><![CDATA[Option Profile: Qualys Top 20
Options]]></TITLE>
            </CUSTOM>
```

```
            <CUSTOM>
              <ID>2095</ID>
              <TITLE><![CDATA[Option Profile: 2008 SANS20 Options]]></TITLE>
            </CUSTOM>
            <CUSTOM>
              <ID>2096</ID>
              <TITLE><![CDATA[Scan Report Template: High Severity
Report]]></TITLE>
            </CUSTOM>
            <CUSTOM>
              <ID>5230</ID>
              <TITLE><![CDATA[118960]]></TITLE>
            </CUSTOM>
            <CUSTOM>
              <ID>87936</ID>
              <TITLE><![CDATA[Bash Shellshock Detection]]></TITLE>
            </CUSTOM>
            <CUSTOM>
              <ID>87937</ID>
              <TITLE><![CDATA[Heartbleed Detection]]></TITLE>
            </CUSTOM>
            <CUSTOM>
              <ID>87938</ID>
              <TITLE><![CDATA[Windows Authentication Results v.1]]></TITLE>
            </CUSTOM>
            <CUSTOM>
              <ID>87939</ID>
              <TITLE><![CDATA[Unix Authentication Results v.1]]></TITLE>
            </CUSTOM>
            <CUSTOM>
              <ID>87940</ID>
              <TITLE><![CDATA[Inventory Results v.1]]></TITLE>
            </CUSTOM>
            <CUSTOM>
              <ID>87941</ID>
              <TITLE><![CDATA[SSL Certificates]]></TITLE>
            </CUSTOM>
          </CUSTOM_LIST>
          <DETECTION_INCLUDE>
            <BASIC_HOST_INFO_CHECKS>1</BASIC_HOST_INFO_CHECKS>
            <OVAL_CHECKS>1</OVAL_CHECKS>
          </DETECTION_INCLUDE>
          <DETECTION_EXCLUDE>
            <CUSTOM_LIST>
              <CUSTOM>
                <ID>2099</ID>
                <TITLE><![CDATA[DL]]></TITLE>
              </CUSTOM>
            </CUSTOM_LIST>
```

```
        </DETECTION_EXCLUDE>
      </VULNERABILITY_DETECTION>
      <AUTHENTICATION><![CDATA[Windows,Unix,Oracle,Oracle
Listener,SNMP,VMware,DB2,HTTP,MySQL]]></AUTHENTICATION>
      <ADDL_CERT_DETECTION>1</ADDL_CERT_DETECTION>
      <DISSOLVABLE_AGENT>
        <DISSOLVABLE_AGENT_ENABLE>1</DISSOLVABLE_AGENT_ENABLE>

<WINDOWS_SHARE_ENUMERATION_ENABLE>1</WINDOWS_SHARE_ENUMERATION_ENABLE>
      </DISSOLVABLE_AGENT>
      <LITE_OS_SCAN>1</LITE_OS_SCAN>
      <CUSTOM_HTTP_HEADER>
        <VALUE>AFCD</VALUE>
      </CUSTOM_HTTP_HEADER>
    </SCAN>
    <MAP>
      <BASIC_INFO_GATHERING_ON>netblockonly</BASIC_INFO_GATHERING_ON>
      <TCP_PORTS>
        <TCP_PORTS_STANDARD_SCAN>1</TCP_PORTS_STANDARD_SCAN>
        <TCP_PORTS_ADDITIONAL>
          <HAS_ADDITIONAL>1</HAS_ADDITIONAL>
          <ADDITIONAL_PORTS>1,2,3,80</ADDITIONAL_PORTS>
        </TCP_PORTS_ADDITIONAL>
      </TCP_PORTS>
      <UDP_PORTS>
        <UDP_PORTS_STANDARD_SCAN>1</UDP_PORTS_STANDARD_SCAN>
        <UDP_PORTS_ADDITIONAL>
          <HAS_ADDITIONAL>1</HAS_ADDITIONAL>
          <ADDITIONAL_PORTS>4,5,6,8181</ADDITIONAL_PORTS>
        </UDP_PORTS_ADDITIONAL>
      </UDP_PORTS>
      <MAP_OPTIONS>
        <PERFORM_LIVE_HOST_SWEEP>1</PERFORM_LIVE_HOST_SWEEP>
        <DISABLE_DNS_TRAFFIC>1</DISABLE_DNS_TRAFFIC>
      </MAP_OPTIONS>
      <MAP_PERFORMANCE>
        <OVERALL_PERFORMANCE>Custom</OVERALL_PERFORMANCE>
        <MAP_PARALLEL>
          <EXTERNAL_SCANNERS>16</EXTERNAL_SCANNERS>
          <SCANNER_APPLIANCES>14</SCANNER_APPLIANCES>
          <NETBLOCK_SIZE>64</NETBLOCK_SIZE>
        </MAP_PARALLEL>
        <PACKET_DELAY>Medium</PACKET_DELAY>
      </MAP_PERFORMANCE>
      <MAP_AUTHENTICATION>VMware</MAP_AUTHENTICATION>
    </MAP>
    <ADDITIONAL>
      <HOST_DISCOVERY>
        <TCP_PORTS>
```

```
            <STANDARD_SCAN>1</STANDARD_SCAN>
            <TCP_ADDITIONAL>
              <HAS_ADDITIONAL>1</HAS_ADDITIONAL>
              <ADDITIONAL_PORTS>1-6,1024</ADDITIONAL_PORTS>
            </TCP_ADDITIONAL>
          </TCP_PORTS>
          <UDP_PORTS>
            <STANDARD_SCAN>1</STANDARD_SCAN>
          </UDP_PORTS>
          <ICMP>1</ICMP>
        </HOST_DISCOVERY>
        <BLOCK_RESOURCES>

<WATCHGUARD_DEFAULT_BLOCKED_PORTS>1</WATCHGUARD_DEFAULT_BLOCKED_PORTS>
          <ALL_REGISTERED_IPS>1</ALL_REGISTERED_IPS>
        </BLOCK_RESOURCES>
        <PACKET_OPTIONS>

<IGNORE_FIREWALL_GENERATED_TCP_RST>1</IGNORE_FIREWALL_GENERATED_TCP_RST>
          <IGNORE_ALL_TCP_RST>1</IGNORE_ALL_TCP_RST>

<IGNORE_FIREWALL_GENERATED_TCP_SYN_ACK>1</IGNORE_FIREWALL_GENERATED_TCP_S
YN_ACK>

<NOT_SEND_TCP_ACK_OR_SYN_ACK_DURING_HOST_DISCOVERY>1</NOT_SEND_TCP_ACK_OR
_SYN_ACK_DURING_HOST_DISCOVERY>
        </PACKET_OPTIONS>
      </ADDITIONAL>
    </OPTION_PROFILE>
</OPTION_PROFILES>
```

XML Response:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE SIMPLE_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/simple_return.dtd">
<SIMPLE_RETURN>
 <RESPONSE>
   <DATETIME>2017-04-03T11:17:43Z</DATETIME>
   <TEXT>Successfully imported Option profile for the subscription Id
76084</TEXT>
   <ITEM_LIST>
     <ITEM>
       <KEY>111234</KEY>
       <VALUE>PCI-John</VALUE>
     </ITEM>
   </ITEM_LIST>
 </RESPONSE>
</SIMPLE_RETURN>
```

Option Profile DTD

<base_url>/fo/api/2.0/subscription/option_profile/option_profile_info.dtd

```
<!ELEMENT OPTION_PROFILES (OPTION_PROFILE)*>

<!ELEMENT OPTION_PROFILE (BASIC_INFO, SCAN, MAP?, ADDITIONAL)>
<!ELEMENT BASIC_INFO (ID, GROUP_NAME, GROUP_TYPE, USER_ID, UNIT_ID,
SUBSCRIPTION_ID, IS_DEFAULT?, IS_GLOBAL?, IS_OFFLINE_SYNCABLE?,
UPDATE_DATE?)>
<!ELEMENT ID (#PCDATA)>
<!ELEMENT GROUP_NAME (#PCDATA)>
<!ELEMENT GROUP_TYPE (#PCDATA)>
<!ELEMENT USER_ID (#PCDATA)>
<!ELEMENT UNIT_ID (#PCDATA)>
<!ELEMENT SUBSCRIPTION_ID (#PCDATA)>
<!ELEMENT IS_DEFAULT (#PCDATA)>
<!ELEMENT IS_GLOBAL (#PCDATA)>
<!ELEMENT IS_OFFLINE_SYNCABLE (#PCDATA)>
<!ELEMENT UPDATE_DATE (#PCDATA)>

<!ELEMENT SCAN (PORTS?, SCAN_DEAD_HOSTS?, CLOSE_VULNERABILITIES?,
PURGE_OLD_HOST_OS_CHANGED?, PERFORMANCE?, LOAD_BALANCER_DETECTION?,
PASSWORD_BRUTE_FORCING?, VULNERABILITY_DETECTION?, AUTHENTICATION?,
ADDL_CERT_DETECTION?, DISSOLVABLE_AGENT?, LITE_OS_SCAN?,
CUSTOM_HTTP_HEADER?, HOST_ALIVE_TESTING?, SCAN_RESTRICTION?,
CONTROL_TYPES?)>

<!ELEMENT PORTS (TCP_PORTS?, UDP_PORTS?, AUTHORITATIVE_OPTION?,
(STANDARD_SCAN|TARGETED_SCAN)?)>
<!ELEMENT TCP_PORTS (TCP_PORTS_TYPE?, TCP_PORTS_STANDARD_SCAN?,
TCP_PORTS_ADDITIONAL?, THREE_WAY_HANDSHAKE?, STANDARD_SCAN?,
TCP_ADDITIONAL?)>
<!ELEMENT TCP_PORTS_TYPE (#PCDATA)>
<!ELEMENT TCP_PORTS_ADDITIONAL (HAS_ADDITIONAL?, ADDITIONAL_PORTS?)>
<!ELEMENT HAS_ADDITIONAL (#PCDATA)>
<!ELEMENT ADDITIONAL_PORTS (#PCDATA)>
<!ELEMENT THREE_WAY_HANDSHAKE (#PCDATA)>

<!ELEMENT UDP_PORTS (UDP_PORTS_TYPE?, UDP_PORTS_STANDARD_SCAN?,
UDP_PORTS_ADDITIONAL?, (STANDARD_SCAN|CUSTOM_PORT)?)>
<!ELEMENT UDP_PORTS_TYPE (#PCDATA)>
<!ELEMENT UDP_PORTS_ADDITIONAL (HAS_ADDITIONAL?, ADDITIONAL_PORTS?)>

<!ELEMENT AUTHORITATIVE_OPTION (#PCDATA)>
<!ELEMENT STANDARD_SCAN (#PCDATA)>
<!ELEMENT TARGETED_SCAN (#PCDATA)>
```

```
<!ELEMENT SCAN_DEAD_HOSTS (#PCDATA)>

<!ELEMENT CLOSE_VULNERABILITIES (HAS_CLOSE_VULNERABILITIES?,
HOST_NOT_FOUND_ALIVE?)>
<!ELEMENT HAS_CLOSE_VULNERABILITIES (#PCDATA)>
<!ELEMENT HOST_NOT_FOUND_ALIVE (#PCDATA)>

<!ELEMENT PURGE_OLD_HOST_OS_CHANGED (#PCDATA)>

<!ELEMENT PERFORMANCE (PARALLEL_SCALING?, OVERALL_PERFORMANCE,
HOSTS_TO_SCAN, PROCESSES_TO_RUN, PACKET_DELAY,
PORT_SCANNING_AND_HOST_DISCOVERY)>
<!ELEMENT PARALLEL_SCALING (#PCDATA)>
<!ELEMENT OVERALL_PERFORMANCE (#PCDATA)>
<!ELEMENT HOSTS_TO_SCAN (EXTERNAL_SCANNERS, SCANNER_APPLIANCES)>
<!ELEMENT EXTERNAL_SCANNERS (#PCDATA)>
<!ELEMENT SCANNER_APPLIANCES (#PCDATA)>
<!ELEMENT PROCESSES_TO_RUN (TOTAL_PROCESSES, HTTP_PROCESSES)>
<!ELEMENT TOTAL_PROCESSES (#PCDATA)>
<!ELEMENT HTTP_PROCESSES (#PCDATA)>
<!ELEMENT PACKET_DELAY (#PCDATA)>
<!ELEMENT PORT_SCANNING_AND_HOST_DISCOVERY (#PCDATA)>

<!ELEMENT LOAD_BALANCER_DETECTION (#PCDATA)>

<!ELEMENT PASSWORD_BRUTE_FORCING (SYSTEM?, CUSTOM_LIST?)>
<!ELEMENT SYSTEM (HAS_SYSTEM?, SYSTEM_LEVEL?)>
<!ELEMENT HAS_SYSTEM (#PCDATA)>
<!ELEMENT SYSTEM_LEVEL (#PCDATA)>

<!ELEMENT CUSTOM_LIST (CUSTOM+)>
<!ELEMENT CUSTOM (ID, TITLE, TYPE?, LOGIN_PASSWORD?)+>
<!ELEMENT TITLE (#PCDATA)>
<!ELEMENT TYPE (#PCDATA)>
<!ELEMENT LOGIN_PASSWORD (#PCDATA)>

<!ELEMENT VULNERABILITY_DETECTION ((COMPLETE|CUSTOM_LIST|RUNTIME),
DETECTION_INCLUDE?, DETECTION_EXCLUDE?)>
<!ELEMENT COMPLETE (#PCDATA)>
<!ELEMENT RUNTIME (#PCDATA)>

<!ELEMENT DETECTION_INCLUDE (BASIC_HOST_INFO_CHECKS, OVAL_CHECKS)>
<!ELEMENT BASIC_HOST_INFO_CHECKS (#PCDATA)>
<!ELEMENT OVAL_CHECKS (#PCDATA)>
<!ELEMENT DETECTION_EXCLUDE (CUSTOM_LIST+)>

<!ELEMENT AUTHENTICATION (#PCDATA)>
<!ELEMENT ADDL_CERT_DETECTION (#PCDATA)>
```

```
<!ELEMENT DISSOLVABLE_AGENT (DISSOLVABLE_AGENT_ENABLE,
PASSWORD_AUDITING_ENABLE?, WINDOWS_SHARE_ENUMERATION_ENABLE,
WINDOWS_DIRECTORY_SEARCH_ENABLE?)>
<!ELEMENT DISSOLVABLE_AGENT_ENABLE (#PCDATA)>
<!ELEMENT PASSWORD_AUDITING_ENABLE (HAS_PASSWORD_AUDITING_ENABLE?,
CUSTOM_PASSWORD_DICTIONARY?)>
<!ELEMENT HAS_PASSWORD_AUDITING_ENABLE (#PCDATA)>
<!ELEMENT CUSTOM_PASSWORD_DICTIONARY (#PCDATA)>
<!ELEMENT WINDOWS_SHARE_ENUMERATION_ENABLE (#PCDATA)>
<!ELEMENT WINDOWS_DIRECTORY_SEARCH_ENABLE (#PCDATA)>

<!ELEMENT LITE_OS_SCAN (#PCDATA)>
<!ELEMENT CUSTOM_HTTP_HEADER (VALUE?, DEFINITION_KEY?,
DEFINITION_VALUE?)>
<!ELEMENT VALUE (#PCDATA)>
<!ELEMENT DEFINITION_KEY (#PCDATA)>
<!ELEMENT DEFINITION_VALUE (#PCDATA)>

<!ELEMENT HOST_ALIVE_TESTING (#PCDATA)>

<!ELEMENT SCAN_RESTRICTION (SCAN_BY_POLICY?)>
<!ELEMENT SCAN_BY_POLICY  (POLICY+)>
<!ELEMENT POLICY (ID, TITLE)>

<!ELEMENT CONTROL_TYPES (FIM_CONTROLS_ENABLED?,
CUSTOM_WMI_QUERY_CHECKS?)>
<!ELEMENT FIM_CONTROLS_ENABLED (#PCDATA)>
<!ELEMENT CUSTOM_WMI_QUERY_CHECKS (#PCDATA)>

<!ELEMENT MAP (BASIC_INFO_GATHERING_ON, TCP_PORTS?, UDP_PORTS?,
MAP_OPTIONS?, MAP_PERFORMANCE?, MAP_AUTHENTICATION?)>

<!ELEMENT BASIC_INFO_GATHERING_ON (#PCDATA)>
<!ELEMENT TCP_PORTS_STANDARD_SCAN (#PCDATA)>

<!ELEMENT UDP_PORTS_STANDARD_SCAN (#PCDATA)>

<!ELEMENT MAP_OPTIONS (PERFORM_LIVE_HOST_SWEEP?,  DISABLE_DNS_TRAFFIC?)>
<!ELEMENT PERFORM_LIVE_HOST_SWEEP (#PCDATA)>
<!ELEMENT DISABLE_DNS_TRAFFIC (#PCDATA)>

<!ELEMENT MAP_PERFORMANCE (OVERALL_PERFORMANCE, MAP_PARALLEL?,
PACKET_DELAY)>
<!ELEMENT MAP_PARALLEL (EXTERNAL_SCANNERS, SCANNER_APPLIANCES,
NETBLOCK_SIZE)>
<!ELEMENT NETBLOCK_SIZE (#PCDATA)>

<!ELEMENT MAP_AUTHENTICATION (#PCDATA)>
```

```
<!ELEMENT ADDITIONAL (HOST_DISCOVERY, BLOCK_RESOURCES?, PACKET_OPTIONS?)>
<!ELEMENT HOST_DISCOVERY (TCP_PORTS?, UDP_PORTS?, ICMP?)>

<!ELEMENT TCP_ADDITIONAL (HAS_ADDITIONAL?, ADDITIONAL_PORTS?)>

<!ELEMENT CUSTOM_PORT (#PCDATA)>

<!ELEMENT ICMP (#PCDATA)>

<!ELEMENT BLOCK_RESOURCES
((WATCHGUARD_DEFAULT_BLOCKED_PORTS|CUSTOM_PORT_LIST),
(ALL_REGISTERED_IPS|CUSTOM_IP_LIST))>
<!ELEMENT WATCHGUARD_DEFAULT_BLOCKED_PORTS (#PCDATA)>
<!ELEMENT CUSTOM_PORT_LIST (#PCDATA)>
<!ELEMENT ALL_REGISTERED_IPS (#PCDATA)>
<!ELEMENT CUSTOM_IP_LIST (#PCDATA)>

<!ELEMENT PACKET_OPTIONS (IGNORE_FIREWALL_GENERATED_TCP_RST?,
IGNORE_ALL_TCP_RST?,  IGNORE_FIREWALL_GENERATED_TCP_SYN_ACK?,
NOT_SEND_TCP_ACK_OR_SYN_ACK_DURING_HOST_DISCOVERY?)>
<!ELEMENT IGNORE_FIREWALL_GENERATED_TCP_RST (#PCDATA)>
<!ELEMENT IGNORE_ALL_TCP_RST (#PCDATA)>
<!ELEMENT IGNORE_FIREWALL_GENERATED_TCP_SYN_ACK (#PCDATA)>
<!ELEMENT NOT_SEND_TCP_ACK_OR_SYN_ACK_DURING_HOST_DISCOVERY (#PCDATA)>
```

Scanner Appliance List - added Cloud Information

The Scanner Appliance List API v2 (/api/2.0/fo/appliance/ with action=list) is used to list scanner appliances in your account with their configurations. You can now include cloud information in the output for virtual scanner appliances deployed on cloud platforms - Amazon EC2, Microsoft Azure Cloud Platform and Google Cloud Platform.

To see cloud information, your API request must include the new input parameter **include_cloud_info=1** and **output_mode=full**.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: Curl" -d
"action=list&include_cloud_info=1&output_mode=full"
"https://qualysapi.qualys.com/api/2.0/fo/appliance/"
```

XML output:

Sample 1 - Cloud Info for Amazon EC2

```
...
        <IS_CLOUD_DEPLOYED>1</IS_CLOUD_DEPLOYED>
        <CLOUD_INFO>
          <PLATFORM_PROVIDER>ec2</PLATFORM_PROVIDER>
          <EC2_INFO>
            <INSTANCE_ID>i-02441120f4e14e32c</INSTANCE_ID>
            <INSTANCE_TYPE>m3.medium</INSTANCE_TYPE>
            <AMI_ID>ami-2d4ed53a</AMI_ID>
            <ACCOUNT_ID>205767712438</ACCOUNT_ID>
            <INSTANCE_REGION>US East (N. Virginia)</INSTANCE_REGION>
            <INSTANCE_AVAILABILITY_ZONE>us-east-
1c</INSTANCE_AVAILABILITY_ZONE>
            <INSTANCE_ZONE_TYPE>Classic</INSTANCE_ZONE_TYPE>
            <IP_ADDRESS_PRIVATE>10.181.43.219</IP_ADDRESS_PRIVATE>
            <HOSTNAME_PRIVATE>ip-10-181-43-
219.ec2.internal</HOSTNAME_PRIVATE>
            <API_PROXY_SETTINGS>
              <SETTING>Enabled</SETTING>
              <PROXY>
                <PROTOCOL>http</PROTOCOL>
                <IP_ADDRESS>1.1.1.1</IP_ADDRESS>
                <HOSTNAME>test_hostname.com</HOSTNAME>
                <PORT>234</PORT>
                <USER>*****</USER>
              </PROXY>
            </API_PROXY_SETTINGS>
          </EC2_INFO>
        </CLOUD_INFO>
...
```

Sample 2 - Cloud Info for Microsoft Azure Cloud Platform

```
...
        <IS_CLOUD_DEPLOYED>1</IS_CLOUD_DEPLOYED>
        <CLOUD_INFO>
          <PLATFORM_PROVIDER>azure</PLATFORM_PROVIDER>
          <AZURE_INFO>
            <INSTANCE_ID>fa74c883-6877-4381-81f4-893bd444deb</INSTANCE_ID>
             <USER_NAME>u15449542569729</USER_NAME>
             <INSTANCE_LOCATION>eastus</INSTANCE_LOCATION>
             <DEPLOYMENT_MODE>ARM</DEPLOYMENT_MODE>
             <IP_ADDRESS_PRIVATE>10.94.1.8</IP_ADDRESS_PRIVATE>
             <HOSTNAME_PRIVATE>sada-14876-azure</HOSTNAME_PRIVATE>
          </AZURE_INFO>
        </CLOUD_INFO>
...
```

Sample 3 - Cloud Info for Google Cloud Platform

```
...
        <IS_CLOUD_DEPLOYED>1</IS_CLOUD_DEPLOYED>
        <CLOUD_INFO>
          <PLATFORM_PROVIDER>gce</PLATFORM_PROVIDER>
          <GCE_INFO>
            <INSTANCE_ID>5361537763822761158</INSTANCE_ID>
            <MACHINE_TYPE>n1-standard-2</MACHINE_TYPE>
            <PROJECT_ID>1035365309337</PROJECT_ID>
            <PROJECT_NAME>qvsa-test</PROJECT_NAME>
            <PREEMPTIBLE>FALSE</PREEMPTIBLE>
            <INSTANCE_ZONE>asia-east1-c</INSTANCE_ZONE>
            <IP_ADDRESS_PRIVATE>10.240.0.28</IP_ADDRESS_PRIVATE>
            <HOSTNAME_PRIVATE>sada-14837.c.qvsa-
test.internal</HOSTNAME_PRIVATE>
            <IP_ADDRESS_PUBLIC>35.185.143.253</IP_ADDRESS_PUBLIC>
            <INSTANCE_NETWORK>default</INSTANCE_NETWORK>
            <GCE_INSTANCE_TAGS>
              <GCE_INSTANCE_TAG>
                <TAG_ID>sada-tag-2</TAG_ID>
              </GCE_INSTANCE_TAG>
              <GCE_INSTANCE_TAG>
                <TAG_ID>sada-tag-3</TAG_ID>
              </GCE_INSTANCE_TAG>
              <GCE_INSTANCE_TAG>
                <TAG_ID>sada-tag-4</TAG_ID>
              </GCE_INSTANCE_TAG>
            </GCE_INSTANCE_TAGS>
          </GCE_INFO>
        </CLOUD_INFO>
...
```

DTD update:

We updated the Appliance List Output DTD (appliance_list_output.dtd) to include new elements for cloud information (in bold).

```
<!-- QUALYS APPLIANCE_LIST_OUTPUT DTD -->

<!ELEMENT APPLIANCE_LIST_OUTPUT (REQUEST?,RESPONSE)>

    <!ELEMENT REQUEST (DATETIME, USER_LOGIN, RESOURCE, PARAM_LIST?,
                       POST_DATA?)>
        <!ELEMENT DATETIME (#PCDATA)>
        <!ELEMENT USER_LOGIN (#PCDATA)>
        <!ELEMENT RESOURCE (#PCDATA)>
        <!ELEMENT PARAM_LIST (PARAM+)>
            <!ELEMENT PARAM (KEY, VALUE)>
                <!ELEMENT KEY (#PCDATA)>
                <!ELEMENT VALUE (#PCDATA)>
        <!-- if returned, POST_DATA will be urlencoded -->
        <!ELEMENT POST_DATA (#PCDATA)>

    <!ELEMENT RESPONSE (DATETIME, APPLIANCE_LIST?, LICENSE_INFO?)>
        <!ELEMENT APPLIANCE_LIST (APPLIANCE+)>
            <!ELEMENT APPLIANCE (ID, UUID, NAME, NETWORK_ID?,
SOFTWARE_VERSION, RUNNING_SLICES_COUNT, RUNNING_SCAN_COUNT, STATUS,
CMD_ONLY_START?, MODEL_NUMBER?, SERIAL_NUMBER?, ACTIVATION_CODE?,
INTERFACE_SETTINGS*, PROXY_SETTINGS?, IS_CLOUD_DEPLOYED?, CLOUD_INFO?,
VLANS?, STATIC_ROUTES?, ML_LATEST?, ML_VERSION?, VULNSIGS_LATEST?,
VULNSIGS_VERSION?, ASSET_GROUP_COUNT?, ASSET_GROUP_LIST?,
ASSET_TAGS_LIST?, LAST_UPDATED_DATE?, POLLING_INTERVAL?, USER_LOGIN?,
HEARTBEATS_MISSED?, SS_CONNECTION?, SS_LAST_CONNECTED?, FDCC_ENABLED?,
USER_LIST?, UPDATED?, COMMENTS?, RUNNING_SCANS?, MAX_CAPACITY_UNITS?)>
                <!ELEMENT ID (#PCDATA)>
                <!ELEMENT UUID (#PCDATA)>
                <!ELEMENT NAME (#PCDATA)>
                <!ELEMENT NETWORK_ID (#PCDATA)>
                <!ELEMENT SOFTWARE_VERSION (#PCDATA)>
                <!ELEMENT RUNNING_SLICES_COUNT (#PCDATA)>
                <!ELEMENT RUNNING_SCAN_COUNT (#PCDATA)>
                <!ELEMENT STATUS (#PCDATA)>
                <!ELEMENT CMD_ONLY_START (#PCDATA)>
                <!ELEMENT MODEL_NUMBER (#PCDATA)>
                <!ELEMENT SERIAL_NUMBER (#PCDATA)>
                <!ELEMENT ACTIVATION_CODE (#PCDATA)>
                <!ELEMENT INTERFACE_SETTINGS (SETTING?, INTERFACE,
IP_ADDRESS, NETMASK, GATEWAY, LEASE, IPV6_ADDRESS?, SPEED, DUPLEX, DNS)>
                    <!ELEMENT SETTING (#PCDATA)>
                    <!ELEMENT INTERFACE (#PCDATA)>
                    <!ELEMENT IP_ADDRESS (#PCDATA)>
```

```
                        <!ELEMENT NETMASK (#PCDATA)>
                        <!ELEMENT GATEWAY (#PCDATA)>
                        <!ELEMENT LEASE (#PCDATA)>
                        <!ELEMENT IPV6_ADDRESS (#PCDATA)>
                        <!ELEMENT SPEED (#PCDATA)>
                        <!ELEMENT DUPLEX (#PCDATA)>
                        <!ELEMENT DNS (DOMAIN?, PRIMARY, SECONDARY)>
                            <!ELEMENT DOMAIN (#PCDATA)>
                            <!ELEMENT PRIMARY (#PCDATA)>
                            <!ELEMENT SECONDARY (#PCDATA)>
                    <!ELEMENT PROXY_SETTINGS (SETTING, PROXY*)>
                        <!ELEMENT PROXY (PROTOCOL?, IP_ADDRESS?, HOSTNAME?,
                                         PORT, USER)>
                            <!ELEMENT PROTOCOL (#PCDATA)>
                            <!ELEMENT HOSTNAME (#PCDATA)>
                            <!ELEMENT PORT (#PCDATA)>
                            <!ELEMENT USER (#PCDATA)>

                    <!ELEMENT IS_CLOUD_DEPLOYED (#PCDATA)>
                    <!ELEMENT CLOUD_INFO (PLATFORM_PROVIDER, EC2_INFO?,
                                          GCE_INFO?, AZURE_INFO?)>
                        <!ELEMENT PLATFORM_PROVIDER (#PCDATA)>
                        <!ELEMENT EC2_INFO (INSTANCE_ID, INSTANCE_TYPE,
KERNEL_ID?, AMI_ID, ACCOUNT_ID, INSTANCE_REGION,
INSTANCE_AVAILABILITY_ZONE, INSTANCE_ZONE_TYPE,
INSTANCE_VPC_ID?, INSTANCE_SUBNET_ID?, IP_ADDRESS_PRIVATE?,
HOSTNAME_PRIVATE?, SECURITY_GROUPS?, API_PROXY_SETTINGS)>
                            <!ELEMENT INSTANCE_ID (#PCDATA)>
                            <!ELEMENT INSTANCE_TYPE (#PCDATA)>
                            <!ELEMENT KERNEL_ID (#PCDATA)>
                            <!ELEMENT AMI_ID (#PCDATA)>
                            <!ELEMENT ACCOUNT_ID (#PCDATA)>
                            <!ELEMENT INSTANCE_REGION (#PCDATA)>
                            <!ELEMENT INSTANCE_AVAILABILITY_ZONE (#PCDATA)>
                            <!ELEMENT INSTANCE_ZONE_TYPE (#PCDATA)>
                            <!ELEMENT INSTANCE_VPC_ID (#PCDATA)>
                            <!ELEMENT INSTANCE_SUBNET_ID (#PCDATA)>
                            <!ELEMENT IP_ADDRESS_PRIVATE (#PCDATA)>
                            <!ELEMENT HOSTNAME_PRIVATE (#PCDATA)>
                            <!ELEMENT SECURITY_GROUPS (SECURITY_GROUP_IDS?,
                                                       SECURITY_GROUP_NAMES?)>
                                <!ELEMENT SECURITY_GROUP_IDS (#PCDATA)>
                                <!ELEMENT SECURITY_GROUP_NAMES (#PCDATA)>
                            <!ELEMENT API_PROXY_SETTINGS (SETTING, PROXY*)>

                        <!ELEMENT GCE_INFO (INSTANCE_ID, MACHINE_TYPE,
                                PROJECT_ID, PROJECT_NAME,
                                PREEMPTIBLE,
                                INSTANCE_ZONE,
```

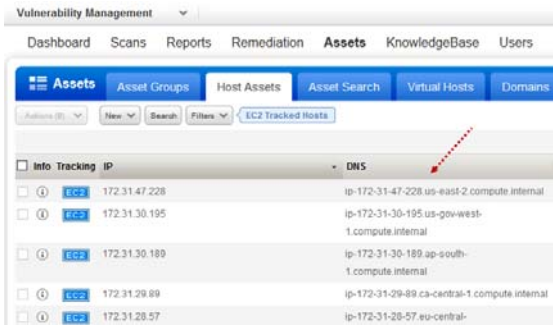
```
                                IP_ADDRESS_PRIVATE?, HOSTNAME_PRIVATE?,
                                IP_ADDRESS_PUBLIC?,
                                INSTANCE_NETWORK,
                                GCE_INSTANCE_TAGS
                                )>
                            <!ELEMENT MACHINE_TYPE (#PCDATA)>
                            <!ELEMENT PROJECT_ID (#PCDATA)>
                            <!ELEMENT PROJECT_NAME (#PCDATA)>
                            <!ELEMENT PREEMPTIBLE (#PCDATA)>
                            <!ELEMENT INSTANCE_ZONE (#PCDATA)>
                            <!ELEMENT GCE_INSTANCE_TAGS (GCE_INSTANCE_TAG*)>
                                <!ELEMENT GCE_INSTANCE_TAG (TAG_ID)>
                                    <!ELEMENT TAG_ID (#PCDATA)>
                            <!ELEMENT IP_ADDRESS_PUBLIC (#PCDATA)>
                            <!ELEMENT INSTANCE_NETWORK (#PCDATA)>

                        <!ELEMENT AZURE_INFO (INSTANCE_ID, USER_NAME,
                                INSTANCE_LOCATION, DEPLOYMENT_MODE,
                                IP_ADDRESS_PRIVATE?, HOSTNAME_PRIVATE?)>
                            <!ELEMENT USER_NAME (#PCDATA)>
                            <!ELEMENT INSTANCE_LOCATION (#PCDATA)>
                            <!ELEMENT DEPLOYMENT_MODE (#PCDATA)>

...
```

EC2 Assets - Improved Reporting of private DNS host name and Instance ID

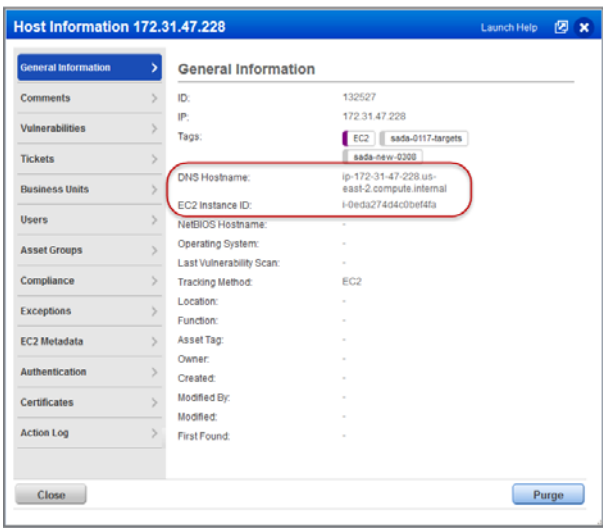
For EC2 assets we'll now show actual private DNS names for DNS hostname in the UI and API instead of EC2 Instance ID. These APIs have been updated: Host List API, Host Info API v1, VM Detection API, and Asset Search API. A new <EC2_INSTANCE_ID> tag has been added to related DTDs and the XML output will include this tag for EC2 assets when EC2 Scanning is enabled for the subscription.

UI Changes

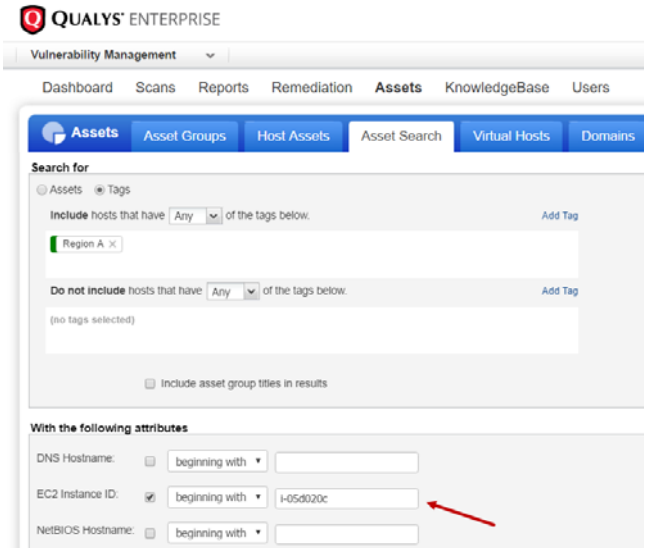
Host List page: For EC2 assets, the DNS column now shows the EC2 asset's private DNS name.



Host Info page: For EC2 assets, the private DNS name is shown for Hostname and EC2 Instance ID is shown separately.



Asset Search: We've added new option to search by EC2 Instance ID, and the DNS Hostname attribute searches across private EC2 host names.



DTD Changes (API and Reports)

Scan Report (template based) changes

Updates to multiple report formats: XML, CSV, HTML, PDF and DOCX.

URL: <base_url>/api/2.0/fo/report/?action=launch
DTD: <base_url>/asset_data_report.dtd

API Request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl" -d
"action=launch&report_title=EC2Rep1&template_id=90111&output_format=xml"
"https://qualysapi.qualys.com/api/2.0/fo/report/"
```

XML output: New <EC2_INSTANCE_ID> tag as well as new <EC2_INFO> tag. These tags will only appear in subscriptions with EC2 Scanning enabled and only when the "EC2 Related Information" option is selected in the report template.

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE ASSET_DATA_REPORT SYSTEM
"https://qualysapi.qualys.com/asset_data_report.dtd">
<ASSET_DATA_REPORT>
...
<HOST_LIST>
  <HOST>
   <IP>10.90.2.30</IP>
```

```
    <TRACKING_METHOD>EC2</TRACKING_METHOD>
    <ASSET_TAGS>
     <ASSET_TAG><![CDATA[EC2]]></ASSET_TAG>
     <ASSET_TAG><![CDATA[TG1]]></ASSET_TAG>
     <ASSET_TAG><![CDATA[Vriginia]]></ASSET_TAG>
     <ASSET_TAG><![CDATA[agec2]]></ASSET_TAG>
    </ASSET_TAGS>
    <DNS><![CDATA[ip-10-90-2-30.ec2.internal]]></DNS>
    <EC2_INSTANCE_ID><![CDATA[i-0b11abd19771f17ed]]></EC2_INSTANCE_ID>
    <EC2_INFO>
     <PUBLIC_DNS_NAME><![CDATA[ec2-184-73-79-113.compute-
      1.amazonaws.com]]></PUBLIC_DNS_NAME>
     <IMAGE_ID><![CDATA[ami-2d4ed53a]]></IMAGE_ID>
     <VPC_ID><![CDATA[vpc-1e37cd76]]></VPC_ID>
     <INSTANCE_STATE><![CDATA[RUNNING]]></INSTANCE_STATE>
     <PRIVATE_DNS_NAME><![CDATA[ip-10-90-2-
      30.ec2.internal]]></PRIVATE_DNS_NAME>
     <INSTANCE_TYPE><![CDATA[t2.medium]]></INSTANCE_TYPE>
    </EC2_INFO>
...
</ASSET_DATA_REPORT>
```

DTD update:

https://<base_url>/asset_data_report.dtd

```
...
<!-- HOST_LIST -->
<!ELEMENT HOST_LIST (HOST+)>
<!ELEMENT HOST (ERROR | (IP, TRACKING_METHOD, ASSET_TAGS?,
                         DNS?, NETBIOS?, QG_HOSTID?, EC2_INSTANCE_ID?,
                         IP_INTERFACES?, EC2_INFO?, OPERATING_SYSTEM?,
                         OS_CPE?, ASSET_GROUPS?, VULN_INFO_LIST?))>
...
<!ELEMENT EC2_INSTANCE_ID (#PCDATA)>
<!ELEMENT IP_INTERFACES (IP*)>
<!ELEMENT EC2_INFO
(PUBLIC_DNS_NAME?,IMAGE_ID?,VPC_ID?,INSTANCE_STATE?,PRIVATE_DNS_NAME?,INS
TANCE_TYPE?)>
<!ELEMENT PUBLIC_DNS_NAME (#PCDATA)>
<!ELEMENT IMAGE_ID (#PCDATA)>
<!ELEMENT VPC_ID (#PCDATA)>
<!ELEMENT INSTANCE_STATE (#PCDATA)>
<!ELEMENT PRIVATE_DNS_NAME (#PCDATA)>
<!ELEMENT INSTANCE_TYPE (#PCDATA)>
<!ELEMENT OPERATING_SYSTEM (#PCDATA)>
<!ELEMENT OS_CPE (#PCDATA)>
<!ELEMENT ASSET_GROUPS (ASSET_GROUP_TITLE+)>
<!ELEMENT VULN_INFO_LIST (VULN_INFO+)>
```

CSV format:

The EC2 Instance ID column will only appear in subscriptions with EC2 Scanning enabled and only when the "EC2 Related Information" option is selected in the report template. The columns for EC2 Instance ID and metadata information appear at the end.

```
"IP","Network","DNS","NetBIOS","QG Host ID","IP Interfaces","Tracking
Method","OS","IP Status","QID","Title","Vuln
Status","Type","Severity","Port","Protocol","FQDN","SSL","First
Detected","Last Detected","Times Detected","Date Last Fixed","CVE
ID","Vendor Reference","Bugtraq ID","Results","PCI Vuln","Ticket
State","Instance","Category","Associated Tags","EC2 Instance ID","Public
Hostname","Image ID","VPC ID","Instance State","Private
Hostname","Instance Type"
"10.97.13.235","EC2-us-east-1-vpc90","i-
0372d653f57cd04ae",,,,"EC2","Amazon Linux","host scanned, found
vuln","82054","TCP Sequence Number Approximation Based Denial of
Service","Active","Vuln","2",,,,,"05/11/2017 11:41:03","05/11/2017
13:47:22","4",,"CVE-2004-0230",,"10183","Tested on port 80 with an
injected SYN/RST offset by 16 bytes.#","no",,,"TCP/IP","QCon1, agec2","i-
0372d653f57cd04ae",,"ami-9be6f38c","vpc-2da7154b","RUNNING",,"t2.medium"
```

HTML, PDF and DOCX format: Previously on the host level, only ip, ec2 instance id & NetBIOS was shown, now we will include both private dns name too

Host List API v2 changes

New <EC2_INSTANCE_ID> tag is now shown right after DNS name. DNS name is the private DNS name for the EC2 asset. This tag only appears when EC2 Scanning is enabled for the subscription.

URL: <base_url>/api/2.0/fo/asset/host/?action=list
DTD: <base_url>/api/2.0/fo/asset/host/host_list_output.dtd

API Request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl" -d
"action=list" "https://qualysapi.qualys.com/api/2.0/fo/asset/host/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE HOST_LIST_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/asset/host/host_list_output.dtd"
>

<HOST_LIST_OUTPUT>
  <RESPONSE>
    <DATETIME>2017-04-13T04:47:41Z</DATETIME>
    <HOST_LIST>
        <ID>132340</ID>
        <IP>10.90.2.175</IP>
        <TRACKING_METHOD>EC2</TRACKING_METHOD>
        <DNS><![CDATA[i-0b121b9211d7e25cb]]></DNS>
       <EC2_INSTANCE_ID><![CDATA[i-0b121b9211d7e25cb]]></EC2_INSTANCE_ID>
      </HOST>
      <HOST>
        <ID>132482</ID>
        <IP>10.90.2.202</IP>
        <TRACKING_METHOD>EC2</TRACKING_METHOD>
        <DNS><![CDATA[i-0ba79104d7023d4df]]></DNS>
       <EC2_INSTANCE_ID><![CDATA[i-0ba79104d7023d4df]]></EC2_INSTANCE_ID>
      </HOST>
    </HOST_LIST>
  </RESPONSE>
</HOST_LIST_OUTPUT>
```

DTD :

```
...
<!ELEMENT HOST_LIST (HOST+)>
<!ELEMENT HOST (ID, IP?, TRACKING_METHOD?, NETWORK_ID?,
                DNS?, EC2_INSTANCE_ID?, NETBIOS?, OS?, QG_HOSTID?, TAGS?,
                METADATA?, LAST_VULN_SCAN_DATETIME?,
                LAST_VM_SCANNED_DATE?, LAST_VM_SCANNED_DURATION?,
                LAST_VM_AUTH_SCANNED_DATE?,
                LAST_VM_AUTH_SCANNED_DURATION?,
                LAST_COMPLIANCE_SCAN_DATETIME?, OWNER?, COMMENTS?,
                USER_DEF?, ASSET_GROUP_IDS?)>
<!ELEMENT ID (#PCDATA)>
<!ELEMENT IP (#PCDATA)>
<!ELEMENT TRACKING_METHOD (#PCDATA)>
<!ELEMENT NETWORK_ID (#PCDATA)>
<!ELEMENT DNS (#PCDATA)>
```

```
<!ELEMENT EC2_INSTANCE_ID (#PCDATA)>
...
```

Host Info API v1 changes

New <EC2_INSTANCE_ID> tag is now shown right after DNS name. DNS name is the private DNS name for the EC2 asset. This tag only appears when EC2 Scanning is enabled for the subscription.

URL: <base_url>/msp/get_host_info.php
DTD: <base_url>/get_host_info.dtd

API Request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl"
"https://qualysapi.qualys.com/msp/get_host_info.php?host_ip=10.91.78.235&
general_info=1&vuln_details=1"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE HOST SYSTEM "https://qualysapi.qualys.com/get_host_info.dtd">
<HOST>
  <TRACKING_METHOD>EC2</TRACKING_METHOD>
  <SECURITY_RISK>0</SECURITY_RISK>
  <IP>10.91.78.235</IP>
  <DNS><![CDATA[i-0299276e783120b15]]></DNS>
  <EC2_INSTANCE_ID><![CDATA[i-0299276e783120b15]]></EC2_INSTANCE_ID>
  <OPERATING_SYSTEM><![CDATA[]]></OPERATING_SYSTEM>
  <ASSET_GROUP_LIST>
    <ASSET_GROUP>
      <ASSET_GROUP_TITLE><![CDATA[agec2]]></ASSET_GROUP_TITLE>
      <CVSS_ENVIRONMENT>
        <CVSS_COLLATERAL_DAMAGE_POTENTIAL>Not
...
      </CVSS_ENVIRONMENT>
    </ASSET_GROUP>
  </ASSET_GROUP_LIST>
...
</HOST>
```

DTD update:

```
<!-- QUALYS HOST INFO DTD -->
<!-- $Revision$ -->

<!ELEMENT HOST (ERROR | (TRACKING_METHOD, SECURITY_RISK, IP,
                         DNS?, NETBIOS?, EC2_INSTANCE_ID?,
                         OPERATING_SYSTEM?, LAST_SCAN_DATE?, COMMENT?,
                         OWNER?, USER_DEFINED_ATTR_LIST?, USER_LIST?,
```

```
                          ASSET_GROUP_LIST?, AUTHENTICATION_RECORD_LIST?,
                          BUSINESS_UNIT_LIST?, VULNS?, POTENTIAL_VULNS?,
                          INFO_GATHERED?, TICKETS?))>

...
<!-- Optional elements -->

<!ELEMENT DNS (#PCDATA)>
<!ELEMENT NETBIOS (#PCDATA)>
<!ELEMENT EC2_INSTANCE_ID (#PCDATA)>
<!ELEMENT OPERATING_SYSTEM (#PCDATA)>
<!ELEMENT LAST_SCAN_DATE (#PCDATA)>
<!ELEMENT COMMENT (#PCDATA)>
```

VM Detection API changes

New <EC2_INSTANCE_ID> tag is now shown right after DNS name. DNS name is the private DNS name for the EC2 asset. This tag only appears when EC2 Scanning is enabled for the subscription and the "host_metadata=ec2" parameter is specified.

URL: <base_url>/api/2.0/fo/asset/host/vm/detection/?action=list
DTD: <base_url>/api/2.0/fo/asset/host/vm/detection/host_list_vm_detection_output.dtd

API Request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl"
"https://qualysapi.qualys.com/api/2.0/fo/asset/host/vm/detection/?action=
list&output_format=XML&truncation_limit=0&ips=10.97.5.247&show_results=0&
host_metadata=ec2"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE HOST_LIST_VM_DETECTION_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/asset/host/vm/detection/host_lis
t_vm_detection_output.dtd">
<HOST_LIST_VM_DETECTION_OUTPUT>
  <RESPONSE>
    <DATETIME>2016-11-14T11:21:02Z</DATETIME>
    <HOST_LIST>
     <HOST>
      <ID>135151</ID>
      <IP>10.97.5.247</IP>
      <TRACKING_METHOD>EC2</TRACKING_METHOD>
      <OS><![CDATA[Amazon Linux 2016.09]]></OS>
      <DNS><![CDATA[i-0bb87c3281243cdfd]]></DNS>
      <EC2_INSTANCE_ID><![CDATA[i-0bb87c3281243cdfd]]></EC2_INSTANCE_ID>
      <LAST_SCAN_DATETIME>2017-03-21T13:41:20Z</LAST_SCAN_DATETIME>
      <LAST_VM_SCANNED_DATE>2017-03-21T13:39:38Z</LAST_VM_SCANNED_DATE>
```

```
      <LAST_VM_SCANNED_DURATION>229</LAST_VM_SCANNED_DURATION>
      <LAST_VM_AUTH_SCANNED_DATE>2017-03-
        21T13:39:38Z</LAST_VM_AUTH_SCANNED_DATE>
      <LAST_VM_AUTH_SCANNED_DURATION>229</LAST_VM_AUTH_SCANNED_DURATION>
      <LAST_PC_SCANNED_DATE>2017-03-21T13:21:51Z</LAST_PC_SCANNED_DATE>
      <METADATA>
        <EC2>
          <ATTRIBUTE>
           <NAME><![CDATA[latest/dynamic/instance-
            identity/document/region]]></NAME>
           <LAST_STATUS>Success</LAST_STATUS>
           <VALUE><![CDATA[us-east-1]]></VALUE>
           <LAST_SUCCESS_DATE>2017-03-21T13:39:38Z</LAST_SUCCESS_DATE>
           <LAST_ERROR_DATE></LAST_ERROR_DATE>
           <LAST_ERROR><![CDATA[]]></LAST_ERROR>
          </ATTRIBUTE>
        </EC2>
       </METADATA>
      </HOST>
     </HOST_LIST>
   </RESPONSE>
</HOST_LIST_VM_DETECTION_OUTPUT>
```

DTD:

```
...
<!ELEMENT HOST_LIST (HOST+)>
<!ELEMENT HOST (ID, IP?, IPV6?, TRACKING_METHOD?, NETWORK_ID?, OS?,
                OS_CPE?, DNS?, EC2_INSTANCE_ID?, NETBIOS?, QG_HOSTID?,
                LAST_SCAN_DATETIME?, LAST_VM_SCANNED_DATE?,
                LAST_VM_SCANNED_DURATION?, LAST_VM_AUTH_SCANNED_DATE?,
                LAST_VM_AUTH_SCANNED_DURATION?, LAST_PC_SCANNED_DATE?,
                TAGS?, METADATA?, DETECTION_LIST)>
<!ELEMENT ID (#PCDATA)>
<!ELEMENT IP (#PCDATA)>
<!ELEMENT IPV6 (#PCDATA)>
<!ELEMENT TRACKING_METHOD (#PCDATA)>
<!ELEMENT NETWORK_ID (#PCDATA)>
<!ELEMENT OS (#PCDATA)>
<!ELEMENT OS_CPE (#PCDATA)>
<!ELEMENT DNS (#PCDATA)>
<!ELEMENT EC2_INSTANCE_ID (#PCDATA)>
...
```

CSV format: The EC2InstanceID column only appears when EC2 Scanning is enabled for your subscription and the "host_metadata=ec2" parameter is specified in the API request. This new column appears after DNS Name.

```
"Host ID","IP Address","Tracking Method","Operating System","DNS
Name","EC2InstanceID","Netbios Name","Last Scan Datetime","OS CPE","Last
VM Scanned Date","Last VM Scanned Duration","Last VM Auth Scanned
Date","Last VM Auth Scanned Duration","Last PC Scanned
Date","QID","Type","Port","Protocol","FQDN","SSL","Instance","Status","Se
verity","First Found Datetime","Last Found Datetime","Last Test
Datetime","Last Update Datetime","Last Fixed
Datetime","Results","Ignored","Disabled","Times Found","Service"
"90417","10.97.13.235","AGENT","Amazon Linux AMI 2016.09","ip-10-97-13-
235","i-0b68f500c1e6a3cc0",,"2017-04-13T03:54:12Z",,"2017-04-
13T03:53:08Z",,"2017-04-13T03:53:08Z",,"2017-04-
12T22:23:53Z","105083","Confirmed",,,,"0",,"Active","1","2017-01-
17T10:05:18Z","2017-04-01T17:42:57Z","2017-04-01T17:42:57Z","2017-04-
01T17:44:11Z",,"root"
```

Asset Search API v1 changes

New input parameter for EC2 Instance ID attribute. New <EC2_INSTANCE_ID> tag is now shown right after DNS name. DNS name is the private DNS name for the EC2 asset. This tag only appears when EC2 Scanning is enabled for the subscription.

URL: <base_url>/msp/asset_search.php
DTD: <base_url>/asset_search_report.dtd

API Request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl"
"https://qualysapi.qualys.com/msp/asset_search.php?target_ips=172.31.47.2
28,172.31.17.104"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE ASSET_SEARCH_REPORT SYSTEM
"https://qualysapi.qualys.com/asset_search_report.dtd">
...
  <HOST_LIST>
    <HOST>
      <IP>172.31.47.228</IP>
      <TRACKING_METHOD>EC2</TRACKING_METHOD>
      <DNS><![CDATA[ip-172-31-47-228.us-east-2.compute.internal]]></DNS>
      <EC2_INSTANCE_ID><![CDATA[i-0eda274d4c0bef4fa]]></EC2_INSTANCE_ID>
      <OPERATING_SYSTEM><![CDATA[]]></OPERATING_SYSTEM>
      <ASSET_GROUPS>
        <ASSET_GROUP_TITLE><![CDATA[All]]></ASSET_GROUP_TITLE>
      </ASSET_GROUPS>
```

```
    </HOST>
    <HOST>
      <IP>172.31.17.104</IP>
      <TRACKING_METHOD>EC2</TRACKING_METHOD>
      <DNS><![CDATA[ip-172-31-17-104.eu-central-
       1.compute.internal]]></DNS>
      <EC2_INSTANCE_ID><![CDATA[i-33f1498e]]></EC2_INSTANCE_ID>
      <OPERATING_SYSTEM><![CDATA[]]></OPERATING_SYSTEM>
      <ASSET_GROUPS>
        <ASSET_GROUP_TITLE><![CDATA[All]]></ASSET_GROUP_TITLE>
      </ASSET_GROUPS>
    </HOST>
  </HOST_LIST>
</ASSET_SEARCH_REPORT>
```

DTD update:

```
<!-- QUALYS ASSET SEARCH REPORT DTD -->

<!ELEMENT ASSET_SEARCH_REPORT (ERROR | (HEADER, HOST_LIST?))>
...
<!-- HOST_LIST -->

<!ELEMENT HOST_LIST ((HOST|WARNING)+)>

<!ELEMENT HOST (ERROR | (IP, HOST_TAGS?,TRACKING_METHOD,
                         DNS?, EC2_INSTANCE_ID?, NETBIOS?,
                         OPERATING_SYSTEM?, OS_CPE?, QID_LIST?,
                         PORT_SERVICE_LIST?,
                         ASSET_GROUPS?, LAST_SCAN_DATE?,
                         FIRST_FOUND_DATE?))>

<!ELEMENT IP (#PCDATA)>
<!ATTLIST IP network_id CDATA #IMPLIED>
<!ELEMENT HOST_TAGS (#PCDATA)>
<!ELEMENT DNS (#PCDATA)>
<!ELEMENT EC2_INSTANCE_ID (#PCDATA)>
<!ELEMENT NETBIOS (#PCDATA)>
<!ELEMENT OPERATING_SYSTEM (#PCDATA)>
<!ELEMENT OS_CPE (#PCDATA)>
<!ELEMENT QID_LIST (QID+)>
<!ELEMENT QID (ID, RESULT?)>
<!ELEMENT ID (#PCDATA)>
```

Asset Search API v2 changes

New input parameter for EC2 Instance ID attribute. New <EC2_INSTANCE_ID> tag is now shown right after DNS name. DNS name is the private DNS name for the EC2 asset. This tag only appears when EC2 Scanning is enabled for the subscription.

URL: <base_url>/api/2.0/fo/report/asset
DTD: <base_url>/asset_search_report_v2.dtd

API Request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl" -d
"action=search&output_format=xml&ips=172.31.47.228,172.31.17.104&tracking
_method=EC2" "https://qualysapi.qualys.com/api/2.0/fo/report/asset/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>

<!DOCTYPE ASSET_SEARCH_REPORT SYSTEM
"https://qualysapi.qualys.com/asset_search_report_v2.dtd">

<ASSET_SEARCH_REPORT>
<HEADER>
  <COMPANY><![CDATA[qualys-test]]></COMPANY>
  <USERNAME>sada-customer customer</USERNAME>
  <GENERATION_DATETIME>2017-04-07T10:27:21Z</GENERATION_DATETIME>
...
<HOST_LIST>
  <HOST>
    <IP><![CDATA[172.31.17.104]]></IP>
    <TRACKING_METHOD>EC2</TRACKING_METHOD>
    <DNS><![CDATA[ip-172-31-17-104.eu-central-1.compute.internal]]></DNS>
    <EC2_INSTANCE_ID><![CDATA[i-33f1498e]]></EC2_INSTANCE_ID>
    <LAST_SCAN_DATE />
    <FIRST_FOUND_DATE />
  </HOST>
  <HOST>
    <IP><![CDATA[172.31.47.228]]></IP>
    <TRACKING_METHOD>EC2</TRACKING_METHOD>
    <DNS><![CDATA[ip-172-31-47-228.us-east-2.compute.internal]]></DNS>
    <EC2_INSTANCE_ID><![CDATA[i-0eda274d4c0bef4fa]]></EC2_INSTANCE_ID>
    <LAST_SCAN_DATE />
    <FIRST_FOUND_DATE />
  </HOST>
</HOST_LIST>
</ASSET_SEARCH_REPORT>
```

DTD update:

```
<!-- QUALYS ASSET SEARCH REPORT DTD -->

<!ELEMENT ASSET_SEARCH_REPORT (ERROR | (HEADER, HOST_LIST?))>
...
<!-- HOST_LIST -->
<!ELEMENT HOST_LIST ((HOST|WARNING)*)>

<!ELEMENT HOST (ERROR | (IP, HOST_TAGS?,TRACKING_METHOD,
                         DNS?, EC2_INSTANCE_ID?, NETBIOS?,
                         OPERATING_SYSTEM?, OS_CPE?, QID_LIST?,
                         PORT_SERVICE_LIST?,ASSET_GROUPS?,NETWORK?,
                         LAST_SCAN_DATE?, LAST_COMPLIANCE_SCAN_DATE?,
FIRST_FOUND_DATE?))>

<!ELEMENT IP (#PCDATA)>
<!ATTLIST IP network_id CDATA #IMPLIED>
<!ELEMENT HOST_TAGS (#PCDATA)>
<!ELEMENT DNS (#PCDATA)>
<!ELEMENT EC2_INSTANCE_ID (#PCDATA)>
<!ELEMENT NETBIOS (#PCDATA)>
<!ELEMENT OPERATING_SYSTEM (#PCDATA)>
<!ELEMENT OS_CPE (#PCDATA)>
<!ELEMENT QID_LIST (QID+)>
<!ELEMENT QID (ID, RESULT?)>
<!ELEMENT ID (#PCDATA)>
```

CSV format: The EC2InstanceID column only appears when EC2 Scanning is enabled for your subscription. This new column appears at the end.

```
"IP","DNSHostname","NetBIOSHostname","OperatingSystem","OSCPE","Port/Serv
ice/Default
Service","TrackingMethod","LastScanDate","LastComplianceScanDate","First
Found","Tags","EC2InstanceID"

"172.31.17.104","ip-172-31-17-104.eu-central-
1.compute.internal",,,,,"EC2",,,,

"172.31.47.228","ip-172-31-47-228.us-east-2.compute.internal","i-
0eda274d4c0bef4fa",,,,,"EC2",,,,"i-33f1498e"
```

Manage assets using EC2 metadata

Search and return EC2 metadata

The following APIs can now fetch EC2 metadata. You can then search for (manage) assets using the EC2 metadata.

Host List	/api/2.0/fo/asset/host/
Host List Detection	/api/2.0/fo/asset/host/vm/detection/

New parameters added:

Parameter	Description
host_metadata={value}	Specify the name of the cloud provider, i.e., EC2.
host_metadata_fields={value1, value2}	Specify the EC2 instance fields to fetch the data for. Data can be fetched for any of the following fields: - accountId - region - availabilityZone - instanceId - instanceType - imageId - kernelId Multiple field names are comma separated.

Host List API example: fetch region, accountId, and instanceId info for EC2 assets

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl" -X POST
"action=list&details=All&host_metadata=ec2&host_metadata_fields=region,ac
countId,instanceId" "https://qualysapi.qualys.com/api/2.0/fo/asset/host/"
```

XML output:

```
<!DOCTYPE HOST_LIST_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/asset/host/host_list_output.dtd"
>
<HOST_LIST_OUTPUT>
  <RESPONSE>
    <DATETIME>2016-11-15T09:50:46Z</DATETIME>
    <HOST_LIST>
       <HOST>
       <ID>135151</ID>
```

```
            <IP>10.97.5.247</IP>
            <TRACKING_METHOD>EC2</TRACKING_METHOD>
            <DNS><![CDATA[i-0bb87c3281243cdfd]]></DNS>
            <EC2_INSTANCE_ID><![CDATA[i-0bb87c3281243cdfd]]></EC2_INSTANCE_ID>
            <OS><![CDATA[Amazon Linux 2016.09]]></OS>
            <METADATA>
              <EC2>
                <ATTRIBUTE>
                  <NAME><![CDATA[latest/dynamic/instance-
                   identity/document/region]]></NAME>
                  <LAST_STATUS>Success</LAST_STATUS>
                  <VALUE><![CDATA[us-east-1]]></VALUE>
                  <LAST_SUCCESS_DATE>2017-03-21T13:39:38Z</LAST_SUCCESS_DATE>
                  <LAST_ERROR_DATE></LAST_ERROR_DATE>
                  <LAST_ERROR><![CDATA[]]></LAST_ERROR>
                </ATTRIBUTE>
                <ATTRIBUTE>
                  <NAME><![CDATA[latest/dynamic/instance-
                   identity/document/instanceId]]></NAME>
                  <LAST_STATUS>Success</LAST_STATUS>
                  <VALUE><![CDATA[i-0bb87c3281243cdfd]]></VALUE>
                  <LAST_SUCCESS_DATE>2017-03-21T13:39:38Z</LAST_SUCCESS_DATE>
                  <LAST_ERROR_DATE></LAST_ERROR_DATE>
                  <LAST_ERROR><![CDATA[]]></LAST_ERROR>
                </ATTRIBUTE>
                <ATTRIBUTE>
                  <NAME><![CDATA[latest/dynamic/instance-
                   identity/document/accountId]]></NAME>
                  <LAST_STATUS>Success</LAST_STATUS>
                  <VALUE><![CDATA[205767712438]]></VALUE>
                  <LAST_SUCCESS_DATE>2017-03-21T13:39:38Z</LAST_SUCCESS_DATE>
                  <LAST_ERROR_DATE></LAST_ERROR_DATE>
                  <LAST_ERROR><![CDATA[]]></LAST_ERROR>
                </ATTRIBUTE>
              </EC2>
            </METADATA>
            <LAST_VULN_SCAN_DATETIME>2017-03-
             21T13:39:38Z</LAST_VULN_SCAN_DATETIME>
            <LAST_VM_SCANNED_DATE>2017-03-21T13:39:38Z</LAST_VM_SCANNED_DATE>
            <LAST_VM_SCANNED_DURATION>229</LAST_VM_SCANNED_DURATION>
            <LAST_VM_AUTH_SCANNED_DATE>2017-03-
             21T13:39:38Z</LAST_VM_AUTH_SCANNED_DATE>
            <LAST_VM_AUTH_SCANNED_DURATION>229</LAST_VM_AUTH_SCANNED_DURATION>
            <LAST_COMPLIANCE_SCAN_DATETIME>2017-03-
             21T13:21:51Z</LAST_COMPLIANCE_SCAN_DATETIME>
          </HOST>
        </HOST_LIST>
      </RESPONSE>
    </HOST_LIST_OUTPUT>
```

DTD update:

https://<base_url>/api/2.0/fo/asset/host/host_list_output.dtd

```
...
<!ELEMENT HOST (ID, IP?, TRACKING_METHOD?, NETWORK_ID?,
                DNS?, EC2_INSTANCE_ID?, NETBIOS?, OS?, QG_HOSTID?, TAGS?,
                METADATA?, LAST_VULN_SCAN_DATETIME?,
                LAST_VM_SCANNED_DATE?, LAST_VM_SCANNED_DURATION?,
                LAST_VM_AUTH_SCANNED_DATE?,LAST_VM_AUTH_SCANNED_DURATION?,
                LAST_COMPLIANCE_SCAN_DATETIME?, OWNER?, COMMENTS?,
                USER_DEF?, ASSET_GROUP_IDS?)>
...
<!ELEMENT VALUE_1 (#PCDATA)>
<!ELEMENT VALUE_2 (#PCDATA)>
<!ELEMENT VALUE_3 (#PCDATA)>

<!ELEMENT METADATA (EC2|GOOGLE|AZURE)+>
<!ELEMENT EC2 (ATTRIBUTE*)>
<!ELEMENT GOOGLE (ATTRIBUTE*)>
<!ELEMENT AZURE (ATTRIBUTE*)>
<!ELEMENT ATTRIBUTE
(NAME,LAST_STATUS,VALUE,LAST_SUCCESS_DATE?,LAST_ERROR_DATE?,LAST_ERROR?)
>
<!ELEMENT LAST_STATUS (#PCDATA)>
<!ELEMENT LAST_SUCCESS_DATE (#PCDATA)>
<!ELEMENT LAST_ERROR_DATE (#PCDATA)>
<!ELEMENT LAST_ERROR (#PCDATA)>
<!ELEMENT ASSET_GROUP_IDS (#PCDATA)>...
...
```

Host List Detection API example: fetch region info for EC2 assets

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl" -X POST
"https://qualysapi.qualys.com/api/2.0/fo/asset/host/vm/detection/?action=
list&host_metadata=ec2&host_metadata_fields=region"
```

XML output:

```
<!DOCTYPE HOST_LIST_VM_DETECTION_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/asset/host/vm/detection/host_lis
t_vm_detection_output.dtd">
<HOST_LIST_VM_DETECTION_OUTPUT>
  <RESPONSE>
    <DATETIME>2016-11-14T11:21:02Z</DATETIME>
    <HOST_LIST>
      <HOST>
```

```
        <ID>135151</ID>
        <IP>10.97.5.247</IP>
        <TRACKING_METHOD>EC2</TRACKING_METHOD>
        <OS><![CDATA[Amazon Linux 2016.09]]></OS>
        <DNS><![CDATA[i-0bb87c3281243cdfd]]></DNS>
        <EC2_INSTANCE_ID><![CDATA[i-0bb87c3281243cdfd]]></EC2_INSTANCE_ID>
        <LAST_SCAN_DATETIME>2017-03-21T13:41:20Z</LAST_SCAN_DATETIME>
        <LAST_VM_SCANNED_DATE>2017-03-21T13:39:38Z</LAST_VM_SCANNED_DATE>
        <LAST_VM_SCANNED_DURATION>229</LAST_VM_SCANNED_DURATION>
        <LAST_VM_AUTH_SCANNED_DATE>2017-03-
         21T13:39:38Z</LAST_VM_AUTH_SCANNED_DATE>
        <LAST_VM_AUTH_SCANNED_DURATION>229</LAST_VM_AUTH_SCANNED_DURATION>
        <LAST_PC_SCANNED_DATE>2017-03-21T13:21:51Z</LAST_PC_SCANNED_DATE>
        <METADATA>
           <EC2>
            <ATTRIBUTE>
              <NAME><![CDATA[latest/dynamic/instance-
               identity/document/region]]></NAME>
              <LAST_STATUS>Success</LAST_STATUS>
              <VALUE><![CDATA[us-east-1]]></VALUE>
              <LAST_SUCCESS_DATE>2017-03-21T13:39:38Z</LAST_SUCCESS_DATE>
              <LAST_ERROR_DATE></LAST_ERROR_DATE>
              <LAST_ERROR><![CDATA[]]></LAST_ERROR>
            </ATTRIBUTE>
          </EC2>
        </METADATA>
      </HOST>
    </HOST_LIST>
  </RESPONSE>
</HOST_LIST_VM_DETECTION_OUTPUT>
```

DTD:

https://qualysapi.qualys.com/api/2.0/fo/asset/host/vm/detection/host_list_vm_detection_output.dtd

```
...
<!ELEMENT HOST (ID, IP?, IPV6?, TRACKING_METHOD?, NETWORK_ID?,
                OS?, OS_CPE?, DNS?, NETBIOS?, QG_HOSTID?,
                LAST_SCAN_DATETIME?, LAST_VM_SCANNED_DATE?,
                LAST_VM_SCANNED_DURATION?, LAST_VM_AUTH_SCANNED_DATE?,
                LAST_VM_AUTH_SCANNED_DURATION?, LAST_PC_SCANNED_DATE?,
                TAGS?, METADATA?, DETECTION_LIST)>
...
<!ELEMENT NAME (#PCDATA)>
<!ELEMENT COLOR (#PCDATA)>
<!ELEMENT BACKGROUND_COLOR (#PCDATA)>
<!ELEMENT METADATA (EC2|GOOGLE|AZURE)+>
<!ELEMENT EC2 (ATTRIBUTE*)>
```

```
<!ELEMENT GOOGLE (ATTRIBUTE*)>
<!ELEMENT AZURE (ATTRIBUTE*)>
<!ELEMENT ATTRIBUTE
(NAME,LAST_STATUS,VALUE,LAST_SUCCESS_DATE?,LAST_ERROR_DATE?,LAST_ERROR?)
>
<!ELEMENT LAST_STATUS (#PCDATA)>
<!ELEMENT LAST_SUCCESS_DATE (#PCDATA)>
<!ELEMENT LAST_ERROR_DATE (#PCDATA)>
<!ELEMENT LAST_ERROR (#PCDATA)>
<!ELEMENT DETECTION_LIST (DETECTION+)>
...
```

IP Update - New DTD for Duplicate Hosts Error

Now when you perform an IP update that results in a Warning about duplicate hosts, we'll use the new Duplicate Hosts Error Output DTD (duplicate_hosts_error_output.dtd) instead of the Command List Output DTD (command_list_output.dtd).

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl" -X POST -d
"action=update&ips=10.10.25.224&tracking_method=IP&host_dns=ora10105-win-
25-224.qualys.com&host_netbios=ORA10105-WIN-25"
"https://qualysapi.qualys.com/api/2.0/fo/asset/ip/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE DUPLICATE_HOSTS_ERROR_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/asset/ip/duplicate_hosts_error.d
td">
<DUPLICATE_HOSTS_ERROR_OUTPUT>
  <RESPONSE>
    <CODE>1982</CODE>
    <DATETIME>2017-03-16T04:54:15Z</DATETIME>
    <WARNING>
      <TEXT>You cannot change the tracking method for the following host
using the API since there are multiple scan data entries. This can happen
when the host is resolved to different hostnames in different scan tasks.
You'll need to change the tracking method using the UI. Use the URL to log
into your account, edit the host and select another tracking method. At
the prompt click Apply to save the most recent scan data and purge the
other scan data.</TEXT>
      <DUPLICATE_HOSTS>
        <DUPLICATE_HOST>
          <IP>10.10.25.224</IP>
          <DNS_HOSTNAME>ora10105-win-25-224.qualys.com</DNS_HOSTNAME>
          <NETBIOS_HOSTNAME>ORA10105-WIN-25</NETBIOS_HOSTNAME>
          <LAST_SCANDATE>09/09/2016 at 13:35:29 (GMT)</LAST_SCANDATE>
          <TRACKING>DNS</TRACKING>
        </DUPLICATE_HOST>
      </DUPLICATE_HOSTS>

<URL><![CDATA[https://qualysguard.qualys.com/fo/tools/ip_assets.php]]></U
RL>
    </WARNING>
  </RESPONSE>
</DUPLICATE_HOSTS_ERROR_OUTPUT>
```

New DTD:

```
<!-- QUALYS DUPLICATE_HOSTS_ERROR_OUTPUT DTD -->

<!ELEMENT DUPLICATE_HOSTS_ERROR_OUTPUT (REQUEST?,RESPONSE)>

<!ELEMENT REQUEST (DATETIME, USER_LOGIN, RESOURCE, PARAM_LIST?,
                   POST_DATA?)>
<!ELEMENT DATETIME (#PCDATA)>
<!ELEMENT USER_LOGIN (#PCDATA)>
<!ELEMENT RESOURCE (#PCDATA)>
<!ELEMENT PARAM_LIST (PARAM+)>
<!ELEMENT PARAM (KEY, VALUE)>
<!ELEMENT KEY (#PCDATA)>
<!ELEMENT VALUE (#PCDATA)>
<!-- if returned, POST_DATA will be urlencoded -->
<!ELEMENT POST_DATA (#PCDATA)>

<!ELEMENT RESPONSE (CODE?, DATETIME, WARNING?)>
<!ELEMENT CODE (#PCDATA)>
<!ELEMENT WARNING (TEXT, DUPLICATE_HOSTS, URL)>
<!ELEMENT TEXT (#PCDATA)>
<!ELEMENT URL (#PCDATA)>

<!ELEMENT DUPLICATE_HOSTS (DUPLICATE_HOST*)>

<!ELEMENT DUPLICATE_HOST (IP, DNS_HOSTNAME, NETBIOS_HOSTNAME,
                          LAST_SCANDATE, TRACKING)>
<!ELEMENT IP (#PCDATA)>
<!ELEMENT DNS_HOSTNAME (#PCDATA)>
<!ELEMENT NETBIOS_HOSTNAME (#PCDATA)>
<!ELEMENT LAST_SCANDATE (#PCDATA)>
<!ELEMENT TRACKING (#PCDATA)>

<!-- EOF -->
```

Updated DTD:

We removed CODE and WARNING from the RESPONSE element in the Command List Output DTD (command_list_output.dtd).

```
<!-- QUALYS COMMAND_LIST_OUTPUT DTD -->
<!-- $Revision$ -->
<!ELEMENT COMMAND_LIST_OUTPUT (REQUEST?,RESPONSE)>

<!ELEMENT REQUEST (DATETIME, USER_LOGIN, RESOURCE, PARAM_LIST?,
                   POST_DATA?)>
<!ELEMENT DATETIME (#PCDATA)>
<!ELEMENT USER_LOGIN (#PCDATA)>
```

```
<!ELEMENT RESOURCE (#PCDATA)>
<!ELEMENT PARAM_LIST (PARAM+)>
<!ELEMENT PARAM (KEY, VALUE)>
<!ELEMENT KEY (#PCDATA)>
<!ELEMENT VALUE (#PCDATA)>
<!-- if returned, POST_DATA will be urlencoded -->
<!ELEMENT POST_DATA (#PCDATA)>

<!ELEMENT RESPONSE (DATETIME, COMMAND_LIST?)>
<!ELEMENT COMMAND_LIST (COMMAND+|COMMAND_OUTPUT+)>

<!ELEMENT COMMAND (ID, STATUS, OPERATION, FRIENDLY_NAME, LAUNCH_DATE,
                   LAST_UPDATED_DATE)>
<!ELEMENT ID (#PCDATA)>
<!ELEMENT STATUS  (#PCDATA)>
<!ELEMENT OPERATION (DESCRIPTION, STATUS)>
<!ELEMENT FRIENDLY_NAME (#PCDATA)>
<!ELEMENT LAUNCH_DATE (#PCDATA)>
<!ELEMENT LAST_UPDATED_DATE (#PCDATA)>
<!ELEMENT DESCRIPTION (#PCDATA)>

<!ELEMENT COMMAND_OUTPUT (ID, STDIN?, STDOUT?, STDERR?)>
<!ELEMENT STDIN (#PCDATA)>
<!ELEMENT STDOUT (#PCDATA)>
<!ELEMENT STDERR (#PCDATA)>

<!-- EOF -->
```

Export user activity log for a subscription

A new API /api/2.0/fo/activity_log/ is introduced to export the user activity log for a subscription to CSV format.

Parameter	Description
action=list	(Required) The action required for the API request: list. The POST or GET method can be used.
user_action={value}	(Optional) The actions included in the output depends on your user role. For example, user login or logout. Managers see all actions taken by all users. Unit Managers see actions taken by users in their business unit. Scanners and Readers see their own actions only.
action_details={value}	(Optional) User action details for example, user_logged in or user_logged out.
username={value}	(Optional) The name of the user who performed the action. Usernames are included only if you are a Manager or a Unit Manager. A Unit Manager can see usernames only for users in the Unit Manager's hierarchy.
user_role={value}	(Optional) The role of the user who performed the action. Logs are exported for any of the following user roles: - Manager - Unit Manager - Auditor - Scanner - Reader - KnowledgeBase Only - Remediation User - Contact User roles are included only if you are a Manager or a Unit Manager. A Unit Manager can see user roles only for users in the Unit Manager's hierarchy.
since_datetime={value}	(Optional) Specify the date to include the activity log starting from that point in time. Date must be in the format YYYY-MM-DD HH:ii:ss, and must be less than or equal to today's date.
until_datetime={value}	(Optional) Specify the date to include the activity log until a specific point in time. Date must be in the format YYYY-MM-DD HH:ii:ss, and must be more than or equal to since_datetime, and less than or equal to today's date.

Parameter	Description
output_format=CSV	(Optional) CSV (default)
truncation_limit={value}	(Optional) Limit the number of log records to include in the CSV output.

API request:

```
curl -u "username:password" -k -H "X-Requested-With:curl"
"https://qualysapi.qualys.com/api/2.0/fo/activity_log/?action=list"
```

The activity log gets exported in CSV format.

Sample CSV output:

```
"Date","Action","Module","Details","User Name","User Role","User IP"
"2017-02-03T04:35:38Z","login","auth","user_logged
in","saand_rn","Manager","10.113.195.136"
"2017-02-02T13:58:16Z","login","auth","user_logged
in","saand_rn","Manager","10.113.195.136"
"2017-02-02T13:48:07Z","request","auth","API:
/api/2.0/fo/activity_log/index.php","saand_rn","Manager","10.113.195.136"
"2017-02-02T13:31:19Z","request","auth","API:
/api/2.0/fo/activity_log/index.php","saand_rn","Manager","10.113.195.136"
"2017-02-02T13:28:38Z","request","auth","API:
/api/2.0/fo/activity_log/index.php","saand_rn","Manager","10.113.195.136"
"2017-02-02T13:28:17Z","request","auth","API:
/api/2.0/fo/activity_log/index.php","saand_rn","Manager","10.113.195.136"
"2017-02-02T13:27:27Z","request","auth","API:
/api/2.0/fo/activity_log/index.php","saand_rn","Manager","10.113.195.136"
"2017-02-02T13:26:41Z","request","auth","API:
/api/2.0/fo/activity_log/index.php","saand_rn","Manager","10.113.195.136"
"2017-02-02T12:52:43Z","set","host_attribute","comment=[vvv] for
11.11.11.4","saand_rn","Manager","10.113.14.208"
"2017-02-02T12:52:43Z","add","option","11.11.11.4 added to both VM-PC
license","saand_rn","Manager","10.113.14.208"
"2017-02-02T12:50:32Z","create","network","New Network:
'abc'","saand_rn","Manager","10.113.14.208"
```

Action Log API V1 - added User Details in Output

We're providing more user details in the output of the Action Log API V1 (/msp/action_log_report.php). For create user, update user and change primary contact actions, the details will now include the user role and user login for the user account that changed. There are no DTD updates.

User details appear in this format:

```
firstname lastname (user role: user login)
```

Example

API request:

```
curl -u "USERNAME:PASSWORD" -k -H "X-Requested-With: Curl"
"https://qualysapi.qualys.com/msp/action_log_report.php?date_from=2017-
04-03"
```

XML output:

This example shows details for the following actions: new account created, account updated, and primary contact changed.

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE ACTION_LOG_REPORT SYSTEM
"https://qualysapi.qualys.com/action_log_report.dtd">
<ACTION_LOG_REPORT>
  <DATE_FROM>2017-04-03T00:00:00Z</DATE_FROM>
  <DATE_TO>2017-04-04T08:34:11Z</DATE_TO>
  <ACTION_LOG_LIST>
    <ACTION_LOG>
      <DATE>2017-04-04T08:09:53Z</DATE>
      <MODULE><![CDATA[auth]]></MODULE>
      <ACTION>login</ACTION>
      <DETAILS><![CDATA[user_logged in]]></DETAILS>
      <USER>
        <USER_LOGIN>qualys_sv19</USER_LOGIN>
        <FIRSTNAME><![CDATA[Suzy]]></FIRSTNAME>
        <LASTNAME><![CDATA[Van Pelt]]></LASTNAME>
        <ROLE>Manager</ROLE>
      </USER>
      <IP>10.10.193.20</IP>
    </ACTION_LOG>
    <ACTION_LOG>
      <DATE>2017-04-04T08:24:21Z</DATE>
      <MODULE><![CDATA[account]]></MODULE>
      <ACTION>create</ACTION>
```

```
      <DETAILS><![CDATA[User Patrick Slimmer (Manager: qualys_ps21)
created by Suzy Van Pelt (Manager: qualys_sv19)]]></DETAILS>
      <USER>
        <USER_LOGIN>qualys_sv19</USER_LOGIN>
        <FIRSTNAME><![CDATA[Suzy]]></FIRSTNAME>
        <LASTNAME><![CDATA[Van Pelt]]></LASTNAME>
        <ROLE>Manager</ROLE>
      </USER>
      <IP>10.10.193.10</IP>
    </ACTION_LOG>
    <ACTION_LOG>
      <DATE>2017-04-04T08:19:45Z</DATE>
      <MODULE><![CDATA[account]]></MODULE>
      <ACTION>update</ACTION>
      <DETAILS><![CDATA[user Daniel Fedasz (Reader: qualys_df20) updated
by Suzy Van Pelt (Manager: qualys_sv19): user_role set from 'Scanner' to
'Reader', Create option profiles disabled, Transfer Asset Groups enabled,
Transfer personal configurations enabled, Asset groups set from 'none' to
'none']]></DETAILS>
      <USER>
        <USER_LOGIN>qualys_sv19</USER_LOGIN>
        <FIRSTNAME><![CDATA[Suzy]]></FIRSTNAME>
        <LASTNAME><![CDATA[Van Pelt]]></LASTNAME>
        <ROLE>Manager</ROLE>
      </USER>
      <IP>10.10.193.10</IP>
    </ACTION_LOG>
    <ACTION_LOG>
      <DATE>2017-04-04T08:26:01Z</DATE>
      <MODULE><![CDATA[primary_contact]]></MODULE>
      <ACTION>save</ACTION>
      <DETAILS><![CDATA[ Primary contact for the subscription is changed
from Suzy Van Pelt (Manager: qualys_sv19)to Patrick Slimmer (Manager:
qualys_ps21)]]></DETAILS>
      <USER>
        <USER_LOGIN>qualys_sv19</USER_LOGIN>
        <FIRSTNAME><![CDATA[Suzy]]></FIRSTNAME>
        <LASTNAME><![CDATA[Van Pelt]]></LASTNAME>
        <ROLE>Manager</ROLE>
      </USER>
      <IP>10.10.193.9</IP>
    </ACTION_LOG>
  </ACTION_LOG_LIST>
</ACTION_LOG_REPORT>
```

Asset Search APIs - Search by EC2 Instance Status, ID

We've added new input parameters to the Asset Search APIs to allow users to easily find their Amazon EC2 assets with a particular instance status (running, terminated, stopped, etc) or instance ID. For example, you can find EC2 instances that are terminated in order to purge or remove them from your account.

These APIs were updated:

Asset Search API v1 (/msp/asset_search.php)

Asset Search API v2 (/api/2.0/fo/report/asset/)

Asset Search API v1

New Input Parameters

Use these new parameters to search for assets based on EC2 instance status or ID.

Parameter	Description
ec2_instance_status={value}	(Optional) Specify the EC2 instance status to be searched. Possible values: RUNNING,TERMINATED, PENDING, STOPPING, SHUTTING_DOWN, STOPPED. Values are case-sensitive.
ec2_instance_id={value}	(Optional) Specify the EC2 instance ID to be searched. Enter the value in this format: MODIFIER:ID where MODIFIER is one of these values: begin, match, contain, end. For example: ec2_instance_id=contain:i-0299276e783120b15

Examples

Sample 1 - Search EC2 hosts with EC2 instance ID i-0299276e783120b15

API request:

```
curl -u "USERNAME:PASSWORD" -k -H "X-Requested-With: Curl"
"https://qualysapi.qualys.com/msp/asset_search.php?target_asset_groups=ag
ec2&ec2_instance_id=contain:i-0299276e783120b15"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>

<!DOCTYPE ASSET_SEARCH_REPORT SYSTEM
"https://qualysapi.qualys.com/asset_search_report.dtd">

<ASSET_SEARCH_REPORT>
```

```
  <HEADER>
    <COMPANY><![CDATA[qualys-test]]></COMPANY>
    <USERNAME>quays_sc2</USERNAME>
    <GENERATION_DATETIME>2017-04-11T10:08:53Z</GENERATION_DATETIME>
    <FILTERS>
      <ASSET_GROUPS>
        <ASSET_GROUP_TITLE><![CDATA[agec2]]></ASSET_GROUP_TITLE>
      </ASSET_GROUPS>
      <FILTER_EC2_INSTANCE_ID criterion="contain"><![CDATA[i-
0299276e783120b15]]></FILTER_EC2_INSTANCE_ID>
      <EC2_INSTANCE_STATUS>RUNNING</EC2_INSTANCE_STATUS>
    </FILTERS>
  </HEADER>
<!-- 1.0% done - Searching Database...  -->
  <HOST_LIST>
    <HOST>
      <IP>10.91.78.235</IP>
      <TRACKING_METHOD>EC2</TRACKING_METHOD>
      <DNS><![CDATA[i-0299276e783120b15]]></DNS>
      <EC2_INSTANCE_ID><![CDATA[i-0299276e783120b15]]></EC2_INSTANCE_ID>
      <OPERATING_SYSTEM><![CDATA[]]></OPERATING_SYSTEM>
      <ASSET_GROUPS>
        <ASSET_GROUP_TITLE><![CDATA[All]]></ASSET_GROUP_TITLE>
        <ASSET_GROUP_TITLE><![CDATA[agec2]]></ASSET_GROUP_TITLE>
      </ASSET_GROUPS>
    </HOST>
  </HOST_LIST>
</ASSET_SEARCH_REPORT>
```

Sample 2 - Search all EC2 hosts which are currently in RUNNING state and having instance ID i-0299276e783120b15

API request:

```
curl -u "USERNAME:PASSWORD" -k -H "X-Requested-With: Curl"
"https://qualysapi.qualys.com/msp/asset_search.php?target_asset_groups=ag
ec2&ec2_instance_status=RUNNING&ec2_instance_id=contain:i-
0299276e783120b15"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE ASSET_SEARCH_REPORT SYSTEM
"https://qualysapi.qualys.com/asset_search_report.dtd">

<ASSET_SEARCH_REPORT>
  <HEADER>
    <COMPANY><![CDATA[qualys-test]]></COMPANY>
    <USERNAME>quays_sc2</USERNAME>
    <GENERATION_DATETIME>2017-04-11T10:08:53Z</GENERATION_DATETIME>
```

```
    <FILTERS>
      <ASSET_GROUPS>
        <ASSET_GROUP_TITLE><![CDATA[agec2]]></ASSET_GROUP_TITLE>
      </ASSET_GROUPS>
      <FILTER_EC2_INSTANCE_ID criterion="contain"><![CDATA[i-
0299276e783120b15]]></FILTER_EC2_INSTANCE_ID>
      <EC2_INSTANCE_STATUS>RUNNING</EC2_INSTANCE_STATUS>
    </FILTERS>
  </HEADER>
<!-- 1.0% done - Searching Database...  -->
  <HOST_LIST>
    <HOST>
      <IP>10.91.78.235</IP>
      <TRACKING_METHOD>EC2</TRACKING_METHOD>
      <DNS><![CDATA[i-0299276e783120b15]]></DNS>
      <EC2_INSTANCE_ID><![CDATA[i-0299276e783120b15]]></EC2_INSTANCE_ID>
      <OPERATING_SYSTEM><![CDATA[]]></OPERATING_SYSTEM>
      <ASSET_GROUPS>
        <ASSET_GROUP_TITLE><![CDATA[All]]></ASSET_GROUP_TITLE>
        <ASSET_GROUP_TITLE><![CDATA[agec2]]></ASSET_GROUP_TITLE>
      </ASSET_GROUPS>
    </HOST>
  </HOST_LIST>
</ASSET_SEARCH_REPORT>
```

Asset Search API v2

New Input Parameters

Use these new parameters to search for assets based on EC2 instance status or ID.

Parameter	Description
ec2_instance_status={value}	(Optional) Specify the EC2 instance status to be searched. Possible values: RUNNING,TERMINATED, PENDING, STOPPING, SHUTTING_DOWN, STOPPED. Values are case-sensitive.
ec2_instance_id={value}	(Optional) Specify the EC2 instance ID to be searched.
	ec2_instance_id is valid only when ec2_instance_id_modifier is specified
ec2_instance_id_modifier={value}	(Optional) Show only hosts with ec2_instance_id that is either: beginning with, containing, matching, ending with, not empty.
	ec2_instance_id_modifier is valid only when ec2_instance_id is specified

Examples

Sample 1 - Search EC2 host with EC2 instance ID i-0fb7086f985856fa4

API request:

```
curl -u "USERNAME:PASSWORD" -k -H "X-Requested-With: Curl" -d
"action=search&output_format=xml&tracking_method=EC2&use_tags=1&tag_set_b
y=name&tag_set_include=useasttag&ec2_instance_id=i-
0fb7086f985856fa4&ec2_instance_id_modifier=containing"
"https://qualysapi.qualys.com/api/2.0/fo/report/asset/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE ASSET_SEARCH_REPORT SYSTEM
"https://qualysapi.qualys.com/asset_search_report_v2.dtd">

<ASSET_SEARCH_REPORT>
<HEADER>
  <COMPANY><![CDATA[qualys-test]]></COMPANY>
  <USERNAME>qualys_ps</USERNAME>
  <GENERATION_DATETIME>2017-04-11T10:17:32Z</GENERATION_DATETIME>
  <TOTAL>1</TOTAL>
  <FILTERS>
    <ASSET_TAGS>
      <INCLUDED_TAGS scope="any">
        <ASSET_TAG><![CDATA[useasttag]]></ASSET_TAG>
      </INCLUDED_TAGS>
    </ASSET_TAGS>
    <TRACKING_METHOD><![CDATA[EC2]]></TRACKING_METHOD>
  </FILTERS>
</HEADER>

<HOST_LIST>
  <HOST>
    <IP><![CDATA[10.73.188.6]]></IP>
    <HOST_TAGS><![CDATA[EC2, Virginia, agec2, sada-0117-targets, sada-new-
0308, useasttag;
]]></HOST_TAGS>
    <TRACKING_METHOD>EC2</TRACKING_METHOD>
    <DNS><![CDATA[ip-10-73-188-6.ec2.internal]]></DNS>
    <EC2_INSTANCE_ID><![CDATA[i-0fb7086f985856fa4]]></EC2_INSTANCE_ID>
    <LAST_SCAN_DATE />
    <FIRST_FOUND_DATE />
  </HOST>

</HOST_LIST>
```

Sample 2 - Search all EC2 hosts which are currently in TERMINATED state and having instance ID i-0b121b9211d7e25cb

API request:

```
curl -u "USERNAME:PASSWORD" -k -H "X-Requested-With: Curl" -d
"action=search&output_format=xml&tracking_method=EC2&use_tags=1&tag_set_b
y=name&tag_set_include=useasttag&ec2_instance_status=TERMINATED&ec2_insta
nce_id=i-0b121b9211d7e25cb&ec2_instance_id_modifier=containing"
"https://qualysapi.qualys.com/api/2.0/fo/report/asset/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>

<!DOCTYPE ASSET_SEARCH_REPORT SYSTEM
"https://qualysapi.qualys.com/asset_search_report_v2.dtd">

<ASSET_SEARCH_REPORT>
<HEADER>
  <COMPANY><![CDATA[qualys-test]]></COMPANY>
  <USERNAME>sada-customer customer</USERNAME>
  <GENERATION_DATETIME>2017-04-11T10:49:05Z</GENERATION_DATETIME>
  <TOTAL>1</TOTAL>
  <FILTERS>
    <ASSET_TAGS>
      <INCLUDED_TAGS scope="any">
        <ASSET_TAG><![CDATA[useasttag]]></ASSET_TAG>
      </INCLUDED_TAGS>
    </ASSET_TAGS>
    <TRACKING_METHOD><![CDATA[EC2]]></TRACKING_METHOD>
  </FILTERS>
</HEADER>

<HOST_LIST>
  <HOST>
    <IP><![CDATA[10.90.2.175]]></IP>
    <HOST_TAGS><![CDATA[EC2, Vriginia, por-6586, sada-0117-targets, sada-
new-0308, useasttag;
]]></HOST_TAGS>
    <TRACKING_METHOD>EC2</TRACKING_METHOD>
    <DNS><![CDATA[i-0b121b9211d7e25cb]]></DNS>
    <EC2_INSTANCE_ID><![CDATA[i-0b121b9211d7e25cb]]></EC2_INSTANCE_ID>
    <LAST_SCAN_DATE />
    <FIRST_FOUND_DATE />
  </HOST>
</HOST_LIST>
```

VM - New API Support for Report Templates

You can now use APIs to create custom reports with views on your scan results and the current vulnerabilities on your hosts. Use various report templates provided by Qualys as a starting point.

APIs are now available to perform various actions on templates for the following report types: Scan Template, PCI Scan Template, Patch Template, Map Template

The Report Template API allows users to perform the following actions.

Action	Supported Access Method	Description
Create	POST	Create a report template. A unique template ID is generated for the new template.
Update	PUT	Update an existing report template.
Delete	POST	Delete an existing report template.
Export	GET	Export a specific report template based on the template ID, or all templates for the report type.

Once you have your template the way you want you can run reports using the templates using the Report API /api/2.0/fo/report. For details and examples, see Qualys API V2 User Guide.

Scan Template API

The API /api/2.0/fo/report/template/scan/ allows you to perform actions such as create, update, delete and export on the Scan Template.

Scan Template Request

A summary of API Endpoint URLs is provided below.

Action	API Endpoint /required parameters	Method
Create Scan Template	<base_url>/api/2.0/fo/report/template/scan/ Required parameters: action=create report_format=xml	POST
Update Scan Template	<base_url>/api/2.0/fo/report/template/scan/ Required parameters: template_id={value} action=update report_format=xml	PUT

Action	API Endpoint /required parameters	Method
Delete Scan Template	<base_url>/api/2.0/fo/report/template/scan/ Required parameters: template_id={value} action=delete	POST
Export Scan Template	<base_url>/api/2.0/fo/report/template/scan/ Required parameters: action=export report_format=xml Optional parameter: template_id={value} When unspecified all templates for the report type get exported.	GET

Scan Template settings

These parameters (all are optional) are used for a create or update request to define scan template settings. When creating a new template the default value is shown in bold where applicable.

Parameter	Description
Title	The template title and owner.
title={value}	A string value for the title. Length is maximum 64 characters.
owner={value}	Username of the owner of this template. Validity of the owner to create reports is based on the user role or business unit. See About template owner.
Target	What target assets to include in the report.
scan_selection={**HostBased** | ScanBased |}	Specify HostBased for Host Based Findings (default for new template) or ScanBased for Scan Based Findings. Choosing Host Based Findings allows you to report on the latest vulnerability data from all of your scans. Choosing Scan Based Findings allows you to run a report based on saved scan results.
include_trending={**0** | 1}	Specify 1 to include trending. Choose a timeframe (daily, weekly or monthly) to analyze the vulnerability status for the timeframe selected. This parameter is required only if scan_selection=HostBased.

Parameter	Description
limit_timeframe={**0** | 1}	Specify 1 to only include scan results from the specified time frame. This ensures that only vulnerability information gathered in the timeframe that you've specified is included in the report. If unspecified, vulnerability information for hosts that were last scanned prior to the report timeframe may be included. This parameter is required only if scan_selection=HostBased.
selection_type={day | month | weeks | date | none}	Specify whether to include trending information for number of weeks, days or months or a specific date. Selecting none will create a report without any trending information included. This parameter is required only if scan_selection=HostBased.
selection_range={value}	Specify the range for the selection type. Specify a number of units (1 | 3 | 5 | 7 | 15 | 30 | 60 | 90) for days, weeks or months. Date must be in the format yyyy-mm-dd (2017-04-05), and must be less than or equal to today's date. Trending information since the last number of units or the specified date will be included. This parameter is required only if scan_selection=HostBased.
asset_groups={value}	Specify the name of the asset group(s) to report on. Multiple asset groups are comma separated. We'll report on all the IPs in the asset groups. This parameter is required only if scan_selection=HostBased.
asset_group_ids={value}	Specify the ID of the asset group(s) to report on. Multiple asset group IDs are comma separated. We'll report on all the IPs in the asset groups. This parameter is required only if scan_selection=HostBased.
network={value}	(Valid only when the Networks feature is enabled for your account.) A network name containing the IPs to include. For a new template the default network is Global Default Network.
ips={value}xml}	Specify the IPs or IP ranges to report on. Multiple IPs or IP ranges are comma separated. This parameter is required only if scan_selection=HostBased.
tag_set_by={name | id}	Specify the name of the tags or the ID of the tags for the hosts you want to report on. Multiple tag names or tag IDs are comma separated.
tag_include_selector={ALL | **ANY**}	Specify ALL to match all the asset tags for the hosts you want to report on (This is an AND operation). Specifying ANY will match any of the assets tags (This is an OR operation). This parameter is required only if scan_selection=HostBased.

Parameter	Description
tag_set_include={value}	Specify asset tags for the hosts you want to report on. We'll find the hosts in your account that match your tag selection and include them in the report. Multiple tags can be provided using comma separated values. This parameter is required only if scan_selection=HostBased.
tag_exclude_selector={ALL|**ANY**}	Specify ALL to match all the asset tags for the hosts you want do not want to report on (This is an AND operation). Specifying ANY will match any of the assets tags (This is an OR operation). This parameter is required only if scan_selection=HostBased.
tag_set_exclude={value}	Specify asset tags for the hosts you do not want to report on. We'll find the hosts in your account that match your tag selection and exclude them from the report. Multiple tags can be provided using comma separated values. This parameter is required only if scan_selection=HostBased.
host_with_cloud_agents={all|scan|agent}	What host findings to include in the report when CA module is enabled. Your options are: all - All data scan - Scan data, i.e. include findings from scans that didn't use Agentless Tracking agent - Agent data, i.e. include findings from the agent when merging is enabled (i.e. Show unified view hosts option in UI under Users > Setup > Cloud Agent Setup)
display_text_summary={**0**|1}	Specify 1 to include the following summary info for the entire report: total vulnerabilities detected, overall security risk, business risk (for reports sorted by asset group), total vulnerabilities by status, total vulnerabilities by severity and top 5 vulnerability categories.
graph_business_risk={**0**|1}	Specify 1 to include the business risk information. Note that some graphs are only available when trend information is included. Keep in mind that your filter settings will affect the data reflected in your graphs.
graph_vuln_over_time={**0**|1}	Specify 1 to include the vulnerabilities by severity over time.
graph_status={**0**|1}	Specify 1 to include the vulnerabilities by status.
graph_potential_status={**0**|1}	Specify 1 to include the potential vulnerabilities by status.
graph_severity={**0**|1}	Specify 1 to include the vulnerabilities by severity.
Display	Display options such as graphs amount of detail.
graph_potential_severity={**0**|1}	Specify 1 to include the potential vulnerabilities by severity.
graph_ig_severity={**0**|1}	Specify 1 to include the information gathered by severity.

Parameter	Description
graph_top_categories={**0** | 1}	Specify 1 to include the top five vulnerable categories.
graph_top_vulns={**0** | 1}	Specify 1 to include the ten most prevalent vulnerabilities.
graph_os={**0** | 1}	Specify 1 to include the operating systems detected.
graph_services={**0** | 1}	Specify 1 to include the services detected.
graph_top_ports={**0** | 1}	Specify 1 to include the ports detected.
display_custom_footer={**0** | 1}	Specify 1 to include custom text in the report footer.
display_custom_footer_text={value}	Specify custom text like a disclosure statement or data classification (e.g. Public, Confidential). The text you enter will appear in all reports generated from this template, except reports in XML and CSV formats. Length is maximum 4000 characters.
sort_by={host | vuln | os | group | service | port}	Specify how you want to organize the Detailed Results section of your report - by host, vuln (i.e. vulnerability), group (i.e. asset group), service or port.
cvss={**all** | cvssv2 | cvssv3}	Specify the CVSS version score you want to display in reports. all - both CVSS versions cvssv2 - CVSS version 2 cvssv3 - CVSS version 3
host_details={0 | **1**}	Specify 1 to include identifying information for each host agent like the asset ID and related IPs (IPv4, IPv6 and MAC addresses). This parameter is required only if scan_selection=HostBased and sort_by=host.
metadata_ec2_instances={0 | 1}	Specify 1 to include metadata information for each EC2 asset. This could be EC2 instance information such as accountId, region, availabilityZone, instanceId, instanceType, imageId, and kernelId.
include_text_summary={**0** | 1}	Specify 1 to include the following summary info for each host, vulnerability, asset group, etc (depending on the sorting method you selected): total vulnerabilities detected, the security risk, the business risk (for reports sorted by asset group), total vulnerabilities by status, total vulnerabilities by severity and top 5 vulnerability categories.
include_vuln_details={**0** | 1}	Specify 1 to include additional details for each vulnerability in the report.
include_vuln_details_threat={**0** | 1}	Specify 1 to include a description of the threat.
include_vuln_details_impact={**0** | 1}	Specify 1 to include possible consequences that may occur if the vulnerability is exploited.

Parameter	Description
include_vuln_details_solution ={**0** | 1}	Specify 1 to include a verified solution to remedy the issue, such as a link to the vendor's patch, Web site, or a workaround.
include_vuln_details_vpatch= {**0** | 1}	Specify 1 to include virtual patch information correlated with the vulnerability, obtained from Trend Micro real-time feeds.
include_vuln_details_complia nce={**0** | 1}	Specify 1 to include compliance information correlated with the vulnerability.
include_vuln_details_exploit= {**0** | 1}	Specify 1 to include exploitability information correlated with the vulnerability, includes references to known exploits and related security resources.
include_vuln_details_malware ={**0** | 1}	Specify 1 to include malware information correlated with the vulnerability, obtained from the Trend Micro Threat Encyclopedia.
include_vuln_details_results= {**0** | 1}	Specify 1 to include specific scan test results for each host, when available. We'll also show the date the vulnerability was first detected, last detected and the number of times it was detected.
include_vuln_details_reopene d={0 | 1}	Specify 1 to include information related to reopened vulnerabilities.
include_vuln_details_appendi x={**0** | 1}	Specify 1 to include more information like IPs in your report target that don't have any scan results, and IPs that were scanned but results are not shown (no vulnerabilities were detected or all vulnerabilities were filtered out).
exclude_account_id={**0** | 1}	Specify 1 to exclude the account login ID in the filename of downloaded reports. Use this option to remove the login ID from the filename.
Filters	Filter options such as vulnerability status, categories, QIDs, OS.
selective_vulns={complete | custom}	Specify complete to show results for any and all vulnerabilities found. Specify custom to filter your reports to specific QIDs (add static search lists) or to QIDs that match certain criteria (add dynamic search lists). For example, maybe you only want to report on vulnerabilities with severity 4 or 5. Tip - Exclude QIDs that you don't want in the report.
search_list_ids={value}	Specify search list ID or QID. Multiple search list IDs or QIDs can be provided using values separated by a comma. This parameter is required only if selective_vulns=custom.
exclude_qid_option={0 | 1}	Specify 1 to exclude QIDs from the report.

Parameter	Description
exclude_search_list_ids={value}	Specify QID to be excluded from the report. Multiple QIDs can be provided using values separated by a comma. This parameter is required only if exclude_qid_option=1.
included_os={value}	Specify the operating system name to filter hosts. For example, to only report on Linux hosts make sure you provide the operating system name for Linux. Multiple operating system names can be provided using values separated by a comma. Specify ALL to include all operating systems. See Identified OS.
status_new={0 | **1**}	Specify 1 to include vulnerabilities in your report based on the current vulnerability status - New.
status_active={0 | **1**}	Specify 1 to filter vulnerabilities in your report based on the current vulnerability status - Active.
status_reopen={0 | **1**}	Specify 1 to filter vulnerabilities in your report based on the current vulnerability status - Re-Opened.
status_fixed={0 | **1**}	Specify 1 to filter vulnerabilities in your report based on the current vulnerability status - Fixed.
vuln_active={0 | **1**}	Specify 1 to filter confirmed vulnerabilities in your report based on the state - Active.
vuln_disabled={**0** | 1}	Specify 1 to filter confirmed vulnerabilities in your report based on the state - Disabled.
vuln_ignored={**0** | 1}	Specify 1 to filter confirmed vulnerabilities in your report based on the state - Ignored.
potential_active={**0** | 1}	Specify 1 to filter potential vulnerabilities in your report based on the state - Active.
potential_disabled={**0** | 1}	Specify 1 to filter potential vulnerabilities in your report based on the state - Disabled.
potential_ignored={**0** | 1}	Specify 1 to filter potential vulnerabilities in your report based on the state - Ignored.
ig_active={**0** | 1}	Specify 1 to filter the information gathered in your report based on the state - Active.
ig_disabled={**0** | 1}	Specify 1 to filter the information gathered in your report based on the state - Disabled.
ig_ignored={**0** | 1}	Specify 1 to filter the information gathered in your report based on the state - Ignored.
display_non_running_kernels ={**0** | 1}	Specify 1 to include a list of all vulnerabilities found on non-running kernels.

Parameter	Description
exclude_non_running_kernel={**0** | 1}	Specify 1 to exclude vulnerabilities found on non-running kernels. Use only one parameter at a time: highlight_arf_kernel or arf_kernel.
exclude_non_running_services ={**0** | 1}	Specify 1 to only include vulnerabilities found where the port/service is running.
exclude_qids_not_exploitable_ due_to_configuration={**0** | 1}	Specify 1 to exclude vulnerabilities that are not exploitable because there's a specific configuration present on the host.
exclude_superceded_patches={ **0** | 1}	Specify 1 to exclude every patch QID which is superceded (replaced) by another patch QID recommended for the same Host.
categories_list={value}	Specify the category name to filter hosts in your report based on various categories. For example, if you're only interested in Windows vulnerabilities make sure you provide the category name for Windows. Multiple category names can be provided using values separated by a comma. Specify ALL to include all categories. See Categories.
Services and Ports	Services and ports to include in report.
required_services={value}	Specify the name of a required service. Multiple service names can be provided using values separated by a comma. We'll report QID: 38228 (when a required service is NOT detected). See Identified Services.
unauthorized_services= {value}	Specify the name of an unauthorized service. Multiple service names can be provided using values separated by a comma. We'll report QID: 38175 (when an unauthorized service is detected). See Identified Services.
required_ports={value}	Specify required ports. Multiple ports can be provided using values separated by a comma. We'll report QID: 82051 (when a required port is NOT detected).
unauthorized_ports={value}	Specify unauthorized ports. Multiple ports can be provided using values separated by a comma. We'll report QID: 82043 (when an unauthorized port is detected).

Parameter	Description
User Access	Control user access to template and reports generated from template.
global={**0** | 1}	Share this report template with other users by making it global. Specify 1 to make it global.
report_access_users={value}	Specify the username to share the report with a user who wouldn't already have access to the report. Multiple usernames can be provided using values separated by a comma. Each user you add will be able to view reports generated from this template even if they don't have access to the IPs in the report.

Scan Template examples

Example: Create Scan template

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl" -X POST -H
"Content-type: text/xml" --data-binary @scan_export.xml
"https://qualysapi.qualys.com/api/2.0/fo/report/template/scan/?action=cre
ate&report_format=xml"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE SIMPLE_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/simple_return.dtd">
<SIMPLE_RETURN>
  <RESPONSE>
    <DATETIME>2017-04-06T05:41:32Z</DATETIME>
    <CODE>Scan Report Template(s) Created Successfully [89876]</CODE>
    <TEXT></TEXT>
  </RESPONSE>
</SIMPLE_RETURN>
```

Example: Update Scan template

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl" -X PUT -H "Content-
type: text/xml" --data-binary @scan_export.xml
"https://qualysapi.qualys.com/api/2.0/fo/report/template/scan/?action=upd
ate&template_id=8209&report_format=xml"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE SIMPLE_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/simple_return.dtd">
<SIMPLE_RETURN>
  <RESPONSE>
    <DATETIME>2017-04-04T10:52:34Z</DATETIME>
    <CODE>Scan Report Template Updated Successfully [8209]</CODE>
    <TEXT></TEXT>
  </RESPONSE>
</SIMPLE_RETURN>
```

Example: Delete Scan template

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl" -d
"action=delete&template_id=8209"
"https://qualysapi.qualys.com/api/2.0/fo/report/template/scan/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE SIMPLE_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/simple_return.dtd">
<SIMPLE_RETURN>
  <RESPONSE>
    <DATETIME>2017-04-04T10:54:37Z</DATETIME>
    <CODE>Scan Report Template(s) Deleted Successfully [8209]</CODE>
    <TEXT></TEXT>
  </RESPONSE>
</SIMPLE_RETURN>
```

Example: Export Scan template

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl"
"https://qualysapi.qualys.com/api/2.0/fo/report/template/scan/?action=exp
ort&template_id=89470&report_format=xml"
```

Exports the report template based on the template ID. When the template ID is not specified, exports all templates for the report type.

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE REPORTTEMPLATE SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/report/template/scan/scanreportt
emplate_info.dtd">
<REPORTTEMPLATE>
```

```
  <SCANTEMPLATE>
    <TITLE>
      <INFO key="title"><![CDATA[Scan-Report-To-Create-Do not
Change]]></INFO>
      <INFO key="owner"><![CDATA[1086]]></INFO>
    </TITLE>
    <TARGET>
      <INFO key="scan_selection"><![CDATA[HostBased]]></INFO>
      <INFO key="include_trending"><![CDATA[1]]></INFO>
      <INFO key="selection_type"><![CDATA[days]]></INFO>
      <INFO key="selection_range"><![CDATA[5]]></INFO>
      <INFO key="limit_timeframe"><![CDATA[1]]></INFO>
      <INFO key="asset_groups"><![CDATA[PBPS-Targets]]></INFO>
      <INFO key="tag_set_by"><![CDATA[id]]></INFO>
      <INFO key="tag_set_include"><![CDATA[8644659]]></INFO>
      <INFO key="tag_set_exclude"><![CDATA[8262228]]></INFO>
      <INFO key="tag_include_selector"><![CDATA[ALL]]></INFO>
      <INFO key="tag_exclude_selector"><![CDATA[ALL]]></INFO>
      <INFO key="network"><![CDATA[-100]]></INFO>
      <INFO key="ips"><![CDATA[10.10.0.1,10.10.0.5]]></INFO>
      <INFO key="host_with_cloud_agents"><![CDATA[all]]></INFO>
    </TARGET>
    <DISPLAY>
      <INFO key="graph_business_risk"><![CDATA[1]]></INFO>
      <INFO key="graph_vuln_over_time"><![CDATA[1]]></INFO>
      <INFO key="display_text_summary"><![CDATA[1]]></INFO>
      <INFO key="graph_status"><![CDATA[1]]></INFO>
      <INFO key="graph_potential_status"><![CDATA[1]]></INFO>
      <INFO key="graph_severity"><![CDATA[1]]></INFO>
      <INFO key="graph_potential_severity"><![CDATA[1]]></INFO>
      <INFO key="graph_ig_severity"><![CDATA[1]]></INFO>
      <INFO key="graph_top_categories"><![CDATA[1]]></INFO>
      <INFO key="graph_top_vulns"><![CDATA[1]]></INFO>
      <INFO key="graph_os"><![CDATA[1]]></INFO>
      <INFO key="graph_services"><![CDATA[1]]></INFO>
      <INFO key="graph_top_ports"><![CDATA[1]]></INFO>
      <INFO key="display_custom_footer"><![CDATA[1]]></INFO>
      <INFO key="display_custom_footer_text"><![CDATA[Test@123]]></INFO>
      <INFO key="sort_by"><![CDATA[host]]></INFO>
      <INFO key="cvss"><![CDATA[all]]></INFO>
      <INFO key="host_details"><![CDATA[0]]></INFO>
      <INFO key="include_text_summary"><![CDATA[1]]></INFO>
      <INFO key="include_vuln_details"><![CDATA[1]]></INFO>
      <INFO key="include_vuln_details_threat"><![CDATA[1]]></INFO>
      <INFO key="include_vuln_details_impact"><![CDATA[1]]></INFO>
      <INFO key="include_vuln_details_solution"><![CDATA[1]]></INFO>
      <INFO key="include_vuln_details_vpatch"><![CDATA[1]]></INFO>
      <INFO key="include_vuln_details_compliance"><![CDATA[1]]></INFO>
      <INFO key="include_vuln_details_exploit"><![CDATA[1]]></INFO>
```

```
        <INFO key="include_vuln_details_malware"><![CDATA[1]]></INFO>
        <INFO key="include_vuln_details_results"><![CDATA[1]]></INFO>
        <INFO key="include_vuln_details_appendix"><![CDATA[1]]></INFO>
        <INFO key="exclude_account_id"><![CDATA[1]]></INFO>
        <INFO key="include_vuln_details_reopened"><![CDATA[1]]></INFO>
        <INFO key="metadata_ec2_instances"><![CDATA[0]]></INFO>
      </DISPLAY>
      <FILTER>
        <INFO key="selective_vulns"><![CDATA[complete]]></INFO>
        <INFO key="search_list_ids"><![CDATA[]]></INFO>
        <INFO key="exclude_qid_option"><![CDATA[1]]></INFO>
        <INFO key="exclude_search_list_ids"><![CDATA[]]></INFO>
        <INFO key="included_os"><![CDATA[ALL]]></INFO>
        <INFO key="status_new"><![CDATA[1]]></INFO>
        <INFO key="status_active"><![CDATA[1]]></INFO>
        <INFO key="status_reopen"><![CDATA[1]]></INFO>
        <INFO key="status_fixed"><![CDATA[1]]></INFO>
        <INFO key="vuln_active"><![CDATA[1]]></INFO>
        <INFO key="vuln_disabled"><![CDATA[1]]></INFO>
        <INFO key="vuln_ignored"><![CDATA[1]]></INFO>
        <INFO key="potential_active"><![CDATA[1]]></INFO>
        <INFO key="potential_disabled"><![CDATA[1]]></INFO>
        <INFO key="potential_ignored"><![CDATA[1]]></INFO>
        <INFO key="ig_active"><![CDATA[1]]></INFO>
        <INFO key="ig_disabled"><![CDATA[1]]></INFO>
        <INFO key="ig_ignored"><![CDATA[0]]></INFO>
        <INFO key="display_non_running_kernels"><![CDATA[1]]></INFO>
        <INFO key="exclude_non_running_kernel"><![CDATA[0]]></INFO>
        <INFO key="exclude_non_running_services"><![CDATA[1]]></INFO>
        <INFO key="exclude_superceded_patches"><![CDATA[1]]></INFO>
        <INFO
key="exclude_qids_not_exploitable_due_to_configuration"><![CDATA[1]]></IN
FO>
        <INFO key="categories_list"><![CDATA[ALL]]></INFO>
      </FILTER>
      <SERVICESPORTS>
        <INFO key="required_services"><![CDATA[ActiveSync,akak trojan,Apple
         Airport Management,Applix TM1 Server]]></INFO>
        <INFO key="unauthorized_services"><![CDATA[aml,Arkeiad Network
         Backup,auth]]></INFO>
        <INFO key="services_info"><![CDATA[aml,Arkeiad Network
         Backup,auth]]></INFO>
        <INFO key="required_ports"><![CDATA[12]]></INFO>
        <INFO key="unauthorized_ports"><![CDATA[21]]></INFO>
      </SERVICESPORTS>
      <USERACCESS>
        <INFO
         key="report_access_users"><![CDATA[start_rm2,start_su]]></INFO>
        <INFO key="global"><![CDATA[1]]></INFO>
```

```
    </USERACCESS>
  </SCANTEMPLATE>
</REPORTTEMPLATE>
```

Scan template DTD

https://<base_url>/api/2.0/fo/report/template/scan/scanreporttemplate_info.dtd

```
<!-- QUALYS REPORT_SCAN_TEMPLATE_OUTPUT DTD -->
<!ELEMENT REPORTTEMPLATE (SCANTEMPLATE)*>
<!ELEMENT SCANTEMPLATE
(TITLE|TARGET|DISPLAY|FILTER|SERVICESPORTS|USERACCESS)*>
<!ELEMENT TITLE (INFO)*>
<!ELEMENT INFO (#PCDATA)>
<!ATTLIST INFO
       key CDATA #REQUIRED>
<!ELEMENT TARGET (INFO)*>
<!ELEMENT DISPLAY (INFO)*>
<!ELEMENT FILTER (INFO)*>
<!ELEMENT SERVICESPORTS (INFO)*>
<!ELEMENT USERACCESS (INFO)*>
<!-- EOF -->
```

PCI Scan Template API

The API /api/2.0/fo/report/template/pciscan/ allows you to perform actions such as create, update, delete and export on the PCI Scan Template.

PCI Scan Template Request

A summary of API Endpoint URLs is provided below.

Action	API Endpoint /required parameters	Method
Create PCI Scan Template	<base_url>/api/2.0/fo/report/template/pciscan/ Required parameters: action=create report_format=xml	POST
Update PCI Scan Template	<base_url>/api/2.0/fo/report/template/pciscan/ Required parameters: template_id={value} action=update report_format=xml	PUT

Action	API Endpoint /required parameters	Method
Delete PCI Scan Template	<base_url>/api/2.0/fo/report/template/pciscan/ Required parameters: template_id={value} action=delete	POST
Export PCI Scan Template	<base_url>/api/2.0/fo/report/template/pciscan/ Required parameters: action=export report_format=xml Optional parameter: template_id={value} When unspecified all templates for the report type get exported.	GET

PCI Scan Template settings

Go to Scan Template settings. The same parameters used to define PCI Scan Template settings. All parameters (all are optional).

In addition the following parameters are used.

Parameter	Description
PCI Risk Ranking	Configure PCI Risk Ranking.
custom_pci_ranking={**0**|1}}	Specify 1 to enable custom PCI risk ranking. When disabled Qualys will use default PCI ASV risk rankings.
customized_ranking_medium_from={0|1|2|3|4|5|6|7|8|9|10}	By default Qualys uses risk rankings High, Medium, Low. By default for a new template, these are set to the same CVSS scores as required for ASV external scans. You can customize the ASV scores using the scale. When custom PCI risk ranking is enabled, this parameter sets the Medium marker value.
customized_ranking_high_from={0|1|2|3|4|5|6|7|8|9|10}	When custom PCI risk ranking is enabled, this parameter sets the High marker value.
customized_ranking_comments={value}	When custom PCI risk ranking is enabled, a comment on the custom ranking is required. Enter any string up to 400 characters.

Parameter	Description
customized_ranking_qid_searchlist_comments={<search list id1/name1>|<SEVERITY>|<comments>,<search list id2/name2>|<SEVERITY>|comments>}	When custom PCI risk ranking is enabled, you can specify custom rankings for QID search lists (i.e. custom rankings per set of vulnerabilities in our KnowledgeBase). Use the format shown. For example: searchlistid1|HIGH|"some comments",searchlistid2|MEDIUM|"some comments"

Examples

Refer to Scan template examples for create, update, delete and export sample requests. Requests and outputs for PCI Scan template are similar.

PCI Scan template DTD

https://<base_url>/api/2.0/fo/report/template/pciscan/pciscanreporttemplate_info.dtd

```
<!ELEMENT REPORTTEMPLATE (PCISCANTEMPLATE)*>
<!ELEMENT PCISCANTEMPLATE
(TITLE|TARGET|DISPLAY|FILTER|SERVICESPORTS|USERACCESS|PCIRISKRANKING)*>
<!ELEMENT TITLE (INFO)*>
<!ELEMENT INFO (#PCDATA)>
<!ATTLIST INFO
        key CDATA #REQUIRED>
<!ELEMENT TARGET (INFO)*>
<!ELEMENT DISPLAY (INFO)*>
<!ELEMENT FILTER (INFO)*>
<!ELEMENT SERVICESPORTS (INFO)*>
<!ELEMENT USERACCESS (INFO)*>
<!ELEMENT PCIRISKRANKING (INFO)*>
```

Patch Template API

The API /api/2.0/fo/report/template/patch/ allows you to perform actions such as create, update, delete and export on the Patch Template.

Patch Template Request

A summary of API Endpoint URLs is provided below.

Action	API Endpoint /required parameters	Method
Create Patch Template	<base_url>/api/2.0/fo/report/template/patch/ Required parameters: action=create report_format=xml	POST
Update Patch Template	<base_url>/api/2.0/fo/report/template/patch/ Required parameters: template_id={value} action=update report_format=xml	PUT
Delete Patch Template	<base_url>/api/2.0/fo/report/template/patch/ Required parameters: template_id={value} action=delete	POST
Export Patch Template	<base_url>/api/2.0/fo/report/template/patch/ Required parameters: action=export report_format=xml Optional parameter: template_id={value} When unspecified all templates for the report type get exported.	GET

Patch Template settings

These parameters (all are optional) are used for a create or update request to define Patch template settings. When creating a new template the default value is shown in bold where applicable.

Parameter	Description
Title	The template title and owner.
title={value}	A string value for the title. Length is maximum 64 characters.

Parameter	Description
owner={value}	Username of the owner of this template. Validity of the owner to create reports is based on the user role or business unit. See About template owner.
Target	What target assets to include in the report.
patch_evaluation={**qidbased** | classic}	Specify classic to choose Classic patch evaluation or specify qidbased to choose QID based patch evaluation.
asset_groups	Asset groups to include in the report. Multiple asset groups are comma separated.
asset_group_ids={value}	Specify the ID of the asset group(s) to report on. Multiple asset group IDs are comma separated. We'll report on all the IPs in the asset groups.
tag_set_by={name | id}	Specify the name of the tags or the ID of the tags for the hosts you want to report on. Multiple tag names or tag IDs are comma separated.
tag_include_selector={ALL | **ANY**}	Specify ALL to match all the asset tags for the hosts you want to report on (This is an AND operation). Specifying ANY will match any of the assets tags (This is an OR operation).
tag_set_include={value}	Specify asset tags for the hosts you want to report on. We'll find the hosts in your account that match your tag selection and include them in the report. Multiple tags can be provided using comma separated values.
tag_exclude_selector={ALL | **ANY**}	Specify ALL to match all the asset tags for the hosts you want do not want to report on (This is an AND operation). Specifying ANY will match any of the assets tags (This is an OR operation).
tag_set_exclude={value}	Specify asset tags for the hosts you do not want to report on. We'll find the hosts in your account that match your tag selection and exclude them from the report. Multiple tags can be provided using comma separated values.
network={value}	(Valid only when the Networks feature is enabled for your account.) A network name containing the IPs to include. For a new template the default network is Global Default Network.
ips={value}	IP addresses to include in the report. Multiple IPs are comma separated.

Parameter	Description
Display	Display options to include in the report.
group_by={HOST|PATCH|OS|AG}	Sort and group the results of the report by any of the following: Host = HOST Patch = PATCH Operating System = OS Asset Group = AG
include_table_of_qids_fixed={0|**1**}	Specify 1 to include QIDs that will be fixed by each patch.
include_patch_links={0|**1**}	Specify 1 to include the available links for each patch.
include_patches_from_unspecified_vendors={0|**1**}	Specify 1 to include patches from unspecified vendors.
patch_severity_by={**assigned**|highest}	Specify assigned to display severity which is assigned to the QID for the patch detection. Specify highest to display the severity which is highest across all QIDs found on the host that can be patched.
patch_cvss_score_by={assigned|highest|**none**}	Specify the CVSS version score you want to display in reports. assigned - CVSS score assigned to the QID for the patch detection highest - CVSS score highest across all QIDs found on the host that can be patched. none - Do not display CVSS scores.
cvss={**all**|cvssv2|cvssv3}	Specify the CVSS version score you want to display in reports. all - both CVSS versions cvssv2 - CVSS version 2 cvssv3 - CVSS version 3
display_custom_footer={**0**|1}	Specify 1 to include custom text in the report footer.
display_custom_footer_text={value}	Specify custom text like a disclosure statement or data classification (e.g. Public, Confidential). The text you enter will appear in all reports generated from this template, except reports in XML and CSV formats. Length is maximum 4000 characters.
exclude_account_id={0|1}	Specify 1 to exclude the account login ID in the filename of downloaded reports. Use this option to remove the login ID from the filename.

Parameter	Description
Filters	Filter options such as vulnerabilities, QIDs, patches.
selective_vulns={complete | custom}	Specify complete to show results for any and all vulnerabilities found. Specify custom to filter your reports to specific QIDs (add static search lists) or to QIDs that match certain criteria (add dynamic search lists). For example, maybe you only want to report on vulnerabilities with severity 4 or 5. Tip - Exclude QIDs that you don't want in the report.
search_list_ids= {value}	Specify QID to be included in the report. Multiple QIDs can be provided using values separated by a comma. This parameter is required only if selective_vulns=custom.
exclude_qid_option={**0** | 1}	Specify 1 to exclude QIDs from the report.
exclude_search_list_ids= {value}	Specify QID to be excluded from the report. Multiple QIDs can be provided using values separated by a comma. This parameter is required only if exclude_qid_option=1.
display_non_running_kernels ={**0** | 1}	Specify 1 to include a list of all vulnerabilities found on non-running kernels.
exclude_non_running_kernel= {**0** | 1}	Specify 1 to exclude vulnerabilities found on non-running kernels. Use only one parameter at a time: highlight_arf_kernel or arf_kernel.
exclude_non_running_services ={**0** | 1}	Specify 1 to only include vulnerabilities found where the port/service is running.
exclude_qids_not_exploitable_ due_to_configuration={**0** | 1}	Specify 1 to exclude vulnerabilities that are not exploitable because there's a specific configuration present on the host.
selective_patches={complete | custom}	Specify complete to show results for any and all patches found. Specify custom to filter your reports to specific QIDs (add static search lists) or to QIDs that match certain criteria (add dynamic search lists). For example, maybe you only want to report on vulnerabilities with severity 4 or 5. Tip - Exclude QIDs that you don't want in the report.
exclude_patch_qid_option={**0** | 1}	Specify 1 to exclude patch QIDs from the report.
patch_search_list_ids={value}	Specify patch QID to be included in the report. Multiple patch QIDs can be provided using values separated by a comma. This parameter is required only if selective_patches=custom.

Parameter	Description
exclude_patch_search_list_ids ={value}	Specify patch QID to be excluded from the report. Multiple patch QIDs can be provided using values separated by a comma. This parameter is required only if exclude_patch_qid_option=1.
found_since_days={7 | **30** | 90 | 365 | NoLimit}	Show only patches for vulnerabilities detected during the specified period of time in days. Specify NoLimit for no time limit.
User Access	Control user access to template and reports generated from template.
global={**0** | 1}	Share this report template with other users by making it global. Specify 1 to make it global.
report_access_users={value}	Specify the username to share the report with a user who wouldn't already have access to the report. Multiple usernames can be provided using values separated by a comma. Each user you add will be able to view reports generated from this template even if they don't have access to the IPs in the report.

Examples

Refer to Scan template examples for create, update, delete and export sample requests. Requests and outputs for Patch template are similar.

Patch template DTD

https://<base_url>/api/2.0/fo/report/template/patch/patchreporttemplate_info.dtd

```
<!ELEMENT REPORTTEMPLATE (PATCHTEMPLATE)*>
<!ELEMENT PATCHTEMPLATE (TITLE|TARGET|DISPLAY|FILTER|USERACCESS)*>
<!ELEMENT TITLE (INFO)*>
<!ELEMENT INFO (#PCDATA)>
<!ATTLIST INFO
        key CDATA #REQUIRED>
<!ELEMENT TARGET (INFO)*>
<!ELEMENT DISPLAY (INFO)*>
<!ELEMENT FILTER (INFO)*>
<!ELEMENT USERACCESS (INFO)*>
```

Map Template API

The API /api/2.0/fo/report/template/map/ allows you to perform actions such as create, update, delete and export on the Map Template.

Map Template Request

A summary of API Endpoint URLs is provided below.

Action	API Endpoint /required parameters	Method
Create Map Template	<base_url>/api/2.0/fo/report/template/map/ Required parameters: action=create report_format=xml	POST
Update Map Template	<base_url>/api/2.0/fo/report/template/map/ Required parameters: template_id={value} action=update report_format=xml	PUT
Delete Map Template	<base_url>/api/2.0/fo/report/template/map/ Required parameters: template_id={value} action=delete	POST
Export Map Template	<base_url>/api/2.0/fo/report/template/map/ Required parameters: action=export report_format=xml Optional parameter: template_id={value} When unspecified all templates for the report type get exported.	GET

Map Template settings

These parameters (all are optional) are used for a create or update request to define Map template settings. When creating a new template the default value is shown in bold where applicable..

Parameter	Description
Title	The template title and owner.
title={value}	A string value for the title. Length is maximum 64 characters.

Parameter	Description
owner={value}	Username of the owner of this template. Validity of the owner to create reports is based on the user role or business unit. See About template owner.
global={**0** | 1}	Share this report template with other users by making it global. Specify 1 to make it global.
Display	Display options to include in the report.
map_sort_by={ipaddress | dns | netbios | router | operatingsystem}	Sort and group the results of the report by any of the following: IP Address = ipaddress DNS = dns NetBIOS = netbios Router = router Operating System = OS
map_related_info_lastscandate={**0** | 1}	Specify 1 to include the last scan date.
map_related_info_assetgroups={**0** | 1}	Specify 1 to include the asset groups.
map_related_info_authenticationrecords={**0** | 1}	Specify 1 to include the authentication records.
map_related_info_discoverymethod={**0** | 1}	Specify 1 to include the discovery method.
display_custom_footer={**0** | 1}	Specify 1 to include custom text in the report footer.
display_custom_footer_text={value}	Specify custom text like a disclosure statement or data classification (e.g. Public, Confidential). The text you enter will appear in all reports generated from this template, except reports in XML and CSV formats. Length is maximum 4000 characters.
map_exclude_account_id={**0** | 1}	Specify 1 to exclude the account login ID in the filename of downloaded reports. Use this option to remove the login ID from the filename.
Filters	Filter options to help you specify what to include.
map_included_hosttypes_innetblock={0 | **1**}	Specify 1 to filter the report by host types - In Netblock.
map_included_hosttypes_scannable={0 | **1**}	Specify 1 to filter the report by host types - Scannable
map_included_hosttypes_live={0 | **1**}	Specify 1 to filter the report by host types - Live.

Parameter	Description
map_included_hosttypes_approved={0|**1**}	Specify 1 to filter the report by host types - Approved.
map_included_hosttypes_outofnetblock={0|**1**}	Specify 1 to filter the report by host types - Not In Netblock.
map_included_hosttypes_notscannable={0|**1**}	Specify 1 to filter the report by host types - Not Scannable.
map_included_hosttypes_notlive={0|**1**}	Specify 1 to filter the report by host types - Not Live.
map_included_hosttypes_rogue={0|**1**}	Specify 1 to filter the report by host types - Rouge.
Included Discovery Methods	Specify at least one.
map_idm_tcp={0|**1**}	Specify 1 to filter the report by discovery methods - TCP.
map_idm_udp={0|**1**}	Specify 1 to filter the report by discovery methods - UDP.
map_idm_traceroute={0|**1**}	Specify 1 to filter the report by discovery methods - TraceRoute.
map_idm_other={0|**1**}	Specify 1 to filter the report by discovery methods - Other.
map_idm_dns={0|**1**}	Specify 1 to filter the report by discovery methods - DNS.
map_idm_icmp={0|**1**}	Specify 1 to filter the report by discovery methods - ICMP.
map_idm_auth={0|**1**}	Specify 1 to filter the report by discovery methods - AUTH.
Included Status Levels	Only applicable for differential map reports.
map_included_statuses_added={0|**1**}	Specify 1 to filter the report by statuses - Added.
map_included_statuses_removed={0|**1**}	Specify 1 to filter the report by statuses - Removed.
map_included_statuses_active={0|**1**}	Specify 1 to filter the report by statuses - Active.
dns_exclusions={none|DNS|DNS-DNSZone}	Exclude hosts discovered only via: none = None DNS = DNS DNS-DNSZone = DNS and/or DNS Zone Transfer
included_os={value}	Specify the operating system name to filter hosts. For example, to only report on Linux hosts make sure you provide the operating system name for Linux. Multiple operating system names can be provided using values separated by a comma. Specify ALL to include all operating systems. See Identified OS.

Examples

Refer to Scan template examples for create, update, delete and export sample requests. Requests and outputs for Map template are similar.

Map template DTD

https://<base_url>/api/2.0/fo/report/template/map/mapreporttemplate_info.dtd

```
<!ELEMENT REPORTTEMPLATE (MAPTEMPLATE)*>
<!ELEMENT MAPTEMPLATE (TITLE|DISPLAY|FILTER|OPERATINGSYSTEM)*>
<!ELEMENT TITLE (INFO)*>
<!ELEMENT INFO (#PCDATA)>
<!ATTLIST INFO
        key CDATA #REQUIRED>
<!ELEMENT DISPLAY (INFO)*>
<!ELEMENT FILTER (INFO)*>
<!ELEMENT OPERATINGSYSTEM (INFO)*>
```

About template owner

The user who created the report template is the owner by default. Managers and Unit Managers have the option to specify/change the owner while creating a report template the first time or by updating an existing report template. Use the parameter "owner" to assign a template owner.

Global report templates may be owned by Managers and Unit Managers. Non-global report templates may be owned by Managers, Unit Managers, Scanners and Readers.

Managers / Unit Managers can assign only those users as template owners who are part of their hierarchy and are added in their subscription.

Identified OS

Operating Systems identified by our service as of March 2017 are listed below.

Looking for a more current listing? Sure thing. Just log in to your Qualys account and go to Help > About.

Tip - In API requests replace spaces in OS names with underscores. For example, **`Apple IOS`** must be specified as **`Apple_IOS`**

```
3Com
3Com HomeConnect
3Com NBX
3Com OfficeConnect
3Com SuperStack
3Com Switch
3Com Wireless Access Point
AB
AB ControlLogix
Adic
Adic Scalar
Adic Storage
ADIC Storage
Adtran
Adtran Device
Adtran NetVanta
Adtran TSUIQ
ADTX
ADTX ArrayMasStor
AIX
AIX 4.2-4.3
AIX 4.3
AIX 4.3.2.0-4.3.3.0
AIX 4.33
AIX 4.3-5.1
AIX 4.x
AIX 4.x-5.x
AIX 5.1
AIX 5.1-5.2
AIX 5.1-5.3
AIX 5.2
AIX 5.3
AIX 5.3.0.4
AIX 5.x
AIX 6.x
Alcatel
Alcatel OmniStack
Alcatel OmniSwitch
Allied
Allied Telesyn Switch
Alteon
Alteon ACE Switch
Alteon Switch
Altium
Altium Wireless Device
Amazon Linux
AMX
AMX Modero
APC
APC InfraStruXure
APC MasterSwitch
APC Network
APC Network Management Card AOS
APC Smart-UPS
AppCelera
AppCelera ICX
Apple
Apple Airport Wireless Access Point
Apple iOS
Apple Wireless Access Point
Arescom
Arescom Device
Arescom NetDSL
Ascend
Ascend Router
Ascent
Ascent Router
ASUS
ASUS Wireless
ASUS Wireless Access Point
Aten
Aten KVM Switch
ATT NetGate
ATTO Device
AudioCodes
AudioCodes VOIP
Avaya
Avaya Device
Avaya G350
Avaya IP Phone
Avaya Wireless Access Point
Avocent
Avocent CCM Appliance
Axis
Axis Network Camera
```

```
Axis Printer
Axis Storpoint CD
Axis Video Server
Axis Wireless Access Point
Axonix SuperCD
Bay Networks
Bay Networks Router
Bay Networks Switch
Belkin
Belkin Wireless Access Point
BeOS 5
BlueCoat Security Gateway
BlueSocket Embedded Linux 2.4-2.6
BorderWare Firewall
Brocade Device
Brother Printer
BSD
BSD Unix
BSDI BSD
BT Voyager
Buffalo Wireless Access Point
Cabletron
Cabletron SmartSTACK
Cabletron Switch
Caldera
Caldera Open Linux
Caldera Open UNIX 7
Caldera Open UNIX 8
Canon
Canon Network Printer
Canon Print Server
Canon Printer
Cayman3000
CEKAB Device
CentOS
CentOS
CheckPoint
CheckPoint FW1
CheckPoint FW1 NG
CheckPoint FW1 on Solaris
CheckPoint SecurePlatform
Cintech Switch
Cirronet Wireless Access Point
Cisco
Cisco Analog Phone Gateway
Cisco Analog Telephone Adaptor
Cisco Arrowpoint WebNS
Cisco ASA
Cisco Catalyst
Cisco Content Engine
Cisco Content Services Switch
Cisco Content Switching Solution
Cisco Content/File Engine
Cisco Controller
Cisco File Engine
Cisco Firewall Services Module
Cisco IOS
Cisco IP Phone
Cisco IP/TV Program Manager
Cisco Local Director
Cisco PIX
Cisco VPN
Cisco WGB350
Cisco Wireless Access Point
ClearPath MCP
CNT UltraNet Edge
Cognitive Printer
CometLabs Switch
Compaq
Compaq Insight Manager
Compaq Switch
Computone Device
Connect2Air Wireless Access Point
ControlLogix ENET
Crossroads Storage Router
Custom Micro Device
CyberGuard Firewall
CyberGuard Firewall
Datamax I-Class
Datamax Printer
Dawning SNI
Debian
Dell
Dell Laser
Dell PowerConnect
Dell PowerVault
Dell Remote Access Controller
Digi
Digi One PortServer
Digi One SP
Digi Port Server
Divar Video Camera
D-Link
D-Link DSL Modem
D-Link Print Server
D-Link Router
D-Link Switch
D-Link Wireless Access Point
```

```
Draytek Router
DVD Server
Efficient Router
EFI Printer
EMC's Network-Attached Storage
Device
Enterasys
Entry-Master Card Access Control
System
Epson Printer
ExtendedNet Print Server
Extreme
Extreme Alpine
Extreme Networks Device
Extreme Networks ExtremeWare
Extreme Networks Switch
F5 Networks Big-IP
Fabric OS
FaxPress
Fiery Printer
File Engine
Fortigate
Foundry Networks
FreeBSD
Fujitsu
Fujitsu Blade
Gestetner
Gestetner Printer
Gigafast
Gigafast Wireless Access Point
Gigafast Wireless Access Point
Google Appliance
Hawking Wireless Access Point
Honeyd HoneyPot
HP
HP 3000 MPE
HP AdvanceStack Switch
HP Deskjet Printer
HP Fabric OS
HP Guardian Service Processor
HP iLO
HP Inkjet Printer
HP JetDirect
HP LaserJet
HP OpenVMS
HP ProCurve
HP RILO
HP Surestore Library
HP Switch
HP Tru64
HP-UX
HP-UX 10
HP-UX 10.20
HP-UX 11
Huawei Switch
HVAC controller
IBM
IBM 2210
IBM 4400 Printer
IBM 4690
IBM Infoprint
IBM Mainframe
IBM Network Printer
IBM OS/2
IBM OS/390
IBM OS/400
IBM Printer
IBM Remote Supervisor Adapter
IBM Remote Supervisor Adapter II
IBM Tape Library
IBM Token-Ring Stackable Hub
IBM z/VM
i-data Print Server
Indyme MTS Messaging Telephony
Server CU4400
Infinity Embedded Device
Infortrend Serial ATA Storage
Subsystem
Intel
Intel NetportExpress Print Server
Intel Switch
Intel Wireless Access Point
Intergy Network Energy Source
System
Intermate
Intermate Print Server
Intermate Print Server
Intermec
Intermec EasyLAN Printer
Intermec Wireless Access Point
Inter-Tel IP Phone
IP Phone
IRIX
IRIX 6.2
IRIX 6.5
IRIX behind Firewall or Load
Balancer
IronPort
```

```
Juniper Networks
Juniper Networks Application
Acceleration Platform DX
Juniper Networks JUNOS
Kentrox
Kentrox Q2200 Router
Konica
Konica Minolta
Konica Printer
Kyocera
Kyocera Mita
Kyocera Printer
Lancast
Lancast Media Converter
Lanier
Lanier Printer
Lantronix
Lantronix CoBox
Lantronix ETS32PR
Lantronix MSS100
Lantronix Printer
Leitch
Lexmark
Lexmark Optra
Lexmark Print Server
Lexmark Printer
LinkCom
LinkCom Xpress Print Server
Linksys
Linksys Router
Linksys Wireless
Linux
Linux 1.2.8-1.2.13
Linux 2.0
Linux 2.0.29
Linux 2.0.30+
Linux 2.0.34-38
Linux 2.1.19-2.2.20
Linux 2.2
Linux 2.2.20
Linux 2.4
Linux 2.4.0-2.5.20
Linux 2.4.20-2.4.25
Linux 2.4.20-3
Linux 2.4.22
Linux 2.4.7
Linux 2.4.x
Linux 2.4-2.6
Linux 2.6
Linux 2.x
Linux 3.0
Linux Based MRV LX Series Server
Linux behind
Lucent
Lucent Cajun
Lucent MAX
Lucent Orinoco
Lucent PBX
Lucent Router
Lucent WAP
LynxOS
MacOS
MacOS 10.0.x-10.1.x
MacOS 10.10
MacOS 10.11
MacOS 10.12
MacOS 10.3-10.4
MacOS 8
MacOS 9
MacOS X
magicolor
magicolor 2300 Printer
magicolor 3300 Printer
magicolor Printer
MarkNet Pro Printer
Meditech MAGIC
MGE Uninterruptible Power Supply
Systems
Microtest DiscZerver
MiLAN
MiLAN Print Server
MiLAN Switch
MiraPoint
Mitel PBX
Motorola HomeNet WR850G
Moxa
Moxa Async Server
Moxa NPort Serial Server
Multi-Tech
Multi-Tech CommPlete
Multi-Tech MultiVOIP
Muratec MFX Printer
NCR Unix
NEC Projector
Neoteris Instant Virtual Extranet
NetApp
NetApp behind FW1
NetBlazer
```

```
NetBSD
NETBuilder Bridge
Netgear
Netgear GSM
Netgear Print Server
Netgear Printer
Netgear Router
Netgear Smart Switch
Netgear Switch
Netgear Wireless Access Point
Netopia
Netopia Router
Netphone
Netphone IP Phone
NetScaler
NetScaler VPN Device
NetScreen
NetScreen 100
NetScreen 50
NetScreen 5XP
NetSilicon Device
Netsilicon Device
NetWare
NetWare 4.11-5.0 SP5
NetWare 5
NetWare 5.0
NetWare 5.1
NetWare 6
NetWare 6.5
NetWare Print Server
Network Camera
Network Print Server
Network Printer
Network Scanner
NGS 500 Router
NIB Network Printer
Nokia
Nokia IPSO
Nokia Wireless Access Point
Nortel
Nortel Device
Nortel Networks BayStack
Nortel Passport
Nortel Router
Nortel Switch
NRG
NRG Network
NRG Printer
Okidata Printer
OkiLAN Print Server
Open Networks Router
OpenBSD
Oracle Enterprise Linux
Oracle Enterprise Linux 4.5
Oracle Enterprise Linux 5.2
ORiNOCO Wireless Access Point
Orinoco Wireless Access Point
Packeteer
Packeteer PacketSeeker
Packeteer PacketShaper
Panasonic Network Camera
Paradyne Device
Perle Jetstream
PocketPro Print Server
Point Six Point Server
Polycom
Polycom Device
Polycom MGC
Polycom VSX
Power Measurement ION Meter
Powerware
Powerware ConnectUPS
Powerware UPS Device
Precidia Device
Primergy RSB
Printronix Printer
Procom NetFORCE
pSOSystem
QNX
Quantum
Quantum NAS SnapServer
Quantum PX506 Tape Library
Quick Eagle Device
RadiSys iRMX
Radware Device
Raptor Firewall
Red Hat
Redline
Redline Networks Processor
Redline Wireless Access Point
Ricoh
RICOH Aficio
Ricoh Aficio
Ricoh Printer
Ringdale Device
RIO Xtreme
RiverStone Networks Router
RoamAbout R2
```

```
Rockwell
Rockwell Automation
S3Wireless Wireless Access Point
Savin Printer
Scannex NetBuffer
Schneider Electric Controller
SCO
SCO OpenServer
SCO Unix
SCO UnixWare
SCO UnixWare Firewall
SensaTronics Environmental Monitor
Sentry Remote Power Manager
Shark supercomputer
Sharp Printer
Shore Microsystems Link Protector
Sidewinder G2
Siemens
Siemens 5940 Router
Siemens HiPath 3000
Siemens I-Gate
Siemens IP Phone
Siemens Wireless Access Point
Signature System
Silex Pricom Print Server
SIMATIC NET CP
SMC
SMC Networks SMC8624T
SMC Router
SMC Wireless Access Point
SMC2671 Wireless Access Point
SNAP Ethernet Brain
Snap Server
Solaris
Solaris 10
Solaris 11
Solaris 2
Solaris 2.5.1
Solaris 2.5-2.5.1
Solaris 2.6
Solaris 2.6-10
Solaris 2.6-7
Solaris 2.6-8
Solaris 2.7
Solaris 5
Solaris 5.8
Solaris 6-8
Solaris 7
Solaris 7-10
Solaris 8
Solaris 8-10
Solaris 9
Solaris 9-10
Solaris behind
Spectrum24 Wireless Access Point
Stallion EasyServer
StarDot NetCam
Summit Switch
Sun
Sun Cobalt Linux
Sun Lights Out
SUN StorEdge RAID
SuperScript Printer
SuSE
SuSE Linux 10
SuSE Linux 11
SuSE Linux 7
SuSE Linux 8
SuSE Linux 9
Sveasoft Firmware
Symantec Raptor Firewall
Symbol Wireless Access Point
Symon NetLite
SYSTEC CAN-Ethernet Gateway
Tandberg
Tandberg Device
Tandem
Tandem NSK
Tektronix Phaser Printer
Telindus Router
Tenor Switch
TINI
TiVo
TiVo Series
TopLayer Appsafe
Toshiba NWcamera
Transition Networks Device
Trendnet Print Server
Trendware Print Server
Tru64
Tru64 Unix 4.0d
Tru64 Unix 5.x
Tut Modem
TV Program Manager
U.S. Robotics
U.S. Robotics Access point
U.S. Robotics ADSL Wireless Gateway
U.S. Robotics Broadband Router
```

```
U.S. Robotics Wireless Access Point
Ubuntu
Ubuntu Linux 10
Ubuntu Linux 11
Ubuntu Linux 7
Ubuntu Linux 8
Ubuntu Linux 9
Ubuntu Linux LTS
Uninterruptible Power Supply Device
UNIX System V
UNIX System V Release 4.2
UNIX SystemUNIX System V 4
Uptime Devices Monitoring System
UptimeDevices Sensorprobe
VAX
VAX VMS 6.1
VAX VMS 6.1 behind Sidewinder G2
VAX VMS 6.2
VAX VMS 7.1
VAX VMS 7.1 behind Sidewinder G2
Verilink WANsuite Router
Vertical Horizon Stack
VirtualAccess LinxpeedPro
VMware
VMWare ESX 3.5
VMWare ESX 4.0
VMWare ESX 4.1
VMware ESX Server
VMWare ESXi 4.0
VMWare ESXi 4.1
VMWare ESXi 5.0
VMWare ESXi 5.0
VxWorks Based Device
WatchGuard Firewall
Web Smart Switch
WebNet uServer
Windows
Windows 10
Windows 2000
Windows 2003
Windows 2008
Windows 2012
Windows 7
Windows 8
Windows 95
Windows 98
Windows 9x
Windows CE
Windows Longhorn
Windows ME
Windows NT
Windows NT4
Windows RT
Windows Vista
Windows XP
WKTI RDS Encoder
Xerox
Xerox Device
Xerox DocuColor Printer
Xerox Document Centre
Xerox DocuPrint Printer
Xerox Phaser Printer
Xerox Plotter
Xerox Printer
Xerox WorkCentre
Xerox WorkCentre Printer
XES Printer
XJet Print Server
ZebraNet Print Server
ZOT Print Server
```

Identified Services

Services identified by our service as of March 2017 are listed below.

Looking for a more current listing? Just log in to your Qualys account and go to Help > About.

Tip - In API requests replace spaces in service names with underscores. For example, **`Blackberry Attachment`** must be specified as **`Blackberry_Attachment`**

```
ActiveSync
ADDP
afpovertcp
akak_trojan
amandaidx
aml
Apple_Airport_Management
Applix
Applix_axnet
Applix_TM1_Admin_Server
Applix_TM1_Server
Arkeiad_Network_Backup
```

```
ARUGIZER_BACKDOOR
auth
Berlios_Global_Positioning_System_D
aemon
BIGFIX_ENTERPRISE_SERVER
BITCOIN
bitkeeper
Blackberry_Attachment
BMC_Patrol
BO2K_backdoor
bofra_worm
bpcd
bpjava_msvc
ca_brightstor
CA_License_Management_Agent
CA_Unicenter_Services
CENTUM_CS_3000
chargen
chargen_udp
CHECKPOINT_FW-1_CLIENT_AUTH_SERVER
chindi
cisco_cnr
CISCO_CNR_AICSERVAGT
Cisco_Secure_ACS
cisco_ta
citadel
Citrix_CMC
Citrix_ICA
CoDeSys
Cognos_Powerplay_Enterprise_Server
Computer_Associates_License_Manager
COREid_Access_Server
crystal_info
Crystal_Reports_App_Server
Crystal_Reports_CMS
cvspserver
daap
dameware
darxite
daytime
daytime_udp
DC Directory Server
dcerpc
dchub
DHCP_or_Bootp_Server
DNS_Server
dtspcd
echo
echo_udp
edonkey_server
EMC_EmailXtender
finger
Forte for Java
ftp
FW1
FW1_NG_Services
gamsoft_telsrv
GCS_SysID
GIOP
girlfriend
gnutella
gopher
h323
healthd
HoneyD_HoneyPot
HP_DATAPROTECT
HP_printer_service
hparray
hpov_alarm
HPOV_BBC
HPOV_CODA
hpov_topmd
hpov_trcsvc
http
http_over_ssl
IBM SolidDB
IBM_DB2_Universal_Database
IBM_TIVOLI_STORAGE_MANAGER
icecast
ident
imap
INDUSOFT
Infopulse_Gatekeeper
ipmi
ipp
irc
ISA_Proxy
isakmp
ISAKMP_over_TCP
iSCSI
iSNS
jabber
Kadmin-4
kazaa
Kerberos-5
l2tp
LANDesk
LANDESK_CBA_PDS
```

```
LANDESK_MANAGEMENT_AGENT
LANDESK_MANAGEMENT_AGENT
ldap
ldap_over_ssl
limewire
linuxconf
lpd
managesoft
McAfee_ePolicy_Orchestrator
melange_chat
MERCUR_Control-Service
Micromuse_Netcool_Object_Server
microsoft-ds
Microsoft_Message_Queue_Server
minisql
modbus
MODBUS_UDP
mqseries
msdtc
MSMQ_Ping
msrpc
msrpc-over-http
msrpc_udp
mssql
mssql_monitor
MYDESKTOP
mysql
named_udp
ncp
nessus
netbios_ns
netbios_ssn
netbus
netop
netstat
Netviewer_PC_Duo
nfs
nntp
ntp
ocsp
ocssd
Omniquad_Server
open_vpn
opennap
oracle
Oracle_Express_Server
Oracle_Express_Server_xsagent
Oracle_Express_Server_xsdaemon
oracle_intelligent_agent
ORACLE_RMI
pcanywhere
pen
Polycom_MGC_Management
pop2
pop3
PostgreSQL
pptp
PRORAT_TROJAN
proxy_http
proxy_telnet
psmond
pvserver
Quote_of_the_Day
quote_of_the_day_udp
radius
radius_tcp
radmin
rccmd
RealMedia_EncoderServer
Red_Carpet_Daemon
RELIABLE DATAGRAM SOCKETS OVER TCP
Resonate_CD_Agent
resource_monitor_api
Resource_Monitoring_and_Control
rip
rlogin
RMIRegistry
rpc
rpc_udp
RSA_Auth_Mgr
rsh/rexec
rsyncd
rtsp
SAP_MAXDB
SAP_Protocol
SAPgui
SGI_Performance_Copilot
shell
SHOUTcast
skinny
skype
slapper
SMS
smtp
smux
snmp
snmp2
socks4
```

```
socks5
SPLASHTOP_REMOTE_DESKTOP
spychat
Spytech_SpyAnywhere
ssdp
ssh
ssh_over_ssl
swagentd
swat
sybase_adaptive_server
Symantec EMS client server
Symantec_AntiVirus
Symantec_AntiVirus_Rtvscan
Symantec_AntiVirus_Rtvscan_UDP
SysGalUR
systat
talk
telnet
telnet_over_ssl
tftp
time
time_udp
timestamp_over_http
trendmicro_officescan
trojan_fireby
unknown
unknown_over_ssl
UPNP
ut_game_queryport
uucp
VMware_Authentication_Daemon
vnc
vnetd
voip_sip
Volume_Manager_Storage_Administrato
r
VXWORKS_WDBRPC_UDP
watchguard_admin
webshield
win_remote_desktop
winmx
WINS_Replication
Wonderware_InTouch
wsmserver
WSUS_SERVER
x11
X11_Font_Service
xdmcp
xinetd
Xitami
xpilot
XYZFind
Yahoo_Instant_Messenger
yeemp
ZLink
```

Categories

Vulnerability Categories as defined by our service as of March 2017 are listed below.

Want a current listing? No problem. Just log in to your Qualys account, go to the KnowledgeBase, click the Search button, and open the Category menu.

Looking for category descriptions? We've got you covered. Log in to your Qualys account, go to Help > Online Help and search for **`Categories`** and you'll see the article on Vulnerability Categories with all the details.

Tip - In API requests replace spaces in category names with underscores. For example, **`Amazon Linux`** must be specified as **`Amazon_Linux`**

```
AIX
Amazon Linux
Backdoors and trojan horses
Brute Force Attack
CentOS
CGI
Cisco
Database
Debian
DNS and BIND
E-Commerce
Fedora
File Transfer Protocol
Finger
Firewall
Forensics
General remote services
Hardware
HP-UX
```

```
Information gathering
Internet Explorer
Local
Mail services
Malware
News Server
NFS
OEL
Office Application
Proxy
RedHat
RPC
Security Policy
SNMP
Solaris
SMB / NETBIOS
SUSE
TCP/IP
Ubuntu
VMware
Web Application
Web Application Firewall
Web server
Windows
X-Window
```

VM - Show Reopened Info in Scan Reports

When you download a scan report (with host based findings) from your account your report may now include these vulnerability details: date/time the vulnerability was first reopened, date/time the vulnerability was last reopened, number of times the vulnerability was reopened.

Good to Know

You must edit your scan report template to see reopened details in the report. In the template, go to the Display tab and choose Reopened under Vulnerability Details.

You can download scan reports using any of these methods: download the report from the UI, use the Report API v2 (/api/2.0/fo/report/?action=fetch), or use the Asset Data Report API v1 (/msp/asset_data_report.php). The Asset Data Report DTD (asset_data_report.dtd) was updated.

Sample XML Report

```
<!DOCTYPE ASSET_DATA_REPORT SYSTEM
"https://qualysapi.qualys.com/asset_data_report.dtd">
<ASSET_DATA_REPORT>
  <HEADER>
    <COMPANY><![CDATA[Qualys, Inc.]]></COMPANY>
    <USERNAME>qualys_ps</USERNAME>
    <GENERATION_DATETIME>2017-04-11T19:05:14Z</GENERATION_DATETIME>
    <TEMPLATE><![CDATA[Vuln Details + Reopened]]></TEMPLATE>
...
      <VULN_INFO_LIST>
        <VULN_INFO>
          <QID id="qid_38169">38169</QID>
          <TYPE>Vuln</TYPE>
          <PORT>443</PORT>
          <PROTOCOL>tcp</PROTOCOL>
          <SSL>true</SSL>
          <FIRST_FOUND>2016-09-12T20:06:03Z</FIRST_FOUND>
          <LAST_FOUND>2016-11-10T00:22:25Z</LAST_FOUND>
          <TIMES_FOUND>17</TIMES_FOUND>
          <VULN_STATUS>Re-Opened</VULN_STATUS>
          <LAST_FIXED>2016-11-07T23:57:21Z</LAST_FIXED>
          <FIRST_REOPENED>2016-09-24T01:42:10Z</FIRST_REOPENED>
          <LAST_REOPENED>2016-11-10T00:22:25Z</LAST_REOPENED>
          <TIMES_REOPENED>2</TIMES_REOPENED>
        </VULN_INFO>
...
```

DTD update

We added new elements (in bold) to the Asset Data Report DTD (asset_data_report.dtd).

```
...
<!ELEMENT VULN_INFO (QID, TYPE, PORT?, SERVICE?, FQDN?, PROTOCOL?, SSL?,
                     INSTANCE?, RESULT?, FIRST_FOUND?, LAST_FOUND?,
                     TIMES_FOUND?, VULN_STATUS?, LAST_FIXED?,
                     FIRST_REOPENED?, LAST_REOPENED?, TIMES_REOPENED?,
                     CVSS_FINAL?, CVSS3_FINAL?, TICKET_NUMBER?,
                     TICKET_STATE?)>
...
<!ELEMENT FIRST_REOPENED (#PCDATA)>
<!ELEMENT LAST_REOPENED (#PCDATA)>
<!ELEMENT TIMES_REOPENED (#PCDATA)>
...
```

Sample CSV Report

In the CSV report output we added First Reopened, Last Reopened and Times Reopened. We also moved the Date Last Fixed column to appear after Times Detected.

```
"Vuln Details + Reopened","04/12/2017 at 11:13:04 (GMT-0700)"
"Qualys, Inc.","1600 Bridge parkway",,"Redwood City","California","United
States of America","94065"
"Patrick Slimmer","qualys_ps","Manager"

"IP","DNS","EC2 Instance ID","NetBIOS","Tracking Method","OS","IP
Status","QID","Title","Vuln
Status","Type","Severity","Port","Protocol","FQDN","SSL","First
Detected","Last Detected","Times Detected","Date Last Fixed","First
Reopened","Last Reopened","Times Reopened","CVE ID","Vendor
Reference","Bugtraq ID","PCI Vuln","Ticket State","Instance","Non-running
Kernel"
"10.10.30.108",,,,"IP","CentOS 5.4","host scanned, found
vuln","38169","SSL Certificate - Self-Signed Certificate","Re-
Opened","Vuln","2","443","tcp",,"over ssl","09/12/2016
13:06:03","11/09/2016 17:22:25","17","11/07/2016 16:57:21","09/23/2016
18:42:10","11/09/2016 17:22:25","2",,,,"yes",,,"No"
```

VM - Show Reopened Info in Vulnerability Detection API

The output for the Host List VM Detection API (/api/2.0/fo/asset/host/vm/detection) includes more information for vulnerabilities that have been reopened on a host:

FIRST_REOPENED_DATETIME is the date/time the vulnerability was first reopened.

LAST_REOPENED_DATETIME is the date/time the vulnerability was last reopened.

TIMES_REOPENED is the number of times the vulnerability has been reopened.

To see reopened information in the output, your API request must include the new input parameter **show_reopened_info=1**. Reopened information only appears for vulnerabilities that have been reopened. Not applicable to Information Gathered QIDs.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl"
"https://qualysapi.qualys.com/api/2.0/fo/asset/host/vm/detection/?action=
list&ips=10.10.10.11&show_reopened_info=1"
```

XML output:

In this example you'll see reopened information for QID 38170.

```
...
        <DETECTION_LIST>
          <DETECTION>
            <QID>38170</QID>
            <TYPE>Confirmed</TYPE>
            <SEVERITY>2</SEVERITY>
            <PORT>3389</PORT>
            <PROTOCOL>tcp</PROTOCOL>
            <SSL>1</SSL>
           <RESULTS><![CDATA[Certificate #0 CN=2k8r2-u-10-11 (2k8r2-u-10-
11) doesn&apos;t resolve]]></RESULTS>
            <STATUS>Active</STATUS>
            <FIRST_FOUND_DATETIME>2016-08-
01T07:31:48Z</FIRST_FOUND_DATETIME>
            <LAST_FOUND_DATETIME>2017-04-
11T15:59:42Z</LAST_FOUND_DATETIME>
            <TIMES_FOUND>199</TIMES_FOUND>
            <LAST_TEST_DATETIME>2017-04-11T15:59:42Z</LAST_TEST_DATETIME>
            <LAST_UPDATE_DATETIME>2017-04-
11T16:01:51Z</LAST_UPDATE_DATETIME>
            <LAST_FIXED_DATETIME>2017-03-
27T16:32:08Z</LAST_FIXED_DATETIME>
```

```
            <FIRST_REOPENED_DATETIME>2016-11-
25T16:22:31Z</FIRST_REOPENED_DATETIME>
            <LAST_REOPENED_DATETIME>2017-03-
28T15:38:57Z</LAST_REOPENED_DATETIME>
            <TIMES_REOPENED>8</TIMES_REOPENED>
            <IS_IGNORED>0</IS_IGNORED>
            <IS_DISABLED>0</IS_DISABLED>
          </DETECTION>
...
```

DTD update:

We added new reopened elements (in bold) to the Host List VM Detection Output DTD (host_list_vm_detection_output.dtd).

```
<!-- QUALYS HOST_LIST_VM_DETECTION_OUTPUT DTD -->
...
<!ELEMENT DETECTION_LIST (DETECTION+)>
<!ELEMENT DETECTION (QID, TYPE, SEVERITY?, PORT?, PROTOCOL?, FQDN?, SSL?,
                     INSTANCE?, RESULTS?, STATUS?,
                     FIRST_FOUND_DATETIME?, LAST_FOUND_DATETIME?,
                     TIMES_FOUND?, LAST_TEST_DATETIME?,
                     LAST_UPDATE_DATETIME?, LAST_FIXED_DATETIME?,
                     FIRST_REOPENED_DATETIME?, LAST_REOPENED_DATETIME?,
                     TIMES_REOPENED?, SERVICE?, IS_IGNORED?,
                     IS_DISABLED?)>
...
<!ELEMENT FIRST_REOPENED_DATETIME (#PCDATA)>
<!ELEMENT LAST_REOPENED_DATETIME (#PCDATA)>
<!ELEMENT TIMES_REOPENED (#PCDATA)>
<!ELEMENT SERVICE (#PCDATA)>
<!ELEMENT IS_IGNORED (#PCDATA)>
<!ELEMENT IS_DISABLED (#PCDATA)>
<!ELEMENT WARNING (CODE?, TEXT, URL?)>
<!ELEMENT CODE (#PCDATA)>
<!ELEMENT TEXT (#PCDATA)>
<!ELEMENT URL (#PCDATA)>
<!-- EOF -->
```

VM - Detection API - Identify vulnerabilities related to running and non-running kernels

The existing parameter “active_kernels_only” helps you identify detections related to running and non-running Linux kernels. We’ve added a new <AFFECT_RUNNING_KERNEL> tag to the output when “active_kernels_only” is set to 0, 1 or 2.

active_kernels_only Parameter

The behavior of the input parameter is described below.

Parameter	Description
{unspecified}	When unspecified, vulnerabilities are not filtered based on kernel activity. <AFFECT_RUNNING_KERNEL> does not appear in the output for kernel related vulnerabilities.
active_kernels_only=0	Vulnerabilities are not filtered based on kernel activity. <AFFECT_RUNNING_KERNEL> appears in the output for kernel related vulnerabilities.
active_kernels_only=1	Exclude vulnerabilities found on non-running Linux kernels. <AFFECT_RUNNING_KERNEL> appears in the output for kernel related vulnerabilities.
active_kernels_only=2	Only include vulnerabilities found on non-running Linux kernels. <AFFECT_RUNNING_KERNEL> appears in the output for kernel related vulnerabilities.

<AFFECT_RUNNING_KERNEL> values

The value for <AFFECT_RUNNING_KERNEL> will be:

1 if QID applies to a Running Kernel, or

0 if QID applies to a Non-Running Kernel

Sample API call with XML output

This sample shows <**AFFECT_RUNNING_KERNEL>** tag for kernel related vulnerabilities. Value is 0 for 1st detection, 1 for 2nd, and blank (not shown) for 3rd.

API request:

```
curl -u "username:password" -H "X-Requested-With:curl demo2"  -d
"action=list&truncation_limit=50&ips=10.10.26.88&active_kernels_only=0"
"https://qualysapi.qualys.com/api/2.0/fo/asset/host/vm/detection/"
```

XML output:

```
....
                    <DETECTION>
                        <QID>119310</QID>
                        <TYPE>Confirmed</TYPE>
                        <SEVERITY>4</SEVERITY>
                        <SSL>0</SSL>
                        <RESULTS>
                            <![CDATA[Package  Installed Version  Required
Version
kernel  2.6.32-71.29.1.el6.x86_64  2.6.32-131.2.1.el6
kernel  2.6.32-131.0.15.el6.x86_64  2.6.32-131.2.1.el6
kernel-devel  2.6.32-131.0.15.el6.x86_64  2.6.32-131.2.1.el6]]>
                        </RESULTS>
                        <STATUS>Active</STATUS>
                        <FIRST_FOUND_DATETIME>2016-02-
25T20:09:55Z</FIRST_FOUND_DATETIME>
                        <LAST_FOUND_DATETIME>2016-05-
17T22:00:37Z</LAST_FOUND_DATETIME>
                        <TIMES_FOUND>3</TIMES_FOUND>
                        <LAST_TEST_DATETIME>2016-05-
17T22:00:37Z</LAST_TEST_DATETIME>
                        <LAST_UPDATE_DATETIME>2016-05-
17T22:07:37Z</LAST_UPDATE_DATETIME>
                        <IS_IGNORED>0</IS_IGNORED>
                        <IS_DISABLED>0</IS_DISABLED>
                        <AFFECT_RUNNING_KERNEL>0</AFFECT_RUNNING_KERNEL>
                    </DETECTION>
<DETECTION>
            <QID>122069</QID>
            <TYPE>Confirmed</TYPE>
            <SEVERITY>4</SEVERITY>
            <SSL>0</SSL>
            <RESULTS><![CDATA[Package   Installed Version       Required
Version
kernel  2.6.32-71.29.1.el6.x86_64       2.6.32-431.17.1.el6
kernel  2.6.32-279.el6.x86_64   2.6.32-431.17.1.el6
kernel  2.6.32-131.0.15.el6.x86_64      2.6.32-431.17.1.el6
kernel-devel    2.6.32-131.0.15.el6.x86_64      2.6.32-431.17.1.el6
kernel-devel    2.6.32-279.el6.x86_64   2.6.32-431.17.1.el6
kernel-firmware 2.6.32-279.el6.noarch   2.6.32-431.17.1.el6
kernel-headers  2.6.32-279.el6.x86_64   2.6.32-431.17.1.el6]]></RESULTS>
            <STATUS>Active</STATUS>
            <FIRST_FOUND_DATETIME>2016-02-
25T20:09:55Z</FIRST_FOUND_DATETIME>
            <LAST_FOUND_DATETIME>2016-05-
17T22:00:37Z</LAST_FOUND_DATETIME>
            <LAST_TEST_DATETIME>2016-05-17T22:00:37Z</LAST_TEST_DATETIME>
```

```
            <LAST_UPDATE_DATETIME>2016-05-
17T22:07:45Z</LAST_UPDATE_DATETIME>
            <IS_IGNORED>0</IS_IGNORED>
            <IS_DISABLED>0</IS_DISABLED>
            <TIMES_FOUND>3</TIMES_FOUND>
            <AFFECT_RUNNING_KERNEL>1</AFFECT_RUNNING_KERNEL>
          </DETECTION>

<DETECTION>
            <QID>122088</QID>
            <TYPE>Confirmed</TYPE>
            <SEVERITY>3</SEVERITY>
            <SSL>0</SSL>
            <RESULTS><![CDATA[Package   Installed Version       Required
Version
libxml2 2.7.6-4.el6_2.4.x86_64  2.7.6-14.el6_5.1
libxml2-python  2.7.6-4.el6_2.4.x86_64  2.7.6-14.el6_5.1]]></RESULTS>
            <STATUS>Active</STATUS>
            <FIRST_FOUND_DATETIME>2016-02-
25T20:09:55Z</FIRST_FOUND_DATETIME>
            <LAST_FOUND_DATETIME>2016-05-
17T22:00:37Z</LAST_FOUND_DATETIME>
            <LAST_TEST_DATETIME>2016-05-17T22:00:37Z</LAST_TEST_DATETIME>
            <LAST_UPDATE_DATETIME>2016-05-
17T22:07:45Z</LAST_UPDATE_DATETIME>
            <IS_IGNORED>0</IS_IGNORED>
            <IS_DISABLED>0</IS_DISABLED>
            <TIMES_FOUND>3</TIMES_FOUND>
          </DETECTION>

....
```

DTD update:

<base_url>/api/2.0/fo/asset/host/vm/detection/host_list_vm_detection_output.dtd

```
...
<!ELEMENT DETECTION (QID, TYPE, SEVERITY?, PORT?, PROTOCOL?, FQDN?, SSL?,
INSTANCE?, RESULTS?, STATUS?, FIRST_FOUND_DATETIME?, ST_FOUND_DATETIME?,
TIMES_FOUND?, LAST_TEST_DATETIME?, LAST_UPDATE_DATETIME?,
LAST_FIXED_DATETIME?, FIRST_REOPENED_DATETIME?, LAST_REOPENED_DATETIME?,
TIMES_REOPENED?, SERVICE?, IS_IGNORED?, IS_DISABLED?,
AFFECT_RUNNING_KERNEL?)>
....
<!ELEMENT AFFECT_RUNNING_KERNEL (#PCDATA)>
.....
```

Sample API call with CSV output

This sample shows one row of each type for "**Affect Running Kernel"**. Value is blank for 1st detection, 0 for 2nd, 1 for 3rd.

API request:

```
curl -u "username:password" -H "X-Requested-With:curl demo2" -d
"action=list&truncation_limit=50&ips=10.10.31.98&active_kernels_only=0&ou
tput_format=CSV"
"https://qualysapi.qualys.com/api/2.0/fo/asset/host/vm/detection/"
```

CSV output:

```
----BEGIN_RESPONSE_HEADER_CSV
----END_RESPONSE_HEADER_CSV
----BEGIN_RESPONSE_BODY_CSV
"Host ID","IP Address","Tracking Method","Network ID","Operating
System","DNS Name","Netbios Name","QG HostID","Ec2 Instance ID","Last Scan
Datetime","OS CPE","Last VM Scanned Date","Last VM Scanned Duration","Last
VM Auth Scanned Date","Last VM Auth Scanned Duration","Last PC Scanned
Date","QID","Type","Port","Protocol","FQDN","SSL","Instance","Status","Se
verity","First Found Datetime","Last Found Datetime","Last Test
Datetime","Last Update Datetime","Last Fixed
Datetime","Results","Ignored","Disabled","Times Found","Service","Affect
Running Kernel"

........

"3036262","10.10.31.98","IP","0","Red Hat Enterprise Linux Server
6.3",,,,,"2016-05-17T22:07:23Z",,"2016-05-17T22:10:30Z","238","2016-05-
17T22:10:30Z","238",,"115090","Confirmed",,,,"0",,"Active","4","2016-02-
25T20:09:55Z","2016-05-17T22:00:37Z","2016-05-17T22:00:37Z","2016-05-
17T22:07:46Z",,"Package  Installed Version  Required Version
thunderbird  3.1.10-1.el6_0.x86_64  31.7.0-1.el6_6
thunderbird-debuginfo  3.1.10-1.el6_0.x86_64  31.7.0-
1.el6_6","0","0","3",,
........
"3036262","10.10.31.98","IP","0","Red Hat Enterprise Linux Server
6.3",,,,,"2016-05-17T22:07:23Z",,"2016-05-17T22:10:30Z","238","2016-05-
17T22:10:30Z","238",,"119395","Confirmed",,,,"0",,"Active","3","2016-02-
25T20:09:55Z","2016-05-17T22:00:37Z","2016-05-17T22:00:37Z","2016-05-
17T22:07:37Z",,"Package  Installed Version  Required Version
kernel  2.6.32-71.29.1.el6.x86_64  2.6.32-131.6.1.el6
kernel  2.6.32-131.0.15.el6.x86_64  2.6.32-131.6.1.el6
kernel-devel  2.6.32-131.0.15.el6.x86_64  2.6.32-
131.6.1.el6","0","0","3",,"0"
........
"3036262","10.10.31.98","IP","0","Red Hat Enterprise Linux Server
6.3",,,,,"2016-05-17T22:07:23Z",,"2016-05-17T22:10:30Z","238","2016-05-
```

```
17T22:10:30Z","238",,"120662","Confirmed",,,,"0",,"Active","3","2016-02-
25T20:09:55Z","2016-05-17T22:00:37Z","2016-05-17T22:00:37Z","2016-05-
17T22:07:39Z",,"Package  Installed Version  Required Version
kernel  2.6.32-71.29.1.el6.x86_64  2.6.32-279.14.1.el6
kernel  2.6.32-279.el6.x86_64  2.6.32-279.14.1.el6
kernel  2.6.32-131.0.15.el6.x86_64  2.6.32-279.14.1.el6
kernel-devel  2.6.32-131.0.15.el6.x86_64  2.6.32-279.14.1.el6
kernel-devel  2.6.32-279.el6.x86_64  2.6.32-279.14.1.el6
kernel-firmware  2.6.32-279.el6.noarch  2.6.32-279.14.1.el6
kernel-headers  2.6.32-279.el6.x86_64  2.6.32-
279.14.1.el6","0","0","3",,"1"

..........

----END_RESPONSE_BODY_CSV
----BEGIN_RESPONSE_FOOTER_CSV
"Status Message"
"Finished"
----END_RESPONSE_FOOTER_CSV
```

VM - Filter Detections Updated Before a Specific Date and Time

You can now filter the Host List VM Detection API (/api/2.0/fo/asset/host/vm/detection/) based on when the detection status was last updated.

Parameter	Description
detection_updated_before={value}	(Optional) Show only detections whose detection status changed before a certain date and time. Valid date format is: YYYY-MMDD[THH:MM:SSZ] format (UTC/GMT), like “2017-02-15” or “2017-02-15T23:15:00Z”.

Tip: You can use this parameter in conjunction with the **detection_updated_since** parameter to limit the detections shown to a specific date range.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl" -d
"action=list&ips=10.10.10.37&show_igs=1&&detection_updated_before=2017-
01-12T06:33:46Z"
"https://qualysapi.qualys.com/api/2.0/fo/asset/host/vm/detection/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE HOST_LIST_VM_DETECTION_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/asset/host/vm/detection/host_lis
t_vm_detection_output.dtd">
<HOST_LIST_VM_DETECTION_OUTPUT>
  <RESPONSE>
    <DATETIME>2017-02-21T09:37:05Z</DATETIME>
    <HOST_LIST>
      <HOST>
        <ID>5683411</ID>
        <IP>10.10.10.37</IP>
        <TRACKING_METHOD>IP</TRACKING_METHOD>
        <OS><![CDATA[MacOS X]]></OS>
        <LAST_SCAN_DATETIME>2017-01-17T06:30:29Z</LAST_SCAN_DATETIME>
        <LAST_VM_SCANNED_DATE>2017-01-17T06:30:29Z</LAST_VM_SCANNED_DATE>
        <LAST_VM_SCANNED_DURATION>182</LAST_VM_SCANNED_DURATION>
        <LAST_VM_AUTH_SCANNED_DATE>2016-12
          08T12:12:58Z</LAST_VM_AUTH_SCANNED_DATE>
       <LAST_VM_AUTH_SCANNED_DURATION>170</LAST_VM_AUTH_SCANNED_DURATION>
        <LAST_PC_SCANNED_DATE>2016-11-11T13:03:49Z</LAST_PC_SCANNED_DATE>
        <DETECTION_LIST>
          <DETECTION>
```

```
            <QID>6</QID>
            <TYPE>Info</TYPE>
            <RESULTS><![CDATA[IP address Host name 10.10.10.37 No
             registered hostname]]></RESULTS>
          </DETECTION>
          <DETECTION>
            <QID>12488</QID>
            <TYPE>Confirmed</TYPE>
            <SEVERITY>4</SEVERITY>
            <PORT>22</PORT>
            <PROTOCOL>tcp</PROTOCOL>
            <SSL>0</SSL>
            <RESULTS><![CDATA[234881026 2547012 -rw-r--r-- 1 qualys admin
              0 13865 &quot;Mar 22 17:31:52 2011&quot; &quot;Jul 23
              01:13:16 2007&quot; &quot;Feb  9 17:58:07 2011&quot;
              &quot;Jul 23 01:13:16 2007&quot; 4096 32 0
              /Applications/ColdFusion9/wwwroot/WEB-
              INF/exception/detail.cfm]]></RESULTS>
          </DETECTION>
        </DETECTION_LIST>
      </HOST>
    </HOST_LIST>
  </RESPONSE>
```

VM - Editing vulnerabilities

A new API /api/2.0/fo/knowledge_base/vuln/ is introduced to edit, reset and then list the edited vulnerabilities in the Qualys Vulnerability KnowledgeBase.

Edit a vulnerability

You can change the severity level and/or add comments to Threat, Impact or Solution.

Parameter	Description
action=edit	(Required) The action required for the API request: edit. The POST method must be used.
qid={value}	(Required) QID of the vulnerability to be edited.
severity={value}	(Optional) Severity level between 1 to 5. Changing the severity level of a vulnerability impacts how the vulnerability appears in reports and how it is eventually prioritized for remediation. For example, by changing a vulnerability from a severity 2 to a severity 5, remediation tickets for the vulnerability could have a higher priority and shorter deadline for resolution.
disable={**0** | 1}	(Optional) Specify 1 to disable the vulnerability. Default is 0. When you disable a vulnerability it is globally filtered out from all hosts in all scan reports. The vulnerability is also filtered from host information, asset search results and your dashboard. You may include disabled vulnerabilities in scan reports by changing report filter settings.
threat_comment	(Optional) Threat comments in plain text.
impact_comment	(Optional) Impact comments in plain text.
solution_comment	(Optional) Solution comments in plain text.

Comments added for Threat, Impact, or Solution are appended to the service-provided descriptions in the vulnerability details within scan reports and other online views within your account.

Note: Providing at least one optional parameter is mandatory.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl" -X POST
"action=edit&impact_comment=testimpact&qid=27014"
"https://qualysapi.qualys.com/api/2.0/fo/knowledge_base/vuln/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE SIMPLE_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/simple_return.dtd">
<SIMPLE_RETURN>
    <RESPONSE>
        <DATETIME>2017-03-02T08:51:59Z</DATETIME>
        <TEXT>Custom Vuln Data has been updated successfully</TEXT>
        <ITEM_LIST>
            <ITEM>
                <KEY>qid</KEY>
                <VALUE>27014</VALUE>
            </ITEM>
        </ITEM_LIST>
    </RESPONSE>
</SIMPLE_RETURN>
```

Reset a vulnerability

You can change the vulnerability settings back to original.

New parameter:

Parameter	Description
action=reset	(Required) The action required for the API request: reset. The POST method must be used.
qid={value}	(Required) QID of the vulnerability to be reset.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl" -X POST
"action=reset&qid=27014"
"https://qualysapi.qualys.com/api/2.0/fo/knowledge_base/vuln/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE SIMPLE_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/simple_return.dtd">
<SIMPLE_RETURN>
    <RESPONSE>
        <DATETIME>2017-03-02T08:55:11Z</DATETIME>
        <TEXT>Custom Vuln Data has been reset successfully</TEXT>
    </RESPONSE>
</SIMPLE_RETURN>
```

List edited vulnerabilities

You can list the vulnerabilities that are edited.

New parameter:

Parameter	Description
action=custom	(Required) The action required for the API request: custom. The GET or POST method should be used.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl" -X POST
"action=custom"
"https://qualysapi.qualys.com/api/2.0/fo/knowledge_base/vuln/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE KB_CUSTOM_VULN_LIST_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/knowledge_base/vuln/kb_custom_vu
ln_list_output.dtd">
<KB_CUSTOM_VULN_LIST_OUTPUT>
    <RESPONSE>
        <DATETIME>2017-03-02T08:47:52Z</DATETIME>
        <CUSTOM_VULN_LIST>
            <CUSTOM_VULN_DATA>
                <QID>
                    <![CDATA[27014]]>
                </QID>
                <SEVERITY_LEVEL>5</SEVERITY_LEVEL>
                <ORIGINAL_SEVERITY_LEVEL>5</ORIGINAL_SEVERITY_LEVEL>
                <IS_DISABLED>1</IS_DISABLED>
                <UPDATED_DATETIME>
                    <![CDATA[2017-03-02T05:58:40Z]]>
                </UPDATED_DATETIME>
                <UPDATED_BY>
                    <![CDATA[mr_md]]>
                </UPDATED_BY>
                <THREAT_COMMENT>
                    <![CDATA[test threat123]]>
                </THREAT_COMMENT>
                <IMPACT_COMMENT>
                    <![CDATA[test impact]]>
                </IMPACT_COMMENT>
                <SOLUTION_COMMENT>
                    <![CDATA[sol123]]>
                </SOLUTION_COMMENT>
```

```
            </CUSTOM_VULN_DATA>
        </CUSTOM_VULN_LIST>
    </RESPONSE>
</KB_CUSTOM_VULN_LIST_OUTPUT>
```

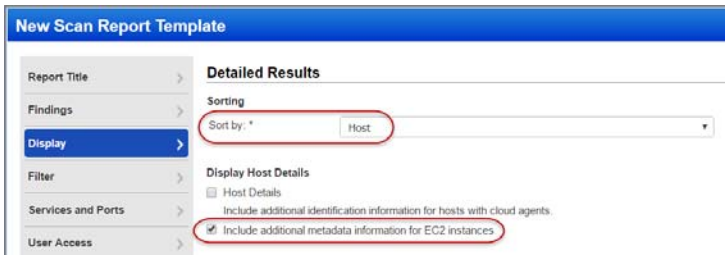
New DTD:

https://qualysapi.qualys.com/api/2.0/fo/knowledge_base/vuln/kb_custom_vuln_list_output.dtd

```
<!-- QUALYS KB_CUSTOM_VULN_LIST_OUTPUT DTD -->

<!ELEMENT KB_CUSTOM_VULN_LIST_OUTPUT (REQUEST?,RESPONSE)>

<!ELEMENT REQUEST (DATETIME, USER_LOGIN, RESOURCE, PARAM_LIST?,
POST_DATA?)>
<!ELEMENT DATETIME (#PCDATA)>
<!ELEMENT USER_LOGIN (#PCDATA)>
<!ELEMENT RESOURCE (#PCDATA)>
<!ELEMENT PARAM_LIST (PARAM+)>
<!ELEMENT PARAM (KEY, VALUE)>
<!ELEMENT KEY (#PCDATA)>
<!ELEMENT VALUE (#PCDATA)>
<!-- if returned, POST_DATA will be urlencoded -->
<!ELEMENT POST_DATA (#PCDATA)>

<!ELEMENT RESPONSE (DATETIME, (CUSTOM_VULN_LIST)?, WARNING?)>
<!-- DATETIME already defined -->
<!ELEMENT CUSTOM_VULN_LIST (CUSTOM_VULN_DATA*)>
<!ELEMENT CUSTOM_VULN_DATA (QID, SEVERITY_LEVEL, ORIGINAL_SEVERITY_LEVEL,
IS_DISABLED, UPDATED_DATETIME, UPDATED_BY, THREAT_COMMENT?,
IMPACT_COMMENT?, SOLUTION_COMMENT?)>

<!ELEMENT QID (#PCDATA)>
<!ELEMENT ORIGINAL_SEVERITY_LEVEL (#PCDATA)>
<!ELEMENT SEVERITY_LEVEL (#PCDATA)>
<!ELEMENT UPDATED_DATETIME (#PCDATA)>
<!ELEMENT THREAT_COMMENT (#PCDATA)>
<!ELEMENT IMPACT_COMMENT (#PCDATA)>
<!ELEMENT SOLUTION_COMMENT (#PCDATA)>
<!ELEMENT IS_DISABLED (#PCDATA)>
<!ELEMENT UPDATED_BY (#PCDATA)>

<!ELEMENT WARNING (CODE?, TEXT, URL?)>
<!ELEMENT CODE (#PCDATA)>
<!ELEMENT TEXT (#PCDATA)>
<!ELEMENT URL (#PCDATA)>
<!-- URL already defined -->
<!-- EOF -->
```

VM - EC2 asset information in scan report

EC2 asset information in now included in the scan report which makes it easy to identify the hosts that need patching. This information is included in the report only when the respective option is enabled in the template used for generating the report, and the results are sorted by host.



Scan report will now include the following EC2 asset information:

- Public DNS Name

- Image Id

- VPC Id

- Instance State

- Private DNS Name

- Instance Type

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl" -d
"action=launch&report_title=EC2Rep1&template_id=90111&output_format=csv"
"https://qualysapi.qualys.com/api/2.0/fo/report/"
```

CSV output:

```
"IP","DNS","EC2 Instance ID","NetBIOS","QG Host ID","IP
Interfaces","Public Hostname","Image ID","VPC ID","Instance
State","Private Hostname","Instance Type","Tracking Method","OS","IP
Status","QID","Title","Vuln
Status","Type","Severity","Port","Protocol","FQDN","SSL","First
Detected","Last Detected","Times Detected","Date Last Fixed","CVE
ID","Vendor Reference","Bugtraq ID","Results","PCI Vuln","Ticket
State","Instance","Category","Associated Tags""10.90.2.100","ip-10-90-2-
100.ec2.internal","i-0b68f500c1e6a3cc0",,,,"ec2-52-87-152-105.compute-
1.amazonaws.com","ami-2d4ed53a","vpc-1e37cd76","RUNNING","ip-10-90-2-
100.ec2.internal","t2.medium","EC2","Linux 2.4-2.6 / Embedded Device / F5
Networks Big-IP","host scanned, found vuln","34011","Firewall
```

```
Detected",,"Ig","1",,,,,,,,,,,"Some of the ports filtered by the firewall
are: 20, 21, 23, 25, 53, 111, 135, 445, 1, 7.Listed below are the ports
filtered by the firewall.No response has been received when any of these
ports are probed.1-3,5,7,9,11,13,15,17-21,23-25,27,29,31,33,35,37-39,41-
79,81-223,242-246,256-265,280-282,309,311,318,322-325,344-351,363,369-
442,444-581,587,592-593,598,600,606-620,624,627,631,633-637,666-
674,700,704-705,707,709-711,729-731,740-742,744,747-754,758-765,767,769-
777,780-783,786,799-801,860,873,886-888,900-901,911,950,954-955,990-
993,995-1001,1008,1010-1011,1015,1023-1100,1109-
1112,1114,1123,1155,1167,1170,1207,1212,1214,1220-1222,1234-
1236,1241,1243,1245,1248,1269,1313-1314,1337,1344-1625,1636-1774,1776-
1815,1818-1824,1900-1909,1911-1920,1944-1951,1973,1981,1985-
2028,2030,2032-2036,2038,2040-2049,2053,2065,2067,2080,2097,2100,2102-
2107,2109, and more.We have omitted from this list 699 higher ports to
keep the report size manageable.#","no",,,"Firewall","EC2, TG1, Vriginia,
agec2, sada-0117-targets, sada-authentication-tag, sada-ec2-
authentication, sada-new-0308, useasttag"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE ASSET_DATA_REPORT SYSTEM
"https://qualysapi.qualys.com/asset_data_report.dtd">
<ASSET_DATA_REPORT>
...
 <HOST_LIST>
    <HOST>
      <IP>10.90.2.30</IP>
      <TRACKING_METHOD></TRACKING_METHOD>
      <ASSET_TAGS>
        <ASSET_TAG><![CDATA[EC2]]></ASSET_TAG>
        <ASSET_TAG><![CDATA[TG1]]></ASSET_TAG>
        <ASSET_TAG><![CDATA[Virginia]]></ASSET_TAG>
        <ASSET_TAG><![CDATA[agec2]]></ASSET_TAG>
      </ASSET_TAGS>
      <DNS><![CDATA[ip-10-90-2-30.ec2.internal]]></DNS>
      <EC2_INSTANCE_ID><![CDATA[i-0b11abd19771f17ed]]></EC2_INSTANCE_ID>
      <EC2_INFO>
        <PUBLIC_DNS_NAME><![CDATA[ec2-184-73-79-113.compute-
         1.amazonaws.com]]></PUBLIC_DNS_NAME>
        <IMAGE_ID><![CDATA[ami-2d4ed53a]]></IMAGE_ID>
        <VPC_ID><![CDATA[vpc-1e37cd76]]></VPC_ID>
        <INSTANCE_STATE><![CDATA[RUNNING]]></INSTANCE_STATE>
        <PRIVATE_DNS_NAME><![CDATA[ip-10-90-2-
         30.ec2.internal]]></PRIVATE_DNS_NAME>
        <INSTANCE_TYPE><![CDATA[t2.medium]]></INSTANCE_TYPE>
      </EC2_INFO>...
</ASSET_DATA_REPORT>
```

DTD update:
https://qualysapi.qualys.com/asset_data_report.dtd

```
<!-- QUALYS ASSET DATA REPORT DTD -->
<!-- $Revision$ -->

<!ELEMENT ASSET_DATA_REPORT (ERROR | (HEADER, RISK_SCORE_PER_HOST?,
HOST_LIST?, GLOSSARY?, NON_RUNNING_KERNELS?, APPENDICES?))>
...
<!-- HOST_LIST -->
<!ELEMENT HOST_LIST (HOST+)>
<!ELEMENT HOST (ERROR | (IP, TRACKING_METHOD, ASSET_TAGS?,
                         DNS?, NETBIOS?, QG_HOSTID?, EC2_INSTANCE_ID?,
                         IP_INTERFACES?, EC2_INFO?, OPERATING_SYSTEM?,
                         OS_CPE?, ASSET_GROUPS?, VULN_INFO_LIST?))>
...
<!ELEMENT EC2_INSTANCE_ID (#PCDATA)>
<!ELEMENT IP_INTERFACES (IP*)>
<!ELEMENT EC2_INFO
(PUBLIC_DNS_NAME?,IMAGE_ID?,VPC_ID?,INSTANCE_STATE?,PRIVATE_DNS_NAME?,INS
TANCE_TYPE?)>
<!ELEMENT PUBLIC_DNS_NAME (#PCDATA)>
<!ELEMENT IMAGE_ID (#PCDATA)>
<!ELEMENT VPC_ID (#PCDATA)>
<!ELEMENT INSTANCE_STATE (#PCDATA)>
<!ELEMENT PRIVATE_DNS_NAME (#PCDATA)>
<!ELEMENT INSTANCE_TYPE (#PCDATA)>
<!ELEMENT OPERATING_SYSTEM (#PCDATA)>
<!ELEMENT OS_CPE (#PCDATA)>
<!ELEMENT ASSET_GROUPS (ASSET_GROUP_TITLE+)>
<!ELEMENT VULN_INFO_LIST (VULN_INFO+)>
```

VM - Scan Report in XML Format - Ability to Exclude Glossary data

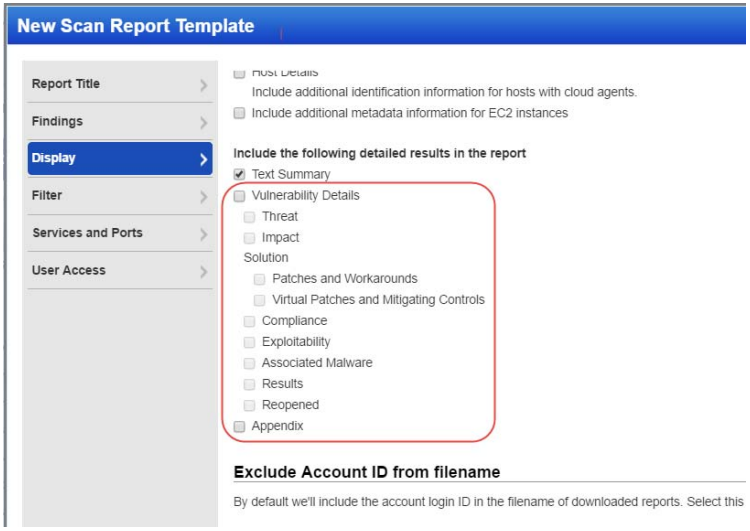
This update applies to the Scan Report in XML format only. Previously the <GLOSSARY> tag was always included in the scan report XML format regardless of template sub option settings under Vulnerability Details (e.g. Threat, Impact, Solution - Patches and Workarounds, etc). Now you can exclude the <GLOSSARY> tag and this will reduce the size of your reports.

What are the changes?

- the <GLOSSARY> tag will be excluded from the XML format if none of the "Vulnerability Details" sub options are selected

- the <GLOSSARY> tag will be included in the XML format if any one of the "Vulnerability Details" sub options is selected

- the Scan Report DTD (asset_data_report.dtd) has been updated; the QID "id" attribute changed from IDREF to CDATA



Sample Scan Report XML without <GLOSSARY> tag

This Scan Report in XML format was generated using a scan report template with no Vulnerability Details sub options selected. You'll notice there's no <GLOSSARY> tag after </HOST_LIST>.

```
<?xml version="1.0" encoding="UTF-8" ?>

<!DOCTYPE ASSET_DATA_REPORT SYSTEM
"https://qualysapi.qualys.com/asset_data_report.dtd">
```

```
<ASSET_DATA_REPORT>
  <HEADER>
    <COMPANY><![CDATA[Acme, Inc.]]></COMPANY>
    <USERNAME>acme_ak1</USERNAME>
    <GENERATION_DATETIME>2017-03-29T19:34:21Z</GENERATION_DATETIME>
    <TEMPLATE><![CDATA[My Report Template w/o Vulnerability
Details]]></TEMPLATE>
    <TARGET>
      <USER_IP_LIST>
        <RANGE>
          <START>10.10.24.77</START>
          <END>10.10.24.77</END>
        </RANGE>
      </USER_IP_LIST>
      <COMBINED_IP_LIST>
        <RANGE>
          <START>10.10.24.77</START>
          <END>10.10.24.77</END>
        </RANGE>
      </COMBINED_IP_LIST>
    </TARGET>
    <RISK_SCORE_SUMMARY>
      <TOTAL_VULNERABILITIES>11</TOTAL_VULNERABILITIES>
      <AVG_SECURITY_RISK>3.1</AVG_SECURITY_RISK>
      <BUSINESS_RISK>17/100</BUSINESS_RISK>
    </RISK_SCORE_SUMMARY>
  </HEADER>
  <RISK_SCORE_PER_HOST>
    <HOSTS>
      <IP_ADDRESS>10.10.24.77</IP_ADDRESS>
      <TOTAL_VULNERABILITIES>11</TOTAL_VULNERABILITIES>
      <SECURITY_RISK>3.1</SECURITY_RISK>
    </HOSTS>
  </RISK_SCORE_PER_HOST>
  <HOST_LIST>
    <HOST>
      <IP>10.10.24.77</IP>
      <TRACKING_METHOD>IP</TRACKING_METHOD>
      <DNS><![CDATA[2k3x64ie7-24-77.patch.ad.acme.com]]></DNS>
      <NETBIOS><![CDATA[2K3X64IE7-24-77]]></NETBIOS>
      <OPERATING_SYSTEM><![CDATA[Windows 2003 R2 Service Pack
1]]></OPERATING_SYSTEM>
      <ASSET_GROUPS>
        <ASSET_GROUP_TITLE><![CDATA[AG 24]]></ASSET_GROUP_TITLE>
      </ASSET_GROUPS>
      <VULN_INFO_LIST>
        <VULN_INFO>
          <QID id="qid_90783">90783</QID>
          <TYPE>Vuln</TYPE>
```

```
            <SSL>false</SSL>
            <FIRST_FOUND>2017-01-09T19:34:34Z</FIRST_FOUND>
            <LAST_FOUND>2017-01-09T19:34:34Z</LAST_FOUND>
            <TIMES_FOUND>1</TIMES_FOUND>
            <VULN_STATUS>New</VULN_STATUS>
          </VULN_INFO>
          <VULN_INFO>
            <QID id="qid_105500">105500</QID>
            <TYPE>Vuln</TYPE>
            <SSL>false</SSL>
            <FIRST_FOUND>2017-01-09T19:34:34Z</FIRST_FOUND>
            <LAST_FOUND>2017-01-09T19:34:34Z</LAST_FOUND>
            <TIMES_FOUND>1</TIMES_FOUND>
            <VULN_STATUS>New</VULN_STATUS>
          </VULN_INFO>
          <VULN_INFO>
            <QID id="qid_90464">90464</QID>
            <TYPE>Vuln</TYPE>
            <SSL>false</SSL>
            <FIRST_FOUND>2017-01-09T19:34:34Z</FIRST_FOUND>
            <LAST_FOUND>2017-01-09T19:34:34Z</LAST_FOUND>
            <TIMES_FOUND>1</TIMES_FOUND>
            <VULN_STATUS>New</VULN_STATUS>
          </VULN_INFO>
      ...
        </VULN_INFO_LIST>
      </HOST>
    </HOST_LIST>
  NO <GLOSSARY> section
    <APPENDICES>
      <TEMPLATE_DETAILS>
        <FILTER_SUMMARY>
          Status:New, Active, Re-Opened
          Display non-running kernels:
          Off
          Exclude non-running kernels:
          Off
          Exclude non-running services:
          Off
          Exclude QIDs not exploitable due to configuration:
          Off
          Vulnerabilities:
          State:Active
          Included Operating Systems:
          All Operating Systems
        </FILTER_SUMMARY>
      </TEMPLATE_DETAILS>
    </APPENDICES>
  </ASSET_DATA_REPORT>
```

Scan Report DTD

The Scan Report DTD (asset_data_report.dtd) was updated. Specifically the "id" attribute for the QID element was changed from IDREF to CDATA.

id attribute prior to Qualys 8.10:

```
...
<!ELEMENT QID (#PCDATA)>
<!ATTLIST QID id IDREF #REQUIRED>
...
```

id attribute for Qualys 8.10:

```
...
<!ELEMENT QID (#PCDATA)>
<!ATTLIST QID id CDATA #REQUIRED>
...
```

VM - Hide target information from scan list

You can now use the ignore_target parameter to hide the target information returned by the scan list API api/2.0/fo/scan.

Parameter	Description
ignore_target={**0**|1}	Specify 1 to hide target information from the scan list. Specify 0 to display the target information.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With:curl" -X POST
"action=list&ignore_target=1"
"https://qualysapi.qualys.com/api/2.0/fo/scan/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE SCAN_LIST_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/scan/scan_list_output.dtd">
<SCAN_LIST_OUTPUT>
 <RESPONSE>
   <DATETIME>2017-03-21T05:47:59Z</DATETIME>
   <SCAN_LIST>
     <SCAN>
       <REF>scan/1487758254.03044</REF>
       <TYPE>On-Demand</TYPE>
       <TITLE><![CDATA[FF1]]></TITLE>
       <USER_LOGIN>netwr_ne</USER_LOGIN>
       <LAUNCH_DATETIME>2017-02-22T10:10:54Z</LAUNCH_DATETIME>
       <DURATION>N/A</DURATION>
       <PROCESSING_PRIORITY>0 - No Priority</PROCESSING_PRIORITY>
       <PROCESSED>0</PROCESSED>
       <STATUS>
         <STATE>Error</STATE>
       </STATUS>
     </SCAN>
   </SCAN_LIST>
 </RESPONSE>
</SCAN_LIST_OUTPUT>
```

DTD update:

https://qualysapi.qualys.com/api/2.0/fo/scan/scan_list_output.dtd

```
<!-- QUALYS SCAN_LIST_OUTPUT DTD -->
<!ELEMENT SCAN_LIST_OUTPUT (REQUEST?,RESPONSE)>
```

```
<!ELEMENT REQUEST (DATETIME, USER_LOGIN, RESOURCE, PARAM_LIST?,
POST_DATA?)>
...
<!ELEMENT VALUE (#PCDATA)>
<!-- if returned, POST_DATA will be urlencoded -->
<!ELEMENT POST_DATA (#PCDATA)>
<!ELEMENT RESPONSE (DATETIME, SCAN_LIST?)>
<!ELEMENT SCAN_LIST (SCAN+)>
<!ELEMENT SCAN (ID?, REF, TYPE, TITLE, USER_LOGIN, LAUNCH_DATETIME,
DURATION, PROCESSING_PRIORITY?, PROCESSED, STATUS?, TARGET?,
ASSET_GROUP_TITLE_LIST?, OPTION_PROFILE?)>
...
<!ELEMENT STATE (#PCDATA)>
<!ELEMENT SUB_STATE (#PCDATA)>
<!ELEMENT TARGET (#PCDATA)>
<!ELEMENT ASSET_GROUP_TITLE_LIST (ASSET_GROUP_TITLE+)>
<!ELEMENT ASSET_GROUP_TITLE (#PCDATA)>
<!ELEMENT OPTION_PROFILE (TITLE, DEFAULT_FLAG?)>
<!ELEMENT DEFAULT_FLAG (#PCDATA)>
<!-- EOF -->
```

VM - New tag added to KnowledgeBase API

We added a new element called AUTOMATIC_PCI_FAIL to the DTDs for the KnowledgeBase API (/api/2.0/fo/knowledge_base/vuln/) and the KnowledgeBase Download API (/msp/knowledgebase_download.php).

Note - This new element is for internal use only.

KnowledgeBase API

DTD updated: knowledge_base_vuln_list_output.dtd

```
...
<!ELEMENT VULN_LIST (VULN*)>
       <!ELEMENT VULN (QID, VULN_TYPE, SEVERITY_LEVEL, TITLE, CATEGORY?,
DETECTION_INFO?, LAST_CUSTOMIZATION?,
LAST_SERVICE_MODIFICATION_DATETIME?, PUBLISHED_DATETIME, BUGTRAQ_LIST?,
PATCHABLE, SOFTWARE_LIST?, VENDOR_REFERENCE_LIST?, CVE_LIST?, DIAGNOSIS?,
DIAGNOSIS_COMMENT?, CONSEQUENCE?, CONSEQUENCE_COMMENT?, SOLUTION?,
SOLUTION_COMMENT?, COMPLIANCE_LIST?, CORRELATION?, CVSS?, CVSS_V3?,
PCI_FLAG?, AUTOMATIC_PCI_FAIL?, PCI_REASONS?, THREAT_INTELLIGENCE?,
SUPPORTED_MODULES?, DISCOVERY, IS_DISABLED?)>
...
<!ELEMENT AUTOMATIC_PCI_FAIL (#PCDATA)>
...
```

KnowledgeBase Download API

DTD updated: knowledgebase_download.dtd

```
...
<!ELEMENT VULN (QID, VULN_TYPE, SEVERITY_LEVEL, TITLE, CATEGORY?,
DETECTION_INFO?, LAST_UPDATE?, BUGTRAQ_ID_LIST?, PATCHABLE,
VENDOR_REFERENCE_LIST?, CVE_ID_LIST?, DIAGNOSIS?, CONSEQUENCE?,
SOLUTION?, COMPLIANCE?, CORRELATION?, CVSS_BASE?, CVSS_TEMPORAL?,
CVSS3_BASE?, CVSS3_TEMPORAL?, CVSS_ACCESS_VECTOR?,
CVSS_ACCESS_COMPLEXITY?, CVSS_AUTHENTICATION?,
CVSS_CONFIDENTIALITY_IMPACT?, CVSS_INTEGRITY_IMPACT?,
CVSS_AVAILABILITY_IMPACT?, CVSS_EXPLOITABILITY?, CVSS_REMEDIATION_LEVEL?,
CVSS_REPORT_CONFIDENCE?, PCI_FLAG?, AUTOMATIC_PCI_FAIL?, PCI_REASONS?,
THREAT_INTELLIGENCE?, SUPPORTED_MODULES?, DISCOVERY?, IS_DISABLED?)>
...
<!ELEMENT AUTOMATIC_PCI_FAIL (#PCDATA)>
...
```

PC - Remediation Information Displayed in PC Reports

Remediation information is now displayed in XML and CSV output formats for PC reports.

We have updated the Report API to include remediation information in XML and CSV formats for PC reports.

Report launch API request:

```
curl -H "X-Requested-With: curl" -u "USERNAME:PASSWORD" -X POST -d
"policy_id=131345&ips=10.10.10.10, 10.10.30.129, 10.10.30.229,
10.10.30.231, 10.11.65.194-
10.11.65.195&template_id=89178&output_format=xml"
"https://qualysapi.qualys.com/api/2.0/fo/report/?action=launch"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE SIMPLE_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/simple_return.dtd">
<SIMPLE_RETURN>
  <RESPONSE>
    <DATETIME>2017-04-03T10:16:13Z</DATETIME>
    <TEXT>New report launched</TEXT>
    <ITEM_LIST>
      <ITEM>
        <KEY>ID</KEY>
        <VALUE>153007</VALUE>
      </ITEM>
    </ITEM_LIST>
  </RESPONSE>
</SIMPLE_RETURN>
```

Report fetch API request:

Use the Id returned in the Report launch API output for the Report fetch API request.

```
curl -H "X-Requested-With: curl" -u "USERNAME:PASSWORD" -d
"action=fetch&id=153007"
"https://qualysapi.qualys.com/api/2.0/fo/report/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE COMPLIANCE_POLICY_REPORT SYSTEM
"https://qualysapi.qualys.com/compliance_policy_report.dtd">
```

```
<COMPLIANCE_POLICY_REPORT>
  <HEADER>
    <NAME><![CDATA[Template with all 3 Remediation Data]]></NAME>
    <GENERATION_DATETIME>2017-04-03T10:16:19Z</GENERATION_DATETIME>
    <COMPANY_INFO>
             ...
            <INSTANCE><![CDATA[os]]></INSTANCE>
            <STATUS><![CDATA[Passed]]></STATUS>
           <REMEDIATION>Configure the policy value for User Configuration
-&gt; Administrative Templates -&gt; Windows Components -&gt; Attachment
Manager -&gt; "Notify antivirus programs when opening attachments" to
"Enabled".</REMEDIATION>
            <TECHNOLOGY>
              <ID><![CDATA[37]]></ID>
              <NAME>Windows 7</NAME>
            </TECHNOLOGY>
            ...
           <INSTANCE><![CDATA[os]]></INSTANCE>
            <STATUS><![CDATA[Failed]]></STATUS>
            <REMEDIATION>To establish the recommended configuration via
GP, set the following UI path to RC4_HMAC_MD5, AES128_HMAC_SHA1,
AES256_HMAC_SHA1, Future encryption types: Computer
Configuration\Policies\Windows Settings\Security Settings\Local
Policies\Security Options\Network Security: Configure encryption types
allowed for Kerberos</REMEDIATION>
            <TECHNOLOGY>
              <ID><![CDATA[37]]></ID>
              <NAME>Windows 7</NAME>
            </TECHNOLOGY>
       ...
  </RESULTS>
</COMPLIANCE_POLICY_REPORT>
```

DTD Update:

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- QUALYS COMPLIANCE POLICY REPORT DTD -->
<!-- $Revision$ -->

<!ELEMENT COMPLIANCE_POLICY_REPORT (ERROR | (HEADER, (SUMMARY),
(RESULTS)))>
<!ELEMENT ERROR (#PCDATA)>
<!ATTLIST ERROR number CDATA #IMPLIED>

...
<!ELEMENT CONTROL_LIST (CONTROL*)>
<!ELEMENT CONTROL (CID, STATEMENT, CRITICALITY?, CONTROL_REFERENCES?,
DEPRECATED?, RATIONALE?, INSTANCE?, STATUS, REMEDIATION?, TECHNOLOGY,
EVALUATION_DATE?, EVIDENCE?, EXCEPTION?)>
```

```
<!ELEMENT CID (#PCDATA)>
<!ELEMENT STATEMENT (#PCDATA)>
<!ELEMENT CONTROL_REFERENCES (#PCDATA)>
<!ELEMENT RATIONALE (#PCDATA)>
<!ELEMENT STATUS (#PCDATA)>
<!ELEMENT REMEDIATION (#PCDATA)>
<!ELEMENT TECHNOLOGY (ID, NAME)>
<!ELEMENT ID (#PCDATA)>
<!ELEMENT EVALUATION_DATE (#PCDATA)>
<!ELEMENT INSTANCE (#PCDATA)>
...
<!ELEMENT STATS (#PCDATA)>
<!ELEMENT SEARCH_DURATION (#PCDATA)>
<!ELEMENT ERRORS (#PCDATA)>
```

PC - New API Support for Docker Authentication

We now support compliance scans for Docker versions from 1.9 to 1.12, running on Linux hosts. Unix authentication is required so you'll also need a Unix record for the host running the docker.

This record type is only available in accounts with PC (Policy Compliance) and only supported for compliance scans.

We have added new authentication API (/api/2.0/fo/auth/docker/) to support the new record type. Actions supported by the API are: Create, Update, List, Delete.

The auth_records.dtd is also updated to add the AUTH_DOCKER_IDS element.

Docker API

You can now create, update, list and delete Docker authentication records.

Create Docker Authentication Record

Use the parameter "action=create" to create a new record in your account.

Parameter	Description
title={value}	(Required) The record title.
echo_request={0|1}	(Optional) Specifies whether to echo the request's input parameters (names and values) in the XML output. When not specified, parameters are not included in the XML output. Specify 1 to view parameters in the XML output.
comments={value}	(Optional) User defined comments.
docker_deamon_conf_file={value}	(Optional) Location of the configuration file for the docker daemon.
docker_command={value}	(Optional) The docker command to connect to a local docker daemon.
ips={value}	(Required) IPs to add to your docker record.
network_id={1|0}	(Optional) By default, the parameter is set to 0

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl demo" -d
"action=create&title=docker_sample&ips=10.10.30.159&docker_deamon_conf_fi
le=/etc/docker/daemon.json&docker_command=/usr/bin/docker&echo_request=1"
"https://qualysapi.qualys.com/api/2.0/fo/auth/docker/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE BATCH_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/batch_return.dtd">
<BATCH_RETURN>
  <REQUEST>
    <DATETIME>2017-03-09T06:09:46Z</DATETIME>
    <USER_LOGIN>username</USER_LOGIN>
<RESOURCE>https://qualysapi.qualys.com/api/2.0/fo/auth/docker/</RESOURCE>
    <PARAM_LIST>
      <PARAM>
        <KEY>action</KEY>
        <VALUE>create</VALUE>
      </PARAM>
      <PARAM>
        <KEY>title</KEY>
        <VALUE>docker_sample</VALUE>
      </PARAM>
      <PARAM>
        <KEY>ips</KEY>
        <VALUE>10.10.30.159</VALUE>
      </PARAM>
      <PARAM>
        <KEY>docker_deamon_conf_file</KEY>
        <VALUE>/etc/docker/daemon.json</VALUE>
      </PARAM>
      <PARAM>
        <KEY>docker_command</KEY>
        <VALUE>/usr/bin/docker</VALUE>
      </PARAM>
      <PARAM>
        <KEY>echo_request</KEY>
        <VALUE>1</VALUE>
      </PARAM>
    </PARAM_LIST>
  </REQUEST>
  <RESPONSE>
    <DATETIME>2017-03-09T06:09:46Z</DATETIME>
    <BATCH_LIST>
      <BATCH>
        <TEXT>Successfully Created</TEXT>
        <ID_SET>
          <ID>72685</ID>
        </ID_SET>
      </BATCH>
    </BATCH_LIST>
  </RESPONSE>
```

```
</BATCH_RETURN>
```

Update Docker Authentication Record

Use the parameter "action=update" to update a Docker authentication record in your account. You'll need to include the ID for the record you're updating.

Parameter	Description
title={value}	(Optional) The record title.
echo_request={0|1}	(Optional) Specifies whether to echo the request's input parameters (names and values) in the XML output. When not specified, parameters are not included in the XML output. Specify 1 to view parameters in the XML output.
comments={value}	(Optional) User defined comments.
docker_deamon_conf_file={value}	(Optional) Location of the configuration file for the docker daemon.
docker_command={value}	(Optional) The docker command to connect to a local docker daemon.
network_id={1|0}	(Optional) By default, the parameter is set to 0
ids={value}	(Required) ID of the record you're updating.
add_ips={value}	(Optional) IPs to be added to your record.
remove_ips={value}	(Optional) IPs to be removed from your record.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl demo" -d
"action=update&ids=72685&add_ips=10.10.26.26"
"https://qualysapi.qualys.com/api/2.0/fo/auth/docker/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE BATCH_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/batch_return.dtd">
<BATCH_RETURN>
  <RESPONSE>
    <DATETIME>2017-03-09T06:12:57Z</DATETIME>
    <BATCH_LIST>
      <BATCH>
        <TEXT>Successfully Updated</TEXT>
        <ID_SET>
          <ID>72685</ID>
        </ID_SET>
      </BATCH>
    </BATCH_LIST>
```

```
  </RESPONSE>
</BATCH_RETURN>
```

Delete Docker Authentication Record

Use the parameter "action=delete" and specify the ID of the Docker authentication record to delete its details.

Parameter	Description
echo_request={0|1}	(Optional) Specifies whether to echo the request's input parameters (names and values) in the XML output. When not specified, parameters are not included in the XML output. Specify 1 to view parameters in the XML output.
ids={value}	(Required) ID of the record you're deleting.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl demo" -d
"action=delete&ids=72685"
"https://qualysapi.qualys.com/api/2.0/fo/auth/docker/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE BATCH_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/batch_return.dtd">
<BATCH_RETURN>
  <RESPONSE>
    <DATETIME>2017-03-09T06:13:57Z</DATETIME>
    <BATCH_LIST>
      <BATCH>
        <TEXT>Successfully Deleted</TEXT>
        <ID_SET>
          <ID>72685</ID>
        </ID_SET>
      </BATCH>
    </BATCH_LIST>
  </RESPONSE>
</BATCH_RETURN>
```

List Authentication Record

Use the parameter "action=list" to list the record defined in your account. To view a specific Docker record, specify the ID or title of the record.

Parameter	Description
title={value}	(Optional) The record title.
echo_request={0|1}	(Optional) Specifies whether to echo the request's input parameters (names and values) in the XML output. When not specified, parameters are not included in the XML output. Specify 1 to view parameters in the XML output.
comments={value}	(Optional) User defined comments.
ids={value}	(Optional) ID of the record you're listing.
id_min={value}	(Optional) Show only those authentication records in your subscription that have an ID number greater than or equal to an ID number you specify.
id_max={value}	(Optional) Show only those authentication records in your subscription that have an ID number less than or equal to an ID number you specify.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl demo" -d
"action=list&ids=72685"
"https://qualysapi.qualys.com/api/2.0/fo/auth/docker/"
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE AUTH_DOCKER_LIST_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/auth/docker/auth_docker_list_out
put.dtd">
<AUTH_DOCKER_LIST_OUTPUT>
  <RESPONSE>
    <DATETIME>2017-03-09T06:11:39Z</DATETIME>
    <AUTH_DOCKER_LIST>
      <AUTH_DOCKER>
        <ID>72685</ID>
        <TITLE><![CDATA[docker_sample]]></TITLE>

<DAEMON_CONFIGURATION_FILE>/etc/docker/daemon.json</DAEMON_CONFIGURATION_
FILE>
        <DOCKER_COMMAND>/usr/bin/docker</DOCKER_COMMAND>
        <IP_SET>
          <IP>10.10.30.159</IP>
        </IP_SET>
```

```
        <CREATED>
          <DATETIME>2017-03-09T06:09:46Z</DATETIME>
          <BY>username</BY>
        </CREATED>
        <LAST_MODIFIED>
          <DATETIME>2017-03-09T06:09:46Z</DATETIME>
        </LAST_MODIFIED>
      </AUTH_DOCKER>
    </AUTH_DOCKER_LIST>
  </RESPONSE>
</AUTH_DOCKER_LIST_OUTPUT>
```

New DTD:

```
<!-- QUALYS AUTH_DOCKER_LIST_OUTPUT DTD -->
<!-- $Revision: $ -->
<!ELEMENT AUTH_DOCKER_LIST_OUTPUT (REQUEST?, RESPONSE)>

<!ELEMENT REQUEST (DATETIME, USER_LOGIN, RESOURCE, PARAM_LIST?,
POST_DATA?)>
<!ELEMENT DATETIME (#PCDATA)>
<!ELEMENT USER_LOGIN (#PCDATA)>
<!ELEMENT RESOURCE (#PCDATA)>
<!ELEMENT PARAM_LIST (PARAM+)>
<!ELEMENT PARAM (KEY, VALUE)>
<!ELEMENT KEY (#PCDATA)>
<!ELEMENT VALUE (#PCDATA)>
<!-- if returned, POST_DATA will be urlencoded -->
<!ELEMENT POST_DATA (#PCDATA)>

<!ELEMENT RESPONSE (DATETIME, (AUTH_DOCKER_LIST|ID_SET)?, WARNING_LIST?,
GLOSSARY?)>
<!ELEMENT AUTH_DOCKER_LIST (AUTH_DOCKER+)>

<!ELEMENT AUTH_DOCKER (ID, TITLE, DAEMON_CONFIGURATION_FILE?,
DOCKER_COMMAND?, IP_SET, NETWORK_ID?, CREATED, LAST_MODIFIED, COMMENTS?)>
<!ELEMENT ID (#PCDATA)>
<!ELEMENT TITLE (#PCDATA)>
<!ELEMENT DAEMON_CONFIGURATION_FILE (#PCDATA)>
<!ELEMENT DOCKER_COMMAND (#PCDATA)>
<!ELEMENT IP_SET (IP|IP_RANGE)+>
<!ELEMENT IP (#PCDATA)>
<!ELEMENT IP_RANGE (#PCDATA)>
<!ELEMENT NETWORK_ID (#PCDATA)>
<!ELEMENT CREATED (DATETIME, BY)>
<!ELEMENT BY (#PCDATA)>
<!ELEMENT LAST_MODIFIED (DATETIME)>
<!ELEMENT COMMENTS (#PCDATA)>
```

```
<!ELEMENT WARNING_LIST (WARNING+)>
<!ELEMENT WARNING (CODE?, TEXT, URL?, ID_SET?)>
<!ELEMENT CODE (#PCDATA)>
<!ELEMENT TEXT (#PCDATA)>
<!ELEMENT URL (#PCDATA)>
<!ELEMENT ID_SET (ID|ID_RANGE)+>
<!ELEMENT ID_RANGE (#PCDATA)>

<!ELEMENT GLOSSARY (USER_LIST?)>
<!ELEMENT USER_LIST (USER+)>
<!ELEMENT USER (USER_LOGIN, FIRST_NAME, LAST_NAME)>
<!ELEMENT FIRST_NAME (#PCDATA)>
<!ELEMENT LAST_NAME (#PCDATA)>

<!-- EOF -->
```

DTD Update:

```
<!-- QUALYS AUTH_RECORDS_OUTPUT DTD -->
<!-- $Revision$ -->
<!ELEMENT AUTH_RECORDS_OUTPUT (REQUEST?, RESPONSE)>

...
<!ELEMENT AUTH_RECORDS (AUTH_UNIX_IDS?, AUTH_WINDOWS_IDS?,
AUTH_ORACLE_IDS?, AUTH_ORACLE_LISTENER_IDS?, AUTH_SNMP_IDS?,
AUTH_MS_SQL_IDS?, AUTH_IBM_DB2_IDS?, AUTH_VMWARE_IDS?, AUTH_MS_IIS_IDS?,
AUTH_APACHE_IDS?, AUTH_IBM_WEBSPHERE_IDS?, AUTH_HTTP_IDS?,
AUTH_MYSQL_IDS?, AUTH_TOMCAT_IDS?, AUTH_ORACLE_WEBLOGIC_IDS?,
AUTH_DOCKER_IDS?)>
...
...
<!ELEMENT AUTH_TOMCAT_IDS (ID_SET)>
<!ELEMENT AUTH_ORACLE_WEBLOGIC_IDS (ID_SET)>
<!ELEMENT AUTH_DOCKER_IDS (ID_SET)>
...
<!ELEMENT ID_SET (ID|ID_RANGE)+>
<!ELEMENT ID (#PCDATA)>
<!ELEMENT ID_RANGE (#PCDATA)>

<!-- EOF -->
```

PC - New API Support for PostgreSQL Authentication

With this release PostgreSQL authentication is supported for compliance scans using Qualys PC. The PostgreSQL Record API (/api/2.0/fo/auth/postgresql/) allows you manage PostgreSQL records for performing authenticated scans of PostgreSQL Version 9.0 instances running on Unix.

Tip - We strongly recommend you create one or more dedicated user accounts to be used solely by the Qualys Cloud Platform to authenticate to PostgreSQL database instances.

List all record types

Supported parameters for Authentication Record List API call (/api/2.0/fo/auth/?action=list) are described in the current Qualys API V2 User Guide under Authentication Record List (in Chapter 8).

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: Curl Sample"
-d "action=list" "https://qualysapi.qualys.com/api/2.0/fo/auth/" >
file.xml
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE AUTH_RECORDS_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/auth/auth_records.dtd">
<AUTH_RECORDS_OUTPUT>
  <RESPONSE>
    <DATETIME>2017-04-12T18:43:57Z</DATETIME>
    <AUTH_RECORDS>
      <AUTH_UNIX_IDS>
        <ID_SET>
          <ID>1003</ID>
          <ID>78176</ID>
        </ID_SET>
      </AUTH_UNIX_IDS>
      <AUTH_WINDOWS_IDS>
        <ID_SET>
          <ID>5325</ID>
          <ID_RANGE>34902-34909</ID_RANGE>
          <ID>35076</ID>
          <ID>79233</ID>
        </ID_SET>
      </AUTH_WINDOWS_IDS>
      <AUTH_SYBASE_IDS>
        <ID_SET>
          <ID>77260</ID>
          <ID>77262</ID>
```

```
            <ID>78148</ID>
            <ID>78153</ID>
            <ID_RANGE>78166-78167</ID_RANGE>
            <ID>78171</ID>
          </ID_SET>
        </AUTH_SYBASE_IDS>
        <AUTH_POSTGRESQL_IDS>
          <ID_SET>
            <ID>79003</ID>
            <ID>79008</ID>
            <ID_RANGE>79012-79013</ID_RANGE>
            <ID>79230</ID>
          </ID_SET>
        </AUTH_POSTGRESQL_IDS>
      </AUTH_RECORDS>
    </RESPONSE>
</AUTH_RECORDS_OUTPUT>
```

DTD:

<base_url>/api/2.0/fo/auth/auth_records.dtd

New **AUTH_POSTGRESQL_IDS** element identifies PostgreSQL record IDs.

```
<!-- QUALYS AUTH_RECORDS_OUTPUT DTD -->

<!ELEMENT AUTH_RECORDS_OUTPUT (REQUEST?, RESPONSE)>

<!ELEMENT REQUEST (DATETIME, USER_LOGIN, RESOURCE, PARAM_LIST?,
POST_DATA?)>
<!ELEMENT DATETIME (#PCDATA)>
<!ELEMENT USER_LOGIN (#PCDATA)>
<!ELEMENT RESOURCE (#PCDATA)>
<!ELEMENT PARAM_LIST (PARAM+)>
<!ELEMENT PARAM (KEY, VALUE)>
<!ELEMENT KEY (#PCDATA)>
<!ELEMENT VALUE (#PCDATA)>
<!-- if returned, POST_DATA will be urlencoded -->
<!ELEMENT POST_DATA (#PCDATA)>

<!ELEMENT RESPONSE (DATETIME, AUTH_RECORDS?, WARNING_LIST?)>
<!ELEMENT AUTH_RECORDS (AUTH_UNIX_IDS?, AUTH_WINDOWS_IDS?,
AUTH_ORACLE_IDS?, AUTH_ORACLE_LISTENER_IDS?, AUTH_SNMP_IDS?,
AUTH_MS_SQL_IDS?, AUTH_IBM_DB2_IDS?, AUTH_VMWARE_IDS?, AUTH_MS_IIS_IDS?,
AUTH_APACHE_IDS?, AUTH_IBM_WEBSPHERE_IDS?, AUTH_HTTP_IDS?,
AUTH_SYBASE_IDS?, AUTH_MYSQL_IDS?, AUTH_TOMCAT_IDS?,
AUTH_ORACLE_WEBLOGIC_IDS?, AUTH_DOCKER_IDS?, AUTH_POSTGRESQL_IDS?)>

<!ELEMENT AUTH_UNIX_IDS (ID_SET)>
<!ELEMENT AUTH_WINDOWS_IDS (ID_SET)>
```

```
<!ELEMENT AUTH_ORACLE_IDS (ID_SET)>
<!ELEMENT AUTH_ORACLE_LISTENER_IDS (ID_SET)>
<!ELEMENT AUTH_SNMP_IDS (ID_SET)>
<!ELEMENT AUTH_MS_SQL_IDS (ID_SET)>
<!ELEMENT AUTH_IBM_DB2_IDS (ID_SET)>
<!ELEMENT AUTH_VMWARE_IDS (ID_SET)>
<!ELEMENT AUTH_MS_IIS_IDS (ID_SET)>
<!ELEMENT AUTH_APACHE_IDS (ID_SET)>
<!ELEMENT AUTH_IBM_WEBSPHERE_IDS (ID_SET)>
<!ELEMENT AUTH_HTTP_IDS (ID_SET)>
<!ELEMENT AUTH_SYBASE_IDS (ID_SET)>
<!ELEMENT AUTH_MYSQL_IDS (ID_SET)>
<!ELEMENT AUTH_TOMCAT_IDS (ID_SET)>
<!ELEMENT AUTH_ORACLE_WEBLOGIC_IDS (ID_SET)>
<!ELEMENT AUTH_DOCKER_IDS (ID_SET)>
<!ELEMENT AUTH_POSTGRESQL_IDS (ID_SET)>

<!ELEMENT WARNING_LIST (WARNING+)>
<!ELEMENT WARNING (CODE?, TEXT, URL?, ID_SET?)>
<!ELEMENT CODE (#PCDATA)>
<!ELEMENT TEXT (#PCDATA)>
<!ELEMENT URL (#PCDATA)>

<!ELEMENT ID_SET (ID|ID_RANGE)+>
<!ELEMENT ID (#PCDATA)>
<!ELEMENT ID_RANGE (#PCDATA)>

<!-- EOF -->
```

List PostgreSQL records

Supported parameters for PostgreSQL Authentication Record List API call (/api/2.0/fo/auth/postgresql/?action=list) are described in the current Qualys API V2 User Guide under Authentication Record List by Type (in Chapter 8).

Example: List PostgreSQL records

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: Curl Sample" -d
"action=list&details=All"
"https://qualysapi.qualys.com/api/2.0/fo/auth/postgresql/" > file.xml
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE AUTH_POSTGRESQL_LIST_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/auth/postgresql/auth_postgresql_
list_output.dtd">
```

```
<AUTH_POSTGRESQL_LIST_OUTPUT>
  <RESPONSE>
    <DATETIME>2017-04-24T22:01:50Z</DATETIME>
    <AUTH_POSTGRESQL_LIST>
      <AUTH_POSTGRESQL>
        <ID>79518</ID>
        <TITLE><![CDATA[PostgesSQL1]]></TITLE>
        <USERNAME><![CDATA[acme_as1]]></USERNAME>
        <DATABASE><![CDATA[mydb1]]></DATABASE>
        <PORT>5432</PORT>
        <SSL_VERIFY><![CDATA[0]]></SSL_VERIFY>
        <IP_SET>
          <IP>10.10.10.45</IP>
        </IP_SET>
<UNIX_CONF_FILE><![CDATA[/var/lib/pgsql/9.3/data/postgresql.conf]]></UNIX
_CONF_FILE>
        <NETWORK_ID>0</NETWORK_ID>
        <CREATED>
          <DATETIME>2017-04-13T23:42:50Z</DATETIME>
          <BY>acme_as1</BY>
        </CREATED>
        <LAST_MODIFIED>
          <DATETIME>2017-04-20T23:35:42Z</DATETIME>
        </LAST_MODIFIED>
        <COMMENTS><![CDATA[my comments]]></COMMENTS>
      </AUTH_POSTGRESQL>
      <AUTH_POSTGRESQL>
        <ID>82110</ID>
        <TITLE><![CDATA[POstgreSQL2]]></TITLE>
        <USERNAME><![CDATA[acme_as1]]></USERNAME>
        <DATABASE><![CDATA[mydb2]]></DATABASE>
        <PORT>5432</PORT>
        <SSL_VERIFY><![CDATA[1]]></SSL_VERIFY>
        <HOSTS>
          <HOST><![CDATA[cent-31-107.ml2k8.vuln.qa.qualys.com]]></HOST>
        </HOSTS>
        <IP_SET>
          <IP>10.20.31.107</IP>
        </IP_SET>
<UNIX_CONF_FILE><![CDATA[/var/lib/pgsql/9.3/data/postgresql.conf]]></UNIX
_CONF_FILE>
        <NETWORK_ID>0</NETWORK_ID>
        <CREATED>
          <DATETIME>2017-04-20T20:12:48Z</DATETIME>
          <BY>acme_as1</BY>
        </CREATED>
        <LAST_MODIFIED>
          <DATETIME>2017-04-20T21:53:25Z</DATETIME>
        </LAST_MODIFIED>
```

```
      </AUTH_POSTGRESQL>
      <AUTH_POSTGRESQL>
        <ID>82111</ID>
        <TITLE><![CDATA[PostgreSQL3]]></TITLE>
        <USERNAME><![CDATA[acme_as1]]></USERNAME>
        <DATABASE><![CDATA[mydb3]]></DATABASE>
        <PORT>5432</PORT>
        <SSL_VERIFY><![CDATA[1]]></SSL_VERIFY>
        <IP_SET>
          <IP>10.10.10.10</IP>
        </IP_SET>
        <UNIX_CONF_FILE><![CDATA[]]></UNIX_CONF_FILE>
        <NETWORK_ID>0</NETWORK_ID>
        <CREATED>
          <DATETIME>2017-04-20T20:59:28Z</DATETIME>
          <BY>acme_as1</BY>
        </CREATED>
        <LAST_MODIFIED>
          <DATETIME>2017-04-21T16:58:47Z</DATETIME>
        </LAST_MODIFIED>
      </AUTH_POSTGRESQL>
...
    </AUTH_POSTGRESQL_LIST>
  </RESPONSE>
</AUTH_POSTGRESQL_LIST_OUTPUT>
```

DTD:

<base_url>/api/2.0/fo/auth/sybase/auth_postgresql_list_output.dtd

```
<!-- QUALYS AUTH_POSTGRESQL_LIST_OUTPUT DTD -->
<!ELEMENT AUTH_POSTGRESQL_LIST_OUTPUT (REQUEST?, RESPONSE)>
<!ELEMENT REQUEST (DATETIME, USER_LOGIN, RESOURCE, PARAM_LIST?,
POST_DATA?)>
<!ELEMENT DATETIME (#PCDATA)>
<!ELEMENT USER_LOGIN (#PCDATA)>
<!ELEMENT RESOURCE (#PCDATA)>
<!ELEMENT PARAM_LIST (PARAM+)>
<!ELEMENT PARAM (KEY, VALUE)>
<!ELEMENT KEY (#PCDATA)>
<!ELEMENT VALUE (#PCDATA)>
<!ELEMENT POST_DATA (#PCDATA)>
<!ELEMENT RESPONSE (DATETIME, (AUTH_POSTGRESQL_LIST|ID_SET)?,
WARNING_LIST?, GLOSSARY?)>
<!ELEMENT AUTH_POSTGRESQL_LIST (AUTH_POSTGRESQL+)>
<!ELEMENT AUTH_POSTGRESQL (ID, TITLE, USERNAME, DATABASE, PORT,
SSL_VERIFY, HOSTS?, IP_SET?, LOGIN_TYPE?, DIGITAL_VAULT?, UNIX_CONF_FILE,
PRIVATE_KEY_CERTIFICATE_LIST?, NETWORK_ID?, CREATED, LAST_MODIFIED,
COMMENTS?)>
<!ELEMENT ID (#PCDATA)>
```

```
<!ELEMENT TITLE (#PCDATA)>
<!ELEMENT USERNAME (#PCDATA)>
<!ELEMENT PRIVATE_KEY_CERTIFICATE_LIST (PRIVATE_KEY_CERTIFICATE)*>

<!ELEMENT PRIVATE_KEY_CERTIFICATE (ID, PRIVATE_KEY_INFO, PASSPHRASE_INFO,
CERTIFICATE?)+>
<!ELEMENT PRIVATE_KEY_INFO (PRIVATE_KEY|DIGITAL_VAULT)>
<!ATTLIST PRIVATE_KEY_INFO>
<!-- Private key contents will never be rendered -->
<!ELEMENT PRIVATE_KEY EMPTY>
<!ELEMENT PASSPHRASE_INFO (DIGITAL_VAULT?)>
<!ATTLIST PASSPHRASE_INFO type (basic|vault) "basic">
<!-- Certificate contents will never be rendered -->
<!ELEMENT CERTIFICATE EMPTY>

<!ELEMENT PORT (#PCDATA)>
<!ELEMENT DATABASE (#PCDATA)>
<!ELEMENT SSL_VERIFY (#PCDATA)>
<!ELEMENT HOSTS (HOST+)>
<!ELEMENT HOST (#PCDATA)>
<!ELEMENT IP_SET (IP|IP_RANGE)+>
<!ELEMENT IP (#PCDATA)>
<!ELEMENT IP_RANGE (#PCDATA)>
<!ELEMENT LOGIN_TYPE (#PCDATA)>
<!ELEMENT UNIX_CONF_FILE (#PCDATA)>
<!ELEMENT CLIENT_CERT (#PCDATA)>
<!ELEMENT CLIENT_KEY (#PCDATA)>
<!ELEMENT CERT_PASSPHASE (#PCDATA)>
<!ELEMENT NETWORK_ID (#PCDATA)>
<!ELEMENT CREATED (DATETIME, BY)>
<!ELEMENT BY (#PCDATA)>
<!ELEMENT LAST_MODIFIED (DATETIME)>
<!ELEMENT COMMENTS (#PCDATA)>
<!ELEMENT WARNING_LIST (WARNING+)>
<!ELEMENT WARNING (CODE?, TEXT, URL?, ID_SET?)>
<!ELEMENT CODE (#PCDATA)>
<!ELEMENT TEXT (#PCDATA)>
<!ELEMENT URL (#PCDATA)>
<!ELEMENT ID_SET (ID|ID_RANGE)+>
<!ELEMENT ID_RANGE (#PCDATA)>
<!ELEMENT GLOSSARY (USER_LIST?)>
<!ELEMENT USER_LIST (USER+)>
<!ELEMENT USER (USER_LOGIN, FIRST_NAME, LAST_NAME)>
<!ELEMENT FIRST_NAME (#PCDATA)>
<!ELEMENT LAST_NAME (#PCDATA)>
<!ELEMENT DIGITAL_VAULT (DIGITAL_VAULT_ID, DIGITAL_VAULT_TYPE,
DIGITAL_VAULT_TITLE, VAULT_USERNAME?, VAULT_FOLDER?, VAULT_FILE?,
VAULT_SECRET_NAME?, VAULT_SYSTEM_NAME?, VAULT_EP_NAME?, VAULT_EP_TYPE?,
VAULT_EP_CONT?)>
```

```
<!ELEMENT DIGITAL_VAULT_ID (#PCDATA)>
<!ELEMENT DIGITAL_VAULT_TYPE (#PCDATA)>
<!ELEMENT DIGITAL_VAULT_TITLE (#PCDATA)>
<!ELEMENT VAULT_USERNAME (#PCDATA)>
<!ELEMENT VAULT_FOLDER (#PCDATA)>
<!ELEMENT VAULT_FILE (#PCDATA)>
<!ELEMENT VAULT_SECRET_NAME (#PCDATA)>
<!ELEMENT VAULT_SYSTEM_NAME (#PCDATA)>
<!ELEMENT VAULT_EP_NAME (#PCDATA)>
<!ELEMENT VAULT_EP_TYPE (#PCDATA)>
<!ELEMENT VAULT_EP_CONT (#PCDATA)>
<!-- EOF -->
```

Create / Update PostgreSQL record

Use these parameters to create or update a PostgreSQL record. For an update request, all parameters are optional except “ids” which is required.

Parameter	Description
action=create|update	(Required) The action for the API call, create or update.
ids={id1,id2,...}	(Required for update request, Invalid for create request) The IDs of the PostgreSQL records you want to update. Valid IDs are required. Multiple IDs are comma separated.
echo_request={**0**|1}	(Optional) Show (echo) the request’s input parameters (names and values) in the XML output. When not specified, parameters are not included in the XML output. Specify 1 to view parameters in the XML output.
title={value}	(Required for create request) A title for the Sybase record. The title must be unique. Maximum 255 characters (ascii).
ips={value}	(Required for a create request) A single IP, multiple IPs and/or ranges. Multiple entries are comma separated.
add_ips={value}	(Optional for an update request) A single IP, multiple IPs and/or ranges to be added to this record. Multiple entries are comma separated.
remove_ips={value}	(Optional for an update request) A single IP, multiple IPs and/or ranges to be removed from this record. Multiple entries are comma separated.
network_id={value}	(Optional and valid when the networks feature is enabled) The network ID for the record.
pgsql_unix_conf_file={value}	(Required for create request) The full path to the PostgreSQL configuration file on your Unix assets (IP addresses). The file must be in the same location on all assets for this record.

Parameter	Description
comments={value}	(Optional) Specifies user defined notes about the PostgreSQL record. The comments may include a maximum of 1999 characters (ascii); if comments have 2000 or more characters an error is returned and comments are not saved. Tags (such as <script>) cannot be included; if tags are included an error is returned and the request fails.
username={value}	(Required for create request) The username of the account to be used for authentication. If password is specified this is the username of a PostgreSQL account. If login_type=vault is specified, this is the username of a vault account. Maximum 255 characters (ascii).
password={value}	(For create request, password or login_type=vault is required) The password of the PostgreSQL account to be used for authentication. Maximum 100 characters (ascii).
pgsql_db_name={value}	(Required for create request) The database instance you want to authenticate to.
port={value}	(Optional) The port where the database instance is running. Default is 5432.
hosts={value}	(Required if ssl_verify=1) A list of FQDNs for all host IP addresses on which a custom SSL certificate signed by a trusted root CA is installed.
ssl_verify={**0**|1}	(Optional) SSL verification is skipped by default. Set to 1 if you want to verify the server's certificate is valid and trusted.
login_type=vault	(For create request, password or login_type=vault is required) The password of the PostgreSQL account to be used for authentication. Maximum 100 characters (ascii). Vault parameters: Vault parameters are required when login_type=vault is specified e.g. vault_id={value}, vault_type={value}, and vault specific settings. For details see the Qualys API V2 User Guide under Unix Record Properties: Vault (in Chapter 8). Supported vault_type values: CA Access Control | Cyber-Ark PIM Suite| Cyber-Ark AIM | Hitachi ID PAM |Quest Vault | Thycotic Secret Server | BeyondTrust PBPS
client_key_type={value}	(Optional) Client key type basic (default) or vault.
client_key={value}	(Optional for create request if client_key_type=basic) Client key content, if private key not in vault.
client_key_vault_type={value}	(Required for create request if client_key_type=vault) Select vault type: Cyber-Ark AIM or BeyondTrust PBPS.

Parameter	Description
client_key_vault_id={value}	(Required for create request if client_key_type=vault) The ID of the vault to get the private key from. Vault parameters: client_key_folder={value} and client_key_file={value} are required vault settings. For details see the Qualys API V2 User Guide under Unix Record Properties: Vault (in Chapter 8).
passphrase_type={value}	(Optional) Passphrase type can be basic (default) or vault.
passphrase={value}	(Optional for create request if passphrase_type=basic) The passphrase value.
client_cert={value}	(Optional for create request if passphrase_type=basic) The passphrase certificate content.
passphrase_vault_type={value}	(Required if passphrase_type=vault) The vault where the private key passphrase is stored: CA Access Control | Cyber-Ark PIM Suite | Cyber-Ark AIM | Hitachi ID PAM | Quest Vault | Thycotic Secret Server | BeyondTrust PBPS
passphrase_vault_id={value}	(Required if passphrase_type=vault) The ID of the vault to get the passphrase from.

Example: Create PostgreSQL record

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl sample" -d
"action=create&title=API_POSTGRE_2&username=root&password=abc123&pgsql_db
_name=presql&ips=10.10.10.35&pgsql_unix_conf_path=/etc&network_id=4002"
"https://qualysapi.qualys.com/api/2.0/fo/auth/postgresql/" > file.xml
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE BATCH_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/batch_return.dtd">
<BATCH_RETURN>
  <RESPONSE>
    <DATETIME>2017-04-27T20:17:42Z</DATETIME>
    <BATCH_LIST>
      <BATCH>
        <TEXT>Successfully Created</TEXT>
        <ID_SET>
          <ID>84307</ID>
        </ID_SET>
      </BATCH>
    </BATCH_LIST>
  </RESPONSE>
</BATCH_RETURN>
```

Example: Update PostgreSQL record

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: Curl Sample" -d
"action=update&ids=84307&add_ips=10.10.10.40-10.10.10.42"
"https://qualysapi.qualys.com/api/2.0/fo/auth/postgresql/" > file.xml
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE BATCH_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/batch_return.dtd">
<BATCH_RETURN>
  <RESPONSE>
    <DATETIME>2017-04-10T21:01:57Z</DATETIME>
    <BATCH_LIST>
      <BATCH>
        <TEXT>Successfully Updated</TEXT>
        <ID_SET>
          <ID>78782</ID>
        </ID_SET>
      </BATCH>
    </BATCH_LIST>
  </RESPONSE>
</BATCH_RETURN>
```

Delete PostgreSQL records

Use these parameters to delete a PostgreSQL record.

Parameter	Description
action=delete	(Required)
echo_request={**0** | 1}	(Optional) Show (echo) the request's input parameters (names and values) in the XML output. When not specified, parameters are not included in the XML output. Specify 1 to view parameters in the XML output.
ids={value}	(Required) Delete only PostgreSQL records with certain IDs and/or ID ranges. Valid IDs are required. Multiple entries are comma separated.

Example: Delete PostgreSQL record

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: Curl Sample" -d
"action=delete&ids=78187,78783-78784&echo_request=1"
"https://qualysapi.qualys.com/api/2.0/fo/auth/postgresql/" > file.xml
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE BATCH_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/batch_return.dtd">
<BATCH_RETURN>
  <REQUEST>
    <DATETIME>2017-04-10T21:27:22Z</DATETIME>
    <USER_LOGIN>enter_ss</USER_LOGIN>
<RESOURCE>https://qualysapi.qualys.com/api/2.0/fo/auth/postgresql/</RESOU
RCE>
    <PARAM_LIST>
      <PARAM>
        <KEY>action</KEY>
        <VALUE>delete</VALUE>
      </PARAM>
      <PARAM>
        <KEY>ids</KEY>
        <VALUE>78187,78783-78784</VALUE>
      </PARAM>
      <PARAM>
        <KEY>echo_request</KEY>
        <VALUE>1</VALUE>
      </PARAM>
    </PARAM_LIST>
  </REQUEST>
  <RESPONSE>
    <DATETIME>2017-04-10T21:27:22Z</DATETIME>
    <BATCH_LIST>
      <BATCH>
        <TEXT>Successfully Deleted</TEXT>
        <ID_SET>
          <ID>78187</ID>
          <ID_RANGE>78187,78783-78784</ID_RANGE>
        </ID_SET>
      </BATCH>
    </BATCH_LIST>
  </RESPONSE>
</BATCH_RETURN>
```

PC - New API Support for Sybase Authentication

The new Sybase Authentication Record API (/api/2.0/fo/auth/sybase/) allows you to manage Sybase records for authenticating to Sybase Adaptive Server Enterprise (ASE) instances.

This record type is only available in accounts with PC (Policy Compliance) and only supported for compliance scans.

Tip - We strongly recommend you create one or more dedicated user accounts to be used solely by the Qualys Cloud Platform to authenticate to Sybase database instances.

Click here for Sybase Authentication Set Up Instructions

List all record types

Supported parameters for Authentication Record List API call (/api/2.0/fo/auth/?action=list) are described in the current Qualys API V2 User Guide under Authentication Record List (in Chapter 8).

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: Curl Sample"
-d "action=list" "https://qualysapi.qualys.com/api/2.0/fo/auth/" >
file.xml
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE AUTH_RECORDS_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/auth/auth_records.dtd">
<AUTH_RECORDS_OUTPUT>
  <RESPONSE>
    <DATETIME>2017-04-12T18:43:57Z</DATETIME>
    <AUTH_RECORDS>
      <AUTH_UNIX_IDS>
        <ID_SET>
          <ID>1003</ID>
          <ID>78176</ID>
        </ID_SET>
      </AUTH_UNIX_IDS>
      <AUTH_WINDOWS_IDS>
        <ID_SET>
          <ID>5325</ID>
          <ID_RANGE>34902-34909</ID_RANGE>
          <ID>35076</ID>
          <ID>79233</ID>
        </ID_SET>
      </AUTH_WINDOWS_IDS>
      <AUTH_SYBASE_IDS>
```

```
        <ID_SET>
          <ID>77260</ID>
          <ID>77262</ID>
          <ID>78148</ID>
          <ID>78153</ID>
          <ID_RANGE>78166-78167</ID_RANGE>
          <ID>78171</ID>
          <ID>78173</ID>
          <ID>78175</ID>
          <ID_RANGE>78830-78831</ID_RANGE>
          <ID>78985</ID>
          <ID>79003</ID>
          <ID>79008</ID>
          <ID_RANGE>79012-79013</ID_RANGE>
          <ID>79230</ID>
        </ID_SET>
      </AUTH_SYBASE_IDS>
    </AUTH_RECORDS>
  </RESPONSE>
</AUTH_RECORDS_OUTPUT>
```

DTD:

<base_url>/api/2.0/fo/auth/auth_records.dtd

New **AUTH_SYBASE_IDS** element identifies Sybase record IDs.

```
<!-- QUALYS AUTH_RECORDS_OUTPUT DTD -->

<!ELEMENT AUTH_RECORDS_OUTPUT (REQUEST?, RESPONSE)>

<!ELEMENT REQUEST (DATETIME, USER_LOGIN, RESOURCE, PARAM_LIST?,
POST_DATA?)>
<!ELEMENT DATETIME (#PCDATA)>
<!ELEMENT USER_LOGIN (#PCDATA)>
<!ELEMENT RESOURCE (#PCDATA)>
<!ELEMENT PARAM_LIST (PARAM+)>
<!ELEMENT PARAM (KEY, VALUE)>
<!ELEMENT KEY (#PCDATA)>
<!ELEMENT VALUE (#PCDATA)>
<!-- if returned, POST_DATA will be urlencoded -->
<!ELEMENT POST_DATA (#PCDATA)>

<!ELEMENT RESPONSE (DATETIME, AUTH_RECORDS?, WARNING_LIST?)>
<!ELEMENT AUTH_RECORDS (AUTH_UNIX_IDS?, AUTH_WINDOWS_IDS?,
AUTH_ORACLE_IDS?, AUTH_ORACLE_LISTENER_IDS?, AUTH_SNMP_IDS?,
AUTH_MS_SQL_IDS?, AUTH_IBM_DB2_IDS?, AUTH_VMWARE_IDS?, AUTH_MS_IIS_IDS?,
AUTH_APACHE_IDS?, AUTH_IBM_WEBSPHERE_IDS?, AUTH_HTTP_IDS?,
AUTH_SYBASE_IDS?, AUTH_MYSQL_IDS?, AUTH_TOMCAT_IDS?,
AUTH_ORACLE_WEBLOGIC_IDS?, AUTH_DOCKER_IDS?, AUTH_POSTGRESQL_IDS?)>
```

```
<!ELEMENT AUTH_UNIX_IDS (ID_SET)>
<!ELEMENT AUTH_WINDOWS_IDS (ID_SET)>
<!ELEMENT AUTH_ORACLE_IDS (ID_SET)>
<!ELEMENT AUTH_ORACLE_LISTENER_IDS (ID_SET)>
<!ELEMENT AUTH_SNMP_IDS (ID_SET)>
<!ELEMENT AUTH_MS_SQL_IDS (ID_SET)>
<!ELEMENT AUTH_IBM_DB2_IDS (ID_SET)>
<!ELEMENT AUTH_VMWARE_IDS (ID_SET)>
<!ELEMENT AUTH_MS_IIS_IDS (ID_SET)>
<!ELEMENT AUTH_APACHE_IDS (ID_SET)>
<!ELEMENT AUTH_IBM_WEBSPHERE_IDS (ID_SET)>
<!ELEMENT AUTH_HTTP_IDS (ID_SET)>
<!ELEMENT AUTH_SYBASE_IDS (ID_SET)>
<!ELEMENT AUTH_MYSQL_IDS (ID_SET)>
<!ELEMENT AUTH_TOMCAT_IDS (ID_SET)>
<!ELEMENT AUTH_ORACLE_WEBLOGIC_IDS (ID_SET)>
<!ELEMENT AUTH_DOCKER_IDS (ID_SET)>
<!ELEMENT AUTH_POSTGRESQL_IDS (ID_SET)>

<!ELEMENT WARNING_LIST (WARNING+)>
<!ELEMENT WARNING (CODE?, TEXT, URL?, ID_SET?)>
<!ELEMENT CODE (#PCDATA)>
<!ELEMENT TEXT (#PCDATA)>
<!ELEMENT URL (#PCDATA)>

<!ELEMENT ID_SET (ID|ID_RANGE)+>
<!ELEMENT ID (#PCDATA)>
<!ELEMENT ID_RANGE (#PCDATA)>

<!-- EOF -->
```

List Sybase records

Supported parameters for Sybase Authentication Record List API call (/api/2.0/fo/auth/sybase/?action=list) are described in the current Qualys API V2 User Guide under Authentication Record List by Type (in Chapter 8).

Example: List Sybase Records

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: Curl Sample" -d
"action=list&details=All"
"https://qualysapi.qualys.com/api/2.0/fo/auth/sybase/" > file.xml
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE AUTH_SYBASE_LIST_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/auth/sybase/auth_sybase_list_out
put.dtd">
<AUTH_SYBASE_LIST_OUTPUT>
  <RESPONSE>
    <DATETIME>2017-04-10T21:32:21Z</DATETIME>
    <AUTH_SYBASE_LIST>
      <AUTH_SYBASE>
        <ID>78177</ID>
        <TITLE><![CDATA[api_syb_basic_2IPs_NW2]]></TITLE>
        <USERNAME><![CDATA[api_user1]]></USERNAME>
        <DATABASE><![CDATA[api_sybDB1]]></DATABASE>
        <PORT>444</PORT>
        <IP_SET>
          <IP_RANGE>10.10.24.12-10.10.24.13</IP_RANGE>
        </IP_SET>
        <NETWORK_ID>19019</NETWORK_ID>
        <CREATED>
          <DATETIME>2017-04-08T00:17:17Z</DATETIME>
          <BY>enter_ss</BY>
        </CREATED>
        <LAST_MODIFIED>
          <DATETIME>2017-04-08T00:17:17Z</DATETIME>
        </LAST_MODIFIED>
      </AUTH_SYBASE>
      <AUTH_SYBASE>
        <ID>78186</ID>
        <TITLE><![CDATA[api_syb_basic_2IPs_Global]]></TITLE>
        <USERNAME><![CDATA[api_user1]]></USERNAME>
        <DATABASE><![CDATA[api_sybDB1]]></DATABASE>
        <PORT>444</PORT>
        <IP_SET>
          <IP_RANGE>10.10.24.12-10.10.24.13</IP_RANGE>
        </IP_SET>
        <NETWORK_ID>0</NETWORK_ID>
        <CREATED>
          <DATETIME>2017-04-08T01:10:04Z</DATETIME>
          <BY>enter_ss</BY>
        </CREATED>
        <LAST_MODIFIED>
          <DATETIME>2017-04-08T01:10:04Z</DATETIME>
        </LAST_MODIFIED>
      </AUTH_SYBASE>
...
```

DTD:

<base_url>/api/2.0/fo/auth/sybase/auth_sybase_list_output.dtd

```
<!-- QUALYS AUTH_SYBASE_LIST_OUTPUT DTD -->

<!ELEMENT AUTH_SYBASE_LIST_OUTPUT (REQUEST?, RESPONSE)>

<!ELEMENT REQUEST (DATETIME, USER_LOGIN, RESOURCE, PARAM_LIST?,
POST_DATA?)>
<!ELEMENT DATETIME (#PCDATA)>
<!ELEMENT USER_LOGIN (#PCDATA)>
<!ELEMENT RESOURCE (#PCDATA)>
<!ELEMENT PARAM_LIST (PARAM+)>
<!ELEMENT PARAM (KEY, VALUE)>
<!ELEMENT KEY (#PCDATA)>
<!ELEMENT VALUE (#PCDATA)>
<!-- if returned, POST_DATA will be urlencoded -->
<!ELEMENT POST_DATA (#PCDATA)>

<!ELEMENT RESPONSE (DATETIME, (AUTH_SYBASE_LIST|ID_SET)?, WARNING_LIST?,
GLOSSARY?)>
<!ELEMENT AUTH_SYBASE_LIST (AUTH_SYBASE+)>

<!ELEMENT AUTH_SYBASE (ID, TITLE, USERNAME, DATABASE, PORT,
INSTALLATION_DIR?, IP_SET?, LOGIN_TYPE?, DIGITAL_VAULT?, NETWORK_ID?,
CREATED, LAST_MODIFIED, COMMENTS?)>
<!ELEMENT ID (#PCDATA)>
<!ELEMENT TITLE (#PCDATA)>
<!ELEMENT USERNAME (#PCDATA)>
<!ELEMENT DATABASE (#PCDATA)>
<!ELEMENT PORT (#PCDATA)>
<!ELEMENT INSTALLATION_DIR (#PCDATA)>
<!ELEMENT IP_SET (IP|IP_RANGE)+>
<!ELEMENT IP (#PCDATA)>
<!ELEMENT IP_RANGE (#PCDATA)>

<!ELEMENT LOGIN_TYPE (#PCDATA)>
<!ELEMENT DIGITAL_VAULT (DIGITAL_VAULT_ID, DIGITAL_VAULT_TYPE,
DIGITAL_VAULT_TITLE, VAULT_USERNAME?, VAULT_FOLDER?, VAULT_FILE?,
VAULT_SECRET_NAME?, VAULT_SYSTEM_NAME?, VAULT_NS_TYPE?, VAULT_NS_NAME?)>
<!ELEMENT DIGITAL_VAULT_ID (#PCDATA)>
<!ELEMENT DIGITAL_VAULT_TYPE (#PCDATA)>
<!ELEMENT DIGITAL_VAULT_TITLE (#PCDATA)>
<!ELEMENT VAULT_USERNAME (#PCDATA)>
<!ELEMENT VAULT_FOLDER (#PCDATA)>
<!ELEMENT VAULT_FILE (#PCDATA)>
<!ELEMENT VAULT_SECRET_NAME (#PCDATA)>
<!ELEMENT VAULT_SYSTEM_NAME (#PCDATA)>
<!ELEMENT VAULT_NS_TYPE (#PCDATA)>
```

```
<!ELEMENT VAULT_NS_NAME (#PCDATA)>

<!ELEMENT NETWORK_ID (#PCDATA)>

<!ELEMENT CREATED (DATETIME, BY)>
<!ELEMENT BY (#PCDATA)>
<!ELEMENT LAST_MODIFIED (DATETIME)>
<!ELEMENT COMMENTS (#PCDATA)>


<!ELEMENT WARNING_LIST (WARNING+)>
<!ELEMENT WARNING (CODE?, TEXT, URL?, ID_SET?)>
<!ELEMENT CODE (#PCDATA)>
<!ELEMENT TEXT (#PCDATA)>
<!ELEMENT URL (#PCDATA)>
<!ELEMENT ID_SET (ID|ID_RANGE)+>
<!ELEMENT ID_RANGE (#PCDATA)>

<!ELEMENT GLOSSARY (USER_LIST?)>
<!ELEMENT USER_LIST (USER+)>
<!ELEMENT USER (USER_LOGIN, FIRST_NAME, LAST_NAME)>
<!ELEMENT FIRST_NAME (#PCDATA)>
<!ELEMENT LAST_NAME (#PCDATA)>

<!-- EOF -->
```

Create / Update Sybase record

Use these parameters to create or update a Sybase record. For an update request, all parameters are optional except “ids” which is required.

Parameter	Description
action=create|update	(Required) The action for the API call, create or update.
ids={id1,id2,...}	(Required for update request, Invalid for create request) The IDs of the Sybase records you want to update. Valid IDs are required. Multiple IDs are comma separated.
echo_request={**0**|1}	(Optional) Show (echo) the request’s input parameters (names and values) in the XML output. When not specified, parameters are not included in the XML output. Specify 1 to view parameters in the XML output.
title={value}	(Required for create request) A title for the Sybase record. The title must be unique. Maximum 255 characters (ascii).

Parameter	Description
username={value}	(Required for create request) The username of the account to be used for authentication. If password is specified this is the username of a Sybase account. If login_type=vault is specified, this is the username of a vault account. Maximum 255 characters (ascii).
password={value}	(For create request, password or login_type=vault is required) The password of the Sybase account to be used for authentication. Maximum 100 characters (ascii).
login_type=vault	(For create request, password or login_type=vault is required) The password of the Sybase account to be used for authentication. Maximum 100 characters (ascii). Vault parameters: Vault parameters are required when login_type=vault is specified e.g. vault_id={value}, vault_type={value}, and vault specific settings. For details see the Qualys API V2 User Guide under Unix Record Properties: Vault (in Chapter 8). Supported vault_type values: Cyber-Ark PIM Suite | Cyber-Ark AIM | Quest Vault | Thycotic Secret Server | Lieberman ERPM
port={value}	(Required for create request) The port the Sybase database is on.
database={value}	(Required for create request) The name of the Sybase database you want to authenticate to.
install_dir={value}	(Required for create request if this record will be used for scanning Unix hosts) The database installation directory for scanning Unix hosts.
ips={value}	(Required for a create request) A single IP, multiple IPs and/or ranges. Multiple entries are comma separated.
network_id={value}	(Optional and valid when the networks feature is enabled) The network ID for the record.
comments={value}	(Optional) Specifies user defined notes about the Sybase record. The comments may include a maximum of 1999 characters (ascii); if comments have 2000 or more characters an error is returned and comments are not saved. Tags (such as <script>) cannot be included; if tags are included an error is returned and the request fails.

Example: Create Sybase Record

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: Curl Sample" -d
"action=create&title=sybase_record&network_id=19015&username=acme_ac1
2&password=password&port=444&database=sybaseDB1&ips=10.10.24.12,10.10
.24.13,10.10.24.15&installation_dir=/dir123&comments=This%20Sybase%20
comments" "https://qualysapi.qualys.com/api/2.0/fo/auth/sybase/" >
file.xml
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE BATCH_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/batch_return.dtd">
<BATCH_RETURN>
  <RESPONSE>
    <DATETIME>2017-04-10T20:52:31Z</DATETIME>
    <BATCH_LIST>
      <BATCH>
        <TEXT>Successfully Created</TEXT>
        <ID_SET>
          <ID>78782</ID>
        </ID_SET>
      </BATCH>
    </BATCH_LIST>
  </RESPONSE>
</BATCH_RETURN>
```

Example: Create Sybase Record using Cyber-Ark PIM Suite vault

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: Curl Sample" -d
"action=create&title=CYBER_ARK_DIGITAL_PIM_Vault_Sample&vault_id=1392
49&login_type=vault&vault_type=Cyber-Ark%20PIM%20Suite&folder=Root&fi
le=passwd_abc123&installation_dir=C://dir1/win/vault&username=Syb_Use
r&port=456&database=Syb_db_Cyber-ArkSuite&ips=10.10.25.81-
10.10.25.82&comments=sybase_vault_comments"
"https://qualysapi.qualys.com/api/2.0/fo/auth/sybase/" > file.xml
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE BATCH_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/batch_return.dtd">
<BATCH_RETURN>
  <RESPONSE>
    <DATETIME>2017-04-13T18:54:36Z</DATETIME>
    <BATCH_LIST>
```

```
      <BATCH>
        <TEXT>Successfully Created</TEXT>
        <ID_SET>
          <ID>88888</ID>
        </ID_SET>
      </BATCH>
    </BATCH_LIST>
  </RESPONSE>
</BATCH_RETURN>
```

Example: Update Sybase Record

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: Curl Sample" -d
"action=update&ids=78782&add_ips=10.10.26.238&installation_dir=C://us
er/dir" "https://qualysapi.qualys.com/api/2.0/fo/auth/sybase/" >
file.xml
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE BATCH_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/batch_return.dtd">
<BATCH_RETURN>
  <RESPONSE>
    <DATETIME>2017-04-10T21:01:57Z</DATETIME>
    <BATCH_LIST>
      <BATCH>
        <TEXT>Successfully Updated</TEXT>
        <ID_SET>
          <ID>78782</ID>
        </ID_SET>
      </BATCH>
    </BATCH_LIST>
  </RESPONSE>
</BATCH_RETURN>
```

Delete Sybase records

Use these parameters to delete a Sybase record.

Parameter	Description
action=delete	(Required)
echo_request={**0**|1}	(Optional) Show (echo) the request's input parameters (names and values) in the XML output. When not specified, parameters are not included in the XML output. Specify 1 to view parameters in the XML output.
ids={value}	(Required) Delete only Sybase records with certain IDs and/or ID ranges. Valid IDs are required. Multiple entries are comma separated.

Example: Delete Sybase Record

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: Curl Sample" -d
"action=delete&ids=78187,78783-78784&echo_request=1"
"https://qualysapi.qualys.com/api/2.0/fo/auth/sybase/" > file.xml
```

XML output:

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE BATCH_RETURN SYSTEM
"https://qualysapi.qualys.com/api/2.0/batch_return.dtd">
<BATCH_RETURN>
  <REQUEST>
    <DATETIME>2017-04-10T21:27:22Z</DATETIME>
    <USER_LOGIN>enter_ss</USER_LOGIN>
<RESOURCE>https://qualysapi.qualys.com/api/2.0/fo/auth/sybase/</RESOURCE>
    <PARAM_LIST>
      <PARAM>
        <KEY>action</KEY>
        <VALUE>delete</VALUE>
      </PARAM>
      <PARAM>
        <KEY>ids</KEY>
        <VALUE>78187,78783-78784</VALUE>
      </PARAM>
      <PARAM>
        <KEY>echo_request</KEY>
        <VALUE>1</VALUE>
      </PARAM>
    </PARAM_LIST>
  </REQUEST>
  <RESPONSE>
```

```
      <DATETIME>2017-04-10T21:27:22Z</DATETIME>
      <BATCH_LIST>
        <BATCH>
          <TEXT>Successfully Deleted</TEXT>
          <ID_SET>
            <ID>78187</ID>
            <ID_RANGE>78783-78784</ID_RANGE>
          </ID_SET>
        </BATCH>
      </BATCH_LIST>
    </RESPONSE>
  </BATCH_RETURN>
```

PC - Introducing Qualys Custom Controls in Library Policies

Library policies provided by Qualys may now include a new control type called Qualys Custom Control (QCC). With this new control type we can quickly provide to users new controls that are similar to user-defined controls.

Good to Know

- When you import a library policy with QCCs and you pick the option "Create user-defined controls" at the time of import, the QCCs are added to your controls list. Once added, you can make a copy of any QCC to create a UDC that you can customize to meet your exact needs.

- The QCC itself cannot be edited or deleted. Like service-provided controls, Qualys may update QCCs in subsequent releases to provide new technology support, updates to values, etc. This will not have any impact to the QCCs added to policies.

- In order for us to ensure that we don't add duplicate controls to your list when importing the same library policy multiple times these controls get an internal UDC ID assigned. You'll see the UDC ID when you export a QCC from your account, and when you export a library policy that includes a QCC from your account.

- We made updates to the Policy Export Output DTD and to the ImportableControl.xsd schema to include the new UDC_ID element.

Export a Library Policy to XML

You can export a library compliance policy from your account to an XML file. Just like with user created policies you must specify the input parameter **show_user_controls=1** to include UDCs in the output. When the policy includes a Qualys Custom Control you'll see the UDC ID for the control in the output.

API request:

```
curl -u "USERNAME:PASSWORD" -H "X-Requested-With: curl" -d
"action=export&ids=991742279&show_user_controls=1"
"https://qualysapi.qualys.com/api/2.0/fo/compliance/policy/"
```

XML output:

```
<POLICY>
    <TITLE><![CDATA[Library Policy with 2 UDC v.2.0]]></TITLE>
    <EXPORTED><![CDATA[2017-04-17T15:02:56Z]]></EXPORTED>
    <COVER_PAGE><![CDATA[]]></COVER_PAGE>
    <STATUS><![CDATA[active]]></STATUS>
    <TECHNOLOGIES total="2">
        <TECHNOLOGY>
```

```
            <ID>2</ID>
            <NAME>Windows 2003 Server</NAME>
        </TECHNOLOGY>
        <TECHNOLOGY>
            <ID>12</ID>
            <NAME>Windows 2000</NAME>
        </TECHNOLOGY>
        </TECHNOLOGIES>
    <SECTIONS total="1">
        <SECTION>
            <NUMBER>1</NUMBER>
            <HEADING><![CDATA[Untitled]]></HEADING>
            <CONTROLS total="1">
                <USER_DEFINED_CONTROL>
                    <ID>100005</ID>
                    <UDC_ID>55449d95-1877-7ee5-829a-4eededacb04f</UDC_ID>
                    <CHECK_TYPE>Registry Value Existence</CHECK_TYPE>
                    <CATEGORY>
                        <ID>3</ID>
                      <NAME><![CDATA[Access Control Requirements]]></NAME>
                    </CATEGORY>
                    <SUB_CATEGORY>
                        <ID>1007</ID>
                        <NAME><![CDATA[Authentication/Passwords]]></NAME>
                    </SUB_CATEGORY>
...
```

DTD Update:

The Policy Export Output DTD (policy_export_output.dtd) was updated to include the new element UDC_ID. We also added ID (Control ID) under USER_DEFINED_CONTROL.

```
<!-- QUALYS POLICY_EXPORT_OUTPUT DTD -->
...
<!ELEMENT USER_DEFINED_CONTROL (ID, UDC_ID, CHECK_TYPE, CATEGORY,
SUB_CATEGORY, STATEMENT, CRITICALITY?, COMMENT?, IGNORE_ERROR,
IGNORE_ITEM_NOT_FOUND?, SCAN_PARAMETERS, REFERENCE_TEXT?, TECHNOLOGIES,
REFERENCE_LIST)>
<!ELEMENT UDC_ID (#PCDATA)>
<!ELEMENT CHECK_TYPE (#PCDATA)>
...
```

Export a Library Policy to CSV (UI Only)

You can export a policy to CSV format from the Qualys UI. Select the option "Include user defined controls" to include UDCs in the output and to see the UDC_ID column. When the policy includes a Qualys Custom Control you'll see the UDC ID for the control in the output. You'll see N/A for system-defined controls.

CSV output:

```
"Policy Information"
"Title","Cover Page"
"Library Policy with 2 UDC v.2.0",

"Technologies (2)"
"ID","Name"
"2","Windows 2003 Server"
"12","Windows 2000"

"Control Information"
"Section No.","Section
Heading","Reference","CID","UDC_ID","Statement","Description","Technology
ID","Technology Name","Criticality Label","Criticality
Value","Evaluation"
"1","Untitled",,"100005","55449d95-1877-7ee5-829a-4eededacb04f","Registry
Value Existence",".*","2","Windows 2003 Server","MINIMAL","1","NA

* * * * * Expected Value(s) * * * * *

true"
"1","Untitled",,"100005","55449d95-1877-7ee5-829a-4eededacb04f","Registry
Value Existence",".*","12","Windows 2000","MINIMAL","1","NA

* * * * * Expected Value(s) * * * * *

true"
```

Export a Qualys Custom Control to XML

When you export a Qualys Custom Control (QCC) from your account to XML you'll see the UDC ID in the output.

XML output:

```
<CONTROL_LIST total="1">
    <CONTROL>
        <ID>100005</ID>
        <UDC_ID>55449d95-1877-7ee5-829a-4eededacb04f</UDC_ID>
        <CHECK_TYPE>Registry Value Existence</CHECK_TYPE>
```

```
        <CATEGORY>
            <ID>3</ID>
            <NAME><![CDATA[Access Control Requirements]]></NAME>
        </CATEGORY>
        <SUB_CATEGORY>
            <ID>1007</ID>
            <NAME><![CDATA[Authentication/Passwords]]></NAME>
        </SUB_CATEGORY>
...
```

Schema Update:

The ImportableControl.xsd schema is used when importing and exporting controls. It was updated to include the new element UDC_ID. We also added ID (Control ID) under CONTROL.

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
elementFormDefault="qualified">

    <xs:element name="CONTROL_LIST">
        <xs:complexType>
            <xs:sequence>
                <xs:element maxOccurs="unbounded" ref="CONTROL" />
            </xs:sequence>
           <xs:attribute name="total" use="required" type="xs:integer" />
        </xs:complexType>
    </xs:element>

    <xs:element name="ID" type="xs:integer" />

    <xs:element name="CONTROL">
        <xs:complexType>
            <xs:sequence>
                <xs:element ref="ID" minOccurs="0" maxOccurs="1" />
                <xs:element ref="UDC_ID" minOccurs="0" maxOccurs="1" />
                <xs:element ref="CHECK_TYPE" maxOccurs="1" />
                <xs:element ref="CATEGORY" minOccurs="0" maxOccurs="1" />
               <xs:element ref="SUB_CATEGORY" minOccurs="0" maxOccurs="1"
/>
                <xs:element ref="STATEMENT" maxOccurs="1" />
               <xs:element ref="CRITICALITY" minOccurs="0" maxOccurs="1"
/>
                <xs:element ref="COMMENT" minOccurs="0" maxOccurs="1" />
                <xs:element ref="IGNORE_ERROR" maxOccurs="1" />
                <xs:element ref="IGNORE_ITEM_NOT_FOUND" minOccurs="0"
maxOccurs="1" />
                <xs:element ref="SCAN_PARAMETERS" maxOccurs="1" />
                <xs:element ref="TECHNOLOGY_LIST" maxOccurs="1" />
```

```
                    <xs:element ref="REFERENCE_LIST" maxOccurs="1" />
                </xs:sequence>
            </xs:complexType>
        </xs:element>

    <xs:element name="UDC_ID">
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:minLength value="0"/>
                    <xs:maxLength value="36"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
    ...
```

PC - Remediation Information Displayed in Reports

The Compliance Posture Info API v2 (/api/2.0/fo/compliance/posture/info/) with the action=list and new parameter show_remediation_info now displays remediation information in XML and CSV output formats for PC reports.

Parameters:

Parameter	Description
action=list	(Required) The GET method may be used.
show_remediation_info={0|1}	(Optional) Specifies whether to include the remediation information in the XML or CSV output. By default, the output does not include the remediation information. When not specified, the remediation information is not included in the output. Specify 1 to view the remediation information in the output.

API request (XML Format):

```
curl -n -u "USERNAME:PASSWORD" -H "X-Requested-With: curl"-d
"action=list&policy_id=131562&show_remediation_info=1"
"https://qualysapi.qualys.com/api/2.0/fo/compliance/posture/info/"
```

Sample Output (XML format):

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE POSTURE_INFO_LIST_OUTPUT SYSTEM
"https://qualysapi.qualys.com/api/2.0/fo/compliance/posture/info/posture_
info_list_output.dtd">
<POSTURE_INFO_LIST_OUTPUT>
-<RESPONSE>
<DATETIME>2017-04-07T05:38:33Z</DATETIME>
-<INFO_LIST>
...
<INFO>
        <ID>1731930</ID>
        <HOST_ID>135113</HOST_ID>
        <CONTROL_ID>4156</CONTROL_ID>
        <TECHNOLOGY_ID>37</TECHNOLOGY_ID>
        <INSTANCE></INSTANCE>
        <STATUS>Passed</STATUS>
        <REMEDIATION>Configure the policy value for User Configuration -
&gt; Administrative Templates -&gt; Windows Components -&gt; Attachment
Manager -&gt; "Notify antivirus programs when opening attachments" to
"Enabled".</REMEDIATION>
        <POSTURE_MODIFIED_DATE>2017-04-
07T05:32:37Z</POSTURE_MODIFIED_DATE>
```

```
      </INFO>
      <INFO>
        <ID>1731931</ID>
        <HOST_ID>135113</HOST_ID>
        <CONTROL_ID>8231</CONTROL_ID>
        <TECHNOLOGY_ID>37</TECHNOLOGY_ID>
        <INSTANCE></INSTANCE>
        <STATUS>Failed</STATUS>
        <REMEDIATION>To establish the recommended configuration via GP,
set the following UI path to RC4_HMAC_MD5, AES128_HMAC_SHA1,
AES256_HMAC_SHA1, Future encryption types: Computer
Configuration\Policies\Windows Settings\Security Settings\Local
Policies\Security Options\Network Security: Configure encryption types
allowed for Kerberos</REMEDIATION>
        <POSTURE_MODIFIED_DATE>2017-04-
07T05:32:37Z</POSTURE_MODIFIED_DATE>
      </INFO>
...
</RESPONSE>
</POSTURE_INFO_LIST_OUTPUT>
```

API request (CSV format):

```
curl -n -u "USERNAME:PASSWORD" -H "X-Requested-With: curl"-d
"action=list&policy_id=131562&show_remediation_info=1&output_format=csv"
"https://qualysapi.qualys.com/api/2.0/fo/compliance/posture/info/"
```

Sample Output (CSV format):

```
#NAME?,,,,,,,,,,,,,
POLICY ID,DATETIME,,,,,,,,,,,,
131562,4/7/2017 5:37,,,,,,,,,,,,
,,,,,,,,,,,,,
ID,IP,OS,DNS Name,NetBios,Tracking Method,Control ID,Control
Statement,Criticality Label,Criticality Value,Technology ID,Technology
Name,Posture,Remediation,Evaluation Date
1731930,10.10.30.129,Windows 7 Ultimate,com-30-129,COM-30-
129,IP,4156,Status of the 'Notify antivirus programs when opening
attachments' Group Policy setting,CRITICAL,4,37,Windows
7,Passed,"Configure the policy value for User Configuration ->
Administrative Templates -> Windows Components -> Attachment Manager ->
""Notify antivirus programs when opening attachments"" to
""Enabled"".",4/7/2017 5:24
1731931,10.10.30.129,Windows 7 Ultimate,com-30-129,COM-30-
129,IP,8231,Configure 'Network Security:Configure encryption types
allowed for Kerberos',SERIOUS,3,37,Windows 7,Failed,"To establish the
recommended configuration via GP, set the following UI path to
RC4_HMAC_MD5, AES128_HMAC_SHA1, AES256_HMAC_SHA1, Future encryption
types: Computer Configuration\Policies\Windows Settings\Security
```

```
Settings\Local Policies\Security Options\Network Security: Configure
encryption types allowed for Kerberos",4/7/2017 5:24
...
,,,,,,,,,,,,,
SUMMARY,,,,,,,,,,,,,
TOTAL ASSETS,TOTAL CONTROLS,TOTAL CONTROL INSTANCES,TOTAL PASSED CONTROL
INSTANCES,TOTAL FAILED CONTROL INSTANCES,TOTAL ERROR CONTROL
INSTANCES,,,,,,,,
4,3,12,4,4,4,,,,,,,,
#NAME?,,,,,,,,,,,,,
```

Posture Info List Output DTD update:

Path: <base_url>/api/2.0/fo/compliance/posture/info/posture_info_list_output.dtd

```
<!-- QUALYS POSTURE_INFO_LIST_OUTPUT DTD -->
<!ELEMENT POSTURE_INFO_LIST_OUTPUT (REQUEST?,RESPONSE)>

<!ELEMENT REQUEST (DATETIME, USER_LOGIN, RESOURCE, PARAM_LIST?,
POST_DATA?)>
...
   <!ELEMENT POLICY (ID, DATETIME, INFO_LIST?, SUMMARY?, WARNING_LIST?,
GLOSSARY?)>

<!ELEMENT INFO_LIST (INFO+)>
<!ELEMENT INFO (ID, HOST_ID, CONTROL_ID, TECHNOLOGY_ID, INSTANCE?, STATUS,
REMEDIATION?, POSTURE_MODIFIED_DATE?, EXCEPTION?, EVIDENCE?)>
<!ELEMENT ID (#PCDATA)>
<!ELEMENT HOST_ID (#PCDATA)>
<!ELEMENT CONTROL_ID (#PCDATA)>
<!ELEMENT TECHNOLOGY_ID (#PCDATA)>
<!ELEMENT INSTANCE (#PCDATA)>
<!ELEMENT STATUS (#PCDATA)>
<!ELEMENT REMEDIATION (#PCDATA)>
<!ELEMENT POSTURE_MODIFIED_DATE (#PCDATA)>
<!ELEMENT EXCEPTION (ASSIGNEE, STATUS, END_DATETIME?, CREATED?,
LAST_MODIFIED?, COMMENT_LIST?)>
<!ELEMENT ASSIGNEE (#PCDATA)>
<!ELEMENT END_DATETIME (#PCDATA)>
<!ELEMENT CREATED (BY, DATETIME)>
<!ELEMENT BY (#PCDATA)>
<!ELEMENT LAST_MODIFIED (BY, DATETIME)>
<!ELEMENT COMMENT_LIST (COMMENT+)>
<!ELEMENT COMMENT (DATETIME, BY, TEXT)>
<!ELEMENT TEXT (#PCDATA)>
...
<!ELEMENT TOTAL_ERROR (#PCDATA)>
<!ELEMENT TOTAL_EXCEPTIONS (#PCDATA)>
<!-- EOF -->
```