

SAP IQ Authentication

Thank you for your interest in authenticated scanning! When you configure and use authentication, you get a more in-depth assessment of your hosts, the most accurate results and fewer false positives. This document provides tips and best practices for setting up SAP IQ authentication for compliance scans.

A few things to consider

Why should I use authentication?

With authentication, we can remotely log in to each target system with credentials that you provide, and because we're logged in we can do more thorough testing. This will give you better visibility into each system's security posture. Is it required? Yes, it's required for compliance scans.

Are my credentials safe?

Yes, credentials are exclusively used for READ access to your system. The service does not modify or write anything on the device in any way. Credentials are securely handled by the service and are only used for the duration of the scan.

Which technologies are supported?

For the most current list of supported authentication technologies and the versions that have been certified for VM and PC by record type, please refer to the following article:

[Authentication Technologies Matrix](#)

What are the steps?

First, set up a SAP IQ user account and privileges (on target hosts) for authenticated scanning. Then, using Qualys Policy Compliance, complete these steps: 1) Add a SAP IQ authentication record. 2) Launch a compliance scan. 3) Run the Authentication Report to find out if authentication passed or failed for each scanned host.

SAP IQ Credentials

We've provided a set of scripts below to help you set up an account and privileges which must exist prior to running scans. These scripts require an Admin account. Please run the scripts provided, in the order shown. The role and scan account need to be created in the database you want to scan.

1) Create a Role for the Scan Account

This script creates a role for the user account to be used for scanning. It also grants privileges to the role needed for successful authentication and compliance scanning. We recommend creating a role called QUALYS_ROLE.

```
CREATE ROLE QUALYS_ROLE;  
GRANT MONITOR to QUALYS_ROLE;
```

2) Create a User Account

This script creates a scan user account. Please provide a password before running the script. The script also grants the role created in Step 1 to the account. Tip – We recommend creating an account called QUALYS_SCAN.

```
CREATE USER QUALYS_SCAN IDENTIFIED BY <password>;  
GRANT ROLE QUALYS_ROLE to QUALYS_SCAN;
```

3) Verify Privileges on the Scan Account

3a) Verify that you login to SAP IQ Database as QUALYS_SCAN and can run below query successfully.

```
select count(1) from sysusers;
```

3b) Verify that the QUALYS_SCAN account has all the privileges listed in the below table in order to run a successful compliance scan for the database you want to scan. Log into the instance using the Admin account, then run the following query to verify the privilege assigned to the 'QUALYS_SCAN' account.

```
CALL sp_displayroles( 'QUALYS_SCAN', 'expand_down', 'ALL' ) ;
```

Expected output:

role_name	parent_role_name	grant_type	role_level
PUBLIC	(NULL)	NO ADMIN	1
QUALYS_ROLE	(NULL)	NO ADMIN	1
SYS	PUBLIC	NO ADMIN	2
dbo	PUBLIC	NO ADMIN	2
MONITOR	QUALYS_ROLE	NO ADMIN	2

Did you get different results? Contact your SAP IQ DBA to ensure that privileges are set up correctly.

SAP IQ Authentication Records

You'll create SAP IQ authentication records in Qualys to associate credentials to hosts (IPs). You'll need to supply a user name and password (or use password vault), the database you want to authenticate to and the port the database is on. This record type is only available in accounts with PC or SCA, and is only supported for compliance scans.

How do I get started?

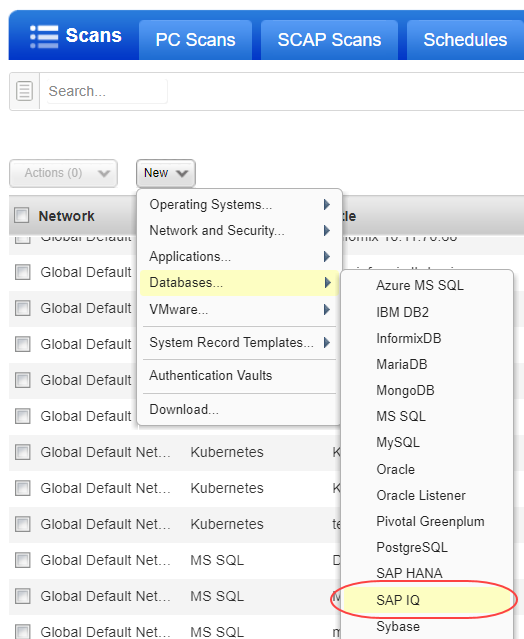
Go to **Scans > Authentication**, and then go to **New > Databases > SAP IQ**.

In the SAP IQ record, you'll see **Authentication Type: Basic** selected by default on the **Login Credentials** tab. Enter the user name and password to use for authentication.

Can I access a password in a vault?

Yes. We support integration with multiple third party password vaults. To use vaults, first go to **Scans > Authentication > New > Authentication Vaults** and tell us about your vault system.

In the SAP IQ record, choose **Authentication Type: Vault based** on the **Login Credentials** tab and select your vault type and vault record. At scan time, we'll authenticate to hosts using the account name in your record and the password we find in your vault.

A screenshot of the 'New SAP IQ Record' form in Qualys. The form has a blue header with the title 'New SAP IQ Record' and a 'Launch Help' link. On the left, there's a sidebar with tabs: 'Record Title', 'Login Credentials' (selected), 'IPs', and 'Comments'. The main content area is divided into two sections. The 'Authentication' section has a description: 'Provide login credentials for the SAP IQ database. You also have the option to get the login password from a vault available in your account.' It contains fields for 'Authentication Type' (set to 'Vault based'), 'Username*' (with a placeholder 'Enter username'), 'Vault Type', and 'Vault Record*'. The 'Vault Record*' dropdown is open, showing a list of vault types: 'CA Access Control', 'CyberArk PIM Suite', 'CyberArk AIM', 'Hitachi ID PAM', 'Lieberman ERP', 'Quest Vault', 'Thycotic Secret Server', 'BeyondTrust PBPS', 'Wallix AdminBastion (WAB)', 'HashiCorp', 'Azure Key', 'CA PAM', and 'Arcon PAM'. The 'Database Information' section has a description: 'Tell us the name and port the database instance to authenticate to. For Unix hosts, the installation directory is also required.' It contains fields for 'Database Name*', 'Installation Directory', and 'Port*'. At the bottom, there are 'Cancel' and 'Create' buttons.

What database information is required?

On the **Login Credentials** tab, tell us the database name to authenticate to and the port the database is running on. The installation directory name is required only for Unix based hosts.

The screenshot shows the 'New SAP IQ Record' form with the 'Login Credentials' tab selected. The form is divided into two main sections: 'Authentication' and 'Database Information'. The 'Authentication' section includes a dropdown for 'Authentication Type' (set to 'Basic'), text boxes for 'Username*', 'Password*', and 'Confirm Password*', and a checkbox for 'Enable Password Encryption'. The 'Database Information' section includes text boxes for 'Database Name*', 'Installation Directory*', and 'Port*', with a note that the installation directory is required for Unix-based hosts. The left sidebar shows the 'Login Credentials' tab as the active selection. At the bottom are 'Cancel' and 'Create' buttons.

Which IPs should I add to my record?

Select the IP addresses for the SAP IQ databases that the scanning engine should log into using the specified credentials.

The screenshot shows the 'New SAP IQ Record' form with the 'IPs' tab selected. The form has a title 'Add IPs to your SAP IQ record.' and a large text area for 'Enter or Select IPs/Ranges:'. Above the text area are links for 'Select IPs/Ranges', 'Select Asset Group', 'Remove', and 'Clear'. Below the text area is a checkbox labeled 'Display each IP/Range on new line'. The left sidebar shows the 'IPs' tab as the active selection. At the bottom are 'Cancel' and 'Create' buttons.

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