

Guardium Vulnerability Assessment V11.2: New Features Overview

and

VA + ServiceNow Integration

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New Features

- New database release support for VA
- DPS upload validation and history reporting
- MySQL SSL and Sybase ASE SSL connection
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Integration demo

- Vulnerability Assessments and External Ticketing Service Integration in Guardium v11.2

New database release support by VA

- DB2 LUW 11.5
- Informix 14.1
- SQL Server 2019
- Cloudera 6.x
 - Cloudera Certified solution
 - Hive datasource now supports TLS when using Kerberos authentication.

The screenshot displays the configuration page for a Cloudera Hive datasource. The form includes the following fields and options:

- Application type:** Security Assessment (dropdown)
- Name:** DPS: Cloudera Hive 6.3 on cdh63-02 (Kerberos) (text)
- Database type:** HIVE (dropdown)
- Description:** cdh63-02 and cdh63-03 are hiveserver services. (text)
- Share datasource:** ☒ (checkbox)
- Use SSL:** ☒ (checkbox) with an **Add certificate** button.
- Import server ssl certificate:** ☒ (checkbox)
- Use kerberos:** ☒ (checkbox)
- Kerberos config:** DBANET4 (dropdown)
- Realm:** DBANET4.ROOT (text)
- KDC:** dbanetd04.swg.usma.ibm.com (text)
- Authentication:**
 - Credential type:** ☒ Assign credentials, ☐ External password, ☐ None (radio buttons)
- User name:** user1 (text)
- Password:** masked with dots (text)
- Location:** (text)
- Host name/IP:** cdh63-02.swg.usma.ibm.com (text)
- Port number:** 10000 (text)
- Database:** default (text)
- Connection property:** Ex: prop1=value;prop2=value (text)
- Custom URL:** (text)

Below the form, there is a **Show advanced options** link and a green status bar indicating **Connection successful** with a close icon.

At the bottom of the interface, there are three buttons: **Test connection**, **Save**, and **Close**.

DPS validation

- Guardium v11.2 now validates the DPS upload.
 - You cannot upload a DPS from another version.
 - You cannot upload an older DPS than what you already have.
 - You can upload the same DPS again.

Customer Uploads

DPS Upload

No file selected.

Update Group Members from Master With Subscription
Successfully completed at 2020-05-14 10:40:56
(Guardium_V11_Quarterly_DPS_2020_Q2_20200515.enc)

DPS upload history

- Guardium v11.2 allows you to track the DPS upload history and see its status.
- In the Guardium CLI, run the following command: “show dps”

```
gva07.guard.swg.usma.ibm.com> show dps
DPS Upgrade History:
DPS File Name                               DPS Type   Start Time   End Time     Status
-----
Guardium_V11_Quarterly_DPS_2020_Q1_20200217.enc  QUARTER    2020-03-30 18:12:27  2020-03-30 19:56:38  DPS upgrade completed
Guardium_V11_Quarterly_DPS_2020_Q1_20200217.enc  QUARTER    2020-04-02 18:00:56  2020-04-02 18:01:36  DPS upgrade completed
Guardium_V11_Rapid_Response_DPS_For_2020_Q1_202004  RAPID      2020-04-07 10:21:51  2020-04-07 10:21:52  DPS upgrade completed
Guardium_V11_Rapid_Response_DPS_For_2020_Q1_202004  RAPID      2020-04-08 17:04:50  2020-04-08 17:04:50  DPS upgrade completed
Guardium_V11_Quarterly_DPS_2020_Q1_20200420.enc  QUARTER    2020-04-20 17:36:34  2020-04-20 17:38:04  DPS upgrade completed
Guardium_V11_Quarterly_DPS_2020_Q1_20200422.enc  QUARTER    2020-04-22 19:24:40  2020-04-22 19:25:19  DPS upgrade completed
Guardium_V11_Quarterly_DPS_2020_Q2_20200515.enc  QUARTER    2020-04-28 17:15:02  2020-04-28 17:15:55  DPS upgrade completed
Guardium_V11_Quarterly_DPS_2020_Q2_20200515.enc  QUARTER    2020-05-01 15:44:08  2020-05-01 15:44:50  DPS upgrade completed
Guardium_V11_Quarterly_DPS_2020_Q2_20200515.enc  QUARTER    2020-05-14 10:40:17  2020-05-14 10:40:56  DPS upgrade completed

DPS Upgrade Parameter Status:
Update Group Members from Master With Subscription Successfully completed at 2020-05-14 10:40:56 (Guardium_V11_Quarterly_DPS_2020_Q2_20200515.enc)
ok
gva07.guard.swg.usma.ibm.com>
```

MySQL datasource with SSL

- Guardium v11.2 now supports SSL connections for MySQL 5.6, 5.7 and 8.0.
- You can connect without SSL, SSL server side or SSL x509 authentication.

Application type: Security Assessment

Name: mysql 57 rh6u4x6411-va01 ssluser

Database type: MySQL

Description:

☒ Share datasource ?

☒ Use SSL [Add certificate](#)

☒ Import server ssl certificate

Authentication

Credential type: ☒ Assign credentials ☐ External password ☐ None

User name: ssluser

Password: *****

Location

Host name/IP: rh6u4x6411-va01.guard.swg.usma.ibm.com

Port number: 3406

Database: mysql

Connection property: Ex: prop1=value,prop2=value

Custom URL:

[Show advanced options](#)

Connection successful

[Test connection](#) [Save](#) [Close](#)

Application type: Security Assessment

Name: mysql 57 rh6u4x6411-va01 user509

Database type: MySQL

Description:

☒ Share datasource ?

☒ Use SSL [Add certificate](#)

☒ Import server ssl certificate

Authentication

Credential type: ☒ Assign credentials ☐ External password ☐ None

User name: user509

Password: *****

Location

Host name/IP: rh6u4x6411-va01.guard.swg.usma.ibm.com

Port number: 3406

Database: mysql

Connection property: Ex: prop1=value,prop2=value

Custom URL:

[Show advanced options](#)

Connection successful

[Test connection](#) [Save](#) [Close](#)

Sybase ASE datasource with SSL

- Guardium v11.2 now supports SSL connections for Sybase ASE v15.7 and 16.x.
- SSL is for server side only. No pem file is required.

Application type: Security Assessment

Name: Sybase 16 SP02 PL08 on rh8x64t

Database type: Sybase

Description:

☒ Share datasource ?

☒ Use SSL [Add certificate](#)

☒ Import server ssl certificate

Authentication

Credential type: ☒ Assign credentials ☐ External password ☐ None

User name: sa

Password: *****

Location

Host name/IP: rh8x64t

Port number: 4301

Database:

Connection property: Ex: prop1=value,prop2=value

Custom URL:

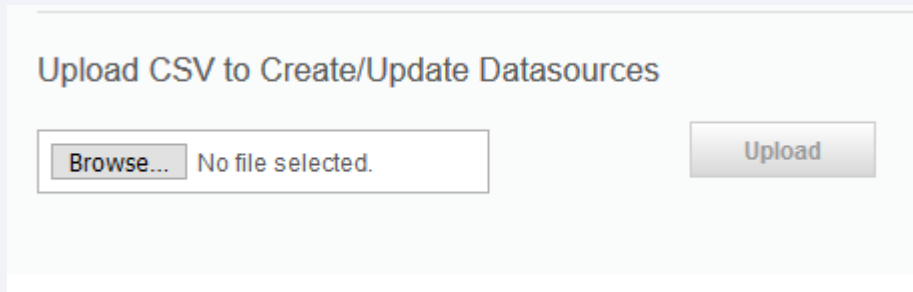
[Show advanced options](#)

☒ Connection successful

[Test connection](#) [Save](#) [Close](#)

Upload CSV to Create/Update Datasources

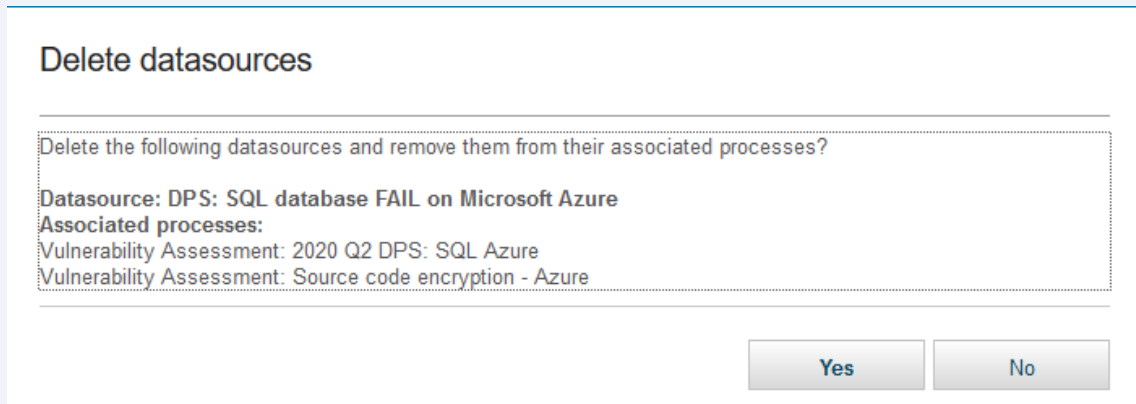
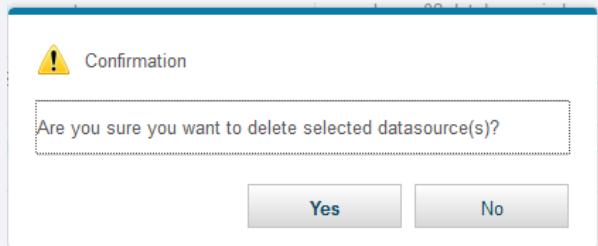
- Guardium v11.2 now supports adding and updating roles to datasources using the upload csv feature.
- You would add another column called “Role” to the csv file. You don’t need to provide a role if it is not required.
- You can add multiple roles per datasource separated by a semicolon.



The screenshot shows a web interface for uploading a CSV file. At the top, the title 'Upload CSV to Create/Update Datasources' is displayed. Below the title, there is a file selection area containing a 'Browse...' button and the text 'No file selected.'. To the right of this area is an 'Upload' button.

Datasource deletion with CASCADE option

- When you delete a datasource and if that datasource is used by an application, it will prompt you if you want to continue. If so, it will remove the datasource and the datasource from VA, Classification, datasource group and others.



New Platform support:

What's New

- **SQL DB** on Microsoft Azure
 - We are introducing 33 new SQL DB Azure tests

Benefits

- We are supporting one of the popular DBs on Microsoft's Azure Cloud platform.

New Updates

What's New

- **SQL Server** 2016 STIG Benchmark
 - 41 new SQL Server 2016 STIG tests.

Benefits

- We've updated our support for SQL Server with new applicable tests and updated references.

- We have created a new gdmmonitor script to support SQL DB Azure and enhanced the existing SQL Server gdmmonitor script to support the SQL Server 2016 STIG.

VA resume after HALTED

- HALTED assessments happen after a test takes more than 30 minutes to execute, system reboot, UI restart or Classifier restart.
- Before 11.2, when an assessment is HALTED, it is usually killed by the nanny OS process due to a test taking longer than 30 minutes to execute. Users would have to re-run the entire assessment again.
- In Guardium 11.2, if an assessment is HALTED regardless of the cause, it will resume as soon as the classifier process comes back online.
- If a HALTED is caused by a test taking over 30 minutes to execute, it will skip over that test and continue to the next one in the same datasource.
- If a HALTED is caused due to OS, UI, classifier reboot or HALTED due to another multi-thread assessment causing the HALTED, it will resume where it left off without skipping any tests.

VA test HALTED result

- The test that caused the HALTED condition and was skipped, gets an Error test score.

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Results for Security Assessment:  Oracle - HALTED Test with 8 DS

Assessment executed: 2020-05-28 10:02:31



Oracle Application Express

Test category: Conf. Test severity: Major

DPS: Oracle 12.1.0.1 CVE w2k12std03-va on2pw2k1 WindBundle_DS01

Datasource type: ORACLE Datasource severity: None

Error

The test had taken too long to complete and caused the VA process to hang. Skipping to run the next test in the resumed VA scan.

Short Description: The Oracle Application Express, formerly called HTML DB, is an application development component installed by default with Oracle. Unauthorized application development can introduce a variety of vulnerabilities to the database.

STIG Reference: DO6753, O121-C2-011600

STIG Severity: CAT II

STIG Iacontrols: ECSD-1, ECSD-2

STIG Srg: SRG-APP-000141-DB-000091

Recommendation: Please correct the error condition and run the Assessment again.

Details

N/A

[Close this window](#)

DB2 LUW special patch for CVE

- Before Guardium 11.2, the DB2 LUW CVE test mechanism recognized DB2 fixes in the form of database version and fix pack number. If there is a special fix within the fix pack, we would only credit that in the next fix pack numbering.
- In Guardium 11.2 for DB2 LUW 11.1 and lower release, we can recognize the special build.
 - Special builds are not cumulative, a higher special build number does not guarantee a security fix that a lower number has.
 - When a customer's DB2 has a special build higher than the CVE's test requirement, it does not mean they pass the test. The mechanism then does additional checks against the Guardium group "DB2 LUW Database Special Security Fixes" to see if the customer's special fix is in this group. If it is, then the test passes. If not, the test fails.
 - The "DB2 LUW Database Special Security Fixes" group will be maintained and updated by the quarterly DPS going forward. We will continue to add new special fixes as we see them. The customer also has the ability to add their special fix into this group, if they have a DB2 fix they know that addresses the security fixes.
 - New DB2 LUW CVE tests that use this mechanism, will be released in the Q3 2020 DPS and moving forward. We do not change older CVE tests logic or metadata. DB2 LUW Database Special Security Fixes.
 - Guardium v10.6 patch 650 includes DB2 LUW Special fix build feature.

Vulnerability Assessments and External Ticketing Service Integration in Guardium v11.2

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Agenda

Presentation

Integration features overview

External ticketing system account

External ticketing system configuration

Creating tickets for VA failed tests

Viewing tickets

Updating tickets

Purging tickets

ServiceNow CMDB

Live Demo

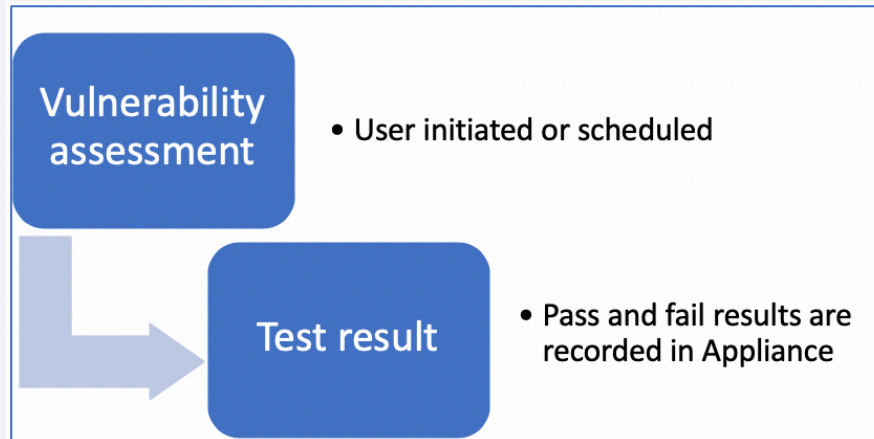
Q&A

Integration features overview

Benefits

Before

- VA test results were recorded in Appliance only.
- Users have to access Guardium system to review test results.

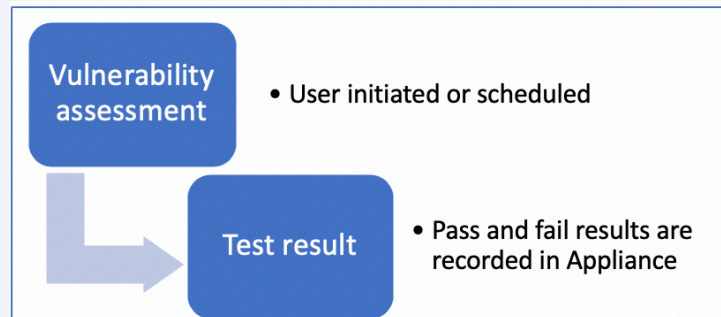


Integration features overview

Benefits

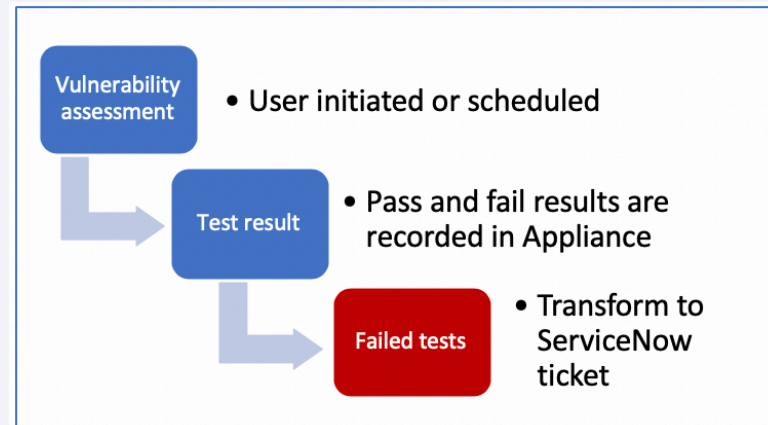
Before

- VA test results were recorded in Appliance only.
- Users have to access Guardium system to review test results.



After

- For failed VA test results, a ticket is created on the external ticketing system.
- The external ticketing systems, known as incident tracking systems, usually have workflow, charts, notification and other services to help the customers manage tasks.



VA integration with ServiceNow in Guardium v11.2

- Tickets are created in ServiceNow for failed VA tests in a few ways:
 - Automatically create tickets during VA job run
 - Manually create tickets from VA test results page
 - Automatically create tickets when VA task is executed in an audit process

External ticketing system account

Add external ticketing account information to Guardium central manager:

- Setup > Tools and Views > External Ticketing System
 - Add account
 - » URL: ServiceNow instance
 - » Account: user credential to access the ServiceNow instance
 - » Click “Test connection”
 - » When successful, save the account

The screenshot shows the 'External Ticketing System' interface with a modal dialog titled 'Add account'. The dialog contains the following fields and controls:

- * Type:** A dropdown menu with 'ServiceNow' selected.
- Location:** A text input field.
- * URL:** A text input field containing 'https://dev67612.service-now.com'.
- Account:** A section header for the following fields.
- * User name:** A text input field containing 'admin'.
- Password:** A text input field with masked characters '*****'.
- Test connection:** A button to verify the account details.
- Save:** A button at the bottom right of the dialog.
- Close:** A button at the bottom right of the dialog.

The background interface shows a table with columns 'Service' and 'Connection', and a 'Manage accounts' button.

External ticketing system configuration

Create an external ticketing configuration for Vulnerability Assessment:

- NOTE: when we create the first external ticketing system account in Guardium, four external ticketing system configurations are created automatically. "VA Results" is one of them
- If any ticket operation failed, the "connection" will show a red X. The connection should be edited and tested again

External Ticketing System			
<div><div><div></div><div></div><div></div><div></div><div></div></div><div>Manage accounts</div><div>Filter</div></div>			
<input type="checkbox"/> Service	Guardium Type	Connection	
<input type="checkbox"/> ServiceNow	Alert		✓
<input type="checkbox"/> ServiceNow	Risk Spotter		✓
<input type="checkbox"/> ServiceNow	Threat Analytics		✓
<input type="checkbox"/> ServiceNow	Vulnerability Assessment		✓
Total: 4 Selected: 0			1

External ticketing system configuration

The configuration dialog contains three tabs:

- Account
- Settings
- Status

The screenshot displays the 'External Ticketing System' configuration interface. It features a table with columns for 'Service', 'Guardium Type', and 'Connection'. The table lists four 'ServiceNow' accounts, each associated with a different Guardium Type (Alert, Risk Spotter, Threat Analytics, and Vulnerability Assessment). The 'Vulnerability Assessment' account is selected. Below the table, a configuration dialog titled 'External Ticketing System Configuration' is open, showing the 'Account' tab. The dialog includes a text input field for the account name, a 'Test connection' button, and 'Save' and 'Close' buttons at the bottom.

Service	Guardium Type	Connection
<input type="checkbox"/> ServiceNow	Alert	<input checked="" type="checkbox"/>
<input type="checkbox"/> ServiceNow	Risk Spotter	<input checked="" type="checkbox"/>
<input type="checkbox"/> ServiceNow	Threat Analytics	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> ServiceNow	Vulnerability Assessment	<input checked="" type="checkbox"/>

Total: 4 Selected

External Ticketing System Configuration

Account | Settings | Status

* Account

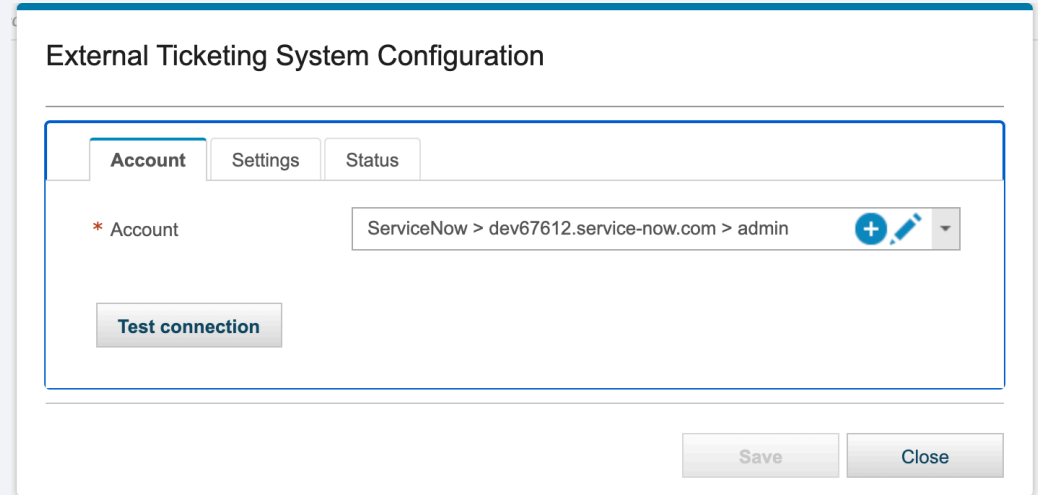
Test connection

Save **Close**

External ticketing system configuration

Account tab

- Specifies the account created in previous step.
- Can add or edit account.



The screenshot shows a configuration window titled "External Ticketing System Configuration". It has three tabs: "Account" (selected), "Settings", and "Status". In the "Account" tab, there is a label "* Account" followed by a text input field containing "ServiceNow > dev67612.service-now.com > admin". To the right of the input field is a blue circular icon with a white plus sign and a pencil, indicating an add/edit function. Below the input field is a "Test connection" button. At the bottom right of the window are "Save" and "Close" buttons.

External ticketing system configuration

Settings tab

- Specifies the fields included in the tickets.
- Can specify severity options that tickets will be automatically created when the failed VA tests meet the severity criteria.

External Ticketing System Configuration

Account

Settings

Status

* Guardium system


Vulnerability Assessment Results

* Template

Problem

Automatically create tickets when severity is

Critical, Major

Guardium fields	ServiceNow field	Computed value
<div>assessment_name datasource_id datasource_name datasource_type datasource_ip datasource_port test_id test_category test_description test_external_reference test_recommendation test_result test_score test_score_description test_severity test_short_description test_stig_reference</div>	<div>Description</div> <div>Short description</div> <div>Additional field </div>	<div>assessment_name : \${assessment_name} datasource_id : \${datasource_id} datasource_name : \${datasource_name} datasource_type : \${datasource_type} datasource_ip : \${datasource_ip} datasource_port : \${datasource_port} test_id : \${test_id} test_category : \${test_category}</div> <div>IBM Guardium database assessment failure: \${t</div>

>>

Save

Close

External ticketing system configuration

Status tab

- Lets user enable debug logging level on VA results ticketing activities.
 - Default logging level logs for INFO, WARN, ERROR, FATAL levels
- Lets user view the VA results ticketing logs.



External Ticketing System Configuration

Account

Settings

Status

Log file

 7/9/2020 

☐ Enable debug

[INFO] 01:54:27 - [GuardTicketMonitor] getting active tickets for VA_RESULT

[INFO] 01:54:28 - [GuardTicketMonitor] getting Guardium records for VA_RESULT

[INFO] 02:54:26 - [GuardTicketMonitor] getting active tickets for VA_RESULT

[INFO] 02:54:26 - [GuardTicketMonitor] no active tickets for VA_RESULT

[INFO] 03:54:25 - [GuardTicketMonitor] getting active tickets for VA_RESULT

[INFO] 03:54:25 - [GuardTicketMonitor] no active tickets for VA_RESULT

[INFO] 04:54:26 - [GuardTicketMonitor] getting active tickets for VA_RESULT

[INFO] 04:54:26 - [GuardTicketMonitor] no active tickets for VA_RESULT

[INFO] 05:54:26 - [GuardTicketMonitor] getting active tickets for VA_RESULT

[INFO] 05:54:26 - [GuardTicketMonitor] no active tickets for VA_RESULT

[INFO] 06:54:25 - [GuardTicketMonitor] getting active tickets for VA_RESULT

[INFO] 06:54:25 - [GuardTicketMonitor] no active tickets for VA_RESULT

[INFO] 07:54:27 - [GuardTicketMonitor] getting active tickets for VA_RESULT

[INFO] 07:54:28 - [GuardTicketMonitor] getting Guardium records for VA_RESULT

[INFO] 08:54:26 - [GuardTicketMonitor] getting active tickets for VA_RESULT

[INFO] 08:54:27 - [GuardTicketMonitor] getting Guardium records for VA_RESULT

[INFO] 09:54:26 - [GuardTicketMonitor] getting active tickets for VA_RESULT

[INFO] 09:54:27 - [GuardTicketMonitor] no active tickets for VA_RESULT

[INFO] 10:54:27 - [GuardTicketMonitor] getting active tickets for VA_RESULT

[INFO] 10:54:28 - [GuardTicketMonitor] getting Guardium records for VA_RESULT

Save

Close

Creating tickets for VA failed tests

- Tickets are created on ServiceNow for failed VA tests in a few ways:
 - Automatically create tickets during VA job run
 - Manually create tickets from VA test results page
 - Automatically create tickets when VA task is executed in an audit process

Creating tickets for VA failed tests

- Automatically create tickets during VA job run
 - In External Ticketing Configuration for VA Results, set “Critical, Major” severity levels to get tickets automatically created if the test fails

External Ticketing System Configuration

Account Settings Status

* Guardium system Vulnerability Assessment Results

* Template Problem

Automatically create tickets when severity is Critical, Major

Guardium fields	ServiceNow field	Computed value
assessment_name datasource_id datasource_name datasource_type datasource_ip datasource_port test_id test_category test_description test_external_reference test_recommendation test_result test_score test_score_description test_severity test_short_description test_stig_reference	Description	assessment_name : \${assessment_name} datasource_id : \${datasource_id} datasource_name : \${datasource_name} datasource_type : \${datasource_type} datasource_ip : \${datasource_ip} datasource_port : \${datasource_port} test_id : \${test_id} test_category : \${test_category}
	Short description	IBM Guardium database assessment failure: \${t
	Additional field +	

>>

Save Close

Creating tickets for VA failed tests

- Automatically create tickets during VA job run
- In External Ticketing Configuration for VA Results, set “Critical, Major” severity levels to get tickets automatically created if the test fails
- Create a vulnerability assessment with various severity levels

Assessment Test Selections ?

Tests for Security Assessment SA1





Select All Unselect All Delete Selected

Type	Test Name	Tuning
<input type="checkbox"/> ORACLE	Case-sensitive logon is enabled	CONF Major (n/a) :
<input type="checkbox"/> ORACLE	Check Default Port Number listen by Oracle (non RAC)	CONF Major (n/a) :
<input type="checkbox"/> ORACLE	Check Oracle Sample Users Removed	CONF Major (n/a) :
<input type="checkbox"/> ORACLE	Check Parameter LOCAL_LISTENER Setting	CONF Major (n/a) :
<input type="checkbox"/> ORACLE	CVE-2020-2734	CONF Cautionary (n/a)
<input type="checkbox"/> ORACLE	CVE-2020-2737	CONF Minor (n/a) :
<input type="checkbox"/> ORACLE	CVE_Oracle_end_of_life_support	CONF Major (n/a) :
<input type="checkbox"/> ORACLE	Database Auditing	CONF Major (n/a) :

Creating tickets for VA failed tests

- Automatically create tickets during VA job run
 - In External Ticketing Configuration for VA Results, set “Critical, Major” severity levels to get tickets automatically created if the test fails
 - Create a vulnerability assessment with various severity levels
 - Run the vulnerability assessment
 - After job run completed, click “View Results”

Security Assessment Finder

SA1

[Configure Tests](#) [Comments](#) [Run Once Now](#) [View Results](#) [Test Detail Exceptions](#)

User-defined tests

[Query-based Tests](#) [CAS-based Tests](#)

Creating tickets for VA failed tests

– Automatically create tickets during VA job run

- In External Ticketing Configuration for VA Results, set “Critical, Major” severity levels to get tickets automatically created if the test fails
- Create a vulnerability assessment with various severity levels
- Run the vulnerability assessment
- After job run completed, click “View Results”
- Failed tests with “Critical” and “Major” severity levels have tickets created on ServiceNow during job run

Assessment Test Results		Compare with other results	Showing 29 of 29 results (0 filtered)
Test / Datasource	Result		
DBA Profile PASSWORD_LIFE_TIME Is Limited Test category: Conf. Severity: Critical Test ID: 132 This test checks the value of the PASSWORD_LIFE_TIME parameter. The PASSWORD_LIFE_TIME value serves as a limit to the number of days until a password expires. Setting this value ensures that users change their passwords at specified intervals. PASSWORD_LIFE_TIME can be set to any of the following: A specific number of days; UNLIMITED, meaning never require an account to change the password; or to DEFAULT, which uses the value indicated in the DEFAULT profile. Leaving this value on UNLIMITED allows users to use the same passwords indefinitely. This parameter is set for profiles; accounts must then be associated with these profiles. Ext. Reference: CIS Oracle v2.01 Item # 8.02, CIS Oracle 11gR2 v1.0.0 Item # 3.3, CIS Oracle 12c v2.01 Item # 3.3 STIG Reference: DO3485, DG0125 DBMS account password expiration, O121-C2-015200, O121-C2-013800 STIG Severity: CAT II STIG Iacontrols: IAIA-1, IAIA-2 STIG Srg: SRG-APP-000174-DB-000080, SRG-APP-000163-DB-000113 DS_oracle Datasource type: ORACLE Severity: None	Fail User profile setup parameter PASSWORD_LIFE_TIME found out of defined threshold value Add test exception ServiceNow ticket created on 7/9/20 12:08:14 PM.000 Recommendation: The PASSWORD_LIFE_TIME parameter is not set, allowing users to retain the same password indefinitely. Passwords that have been in use for long periods are likely to become known to unauthorized users. We recommend that you set this parameter in order to limit the lifetime of users' passwords. You can modify your PASSWORD_LIFE_TIME setting by running a command similar to this example: For Oracle11 ALTER PROFILE <PROFILE_NAME> LIMIT PASSWORD_LIFE_TIME 60 - For Oracle12c non-container DBs See Oracle Documentation for more info for 12c and up regarding Profiles that are not "COMMON" and are container specific. For example : ALTER PROFILE C##<PROFILE_NAME> LIMIT PASSWORD_LIFE_TIME 60 container=all		
DBA Profile PASSWORD_VERIFY_FUNCTION Is Implemented Test category: Conf. Severity: Critical Test ID: 133 This test checks the value of the PASSWORD_VERIFY_FUNCTION parameter for all profiles. The PASSWORD_VERIFY_FUNCTION value specifies a PL/SQL function to be used for password verification when users are creating this profile for a database. This function can be used to	Fail Found active profiles with PASSWORD_VERIFY_FUNCTION not implemented Add test exception ServiceNow ticket created on 7/9/20 12:08:14 PM.000 Recommendation: The Password Verification Routine has not been implemented		
Check Oracle Sample Users Removed Test category: Conf. Severity: Major Test ID: 2453 This test checks the sample user accounts that have been removed. These default sample accounts created by Oracle that have well-known passwords can be potentially used to alter or damage the database. These accounts should be removed after confirming that the sample schemas are really sample schemas. Ext. Reference: CIS Oracle v2.01 Item # 2.08, CIS Oracle 11gR2 v1.0.0 Item #1.2, CIS Oracle 12c v2.01 Item # 1.3 STIG Reference: DG0014, O121-C2-011500 STIG Severity: CAT II STIG Iacontrols: DCFA-1 STIG Srg: SRG-APP-000141-DB-000090 DS_oracle Datasource type: ORACLE Severity: None	Fail The sample accounts have not been removed, which is a vulnerability. Add test exception ServiceNow ticket created on 7/9/20 12:08:16 PM.000 Recommendation: These default sample accounts can be potentially used to alter database system. You should remove the default sample accounts. You can use the following command to remove the accounts: DROP USER <user> CASCADE;		
Database Auditing Test category: Conf. Severity: Major Test ID: 2576 This test checks if the Oracle database auditing is enabled. Previous to Oracle 12c release, you can	Fail Database auditing is disabled. Add test exception ServiceNow ticket created on 7/9/20 12:08:17 PM.000 Recommendation: Database auditing is disabled. If you prefer to use Oracle		

Creating tickets for VA failed tests

- Automatically create tickets during VA job run
 - In External Ticketing Configuration for VA Results, set “Critical, Major” severity levels to get tickets automatically created if the test fails
 - Create a vulnerability assessment with various severity levels
 - Run the vulnerability assessment
 - After job run completed, click “View Results”
 - Failed tests with “critical” and “major” severity levels have tickets created on ServiceNow during job run
 - Click on the blue hypertext link to open the ticket in ServiceNow

The screenshot shows the ServiceNow interface for creating a ticket. At the top, there's a header bar with navigation icons, the problem ID 'PRB0040207', and action buttons like 'Follow', 'Assess', 'Update', and 'Delete'. Below this is a progress bar with stages: New, Assess, Root Cause Analysis, Fix in Progress, Resolved, and Closed. The 'New' stage is currently active. The form contains several fields: 'Number' (PRB0040207), 'State' (New), 'First reported by' (empty), 'Impact' (3 - Low), 'Category' (-- None --), 'Urgency' (3 - Low), 'Business service' (empty), 'Priority' (5 - Planning, with a blue 'Priority' link), 'Configuration item' (empty), 'Assignment group' (empty), and 'Assigned to' (empty). Below these fields is the 'Problem statement' section with the text: 'IBM Guardium database assessment failure: DBA Profile PASSWORD_LIFE_TIME Is Limited, on database...'. The 'Description' section contains a detailed log of the assessment results, including fields like 'assessment_name', 'datasource_id', 'datasource_name', 'datasource_type', 'datasource_ip', 'datasource_port', 'test_id', 'test_category', 'test_description', 'test_external_reference', 'test_recommendation', 'test_result', and 'test_score'.

Problem statement: IBM Guardium database assessment failure: DBA Profile PASSWORD_LIFE_TIME Is Limited, on database...

Description: assessment_name : SA1
datasource_id : 20000
datasource_name : DS_ora
datasource_type : ORACLE
datasource_ip : 9.70.150.159
datasource_port : 1522
test_id : 132
test_category : Configuration
test_description : DBA Profile PASSWORD_LIFE_TIME Is Limited
test_external_reference : CIS Oracle v2.01 Item # 8.02, CIS Oracle 11gR2 v1.0.0 Item # 3.3, CIS Oracle 12c v2.01 Item # 3.3
test_recommendation : The PASSWORD_LIFE_TIME parameter is not set, allowing users to retain the same password indefinitely. Passwords that have been in use for long periods are likely to become known to unauthorized users. We recommend that you set this parameter in order to limit the lifetime of users' passwords. You can modify your PASSWORD_LIFE_TIME setting by running a command similar to this example: For Oracle11 ALTER PROFILE <PROFILE_NAME> LIMIT PASSWORD_LIFE_TIME 60 - For Oracle12c non-container DBs See Oracle Documentation for more info for 12c and up regarding Profiles that are not "COMMON" and are container specific. For example: ALTER PROFILE C#<PROFILE_NAME> LIMIT PASSWORD_LIFE_TIME 60 container=all
test_result : User profile setup parameter PASSWORD_LIFE_TIME found out of defined threshold value
test_score : 0

Creating tickets for VA failed tests

- Manually create tickets from VA test results page

- On VA view results page, on a failed test, click “Create ticket...”

LOGICAL_READS_PER_SESSION is limited

Test category: Conf. Severity: Minor

Test ID: 249

This test checks that the LOGICAL_READS_PER_SESSION parameter is set to an appropriate value. LOGICAL_READS_PER_SESSION limits the number of data blocks read in a session, including blocks read from memory and disk; if unset or set to an inappropriate value, a session can throttle the database by consuming an excessive portion of the available resources.

Ext. Reference: CIS Oracle v2.01 Item # 8.11

STIG Reference: O121-C3-019300

STIG Severity: CAT III

STIG Srg: SRG-APP-000247-DB-000134

DS_ora

Datasource type: ORACLE Severity: None

Fail User profile setup parameter LOGICAL_READS_PER_SESSION found out of defined threshold value

[Add test exception](#)

[Create ticket...](#)

Recommendation: The LOGICAL_READS_PER_SESSION Profile parameter is not configured properly. Guardium recommends setting this to a lower value; this value may be customized to meet your organization's needs by changing the test default threshold. You can alter your database profile by running the example command: ALTER PROFILE <PROFILE_NAME> LIMIT LOGICAL_READS_PER_SESSION 10000;

O7_DICTIONARY_ACCESSIBILITY Is False

Test category: Conf. Severity: Minor

Test ID: 32

This test checks the value of the O7_DICTIONARY_ACCESSIBILITY parameter. Oracle 9 recommends the

Fail Parameter: 'O7_DICTIONARY_ACCESSIBILITY' is 'TRUE'.

[Add test exception](#)

[Create ticket...](#)

Creating tickets for VA failed tests

- Manually create tickets from VA test results page
 - On VA view results page, on a failed test, click “Create ticket...”
 - On “Create a ticket in ServiceNow” dialog, edit as needed and click “Save” button to create the ticket in ServiceNow for this failed test result

Create a ticket in ServiceNow

Description

assessment_name : SA1
datasource_id : 20000
datasource_name : DS_ora
datasource_type : ORACLE
datasource_ip : 9.70.150.159
datasource_port : 1522
test_id : 249
test_category : Configuration

Short description

IBM Guardium database assessment failure: LOGICAL_READS_F

Additional field

+

Save

Close

Creating tickets for VA failed tests

- **Manually create tickets from VA test results page**
 - On VA view results page, on a failed test, click “Create ticket...”
 - On “Create a ticket in ServiceNow” dialog, edit as needed and click “Save” button to create the ticket in ServiceNow for this failed test result
 - Back to VA test results page, click on the ticket link to open the ticket in ServiceNow

LOGICAL_READS_PER_SESSION is limited

Test category: Conf. Severity: Minor

Test ID: 249

This test checks the value of the LOGICAL_READS_PER_SESSION parameter is set to an appropriate value. LOGICAL_READS_PER_SESSION limits the number of data blocks read in a session, including blocks read from memory and disk; if unset or set to an inappropriate value, a session can throttle the database by consuming an excessive portion of the available resources.

Ext. Reference: CIS Oracle v2.01 Item # 8.11

STIG Reference: O121-C3-019300

STIG Severity: CAT III

STIG Srg: SRG-APP-000247-DB-000134

DS_ora

Datasource type: ORACLE Severity: None

O7_DICTIONARY_ACCESSIBILITY Is False

Test category: Conf. Severity: Minor

Test ID: 32

This test checks the value of the O7_DICTIONARY_ACCESSIBILITY parameter is set to false. The parameter O7_DICTIONARY_ACCESSIBILITY prevents accounts with the privilege to select data from the TABLE from selecting the data dictionary tables. Setting this parameter to FALSE prevents access to sensitive data in the data dictionary such as the encrypted passwords.

Ext. Reference: CIS Oracle v2.01 Item # 4.18, CIS Oracle 12c v2.01 Item # 4.18

STIG Reference: DO3685

Fail User profile setup parameter LOGICAL_READS_PER_SESSION found out of defined threshold value

Add test exception

ServiceNow ticket created on 2020-07-09 14:00:21

Recommendation: The LOGICAL_READS_PER_SESSION Profile parameter is not configured properly. Guardium recommends setting this to a lower value; this value may be customized to meet your organization's needs by changing the test default threshold. You can alter your database profile by running the example command: ALTER PROFILE <PROFILE_NAME> LIMIT LOGICAL_READS_PER_SESSION 10000;

Success

Successfully created a ticket

OK

parameter is currently set to true. When other schemas can include unwanted or the SYS schema. We recommend

< Problem PRB0040214
Follow Assess Update Delete

New	Assess	Root Cause Analysis	Fix in Progress	Resolved	Closed
<div style="display: flex; justify-content: space-between;"> <div> <p>Number PRB0040214</p> <p>First reported by <input type="text"/></p> <p>Category -- None --</p> <p>Business service <input type="text"/></p> <p>Configuration item <input type="text"/></p> </div> <div> <p>State New</p> <p>Impact 3 - Low</p> <p>Urgency 3 - Low</p> <p>Priority 5 - Planning</p> <p>Assignment group <input type="text"/></p> <p>Assigned to <input type="text"/></p> </div> </div>					
<p>* Problem statement IBM Guardium database assessment failure: LOGICAL_READS_PER_SESSION is limited, on database: DS_ora</p> <p>Description</p> <pre>assessment_name : SA1 datasource_id : 20000 datasource_name : DS_ora datasource_type : ORACLE datasource_ip : 9.70.150.159 datasource_port : 1522 test_id : 249</pre>					

Creating tickets for VA failed tests

- Automatically create tickets when VA task is executed in an audit process
 - The audit process ticketing system uses the Alerter configuration

External Ticketing System Configuration

Account

Settings

Status

* Guardium system

Alerter

* Template

Incident

Guardium fields	ServiceNow field	Computed value
<div>message_subject message_text message_creation_date</div>	Description	<div>message_subject : \${message_subject} message_text : \${message_text} message_creation_date : \${message_creation_date}</div>
	Short description	<div>IBM Guardium security alert: \${message_subjec</div>
	Additional field <div>+</div>	

>>

Save

Close

Creating tickets for VA failed tests

- Automatically create tickets when VA task is executed in an audit process
 - The audit process ticketing system uses the Alerter configuration
 - Create an audit process with a vulnerability assessment task

The screenshot shows a 'Create New Audit Process' window. The main window has a title bar 'Create New Audit Process' and a status bar 'Name and archive' with the value 'psa2'. Below this is a section 'Add tasks' with the text 'Add tasks to this audit process'. A 'New task' sub-dialog is open, showing the following fields:

- * Task type: A dropdown menu with 'Security Assessment' selected. This field is highlighted with a red border.
- * Name: A text input field with 'tsa2' entered.
- * Security Assessment: A dropdown menu with 'SA2' selected.
- Export as: Two checkboxes, 'AXIS' and 'SCAP', both of which are unchecked.
- PDF Content: Three radio buttons, 'Report' (selected), 'Diff', and 'Report and Diff'.
- Event and Additional Columns: A button labeled 'Event and Additional Columns'.

At the bottom right of the 'New task' dialog are 'OK' and 'Cancel' buttons.

Creating tickets for VA failed tests

- Automatically create tickets when VA task is executed in an audit process
 - The audit process ticketing system uses the Alerter configuration
 - Create an audit process with a vulnerability assessment task
 - Add TICKET receiver for the audit process

Send results Select who will receive audit process results

Review receivers, define distribution sequence and review options. Select a row to edit options.

Receiver	Receiver Type	Sequence	Action	Approve If Empty
<div><div><div>+</div><div>✎</div><div>−</div><div> </div><div>↕</div></div><div>Filter</div></div>				

New Receiver

Receiver Type ? ☐ Role ☐ Email ☐ User Group ☐ User ☒ **Ticket**

Assign to user

Assign to group

Creating tickets for VA failed tests

- Automatically create tickets when VA task is executed in an audit process
 - The audit process ticketing system uses the Alerter configuration
 - Create an audit process with a vulnerability assessment task
 - Add TICKET receiver for the audit process
 - At the end of the audit process job, the audit process result PDF is attached to a new ServiceNow ticket

Incident INC0010741

Manage Attachments (1): h2p_ap1000000_n1_v8.pdf [rename] [view]

Number: INC0010741

* Caller: System Administrator

Category: Inquiry / Help

Subcategory: -- None --

Business service:

Contact type: -- None --

State: New

Impact: 3 - Low

Urgency: 3 - Low

Priority: 5 - Planning

Assignment group:

Assigned to:

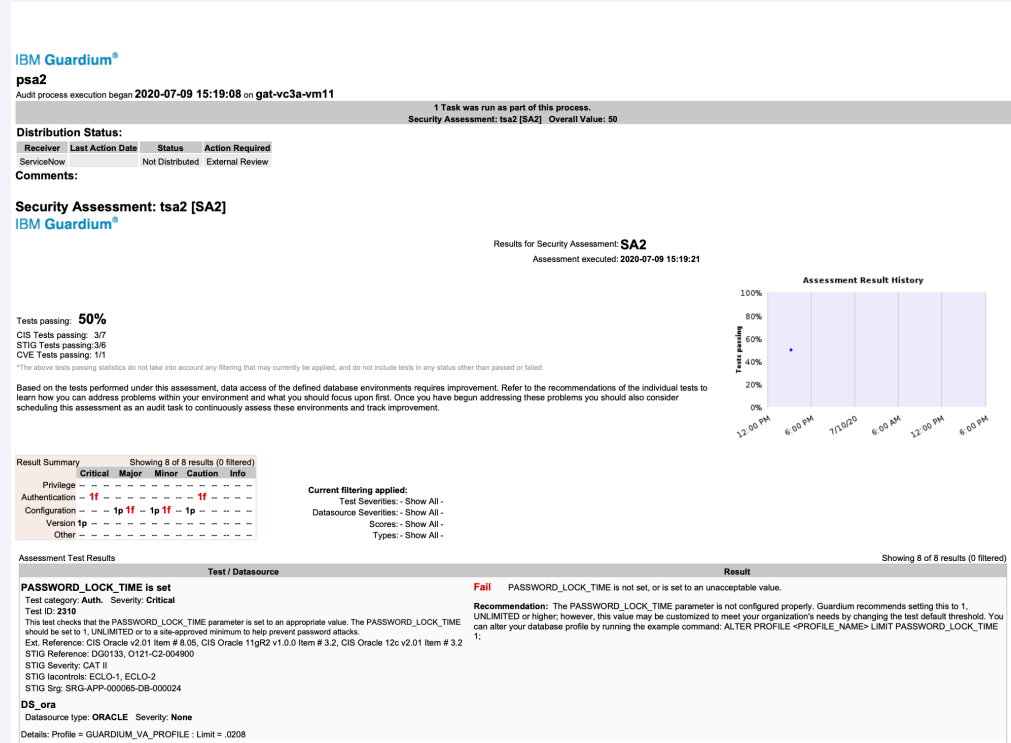
* Short description: IBM Guardium security alert: Audit record for [psa2]

Description: message_subject : Audit record for [psa2]
message_text : Audit process "psa2", executed on 2020-07-09 15:19:08.0 requires your signature. Attached is the report in Adobe Acrobat format . You may also view the report online: https://gat-vc3a-vm11.guard.swg.usma.ibm.com:8443/sqlguard/index.jsp#rdpg=vwpr_1
message_creation_date : 2020-07-09 15:22:11

Creating tickets for VA failed tests













– Automatically create tickets when VA task is executed in an audit process

- The audit process ticketing system uses the Alerter configuration
- Create an audit process with a vulnerability assessment task
- Add TICKET receiver for the audit process
- At the end of the audit process job, the audit process result PDF is attached to a new ServiceNow ticket
- Download attachment to review audit process result



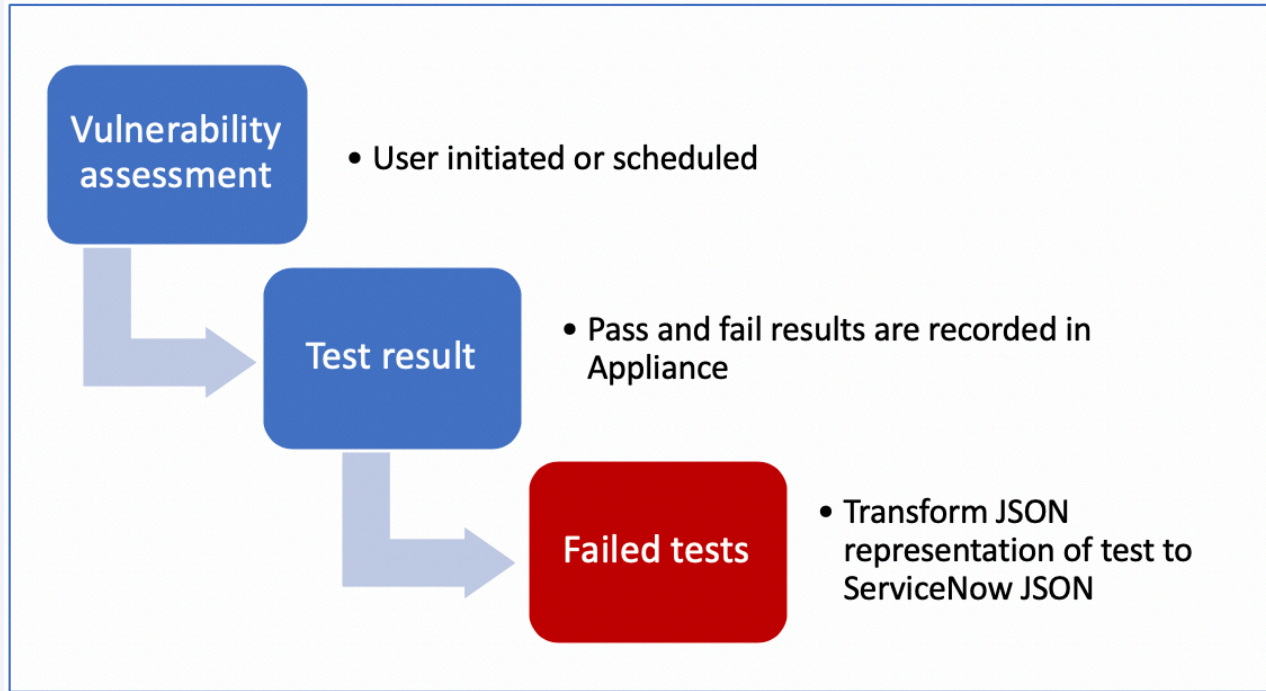
Viewing tickets

- “External Tickets” report on Gaurdium UI

External Tickets						
Start Date: 2020-07-09 05:33:30 End Date: 2020-07-09 15:33:30 GuardiumSource: % TicketNumber: % Main Entity: External Tickets Less						
<div>        </div> <div>Export  Actions  Graphical View </div>						
Guardium Source	Ticket Number	Summary	Assigned to	Status	Created	Updated
VA_RESULT	PRB0040214	IBM Guardium database assessment failure: LOGICAL_READS_PER_SESSION is limited, on database: DS_oracle		New	2020-07-09 14:00:21	2020-07-09 14:00:21
VA_RESULT	PRB0040213	IBM Guardium database assessment failure: Ensure No Users Are Assigned to the DEFAULT Profile, on database: DS_oracle		New	2020-07-09 12:08:17	2020-07-09 12:08:17
VA_RESULT	PRB0040212	IBM Guardium database assessment failure: Database Auditing, on database: DS_oracle		New	2020-07-09 12:08:17	2020-07-09 12:08:17

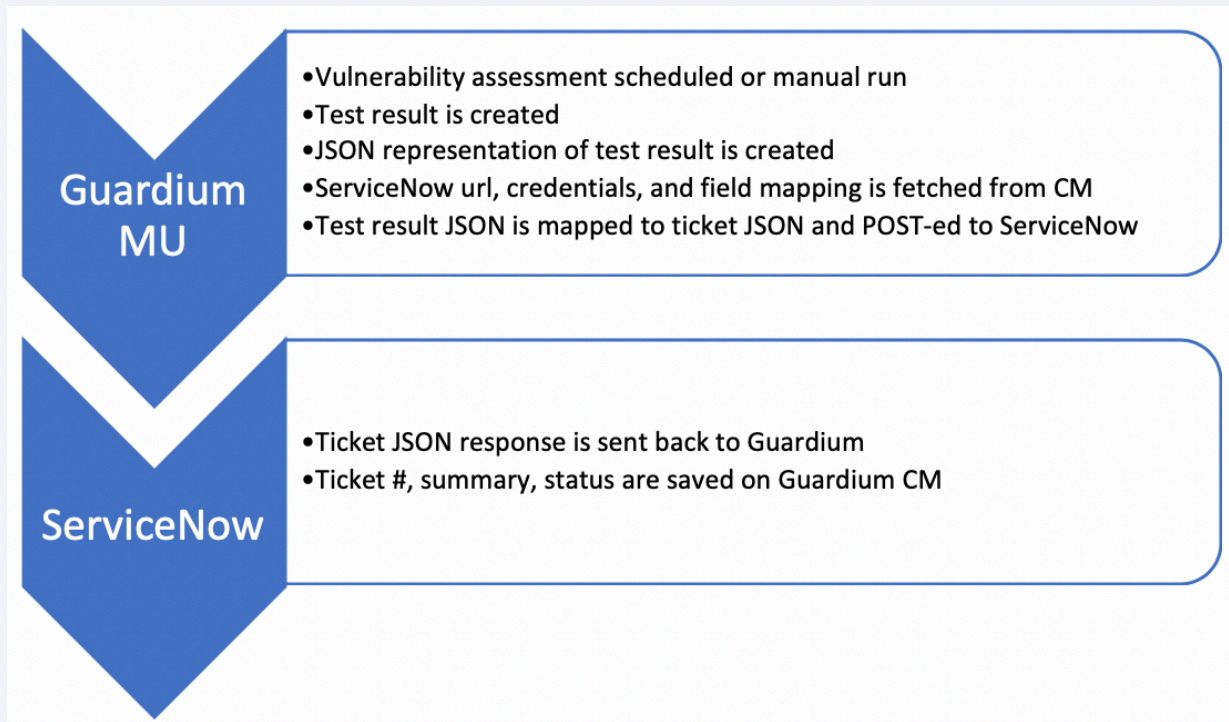
Integration design

VA failed tests are transformed to JSON that ServiceNow REST API can process to create tickets



Integration design

All ticket operations with ServiceNow are through ServiceNow REST-API



Updating tickets

Guardium ticket monitor

- Gets the latest status of all active tickets from ServiceNow created by Guardium
- Updates the matching ticket records in Guardium
- Sets “status” to closed for ticket records not in ServiceNow active ticket list
- Runs every 60 minutes by default
- Use CLI to modify the ticket monitor interval:
 - store ticket update interval <arg> [where arg represent a numeric of Minutes! ≥ 60 and ≤ 1440]














Updating tickets

On ServiceNow, add “Assigned to” and change “State” from “New” to “Assess”

Number	PRB0040207	State	Assess
First reported by	CHG0000001	Impact	3 - Low
Category	-- None --	Urgency	3 - Low
Business service		Priority	5 - Planning
Configuration item		Assignment group	
		* Assigned to	Problem Manager
* Problem statement	IBM Guardium database assessment failure: DBA Profile PASSWORD_LIFE_TIME Is Limited, on database: DS_ora		
Description	assessment_name : SA1 datasource_id : 20000 datasource_name : DS_ora datasource_type : ORACLE datasource_ip : 9.70.150.159 datasource_port : 1522 test_id : 132		

Updating tickets

After Guardium ticket monitor runs, the ticket is updated in the Guardium External Tickets screen

External Tickets							
Start Date: 2020-07-09 09:00:29 End Date: 2020-07-09 19:00:29							More
        				Export  Actions  Graphical View 			
Guardium Source	Ticket Number	Summary	Assigned to 	Status	Created	Updated	
VA_RESULT	PRB0040207	IBM Guardium database assessment failure: DBA Profile PASSWORD_LIFE_TIME Is Limited, on database: DS_oracle	Problem Manager	Assess	2020-07-09 12:08:14	2020-07-09 18:49:44	
VA_RESULT	PRB0040208	IBM Guardium database assessment failure: DBA Profile PASSWORD_VERIFY_FUNCTION Is Implemented, on database: DS_oracle		New	2020-07-09 12:08:14	2020-07-09 12:08:14	

Purging tickets

- In Guardium, for the tickets with a “Closed” status and not updated in 30 days, they will be purged by Guardium daily purging process.
- CLI command:
 - Show purge object age

```
get -daily -m20-guardium-gsa-ma-1000000> show purge object age
```

ID	Age	Unit	Description
--	---	----	-----
90	30	DAY	Active Risk Spotter iterations
95	90	DAY	Active Risk Spotter Score for old users
94	90	DAY	Active Risk Spotter Score per feature
75	7	DAY	Additional info for real time alerts
32	14	DAY	Aggregation Debug Log
43	7	DAY	Aggregation/Archive Log - Distributed
71	14	DAY	Alert Log
27	20	DAY	AME Files Purge
37	7	DAY	Analytic (outliers detection) log
79	90	DAY	Analytic Case
33	14	DAY	Analytic Data Debug Log
38	60	DAY	Analytic Outlier Details
39	60	DAY	Analytic Outliers Summary
46	60	DAY	Analytic User Feedback
4	7	DAY	Assessment Tests
22	14	DAY	Audit Process Log.
17	30	DAY	Baseline entries referred to user
10	90	DAY	Call Graph History
25	60	DAY	CAS AUdit State and State Datum
11	7	DAY	CAS Host Event History
96	30	DAY	Central Management External Tickets
1	7	DAY	Central Management Persistent Operations

Purging tickets

- In Guardium, for the tickets with a “Closed” status and not updated in 30 days, they will be purged by Guardium daily purging process.
- CLI command:
 - show purge object age
 - store purge object age 96 <day>

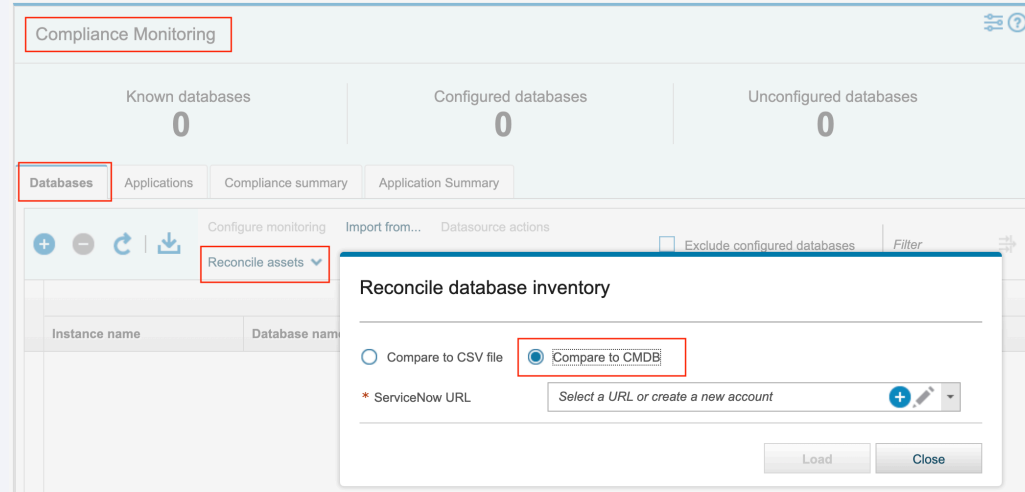


```
store purge object age 96 15
ok
```

ServiceNow CMDB

To reconcile database inventory between Guardium and ServiceNow:

- Setup > Smart Assistant > Compliance Monitoring
 - Select the “Databases” tab
 - Click “Reconcile assets” and select “Reconcile” to open “Reconcile database inventory” dialog.
 - » Select “Compare to CMDB” radio button



Importing and reconciling CMDB assets

- Select the ServiceNow account and template
- Map datasource fields → template's fields
- Click OK

The image displays two screenshots of the 'Compliance Monitoring' application interface, illustrating the steps for importing and reconciling CMDB assets.

Top Screenshot: The main dashboard shows counts for 'Known databases' (0), 'Configured databases' (0), and 'Unconfigured databases' (0). Below these, the 'Databases' tab is active. In the 'Database actions' section, the 'Import from' button is highlighted with a red box. A modal window titled 'Reconcile database inventory' is open, showing options to 'Compare to CSV file' or 'Compare to CMDB'. The 'Compare to CMDB' option is selected. The 'ServiceNow URL' is set to 'ServiceNow > dev67612.service-now.com > admin', and the 'Template' is 'MSFT SQL Instance'. The 'Load' button is highlighted with a red box, and a blue arrow points from it to the bottom screenshot.

Bottom Screenshot: This screenshot shows the 'Import from CMDB' modal window. It prompts the user to 'Select columns from CMDB to import as database properties'. The 'Host name/IP' is set to 'name', 'Port number' to 'tcp_port', and 'Database type' to 'version'. Other fields like 'Service name', 'Database name', 'Server name', 'Instance name', and 'Comment' are set to 'None'. The 'OK' button is highlighted with a red box.

SQL DB Azure – GDMMONITOR Script

- The gdmmonitor-azure.sql is used to apply the minimum required privileges to run our tests on the SQL DB Azure instance. The customer can open the file after downloading and see detailed instructions on how to run the script.
- With gdmmonitor-azure.sql, you can run this script using SSMS (Sql Server Management Studio) for EACH database that is part of your Azure instance. Meaning, you need to connect to EACH database and run this script due to limitations of connecting to another database from the MASTER database.
- In addition, you can use gdmmonitor-azure-connect.ps1 to run the gdmmonitor-azure.sql script using Powershell. The key difference to using this Powershell script versus running the gdmmonitor-azure.sql script itself, is that the Powershell script will LOOP through EACH database for you.

Important Note: The following 3 tests must be executed as the "Server Admin" or "Active Directory Admin". Credentials from these logins allow us to accurately see all the records in the system catalog view from the MASTER database. This is required in order to keep the test findings to be accurate.

1. Check for dbmanager role members
2. Check for loginmanager role members
3. Database Ownership - Azure

SQL Server – GDMMONITOR Script

- The gdmmonitor-mss.sql is used to apply the minimum required privileges to run our tests on the SQL Server instance. The customer can open the file after downloading and see detailed instructions on how to run the script.
- With gdmmonitor-mss.sql, you can run this script using SSMS (Sql Server Management Studio) or similar database client tools. In this case, the script will loop through the databases for you.
- We have added additional notes to these gdmmonitor scripts based on customer requests that will mention what changes have occurred to the script along with the date the changes took place. For example:

-- 20190911: grant select to SELECT ON sys.dm_exec_connections to gdmmonitor in master, make some comment changes

-- 20200228: add permissions related stig 2016 benchmark

APIs References

Delete datasource API References

- To support cascade delete datasource, we added 2 new parameters to delete_datasource_by_id and delete_datasource_by_name grdapi commands:
 - 1) cascade (not required – cascade is Boolean - with default value of 0 or false)
 - 2) confirmationNumber (not required – confirmation number is Integer with default value of 0)
- Executing these grdapi commands without the cascade parameters behaves as they have before. Which means, if the datasource is used by any application, it will not delete the datasource.
- Executing these grdapi commands with cascade = true performs a check. If the datasource is not used, it will delete the datasource.
- Otherwise, a message indicating where the datasource is being used along with a confirmation number which expires in 5 minutes, will be displayed.
- Executing these grdapi commands with cascade = true and that confirmation number, will delete the datasource and all of its references. (either have deleted or updated to be -1)
- Executing these grdapi commands with cascade=true and an expired confirmation number, performs a new check. If it is not used, it will delete the datasource.
- Otherwise, it will regenerate a new confirmation number and a message indicating where the datasource is being used, along with the new confirmation number will be displayed!

Delete datasource API References

- Test: Test1 - Delete a datasource that is used by VA, custom Table, and classification process - no cascade

```
grdapi delete_datasource_by_name name="A MMS demo DB2 10.5 FAIL on su11x64t3-va"
```

```
frank-vm02.guard.swg.usma.ibm.com> grdapi delete_datasource_by_name name="A MMS demo DB2 10.5 FAIL on su11x64t3-va"
```

```
delete_datasource_by_name:
```

```
ERR=126
```

```
In use by:
```

```
Classification Process: A mms demo discovery
```

```
Custom Table: DEMO_TABLE
```

```
Datasource group - A demo Datasource group
```

```
Vulnerability Assessment: A mms demo VA
```

```
Could not delete datasource. Error while checking usage.
```

```
ok
```

```
frank-vm02.guard.swg.usma.ibm.com>
```

Delete datasource API References

- Test: Test2 - Delete a datasource that is used by VA, datasource group, custom Table, and classification process - use cascade, no confirmation number

```
grdapi delete_datasource_by_name name="A MMS demo DB2 10.5 FAIL on su11x64t3-va" cascade=true
```

Result:

```
frank-vm02.guard.swg.usma.ibm.com> grdapi delete_datasource_by_name name="A MMS demo DB2 10.5 FAIL on su11x64t3-va" cascade=true
```

In use by:

Classification Process: A mms demo discovery

Custom Table: DEMO_TABLE

Datasource group - A demo Datasource group

Vulnerability Assessment: A mms demo VA

To delete cascade datasource A MMS demo DB2 10.5 FAIL on su11x64t3-va, please use cascade of true along with confirmation number 418619

ok

Delete datasource API References

- Test: Test3 - Delete a datasource that is used by VA, custom Table, and classification process - use cascade, use wrong confirmation number-

```
grdapi delete_datasource_by_name name="A MMS demo DB2 10.5 FAIL on su11x64t3-va" cascade=true  
confirmationNumber=650948
```

Result:

```
frank-vm02.guard.swg.usma.ibm.com> grdapi delete_datasource_by_name name="A MMS demo DB2 10.5 FAIL on su11x64t3-  
va" cascade=true confirmationNumber=650948
```

In use by:

Classification Process: A mms demo discovery

Custom Table: DEMO_TABLE

Datasource group - A demo Datasource group

Vulnerability Assessment: A mms demo VA

Wrong confirmation number, to delete this datasource please enter confirmation number 418619

ok

Delete datasource API References

- Test: Test4 - Delete a datasource that is used by VA, custom Table, and classification process - use cascade, use expired confirmation number-

```
grdapi delete_datasource_by_name name="A MMS demo DB2 10.5 FAIL on su11x64t3-va" cascade=true  
confirmationNumber=650948
```

Result:

```
frank-vm02.guard.swg.usma.ibm.com> grdapi delete_datasource_by_name name="A MMS demo DB2 10.5 FAIL on su11x64t3-  
va" cascade=true confirmationNumber=418619
```

In use by:

Classification Process: A mms demo discovery

Custom Table: DEMO_TABLE

Datasource group - A demo Datasource group

Vulnerability Assessment: A mms demo VA

Confirmation number has been expired, to delete this datasource please enter new confirmation number 834089

ok

Delete datasource API References

- Test: Test5 - Delete a datasource that is used by VA, custom Table, and classification process - use cascade, confirmation number-

```
frank-vm02.guard.swg.usma.ibm.com> grdapi delete_datasource_by_name name="A MMS demo DB2 10.5 FAIL on su11x64t3-va" cascade=true confirmationNumber=834089
ID=20000
ok
frank-vm02.guard.swg.usma.ibm.com>
```

Thank you

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