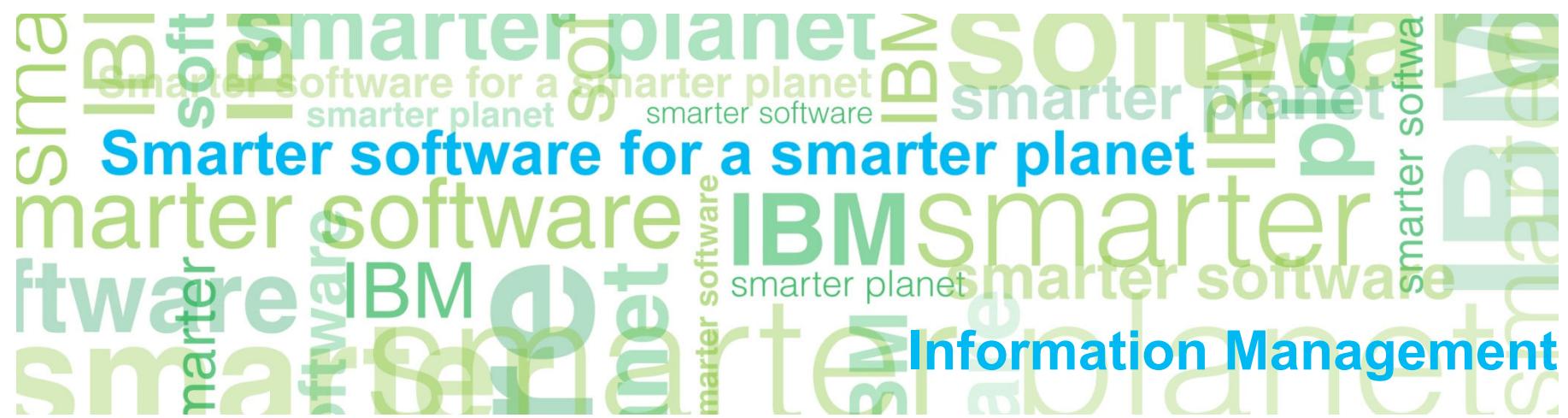




Tips and Tricks...

Joe DiPietro

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Agenda

Operations

- What CLI commands are available?
 - Comm <string>
- GRDAPI – Datasource
- UID Chain
- Review 9.0/8.2 Release Highlights
- Enterprise reports
- Silent Installs*
- LDAP/Active directory integration
- SGATE vs STAP Terminate
- Global Profile – SIEM integration
- Change Management Reconciliation
- The GIM client can now be installed using Tivoli Provisioning Manager (TPM) as of 8.2

GIM Details

- "Discovery Agent"
- "CAS"

Helping DBA's get more visibility:

- Long running queries
- Active user last login
- Active User with No Activity
- Failed User login attempts
- SQL Errors

Reporting

- Difference reports
- Customize change management
- Customize and drill down report
- Application User Identification
- VA Tests
 - Text Exceptions
- Guardium Grid
- Dormant Accounts
 - Oracle Dormant User Report
- Linking Guardium Reporting Domain

CLI Commands

Show me all the commands that have the following string

tlab> **comm policy**

show installed security policy

store installed security policy

ok

tlab> **sh installed security policy**

Z Policy

ok

tlab>

- Show me all the commands with “policy” for example...

- You only need to type in “enough” of the command to be unique “sh” vs “show”

Useful Assets

■ HowToGuides (in the product)

The screenshot shows the IBM InfoSphere Guardium Administration Console interface. At the top, there is a navigation bar with links for Edit Account: admin, Customize, Logout, About, and an IBM logo. Below the navigation bar, the main menu includes System View, Administration Console, Tools, Daily Monitor, Guardium Monitor, Tap Monitor, Incident Management, and My New Reports. A sub-menu for 'testNewGuardiumDomain' is open, listing various reports and tools. On the right side, the 'How-to Guide Help Book' is displayed. It features a title 'How-to Guide Help Book', a description stating it presents a series of how-to topics, and a list of topic categories: What is the task?, Why is it important?/what is added value?, Summary of the topic, Prerequisites, and Step procedure with screens. Below this, a note says 'Click any topic in the **Contents** panel to the left to view the topics online, or click the parent book to access a PDF version.' A red arrow points to the 'How-to Guide' category in the contents panel on the left, which lists Common Tools, Monitor/Audit, Comply, Assess/Harden, GuardAPI Input Gener, Guardium Installation I, Protect, and Capture Replay.

Resources

▪ DeveloperWorks

- <http://www.ibm.com/developerworks/library/techarticle/dm-1304pcidiss/>
- Great resource for white papers, tech notes, best practices

▪ Guardium Tech Talks

- https://www.ibm.com/developerworks/community/wikis/home?lang=en#!wiki/Wf32fc3a2c8cb_4b9c_83e4_09b3c6f60e46/page/Guardium%20Tech%20Talks

▪ Guardium YouTube Channel

- <http://www.youtube.com/user/InfoSphereGuardium>
- IBM InfoSphere Guardium 101 TechTalk
- Guardium demos
- Monitoring SAP with IBM InfoSphere Guardium (5:53)

▪ Teradata Hardening Guide

- <http://www.teradata.com/white-papers/hardening-a-teradata-database-best-practices-access-rights-management/?type=WP>

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Accelerate the path to PCI DSS data compliance using InfoSphere Guardium

Use prebuilt reports, policies, and groups to simplify configuration

Kathryn Zeidenstein (krzeide@us.ibm.com), InfoSphere Guardium Evangelist, IBM
Shengyan Sun (sunssy@cn.ibm.com), InfoSphere Guardium QA Engineer, IBM

Date: 18 Apr 2013 Level: Intermediate

Summary for advanced users

If you are familiar with InfoSphere Guardium and don't need step-by-step instructions, here is a summary of what you need to do.

1. Download and install the PCI DSS accelerator from Passport Advantage, assigning the PCI role to a user, and resetting the GUI layout for that user. See [Install the PCI DSS accelerator and configure the PCI role](#) for more details.
2. Using the Guardium API (See [the appendix](#)) or the Group Builder (see [Populating groups](#)), populate groups that are used to generate the reports you need, as summarized here:
 - PCI Admin Users
 - PCI Authorized Client IPs
 - PCI Authorized Server IPs
 - PCI Authorized Source Programs
 - PCI Cardholder DBs
 - PCI Cardholder Sensitive objects
 - PCI Limited Access Users
3. Configure a security policy, optionally using one of the PCI policies as a template. (See [Set up the security policy](#).)

HARDENING A TERADATA DATABASE
Best practices for access rights management

TERADATA

John Breeding, Engineering Security Architect, Teradata Corporation
Lori Lam, Database and Vulnerability Assessment Research Manager, Teradata Corporation
Kathy Zeidenstein, InfoSphere Guardium Evangelist, IBM Corporation

Security assessments to detect common vulnerabilities or usage of bad practices for security. (See [Use audit processes to automate sign-offs and review](#).)

Automate sign-offs and review (See [Use audit processes to automate sign-offs and review](#).)

GRDAPI Example – Get Entitlement Reports Automatically

ORA Object privileges

Start Date: 2012-06-14 09:02:24 End Date: 2012-06-21 09:02:24

Aliases: ON

Grantee	Table Name	Owner	Privilege	Datasource Name	SqGuard	Timestamp
FLOWS_020100CTX_DDL		CTXSYS	EXECUTE	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
HR	SET_CTX_USER	HR	EXECUTE	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
ANONYMOUS	WWV_FLOW_FILE_OBJECTS\$	FLOWS_FILES	INDEX	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
FLows_020100V_TIMER		SYS	SELECT	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
DON	BIN\$SPhr9kUVUjgQAoKOAkSUg==:0	JOE	UPDATE	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
HARRY	CREDITCARD	JOE	DELETE	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
ANONYMOUS	WWV_FLOW_EPG_INCLUDE_MODULES	FLows_020100	EXECUTE	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
FLows_020100UTL_FILE		SYS	EXECUTE	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
HARRY	BIN\$SPb6bFLIZIrgQAoKOAkOGg==:0	JOE	UPDATE	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
FLows_020100FLOW_SESSIONS		SYS	SELECT	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
DON	BIN\$SPb6bFLIZIrgQAoKOAkOGg==:0	JOE	SELECT	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
FLows_FILES	WWV_FLOW_ID	FLows_020100	EXECUTE	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
FLows_020100DBMS_FLASHBACK		SYS	EXECUTE	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
BILL	CREDITCARD	JOE	SELECT	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
FLows_020100DBA_TABLESPACES		SYS	SELECT	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
XDB	USER\$	SYS	SELECT	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
BILL	BIN\$SPhr9kUVUjgQAoKOAkSUg==:0	JOE	INSERT	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
FLows_020100WWV_FLOW_VAL		SYS	EXECUTE	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
FLows_020100DBA_ROLLBACK_SEGS		SYS	SELECT	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		
XDB	CTX_OUTPUT	CTXSYS	EXECUTE	osprey_system : ORACLE : 10.10.9.56 : xe : : 1521 : 2012-06-21 09:02:06.0		

Records 1 to 20 of 115

- Create datasource
- Create entitlement report reference and link it to datasource
- Upload information from database

Alter System Privileges

ORA Accnts of ALTER SYSTEM

Start Date: 2012-06-14 09:34:10 End Date: 2012-06-21 09:34:10

Aliases: ON

Grantee	Privilege	Admin Option	Datasource Name ▲	SqlGuard Timestamp
BANKAPP	ALTER SYSTEM NO		10.10.9.56-sqlguard : ORACLE : 10.10.9.56 : xe : : null1521 :	2012-06-21 09:31:56.0
WEBAPP	ALTER SYSTEM NO		10.10.9.56-sqlguard : ORACLE : 10.10.9.56 : xe : : null1521 :	2012-06-21 09:29:22.0
DBA	ALTER SYSTEM YES		10.10.9.56-sqlguard : ORACLE : 10.10.9.56 : xe : : null1521 :	2012-06-21 09:31:56.0
BANKAPP	ALTER SYSTEM NO		10.10.9.56-sqlguard : ORACLE : 10.10.9.56 : xe : : null1521 :	2012-06-21 09:29:22.0
HR	ALTER SESSIONNO		10.10.9.56-sqlguard : ORACLE : 10.10.9.56 : xe : : null1521 :	2012-06-21 09:31:56.0
DBA	ALTER SYSTEM YES		10.10.9.56-sqlguard : ORACLE : 10.10.9.56 : xe : : null1521 :	2012-06-21 09:29:22.0
RECOVERY_CATALOG_OWNER	ALTER SESSIONNO		10.10.9.56-sqlguard : ORACLE : 10.10.9.56 : xe : : null1521 :	2012-06-21 09:31:56.0
HR	ALTER SESSIONNO		10.10.9.56-sqlguard : ORACLE : 10.10.9.56 : xe : : null1521 :	2012-06-21 09:29:22.0
WEBAPP	ALTER SESSIONNO		10.10.9.56-sqlguard : ORACLE : 10.10.9.56 : xe : : null1521 :	2012-06-21 09:31:56.0
RECOVERY_CATALOG_OWNER	ALTER SESSIONNO		10.10.9.56-sqlguard : ORACLE : 10.10.9.56 : xe : : null1521 :	2012-06-21 09:29:22.0
BANKAPP	ALTER SESSIONNO		10.10.9.56-sqlguard : ORACLE : 10.10.9.56 : xe : : null1521 :	2012-06-21 09:31:56.0
WEBAPP	ALTER SESSIONNO		10.10.9.56-sqlguard : ORACLE : 10.10.9.56 : xe : : null1521 :	2012-06-21 09:29:22.0
FLOWs_020100	ALTER SYSTEM NO		osprey_system : ORACLE : : xe : : 1521 :	2012-06-21 09:29:22.0
SYSTEM	ALTER SYSTEM NO		osprey_system : ORACLE : : xe : : 1521 :	2012-06-21 09:31:55.0
PETSTORE	ALTER SYSTEM NO		osprey_system : ORACLE : : xe : : 1521 :	2012-06-21 09:29:22.0
XDB	ALTER SESSIONNO		osprey_system : ORACLE : : xe : : 1521 :	2012-06-21 09:31:55.0
SYSTEM	ALTER SYSTEM NO		osprey_system : ORACLE : : xe : : 1521 :	2012-06-21 09:29:22.0
CTXSYS	ALTER SESSIONNO		osprey_system : ORACLE : : xe : : 1521 :	2012-06-21 09:31:55.0
XDB	ALTER SESSIONNO		osprey_system : ORACLE : : xe : : 1521 :	2012-06-21 09:29:22.0
FLOWs_020100	ALTER SESSIONNO		osprey_system : ORACLE : : xe : : 1521 :	2012-06-21 09:31:55.0

Records 21 to 40 of 64

GRDAPI Example – Get Entitlement Reports Automatically

create the datasource

```
G82.ibm.com> grdapi create_datasource type=ORACLE name=10.10.9.56-sqlguard  
description=<> host=10.10.9.56 port=1521 serviceName=xe user=joe password=guardium  
dBName=<> shared=true conProperty=<> dbInstanceDirectory=<> dbInstanceAccount=<>  
application=Classifier owner=admin customURL=<> severity=<> api_target_host=<>  
ID=20017  
ok  
G82.ibm.com>
```

Create the datasource bindings for Oracle Entitlement reports

```
G82.ibm.com> grdapi create_datasourceRef_by_name application=CustomTables  
objName="ORA Accnts of ALTER SYSTEM" datasourceName="10.10.9.56-sqlguard"  
ID=7  
ok  
G82.ibm.com>
```

Upload custom data into the entitlement reports

```
G82.ibm.com> grdapi upload_custom_data  
tableName=ORA_ACCNTS_ALTER_SYSTEM_AND_SESSION  
ID=7  
ok  
G82.ibm.com>
```

GRDAPI Example – Get Entitlement Reports Automatically

create the datasource (Only once)

```
grdapi create_datasource type=ORACLE name=10.10.9.56-sqlguard description=<> host=10.10.9.56 port=1521 serviceName=xe user=joe  
password=guardium dbName=<> shared=true conProperty=<> dbInstanceDirectory=<> dbInstanceAccount=<> application=Classifier owner=admin  
customURL=<> severity=<> api_target_host=<>
```

Create the datasource bindings for Oracle Entitlement reports

```
grdapi create_datasourceRef_by_name application=CustomTables objName="ORA Accnts of ALTER SYSTEM" datasourceName="10.10.9.56-sqlguard"  
grdapi create_datasourceRef_by_name application=CustomTables objName="ORA Accnts with BECOME USER" datasourceName="10.10.9.56-sqlguard"  
grdapi create_datasourceRef_by_name application=CustomTables objName="ORA All Sys Priv and admin opt" datasourceName="10.10.9.56-sqlguard"  
grdapi create_datasourceRef_by_name application=CustomTables objName="ORA Obj And Columns Priv" datasourceName="10.10.9.56-sqlguard"  
grdapi create_datasourceRef_by_name application=CustomTables objName="ORA Object Access By PUBLIC" datasourceName="10.10.9.56-sqlguard"  
grdapi create_datasourceRef_by_name application=CustomTables objName="ORA Object privileges" datasourceName="10.10.9.56-sqlguard"  
grdapi create_datasourceRef_by_name application=CustomTables objName="ORA PUBLIC Exec Priv on SYS Proc" datasourceName="10.10.9.56-  
sqlguard"  
grdapi create_datasourceRef_by_name application=CustomTables objName="ORA Roles Granted" datasourceName="10.10.9.56-sqlguard"  
grdapi create_datasourceRef_by_name application=CustomTables objName="ORA Sys Priv Granted" datasourceName="10.10.9.56-sqlguard"  
grdapi create_datasourceRef_by_name application=CustomTables objName="ORA SYSDBA and SYSOPER Accnts" datasourceName="10.10.9.56-  
sqlguard"
```

Upload custom data into the entitlement reports

```
grdapi upload_custom_data tableName=ORA_OBJECT_PRIVILEGES_BY_DB  
grdapi upload_custom_data tableName=ORA_HIERARCHICAL_SYS_PRIV_GRANTED debug=5  
grdapi upload_custom_data tableName=ORA_ALL_SYSTEM_PRIVILEGE  
grdapi upload_custom_data tableName=ORA_OBJECT_ACCESS_BY_PUBLIC debug=5  
grdapi upload_custom_data tableName=ORA_EXEC_PRIV_ON_SYS_PROC debug=4  
grdapi upload_custom_data tableName=ORA_SYSDBA_SYSOPER_PRIV_ACCNT  
grdapi upload_custom_data tableName=ORA_ACNTS_ALTER_SYSTEM_AND_SESSION  
grdapi upload_custom_data tableName=ORA_ACCOUNTS_WITH_BECOME_USER  
grdapi upload_custom_data tableName=ORA_OBJECT_AND_COLUMNS_PRIVILEGES  
grdapi upload_custom_data tableName=ORA_ROLES_TO_USERS_AND_ROLES
```

Encrypting Passwords with GrdAPI

-- In our example, we will use "guardium" as the password to encrypt

```
g8.ibm.com> grdapi encrypt_value valueToEncrypt="guardium" key=guardium
ID=0
-----BEGIN PGP MESSAGE-----
Version: GnuPG v1.4.5 (GNU/Linux)

jA0EA9MCovmWMCNrcsRgyTsz2oWR6nw67F+efUx/eQrH1qkVP61+9V3DFYv/3DW1
PLbouzfkbaiGRIjyK0KAaJl31Jbcg+Awhqr3JQ==
=xeNP
-----END PGP MESSAGE-----
```

ok

```
g8.ibm.com>
g8.ibm.com> grdapi create_datasource type=oracle name=OracleDataSourceEncrypted host=10.10.9.57
shared=true application=AuditTask owner=admin user=system serviceName=xe encryptedParam=password
-----BEGIN PGP MESSAGE-----
Version: GnuPG v1.4.5 (GNU/Linux)
```

```
jA0EA9MCovmWMCNrcsRgyTsz2oWR6nw67F+efUx/eQrH1qkVP61+9V3DFYv/3DW1
PLbouzfkbaiGRIjyK0KAaJl31Jbcg+Awhqr3JQ==
=xeNP
-----END PGP MESSAGE-----
ok
ID=20023
```

```
g8.ibm.com>
```

Heterogeneous Database Entitlement Reports – Oracle Sample Reports

IBM® InfoSphere™ Guardium®

02:24 | Edit Account

My New Reports Standard Reports Discover Assess/Harden Comply Protect Quick Start Sarbanes-Oxley Accelerator PCI Accelerator Data Privacy Accelerator

Overview DB Activities Exceptions DB Administration Schema Changes Detailed Activities Performance DB Entitlements DB2 Informix MS-SQL MySQL Netezza Oracle PostgreSQL Sybase Teradata

ORA Obj And Columns Priv
Start Date: 2010-08-28 01:35:38 End Date: 2010-08-30 01:35:38
Aliases: ON Grantable: LIKE %

Grantee	Privilege	Table Name	Owner	Grantor	Grantable	Datasource Name	SqGuard	Timestamp	Count of ORA Obj And Columns Priv
AQ_ADMINISTRATOR_ROLEEXECUTE_DBMS_AQ	SYS	SYS	NO	10.10.9.59-system	2010-08-27 15:02:06.0	1			
AQ_ADMINISTRATOR_ROLEEXECUTE_DBMS_AQADM	SYS	SYS	NO	10.10.9.59-system	2010-08-27 15:02:06.0	1			
AQ_ADMINISTRATOR_ROLEEXECUTE_DBMS_AQELM	SYS	SYS	NO	10.10.9.59-system	2010-08-27 15:02:06.0	1			
AQ_ADMINISTRATOR_ROLEEXECUTE_DBMS_AQIN	SYS	SYS	NO	10.10.9.59-system	2010-08-27 15:02:06.0	1			
AQ_ADMINISTRATOR_ROLEEXECUTE_DBMS_AQJMS_INTERNALSYS	SYS	INTERNALSYS	NO	10.10.9.59-system	2010-08-27 15:02:06.0	1			

Records 1 to 5 of 23997

ORA Accnts of ALTER SYSTEM
Start Date: 2010-08-25 01:35:38 End Date: 2010-08-30 01:35:38
Aliases: ON

Grantee	Privilege	Admin Option	Datasource Name	SqGuard	Timestamp	Count of ORA Accnts of ALTER SYSTEMS
XDB	ALTER SESSIONNO	10.10.9.59-system	2010-08-27 15:02:05.0	1		
BI	ALTER SESSIONNO	10.10.9.59-system	2010-08-27 15:02:05.0	1		
SYS	ALTER SYSTEM NO	10.10.9.59-system	2010-08-27 15:02:05.0	1		
SYS	ALTER SESSIONNO	10.10.9.59-system	2010-08-27 15:02:05.0	1		
SH	ALTER SESSIONNO	10.10.9.59-system	2010-08-27 15:02:05.0	1		

Records 1 to 5 of 14

ORA Accnts with BECOME USER
Start Date: 2010-08-25 01:35:38 End Date: 2010-08-30 01:35:38
Aliases: ON

Grantee	Privilege	Admin Option	Datasource Name	SqGuard	Timestamp	Count of ORA Accnts with BECOME USERS
DBA	BECOME USERYES	10.10.9.59-system	2010-08-27 15:02:05.0	1		
SYS	BECOME USERNO	10.10.9.59-system	2010-08-27 15:02:05.0	1		
IMP_FULL_DATABASE	BECOME USERNO	10.10.9.59-system	2010-08-27 15:02:05.0	1		

Records 1 to 3 of 3

ORA Object privileges
Start Date: 2010-08-25 01:35:38 End Date: 2010-08-30 01:35:38
Aliases: ON

Grantee	Table Name	Owner	Privilege	Datasource Name	SqGuard	Timestamp	Count of ORA Object privileges
IX	DBMS_CAPTURE_ADMIN	SYS	EXECUTE	10.10.9.59-system	2010-08-27 14:58:28.0	1	
BI	CUSTOMERS	OE	SELECT	10.10.9.59-system	2010-08-27 14:58:28.0	1	
ORDSYS	EXP_PPKGOBJ\$	SYS	INSERT	10.10.9.59-system	2010-08-27 14:58:28.0	1	
BI	BOMBAY_INVENTORY	OE	SELECT	10.10.9.59-system	2010-08-27 14:58:28.0	1	
ORDSYS	EXP_DEPOBJ\$	SYS	DELETE	10.10.9.59-system	2010-08-27 14:58:28.0	1	

Records 1 to 5 of 93

ORA SYSDBA and SYSOPER Accnts
Start Date: 2010-08-25 01:35:38 End Date: 2010-08-30 01:35:38
Aliases: ON

Username	Is Sysdba	Is Sysoper	Is External Password	Datasource Name	SqGuard	Timestamp	Count of ORA SYSDBA and SYSOPER Accnts
SYS	TRUE	TRUE	FALSE	10.10.9.59-system	2010-08-27 15:02:04.0	1	

Records 1 to 1 of 1

ORA All Sys Priv and admin opt
Start Date: 2010-08-25 01:35:38 End Date: 2010-08-30 01:35:38
Aliases: ON

Grantee	User Or Role	System Privilege	Admin Option	Datasource Name	SqGuard	Timestamp	Count of ORA All Sys Priv and admin opts
SYSTEM	User	DROP ANY SYNONYM	NO	10.10.9.59-system	2010-08-27 15:00:49.0	1	

Managing the information...

Custom Reporting

Custom Tables

- Netezza Obj Prvs by DB Username
- Netezza Obj Prvs By Group
- Netezza Obj Prvs Granted
- ORA Accnts of ALTER SYSTEM**
- ORA Accnts with BECOME USER
- ORA All Sys Priv and admin opt
- ORA Obj And Columns Priv
- ORA Object Access By PUBLIC
- ORA Object privileges
- ORA PUBLIC Exec Priv on SYS Proc
- ORA Roles Granted
- ORA Sys Priv Granted
- ORA SYSDBA and SYSOPER Accnts
- PostgreSQL Priv On DBs Granted PubUserRole
- PostgreSQL Priv On Language Granted PubUserRole
- PostgreSQL Priv On Schema Granted PubUserRole
- PostgreSQL Priv On Tablespace Granted PubUserRole
- PostgreSQL Role Granted To User Or Role
- PostgreSQL Super User Granted To User Or Role
- PostgreSQL Sys Prvs Granted To User And Role

Upload Definition **Manually Define** **Modify** **Delete** **Roles...**

Upload Data **Edit Data** **Purge** **Invalid Queries**

Schedule, Purge, Overwrite, etc...

Custom Reporting

Import Data

Entity desc ORA Accnts of ALTER SYSTEM
Table name ORA_ACCNTS_ALTER_SYSTEM_AND_SESSION

Configuration

SQL statement

Id column name

Id column type

DML command after upload

Overwrite per upload per datasource

Use default schedule

Default Purge

The page at https://10.10.9.248:8443 says:

Operation ended successfully.
32 total inserts.
osprey_system:16 inserts.
10.10.9.56-sqlguard:16 inserts.

OK

Datasources

	Name	Type	Host	UserName
<input checked="" type="checkbox"/> 	osprey_system_ORACLE(Classifier)	ORACLE	10.10.9.56	system
<input checked="" type="checkbox"/> 	10.10.9.56-sqlguard_ORACLE(Classifier)	ORACLE	10.10.9.56	joe

Add Datasource...

Scheduling

Upload is currently not scheduled for execution.

Modify Schedule... Run Once Now

Apply Check/Repair Verify Datasource Back

UID Chaining to Identify Unique Individual with “Generic” Accounts

- Problem:

- Generic accounts like “System”, “SA”, “Sys” don’t have individual accountability to identify who performed the database transactions
 - Etc

- Solution

- Use Guardium UID Chain feature. Need (hunter_trace=1) in guard_tap.ini

- Use Case

- Uniquely identify “joe” as the user that logged into Oracle using the “system” account, from the OS User of “Oracle”

Developers/SAs/Analysts - Access to Live Production Systems

Start Date: 2010-03-07 20:53:45 End Date: 2010-03-12 17:53:45

Timestamp	Client IP	Server IP	Network Protocol	Uid Chain Compressed	OS User	DB User Name	Source Program	Full Sql	Uid Chain
2010-03-11 20:47:40.0	10.10.9.56	10.10.9.56	BEQUEATH	joe	ORACLE SYSTEM	SQLPLUS@OSPREY	select * from creditcard		(1,root,init [3])->(2267,root/usr/sbin/sshd)->(20063,root,sshd:joe [priv])->(20065,joe,sshd:joe@pts/3)->(20066,joe,-bash)->(20142,joe,su-oracle)->(20149,oracle,-bash)->(20175,oracle,sqlplus)->(20182,oracle,oracleXE(DESCRIPTION=(LOCAL=YES)(ADDRESS=(PROTOCOL=beq))))

```
joe@osprey:~$ Using username "joe".
joe@10.10.9.56's password:
Last login: Fri Sep 25 13:31:39 2009 from jdi
[joe@osprey ~]$ su - oracle
Password:
-bash-3.00$ sqlplus system

SQL*Plus: Release 10.2.0.1.0 - Production on Fri Mar 12 16:35:53 2010

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Enter password:

Connected to:
Oracle Database 10g Express Edition Release 10.2.0.1.0 - Production

SQL> select * from creditcard;

NAME                                CARDNUMBER      CARDID
-----                                -----          -----
Joe D                               1234567890123456      1
Harry S                            2345678901234567      2

SQL> quit
Disconnected from Oracle Database 10g Express Edition Release 10.2.0.1.0 - Production
-bash-3.00$ 
```

hunter_trace=1



Change Management Reconciliation

- Problem:
 - It's a manual and time consuming process to reconcile database changes to appropriate change tickets
- Solution
 - Use Guardium Select API to link DBA activity with change ticket number
- Use Case
 - Oracle DBA uses SQLPlus to change database based on change ticket. A report is required for auditors to identify the appropriate ticket with actual changes to the database
 - ** See attached document

Change Management Systems Overview

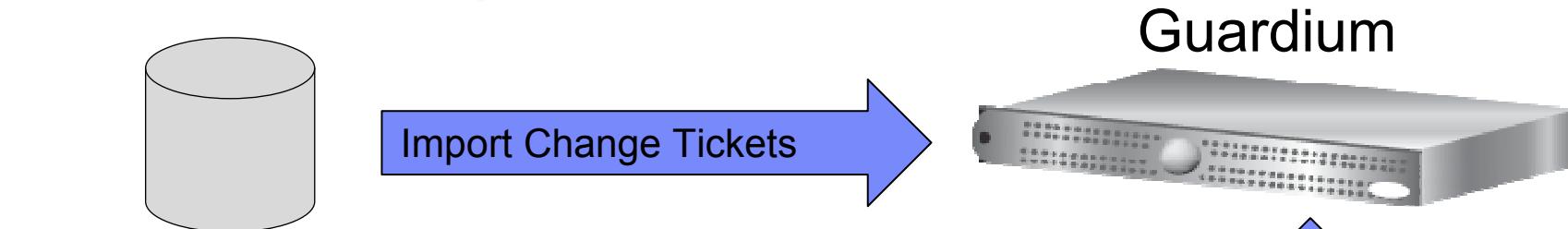
Authorized Change

Unauthorized Change

Timestamp	Server IP	DB User Name	CR Owner	CR Number - observed	Actual SQL	CR Number - CMDB	CR Instruction
2008-09-22 17:33:30.0	192.168.8.129	SYSTEM	allen	crq0000000000027	CREATE TABLE pci_data (owner_name varchar(?), cc_number varchar(?))	CRQ0000000000027	Please create a table called PC data
2008-09-22 17:34:02.0	192.168.8.129	SYSTEM			drop table pci_data		

Records: 1 to 2 of 2

Aliases: ON

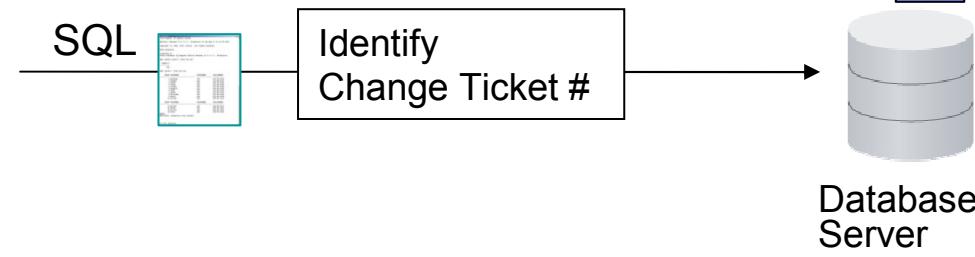


Change Management Application (Remedy)

Unify database activity with change control process



DBA Activity



Change Control Process

Change CRQ000000000042 (Modify)

BMC REMEDY IT SERVICE MANAGEMENT - Change Management

Infrastructure Change

Help 

Quick Links

- CI Search
- Select Operational
- Select Product
- View Broadcasts
- View Calendar
- Functions**
- Advanced**
- Create Other Requests**
- Consoles**

Change ID*: CRQ000000000042

Process Flow Status



Approval Status

- Current
- Overall

Change Request Information

Change Type*	Change	Status*	Scheduled For Approval	Impact*	4-Minor/Localized
Summary*	Alter SOX revenue table	Status Reason		Urgency*	4-Low
Notes		Risk Level*	Risk Level 1	Priority	Low
Requested By		Requested For			
Support Company*		First Name+			

Start Date: 2009-01-22 15:00:00 End Date: 2009-01-22 16:00:00

Timestamp	Server Type	risk level	priority	description	change_id	change_id_entered	Assigned To	DB User Name	Client IP	Server IP	Sql
2009-01-22 15:08:12.0	ORACLE	0	3	Alter SOX revenue table	CRQ000000000042	crq000000000042	allen	ALLEN	192.168.8.129	192.168.8.129	SELECT ? from dual
2009-01-22 15:08:21.0	ORACLE	0	3	Alter SOX revenue table	CRQ000000000042	crq000000000042	allen	ALLEN	192.168.8.129	192.168.8.129	Alter table sox_sales_east add total_revenue float
2009-01-22 15:08:29.0	ORACLE	0	3	Alter SOX revenue table	CRQ000000000042	crq000000000042	allen	ALLEN	192.168.8.129	192.168.8.129	Alter table sox_sales_central add total_revenue float
2009-01-22 15:08:36.0	ORACLE	0	3	Alter SOX revenue table	CRQ000000000042	crq000000000042	allen	ALLEN	192.168.8.129	192.168.8.129	Alter table sox_sales_west add total_revenue float
2009-01-22 15:08:44.0	ORACLE	0	3	Alter SOX revenue table	CRQ000000000042	crq000000000042	allen	ALLEN	192.168.8.129	192.168.8.129	Alter table sox_sales_international add total_revenue float
2009-01-22 15:12:39.0	ORACLE	0	0				SYSTEM	192.168.8.129	192.168.8.129		alter table allen.sox_sales_east add sum_total float
2009-01-22 15:14:19.0	ORACLE	0	0				SYSTEM	192.168.8.129	192.168.8.129		insert into allen.sox_sales_east (i,customer,zipcode,revenue,total_revenue,sum_total) values(?,?,?,?,?,?)
2009-01-22 15:41:44.0	ORACLE	0	0		crq000000000232		allen	SYSTEM	192.168.8.129	192.168.8.129	SELECT ? from dual
2009-01-22 15:41:55.0	ORACLE	0	0		crq000000000232		allen	SYSTEM	192.168.8.129	192.168.8.129	Alter table sox_sales_international add total_rev float

Sample login.sql for oracle environments

- Change Management Integration

Start Date: 2009-01-27 22:36:04 End Date: 2009-01-27 23:36:04

Timestamp	Event User Name	Event Value Str	Event Type	Client IP	Server IP	DB User Name	Sql
2009-01-27 23:33:11.0	finance	changerequest	craq000054	10.10.9.56	10.10.9.56	JOE	alter table salesregion add latinamerica float

```
root@osprey:~/jsql
[root@osprey jsq]# sqlplus joe

SQL*Plus: Release 10.2.0.1.0 - Production on Tue Jan 27 23:32:26 2009

Copyright (c) 1982, 2005, Oracle. All rights reserved.

Enter password:

Connected to:
Oracle Database 10g Express Edition Release 10.2.0.1.0 - Production

Enter Business Owner: Finance
Enter Change Request (ticket) Number: CRQ000054
SQL> alter table salesregion add latinamerica float;

Table altered.

SQL> quit
Disconnected from
[root@osprey jsq]
```

Portions of login.sql

```
accept EventUserName char prompt "Enter Business Owner: "
accept TicketNumber char prompt "Enter Change Request (ticket) Number: "
select 'GuardAppEvent:Start', 'GuardAppEventType:&TicketNumber',
      'GuardAppEventUserName:&EventUserName',
      'GuardAppEventStrValue:ChangeRequest' from dual;
```

Application User Identification

- Problem:

- Identify the actual user that performed a transaction to the database through a pooled user account

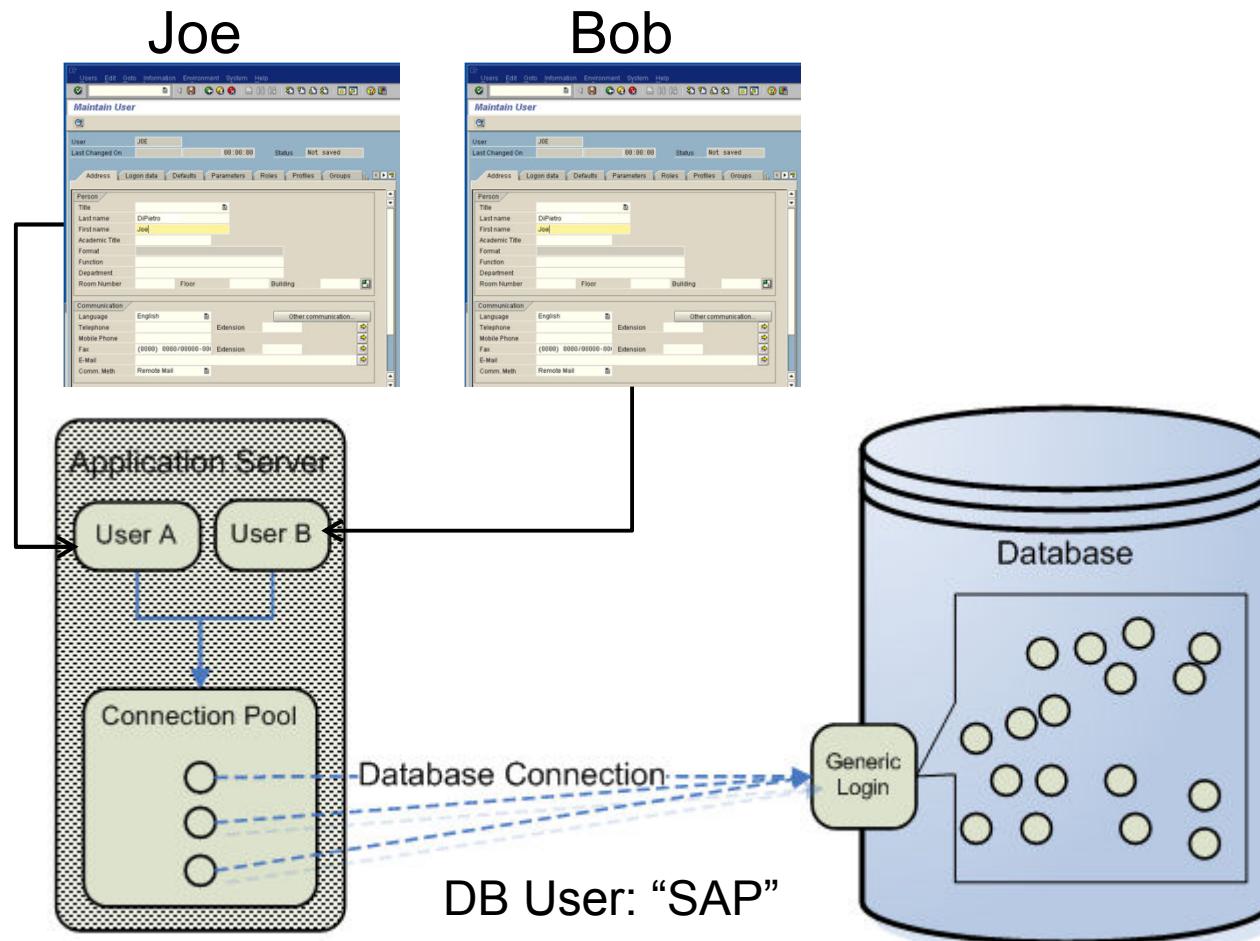
- Solution

- Depending on the application architecture, Guardium can help identify the actual user through the pooled connection

- Use Case

- Need to identify the SAP user that performs that transactions and the SAP transaction codes
 - Out of the box, SAP, Siebel, Oracle EBS, etc
 - Custom Applications
 - Depends on the architecture, but there are different methods that we can use.
Stored Procedure Scraping, Custom API's, etc

Identifying the End User of the Transaction Through a Pooled Database User



SAP Transactions to G/L Account

SAP Easy Access

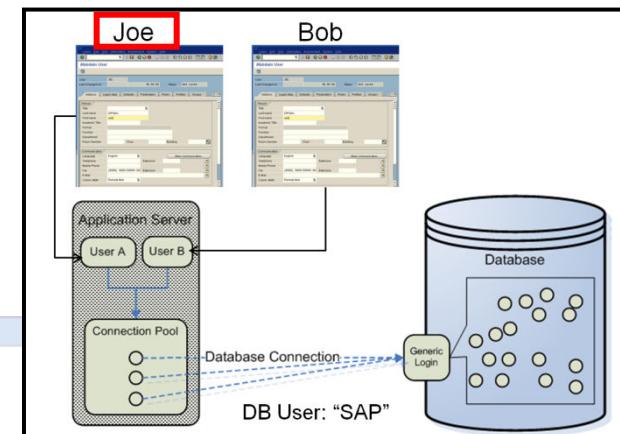
- Menu Edit Favorites Extras System Help
- Enter G/L Account Document
- Enter G/L Account Document for Ledger

sql trace

Start Date:	2010-09-22 10:17:24:10.0						
Aliases:	ON						
DBUserLike:	LIKE %						
NetProtoLike:	LIKE %						
SourceProgLike:	LIKE %						
Pooled SAP Database User	8:22:52						
DB User Name	SAPE6A						
Application User	JOE						
Timestamp	Client IP	Server IP	Network Protocol	Database Name	DB User Name	Application User	Full Sql
2010-09-22 10:10:10.10.10.10	10.10.10.10.10.10.10	SHARED MEMORY	E6A	SAPE6A	JOE		SELECT * FROM "TSTC" WHERE "TCODE" = 'FB50' FETCH FIRST 1 ROWS ONLY OPTIMIZE FOR 1 ROWS WITH CS -- OPTLEVEL(5) -- QUERY_DEGREE(1) -- LOCATION(SAPLSMTR_NAVIGATION_MODULES , 621) -- SYSTEM(E6A, SAPE6A)
2010-09-22 10:10:10.10.10.10	10.10.10.10.10.10.10	SHARED MEMORY	E6A	SAPE6A	JOE		SELECT * FROM "TSTCT" WHERE "SPRSID" = 'E' AND "TCODE" = 'FB50' FETCH FIRST 1 ROWS ONLY OPTIMIZE FOR 1 ROWS WITH CS -- OPTLEVEL(5) -- QUERY_DEGREE(1) -- LOCATION(SAPLSMTR_NAVIGATION_MODULES , 1416) -- SYSTEM(E6A, SAPE6A)

You are not authorized to use transaction FB50

- User activity is based on transactions
- G/L Account Posting = FB50 transaction



Tesekkur Ederiz!