Oracle Secure Backup

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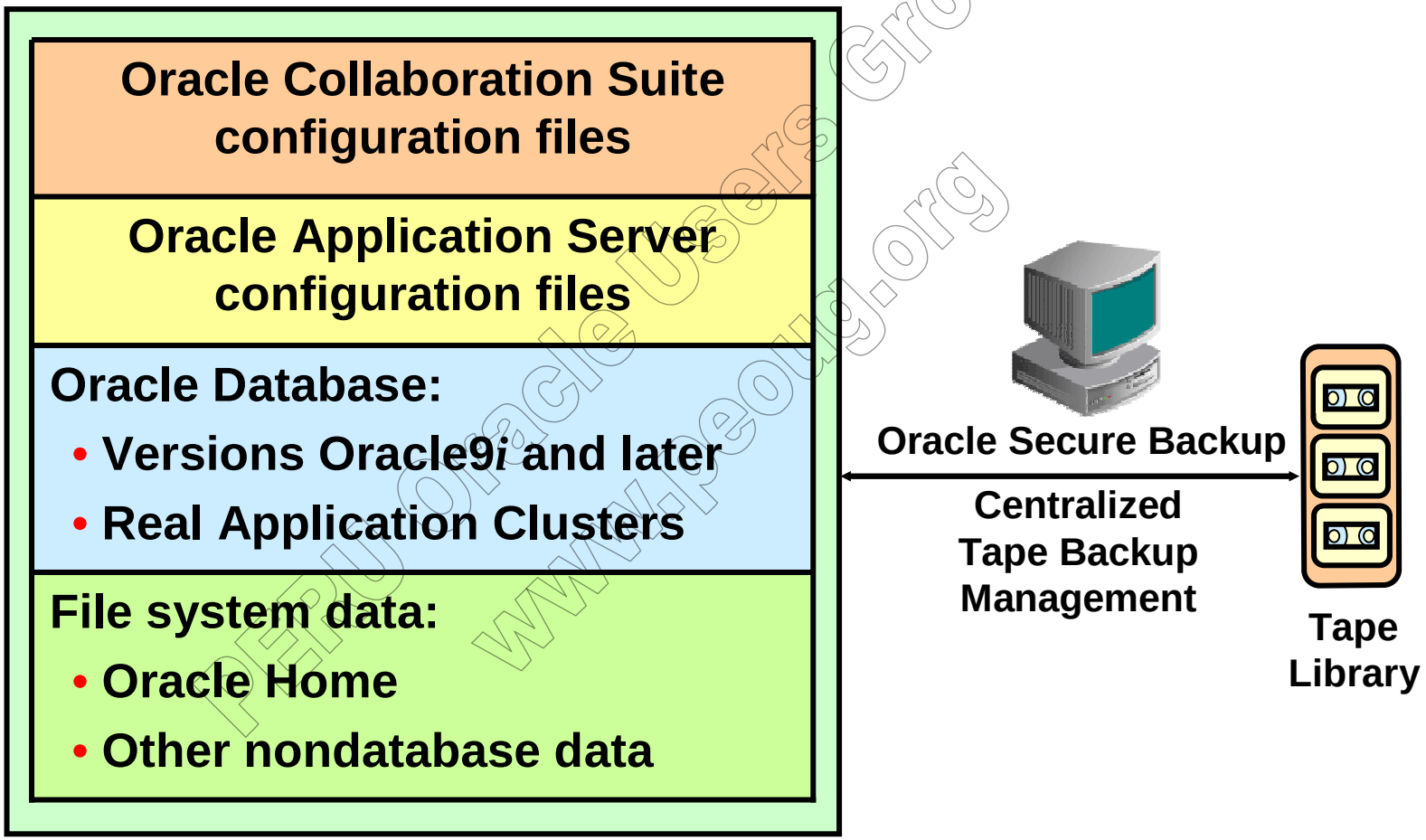
Objectives

- Describe the Oracle Secure Backup architecture and how it benefits your environment
- Discuss the basic Oracle Secure Backup media management concepts
- Install and configure Oracle Secure Backup
- Use RMAN and Oracle Secure Backup to back up and restore the Oracle database
- Use Oracle Secure Backup to back up and restore file-system files

Data Protection to Tape for the Oracle Stack

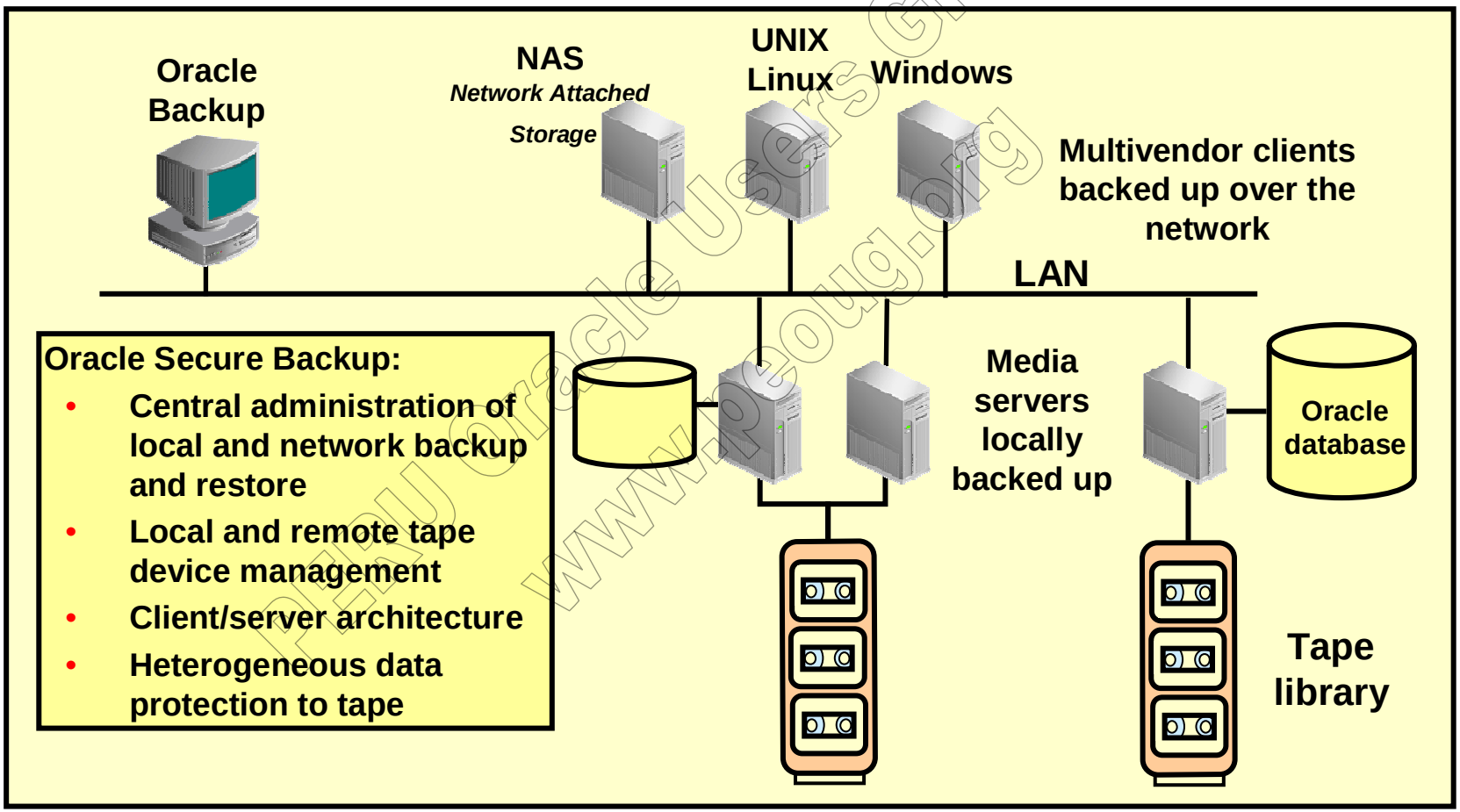


Backup and Restore

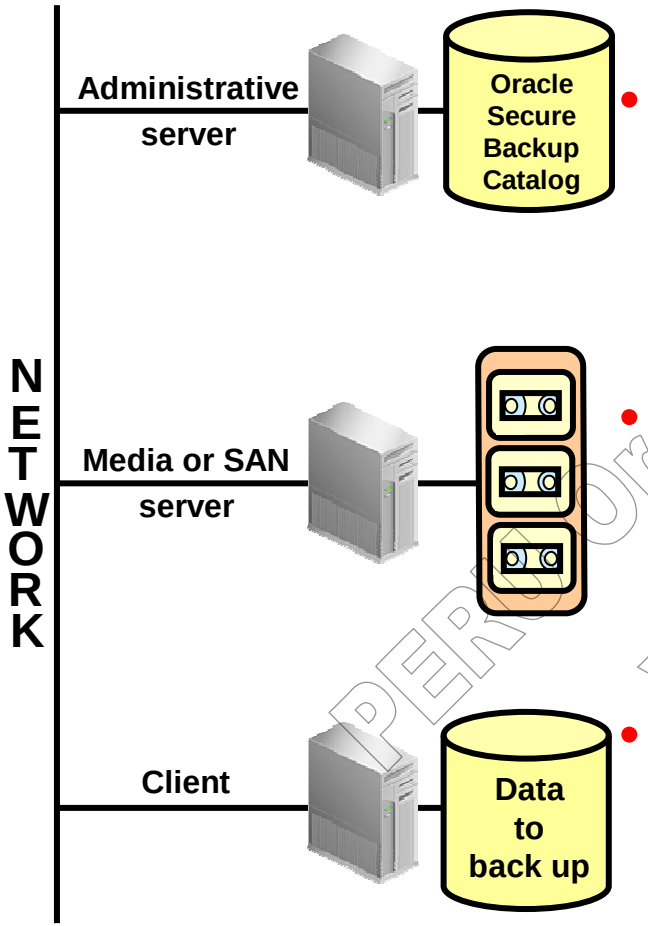
The Customer Advantage
Complete Oracle Solution

- **Oracle Secure Backup and RMAN provide an end-to-end backup solution for Oracle environments:**
  - **Centralized backup management to tape for file system data and the Oracle database**
  - **Provides most well-integrated media management layer for RMAN backups**
  - **Backup of any data anywhere on the network**
- **A single technical support resource for the entire backup solution expedites problem resolution.**
- **This ensures reliable data protection at lower cost and complexity.**

Oracle Secure Backup for Centralized Tape Backup Management



Oracle Secure Backup Administrative Domain



- **Administrative server:**
  - Maintains Oracle Secure Backup catalog files containing configuration settings and backup history
  - Has standard access mode only
- **Media or SAN server:**
  - Transfers data to or from attached devices
  - Has standard (OB) or NDMP access modes
- **Client:**
  - Is a server backed up by Oracle Secure Backup
  - Has standard (OB) or NDMP access modes

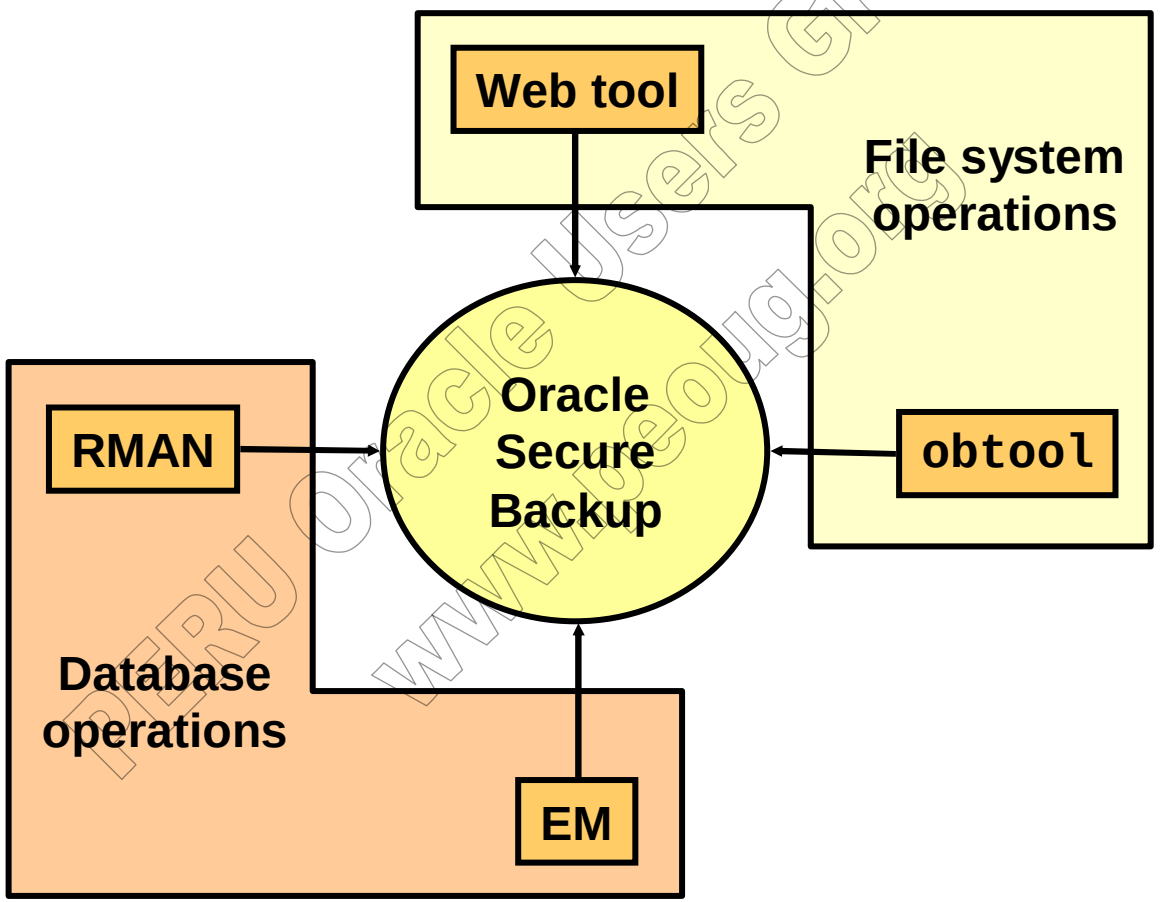
Oracle Secure Backup: Backup Management Overview

- Centralized management of the administrative domain:
  - Consolidated catalog
  - Users and privileges
- Ease of administration with multiple interface options, backup policies, and much more
- Backing up and restoring data
  - File system and Oracle database
  - Management through policies
- Media management (tapes)
- Automated tape device management
- Flexible configuration options

Predefined Classes

Rights	ADMIN	OPERATOR	USER	ORACLE	READER
Browse backup catalogs with this access	privileged	not denied	permitted	permitted	named
Display administrative domain's configuration	✓	✓	✓	✓	
Modify own user name and password	✓	✓	✓	✓	✓
Modify administrative domain's configuration	✓				
Perform backups as self	✓	✓		✓	
Perform backups as privileged user	✓	✓			
List any jobs, owned by user	✓	✓	✓	✓	
Modify any jobs, owned by user	✓	✓	✓	✓	
Perform restores as self	✓	✓	✓	✓	
Perform restores as privileged user	✓	✓			
Receive e-mail requesting operator assistance	✓	✓		✓	
Receive e-mail describing internal errors	✓	✓		✓	
Query and display information about devices	✓	✓	✓	✓	
Manage devices and change device state	✓	✓		✓	
List any job, regardless of its owner	✓	✓			
Modify any job, regardless of its owner	✓	✓			
Access Oracle Secure Backups (database)	all	owner	owner	owner	none
User can perform Oracle database backups and restores	✓			✓	

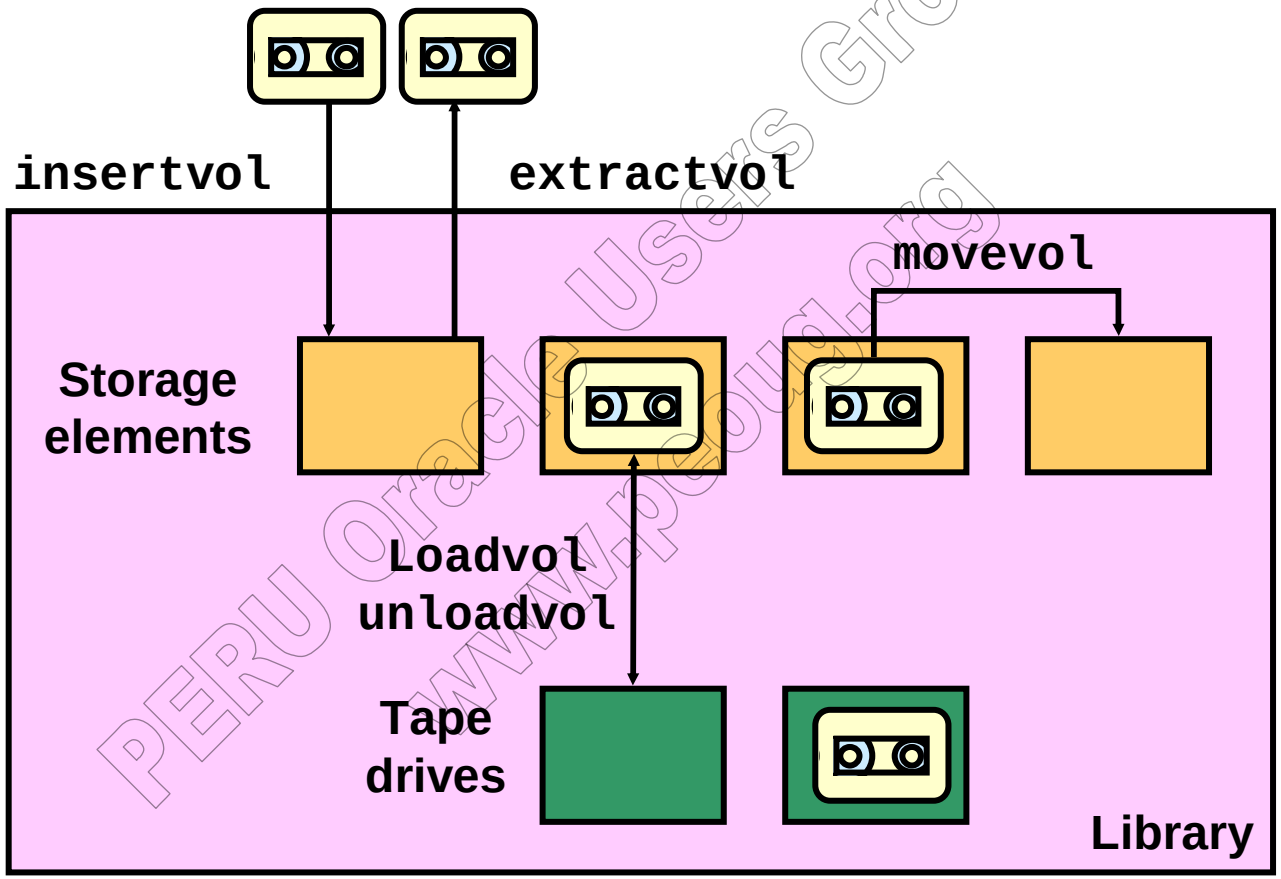
Oracle Secure Backup Interface Options



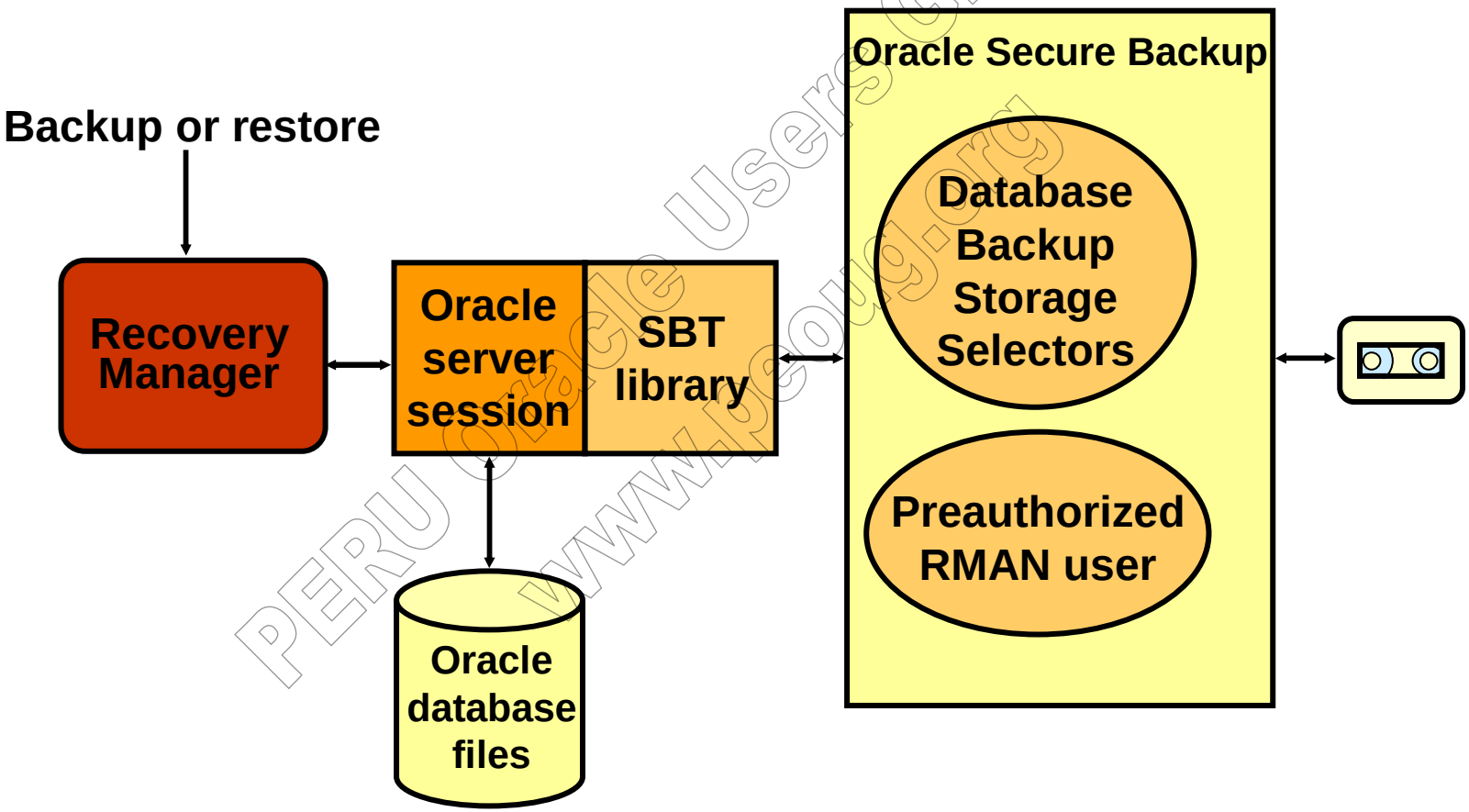
Managing Data to Be Protected

	Oracle Database	File System Data
Defining what data to backup	RMAN backup sets	Oracle Secure Backup data sets: User defined
Backup options	Use RMAN backup levels: Full and incremental	Multilevel backups: Full, incremental, or off-site
Frequency of backups	Intuitive Enterprise Manager scheduling interface	Flexible date/time calendar–based scheduling
		On-demand backups

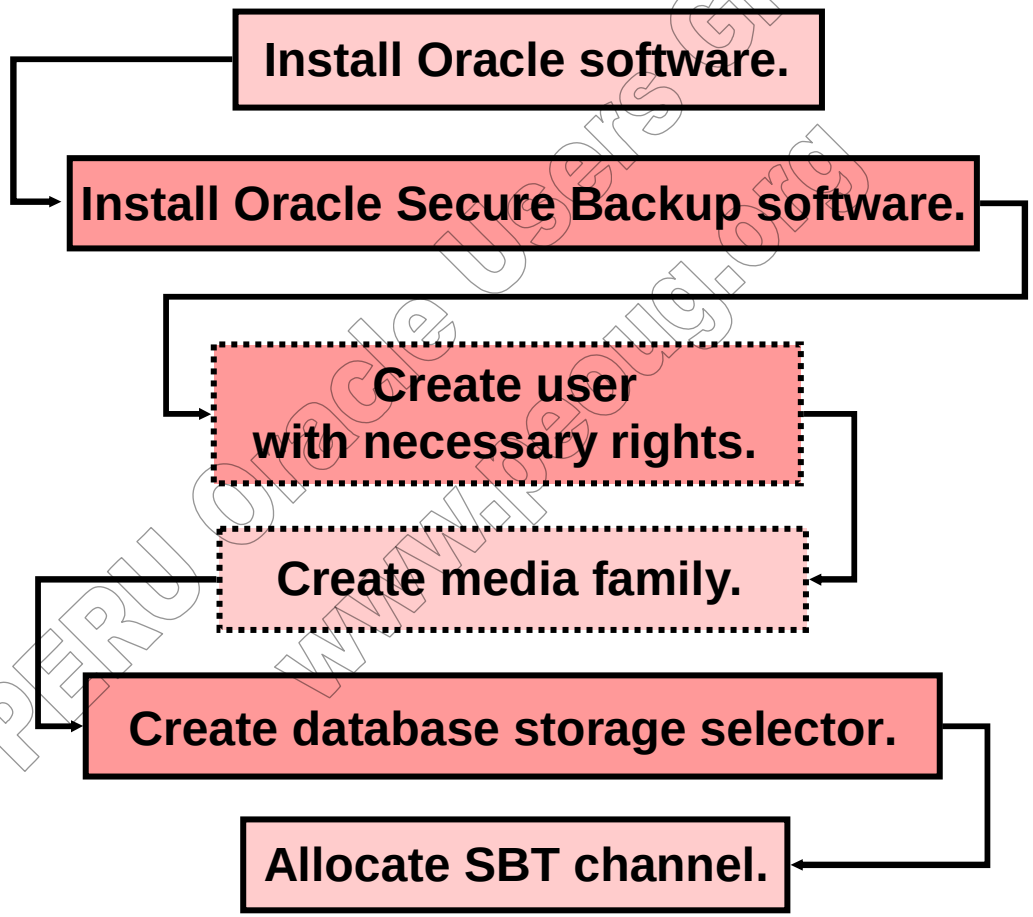
Library Management Operations



Accessing Oracle Secure Backup from RMAN



RMAN and Oracle Secure Backup Usage Model

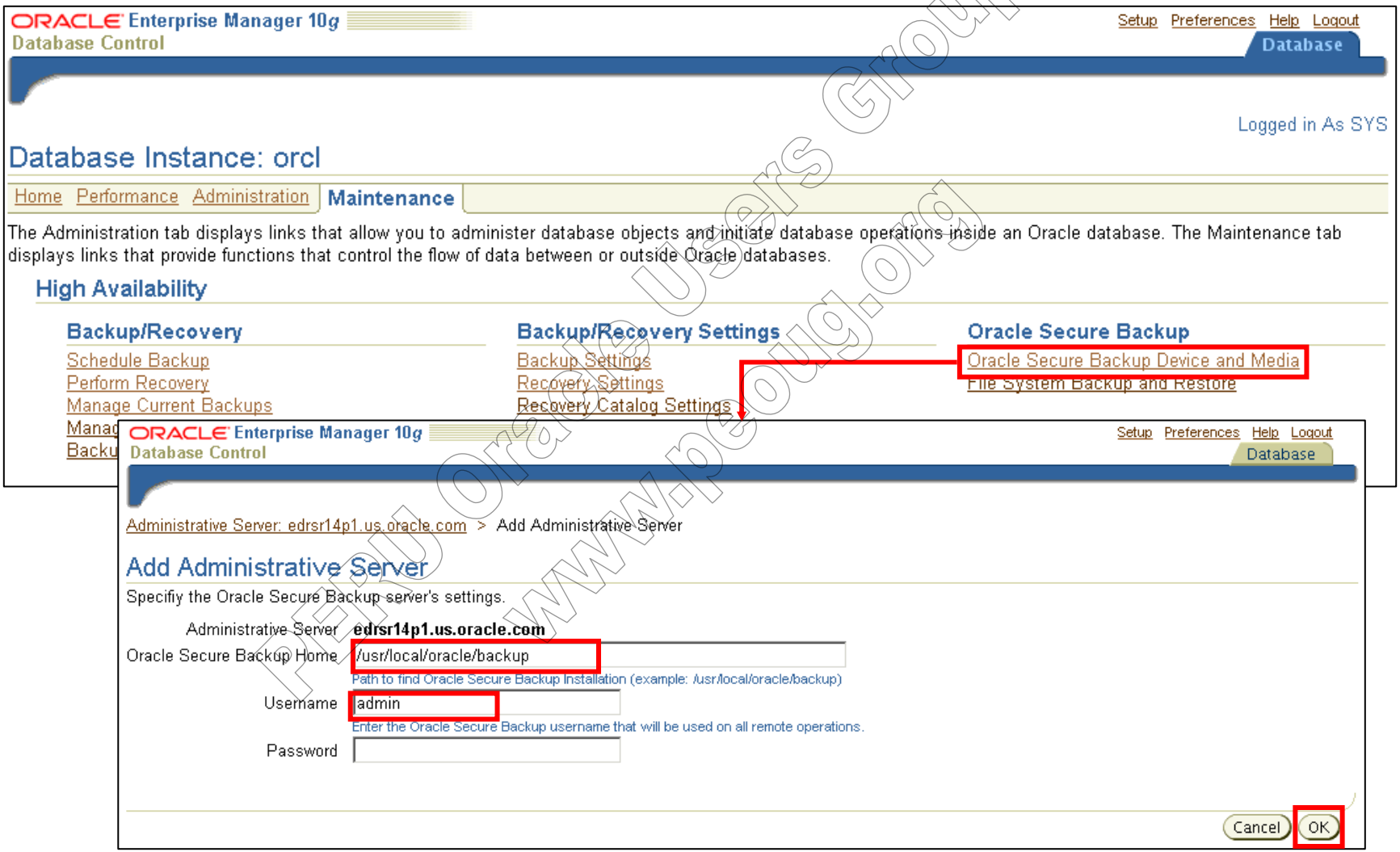


Administrative Server Installation: Example

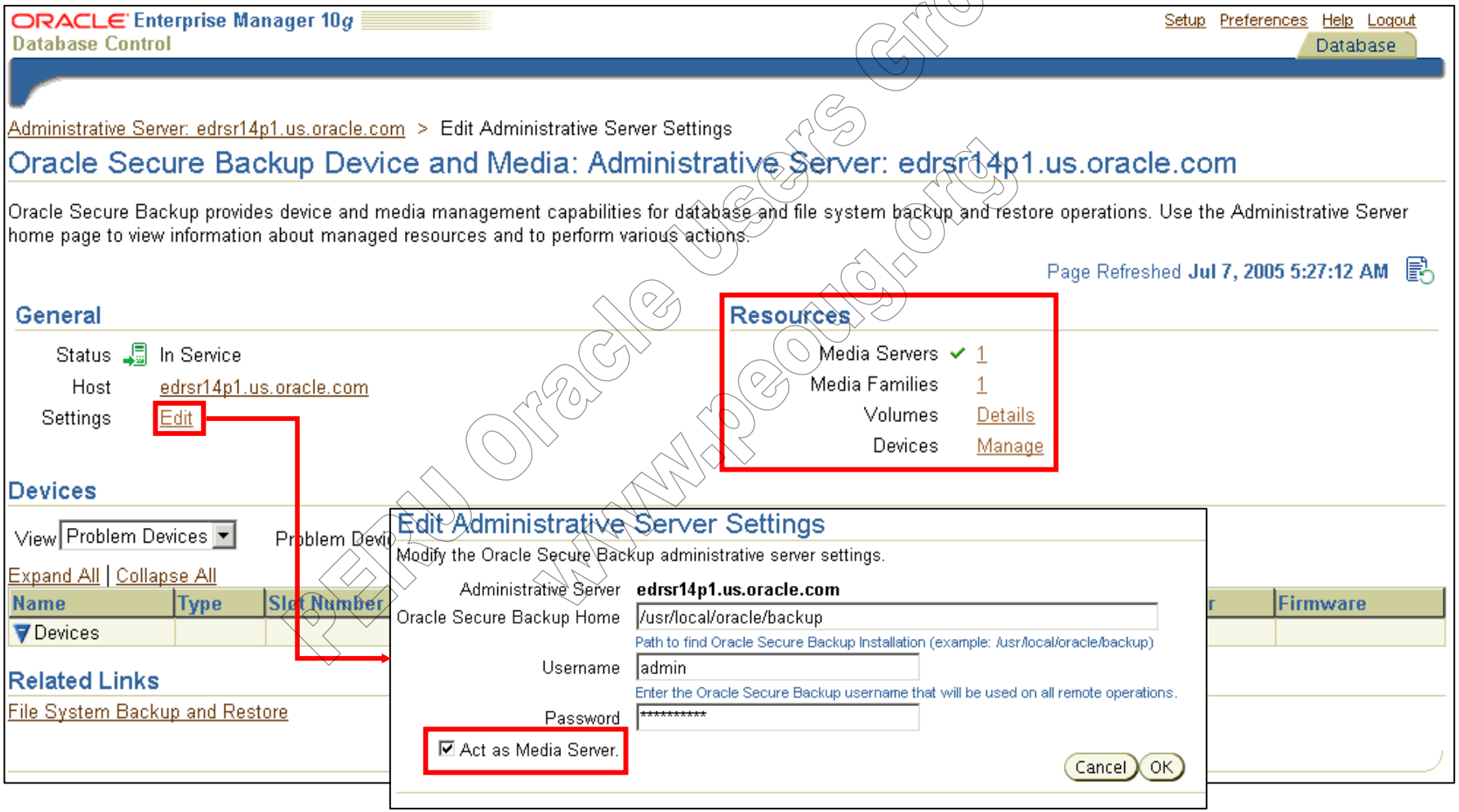
```
[root@EDRSR14P1 stage]# mkdir -p /usr/local/oracle/backup
[root@EDRSR14P1 stage]# cd /usr/local/oracle/backup
[root@EDRSR14P1 backup]# /stage/ob-4.1cdrom040914/setup
Welcome to Oracle's setup program for Oracle Secure Backup. This
program loads Oracle Secure Backup software from the CD-ROM to a
filesystem directory of your choosing.
This CD-ROM contains Oracle Secure Backup version 10.2.
Please wait a moment while I learn about this host... done.
-  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -
You may load any of the following Oracle Secure Backup packages:
1. solaris (Solaris 32, SPARC) administrative server, media
server, client
2. linux32 (RH 2.1, RHEL 3, RHEL 4, SuSE 8, SuSE 9)
administrative server, media server, client
3. solaris64 (Solaris 2.8 and later, SPARC) administrative
server, media server, client

Enter a space-separated list of packages you'd like to load. To
load all packages, enter 'all' [2]:  2
```

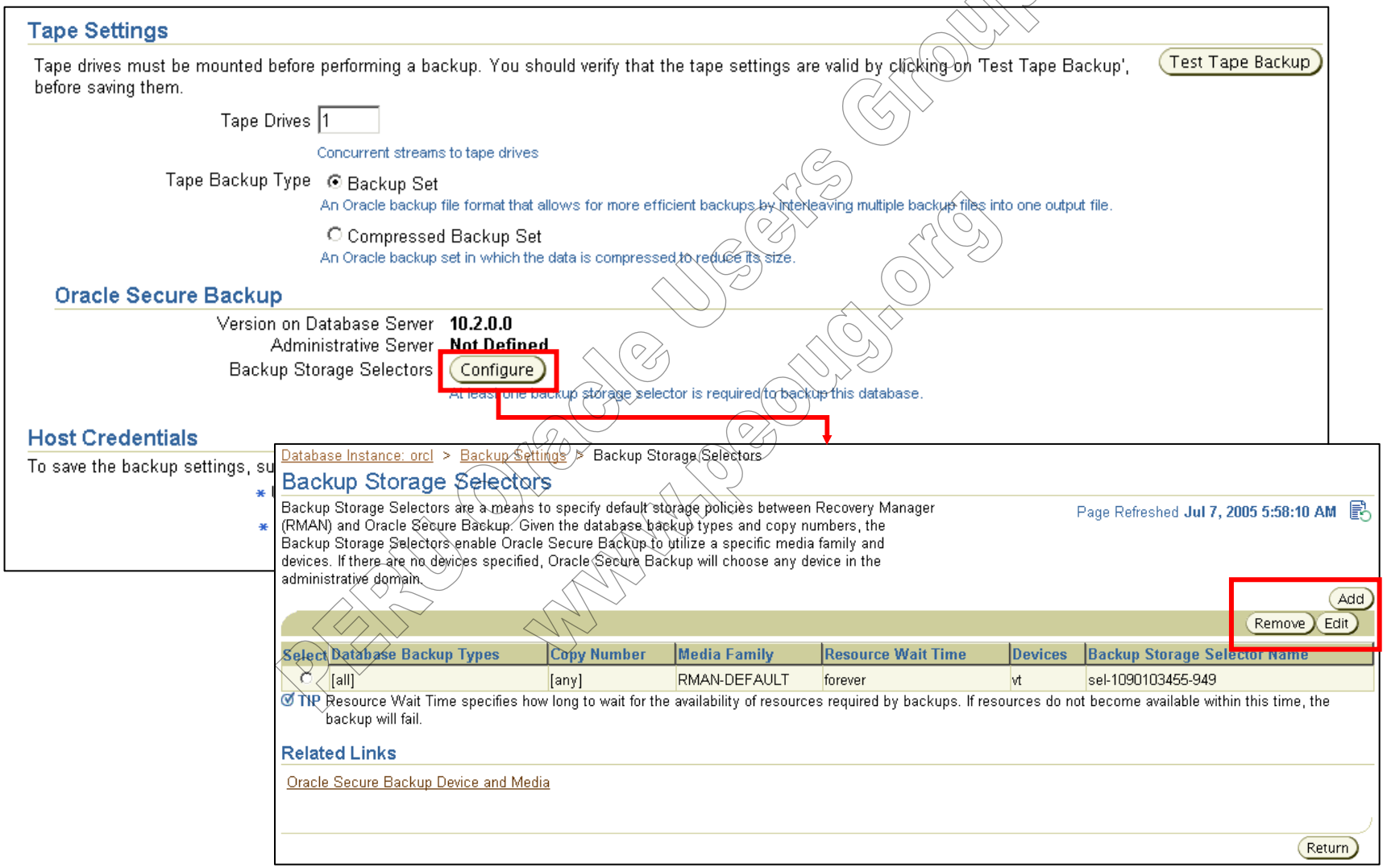
Defining Your Administrative Server in EM



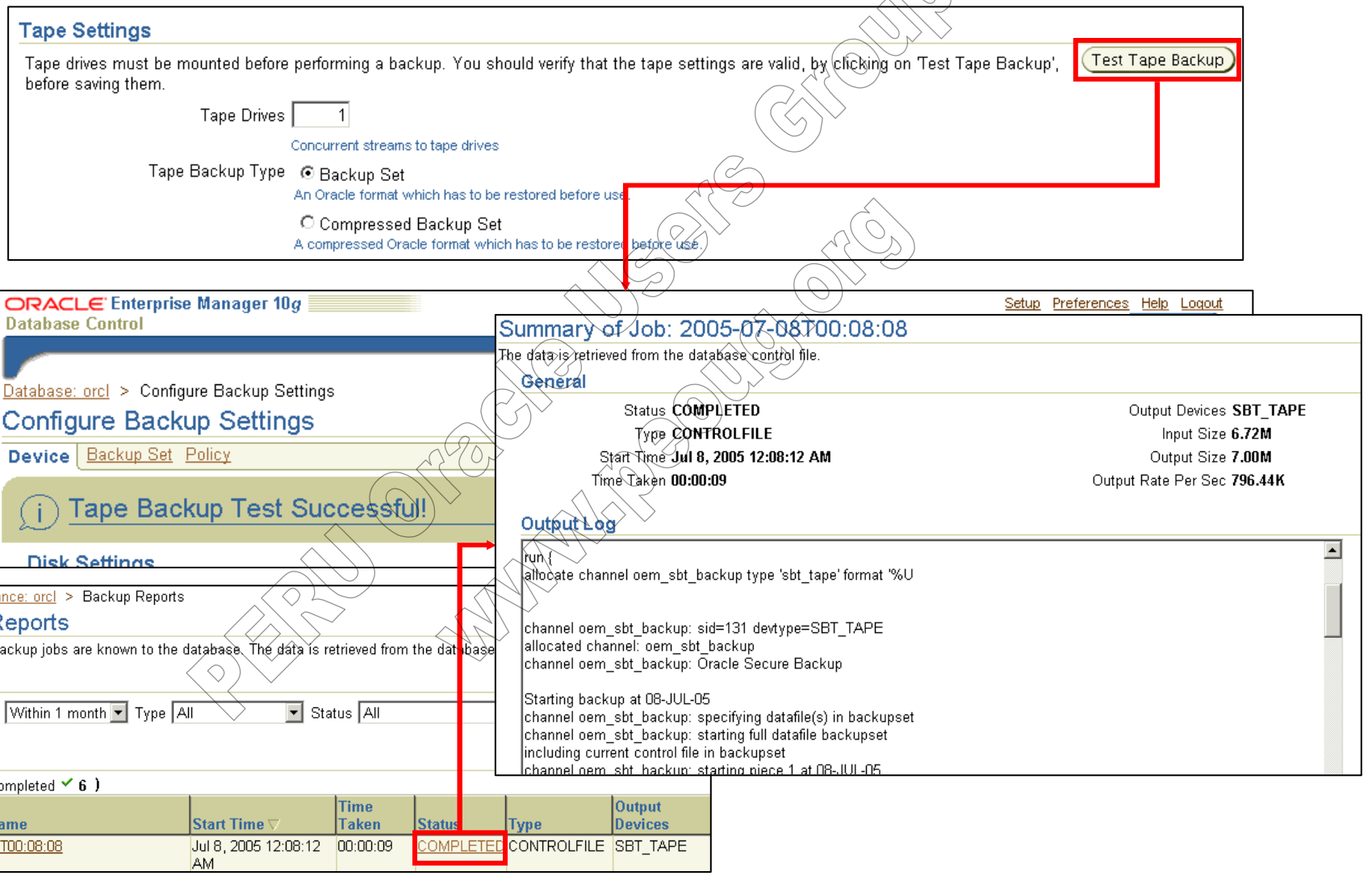
The Oracle Secure Backup Device and Media Page



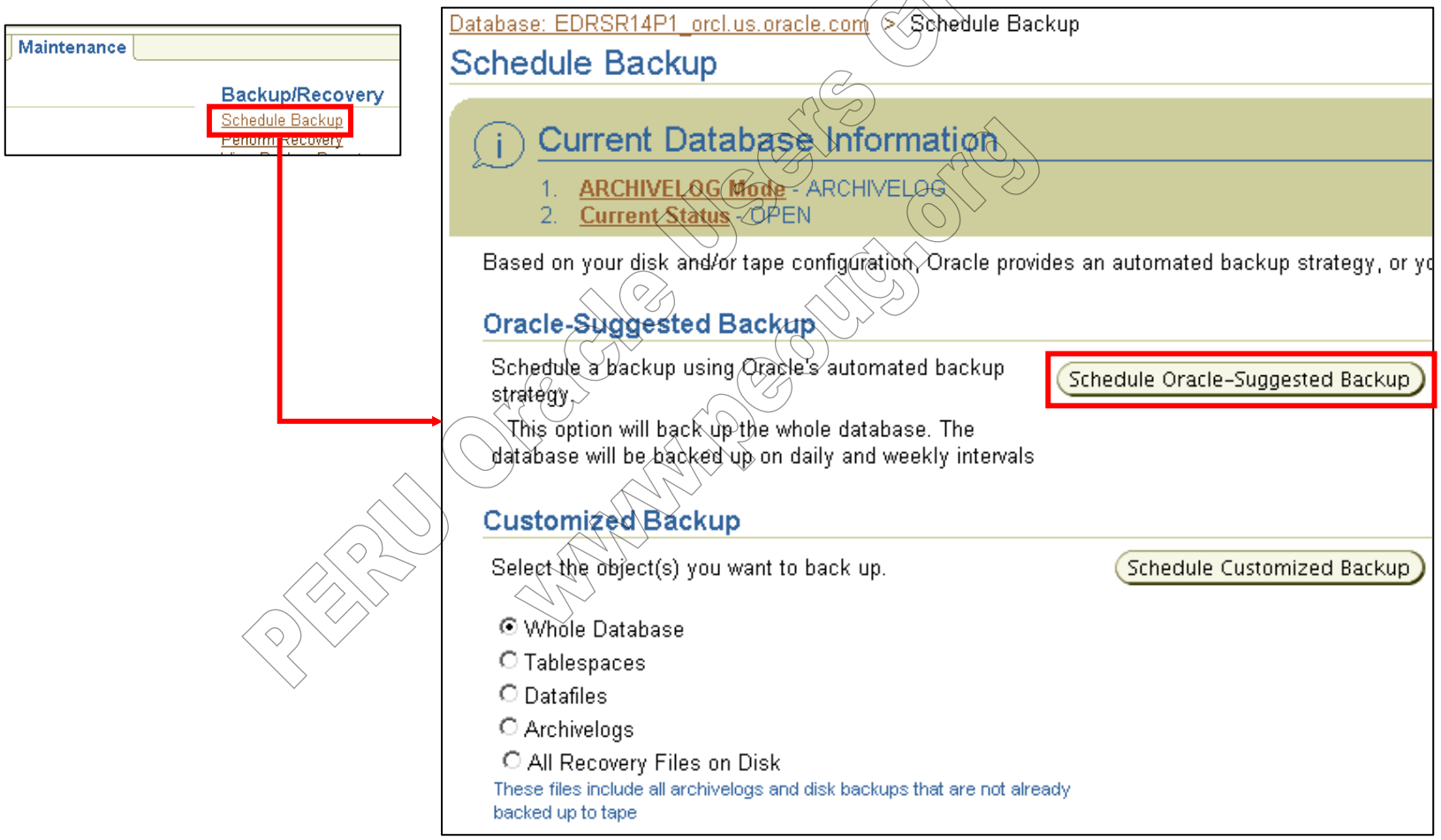
Defining Database Storage Selector



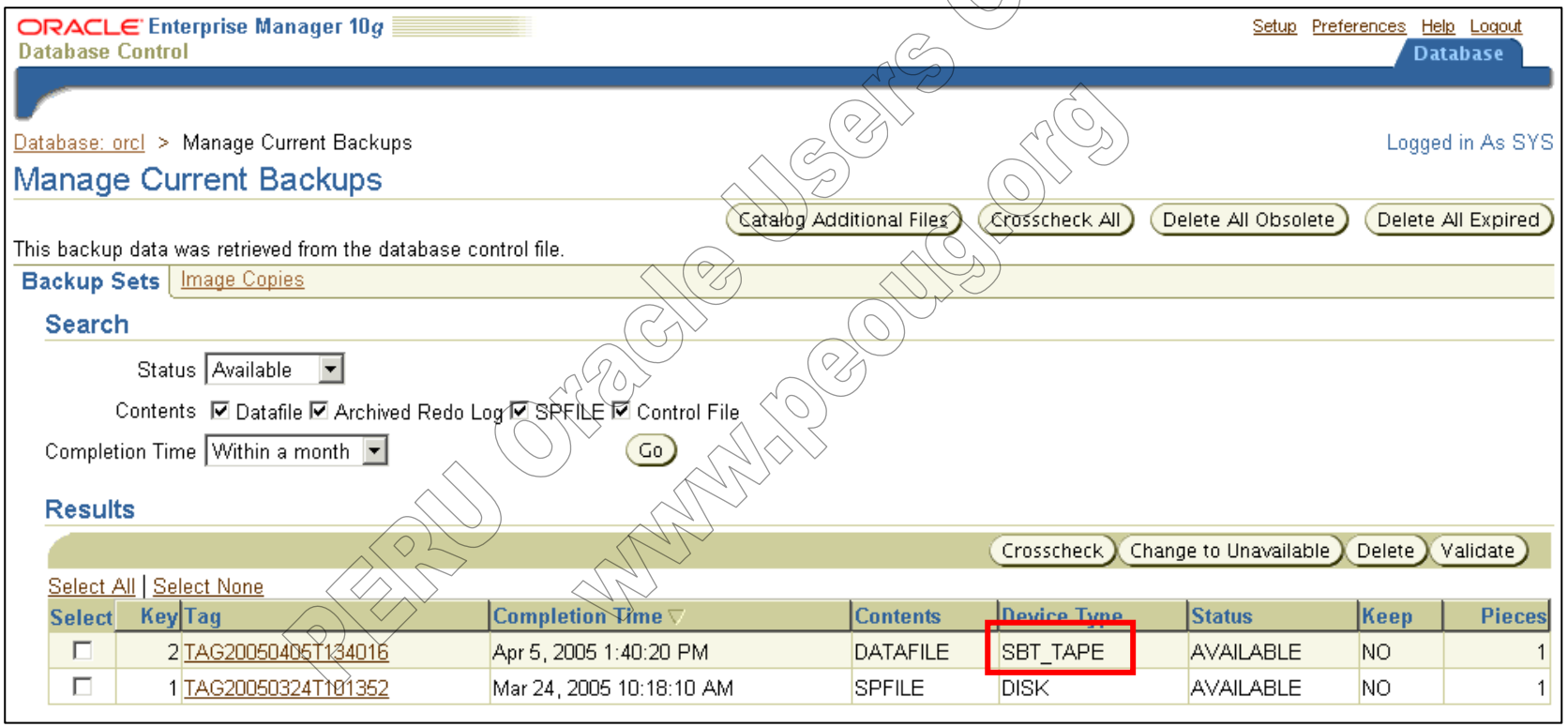
Testing Your Tape Drives



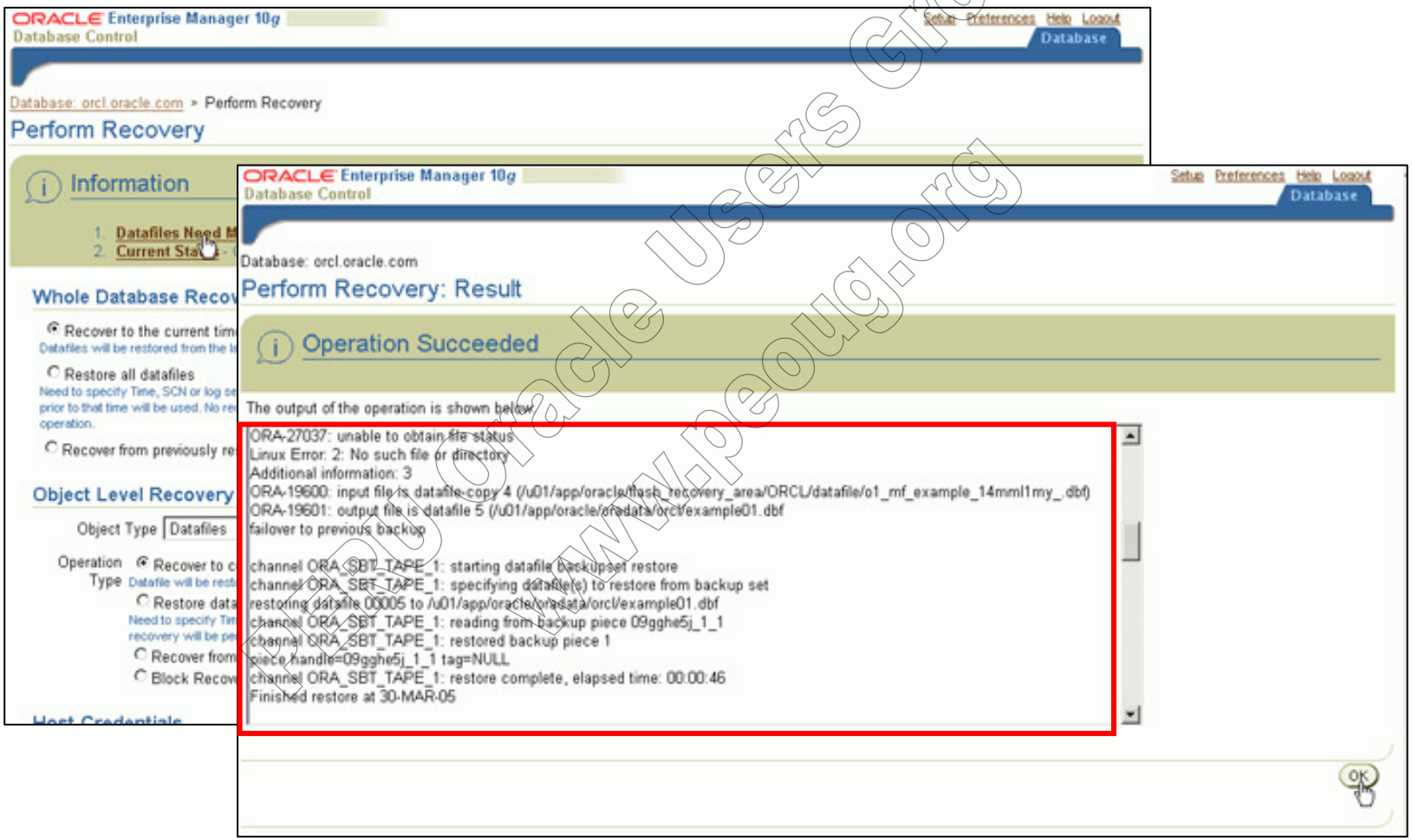
Scheduling Backups by Using EM Database Control



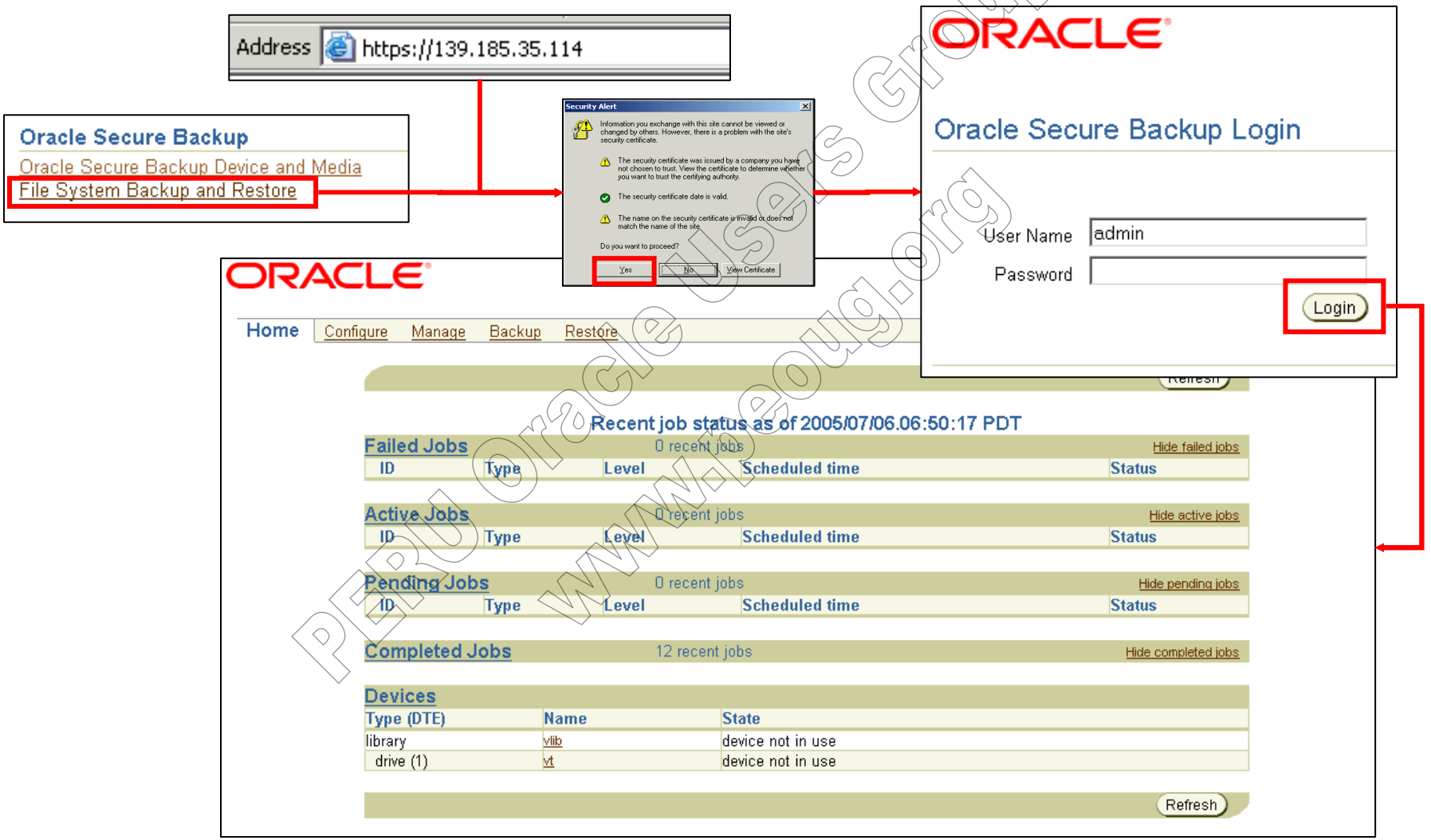
Managing Tape Backups



Performing Database Recovery by Using Tape Backups

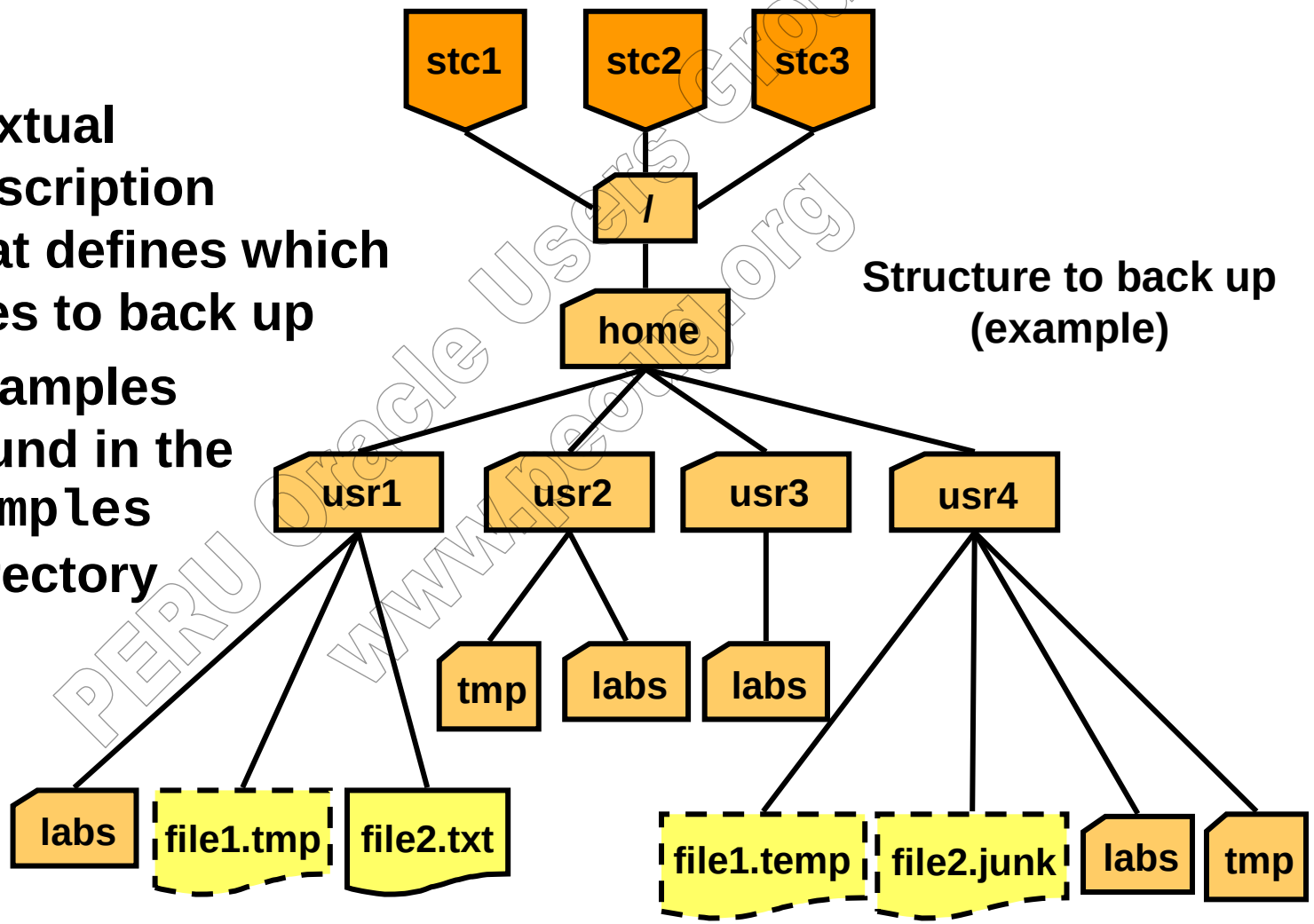


Oracle Secure Backup Web Tool



Oracle Secure Backup Data Set Scripts

- Textual description that defines which files to back up
- Examples found in the `samples` directory



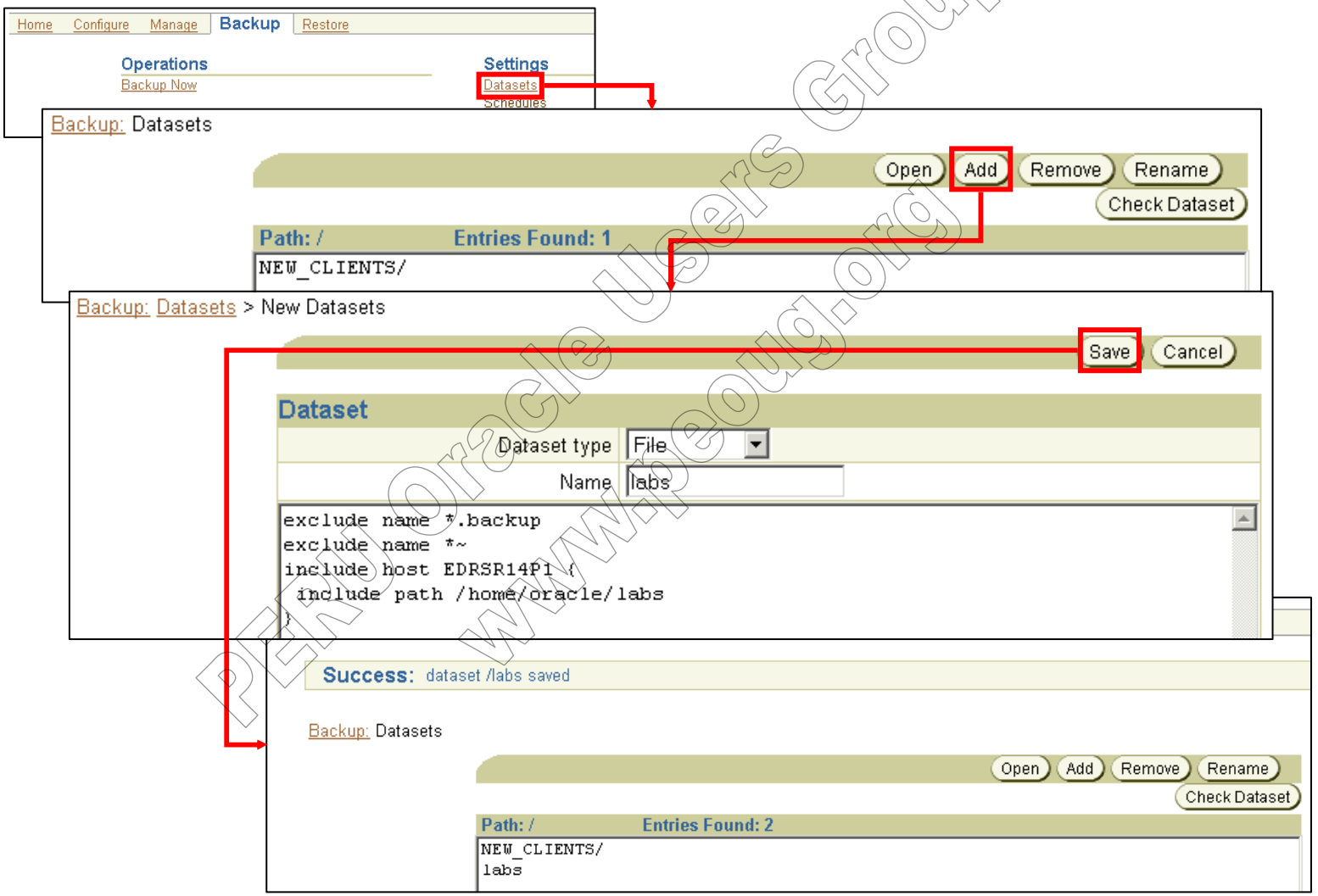
Structure to back up (example)

Data Set Script: Examples

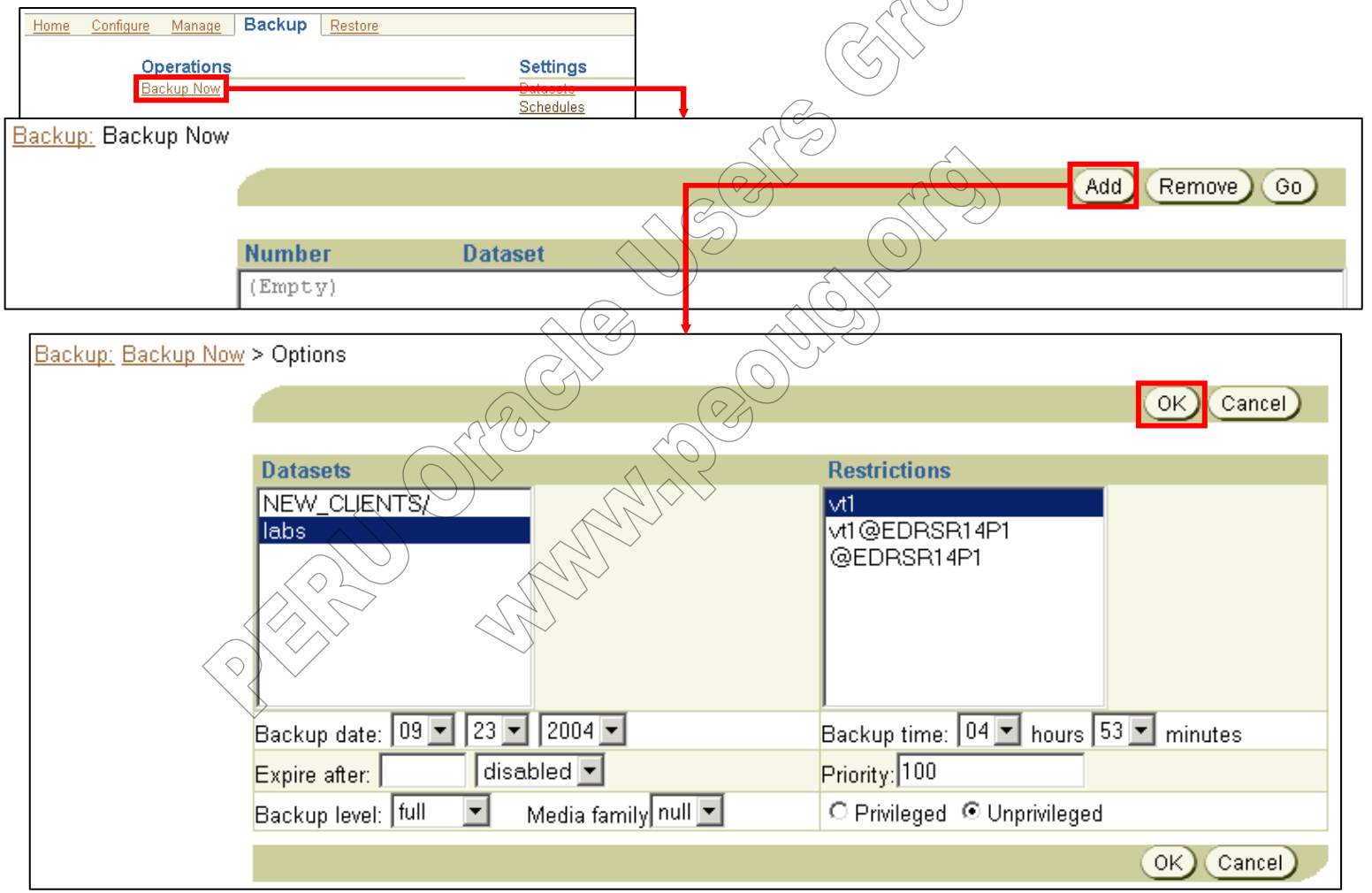
```
# Dataset "common-exclusions":
exclude name tmp
exclude name *.tmp
exclude name *.temp
```

```
exclude name *~
include path /home/usr1
include path /home/usr2
include host stc1
include host stc2
include host stc3 {
 include dataset common-exclusions
 include path /home/usr3
  before backup optional "/etc/local/nfy '/usr3 begin'"
  after backup optional "/etc/local/nfy '/usr3 end'"
 include path /home/usr4 {
  exclude name *.junk
 }
}
```

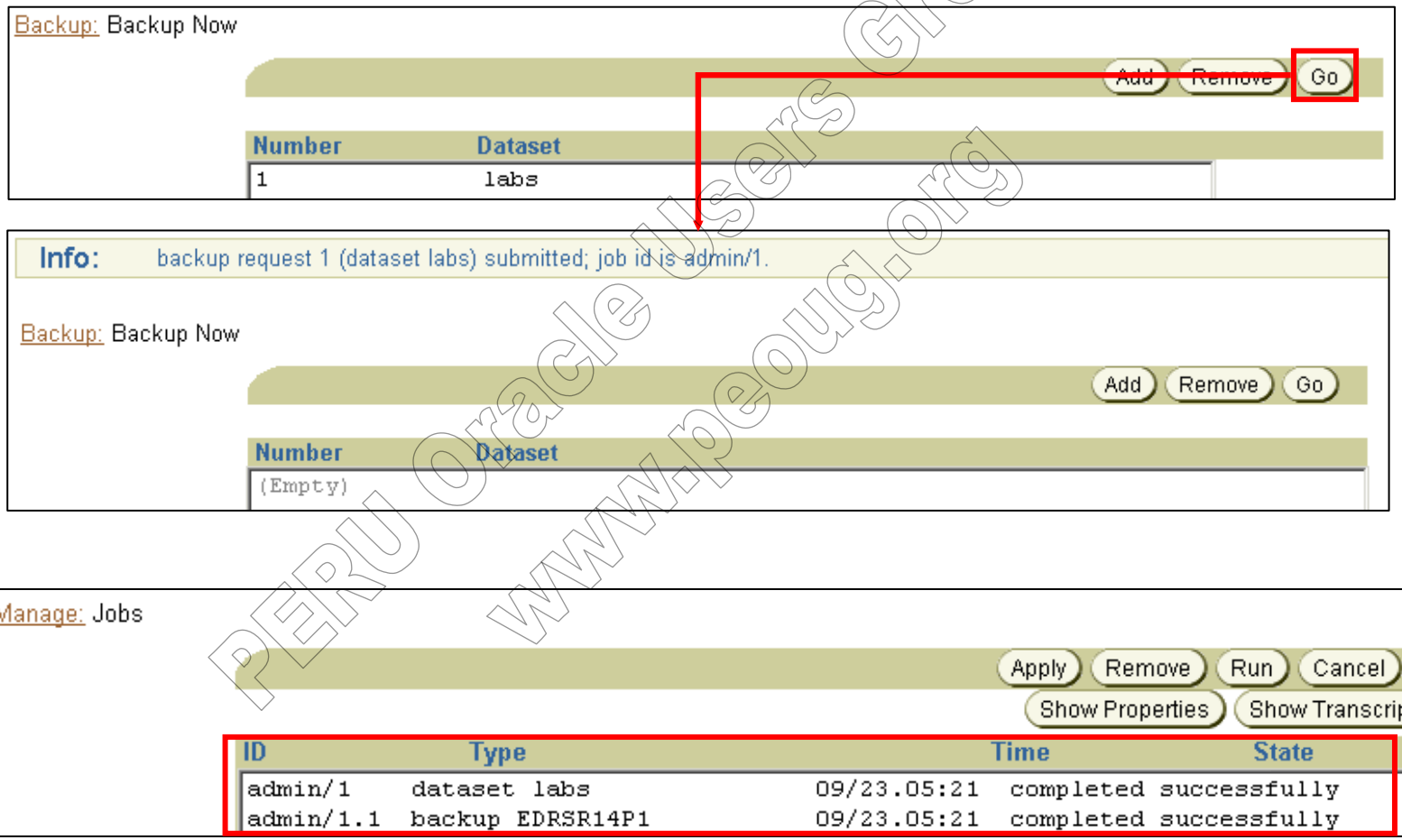
Creating Data Sets Using the Web Interface



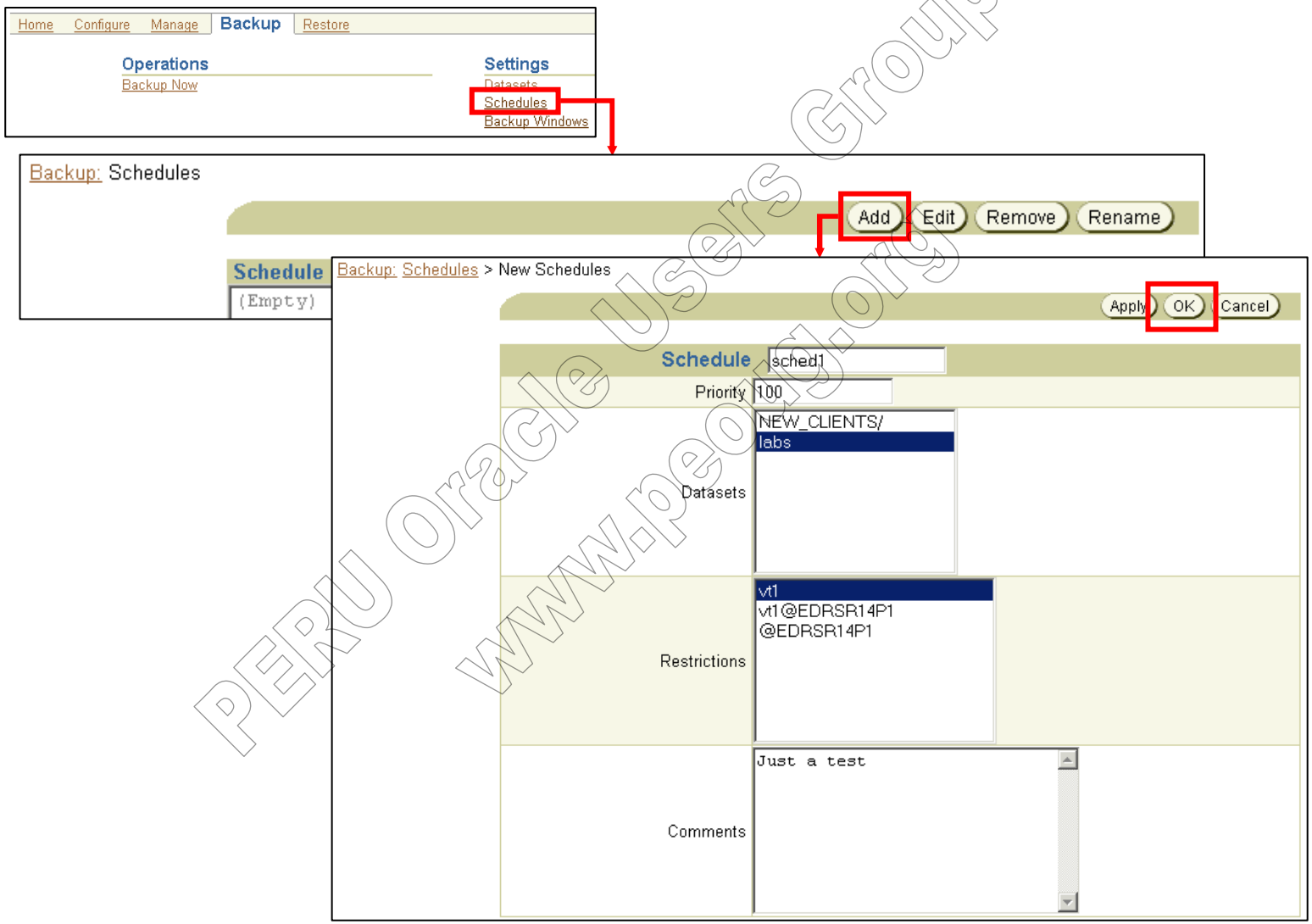
Creating On-Demand Backup Requests



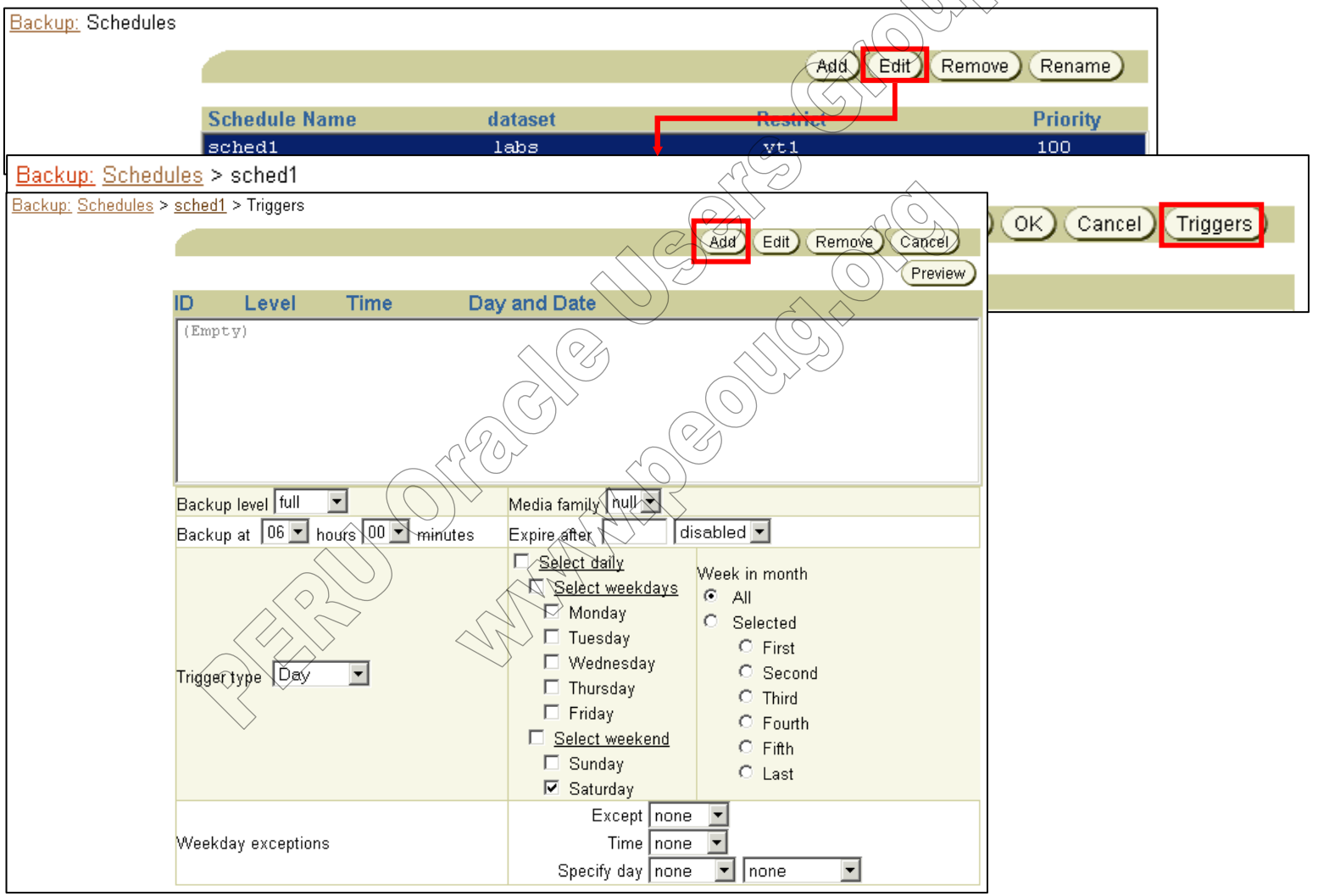
Sending Backup Requests to the Scheduler



Creating Backup Schedules



Creating Backup Triggers

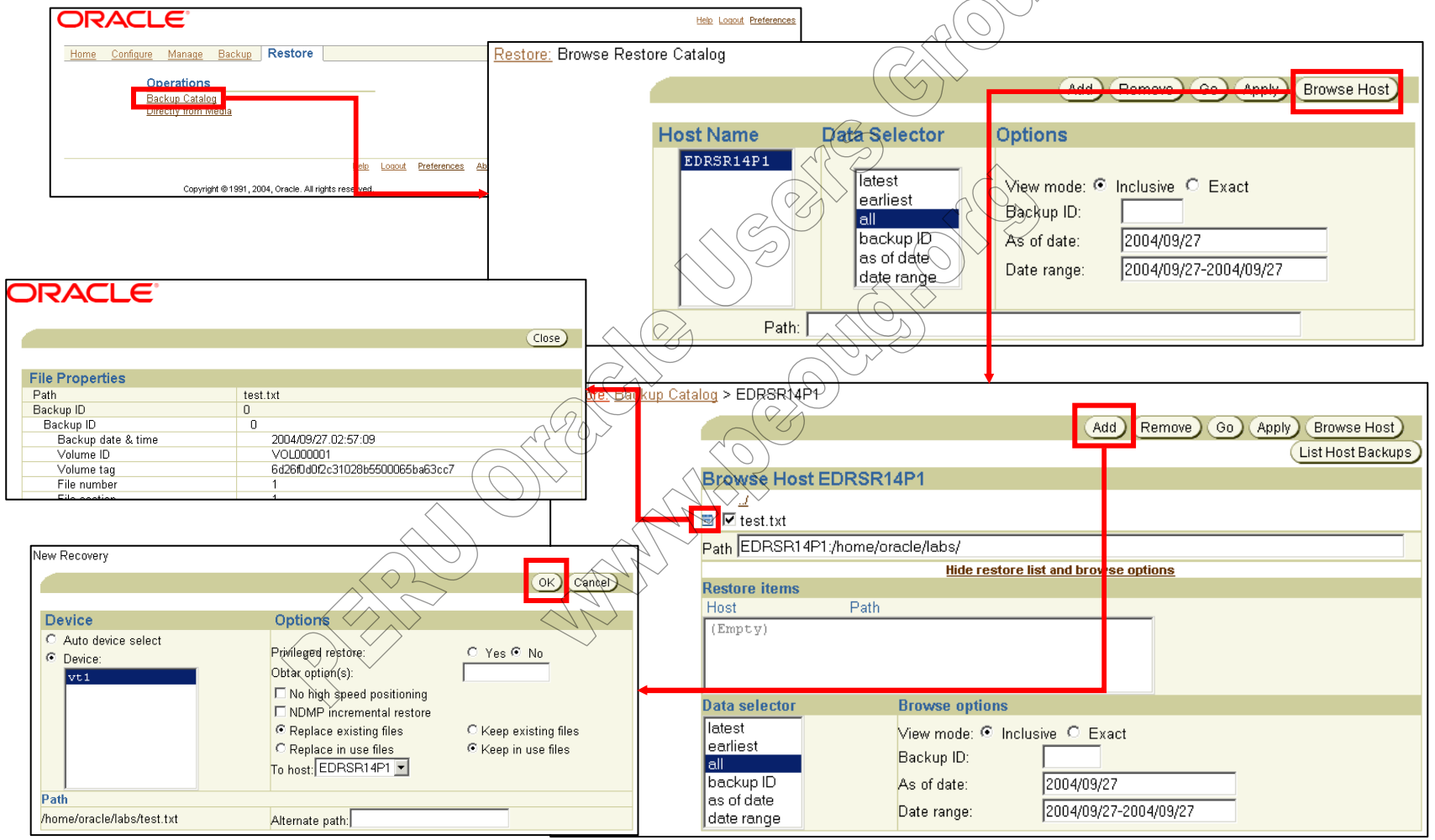


Restoring File-System Files with Oracle Secure Backup

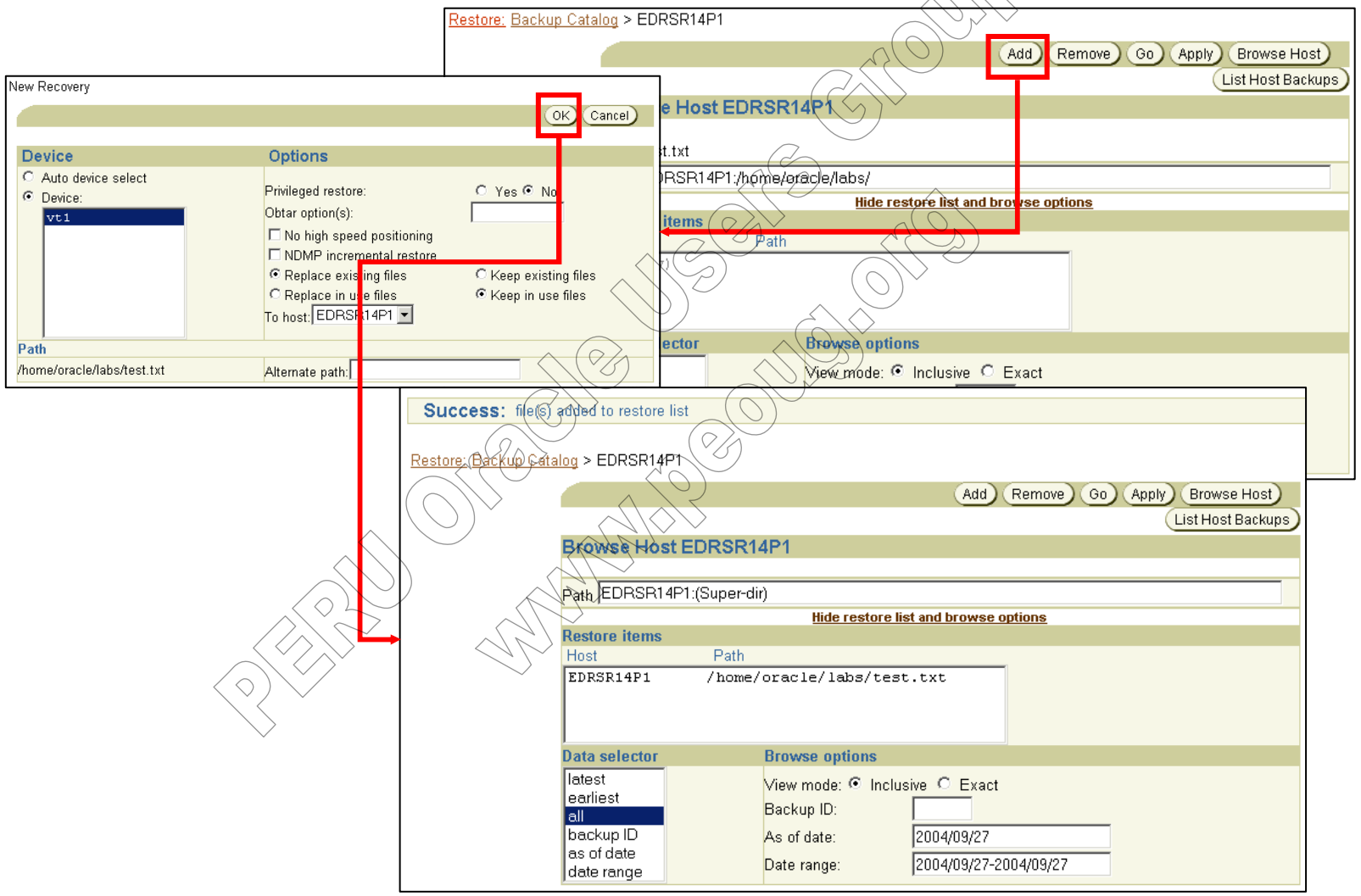
Two ways for restoring data:

- **Catalog-based restore: Based on catalog backups history**
- **Raw restore: Based on your memory**

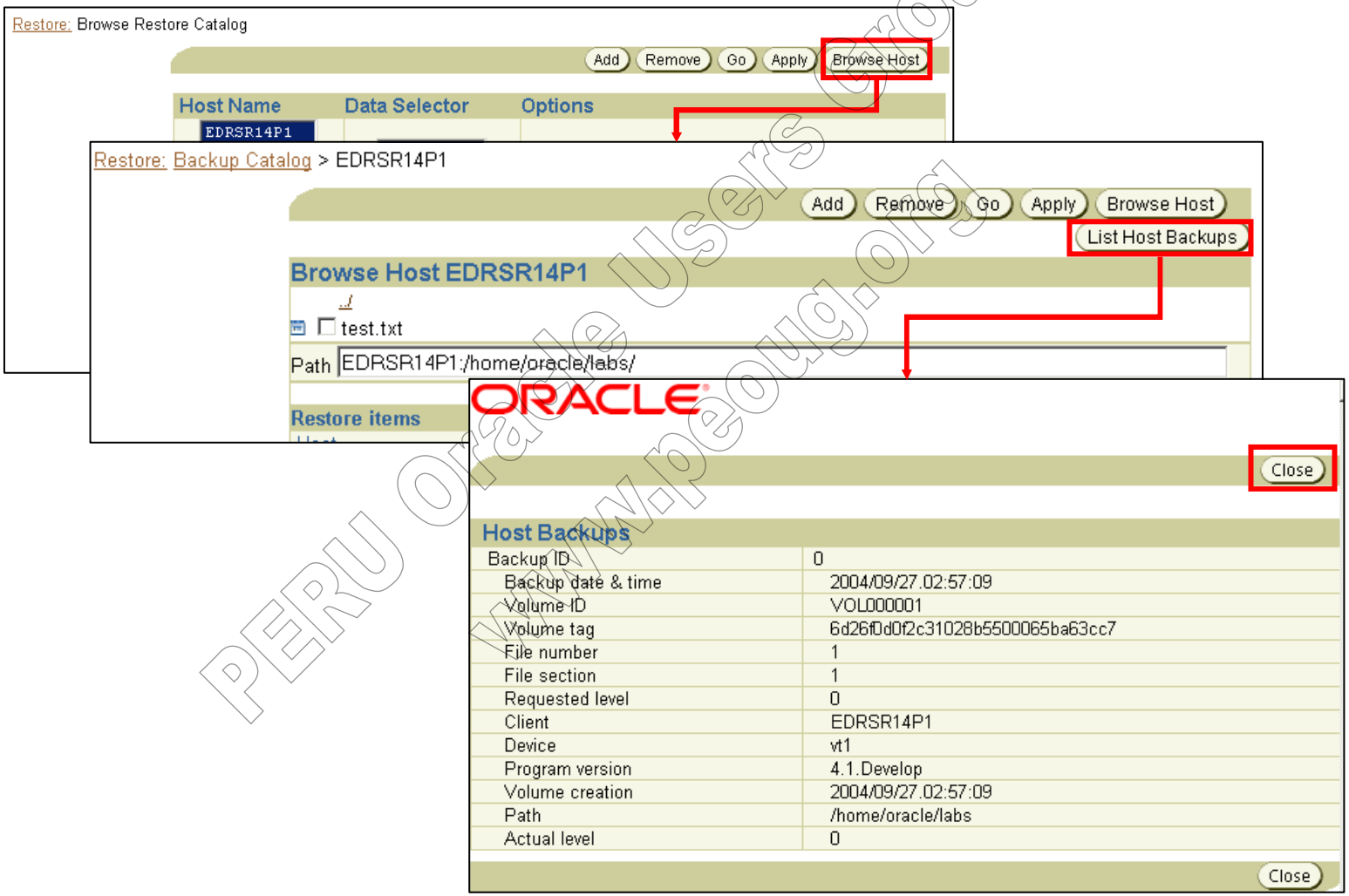
Creating a Catalog-Based Restore Request



Creating a Catalog-Based Restore Request



Listing All Backups of a Client



Secure Backup Express vs Secure Backup

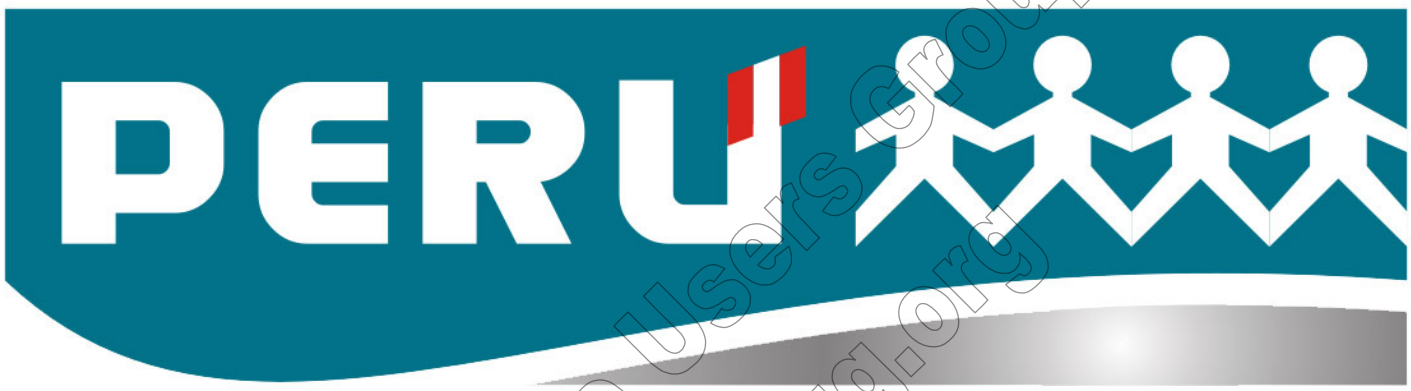
Feature	Oracle Secure Backup Express (*)	Oracle Secure Backup
• Integrated with RMAN for online tape backup and restore of Oracle Database.	Yes	Yes
• Backup and restore of non-database file system data.	Yes	Yes
• Integrated with Oracle Enterprise Manager starting with Oracle Database 10*g* Release 2.	Yes	Yes
• Integrated with Oracle Enterprise Manager Grid Control starting with Oracle Database 10*g* Release 2.	No	Yes
• Multiple tape drive support.	No	Yes
• Virtual tape device support.	No	Yes
• Fibre Channel support.	No	Yes
• Database backup encryption to tape (starting with Oracle Database 10g Release 2). (**)	No	Yes
• Networked backups.	No	Yes
• License	FREE	US$ 3,000 per Tape Drive (***)

(*) Oracle Secure Backup Express is the replacement product for Legato Storage Manager (LSM) and Legato Single Server Version (LSSV). Secure Backup Express is limited to a single host with one direct-attached tape drive.

(**) Writing encrypted backups to DISK requires a license of the Oracle Database Advanced Security Option (ASO).

(***) No incluye IGV ni Soporte.

PREGUNTAS
RESPUESTAS



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