

V.O.CHIDAMBARANAR PORT TRUST

INTEGRATED MANAGEMENT SYSTEM **E.D.P. CENTRE**

DEPARTMENTAL HANDBOOK

MANAGEMENT OF BACKUP OF DATA

(HAND BOOK NO: QEDP002)

ISO 9001:2015

Issue No.1 Date: 02.01.2018

(CS)

INTEGRATED MANAGEMENT SYSTEM

V.OCHIDAMBARANAR PORT TRUST EDP CENTRE DEPARTMENTAL MANUAL (QEDP)

MANAGEMENT OF BACKUP OF DATA HAND BOOK NO.QEDP002

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MANAGEMENT OF BACKUP OF DATA HAND BOOK NO.QEDP002

LIST OF RECIPIENTS OF THIS MANUAL

Sl. No.	Recipients	Controlled Copy No.
1.	Deputy Chairman	1
2.	Financial Adviser & Chief Accounts Officer	2
3.	Management Representative (ISO Cell)	3
4.	Sr.Deputy Director (EDP)	4
5.	Soft Copies of the manual accessible to All Assistant Directors All Data Processing Officers	

Originated by Committee	: Departmental Manual	Issue No. : 1 Date : 02.01.2018
Approved by	: Sr.Dy.Director	Page No. : 1 of 1 Revision No : 0 Date : 02.01.2018

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Originated by	: Departmental Manual	Date	:	02.01.2018
Committee				

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MANAGEMENT OF BACKUP OF DATA HAND BOOK NO.QEDP002

REVISION SHEET

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4	4	03.12.2015	Change of Manual after ERP implementation
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ABBREVIATIONS				
DLO	:			
ERP	:	Enterprise Resource Planning		
GIS	:	Geographical InformationSystem		
GUI		Graphical User Interface		
LAN	:	Local Area Network		
LTO	:			
POS	:	Port Operation System		
SAN	:			

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Management of BACK UP of Data

Procedure : This procedure outlines details of back up schedule

Authority : Financial Adviser & Chief Accounts Officer

Responsibility : Sr.Deputy Director

Purpose of Document

The purpose of this document is to provide the needed information regarding the backup strategy that will be followed in eSail ERP project at V.O.Chidambaranar Port Trust.

System Backup

A system can become unusable because of various issues like hardware or software failure, or both, storage problems, power interruptions, or application failures etc and each failure scenario requires a different recovery action. Hence to protect data against the possibility of loss a well-rehearsed recovery strategy is implemented.

Backup solution design

L & T Infotech proposes the managed backup service as a part of the managed hosting service for eSail project's requirement & using HP Data Protector A07.00 as managed backup service.

A dedicated server service model at managed hosting setup infrastructure is implemented, which consists of —

- 1. Dedicated HP Data Protector Server at VOCPT's Data Centre
- 2. Dedicated Tape Library at VOCPT's Data Centre
- 3. Dedicated Tape cartridges for backup.

The DLO Tape library, Data Protector Server, Blade Servers, Data base Servers and SAN Storage are connected to the Fibre Channel network for enabling LAN Free (or SAN based backups) from the servers as required.

The tape library is from HP i.e HP MSL2024 Dual LTO-5 300FC Library has LTO-5 Ultrium tape drive with 24 slots for cartridges,

The detailed backup policy for the SAP database & other servers are attached below. As for the backup retention policies for daily, weekly & monthly backups the same is attached in with details. Daily Tape backup will be done for databases Servers. The online backups will be done only for SAP databases.

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Guidelines followed for backup process

- ➤ Data in the Servers shall be backed up on reliable media LTO 5
- All backup media shall be properly labeled for easy identification as per Barcode Inventory of tapes.
- Every installation shall have a documented backup, restoration and testing procedure incorporating the above points.
- The regular daily & Monthly backups are stored in the tape library. All monthly backups shall be stored in a secure location in a fireproof cabinet, away from the server room, where conditions of dust, temperature and humidity are conducive to storage of the backup tape.
- ➤ Every backup tape shall have a retention period fixed after which it shall be recycled for other use after effective erasure of data. Tape inventory will be maintained as per Barcode of tape.
- ➤ The SAP basis is overall responsible for implementing datacenter backup policy. L&T duty manager shall delegate a member or team to perform regular backups. The delegated person shall develop a procedure for testing backups and test the ability to restore data from backups on a monthly basis.

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Management of BACK UP of Data

Backup Cycles

Based on the business requirement, we have defined the 2 types of backup

a.Database backup

b.File System backup

a.Database Backup Cycles:

HP Data Protector Online Backup Agent is installed on SAP Database Servers and POS Server

DP License

DP License	Installed Qty	Server
Cell Manager	1	Vocbackup.vocport.gov.in
Windows/Linux Online Agent	1	VOCPOS2
		Vocprdb101,vocpordb102,
Unix Online Agent	4	vocpredb101,vocqty101
SAN Drives	2	

Below is the Backup schedule for Database Backup.

Environment	Daily	Monthly
Production	Full	Full
Quality	Full (Fortnight)	Full
Development	Full (Fortnight)	Full

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Management of BACK UP of Data

b.File System backup Cycles:

zApart from online Database backup, the Rest of the systems in VOCPT Landscape are configured for file system Backup.

• Below is the schedule for File System Backup

Environment	Daily	Monthly
Non-Production	Full (Fortnight)	Full
Email	Full	Full
GIS	Full	Full
POS	Full	Full

Backup'sverification process

Logged information generated from each backup job will be reviewed for The following purposes:

- 1) To check for and correct errors.
- 2) To monitor the duration of the backup job.
- 3) To optimize backup performance where possible.
 - Service desk backup team will identify problems and take corrective action to reduce any risks associated with failed backups.
 - In case of backup failure, the backup team will reschedule the backup. If the backup fails consecutively, the backup team needs to inform the backup owner and log service desk incident to investigate the reason for failure.
 - To measure the effectiveness of backup control, a month report for backup failure rate shall be sent to L&T Infotech SI manager.

Service desk backup team will maintain records demonstrating the communication send to data owner about backup failure to demonstrate compliance with this policy for auditing purposes.

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Management of BACK UP of Data

Data Recovery procedure

Backup Restoration requests in the event of deletion or corruption of information, requests for restoration of information will be made to L&T Infotech through Solution Manager Request.

The backup restoration form shall include information about the data creation date, the name of the file, the last time it was changed, and the date and time it was deleted or destroyed. Backup and Restore procedure template will be filled by L & T Infotech SAP basis & approved by VOCPT.

Step by Step Procedure to take Backup

- Offline client Integration.
- Backup device configuration.

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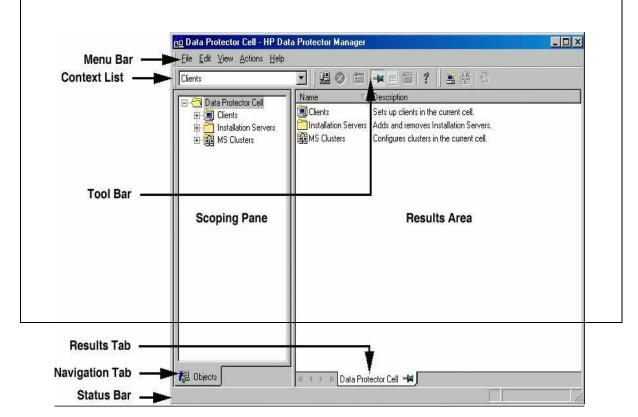
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Management of BACK UP of Data

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Management of BACK UP of Data

Data Protector GUI



Steps to Add Clients in Data Protector: (Sample Snapshots used)

Prerequisite: Before the clients are to be added, the following conditions should be met.

- 1. The machine to be configured should be in the same domain/workgroup as the Cell Manager.
- 2. The machine OS should satisfy Data Protector Support Matrix.
- 3. The machine should have the service packs and patches up to date.
- 4. The machine's hostname should be unique & resolvable.

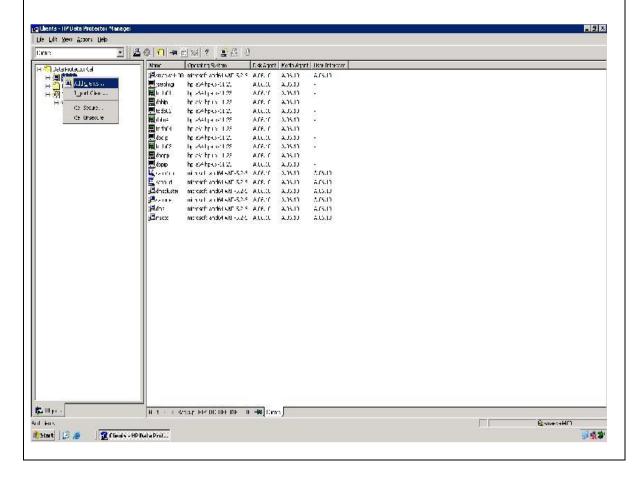
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Management of BACK UP of Data

Steps to be followed:

- 1. In Scope select "Client"
- 2. Right click and select "Add Client"

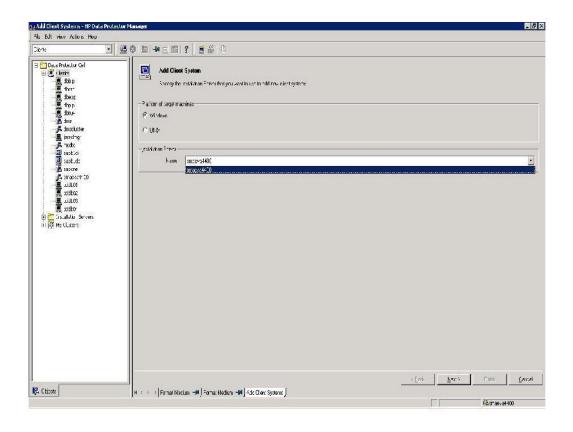


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Management of BACK UP of Data

3. Select the Installation Server and the platform from the list as shown below.

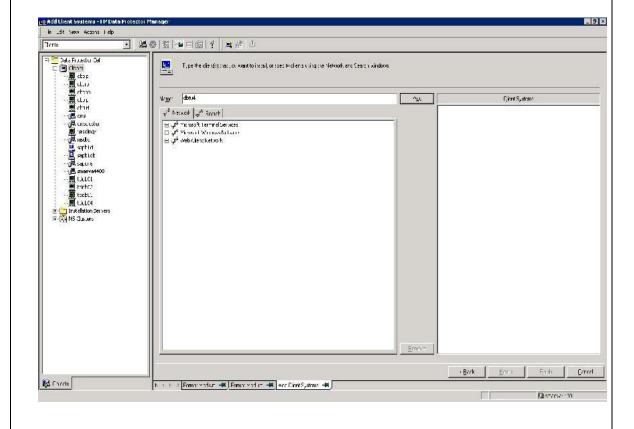


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4. Add the Client Hostname and click next to Continue

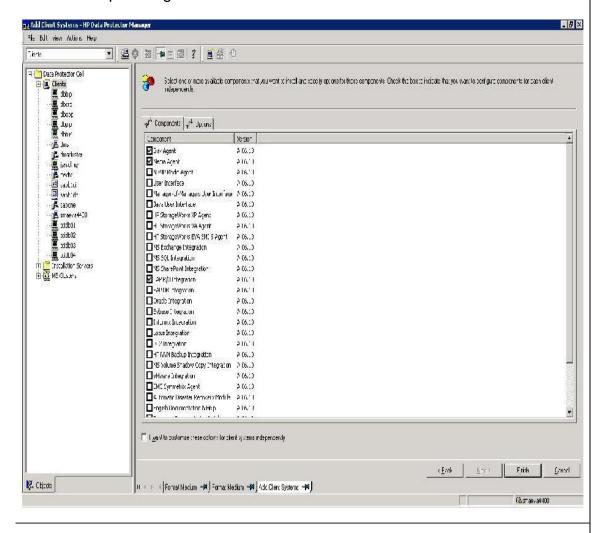


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5. Select the required Agents to be installed on the client.



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6. Authenticate with the Clients root username & password.

This step will add the client to the Data Protector Cell.

Client Installation on Unix/Linux Locally

- Copy HP Ux version for DP media to the target machine.
- > Unzip the Media

- Login as root
- > Run omnisetup.sh script which located in /TD586-15001-01/LOCAL-INSTALL/
- > Type Yes for the installation of Disk Agent and Media Agent.

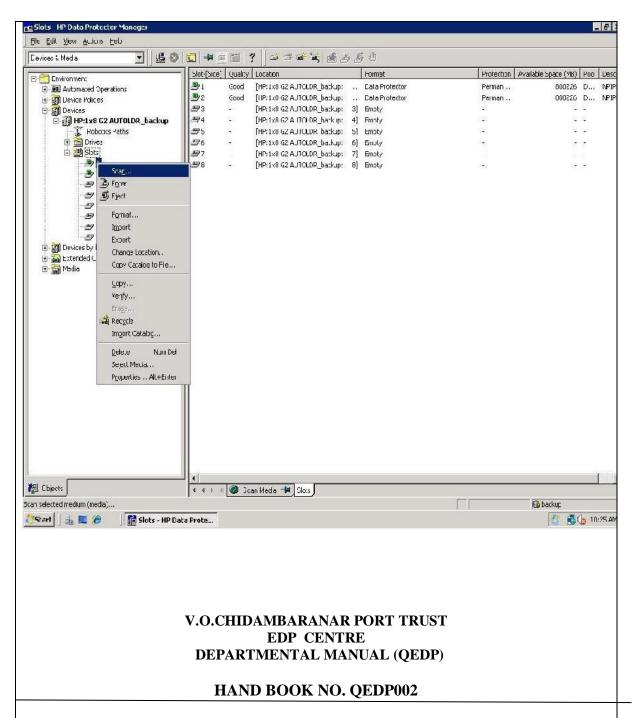
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Management of BACK UP of Data

CONFIGURING MEDIA

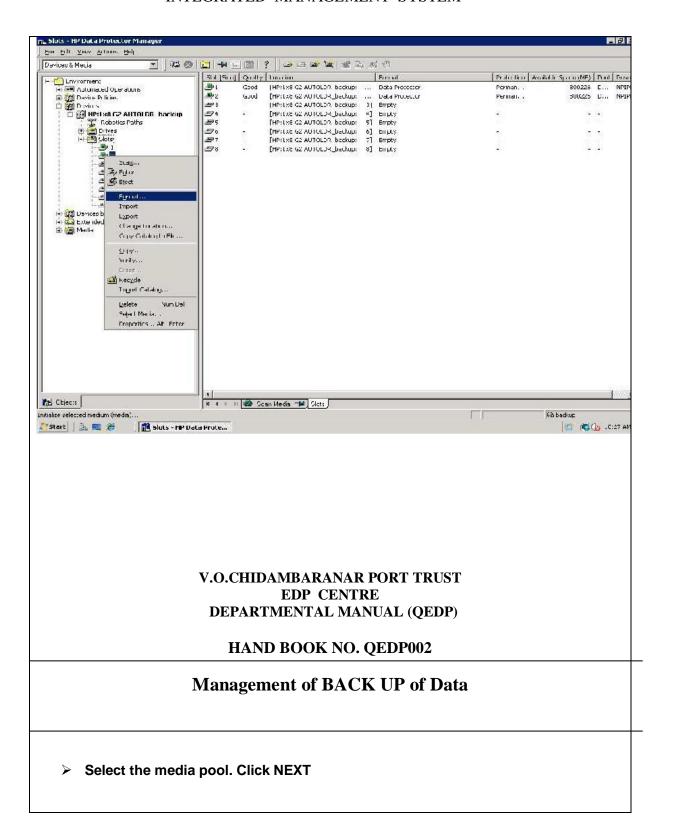
- > Steps to scan a media
- Right click on the media and select scan option

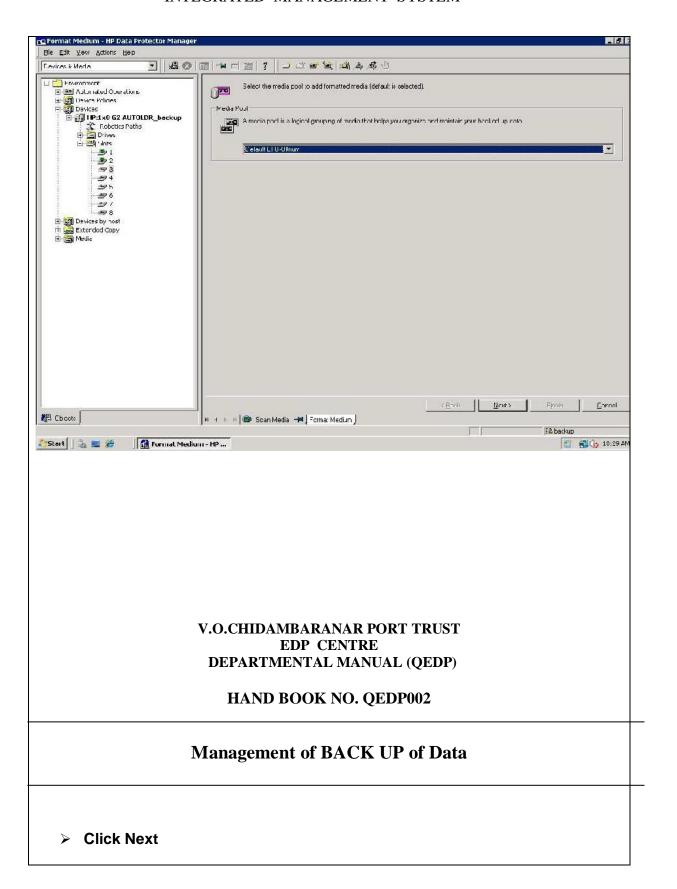


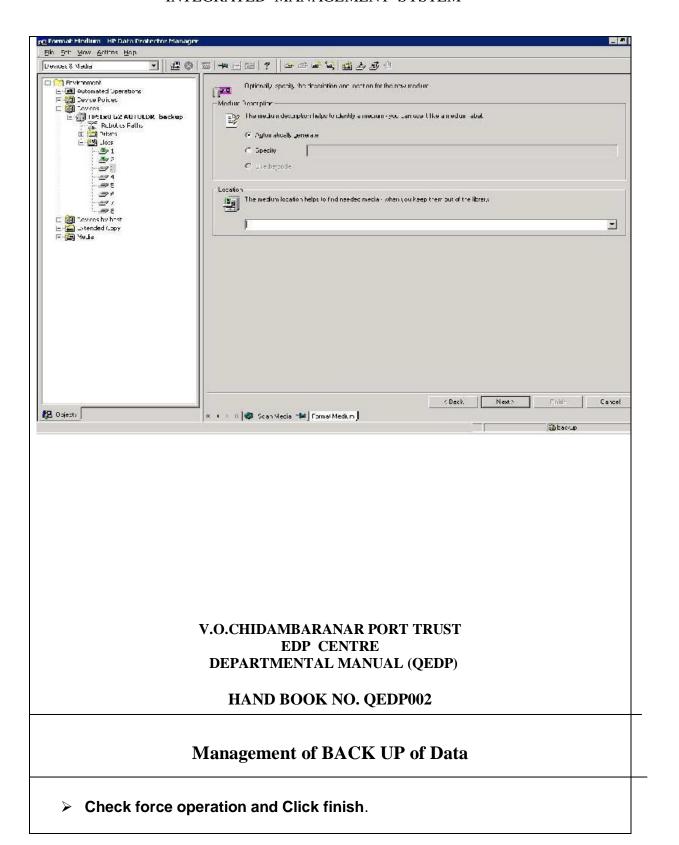
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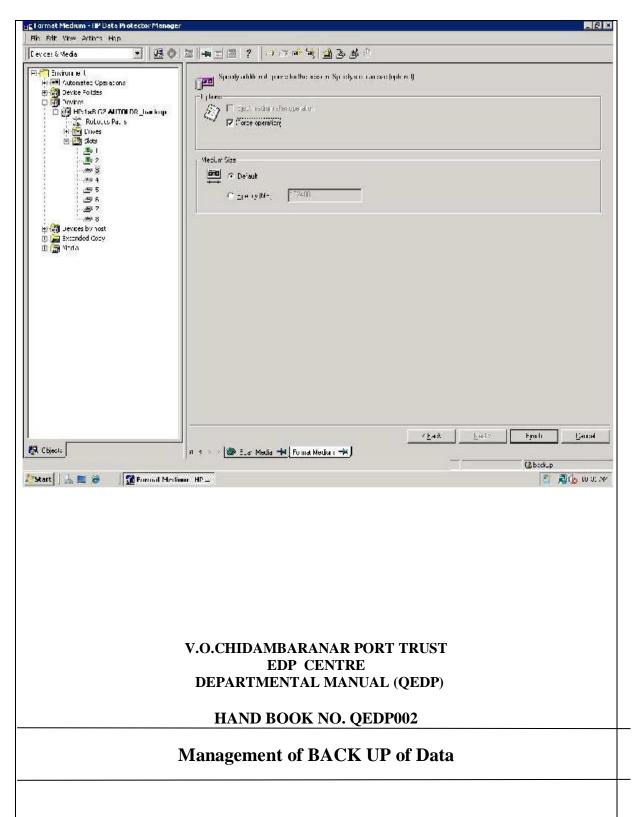
Steps to format a media

1) Right click on media and select format option (Before format you have to ensure that media is scanned) Then follow as on the below snaps.



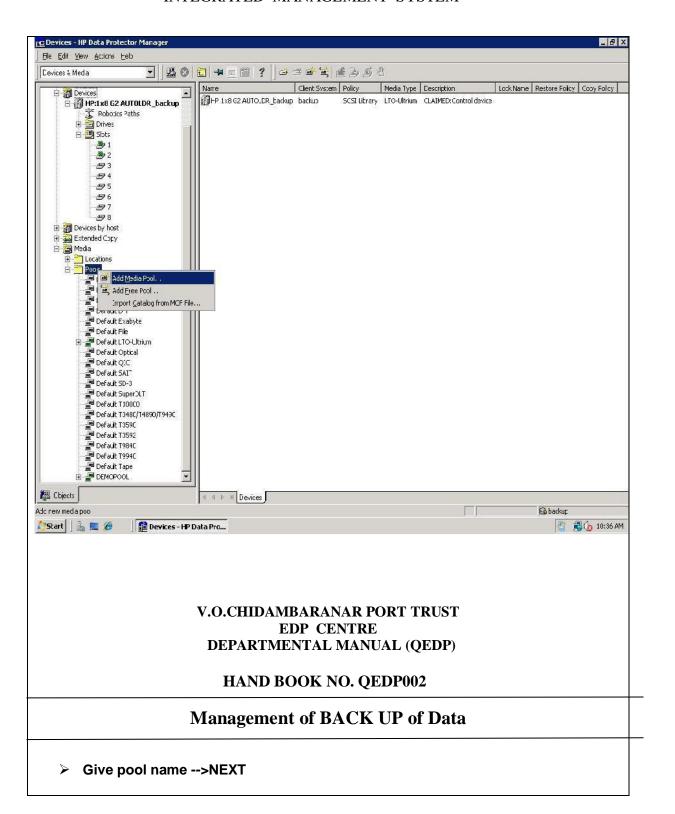


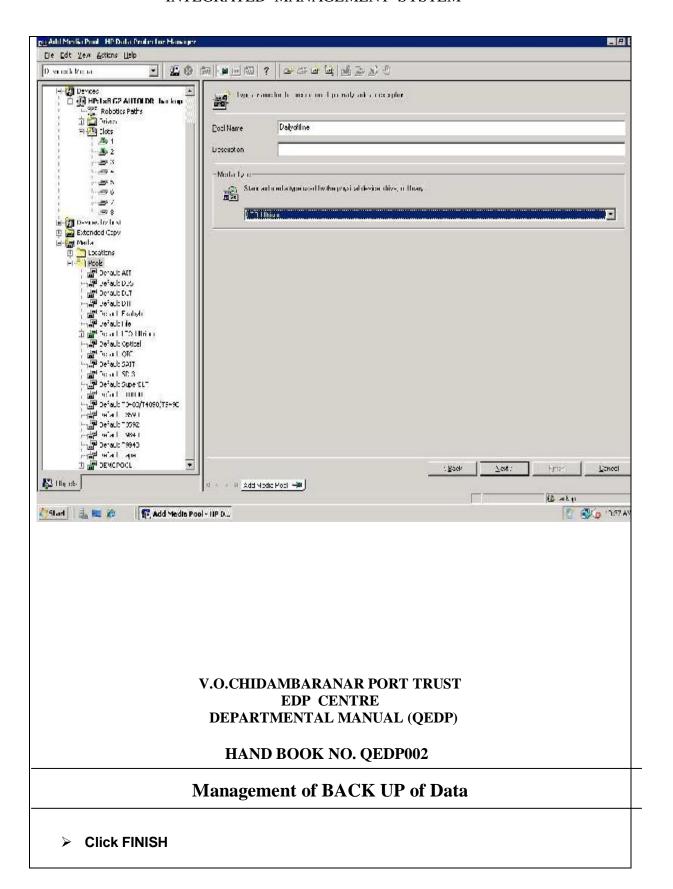


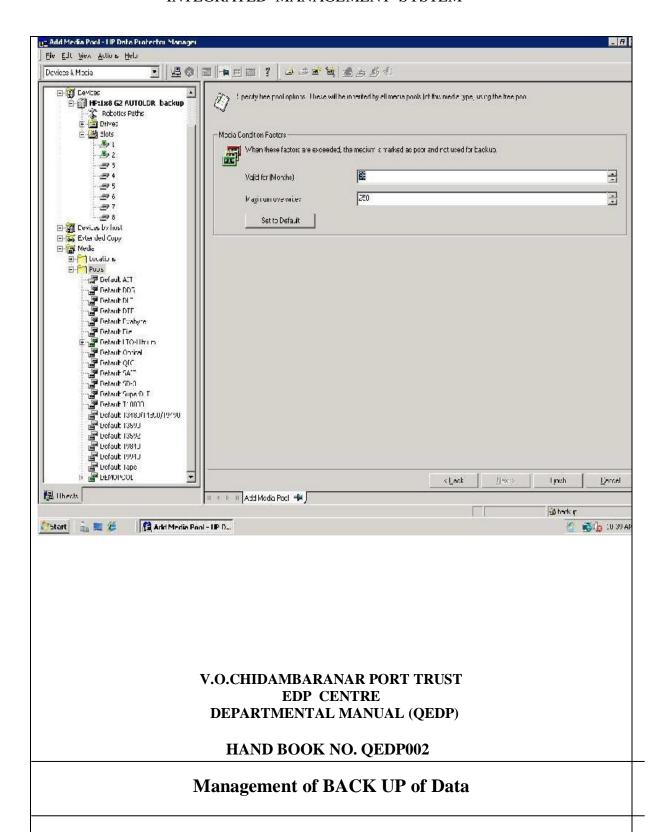


> Steps to add a media pool

• Right click on POOLS Select Add Media pool option Then follow as on the below snaps

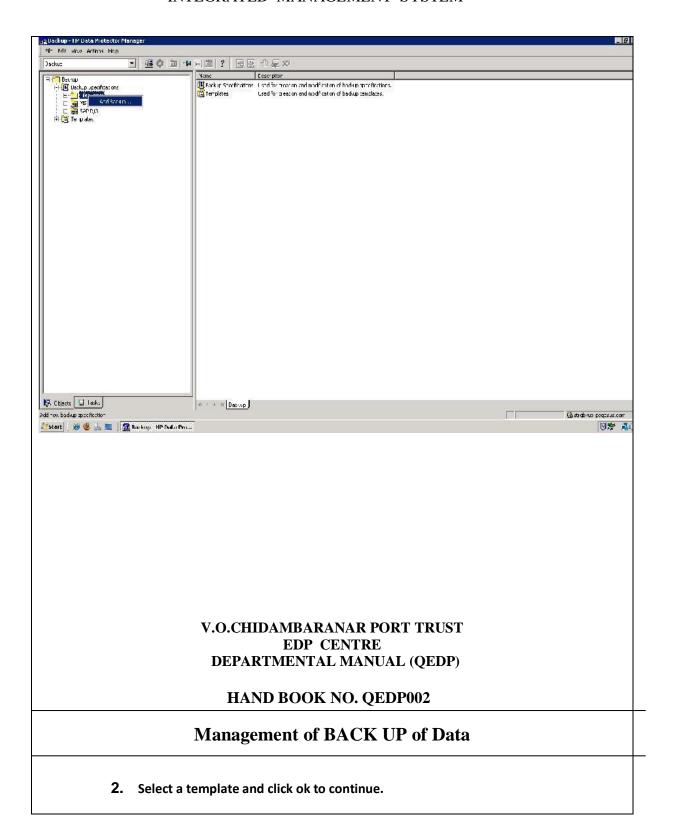


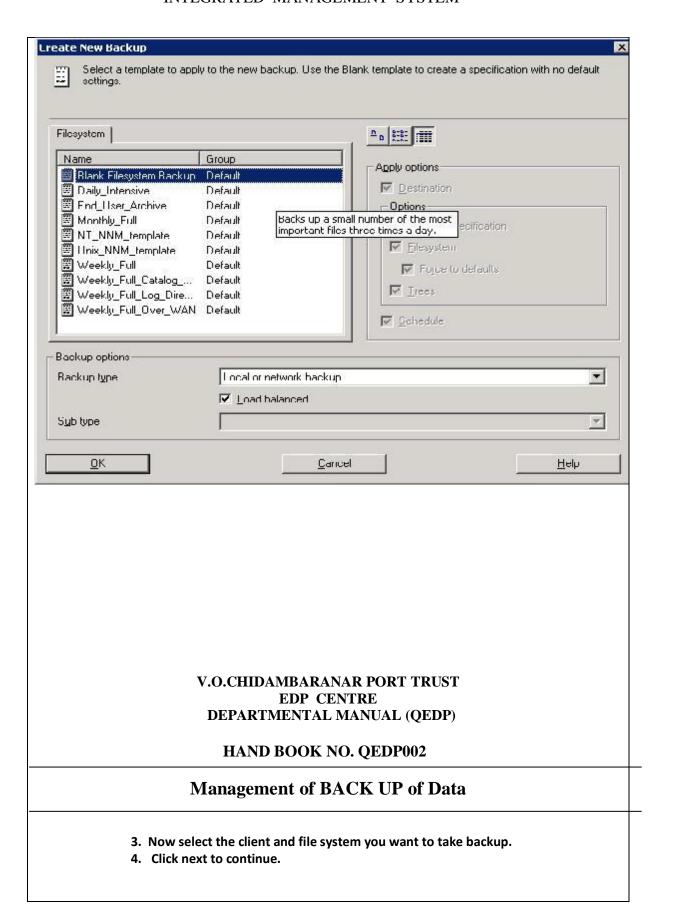


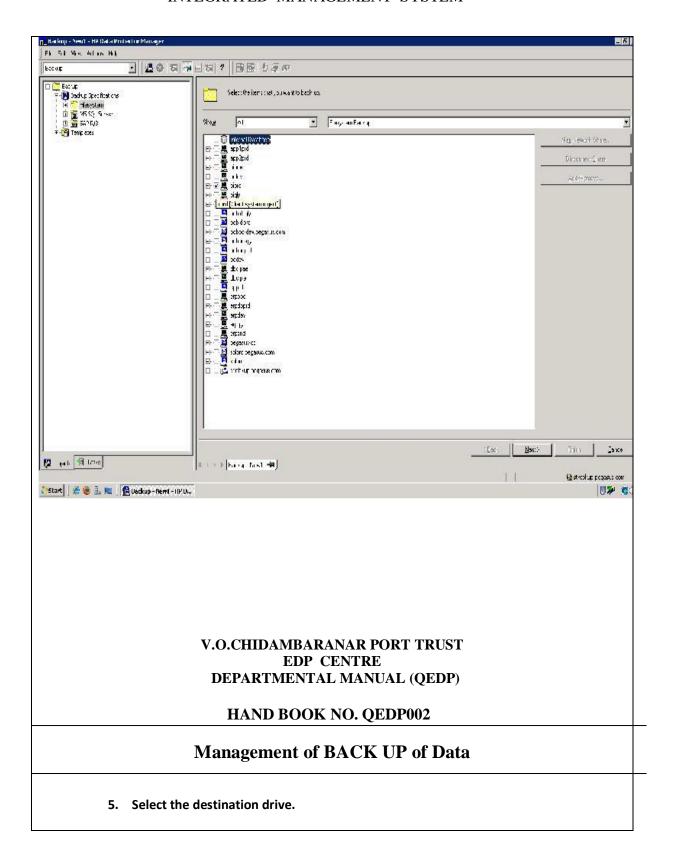


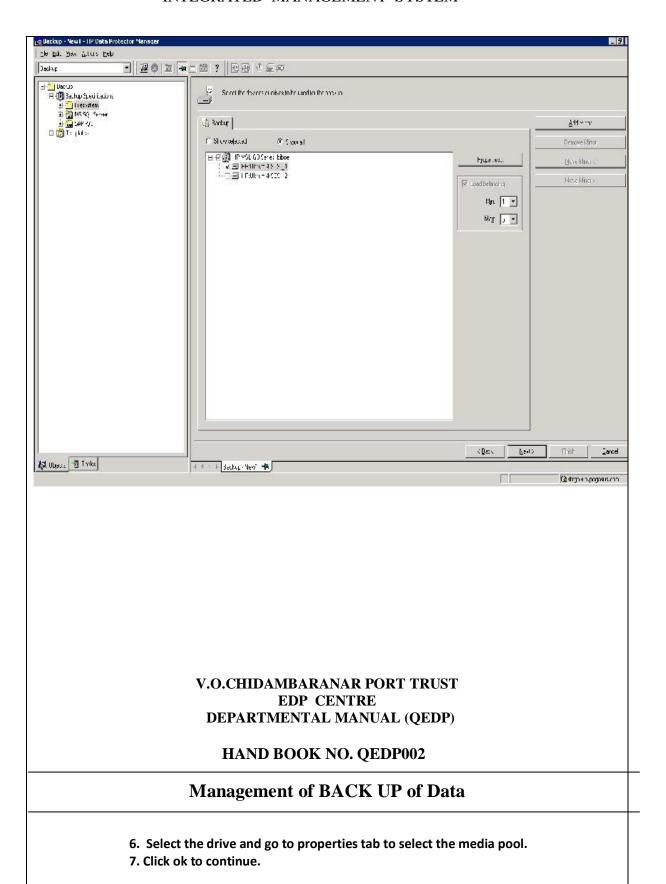
Configuring File system Backup(Sample Snapshots used)

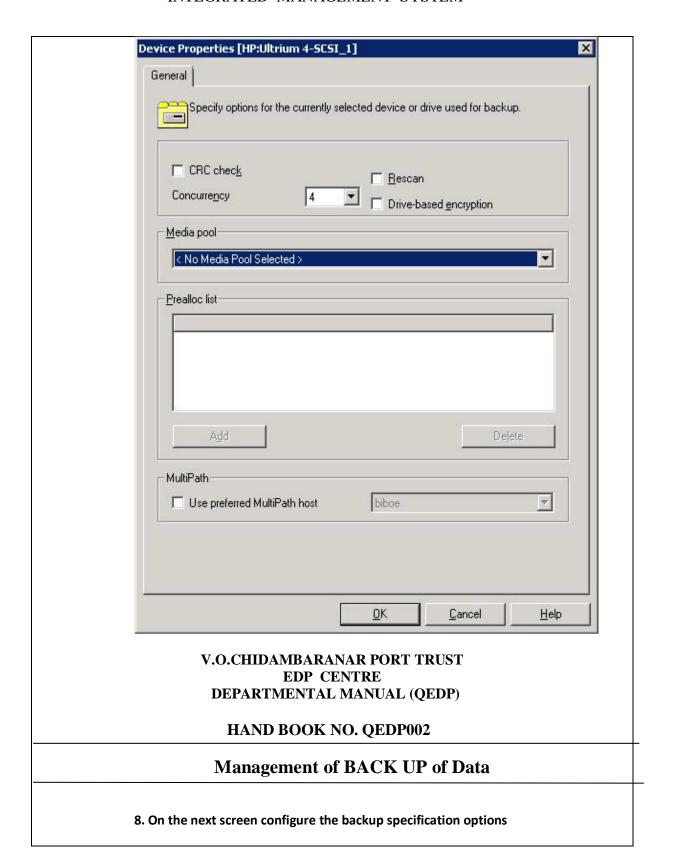
1. From context menu select backup->Backup specification->right click->add backup

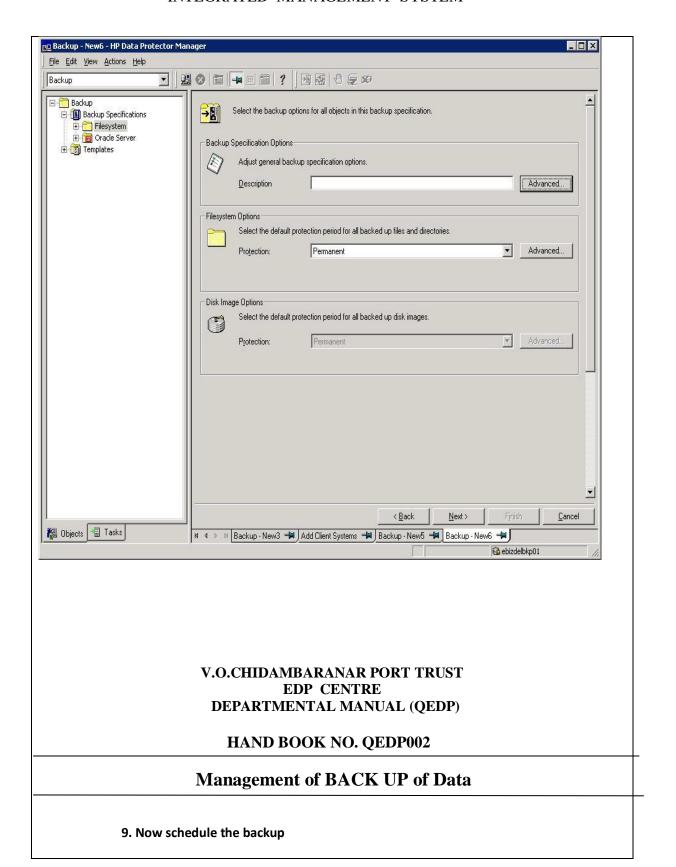


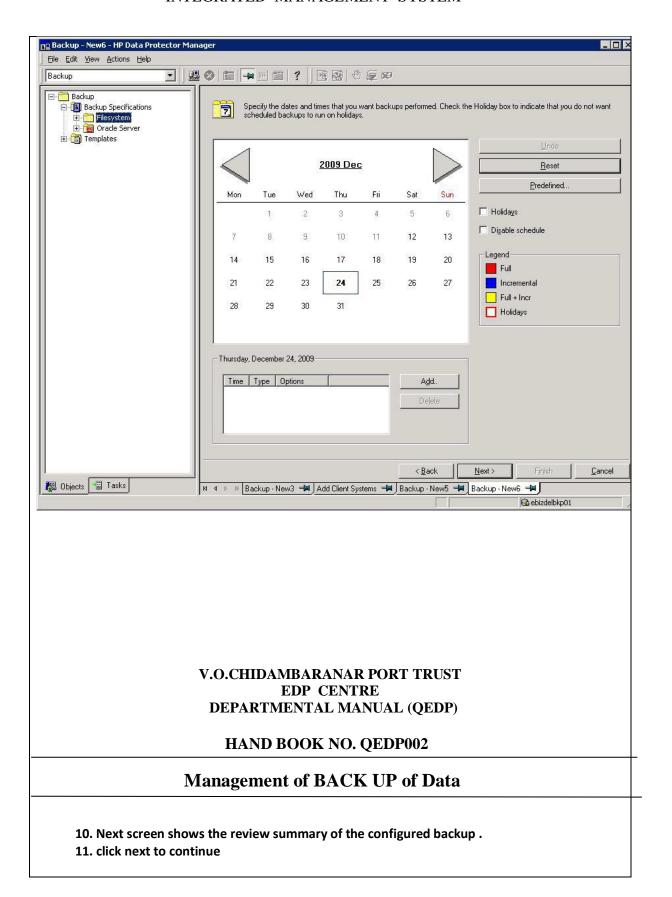


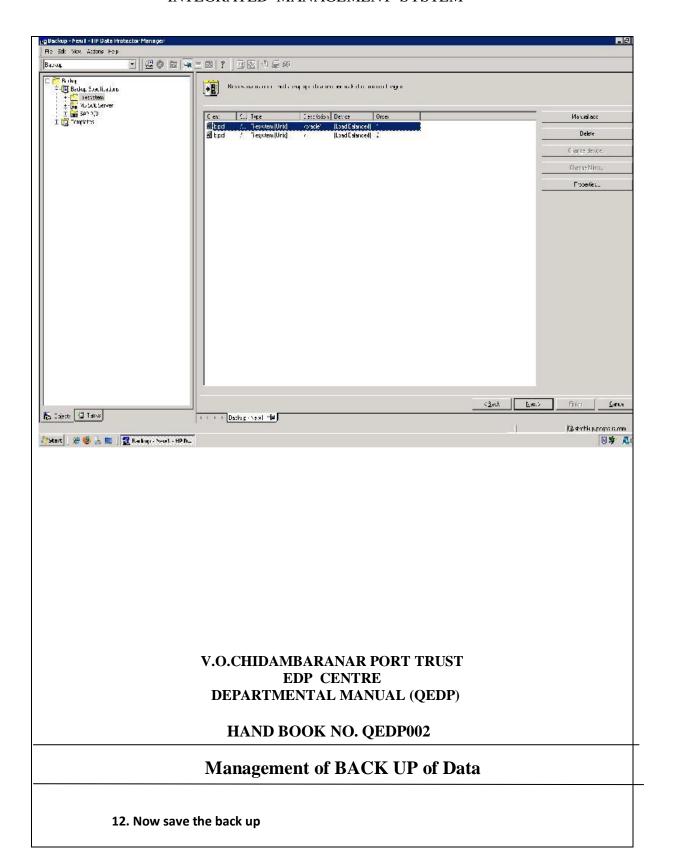


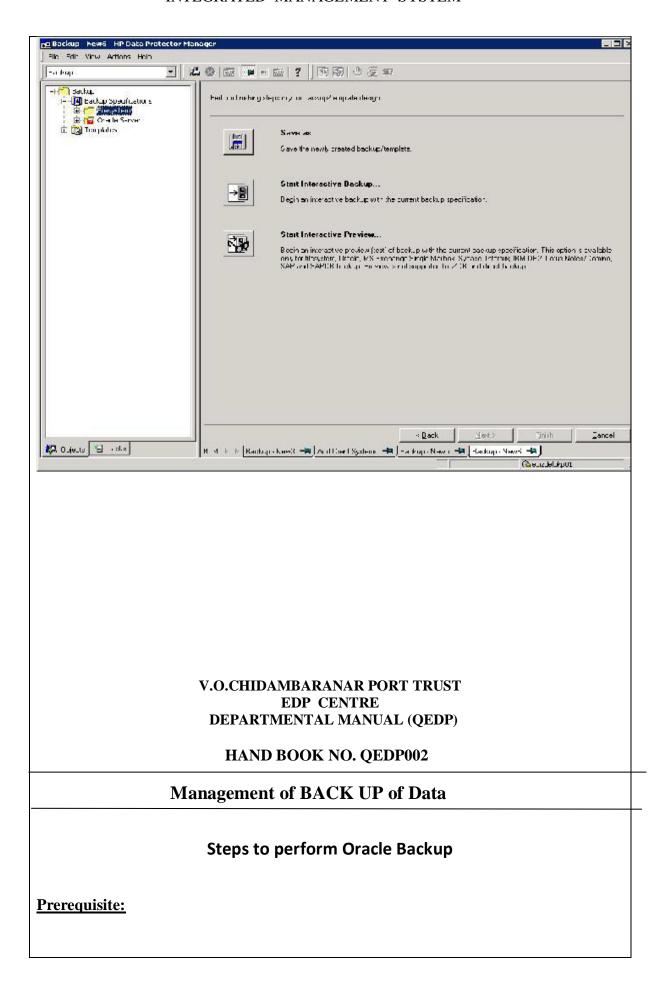












- The Database Username and Password should be available while configuring the integration.
- The Oracle Integration component must be installed using Data Protector.
- Oracle database should be running in archive log mode.
- > RMAN utility should be configured & running in the oracle database independent of the data.

Protector:

On Windows, if the Oracle target database and the Oracle recovery catalog are installed on two

different systems, the Data Protector Inet service account on the system with the Oracle target database installed must be configured as a *domain* account that is a member of the

Administrators

group on both systems.

- The PATH where oracle is installed to be noted.
- Oracle must be online during configuration.
- ❖ Configuration must be performed for every Oracle instance separately

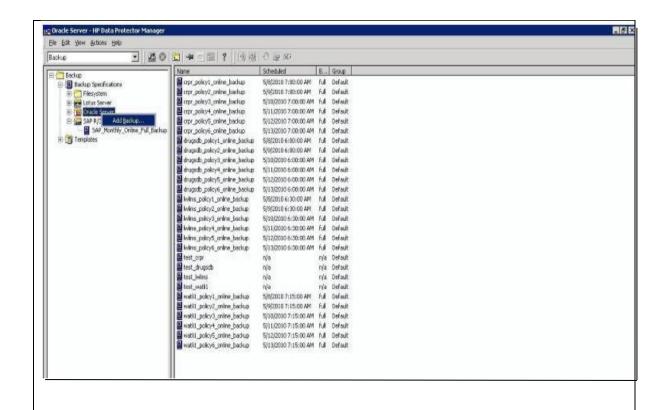
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Steps to be followed to add a new backup template:

- 1. In the Context List, click Backup.
- 2. In the Scoping Pane, expand Backup Specifications, right-click Oracle Server and Add Backup



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3. In the Create New Dialog Box, select the Blank Oracle Backup template. Elle Edit Yew Actions Help Backup ☑ 20 6 4 2 2 3 图数 0 页 20 Name Description Backup Specifications: Used for creation and modification of backup specifications. Badrup Specifications Templates Used for creation and modification of backup templates. 🖹 🛅 Fllesystem Lotus_Notes_Offline_Backup
Crade_Offline_Backup
SAP_Offline_Backup Lotus Server
Oracle Server Templates Create New Backup Select a template to apply to the new backup. Use the Blank template to create a specification with no default settings. Drack Server 1₀ | | | | | | | | | | Group Apply options 🛭 Blank Cracle Backup Blank Chacks Backup

Auchive Delete

Auchive Delete

Default

Database Archive

Default

Database Switch, Arch.

Default

Direct_Database

Ordault

SMB_Brows_Database

Default

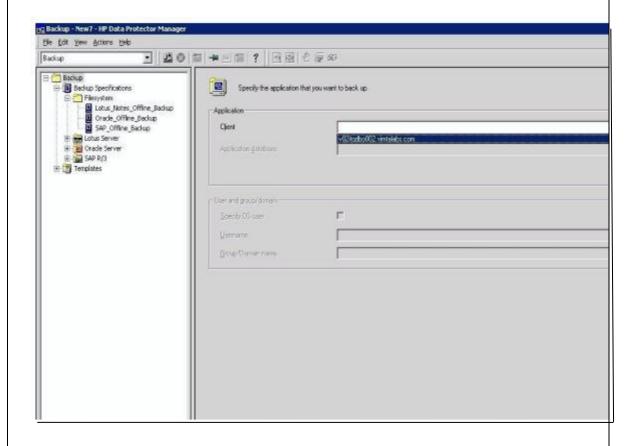
SMB_Pross_Database

Whole_Online_Delete

Default

Default Default P Destrictor Options ☑ Backup specification ₩ Flesystem Force to defeuto T Tress ₩ Schedule Backup options Backup type Local or network backup ✓ Load balanced Sub type OK. Cancel Help V.O.CHIDAMBARANAR PORT TRUST **EDP CENTRE DEPARTMENTAL MANUAL (QEDP)** HAND BOOK NO. QEDP002

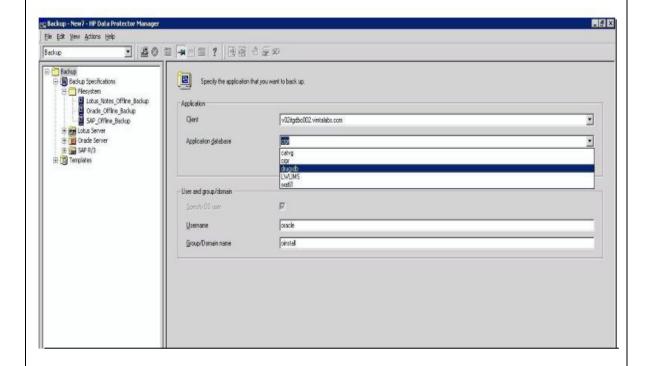
4. In the Client, select the Server



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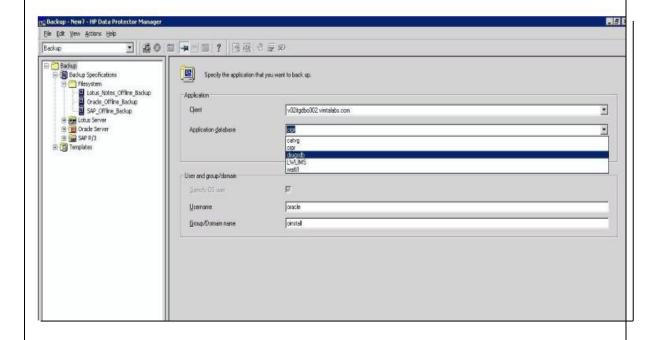
5. In Application Database, select the name of Oracle Instance. Enter the username and the group of the user who has operating system rights on the database. Click on Next.



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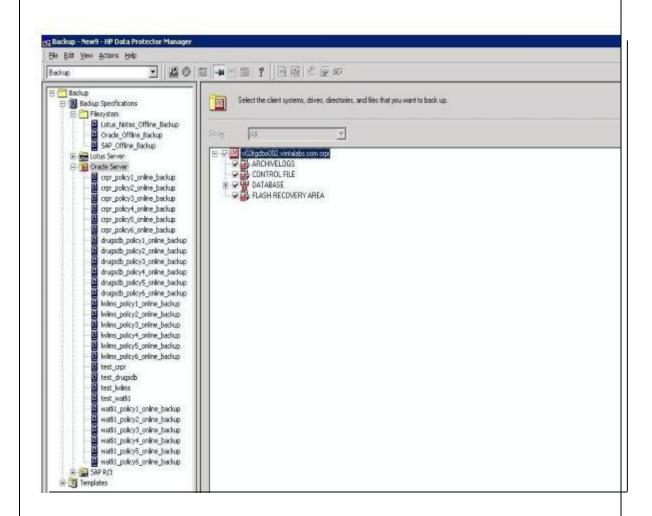
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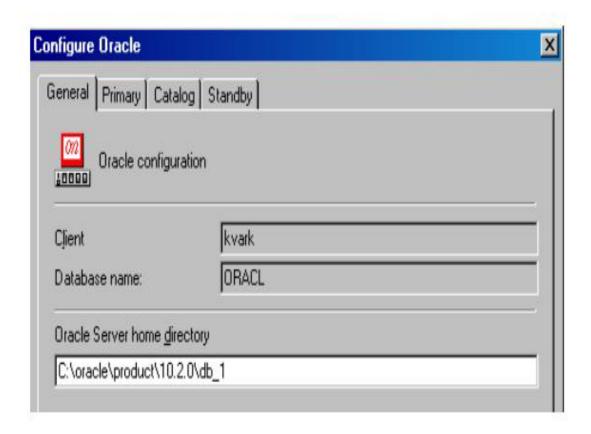
6. Once the configuration is completed, select what is to be backed up.



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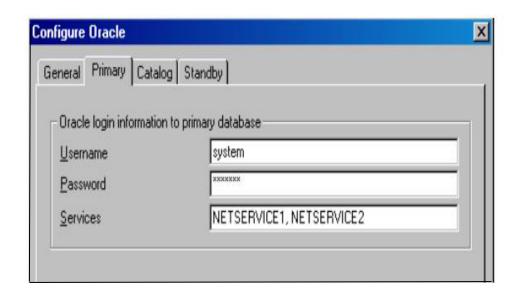
 In the Configure Oracle dialog box, specify the Oracle Home Directory Path where Oracle is installed.



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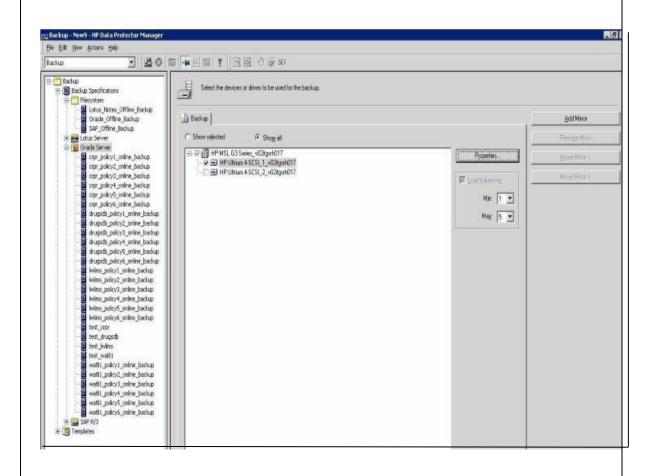
8. In the next tab under Primary in Configure Oracle dialog box, specify the Oracle credentials for the user who has sysdba privileges



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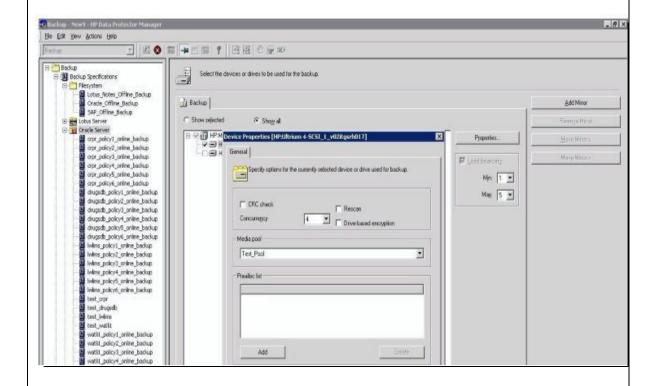
9. Select the destination drives to take backup.



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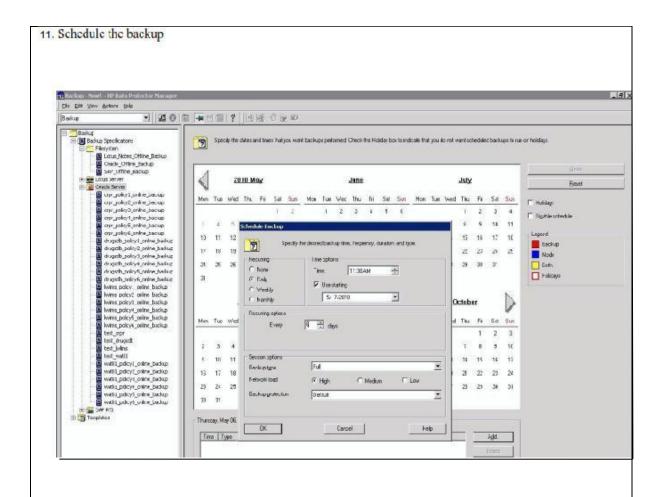
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10. Under the drive, click on Properties. Select the specific media pool on which the backup has to be performed. Enable the multi-path host option and select the corresponding client system from where the backup will be performed



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