

SOUG

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user group



Delphix: Continuous Data for Oracle

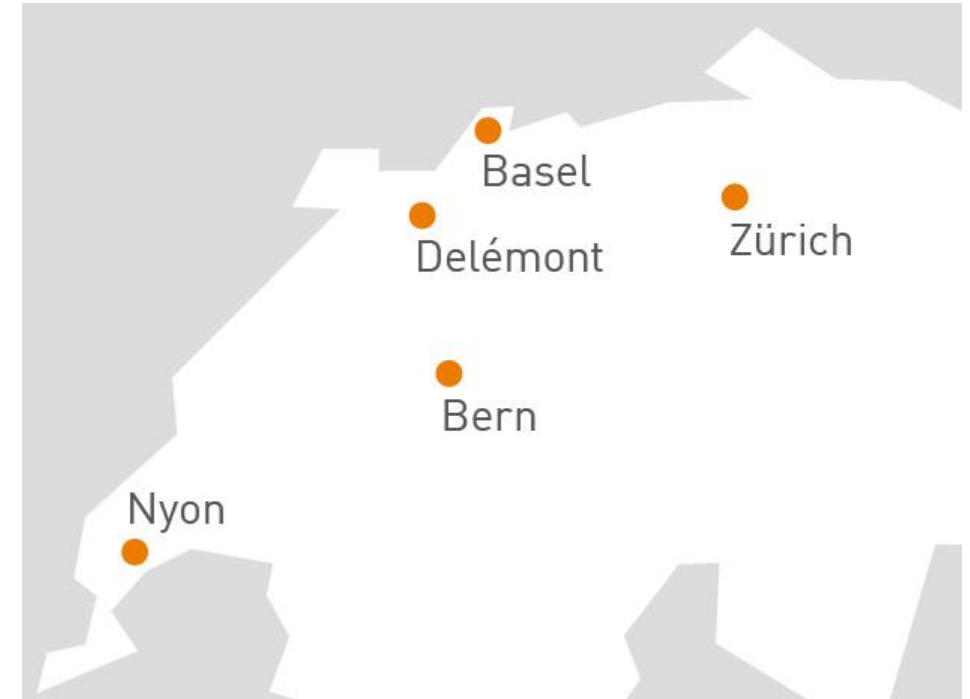
Who we are

The Company

- > Founded in 2010
- > More than 100 employees
- > Specialized in the Middleware Infrastructure
 - > The invisible part of IT
- > Customers in Switzerland and all over Europe

Our Offer

- > Consulting
- > Service Level Agreements (SLA)
- > Trainings
- > License Management



Jérôme Dubar

Oracle Database Senior Consultant

+41 78 731 82 35

jerome.dubar[at]dbi-services.com



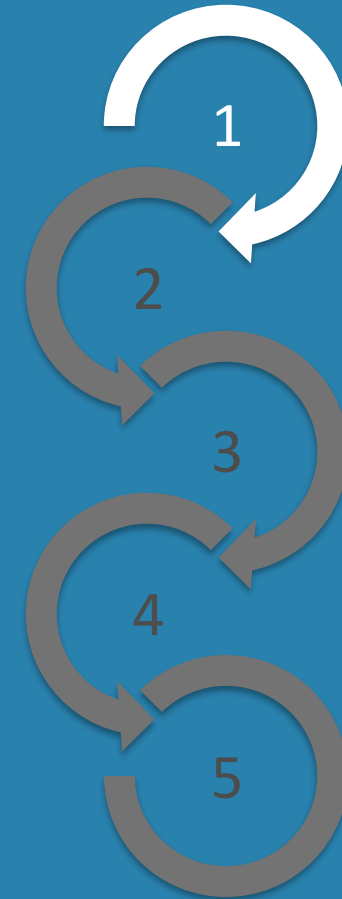
Agenda

1. Introduction
2. Delphix setup
3. Delphix usage
4. Self-Service portal
5. Conclusion



Introduction

- > Oracle database
- > Nowadays' challenges
- > Classic database cloning
- > Delphix' promise

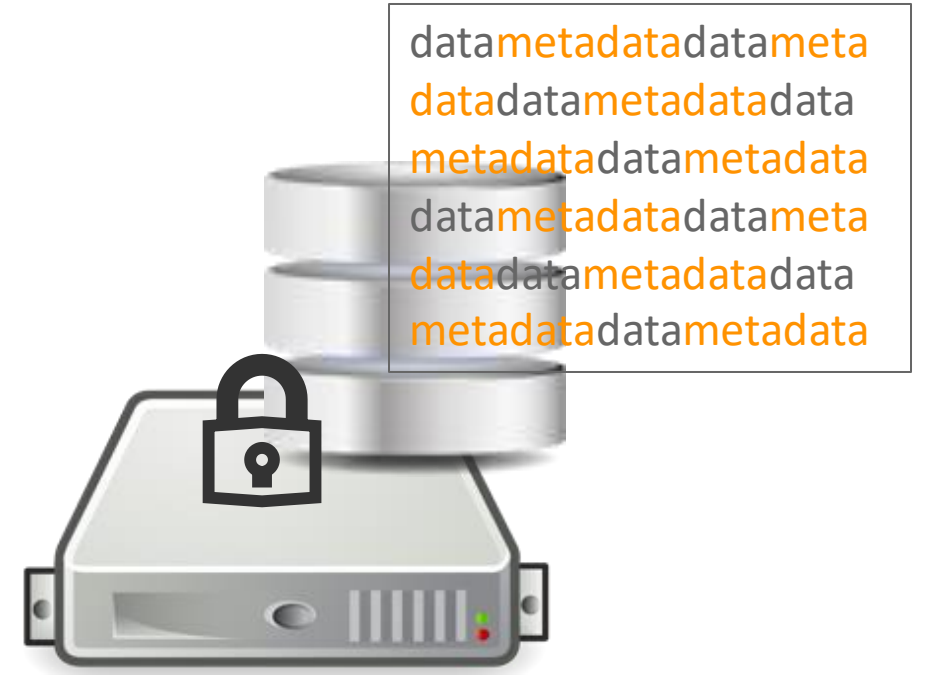


Introduction

Oracle Database

History

- > RDBMS concept has been defined by IBM in 1970
- > First version of Oracle RDBMS in 1979
- > Until recently, Oracle databases have been:
 - > Monolithic
 - > Mostly running on bare metal servers
 - > Not easily movable
 - > Mixing data and metadata



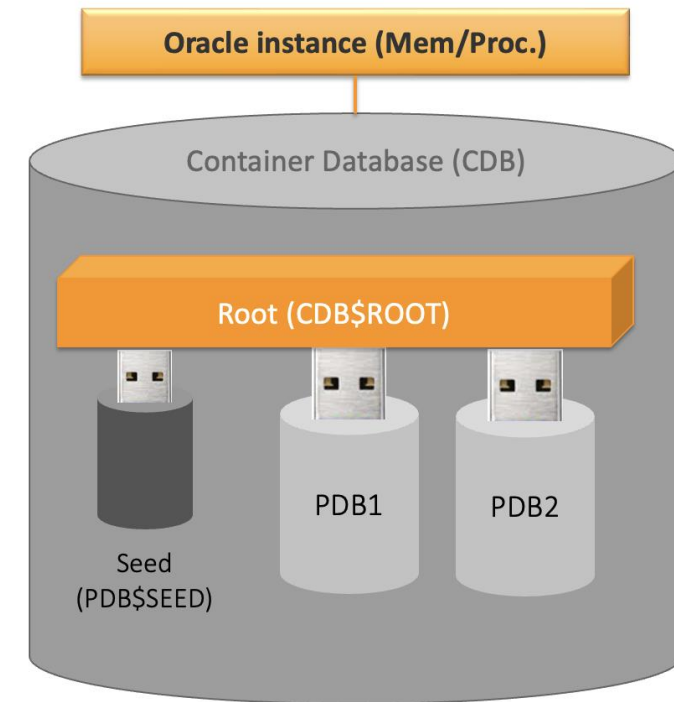
Introduction

Oracle Database

Multitenant

- > New multitenant architecture appeared in 12.1 (2013)
- > 19c is still compatible with old architecture
- > Key features:
 - > A container database for system-related stuff (CDB)
 - > 1 or more pluggable databases (PDB) in this container
 - > Dissociate system metadata from user tables metadata
 - > Easily move a PDB
 - > Brings snapshot features
- > Comes at a cost:
 - > 12c/18c only 1 “free” PDB inside each CDB (???)
 - > 2+ PDBs need Enterprise Edition + Multitenant option
 - > Starting from 19c: max 3 PDBs inside each CDB for SE and EE for “free”
- > Nowadays: most of the clients are still using classic databases

} Slow adoption of multitenant



Introduction

Nowadays' challenges

And now?

- > Even architecture is defined by code!
- > Cloud and containerization are becoming the standard
- > Agility is needed
- > A new test/dev database should be available in minutes not hours!



Speed up database provisioning pleeeaaase!!!



With RMAN, from an existing backup and without Multitenant

```
rman auxiliary /  
run {  
allocate auxiliary channel c1 device type disk;  
allocate auxiliary channel c2 device type disk;  
allocate auxiliary channel c3 device type disk;  
allocate auxiliary channel c4 device type disk;  
allocate auxiliary channel c5 device type disk;  
allocate auxiliary channel c6 device type disk;  
allocate auxiliary channel c7 device type disk;  
allocate auxiliary channel c8 device type disk;  
DUPLICATE DATABASE TO SCDTEST9 BACKUP LOCATION '/u90/tmp_backup/';  
}
```



Only with Enterprise Edition
+
Only if you have enough licenses

Can take hours for big databases!



Introduction

Classic database cloning

Why is it so long?

- > Standard Edition has a big market share (only 1 channel for backup/restore)
- > Clients respect license condition (finally)
- > Clients can only afford a limited number of CPUs (for most)
- > Restore speed is not something so important on production databases:
 - > Because of Flashback database for fast data rewind
 - > Because Data Guard (or Dbvisit Standby) protects production databases

Restoring a database is not needed
for reaching RPO/RTO

I/O is not a bottleneck **anymore** for duplicating a database (or shouldn't be)!

Number of channels is the main limit





Continuous Data

Decrease data footprints by 10x, accelerate provisioning by 100x

Delphix Continuous Data would like to bring an answer...

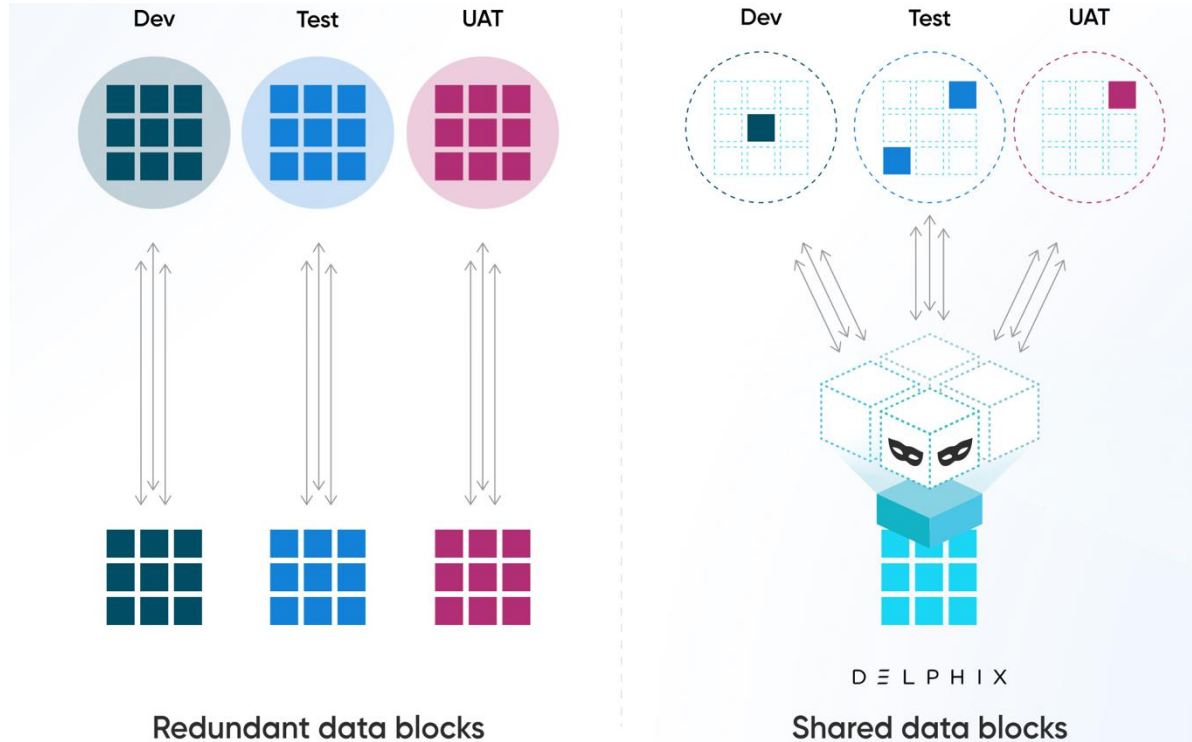
- > Minutes instead of hours provisioning
- > User friendly web interface
- > No need for additional Oracle database licenses
- > Save on storage costs
- > API for DevOps integration
- > Can be linked to Delphix Continuous Compliance (Data Masking)
- > Agnostic platform (on-premise, cloud, engineered systems)
- > No need for Oracle*Net communication between environments



Introduction

Delphix' promise

Delphix intelligence is on the block side



Delphix is a kind of storage appliance with database intelligence

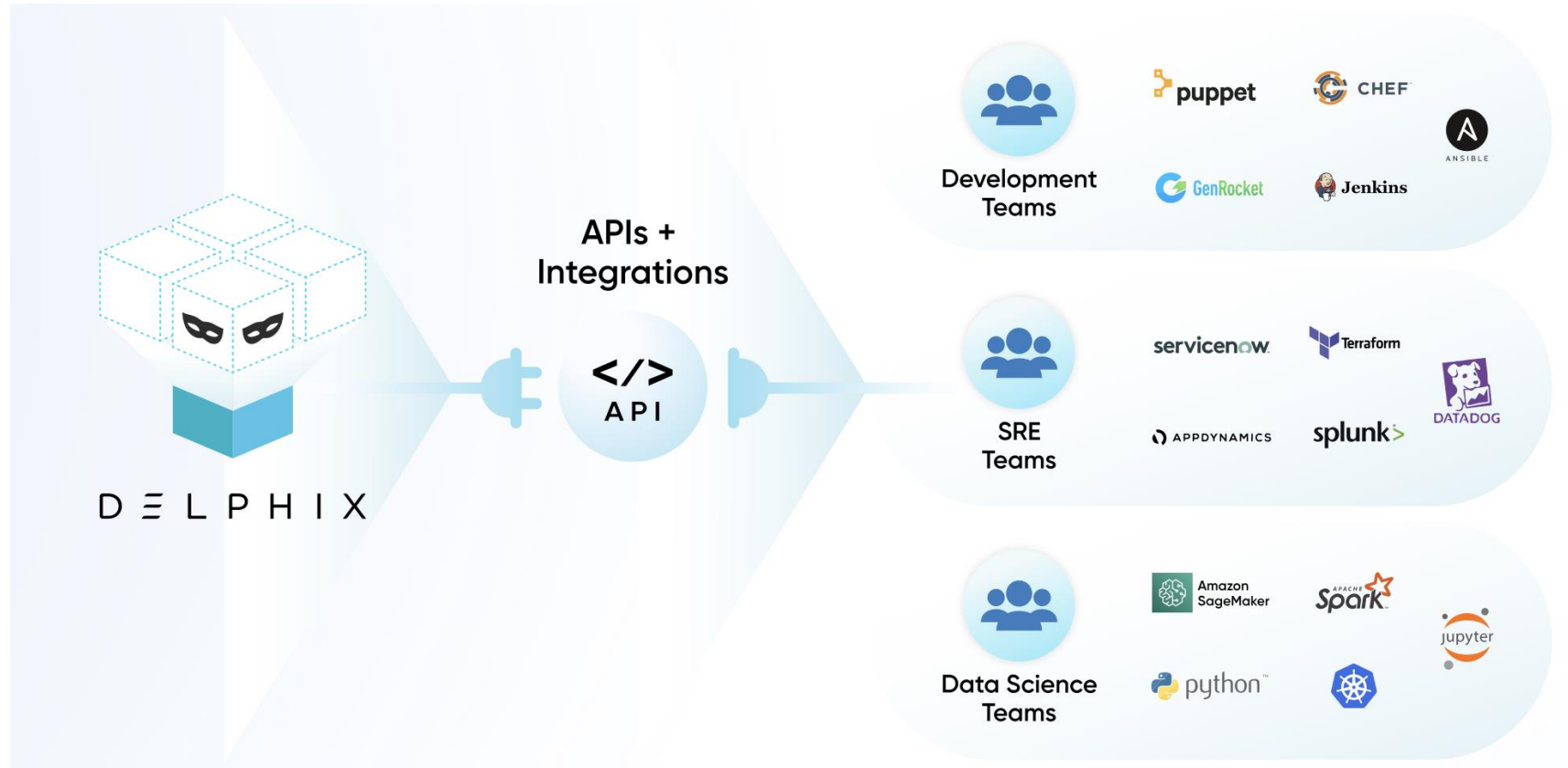
Picture from Delphix documentation



Introduction

Delphix' promise

Delphix focuses on API



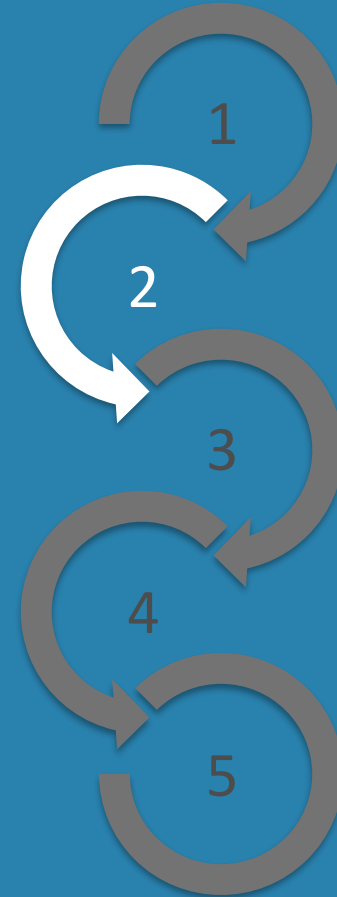
The goal being to leverage traditional Oracle databases in a DevOps environment

Picture from Delphix documentation



Delphix setup

- > Introduction
- > Setup



Delphix setup

Introduction

Prerequisites

- > Delphix Continuous Data is an appliance delivered as an OVA or QCOW2 file
- > Minimum configuration: 4 vCPUs and 32GB of RAM
- > 4+ block devices attached to the VM (minimum size: $\pm 150\%$ of the size of your source databases)
- > A network configuration should exist between source/target database servers and Delphix' VM



Delphix setup

Introduction

My lab

- > Oracle Database Appliance X8-2M
- > 2x DB Systems with non-CDB 19.20 databases
- > 1x VM with 32GB RAM, 4 vCPUs and 4x 200GB block devices



```
odacli create-vmstorage -n VMStore -s 500G
odacli create-cpupool -n cpu4delphix -c 4 -vm
odacli create-vm -n delphix -m 32G -vc 4 -cp cpu4delphix -vn pubnet -vms VMStore -s 30G -g
"vnc,listen=10.36.0.241" -src /opt/dbi/AlmaLinux-9.3-x86_64-minimal.iso
odacli create-vmstorage -n DelphixBS -s 1T
odacli create-vdisk -n delphix-vdisk1 -s 200G -vms DelphixBS
odacli create-vdisk -n delphix-vdisk2 -s 200G -vms DelphixBS
odacli create-vdisk -n delphix-vdisk3 -s 200G -vms DelphixBS
odacli create-vdisk -n delphix-vdisk4 -s 200G -vms DelphixBS
odacli list-vdisks
odacli modify-vm -n Delphix -avd delphix-vdisk1,delphix-vdisk2,delphix-vdisk3,delphix-vdisk4
odacli stop-vm -n delphix
cp /opt/dbi/Delphix_17.0.0.0_2023-11-17-20-33_Standard_OCI.qcow2
/u05/app/sharedrepo/vmstore/.ACFS/snaps/vm_delphix/delphix
chown qemu:qemu /u05/app/sharedrepo/vmstore/.ACFS/snaps/vm_delphix/delphix
odacli start-vm -n delphix
```

Delphix setup

Introduction

My DB Systems

- > testdb01: my source server running my database
- > testdb02: my target server (database removed with odacli)
- > No additional settings on these systems apart from:
 - > A folder for Delphix binaries
 - > Some sudo commands for oracle
 - > A mountpoint



```
ssh root@testdb01
su - oracle
mkdir /home/oracle/delphix/
chmod 0770 /home/oracle/delphix/
exit
cat > /etc/sudoers.d/delphix_oracle <<'CAT'
Defaults:oracle !requiretty
oracle ALL=NOPASSWD: /bin/mount, /bin/umount, /bin/mkdir, /bin/rmdir, /bin/ps
CAT
mkdir /mnt/provision
chown oracle:dba /mnt/provision
```

Delphix setup

Setup

Connect to VM's console: sysadmin/sysadmin

```
10.36.0.241:5903 (QEMU (delphix)) - RealVNC Viewer
Delphix Version 17.0.0.0 www.delphix.com
Keyboard layout (press 9 to change): us
Press any other key for console access.
STATUS SERVICE
active Delphix Perfomance Statistics
active Delphix Telegraf Metric Collection Agent
active Delphix management service
active Delphix osadmin service
active ZFS Event Daemon (zed)
active Delphix "rpool" Upgrade Service
active Delphix Appliance Platform Service
active Delphix default PostgreSQL database server
active Delphix Nginx reverse proxy
Host: https://dhcp-10-36-0-222
IPs: 10.36.0.222, 10.36.0.221
```



Configure network using the command line and restart the VM

```
network setup update *> set dhcp=false
network setup update *> set primaryAddress=10.36.0.248/24
network setup update *> set hostname=delphix
network setup update *> set dnsServers=10.35.0.10,172.22.3.5
network setup update *> set defaultRoute=10.36.0.1
network setup update *> commit_
Successfully committed network settings. Further setup can be done through the browser at:

    http://10.36.0.248

Type 'exit' to disconnect, or any other commands to continue using the CLI.
delphix> network setup update
delphix network setup update *> get
    defaultRoute: 10.36.0.1
    dhcp: false
    dnsDomain: it.dbi-services.com
    dnsServers: 10.35.0.10,172.22.3.5
    hostname: delphix
    primaryAddress: 10.36.0.248/24
delphix network setup update *> discard
delphix> exit_
```

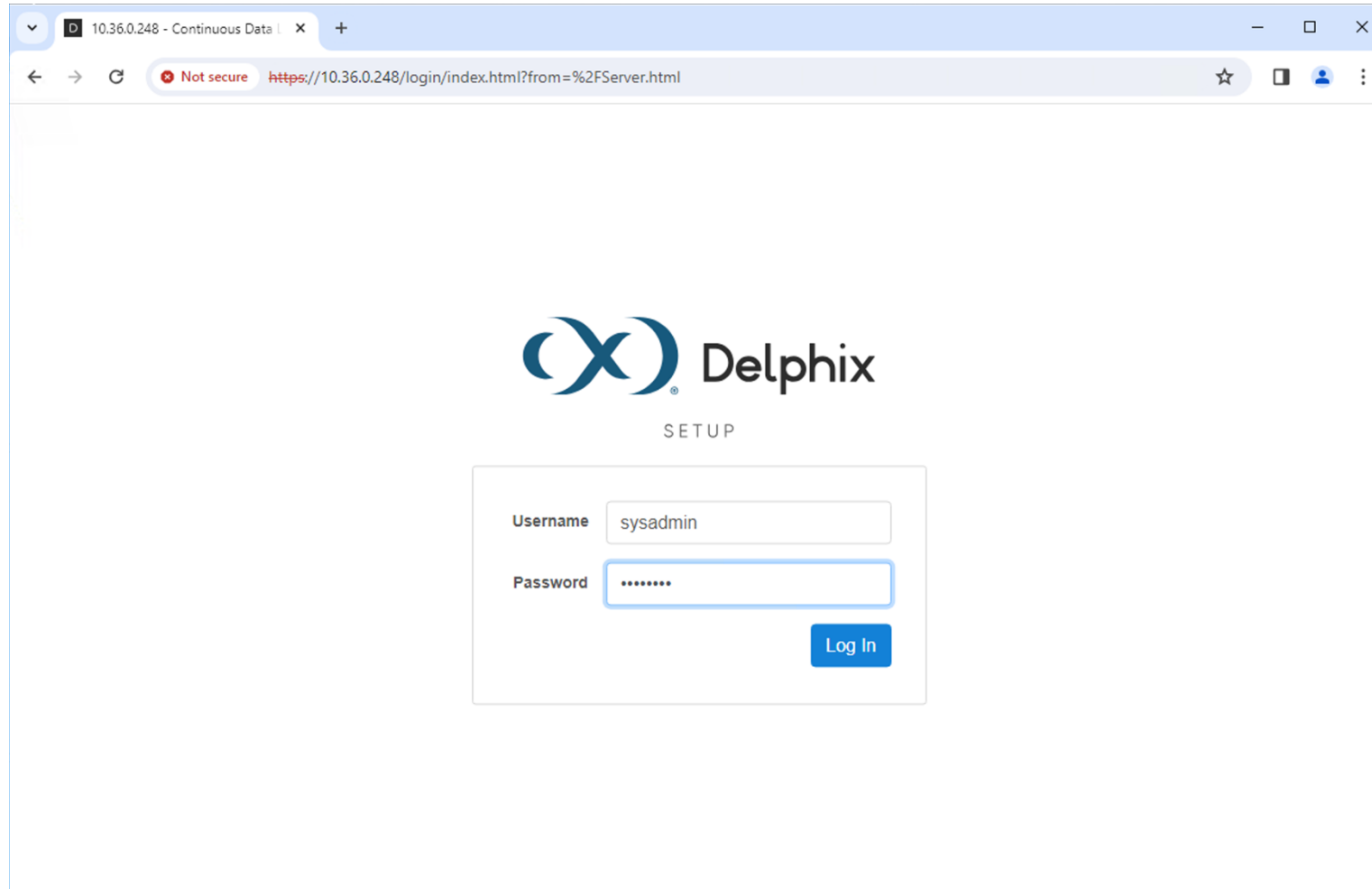
```
odacli stop-vm -n delphix ; sleep 10 ; odacli start-vm -n delphix
```



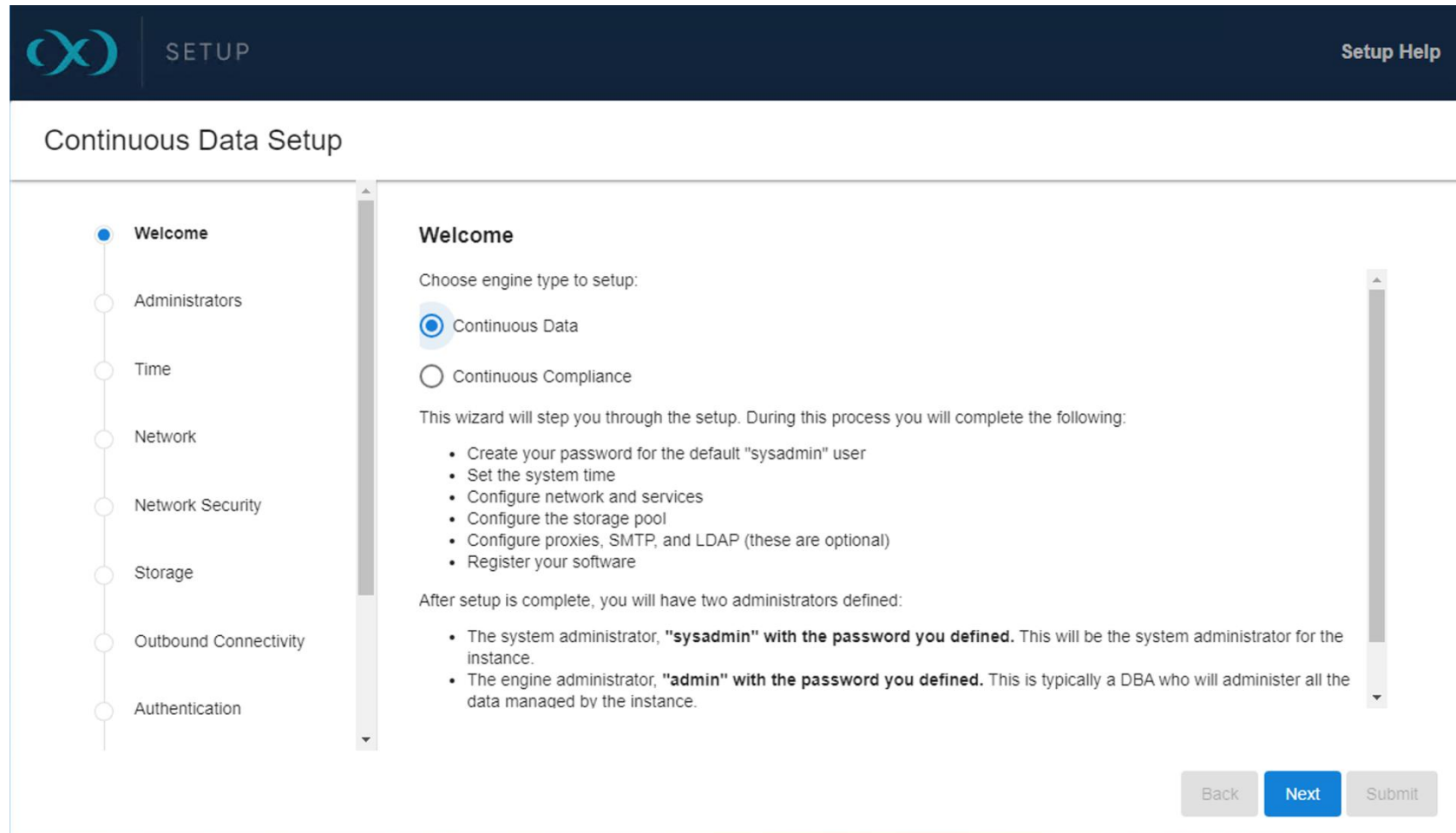
Delphix setup

Setup

Connect to the webconsole for Delphix setup



Choose Continuous Data setup



Continuous Data Setup

Welcome

Choose engine type to setup:

- Continuous Data
- Continuous Compliance

This wizard will step you through the setup. During this process you will complete the following:

- Create your password for the default "sysadmin" user
- Set the system time
- Configure network and services
- Configure the storage pool
- Configure proxies, SMTP, and LDAP (these are optional)
- Register your software

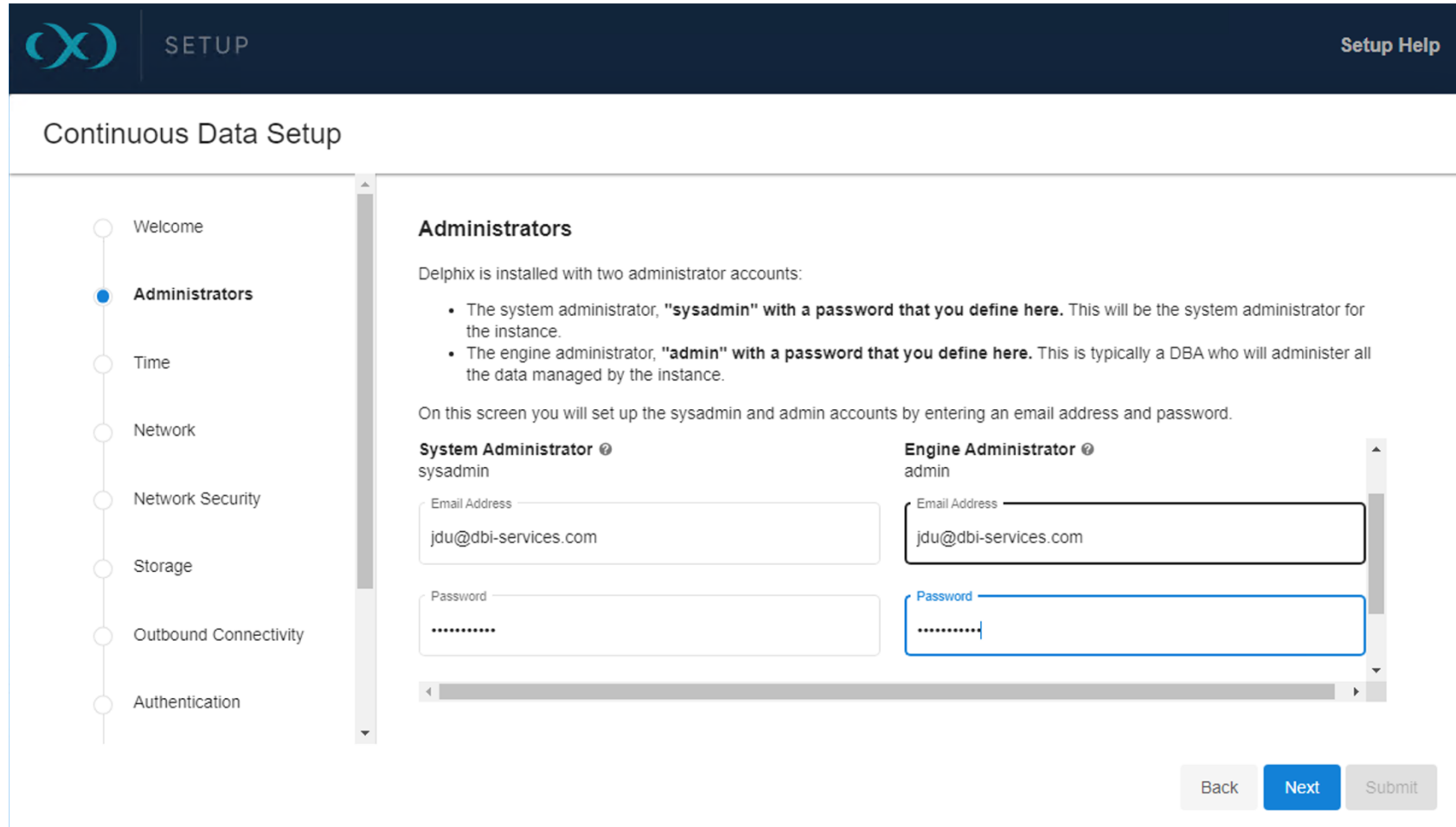
After setup is complete, you will have two administrators defined:

- The system administrator, "**sysadmin**" with the password you defined. This will be the system administrator for the instance.
- The engine administrator, "**admin**" with the password you defined. This is typically a DBA who will administer all the data managed by the instance.

Back Next Submit



Configure the users: sysadmin for Delphix setup and configuration, admin for DBA tasks



The screenshot shows the 'Continuous Data Setup' interface. On the left is a vertical navigation menu with steps: Welcome, Administrators (selected), Time, Network, Network Security, Storage, Outbound Connectivity, and Authentication. The main content area is titled 'Administrators' and contains the following text:

Administrators

Delphix is installed with two administrator accounts:

- The system administrator, "**sysadmin**" with a password that you define here. This will be the system administrator for the instance.
- The engine administrator, "**admin**" with a password that you define here. This is typically a DBA who will administer all the data managed by the instance.

On this screen you will set up the sysadmin and admin accounts by entering an email address and password.

System Administrator ⓘ
sysadmin

Email Address

Password

Engine Administrator ⓘ
admin

Email Address

Password

At the bottom right, there are three buttons: 'Back' (disabled), 'Next' (active), and 'Submit' (disabled).



Configure the NTP server

The screenshot shows the 'Continuous Data Setup' interface. On the left is a vertical navigation menu with steps: Welcome, Administrators, Time (selected), Network, Network Security, Storage, Outbound Connectivity, and Authentication. The main content area is titled 'Time' and contains the following elements:

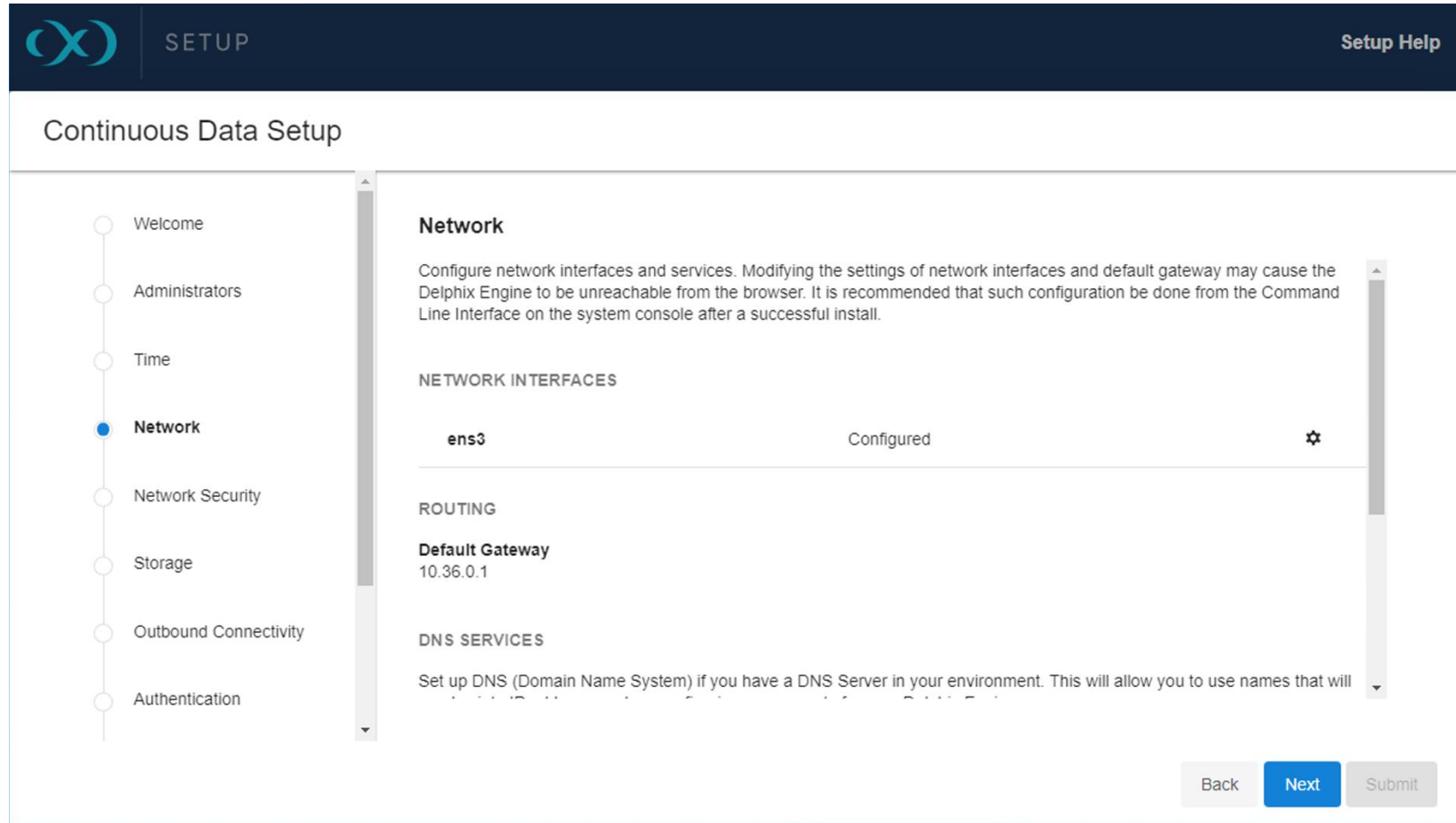
- Time**
Delphix Engine system time is used as the baseline for setting policies that coordinate between virtual databases and external applications.
- Two radio buttons: Set NTP Server and Manually Set Date and Time.
- An 'Add NTP Server' input field containing '10.35.0.10' and a '+' button.
- A section titled 'NTP Servers' with a list of checkboxes and server names:
 - Pool.ntp.org
 - Asia.pool.ntp.org
 - North-America.pool.ntp.org
 - ...
- At the bottom right, there are three buttons: 'Back', 'Next' (highlighted in blue), and 'Submit'.



Delphix setup


Setup

Configure network interface (if needed)



The screenshot shows the 'Continuous Data Setup' interface. The left sidebar contains a vertical list of steps: Welcome, Administrators, Time, Network (highlighted with a blue dot), Network Security, Storage, Outbound Connectivity, and Authentication. The main content area is titled 'Network' and includes the following sections:

- Network**: A heading followed by a paragraph: "Configure network interfaces and services. Modifying the settings of network interfaces and default gateway may cause the Delphix Engine to be unreachable from the browser. It is recommended that such configuration be done from the Command Line Interface on the system console after a successful install."
- NETWORK INTERFACES**: A table with one entry:

Interface	Status	Settings
ens3	Configured	
- ROUTING**: A heading followed by:
 - Default Gateway**: 10.36.0.1
- DNS SERVICES**: A heading followed by a paragraph: "Set up DNS (Domain Name System) if you have a DNS Server in your environment. This will allow you to use names that will..."

At the bottom right of the main content area, there are three buttons: 'Back' (disabled), 'Next' (active), and 'Submit' (disabled).



Configure certificates if needed

The screenshot shows the 'Continuous Data Setup' interface. On the left is a vertical navigation menu with steps: Welcome, Administrators, Time, Network, **Network Security** (selected), Storage, Outbound Connectivity, and Authentication. The main content area is titled 'Network Security' and contains the following text:

Network Security

Delphix installs certificates signed by the Engine's Certificate Authority. You can replace any certificate. You can manage all certificates in the Network Security section of the system administration dashboard.

Note: When you update the Certificate Authority certificate, your HTTPS and DSP certificates will be automatically updated.

Current Certificates

Key Store TrustStore Open CSRs ...

D. Name	Issued By	Expires		More info
CN=Engine ...	CN=Engine ...	Jan 28, 202...	Is Accepted Yes	
			Issued To CN=Engine dhcp-10-36-0-222 CA, C=US	
			Issued By CN=Engine dhcp-10-36-0-222 CA, C=US	

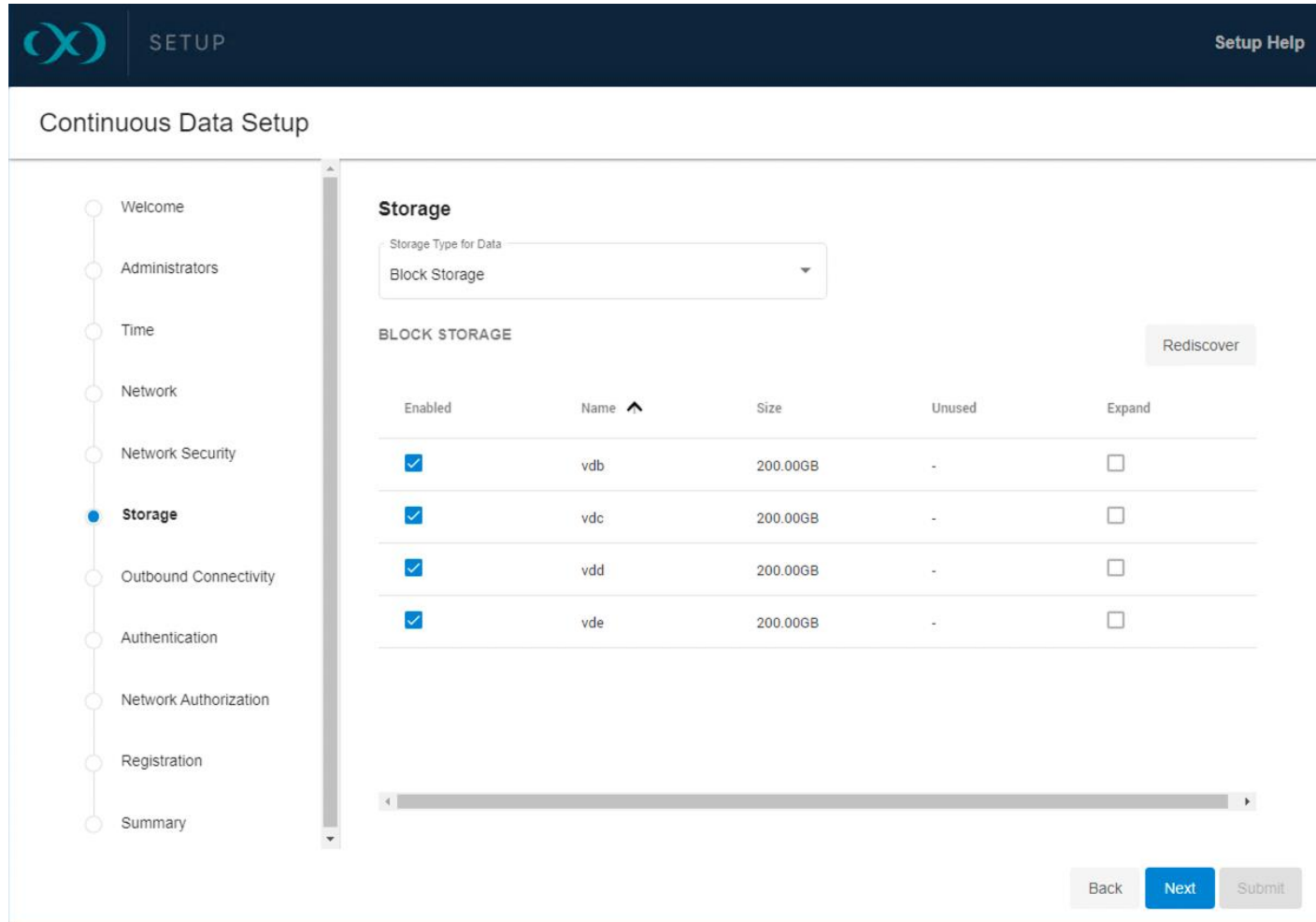
At the bottom right of the main content area are three buttons: 'Back', 'Next' (highlighted in blue), and 'Submit'.



Delphix setup

Setup

Configure the block devices for database storage



Storage Type for Data: Block Storage

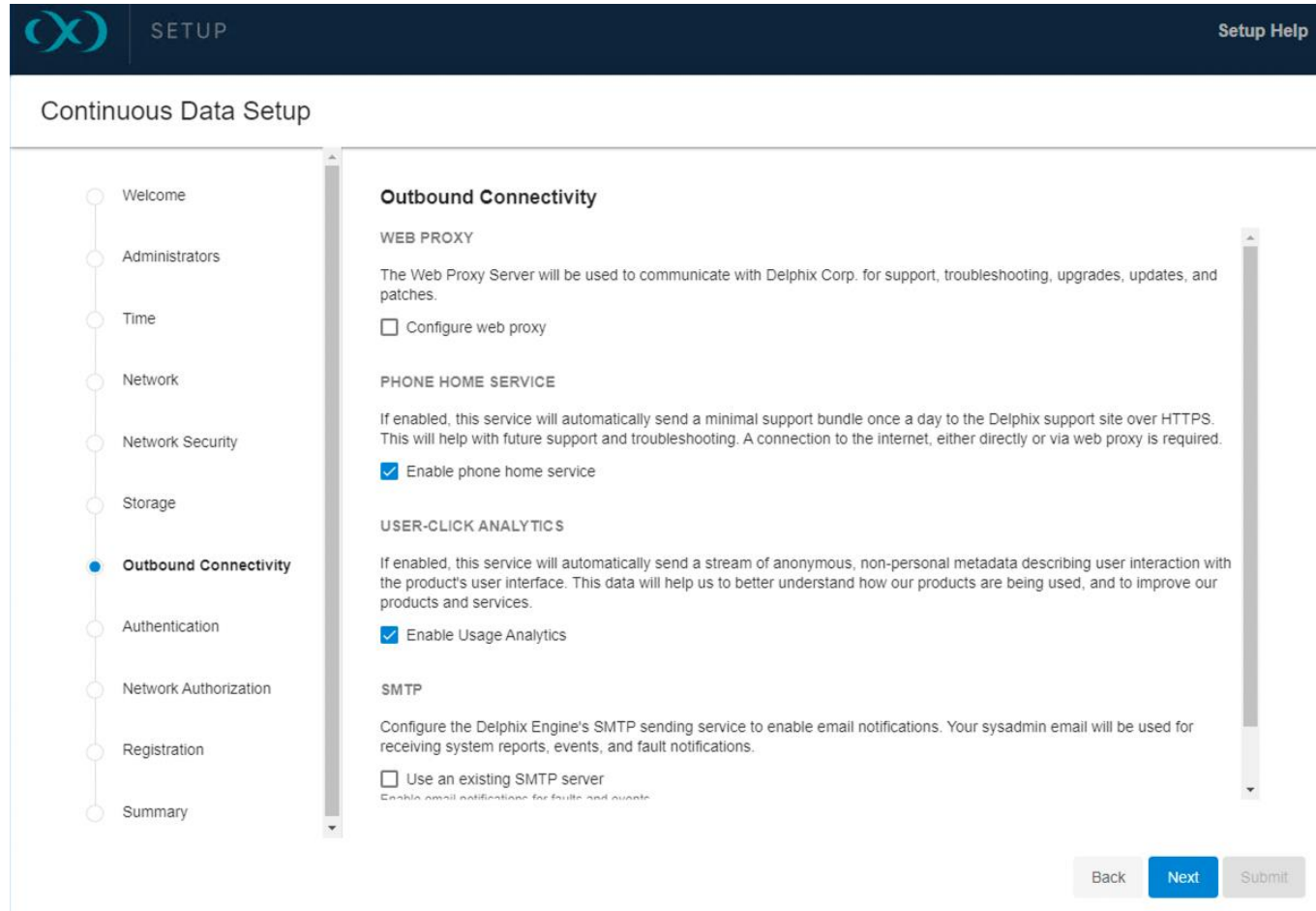
BLOCK STORAGE Rediscover

Enabled	Name ^	Size	Unused	Expand
<input checked="" type="checkbox"/>	vdb	200.00GB	-	<input type="checkbox"/>
<input checked="" type="checkbox"/>	vdc	200.00GB	-	<input type="checkbox"/>
<input checked="" type="checkbox"/>	vdd	200.00GB	-	<input type="checkbox"/>
<input checked="" type="checkbox"/>	vde	200.00GB	-	<input type="checkbox"/>

Back Next Submit



Configure outbound connectivity



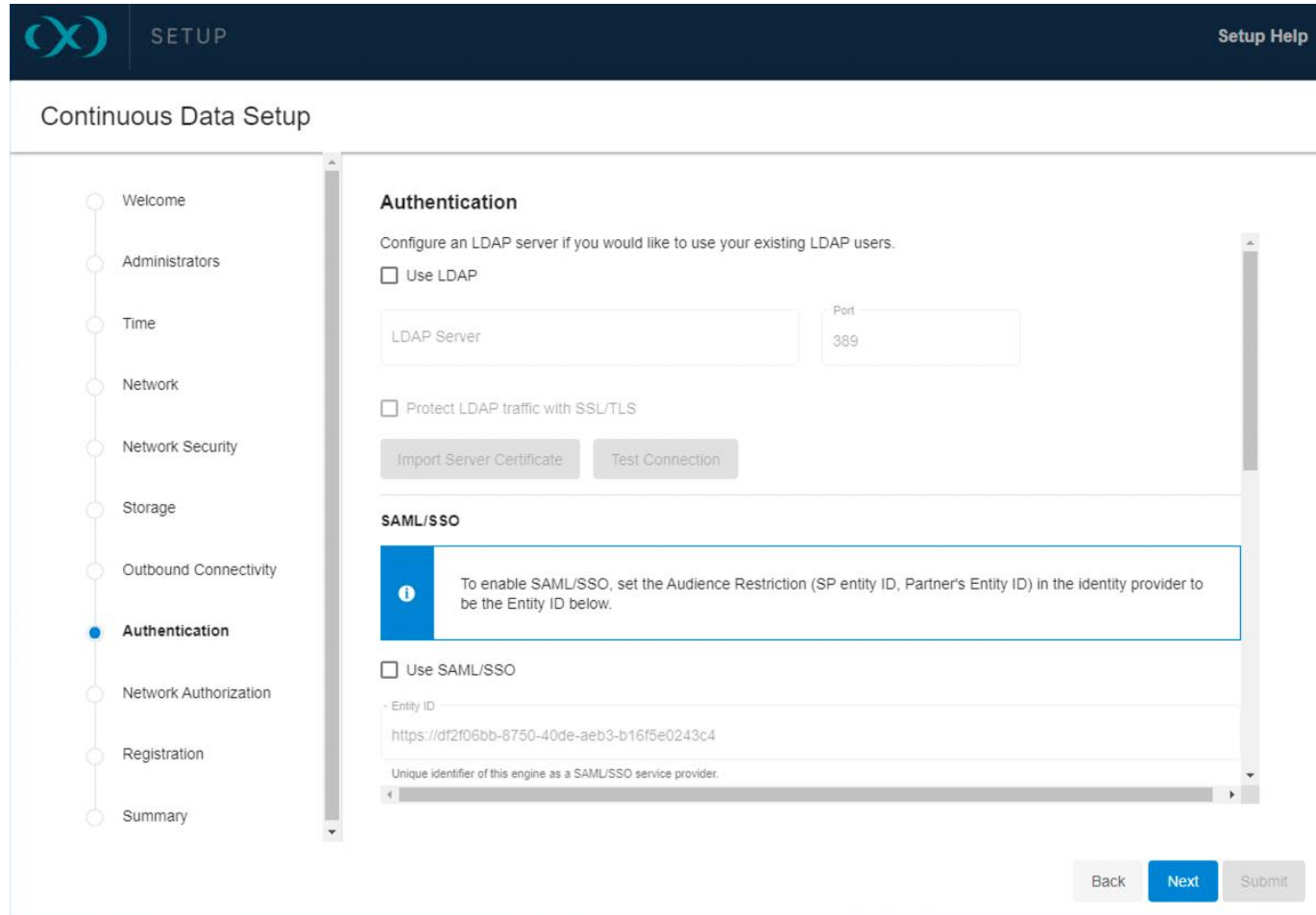
The screenshot shows the 'Continuous Data Setup' page in the Delphix Setup interface. The page is titled 'Continuous Data Setup' and has a 'Setup Help' link in the top right corner. A navigation sidebar on the left lists the following steps: Welcome, Administrators, Time, Network, Network Security, Storage, **Outbound Connectivity** (highlighted with a blue dot), Authentication, Network Authorization, Registration, and Summary. The main content area is titled 'Outbound Connectivity' and contains three sections:

- WEB PROXY**: The Web Proxy Server will be used to communicate with Delphix Corp. for support, troubleshooting, upgrades, updates, and patches. There is an unchecked checkbox for 'Configure web proxy'.
- PHONE HOME SERVICE**: If enabled, this service will automatically send a minimal support bundle once a day to the Delphix support site over HTTPS. This will help with future support and troubleshooting. A connection to the internet, either directly or via web proxy is required. There is a checked checkbox for 'Enable phone home service'.
- USER-CLICK ANALYTICS**: If enabled, this service will automatically send a stream of anonymous, non-personal metadata describing user interaction with the product's user interface. This data will help us to better understand how our products are being used, and to improve our products and services. There is a checked checkbox for 'Enable Usage Analytics'.

At the bottom of the page, there are three buttons: 'Back', 'Next' (highlighted in blue), and 'Submit'.



Configure external authentication (if needed)



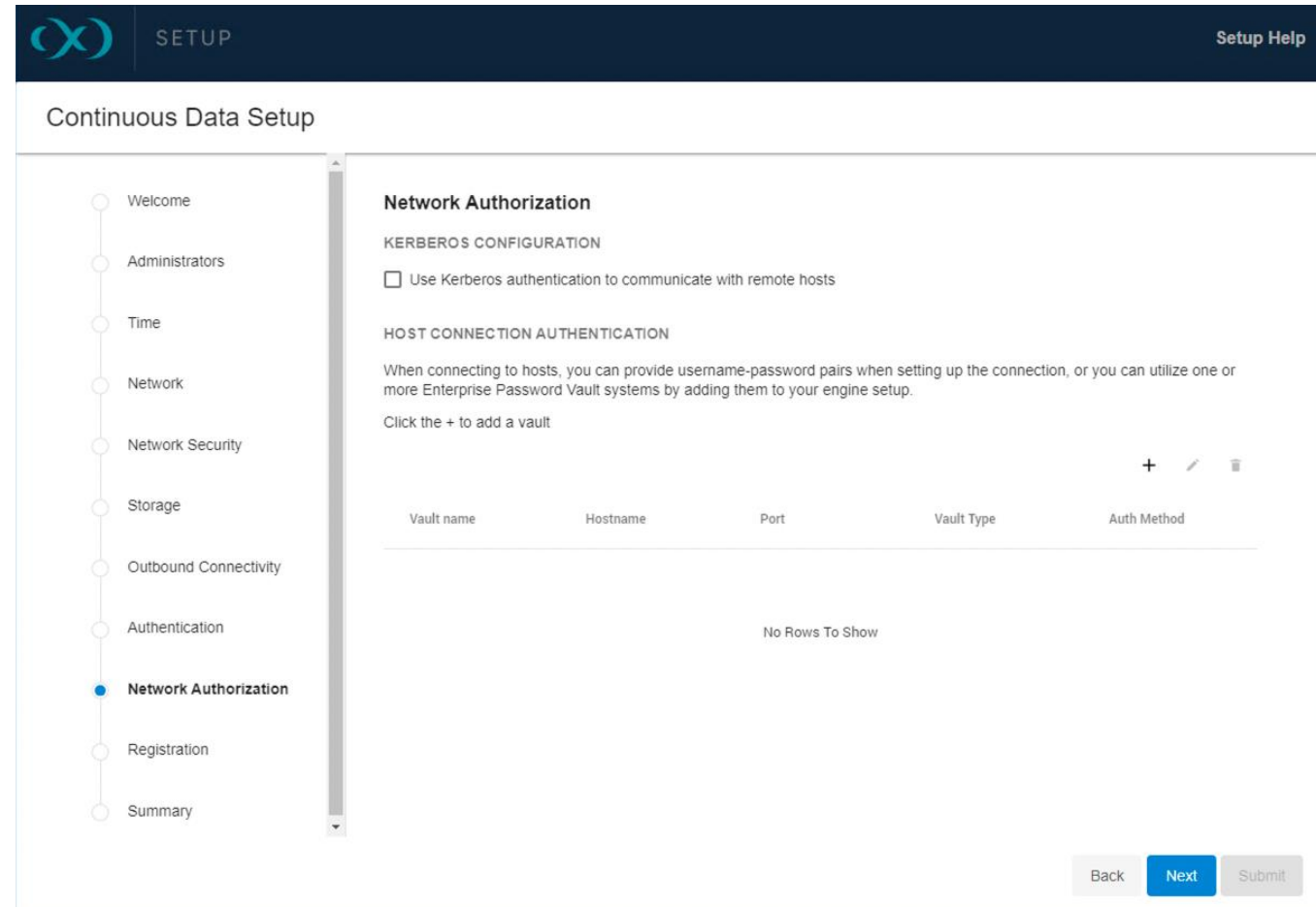
The screenshot shows the 'Continuous Data Setup' interface. On the left is a navigation menu with items: Welcome, Administrators, Time, Network, Network Security, Storage, Outbound Connectivity, **Authentication** (highlighted), Network Authorization, Registration, and Summary. The main content area is titled 'Authentication' and contains the following elements:

- Authentication** section: 'Configure an LDAP server if you would like to use your existing LDAP users.'
 - Use LDAP
 - LDAP Server:
 - Port:
 - Protect LDAP traffic with SSL/TLS
 - Buttons: Import Server Certificate, Test Connection
- SAML/SSO** section:
 - Information box: To enable SAML/SSO, set the Audience Restriction (SP entity ID, Partner's Entity ID) in the identity provider to be the Entity ID below.
 - Use SAML/SSO
 - Entity ID:
 - Text: Unique Identifier of this engine as a SAML/SSO service provider.

At the bottom right are buttons for Back, Next, and Submit.



Configure network authentication with Kerberos (if needed)



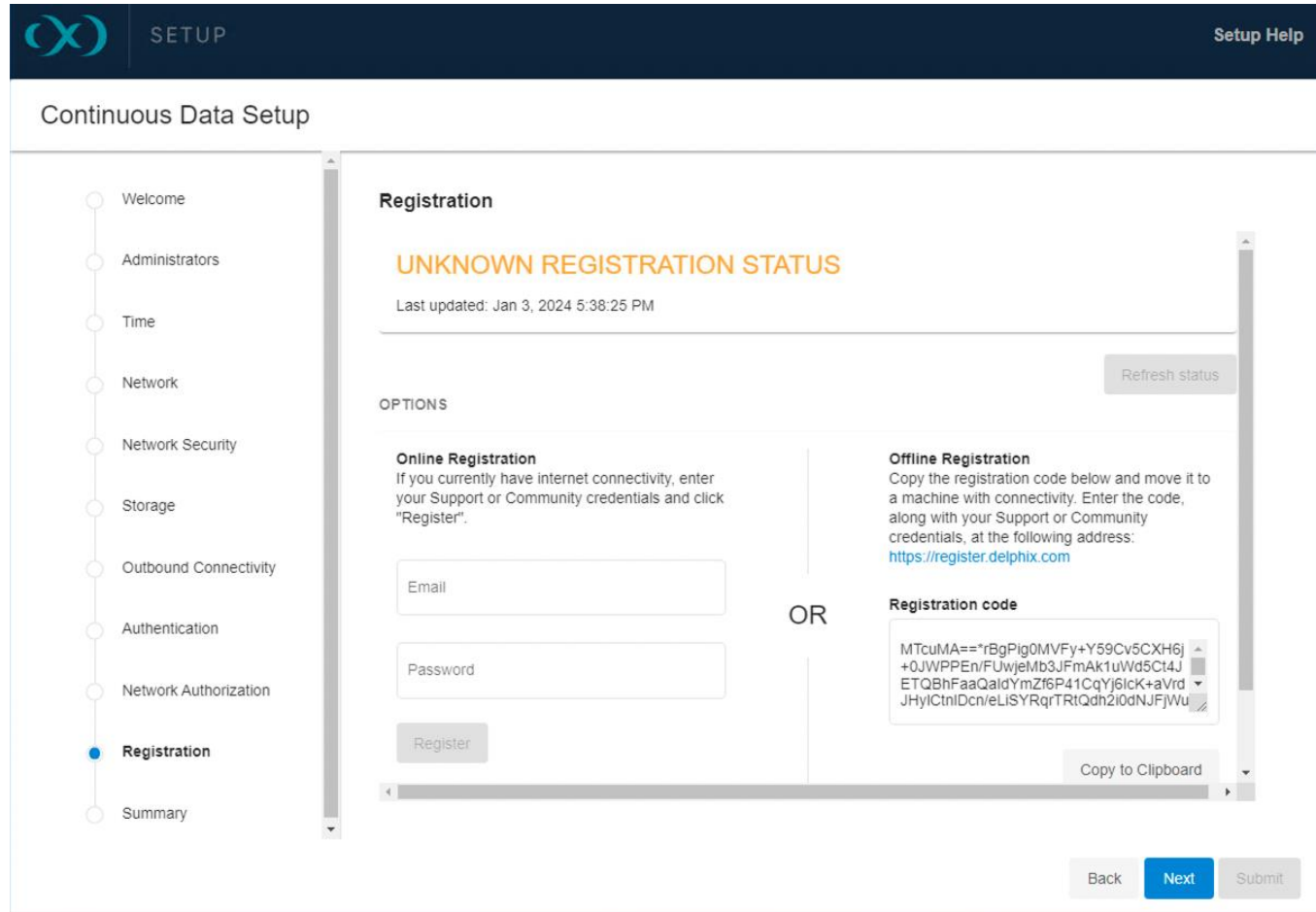
The screenshot shows the 'Continuous Data Setup' interface. On the left is a vertical navigation menu with steps: Welcome, Administrators, Time, Network, Network Security, Storage, Outbound Connectivity, Authentication, **Network Authorization** (selected), Registration, and Summary. The main content area is titled 'Network Authorization' and contains two sections: 'KERBEROS CONFIGURATION' with a checkbox 'Use Kerberos authentication to communicate with remote hosts' (unchecked), and 'HOST CONNECTION AUTHENTICATION' with explanatory text and a '+ to add a vault' button. Below this is a table with columns: Vault name, Hostname, Port, Vault Type, and Auth Method. The table is currently empty, displaying 'No Rows To Show'. At the bottom right of the main area are 'Back', 'Next', and 'Submit' buttons.



Delphix setup

Setup

Configure license



The screenshot shows the 'Continuous Data Setup' interface. On the left is a navigation menu with items: Welcome, Administrators, Time, Network, Network Security, Storage, Outbound Connectivity, Authentication, Network Authorization, **Registration** (highlighted), and Summary. The main content area is titled 'Registration' and displays 'UNKNOWN REGISTRATION STATUS' in orange text, with a timestamp 'Last updated: Jan 3, 2024 5:38:25 PM' and a 'Refresh status' button. Below this is an 'OPTIONS' section with two columns. The left column, 'Online Registration', instructs users to enter their Support or Community credentials and click 'Register'. It contains input fields for 'Email' and 'Password', and a 'Register' button. The right column, 'Offline Registration', instructs users to copy a registration code to a machine with connectivity and enter it at <https://register.delphix.com>. It contains a 'Registration code' field with a long alphanumeric string and a 'Copy to Clipboard' button. At the bottom of the main content area are 'Back', 'Next', and 'Submit' buttons.



Delphix setup

Setup

Setup summary

Continuous Data Setup

Are you sure you want to save this configuration? This action will initiate the Setup process and restart the instance.

Cancel Save

Continuous Data Setup

- Welcome
- Administrators
- Time
- Network
- Network Security
- Storage
- Outbound Connectivity
- Authentication
- Network Authorization
- Registration
- Summary**

Summary

PRODUCT TYPE
Continuous Data

DEFAULT ACCOUNTS

Engine Administrator
admin

Engine Administrator Email
jdu@dbi-services.com

System Administrator
sysadmin

System Administrator Email
jdu@dbi-services.com

OUTBOUND CONNECTIVITY

Web Proxy
Disabled


⚠ Web proxy not configured

Phone Home

Updating system time...

Loading Setup. This may take a few minutes.

Back Next Submit



Delphix setup

Setup

That's it!



Delphix
CONTINUOUS DATA

Username

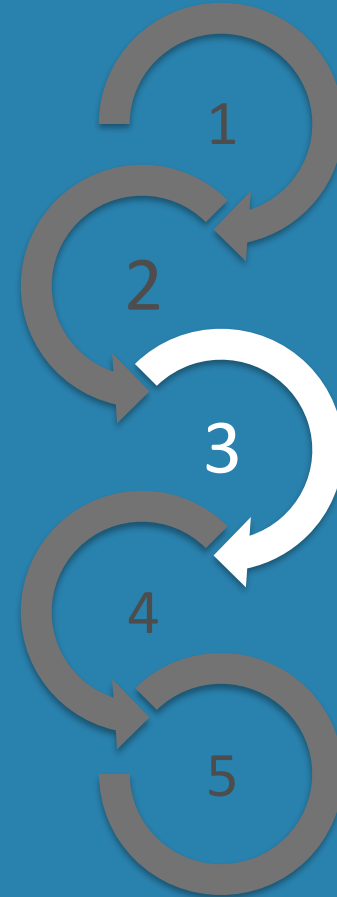
Password

[Setup](#)



Delphix usage

- > Introduction
- > Manage Environments
- > Manage Datasets
- > Manage VDBs
- > Manage Policies



Delphix usage

Introduction

Delphix' terminology:

- > dSource: a source database that has a copy in Delphix
- > VDB: a Delphix virtual database created from a dSource
- > Datasets: the Delphix databases (dSources and VDBs)
- > Hook points: pre-scripts and post-scripts when creating/refreshing VDBs
- > Policies: refresh schedules
- > SnapSync: dSource refresh from its source
- > Snapshot: a snapshot of a database at a specific point in time



Delphix usage

Manage Environments

Connect with admin/***** and define a new password



CONTINUOUS DATA

Because this is your first login, you are required to enter a new personal password.

Username admin

New Password

Confirm Password

Password Strength: Strong



Delphix usage

Manage Environments

Go to Manage / Environments for adding servers

The screenshot shows the Delphix Management console interface. At the top, there is a navigation bar with the Delphix logo and the word 'MANAGEMENT'. Below this, there are tabs for 'Manage', 'Resources', 'System', and 'Help'. The 'Manage' tab is active, and a dropdown menu is open, showing options: 'Dashboard', 'Environments', 'Datasets', 'Policies', 'Users', 'VDB Config Templates', 'Hook Templates', and 'Plugins'. The 'Environments' option is highlighted. The main content area is divided into several sections: 'Dashboard' (with a 'Dataset Performance' widget showing 'No data to display'), 'Storage Capacity' (a donut chart showing 10.3% used, with 79.26GB used and 691.99GB remaining), 'Managed Source Data' (showing 0.00 B), 'Faults' (showing a warning: 'Password reset requires SMTP to be enabled'), and 'Running Actions' (showing a list of actions like 'Update credentials of user "admin"', 'Create domain "domain0"', etc.).



Delphix usage

Manage Environments

Choose server type

Add Environment ✕

- Host and Server
- Environment Settings
- Summary

Host and Server

An Environment is a host or cluster with which Delphix will communicate.

Host OS

- Unix/Linux
- Windows

Server Type

- Standalone
- Cluster

Cancel Back Next Submit



Delphix usage

Manage Environments

Server settings (name and login type)

Add Environment ✕

○ Host and Server

● Environment Settings

○ Summary

Environment Settings

Environment Name

Host Address

SSH Port


Login Type

- Username and Password
- Username and Engine Public Key
- Username and Custom Key Pair
- Password Vault

OS Username

OS Password

Cancel Back **Next** Submit



Delphix usage

Manage Environments

Server settings (path for Delphix binaries)


Add Environment ✕

- Host and Server
- Environment Settings
- Summary

OS Password

Toolkit Path

Java Development Kit ⓘ
 Provide my own JDK
Advanced Options
 Discover SAP ASE
 Set Network File System Addresses (NFS) ⓘ
 Set Delphix Session Protocol Options (DSP) ⓘ
Notes



Delphix usage

Manage Environments


Server settings (summary)

Add Environment ✕

- Host and Server
- Environment Settings
- Summary

HOST AND SERVER	ENVIRONMENT SETTINGS
Host OS Unix/Linux	Environment Name PROD
Server Type Standalone	Host Address 10.36.0.246
	NFS Addresses None
	NFS Encryption ⓘ No
	SSH Port 22
	DSP KeyStore Path None
	DSP KeyStore Alias None
	DSP TrustStore Path None
	OS Username oracle
	Toolkit Path /home/oracle/delphix
	Discover SAP ASE Disabled

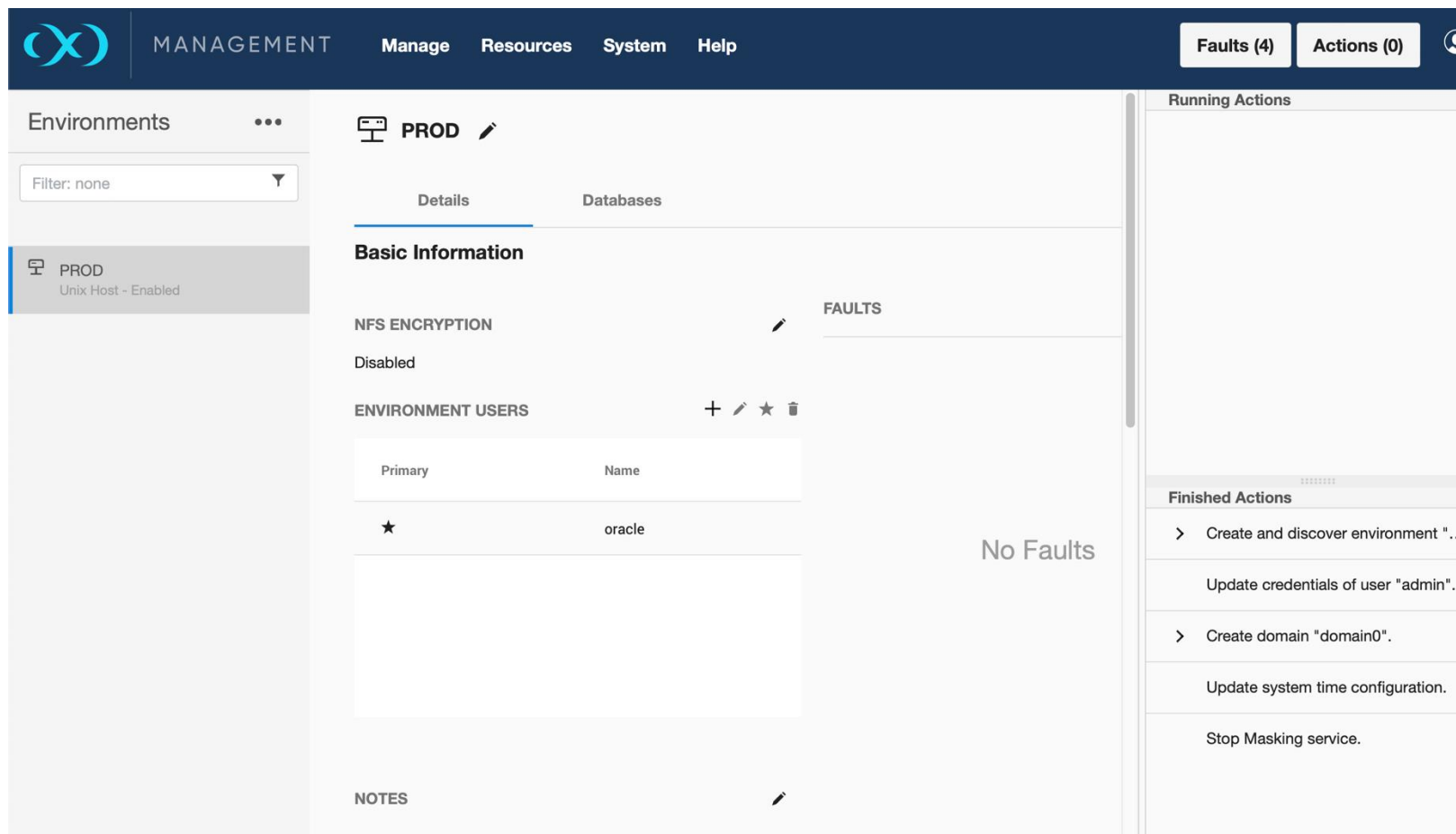
Cancel Back Next Submit



Delphix usage

Manage Environments

Environments view



The screenshot displays the Delphix Management interface for the 'PROD' environment. The top navigation bar includes 'MANAGEMENT', 'Manage', 'Resources', 'System', and 'Help', along with 'Faults (4)' and 'Actions (0)' indicators. The left sidebar shows a list of environments, with 'PROD' (Unix Host - Enabled) selected. The main content area is divided into 'Details' and 'Databases' tabs. Under 'Details', there is a 'Basic Information' section with 'NFS ENCRYPTION' set to 'Disabled'. Below this is an 'ENVIRONMENT USERS' table with one user: 'oracle'. A 'FAULTS' section on the right shows 'No Faults'. At the bottom, there is a 'NOTES' section. On the far right, a 'Running Actions' panel is empty, and a 'Finished Actions' panel lists several completed tasks such as 'Create and discover environment', 'Update credentials of user', 'Create domain', 'Update system time configuration', and 'Stop Masking service'.

Primary	Name
★	oracle

Finished Actions	
>	Create and discover environment "...
	Update credentials of user "admin".
>	Create domain "domain0".
	Update system time configuration.
	Stop Masking service.



Delphix usage

Manage Environments

Second server settings (name and login type)

Add Environment ✕

- Host and Server
- Environment Settings
- Summary

Environment Settings

Environment Name

Host Address

SSH Port


Login Type

- Username and Password
- Username and Engine Public Key
- Username and Custom Key Pair
- Password Vault

OS Username

OS Password

Cancel Back Next Submit



Delphix usage

Manage Environments

Second server settings (path for Delphix binaries)

Add Environment ✕

- Host and Server
- Environment Settings**
- Summary

oracle

OS Password

.....

Validate

Toolkit Path

/home/oracle/delphix

Java Development Kit ⓘ

Provide my own JDK

Advanced Options

Discover SAP ASE

Set Network File System Addresses (NFS) ⓘ

Set Delphix Session Protocol Options (DSP) ⓘ

Notes

Cancel Back **Next** Submit



Delphix usage

Manage Environments


Second server settings (summary)

Add Environment ✕

- Host and Server
- Environment Settings
- Summary**

HOST AND SERVER	ENVIRONMENT SETTINGS
Host OS Unix/Linux	Environment Name TEST
Server Type Standalone	Host Address 10.36.0.247
	NFS Addresses None
	NFS Encryption @ No
	SSH Port 22
	DSP KeyStore Path None
	DSP KeyStore Alias None
	DSP TrustStore Path None
	OS Username oracle
	Toolkit Path /home/oracle/delphix
	Discover SAP ASE Disabled

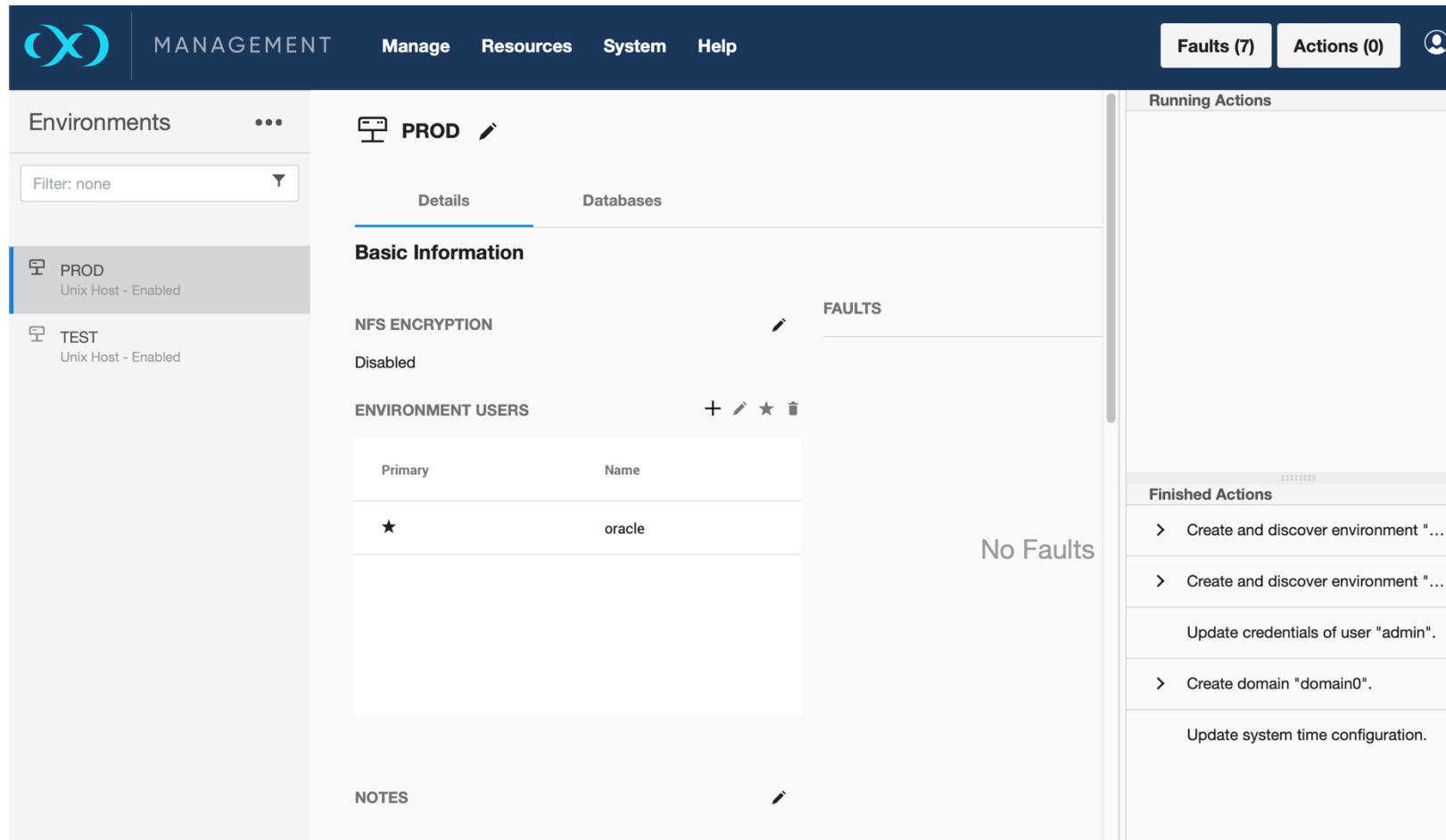
Cancel Back Next Submit



Delphix usage

Manage Environments

Environments view



The screenshot displays the Delphix Management interface. The top navigation bar includes 'MANAGEMENT', 'Manage', 'Resources', 'System', and 'Help'. On the right, there are buttons for 'Faults (7)' and 'Actions (0)'. The left sidebar shows a list of environments: 'PROD' (Unix Host - Enabled) and 'TEST' (Unix Host - Enabled). The main content area is for the 'PROD' environment, with tabs for 'Details' and 'Databases'. The 'Details' tab is active, showing 'Basic Information' for 'NFS ENCRYPTION' (Disabled) and 'ENVIRONMENT USERS'. A table lists users with columns for 'Primary' and 'Name', showing one user named 'oracle'. A 'FAULTS' section on the right indicates 'No Faults'. The bottom right corner shows 'Running Actions' and 'Finished Actions' lists.

Primary	Name
★	oracle

Finished Actions

- > Create and discover environment "...
- > Create and discover environment "...
- Update credentials of user "admin".
- > Create domain "domain0".
- Update system time configuration.



Delphix usage

Manage Environments

Tab Databases: databases running on the first server (the source database)

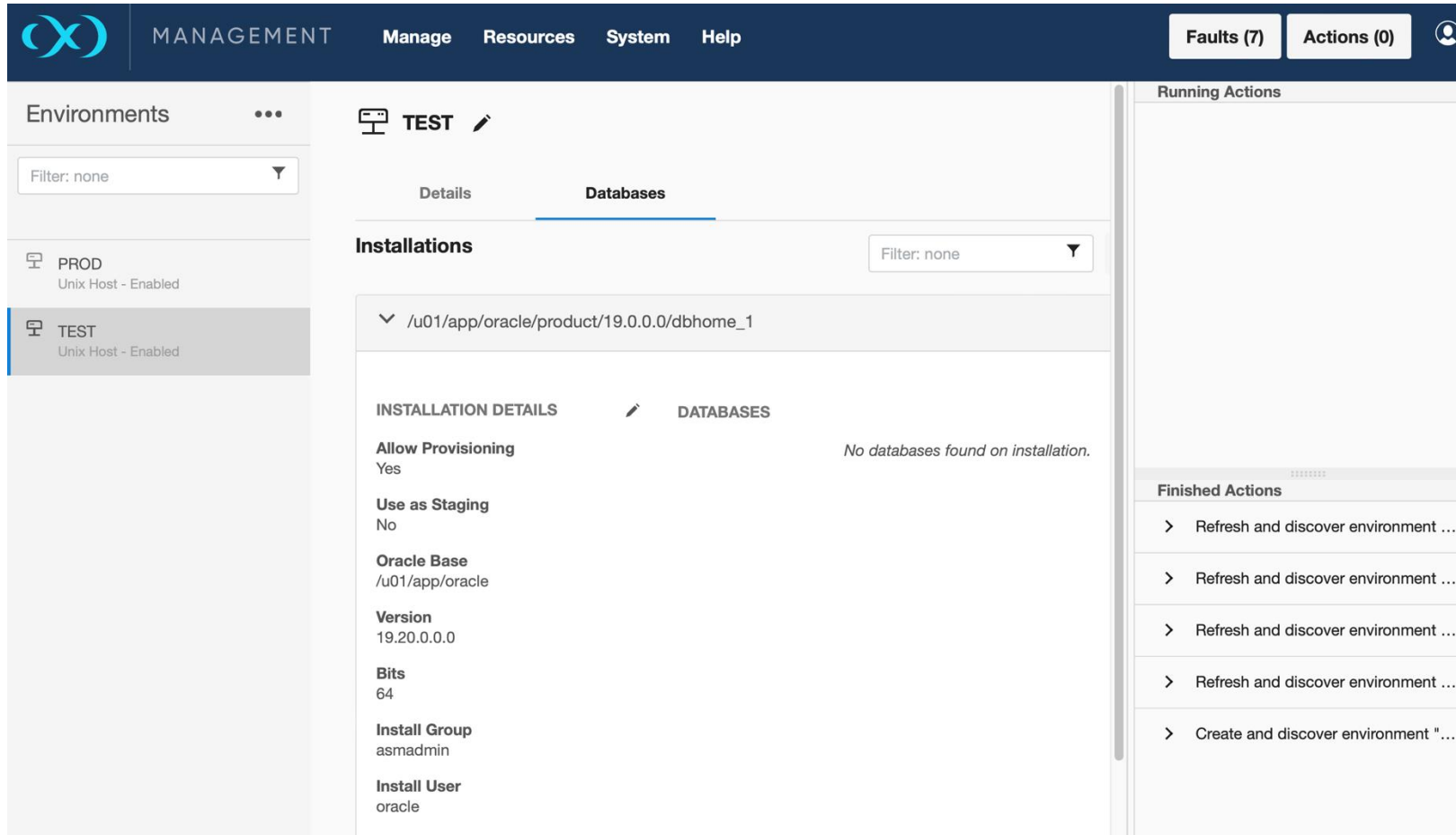
The screenshot shows the Delphix Management console interface. The top navigation bar includes 'MANAGEMENT', 'Manage', 'Resources', 'System', and 'Help'. On the right, there are buttons for 'Faults (7)' and 'Actions (0)'. The left sidebar shows a list of environments: 'PROD' (Unix Host - Enabled) and 'TEST' (Unix Host - Enabled). The main content area is titled 'PROD' and has tabs for 'Details' and 'Databases'. The 'Databases' tab is active, showing a list of installations with a filter set to 'none'. One installation is expanded, showing the path '/u01/app/oracle/product/19.0.0.0/dbhome_1'. Below this, there are two columns: 'INSTALLATION DETAILS' and 'DATABASES'. The 'INSTALLATION DETAILS' column includes: 'Allow Provisioning' (Yes), 'Use as Staging' (No), 'Oracle Base' (/u01/app/oracle), 'Version' (19.20.0.0.0), 'Bits' (64), 'Install Group' (asmadmin), and 'Install User' (oracle). The 'DATABASES' column includes: 'DBTST1' with 'Allow Linking' (Enabled), and 'Connection Strings' with a plus sign. The connection string is: 'jdbc:oracle:thin:@(DESCRIPTION=(ENABLE=broken)(ADDRESS=(PROTOCOL=tcp)(HOST=10.36.0.246)(PORT=1521))(CONNECT_DATA=(SID=DBTST1))) (discovered) ✓'. On the right side of the console, there are sections for 'Running Actions' and 'Finished Actions'. The 'Finished Actions' section lists several actions, including 'Refresh and discover environment ...' and 'Create and discover environment ...'.



Delphix usage

Manage Environments

Tab Databases: databases running on the second server (none)



The screenshot displays the Delphix Management console interface. The top navigation bar includes the Delphix logo, 'MANAGEMENT', and menu items: 'Manage', 'Resources', 'System', and 'Help'. On the right side of the top bar, there are buttons for 'Faults (7)' and 'Actions (0)', along with a user profile icon.

The left sidebar shows the 'Environments' section with a filter set to 'none'. Two environments are listed: 'PROD' (Unix Host - Enabled) and 'TEST' (Unix Host - Enabled). The 'TEST' environment is currently selected.

The main content area is titled 'TEST' and has two tabs: 'Details' and 'Databases'. The 'Databases' tab is active. Below the tabs, there is an 'Installations' section with a filter set to 'none'. A dropdown menu shows the path '/u01/app/oracle/product/19.0.0.0/dbhome_1'.

Underneath the installation path, there are two sub-sections: 'INSTALLATION DETAILS' and 'DATABASES'. The 'INSTALLATION DETAILS' section lists the following properties:

- Allow Provisioning:** Yes
- Use as Staging:** No
- Oracle Base:** /u01/app/oracle
- Version:** 19.20.0.0.0
- Bits:** 64
- Install Group:** asmadmin
- Install User:** oracle

The 'DATABASES' section shows the message: 'No databases found on installation.'

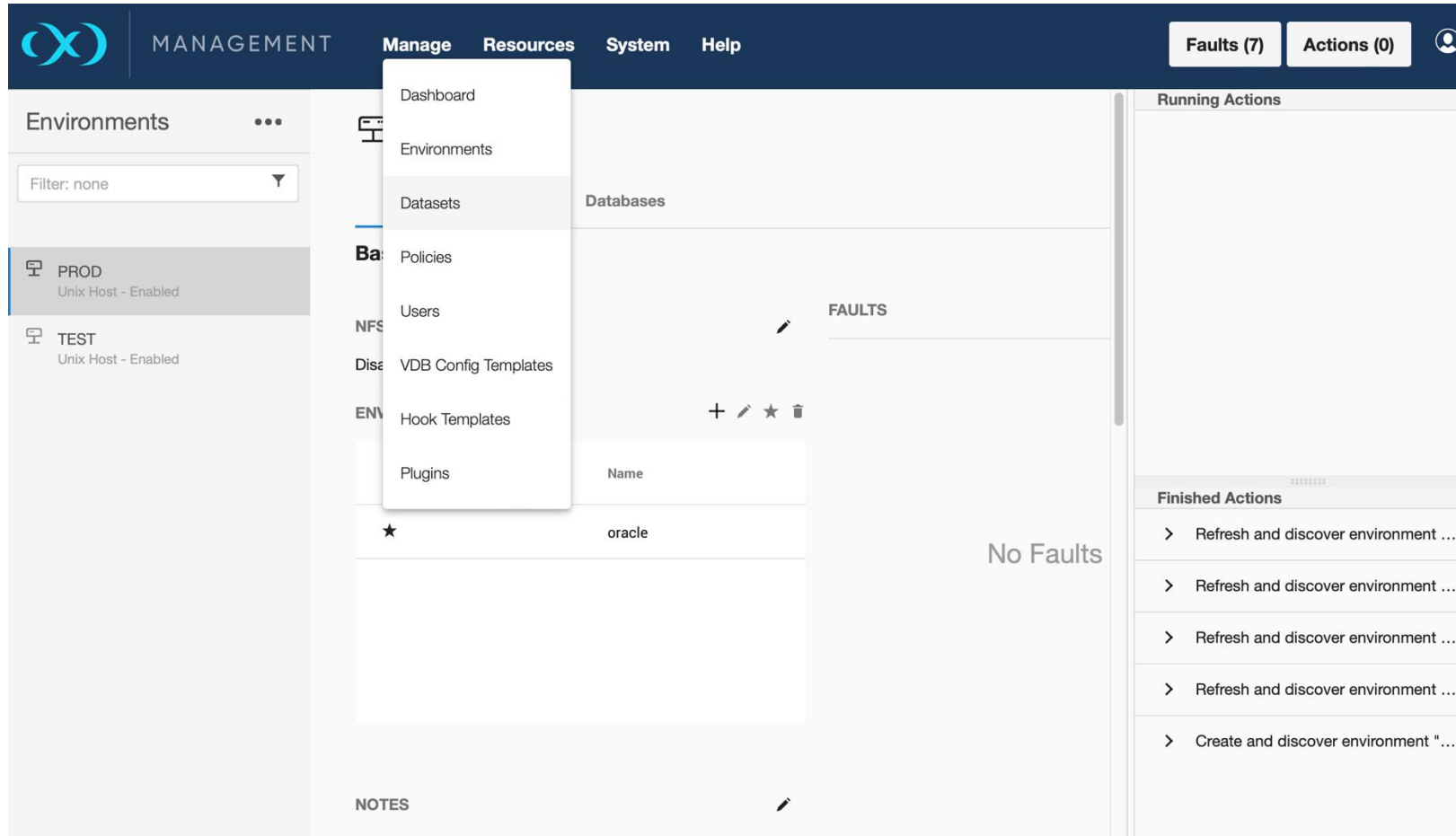
On the right side of the console, there are two sections: 'Running Actions' (currently empty) and 'Finished Actions'. The 'Finished Actions' section lists several actions, including 'Refresh and discover environment ...' and 'Create and discover environment "...'



Delphix usage

Manage Datasets

Go to Manage / Datasets for adding a dSource

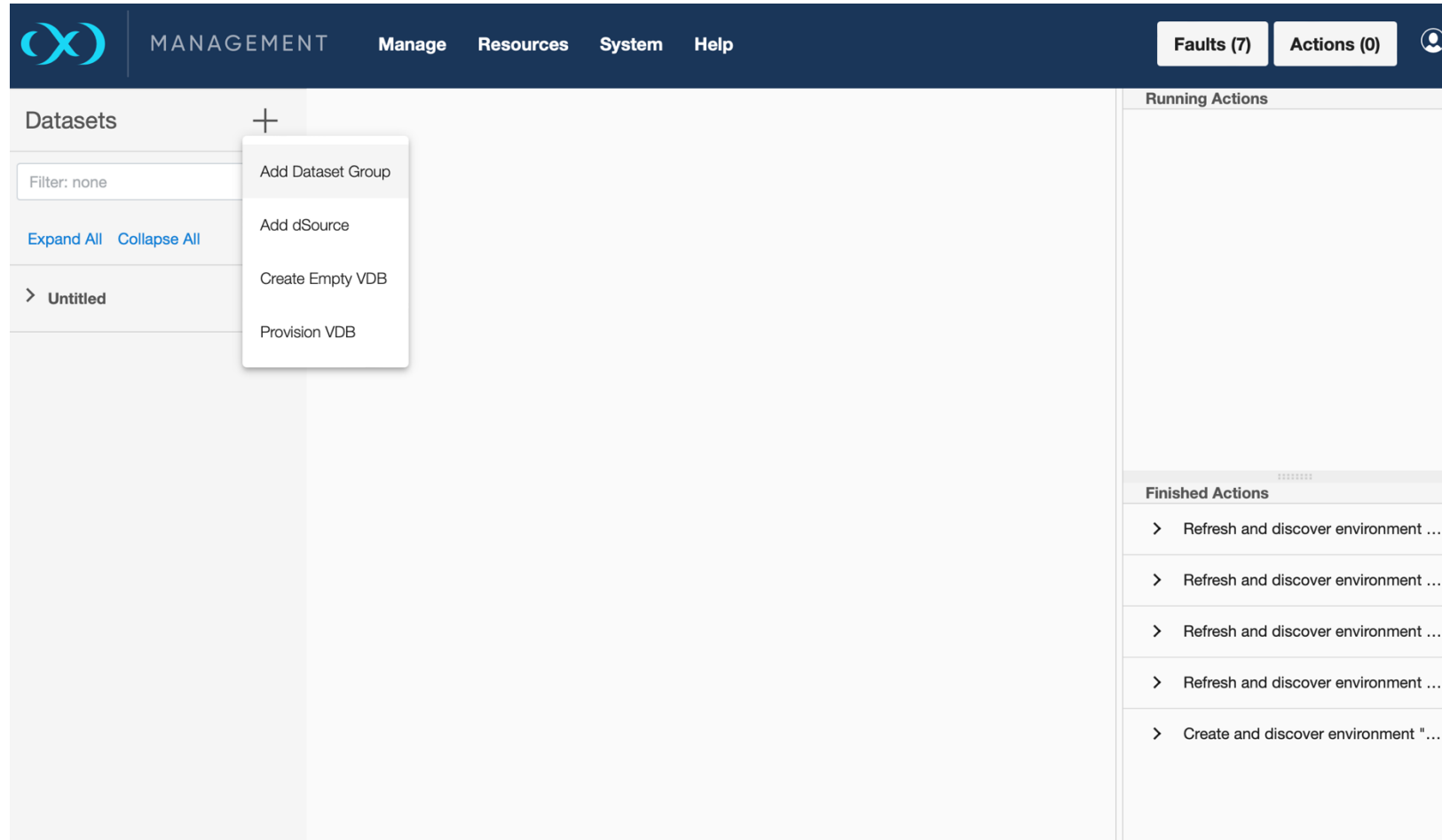


The screenshot shows the Delphix Management console interface. The top navigation bar includes 'MANAGEMENT', 'Manage', 'Resources', 'System', and 'Help'. On the right, there are buttons for 'Faults (7)' and 'Actions (0)'. The left sidebar shows 'Environments' with a filter set to 'none' and two environments: 'PROD' (Unix Host - Enabled) and 'TEST' (Unix Host - Enabled). The main content area is divided into several sections: 'Databases', 'POLICIES', 'USERS', 'VDB Config Templates', 'Hook Templates', and 'Plugins'. A dropdown menu is open over the 'Manage' tab, listing the following options: Dashboard, Environments, Datasets (highlighted), Policies, Users, VDB Config Templates, Hook Templates, and Plugins. Below the menu, a table shows a single entry with a star icon and the name 'oracle'. The 'FAULTS' section displays 'No Faults'. The 'Running Actions' section is empty, and the 'Finished Actions' section lists several actions, including 'Refresh and discover environment ...' and 'Create and discover environment ...'. A small robot icon is visible in the bottom right corner of the screenshot.

Delphix usage

Manage Datasets

First create a dataset group



The screenshot shows the Delphix Management console interface. At the top, there is a navigation bar with the Delphix logo, the word 'MANAGEMENT', and menu items: 'Manage', 'Resources', 'System', and 'Help'. On the right side of the navigation bar, there are two buttons: 'Faults (7)' and 'Actions (0)', along with a user profile icon.

The main content area is titled 'Datasets'. It features a search filter set to 'none', two buttons for 'Expand All' and 'Collapse All', and a dropdown menu currently open. The dropdown menu contains four options: 'Add Dataset Group', 'Add dSource', 'Create Empty VDB', and 'Provision VDB'. Below the dropdown, there is a section labeled '> Untitled'.

On the right side of the console, there are two panels: 'Running Actions' (currently empty) and 'Finished Actions'. The 'Finished Actions' panel lists five completed actions, all starting with '> Refresh and discover environment ...', except for the last one which is '> Create and discover environment "...'. A small decorative icon is visible in the bottom right corner of the console area.

Delphix usage

Manage Datasets

Dataset group is a single name for organization

Add Dataset Group ✕

Name

Description

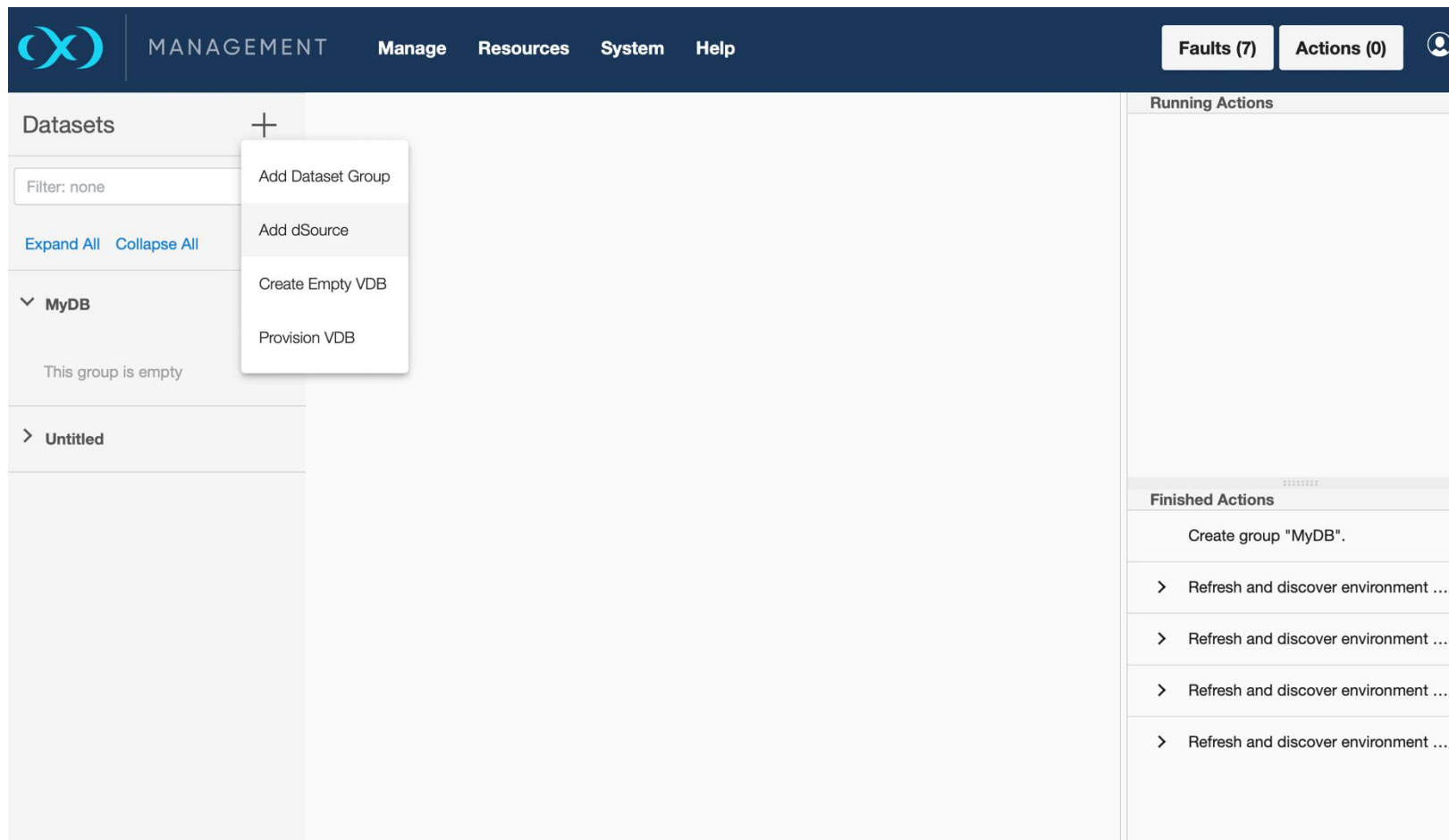
Cancel Add



Delphix usage

Manage Datasets

Add a dSource



The screenshot shows the Delphix Management console interface. At the top, there is a navigation bar with the Delphix logo, the word 'MANAGEMENT', and menu items: 'Manage', 'Resources', 'System', and 'Help'. On the right side of the navigation bar, there are two buttons: 'Faults (7)' and 'Actions (0)', along with a user profile icon.

The main content area is titled 'Datasets'. It features a search filter set to 'none' and two buttons: 'Expand All' and 'Collapse All'. Below this, there are two dataset groups: 'MyDB' (which is collapsed and contains the text 'This group is empty') and 'Untitled' (which is expanded). A plus sign icon is visible next to the 'MyDB' group, and a dropdown menu is open, showing the following options: 'Add Dataset Group', 'Add dSource', 'Create Empty VDB', and 'Provision VDB'.

On the right side of the console, there are two panels: 'Running Actions' and 'Finished Actions'. The 'Running Actions' panel is currently empty. The 'Finished Actions' panel shows a list of completed actions: 'Create group "MyDB"', followed by four instances of 'Refresh and discover environment ...'.



Everything is already prepared

Add dSource ✕

- Preparation**
- dSource Type
- Source
- dSource Configuration
- Data Management
- Policies
- Hooks
- Summary

Preparation

There are two steps that you should consider completing before executing this wizard:

- Create an environment - at least one is required to proceed
- Define policies

CREATE AN ENVIRONMENT

An environment is required for the dSource. Go to Manage > Environments to create or manage environments. Environments that you create will be available for selection in this Wizard.


DEFINE POLICIES

If you want to set up your own SnapSync and Retention policies rather than using defaults, you can create these by going to Manage > Policies. Policies that you define will be available for selection in this Wizard.

MORE INFORMATION

To read more about dSources see [Product Documentation](#)

Cancel Back Next Submit



Delphix usage

Manage Datasets

dSource will be created from a source database

Add dSource ✕


- Preparation
- dSource Type**
- Source
- dSource Configuration
- Data Management
- Policies
- Hooks
- Summary

dSource Type

Select a dSource type.

- Source Based dSource
dSource linked to a source database
- MSSQL Staging Push
MSSQL dSource linked to customer managed staging database
- Oracle Staging Push
Oracle dSource linked to customer managed staging database

Cancel Back Next Submit



Delphix usage

Manage Datasets

Source database will be DBTST1 running on the first DB System

Add dSource ✕

- Preparation
- dSource Type
- Source**
- dSource Configuration
- Data Management
- Policies
- Hooks
- Summary

Source

Select an available environment /data source to connect to your dSource

Data Source

Filter: none ▼

DBTST1 PROD Oracle 19.20.0.0.0

Instance
DBTST1

Version
19.20.0.0.0

Source Environment
PROD

Data Type
Oracle

Installation
/u01/app/oracle/product/19.0.0.0/dbhome_1


Environment User

oracle ▼

Information

Validation will succeed if the OS User Credentials can access the selected database, and the entered Database User Credentials will be ignored. If the OS User Credentials cannot access the database, the Database User Credentials will be used.

Cancel Back **Next** Submit



Delphix usage

Manage Datasets

No need to provide credential as oracle user has been specified in the environment

Add dSource ✕

- Preparation
- dSource Type
- Source**
- dSource Configuration
- Data Management
- Policies
- Hooks
- Summary

Installation
/u01/app/oracle/product/19.0.0.0/dbhome_1

Environment User

oracle

Information
Validation will succeed if the OS User Credentials can access the selected database, and the entered Database User Credentials will be ignored. If the OS User Credentials cannot access the database, the Database User Credentials will be used.

Database Username

Database Password

Validate

Show advanced

Cancel Back **Next** Submit



Delphix usage

Manage Datasets

Choose dSource name and group

Add dSource ✕

- Preparation
- dSource Type
- Source
- dSource Configuration**
- Data Management
- Policies
- Hooks
- Summary

dSource Configuration


Target a group from your Datalist or create a new group

dSource Name

Target Group [Add Dataset Group](#)

Notes

Cancel Back Next Submit



Choose immediate or differed load and LogSync method

Add dSource ✕

- Preparation
- dSource Type
- Source
- dSource Configuration
- Data Management**
- Policies
- Hooks
- Summary

Data Management

Configure and Administer data details.

Initial Load ⓘ

Load Immediately

Load on SnapSync Schedule

LogSync ⓘ


Enable

Archive + Online Redo

Archive Only

Show advanced▼

Cancel Back Next Submit



Choose SnapSync Policy (dSource refresh) and Retention Policy (dSource retention)

Add dSource ✕

- Preparation
- dSource Type
- Source
- dSource Configuration
- Data Management
- Policies**
- Hooks
- Summary

Policies

Apply Policy details to dSource.

Use group policy

SnapSync Policy : Default SnapSync

Snapshot will be taken US/Pacific UTC -07:00

At 03:30 AM, only on Sunday
At 03:30 AM, only on Monday
...

Retention Policy : Default Retention

Snapshots will be removed after 1 week(s)	Logs will be removed after 1 week(s)
--	---

Cancel Back Next Submit



Choose Hook Points (if needed)

Add dSource ✕

- Preparation
- dSource Type
- Source
- dSource Configuration
- Data Management
- Policies
- Hooks**
- Summary

Hooks

Scripts can be defined to run at multiple hook points in the process. Select a Hook Point and then click + to add a script to run at that point.

Hook Points +

- Pre Sync
No operations
- Pre LogSync
No operations
- Post Sync
No operations

Pre Sync


DESCRIPTION

Operations performed before a sync with external data.

OPERATION ORDERING

No operations for this hook point.

Cancel Back **Next** Submit



Submit the dSource building

Add dSource ✕

- Preparation
- dSource Type
- Source
- dSource Configuration
- Data Management
- Policies
- Hooks
- Summary**

Summary

Review the configuration profile for this dSource.

DSOURCE TYPE

Type
Source Based dSource

SOURCE

Data Type
Oracle

Version
19.20.0.0.0

Source Environment
PROD

Environment User
oracle

Installation
/u01/app/oracle/product/19.0.0.0/dbhome_1

Database Username
Unset

Instance
DBTST1

DATA MANAGEMENT

Initial Load
Load Immediately

LogSync
Enabled

LogSync Mode
Archive + Online Redo

Validated Sync
Disabled

External Data Directory
None

Compression
Enabled


Bandwidth Limit (MB/s)
0

Number of Connections
1

Encrypted Linking
Use system default setting

Number of Objects

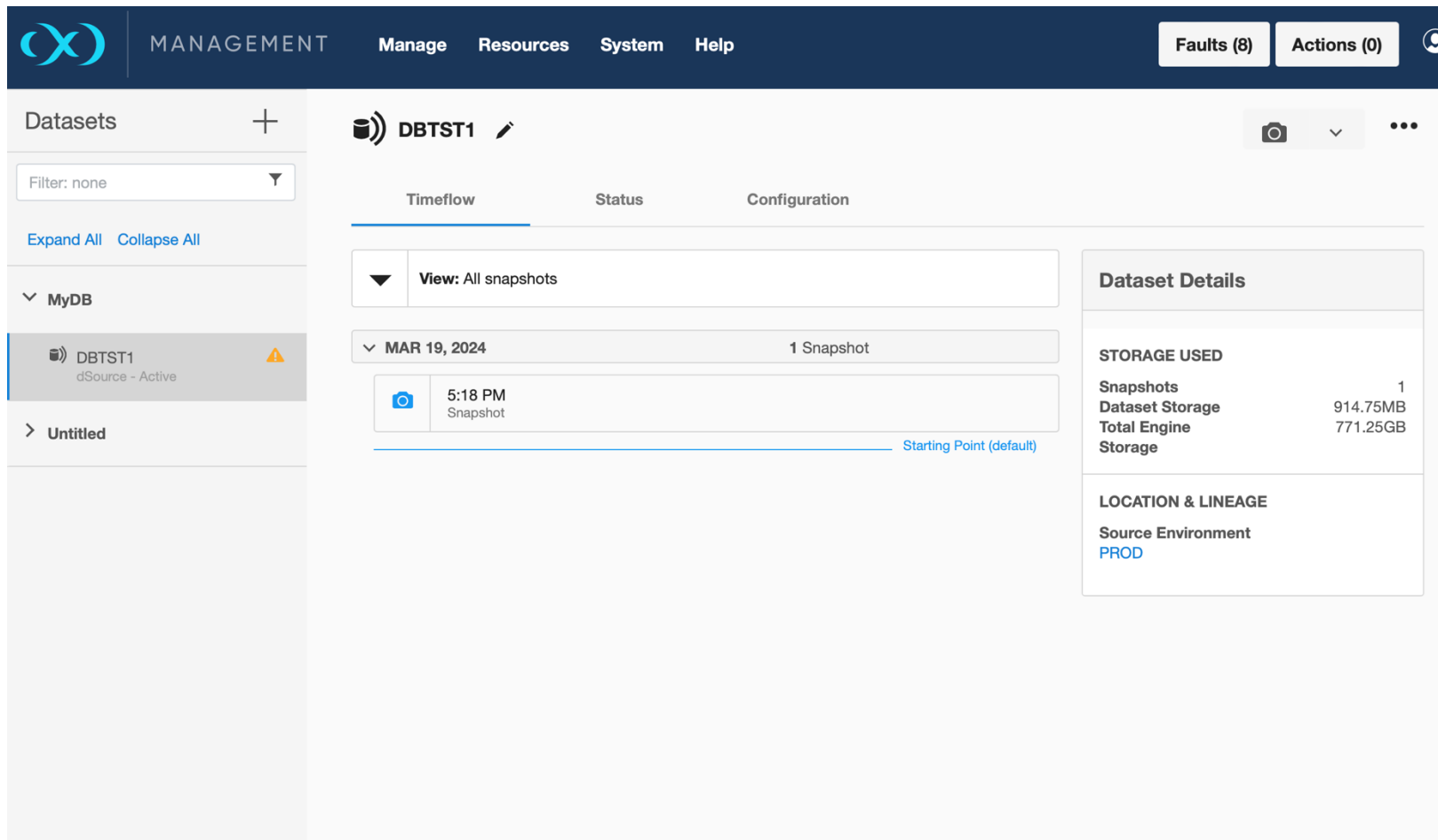
Cancel Back Next **Submit**



Delphix usage

Manage Datasets

DBTST1 is now a dSource



The screenshot displays the Delphix Management interface for the DBTST1 dataset. The top navigation bar includes 'MANAGEMENT', 'Manage', 'Resources', 'System', and 'Help', along with 'Faults (8)' and 'Actions (0)' buttons. The left sidebar shows a 'Datasets' list with 'DBTST1' (dSource - Active) selected. The main content area shows the 'DBTST1' configuration page with tabs for 'Timeflow', 'Status', and 'Configuration'. The 'Timeflow' tab is active, showing a 'View: All snapshots' dropdown, a date filter for 'MAR 19, 2024' with '1 Snapshot', and a single snapshot at '5:18 PM' labeled as the 'Starting Point (default)'. A 'Dataset Details' panel on the right provides storage and lineage information.

STORAGE USED	
Snapshots	1
Dataset Storage	914.75MB
Total Engine Storage	771.25GB

LOCATION & LINEAGE	
Source Environment	PROD



Using Block Change Tracking is recommended for fast dSource refresh

X | MANAGEMENT | [Manage](#) | [Resources](#) | [System](#) | [Help](#)
Faults (8)
Actions (0)
⦿

Faults

Current
Archive

Refresh (Manual) ▾
Resolve All

Export ↑

	Severity	Diagnosed	Title	Target
<input checked="" type="checkbox"/>	⚠ WARNING	Mar 19, 2024 5:18 ...	Block Change Tracking not e...	DBTST1
<input type="checkbox"/>	⚠ WARNING	Mar 19, 2024 4:44 ...	Incorrect toolkit path permis...	10.36.0.247
<input type="checkbox"/>	⚠ WARNING	Mar 19, 2024 4:44 ...	Incorrect toolkit permissions	10.36.0.247
<input type="checkbox"/>	⚠ WARNING	Mar 19, 2024 4:44 ...	Command exited with a non...	10.36.0.247
<input type="checkbox"/>	⚠ WARNING	Mar 19, 2024 3:37 ...	Incorrect toolkit path permis...	10.36.0.246
<input type="checkbox"/>	⚠ WARNING	Mar 19, 2024 3:37 ...	Incorrect toolkit permissions	10.36.0.246
<input type="checkbox"/>	⚠ WARNING	Mar 19, 2024 3:37 ...	Command exited with a non...	10.36.0.246
<input type="checkbox"/>	⚠ WARNING	Mar 19, 2024 3:27 ...	Password reset requires SM...	system

⚠ WARNING

Date
Mar 19, 2024 5:18 PM

Title
Block Change Tracking not enabled

Target
DBTST1

Details
SnapSync has detected that Block Change Tracking is not active for database "DBTST1". SnapSync will read the whole data base on every SnapSync to determine the data blocks that have changed since previous SnapSync; resulting in potentially time consuming SnapSync executions and additional load on the database.

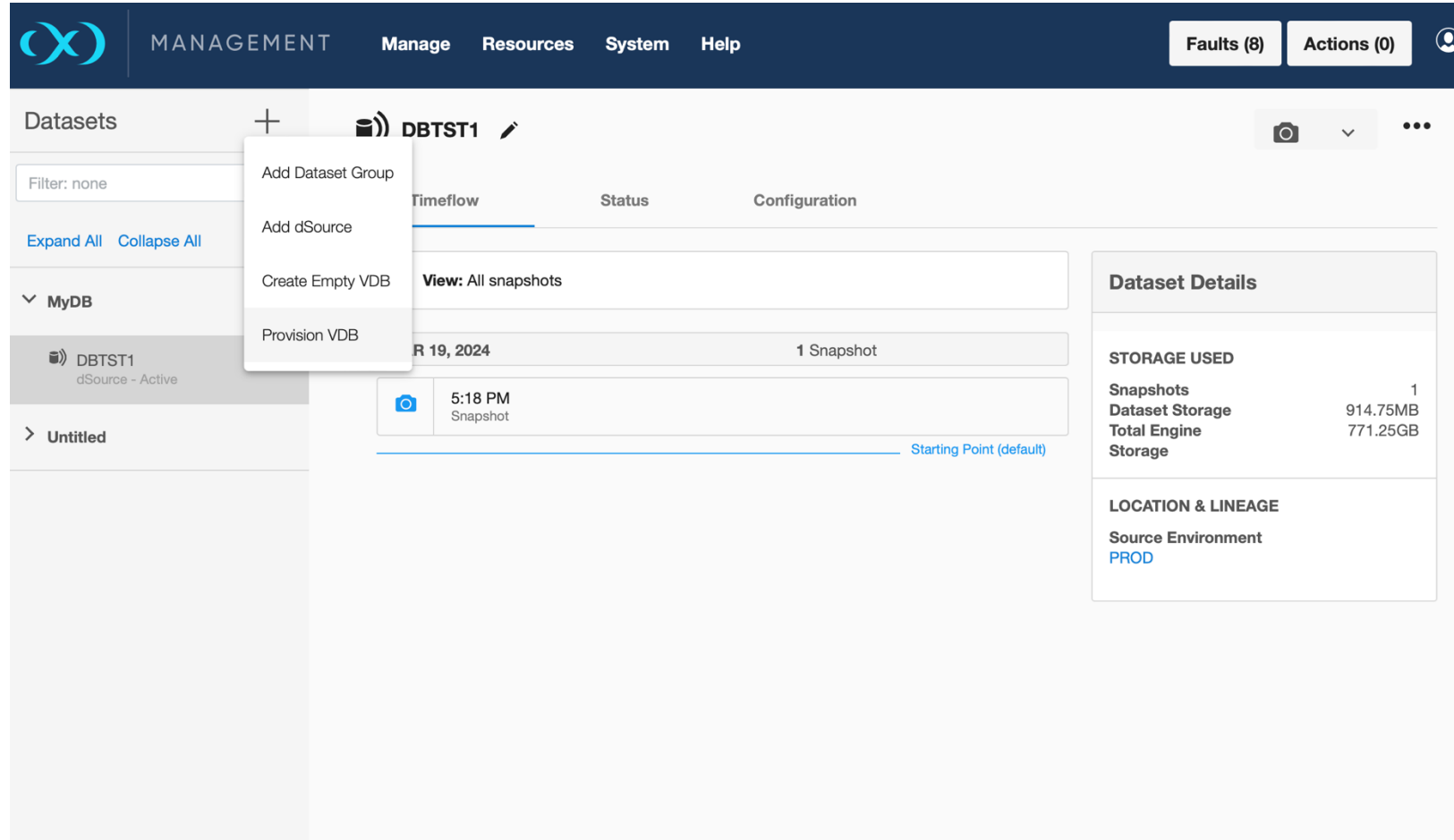
User Action
Enable Block Change Tracking in the database for faster SnapSyncs. Make sure to check the Delphix documentation for required Oracle patches before



Delphix usage

Manage VDBs

VDBs can now be provisioned



The screenshot shows the Delphix Management console interface. The top navigation bar includes 'MANAGEMENT', 'Manage', 'Resources', 'System', and 'Help'. On the right, there are buttons for 'Faults (8)' and 'Actions (0)'. The main content area is titled 'Datasets' and shows a list of datasets. A dropdown menu is open over the 'DBTST1' dataset, with the 'Provision VDB' option selected. The 'DBTST1' dataset is shown as an active dSource with one snapshot taken on September 19, 2024, at 5:18 PM. The 'Dataset Details' panel on the right shows storage usage: 1 snapshot, 914.75MB dataset storage, and 771.25GB total engine storage. The source environment is 'PROD'.

STORAGE USED	
Snapshots	1
Dataset Storage	914.75MB
Total Engine Storage	771.25GB

LOCATION & LINEAGE	
Source Environment	PROD



Preparation steps are already OK

Provision VDB ✕


- Preparation
- Source
- Provision Point
- Target Environment
- Target Configuration
- VDB Configure Parameters
- File Mapping
- Policies
- Masking
- Hooks

Preparation

There are two steps that you need to complete before running this wizard:

- Create source and target environments.
- Create a source database, which can either be a dSource linked to a production database or a VDB provisioned from a dSource.

Cancel Back Next Submit



Delphix usage

Manage VDBs

Choose the dSource

Provision VDB ✕

- Preparation
- Source**
- Provision Point
- Target Environment
- Target Configuration
- VDB Configure Parameters
- File Mapping
- Policies
- Masking
- Hooks

Source

Select an available dSource or VDB from which to provision to your VDB.

Filter: none ▼

[Expand All](#) [Collapse All](#)

▼ MyDB

DBTST1 dSource

> Untitled

Unique Name
DBTST1

Version
Oracle 19.20.0.0.0

Environment
PROD

Timezone
Europe/Zurich,CET+0100

Repository
/u01/app/oracle/product/19.0.0.0/dbhome_1

Cancel Back Next Submit

Choose the point in time

Provision VDB ✕

- Preparation
- Source
- Provision Point**
- Target Environment
- Target Configuration
- Advanced
- Policies
- Masking
- Hooks
- Summary

Provision Point

The data from the parent will be copied to the target VDB.

dSource
DBTST1

Select a Provision Option

Faster Most recent snapshot: Mar 19, 2024 5:18 PM	More Accurate A snapshot, point in time, or SCN (System Change Number)
--	---

Cancel Back **Next** Submit

Choose the target server

Provision VDB ✕

- Preparation
- Source
- Provision Point
- Target Environment**
- Target Configuration
- Advanced
- Policies
- Masking
- Hooks
- Summary

Target Environment

The target environment is the location where your VDB will be provisioned. Select a target environment from the list under "Environment" and complete the Home and User fields. (You can add new environments by exiting this wizard, and going to Manage > Environments)

Source Database DBTST1	Database Version Oracle 19.20.0.0.0
Snapshot Time Mar 19, 2024 5:18 PM	OS Linux

Environment

Filter: none ▼

- PROD
- TEST**

Installation Home


/u01/app/oracle/product/19.0.0.0/dbhome_1 (19.20.0.0.0) ▼

User

oracle ▼

Provide privileged credentials

Cancel Back **Next** Submit



Delphix usage

Manage VDBs

Choose names

Provision VDB ✕

- Preparation
- Source
- Provision Point
- Target Environment
- Target Configuration**
- Advanced
- Policies
- Masking
- Hooks
- Summary

Target Configuration
Configure the target environment.

Target Group [Add Dataset Group](#)

MyDB

Mount Base

/mnt/provision

VDB CONFIGURATION

Oracle Database Name

VDBTEST


VDB Name

VDBTEST

Oracle Database Unique Name

VDBTEST_02

Cancel Back **Next** Submit



Delphix usage

Manage VDBs

Choose names

Provision VDB ✕

MyDB

Mount Base
/mnt/provision

VDB CONFIGURATION

Oracle Database Name
VDBTEST

VDB Name
VDBTEST


Oracle Database Unique Name
VDBTEST_02

Oracle SID
VDBTEST

VDB Configuration Parameters
 Configure VDB Parameters

Preparation
Source
Provision Point
Target Environment
Target Configuration
Advanced
Policies
Masking
Hooks
Summary

Cancel Back **Next** Submit



Redefine online logs (if needed), choose automatic restart and if Datapatch should be run

Provision VDB ✕

- Preparation
- Source
- Provision Point
- Target Environment
- Target Configuration
- Advanced**
- Policies
- Masking
- Hooks
- Summary

Advanced

Database After Provision

Open Database After Provision

Online Log Size (MB)

200

Number of Online Log Groups

3

Enable Archivelog Mode

Generate new DBID for VDB

Listeners

LISTENER

Automatic Restart

Restart VDB after the host reboots


File Mapping

Configure File Mapping

Patching

Invoke Datapatch

Cancel Back **Next** Submit



Choose a snapshot policy

Provision VDB ✕

- Preparation
- Source
- Provision Point
- Target Environment
- Target Configuration
- Advanced
- Policies**
- Masking
- Hooks
- Summary

Policies

Default policies are available for use, but if you prefer to create custom policies, exit this wizard and go to [Manage > Policies](#).

Use group policy

VDB Snapshot Policy : Default Snapshot

Snapshot will be taken US/Pacific UTC -07:00

At 03:30 AM, only on Sunday
At 03:30 AM, only on Monday
...

▼

Cancel Back Next Submit



If Delphix Continuous Compliance is used, VDB data can be masked

Provision VDB ✕

- Preparation
- Source
- Provision Point
- Target Environment
- Target Configuration
- Advanced
- Policies
- Masking**
- Hooks
- Summary


Masking

You can mask your data during provisioning by selecting "Mask this VDB" and selecting an existing masking job.

If you want to mask your data using scripts, define those scripts as part of the Configure Clone section in the Hooks step. Scripts can be defined in addition to the use of a masking job.

Mask this VDB

Cancel Back **Next** Submit



Hook Points (if needed)

Provision VDB ✕

- Preparation
- Source
- Provision Point
- Target Environment
- Target Configuration
- Advanced
- Policies
- Masking
- Hooks**
- Summary

Hooks

Scripts can be defined to run at multiple hook points in the process. Select a Hook Point and then click + to add a script to run at that point.

Hook Points	
▼ Configure Clone	
No operations	
▼ Pre Refresh	
No operations	
▼ Post Refresh	
No operations	
▼ Pre Rollback	
No operations	
▼ Post Rollback	
No operations	
▼ Pre Snapshot	
No operations	
▼ Post Snapshot	
No operations	
▼ Pre Start	
No operations	

Configure Clone


DESCRIPTION

Operations performed on initial provision and after a refresh.

OPERATION ORDERING

No operations for this hook point.

Cancel Back **Next** Submit



Delphix usage

Manage VDBs

Click on Submit for creating the VDB

Provision VDB ✕

- Preparation
- Source
- Provision Point
- Target Environment
- Target Configuration
- Advanced
- Policies
- Masking
- Hooks
- Summary**

Summary

Review the configuration profile for this VDB

TARGET ENVIRONMENT	ADVANCED
Environment TEST	Open Database After Provision On
Installation Home /u01/app/oracle/product/19.0.0.0/dbhome_1 (19.20.0.0.0)	Online Log Size (MB) 200
TARGET CONFIGURATION	Number of Online Log Groups 3
Target Group MyDB	Archivelog Mode On
Mount Base /mnt/provision	Generate new DBID for VDB Off
VDB CONFIGURATION	Auto VDB Restart On
VDB Name VDBTEST	File Mapping None
Database Name VDBTEST	Custom Environment Variables None
Oracle Database Unique Name	Invoke Datapatch Off

Cancel Back Next Submit

Delphix usage

Manage VDBs

VDB is creating

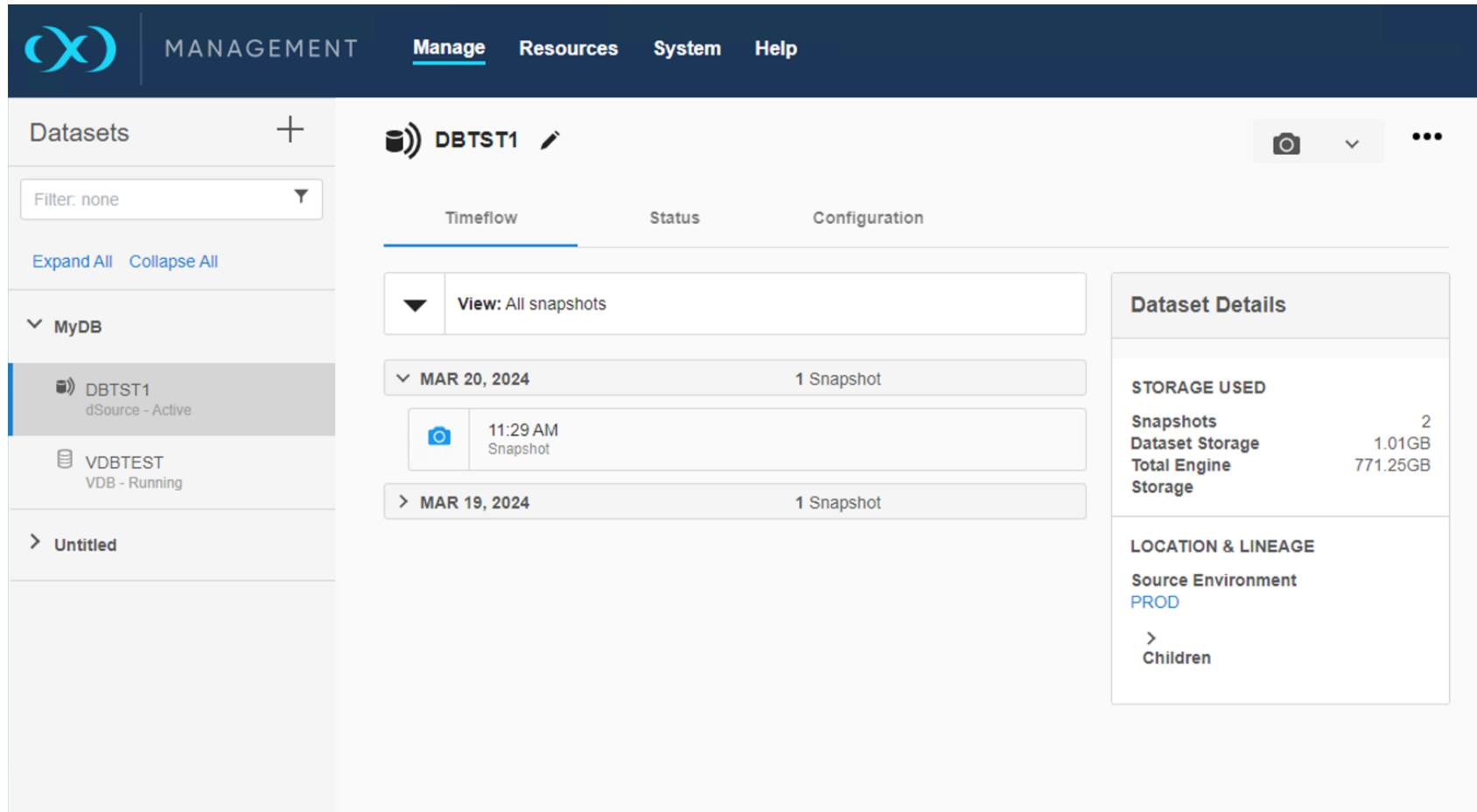
The screenshot shows the Delphix Management console interface. The top navigation bar includes 'MANAGEMENT', 'Manage', 'Resources', 'System', and 'Help'. On the right, there are buttons for 'Faults (8)' and 'Actions (1)'. The left sidebar shows a 'Datasets' section with a filter set to 'none' and options to 'Expand All' or 'Collapse All'. Under 'MyDB', two datasets are listed: 'DBTST1' (dSource - Active) with a warning icon, and 'VDBTEST' (VDB - Stopped). The main area displays the 'DBTST1' dataset details, including tabs for 'Timeflow', 'Status', and 'Configuration'. The 'Timeflow' tab shows a 'View: All snapshots' section with a dropdown for 'MAR 19, 2024' containing '1 Snapshot'. A specific snapshot is shown at '5:18 PM' with a camera icon and a 'Starting Point (default)' label. On the right, a 'Running Actions' panel shows a progress bar for 'Provision virtual database "VDBTE..."' with a duration of '27s' and the status 'Creating control file.'. Below this, a 'Finished Actions' list includes: 'Provision virtual database "VDB..."', 'Provision virtual database "VDB..."', 'Link dSource "DBTST1" from sour...', 'Create group "MyDB".', and 'Refresh and discover environment ...'. A 'Dataset' sidebar on the right lists 'STORAGE', 'Snapshots', 'Dataset St', 'Total Engin', and 'Storage'. Below that, 'LOCATION' is listed with 'Source En PROD' and 'Children'.



Delphix usage

Manage VDBs

VDB is available after few seconds



The screenshot displays the Delphix Management interface. The top navigation bar includes 'MANAGEMENT', 'Manage', 'Resources', 'System', and 'Help'. The left sidebar shows a tree view with 'Datasets' (+), 'MyDB' (expanded), 'DBTST1 dSource - Active' (selected), 'VDBTEST VDB - Running', and 'Untitled'. The main content area is titled 'DBTST1' and features tabs for 'Timeflow', 'Status', and 'Configuration'. The 'Timeflow' tab shows a 'View: All snapshots' dropdown and a list of snapshots:

Time	Status	Count
MAR 20, 2024	1 Snapshot	1 Snapshot
MAR 19, 2024	1 Snapshot	1 Snapshot

A detailed view of a snapshot from MAR 20, 2024 at 11:29 AM is shown. To the right, the 'Dataset Details' panel provides the following information:

STORAGE USED	
Snapshots	2
Dataset Storage	1.01GB
Total Engine Storage	771.25GB

The 'LOCATION & LINEAGE' section shows the 'Source Environment' as 'PROD' and a link to 'Children'.



How it looks like on the DB System?

```
ssh root@testdbs02
df -h | grep provision
10.36.0.248:/domain0/group-3/oracle_db_container-9/oracle_timeflow-10          768G      0  768G    0%
/mnt/provision/VDBTEST_02
10.36.0.248:/domain0/group-3/oracle_db_container-9/oracle_timeflow-10/datafile 769G  991M  768G    1%
/mnt/provision/VDBTEST_02/datafile
10.36.0.248:/domain0/group-3/oracle_db_container-9/oracle_timeflow-10/archive 769G   69M  768G    1%
/mnt/provision/VDBTEST_02/archive
10.36.0.248:/domain0/group-3/oracle_db_container-9/oracle_timeflow-10/external 768G      0  768G    0%
/mnt/provision/VDBTEST_02/external
10.36.0.248:/domain0/group-3/oracle_db_container-9/oracle_timeflow-10/temp     768G      0  768G    0%
/mnt/provision/VDBTEST_02/temp
ps -ef | grep pmon | grep -v grep
oracle  11836      1  0 Mar19 ?           00:00:02 ora_pmon_VDBTEST
cat /etc/oratab | grep -v '#'
-- no entries
su - oracle
export ORACLE_HOME=/u01/app/oracle/product/19.0.0.0/dbhome_1
export ORACLE_SID=VDBTEST
export PATH=$PATH:$ORACLE_HOME/bin
```

How it looks like on the DB System?

```
sqlplus / as sysdba
select instance_name, database_role, open_mode from v$instance, v$database;
INSTANCE_NAME      DATABASE_ROLE      OPEN_MODE
-----
VDBTEST            PRIMARY            READ WRITE
select name from v$controlfile;
NAME
-----
/mnt/provision/VDBTEST_02/datafile/+RECO/DBTST1/CONTROLFILE/current.279.1160319947
select name from v$datafile where file#=4;
NAME
-----
/mnt/provision/VDBTEST_02/datafile/+DATA/DBTST1/DATAFILE/undotbs1.315.1160319903
select member from v$logfile where group#=2;
MEMBER
-----
/mnt/provision/VDBTEST_02/datafile/VDBTEST_02/onlinelog/o1_mf_2__0g85td8t_.log
select name from v$archived_log where sequence#=(select max(sequence#) from v$archived_log);
NAME
-----
/mnt/provision/VDBTEST_02/archive/1_7_1164047820.dbf
```

Delphix usage

Manage VDBs

Manual refresh of the VDB is easy

The screenshot shows the Delphix management interface. On the left is a sidebar with a 'Datasets' section containing 'MyDB' (with sub-items 'DBTST1 dSource - Active' and 'VDBTEST VDB - Running') and an 'Untitled' section. The main area displays 'VDBTEST' with tabs for 'Timeflow', 'Status', and 'Configuration'. A 'Refresh VDB' button is visible. Below the tabs, there's a 'View: All snapshots' section showing a list of snapshots for 'MAR 20, 2024' (1 Snapshot) and 'MAR 19, 2024' (1 Snapshot). A specific snapshot is shown at '11:29 AM'. On the right, 'Dataset Details' are shown, including 'STORAGE USED' (Snapshots: 2, Dataset Storage: 212.66MB, Total Engine Storage: 771.25GB) and 'LOCATION & LINEAGE' (Environment: TEST, Parent: DBTST1).



Delphix usage

Manage VDBs


Choose the point in time

Refresh VDB ✕

- Select a Refresh Option
- Confirm Refresh

Select a Refresh Option

The data from the parent will be copied to the target VDB.



dSource DBTST1 → VDB VDBTEST

Select a Refresh Option

Faster

Most recent snapshot:
Mar 20, 2024 11:29 AM

More Accurate

A snapshot, point in time, or SCN
(System Change Number)

Cancel Back Next Submit



Submit the task


Refresh VDB ✕

Select a Refresh Option

Confirm Refresh

Confirm Refresh

The data from the parent will be copied to the target VDB.




The diagram illustrates the refresh process. On the left, a cylinder icon represents the 'dSource' with the name 'DBTST1'. A blue arrow points from this source to a target VDB on the right, labeled 'VDB VDBTEST'. In the center of the arrow is a blue circle containing a white 'C', representing the refresh operation.

From the most recent snapshot:
Mar 20, 2024 11:29 AM

Timeflow will still give you access to previous state of data in this VDB.

Provide privileged credentials

Cancel Back Next **Submit**



Delphix usage

Manage VDBs

Refresh is done through a background task

The screenshot shows the Delphix Management console interface. The top navigation bar includes 'MANAGEMENT', 'Manage', 'Resources', 'System', and 'Help'. On the right, there are buttons for 'Faults (0)' and 'Actions (1)'. The main content area is divided into several sections:

- Datasets:** A sidebar on the left with a filter set to 'none'. It lists 'MyDB' containing 'DBTST1 (dSource - Active)' and 'VDBTEST (VDB - Cannot monitor)'. There is also an 'Untitled' section.
- VDBTEST Details:** The central pane shows the 'VDBTEST' dataset. It has tabs for 'Timeflow', 'Status', and 'Configuration'. Under 'Timeflow', there is a 'View: All snapshots' dropdown and a list of snapshots:

Date	Count
MAR 20, 2024	1 Snapshot
MAR 19, 2024	1 Snapshot

A specific snapshot from MAR 20, 2024 at 11:29 AM is highlighted.
- Dataset Details:** A panel on the right showing 'STORAGE USED' (Snapshots, Dataset Storage, Total Engine Storage) and 'LOCATION & LINEAGE' (Environment: TEST, Parent: DBTST1).
- Running Actions:** A panel on the far right showing a progress bar for 'Refresh database "VDBTEST"'. The action is currently in progress, with a sub-task 'Creating control file.' and a duration of 12s. Below it, a completed action 'Stop dataset "VDBTEST_02"' is shown with a green checkmark.
- Finished Actions:** A list of completed actions, including 'Mark all active faults as resolved.' and 'Run SnapSync for database "VDB..."'.



Delphix usage

Manage VDBs

Refresh is done in a few minutes

The screenshot shows the Delphix management interface. The top navigation bar includes 'MANAGEMENT', 'Manage', 'Resources', 'System', and 'Help'. On the right, there are buttons for 'Faults (0)' and 'Actions (0)'. The left sidebar shows a tree view of datasets, with 'VDBTEST' (VDB - Running) selected. The main area displays the 'VDBTEST' details, including a 'Timeflow' tab showing snapshots. A 'View: All snapshots' dropdown is visible. The snapshots are grouped by date: 'MAR 20, 2024' (2 snapshots) and 'MAR 19, 2024' (1 snapshot). A 'Refresh Point (DB_REFRESH@2024-03-20T04:22:09)' is indicated. The right sidebar shows 'Dataset Details' with 'STORAGE USED' and 'LOCATION & LINEAGE' sections.

View	Count
MAR 20, 2024	2 Snapshots
MAR 19, 2024	1 Snapshot

STORAGE USED	
Snapshots	3
Dataset Storage	212.66MB
Total Engine Storage	771.25GB

LOCATION & LINEAGE	
Environment	TEST
Parent	DBTST1



Delphix usage

Manage VDBs

It's possible to revert to an old snapshot

The screenshot shows the Delphix Management console interface. On the left, a sidebar lists datasets, including 'VDBTEST' (VDB - Running). The main area displays a 'Timeflow' view for 'VDBTEST' with a 'Rewind VDB' dialog box open. The dialog prompts the user to rewind the VDB to the state of the data on 'Mar 19, 2024 6:37 PM'. It includes a 'Provide privileged credentials' checkbox and 'Cancel' and 'Rewind' buttons. A tooltip at the bottom of the dialog reads: 'Starting Point: Rewind: Roll the VDB back to this point in time (28)'. On the right, 'Dataset Details' are shown, including storage usage and lineage information.

STORAGE USED	
Snapshots	3
Dataset Storage	212.66MB
Total Engine Storage	771.25GB

LOCATION & LINEAGE	
Environment	TEST
Parent	DBTST1



Delphix usage

Manage Policies

Policies can be fine tuned under Manage / Policies

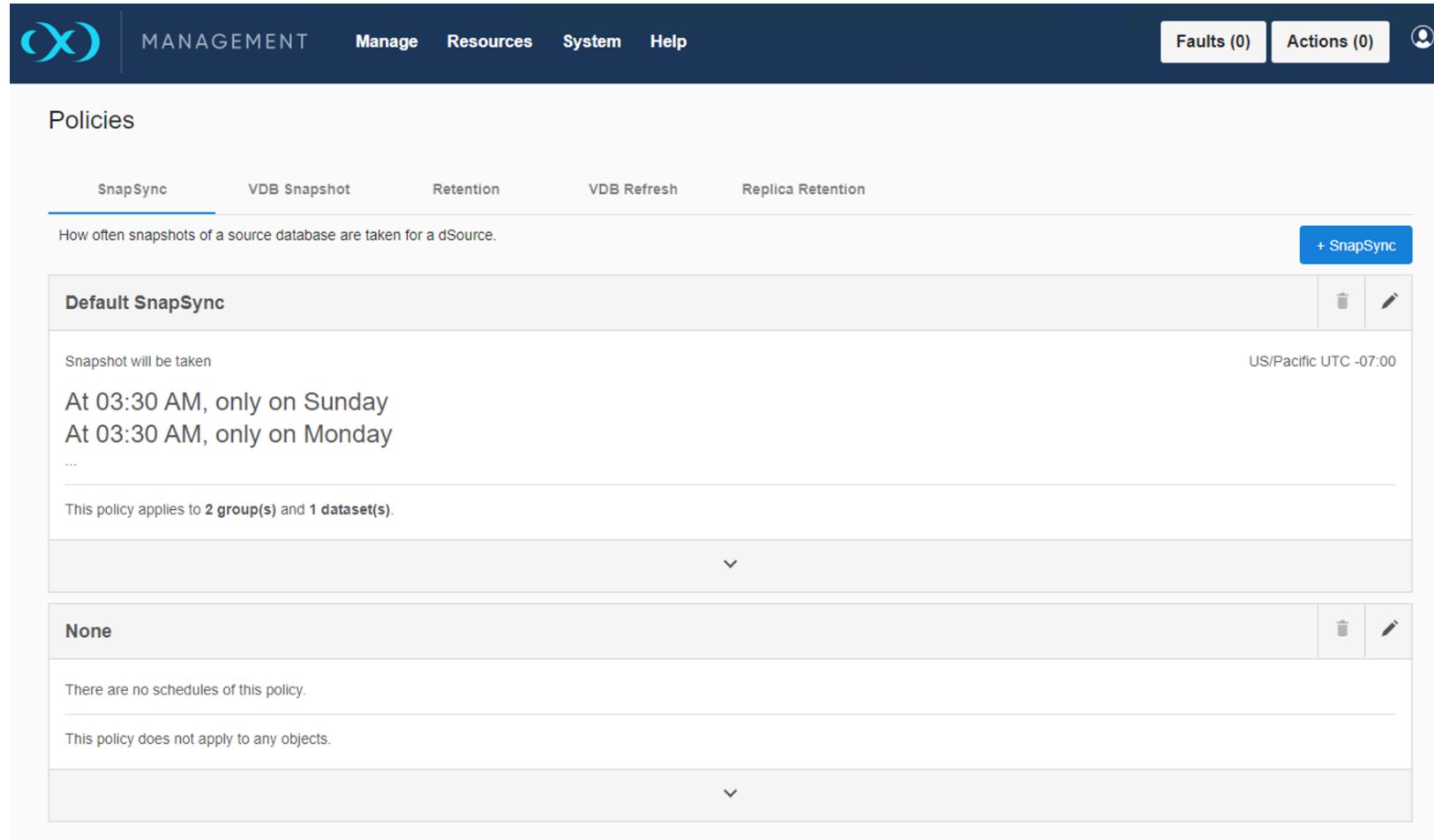
The screenshot shows the Delphix Management console interface. The top navigation bar includes 'MANAGEMENT', 'Manage', 'Resources', 'System', and 'Help'. On the right, there are buttons for 'Faults (0)' and 'Actions (1)'. The left sidebar shows a 'Datasets' section with a filter set to 'none' and options to 'Expand All' or 'Collapse All'. Under 'MyDB', there are two datasets: 'DBTST1' (dSource - Active) and 'VDBTEST' (VDB - Cannot monitor). The main area displays a table of snapshots for 'VDBTEST'. A dropdown menu is open over the 'Manage' tab, listing options: Dashboard, Environments, Datasets, Policies (highlighted), Users, VDB Config Templates, Hook Templates, and Plugins. The table shows two snapshots: one from 'MAR 19, 2024' (1 Snapshot) and another from '6:37 PM' (1 Snapshot). The right sidebar contains 'Dataset Details' for 'VDBTEST', including 'STORAGE USED' (Snapshots, Dataset Storage, Total Engine Storage) and 'LOCATION & LINEAGE' (Environment TEST, Parent DBTST1). At the bottom right, there are sections for 'Running Actions' (Roll back database "VDBTEST") and 'Finished Actions' (Refresh database "VDBTEST", Mark all active faults as resolved, Run SnapSync for database "DBT...").



Delphix usage

Manage Policies

Policy for dSource refresh



The screenshot shows the Delphix web interface for managing policies. The top navigation bar includes the Delphix logo, 'MANAGEMENT', and menu items: 'Manage', 'Resources', 'System', and 'Help'. On the right, there are buttons for 'Faults (0)', 'Actions (0)', and a user profile icon.

The main content area is titled 'Policies' and has five tabs: 'SnapSync', 'VDB Snapshot', 'Retention', 'VDB Refresh', and 'Replica Retention'. The 'SnapSync' tab is selected.

Below the tabs, a description reads: 'How often snapshots of a source database are taken for a dSource.' A blue '+ SnapSync' button is on the right.

There are two policy entries:

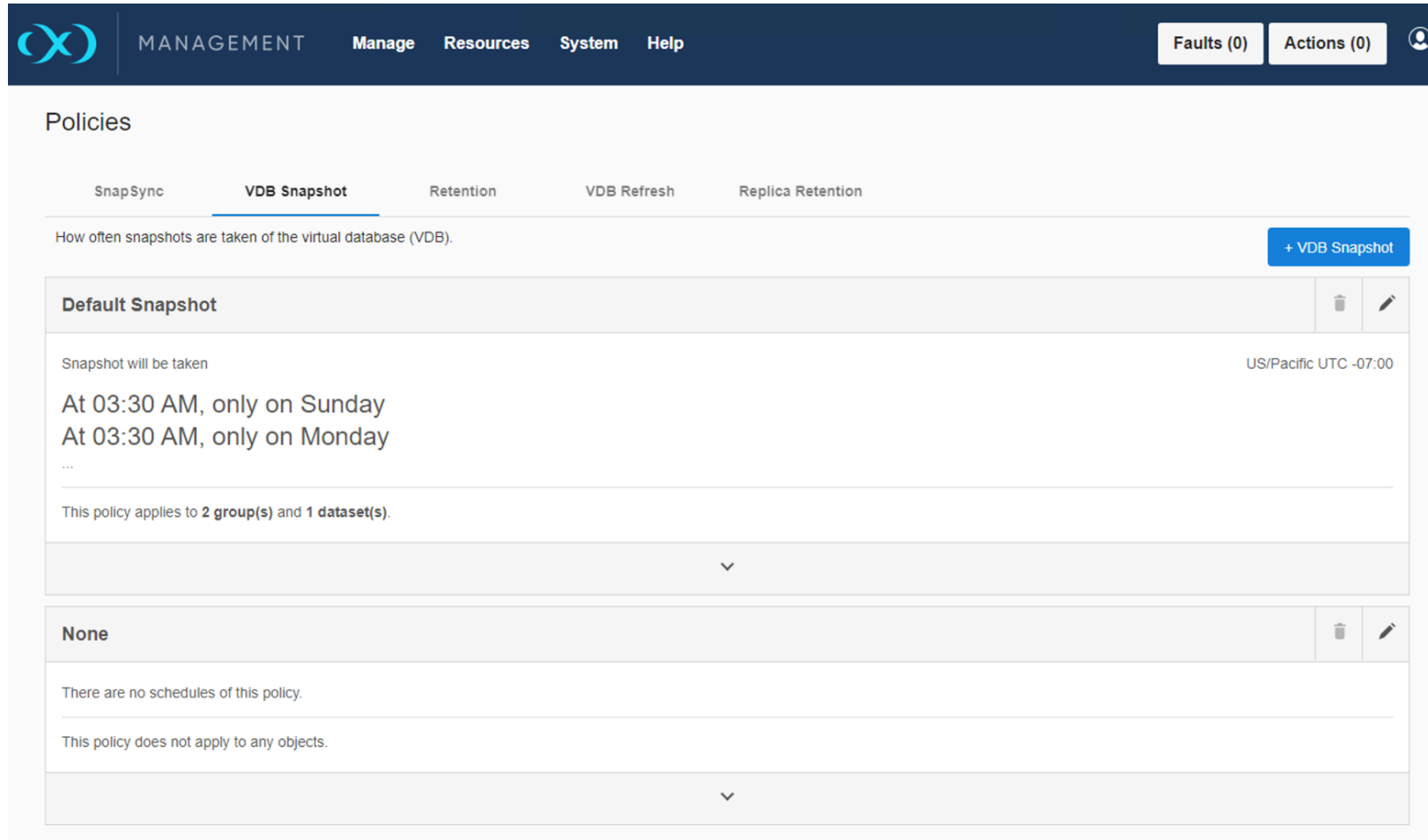
- Default SnapSync**: Includes a trash icon and an edit icon. The schedule is 'US/Pacific UTC -07:00'. The snapshot will be taken 'At 03:30 AM, only on Sunday' and 'At 03:30 AM, only on Monday'. A note states: 'This policy applies to 2 group(s) and 1 dataset(s)'. A dropdown arrow is at the bottom.
- None**: Includes a trash icon and an edit icon. The description is 'There are no schedules of this policy.' and 'This policy does not apply to any objects.' A dropdown arrow is at the bottom.



Delphix usage

Manage Policies

Policy for VDB snapshots



The screenshot shows the Delphix web interface for managing policies. The top navigation bar includes the Delphix logo, 'MANAGEMENT', and menu items: 'Manage', 'Resources', 'System', and 'Help'. On the right, there are buttons for 'Faults (0)' and 'Actions (0)', along with a user profile icon.

The main content area is titled 'Policies' and has several tabs: 'SnapSync', 'VDB Snapshot' (which is selected), 'Retention', 'VDB Refresh', and 'Replica Retention'. Below the tabs, there is a description: 'How often snapshots are taken of the virtual database (VDB).', followed by a '+ VDB Snapshot' button.

There are two policy entries listed:

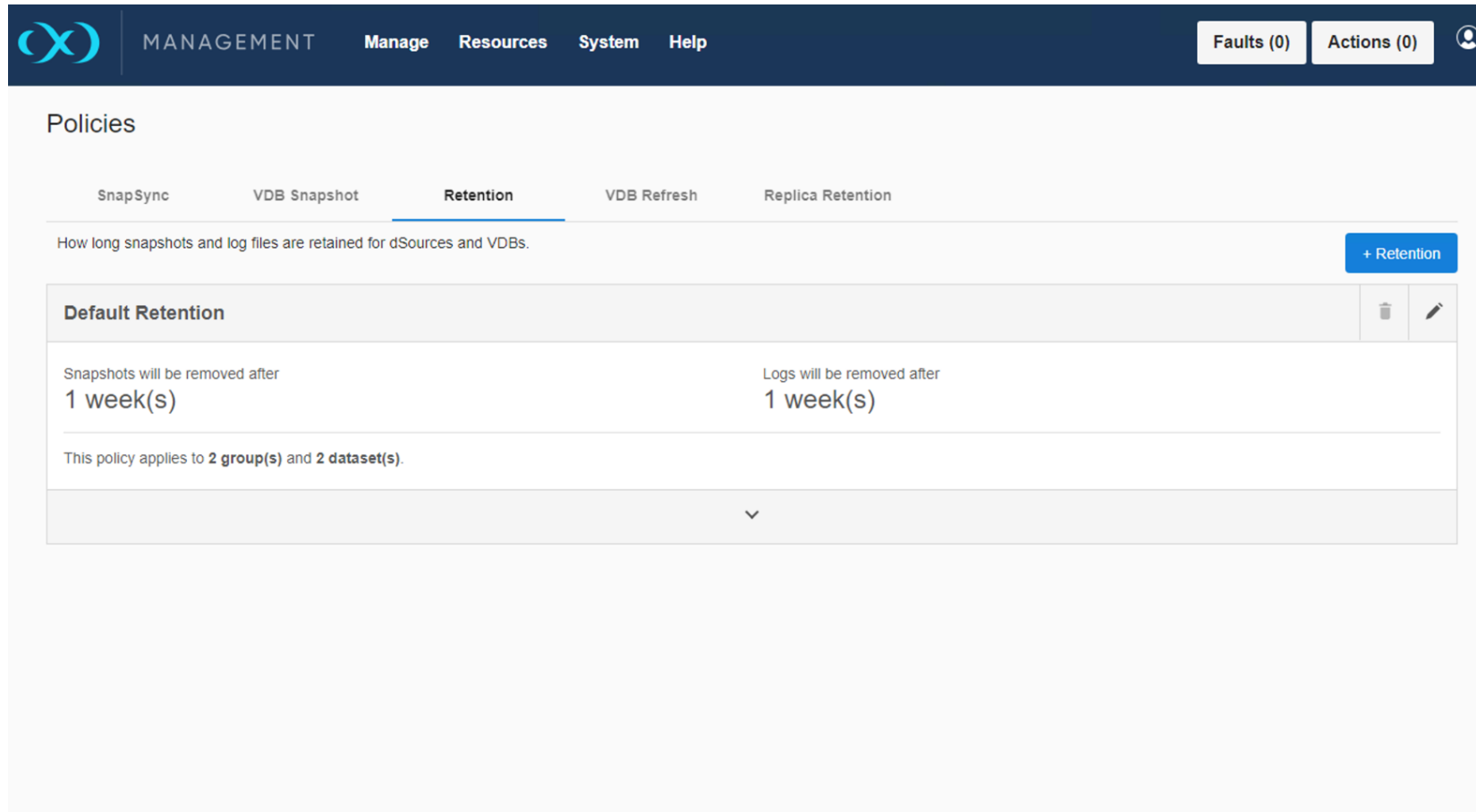
- Default Snapshot**: Includes a trash icon and an edit icon. The description states: 'Snapshot will be taken US/Pacific UTC -07:00'. The schedule is: 'At 03:30 AM, only on Sunday' and 'At 03:30 AM, only on Monday'. Below this, it says 'This policy applies to 2 group(s) and 1 dataset(s)'. A dropdown arrow is visible at the bottom of this entry.
- None**: Includes a trash icon and an edit icon. The description states: 'There are no schedules of this policy.' and 'This policy does not apply to any objects.'. A dropdown arrow is visible at the bottom of this entry.



Delphix usage

Manage Policies

Retentions



The screenshot shows the Delphix web interface for managing policies. The top navigation bar includes the Delphix logo, the word "MANAGEMENT", and menu items for "Manage", "Resources", "System", and "Help". On the right side of the navigation bar, there are buttons for "Faults (0)", "Actions (0)", and a user profile icon.

The main content area is titled "Policies" and features a tabbed interface with the following tabs: "SnapSync", "VDB Snapshot", "Retention" (which is currently selected), "VDB Refresh", and "Replica Retention".

Below the tabs, a descriptive text reads: "How long snapshots and log files are retained for dSources and VDBs." To the right of this text is a blue button labeled "+ Retention".

The "Retention" policy is displayed in a card format. The card has a header "Default Retention" with a trash icon and an edit icon. The main content of the card is split into two columns:

- Left column: "Snapshots will be removed after 1 week(s)"
- Right column: "Logs will be removed after 1 week(s)"

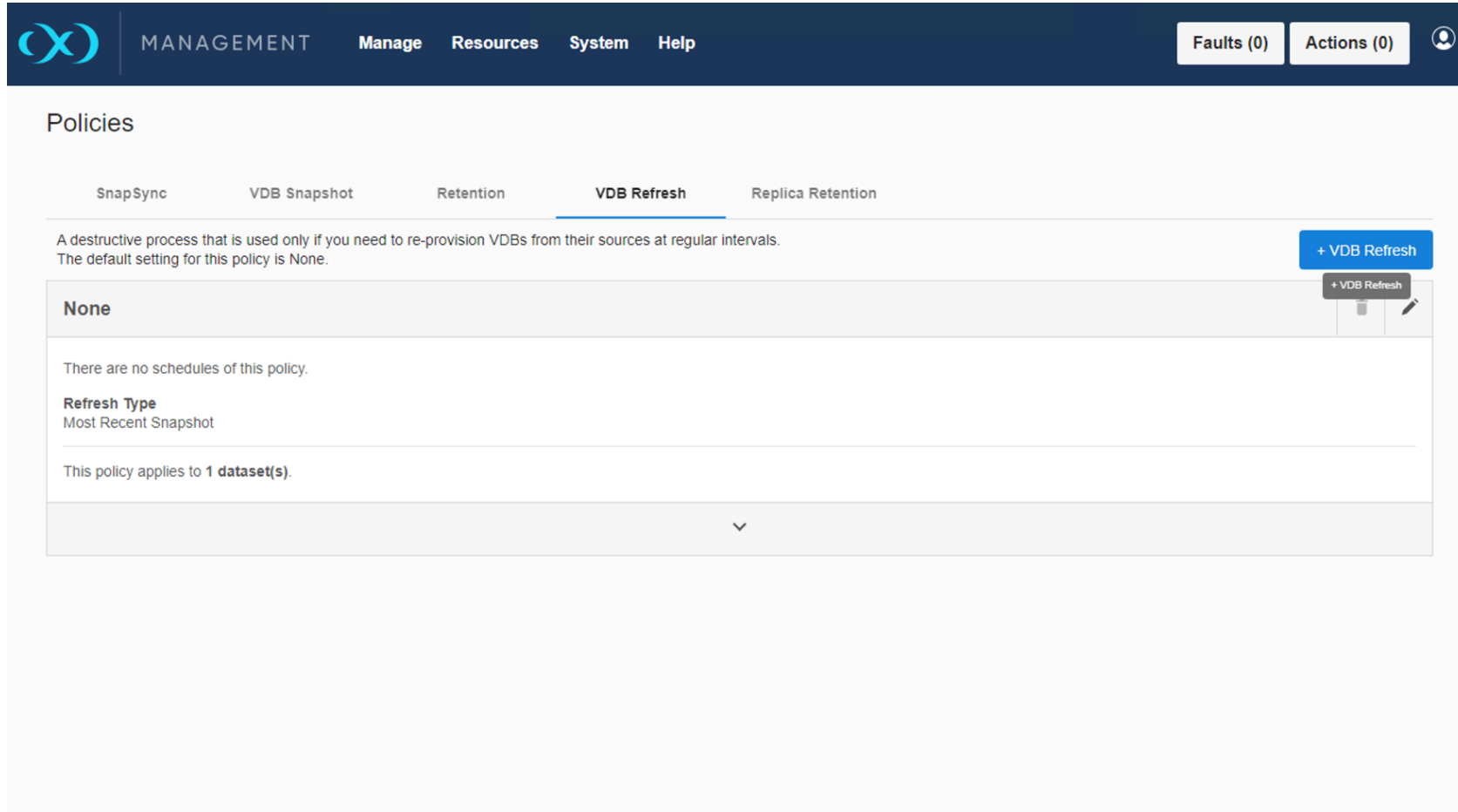
Below the columns, a note states: "This policy applies to 2 group(s) and 2 dataset(s)." At the bottom of the card, there is a small downward-pointing chevron icon.



Delphix usage

Manage Policies

VDB refresh scheduling



The screenshot shows the Delphix management console interface for VDB Refresh policies. At the top, there is a navigation bar with the Delphix logo, 'MANAGEMENT' menu, and sub-menus for 'Manage', 'Resources', 'System', and 'Help'. On the right of the navigation bar are buttons for 'Faults (0)', 'Actions (0)', and a user profile icon.

The main content area is titled 'Policies' and has several tabs: 'SnapSync', 'VDB Snapshot', 'Retention', 'VDB Refresh' (which is the active tab), and 'Replica Retention'. Below the tabs, there is a descriptive text: 'A destructive process that is used only if you need to re-provision VDBs from their sources at regular intervals. The default setting for this policy is None.' To the right of this text is a blue '+ VDB Refresh' button.

The main content area displays a policy named 'None'. Below the policy name, it states 'There are no schedules of this policy.' Underneath, the 'Refresh Type' is set to 'Most Recent Snapshot'. At the bottom of the policy details, it says 'This policy applies to 1 dataset(s)'. There are also buttons for '+ VDB Refresh', a trash icon, and an edit icon.



Plan a daily refresh for my VDB during the night

VDB Refresh Policy ✕

- Policy**
- Datasets
- Summary

Policy

Refreshing a VDB re-provisions it from its source. Creating a policy for this re-provisions the VDB at regular intervals. Since VDB Refresh is a re-provisioning process, it is important to set the policy interval for an amount of time that will allow the VDB to fully re-provision before another refresh takes place.

Policy Name

Time Zone

Refresh Type

Most Recent Snapshot

Latest Timeflow Logs

Timeout

Timeout in Minute(s)

Schedule

Sundav +

Cancel Back Next Submit



Delphix usage

Manage Policies

Plan a daily refresh for my VDB during the night

VDB Refresh Policy ✕

- Policy**
- Datasets
- Summary

Sunday +

Refreshes will be performed at:

02 : 00 AM

Monday +

Refreshes will be performed at:

02 : 00 AM

Tuesday +

Refreshes will be performed at:

02 : 00 AM

Wednesday +

Refreshes will be performed at:

Next

Cancel Back Next Submit



Delphix usage

Manage Policies

Choose the VDB for this schedule

VDB Refresh Policy ✕

- Policy
- Datasets**
- Summary

Datasets

DailyRefresh

VDB will be refreshed Europe/Zurich UTC +01:00

At 02:00 AM, only on Sunday
At 02:00 AM, only on Monday
At 02:00 AM, only on Tuesday
At 02:00 AM, only on Wednesday
At 02:00 AM, only on Thursday
At 02:00 AM, only on Friday
At 02:00 AM, only on Saturday


Assign this policy to the following:

GROUPS & DATASETS

▼ MyDB

<input checked="" type="checkbox"/>	Dataset	Type	Current Policy
<input checked="" type="checkbox"/>	VDBTEST	VDB	Inherited: None

Cancel Back Next Submit



Delphix usage

Manage Policies

Submit this policy

VDB Refresh Policy



- Policy
- Datasets
- Summary

Summary

DailyRefresh

VDB will be refreshed

Europe/Zurich UTC +01:00

At 02:00 AM, only on Sunday
At 02:00 AM, only on Monday
At 02:00 AM, only on Tuesday
At 02:00 AM, only on Wednesday
At 02:00 AM, only on Thursday
At 02:00 AM, only on Friday
At 02:00 AM, only on Saturday

Refresh Type

Most Recent Snapshot

This policy is applied to the following groups:

None

This policy is applied to the following datasets:

- MyDB
- VDBTEST

Submit

Cancel

Back

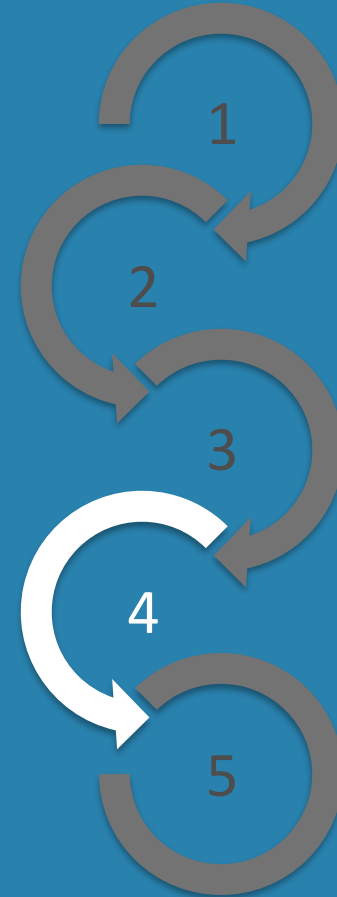
Next

Submit



Self-Service portal

- > Introduction
- > Create a Self-Service user
- > Create a Data Template
- > Create a Data Container
- > Self-Service usage



Self-Service portal

Introduction

Purpose of the Self-Service features:

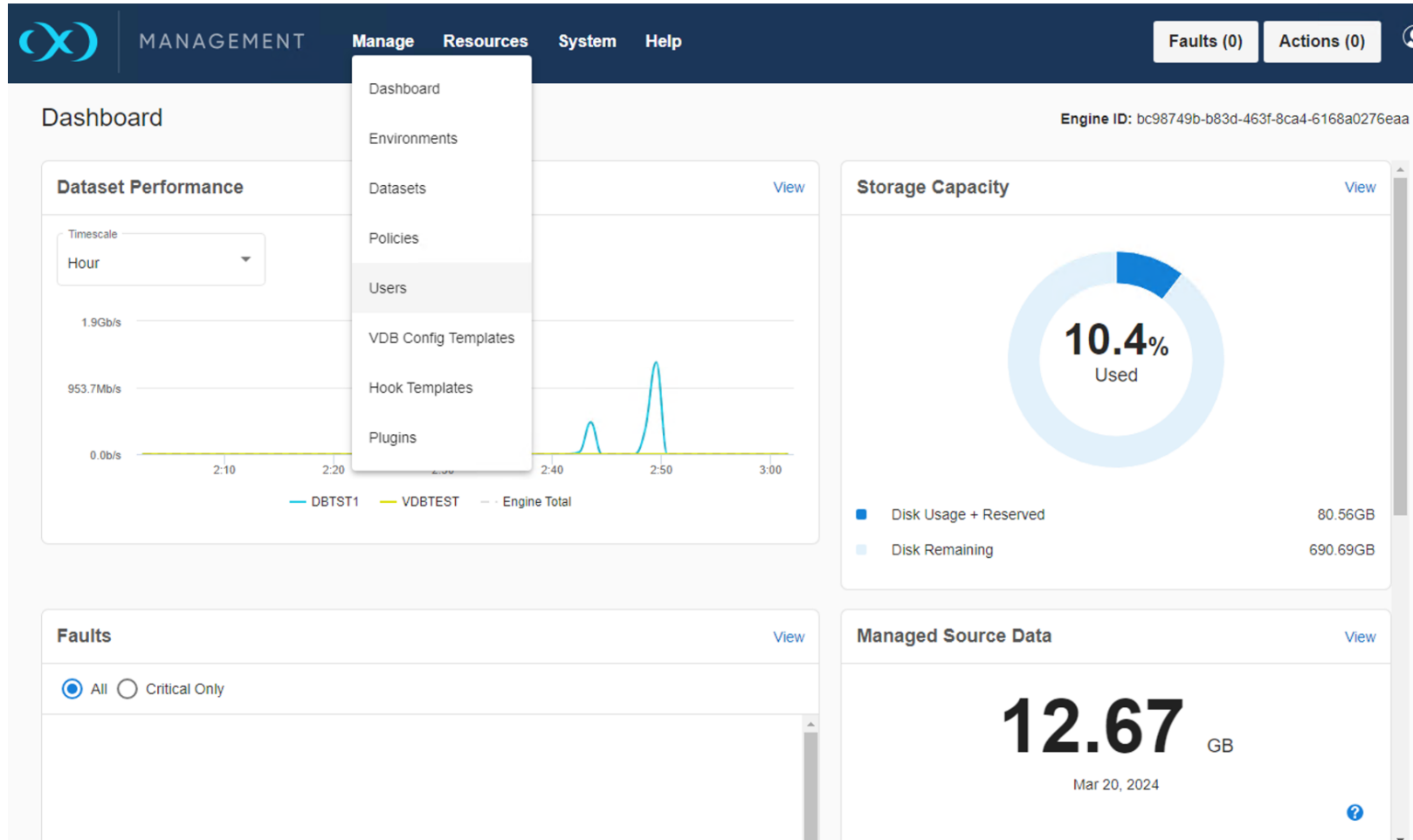
- > Provide developers full control over a VDB timeline
- > Release the DBA from refresh and restore tasks



Self-Service portal

Create users

Go to Manage / Users for configuring a new user



The screenshot shows the 'MANAGEMENT' interface with a dark blue header. The 'Manage' menu is open, listing options: Dashboard, Environments, Datasets, Policies, Users (highlighted), VDB Config Templates, Hook Templates, and Plugins. The main content area is divided into four panels:

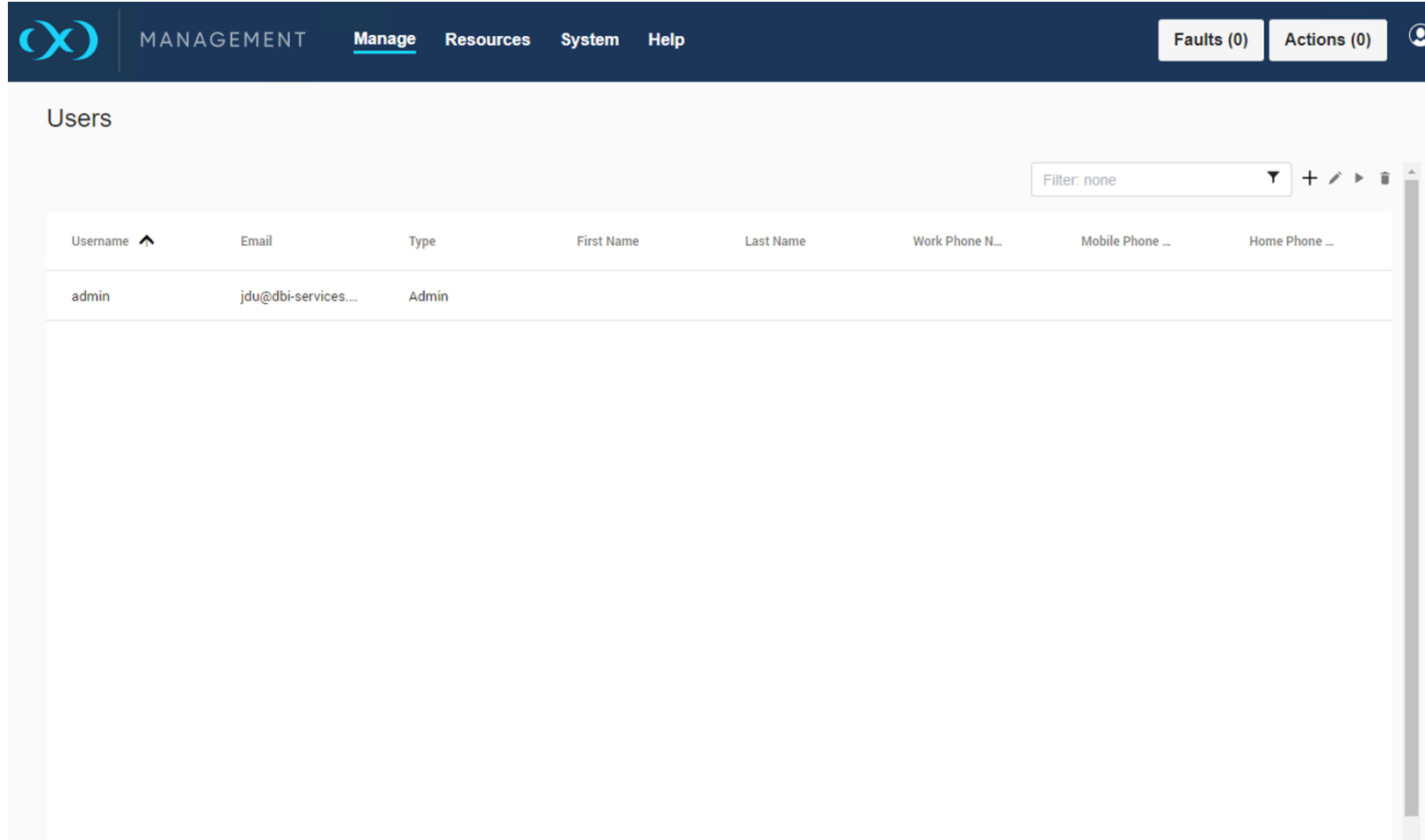
- Dataset Performance:** A line chart showing data transfer rates over time. The y-axis ranges from 0.0b/s to 1.9Gb/s. The x-axis shows time from 2:10 to 3:00. Three data series are visible: DBTST1 (blue), VDBTEST (yellow), and Engine Total (grey).
- Storage Capacity:** A donut chart showing 10.4% of storage is used. A legend below indicates: Disk Usage + Reserved (80.56GB) and Disk Remaining (690.69GB).
- Faults:** A section with radio buttons for 'All' (selected) and 'Critical Only'.
- Managed Source Data:** A large number '12.67' followed by 'GB' and the date 'Mar 20, 2024'.

The top right of the dashboard shows 'Faults (0)' and 'Actions (0)' buttons, and an 'Engine ID: bc98749b-b83d-463f-8ca4-6168a0276eaa'.

Self-Service portal

Create users

Only user admin exists until now: click on +



MANAGEMENT Manage Resources System Help

Faults (0) Actions (0)

Users

Filter: none

Username ^	Email	Type	First Name	Last Name	Work Phone N...	Mobile Phone ...	Home Phone ...
admin	jdu@dbi-services...	Admin					



Self-Service portal

Create users

Choose Self-Service Only and configure a username and a password

Add User ✕

User

User Type

Self-Service Only

Authentication Type

Local

CREDENTIALS

Username

xchange


Password

Confirm Password

Email Address

xchange@dbi-services.com

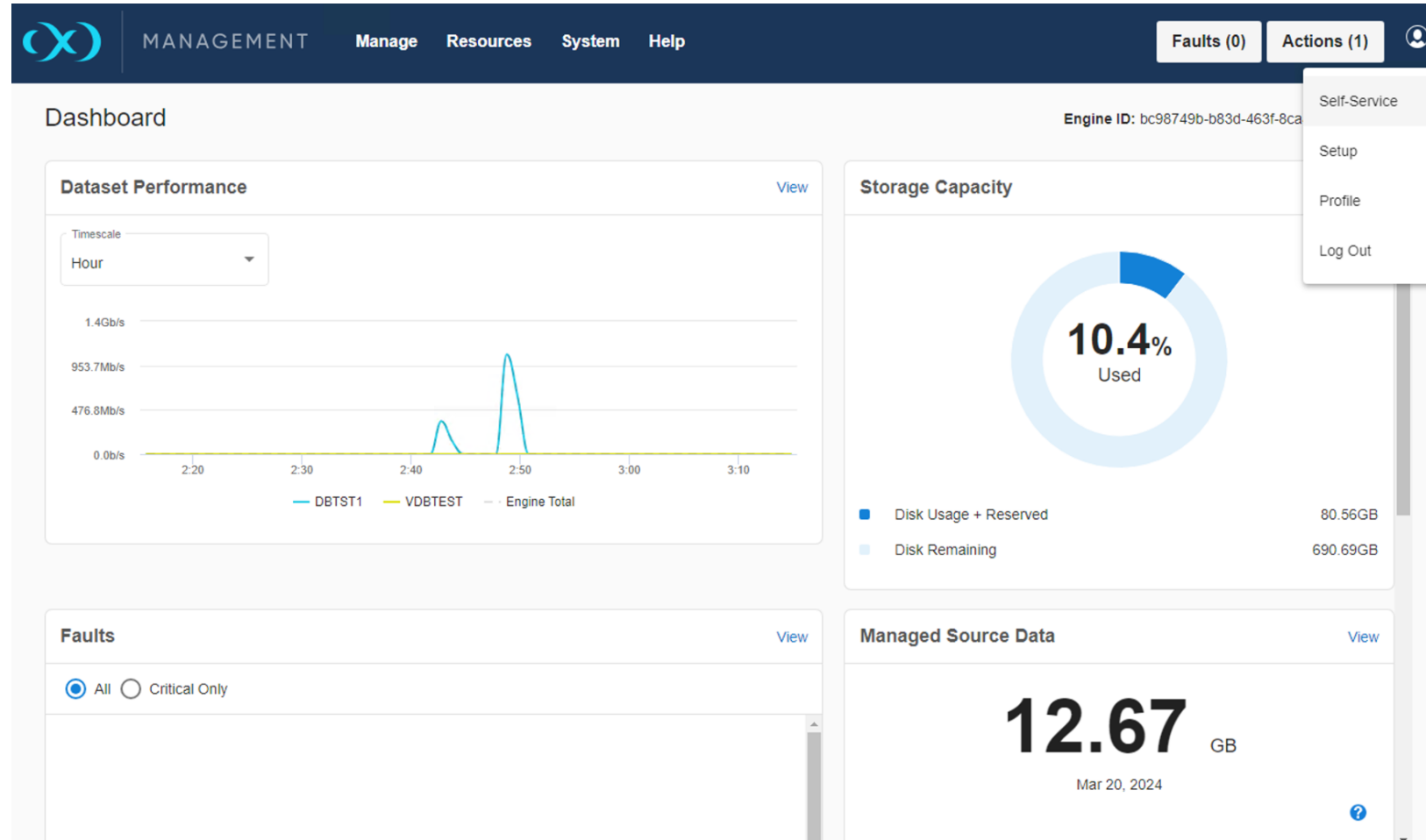
Cancel Back **Next** Submit



Self-Service portal

Create a Data Template

Go to the Self-Service portal

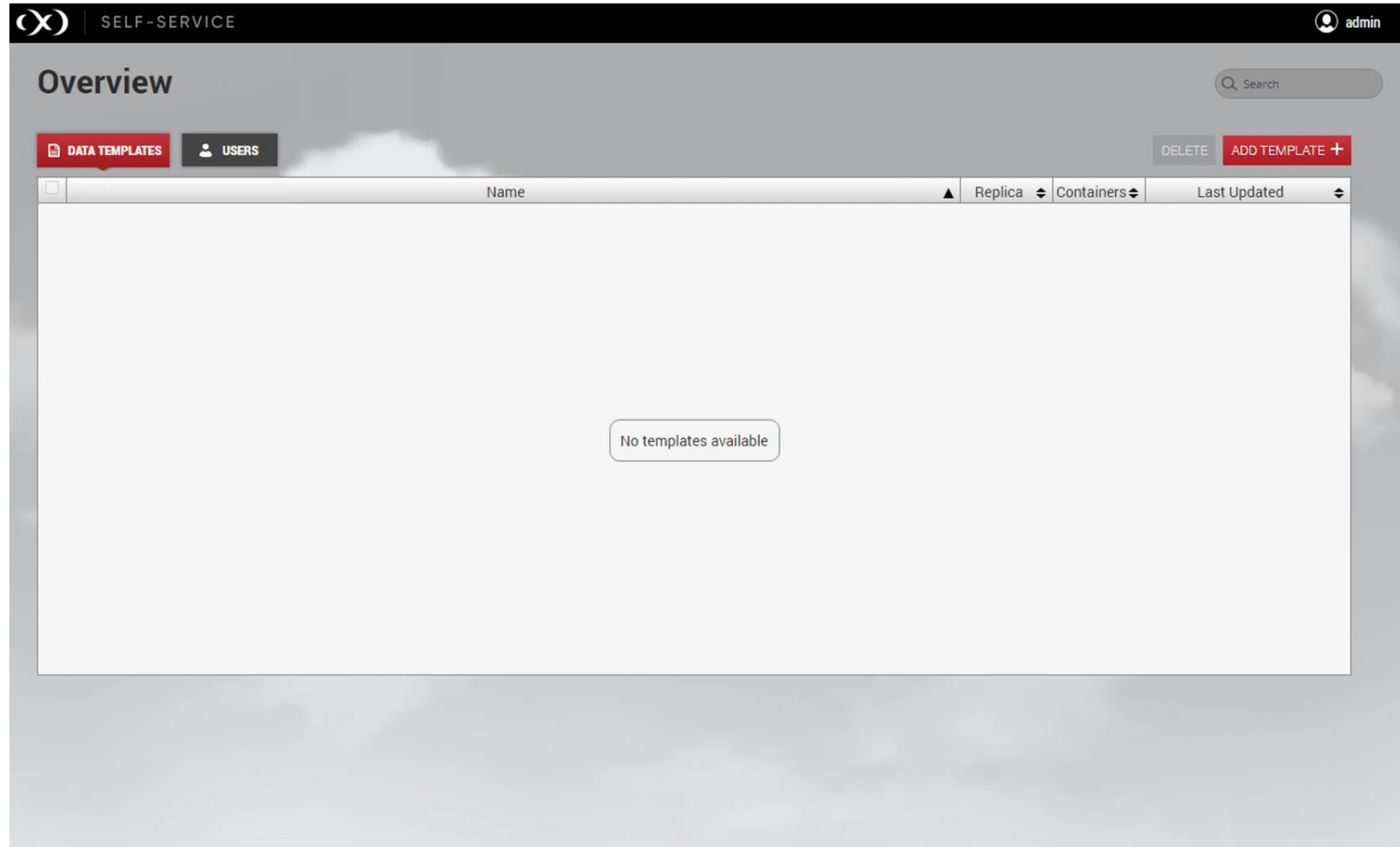


The screenshot shows a dashboard for a data engine. The top navigation bar includes 'MANAGEMENT', 'Manage', 'Resources', 'System', and 'Help'. On the right, there are buttons for 'Faults (0)' and 'Actions (1)', along with a user profile icon. A dropdown menu is open, showing options: 'Self-Service', 'Setup', 'Profile', and 'Log Out'. The main content area is titled 'Dashboard' and features an 'Engine ID: bc98749b-b83d-463f-8ca...'. The dashboard is divided into four panels: 1. 'Dataset Performance' with a line chart showing data transfer rates for 'DBTST1' (blue), 'VDBTEST' (yellow), and 'Engine Total' (grey) over time. The y-axis ranges from 0.0b/s to 1.4Gb/s. 2. 'Storage Capacity' with a donut chart showing '10.4% Used'. Below the chart, a table shows 'Disk Usage + Reserved' at 80.56GB and 'Disk Remaining' at 690.69GB. 3. 'Faults' with radio buttons for 'All' (selected) and 'Critical Only'. 4. 'Managed Source Data' displaying '12.67 GB' as of 'Mar 20, 2024'. A small robot icon is visible in the bottom right corner of the dashboard area.

Self-Service portal

Create a Data Template

Create a new Data Template



The screenshot shows the 'Overview' page of the Self-Service portal. The top navigation bar includes the 'SELF-SERVICE' logo and a user profile for 'admin'. Below the navigation, there are two tabs: 'DATA TEMPLATES' (active) and 'USERS'. A search bar is located in the top right corner. The main content area displays a table with columns for 'Name', 'Replica', 'Containers', and 'Last Updated'. The table is currently empty, and a message box in the center states 'No templates available'. There are 'DELETE' and 'ADD TEMPLATE +' buttons in the top right of the table area.



Self-Service portal

Create a Data Template

Configure the Data Template with the dSource


Create Data Template

Name
TestDataTemplate

Description

Order
 Set startup order of data sources

Data Sources

Name PROD	Replica Default	
	dSource, VDB or vFiles DBTST1 (MyDB)	

Notes

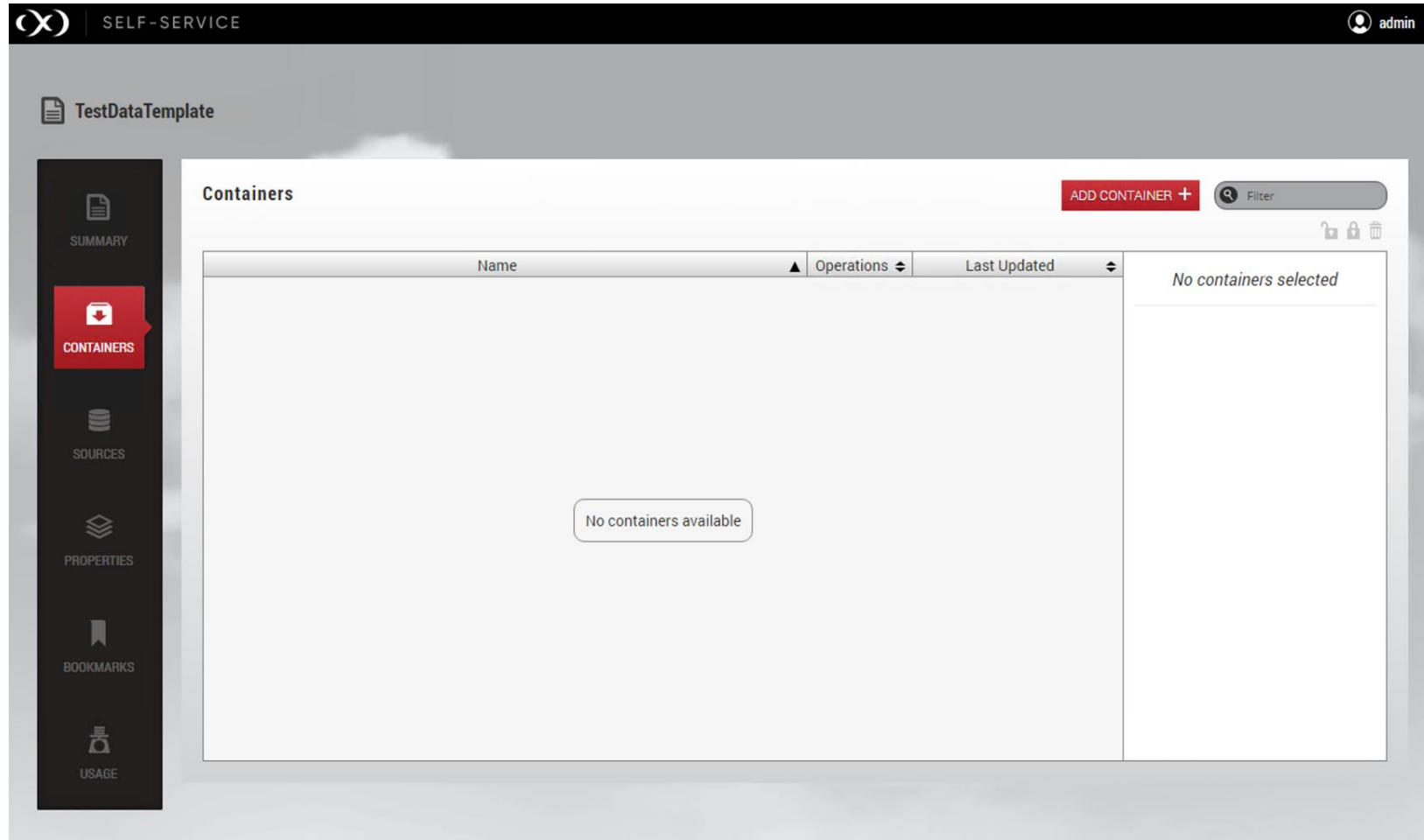
ADD DATA SOURCE + **CANCEL** **CREATE**



Self-Service portal

Create a Data Container

Click on Add Container



SELF-SERVICE | admin

TestDataTemplate

SUMMARY

CONTAINERS

SOURCES

PROPERTIES

BOOKMARKS

USAGE

Containers

ADD CONTAINER +

Filter

Name	Operations	Last Updated
No containers available		

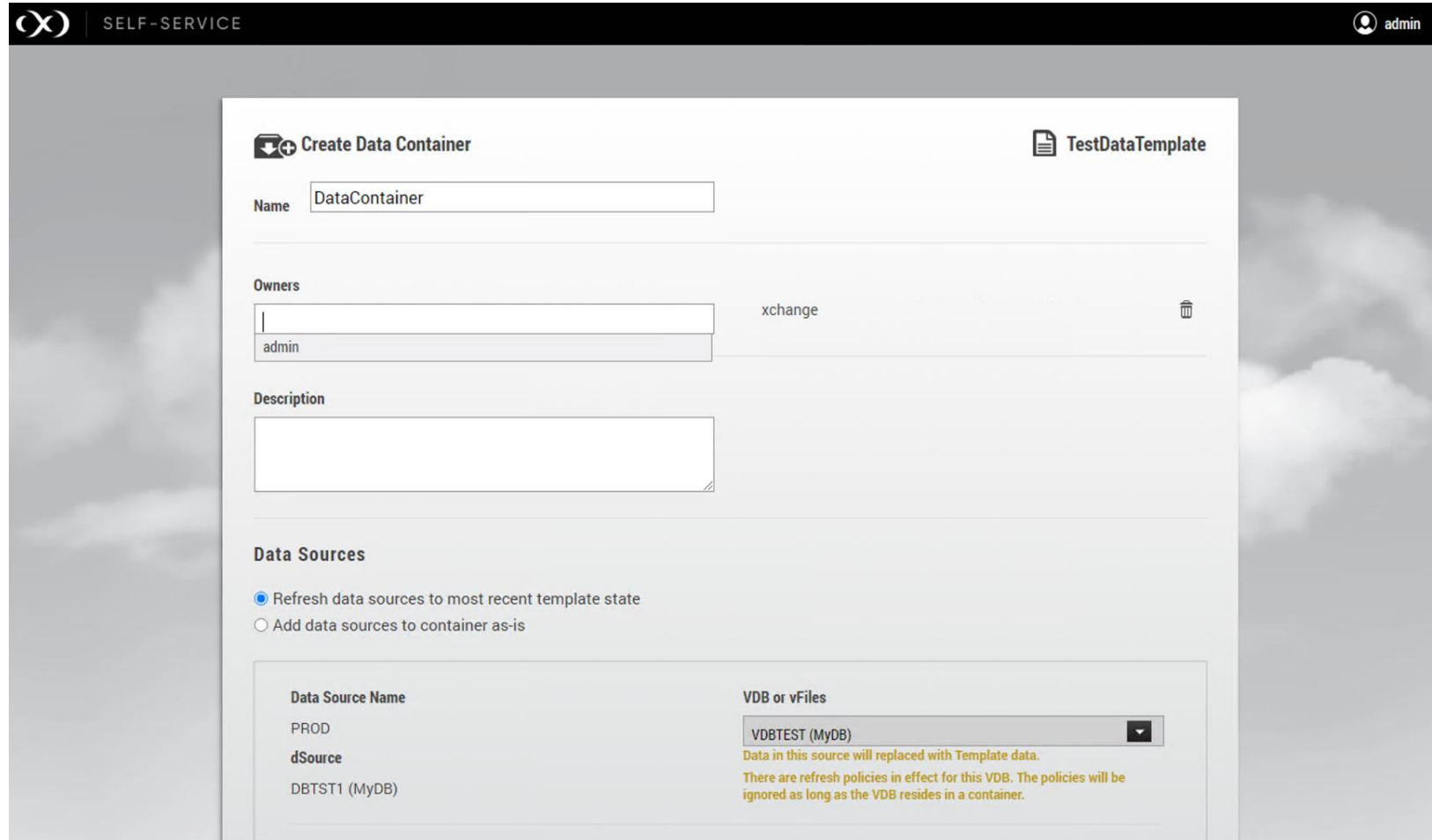
No containers selected



Self-Service portal

Create a Data Container

Create the Data Container



The screenshot shows a web interface for creating a data container. At the top, there is a navigation bar with a logo on the left, the text 'SELF-SERVICE' in the center, and a user profile icon labeled 'admin' on the right. The main content area is titled 'Create Data Container' and includes a 'TestDataTemplate' button. The form fields are as follows:

- Name:** A text input field containing 'DataContainer'.
- Owners:** A list of users. The first user is 'admin', and the second is 'xchange'. There is a trash icon next to 'xchange'.
- Description:** A large empty text area.
- Data Sources:** A section with two radio buttons: 'Refresh data sources to most recent template state' (selected) and 'Add data sources to container as-is'.
- Data Source Name:** A list with 'PROD' and 'dSource' (selected).
- VDB or vFiles:** A dropdown menu with 'VDBTEST (MyDB)' selected.

Below the dropdown, there is a warning message: 'Data in this source will be replaced with Template data. There are refresh policies in effect for this VDB. The policies will be ignored as long as the VDB resides in a container.'



Self-Service portal

Create a Data Container

Choose VDB as the target database (policies defined on the VDB won't run anymore)

Data Sources

Refresh data sources to most recent template state
 Add data sources to container as-is

Data Source Name PROD	VDB or vFiles VDBTEST (MyDB) ▼
dSource DBTST1 (MyDB)	<p>Data in this source will be replaced with Template data. There are refresh policies in effect for this VDB. The policies will be ignored as long as the VDB resides in a container.</p>
Connection Info Host 10.36.0.247 DB Name VDBTEST_02 DB Oracle 19.20.0.0.0 Version Oracle /u01/app/oracle/product/19.0.0.0/dbhome_1 Home JDBC jdbc:oracle:thin:@(DESCRIPTION=(ENABLE=broken) (ADDRESS=(PROTOCOL=tcp)(HOST=10.36.0.247) (PORT=1521)))(CONNECT_DATA=(UR=A) (SERVICE_NAME=VDBTEST_02)))	Description <div style="border: 1px solid gray; height: 100px;"></div>

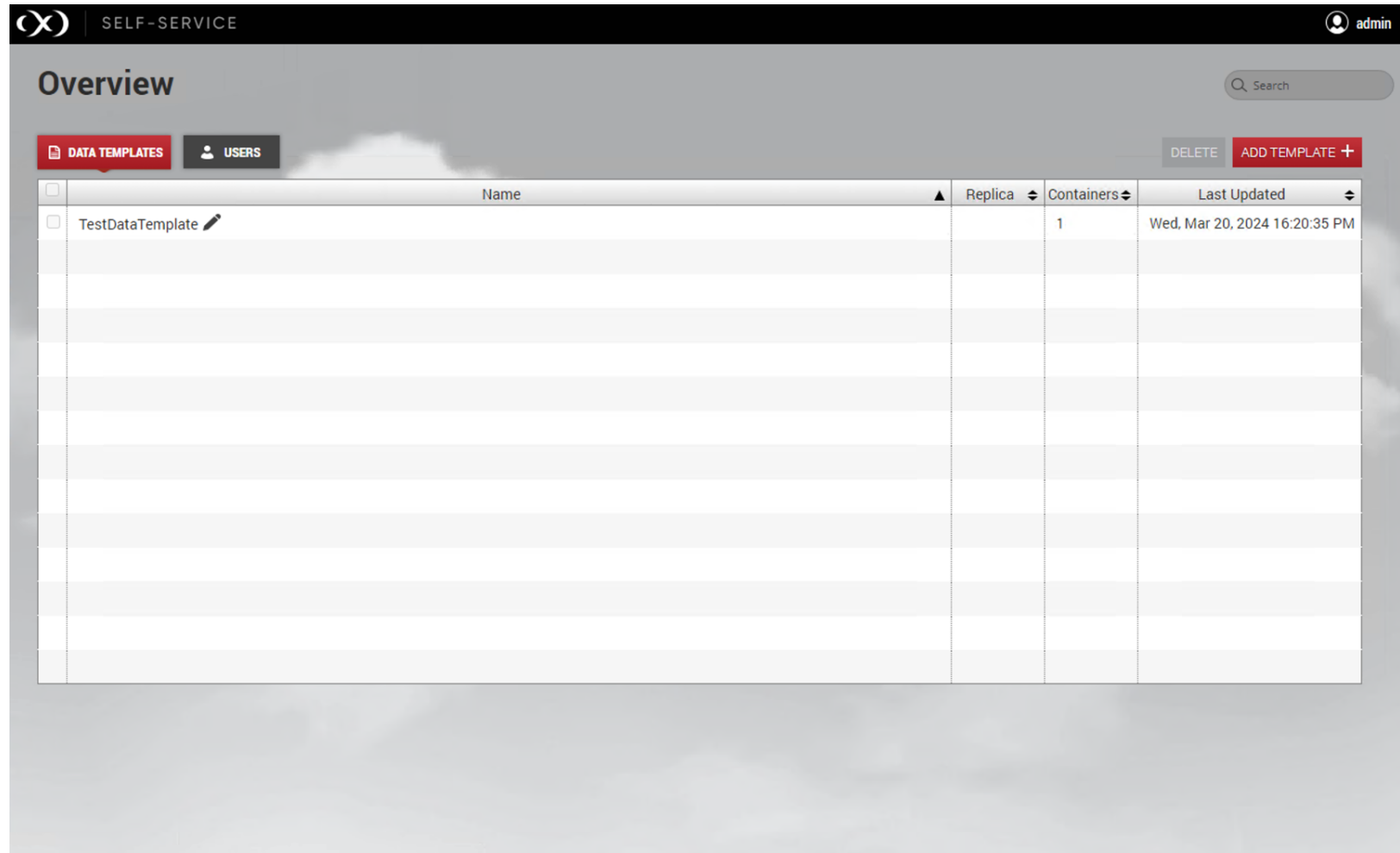
CANCEL **CREATE**




Self-Service portal

Create a Data Container

Now the template has its data container



The screenshot shows the 'Overview' page of a self-service portal. At the top, there is a navigation bar with the 'SELF-SERVICE' logo and a user profile 'admin'. Below the navigation bar, there are two tabs: 'DATA TEMPLATES' (active) and 'USERS'. To the right of the tabs are buttons for 'DELETE' and 'ADD TEMPLATE +'. A search bar is located in the top right corner. The main content is a table with the following columns: 'Name', 'Replica', 'Containers', and 'Last Updated'. The table contains one row with the following data:

<input type="checkbox"/>	Name	Replica	Containers	Last Updated
<input type="checkbox"/>	TestDataTemplate 		1	Wed, Mar 20, 2024 16:20:35 PM



Self-Service portal

Self-Service usage

Login with xchange user credentials



Username

Password

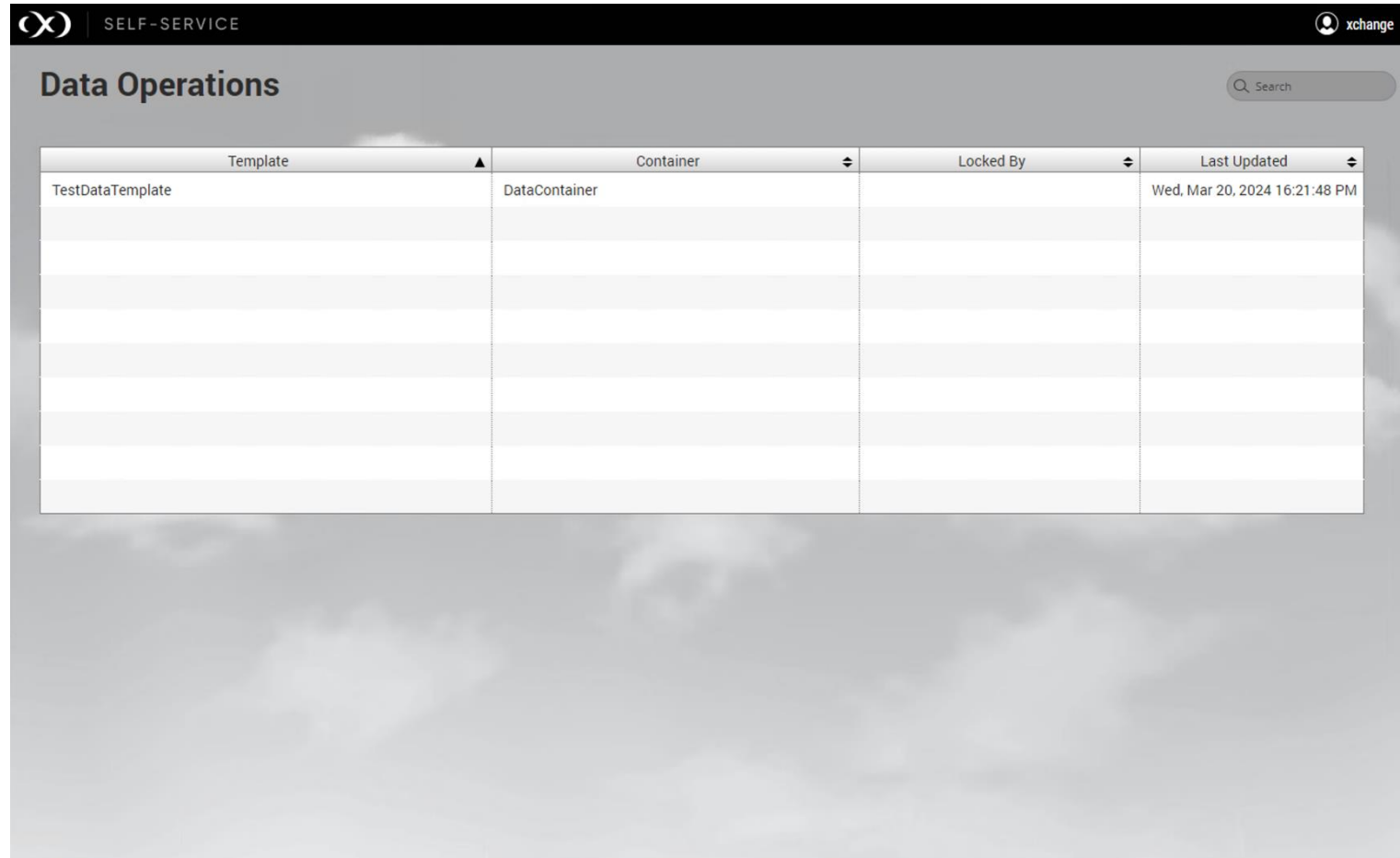
[Setup](#)



Self-Service portal

Self-Service usage

Click on TestDataTemplate for going to the VDB timeline



The screenshot shows the 'Data Operations' section of the Self-Service portal. The interface includes a search bar and a table with the following data:

Template ▲	Container ▾	Locked By ▾	Last Updated ▾
TestDataTemplate	DataContainer		Wed, Mar 20, 2024 16:21:48 PM



Self-Service portal

Self-Service usage

Timeline of the VDB is shown

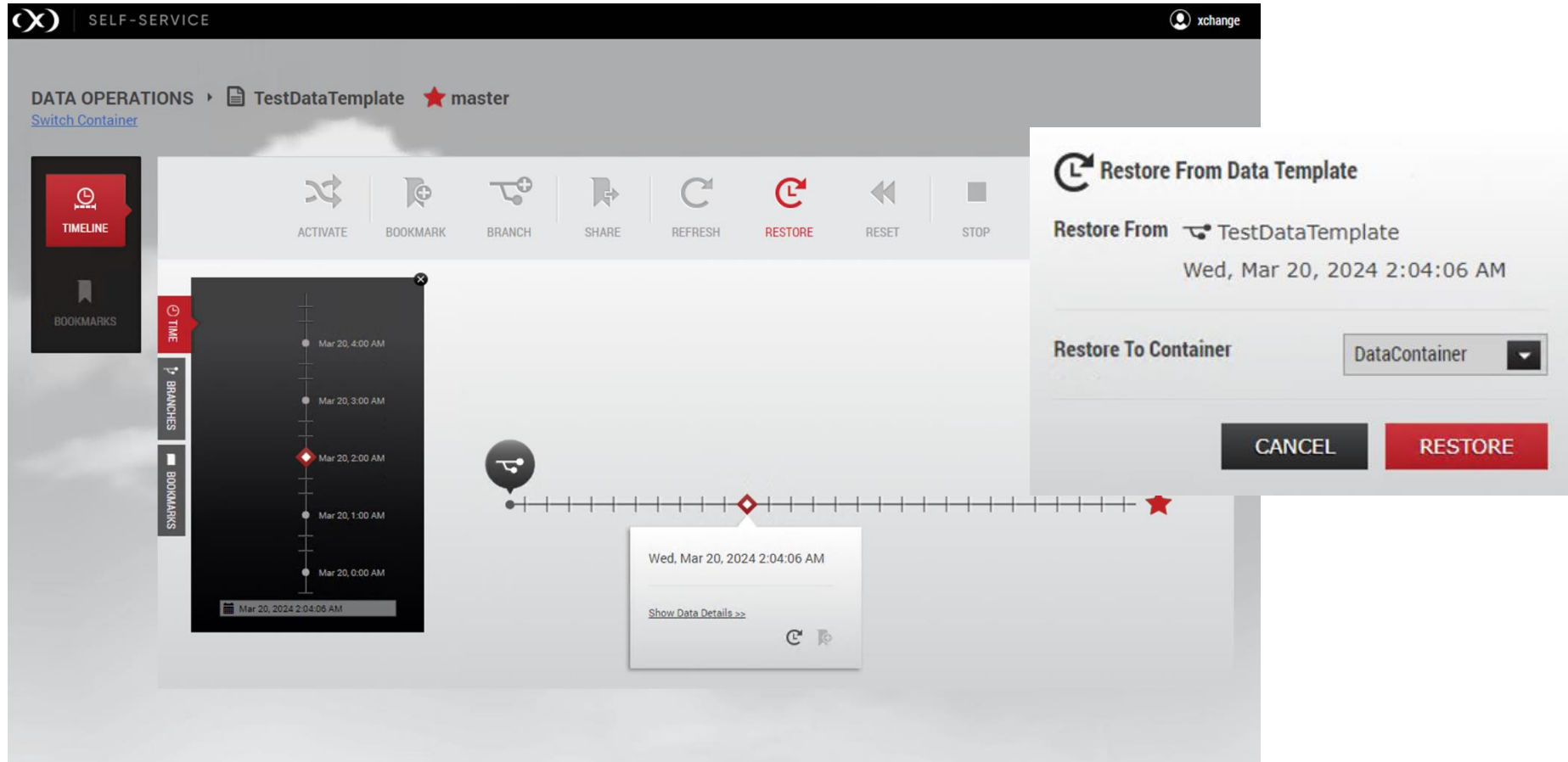
The screenshot displays the 'SELF-SERVICE' interface for a user named 'xchange'. The main area is titled 'DATA OPERATIONS' and shows a file named 'TestDataTemplate' with a red star icon and the label 'master'. Below this, there is a toolbar with icons for 'ACTIVATE', 'BOOKMARK', 'BRANCH', 'SHARE', 'REFRESH', 'RESTORE', 'RESET', 'STOP', and 'LOCK'. A 'TIMELINE' sidebar is visible on the left, and a 'BOOKMARKS' sidebar is also present. The main content area shows a horizontal timeline with a red star at the end, indicating a bookmarked point. A vertical timeline is also visible, showing a list of timestamps: Mar 20, 16:00 PM, Mar 20, 15:00 PM, Mar 20, 14:00 PM, Mar 20, 13:00 PM, and Mar 20, 12:00 PM. A red star is positioned at the top of this vertical timeline.



Self-Service portal

Self-Service usage

The xchange user can navigate within a timeline (and restore to a point in time)

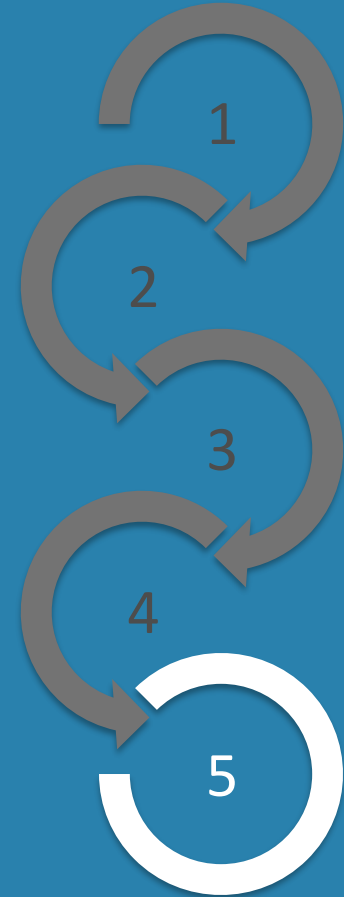


The screenshot displays the 'SELF-SERVICE' interface for a user named 'xchange'. The main area shows 'DATA OPERATIONS' for 'TestDataTemplate' in the 'master' container. A toolbar includes buttons for ACTIVATE, BOOKMARK, BRANCH, SHARE, REFRESH, RESTORE, RESET, and STOP. A 'TIMELINE' sidebar is open, showing a vertical axis with time points from 0:00 AM to 4:00 AM on Mar 20, 2024. A red diamond marker is positioned at 2:04:06 AM. A 'Restore From Data Template' dialog box is overlaid, showing 'Restore From' as 'TestDataTemplate' and 'Restore To Container' as 'DataContainer'. The dialog has 'CANCEL' and 'RESTORE' buttons. A tooltip for the selected time point shows 'Wed, Mar 20, 2024 2:04:06 AM' and a 'Show Data Details >>' link.



Conclusion

> Is Delphix Continuous Data for you?



Conclusion

Is Delphix Continuous Data for you?



Pros

- > Smart solution
- > Can run on multiple platforms
- > Do not need shared storage
- > Do not need specific hardware
- > Save on storage costs
- > Make sense with Delphix Continuous Compliance
- > GUI and API driven solution
- > No additional Oracle licenses needed
- > Updates are rather easy



Cons

- > Annual Subscription for 3TB minimum
- > To be compared with additional cores/options
- > Not really needed for small databases (<<1TB)
- > Self-Service portal not so user-friendly



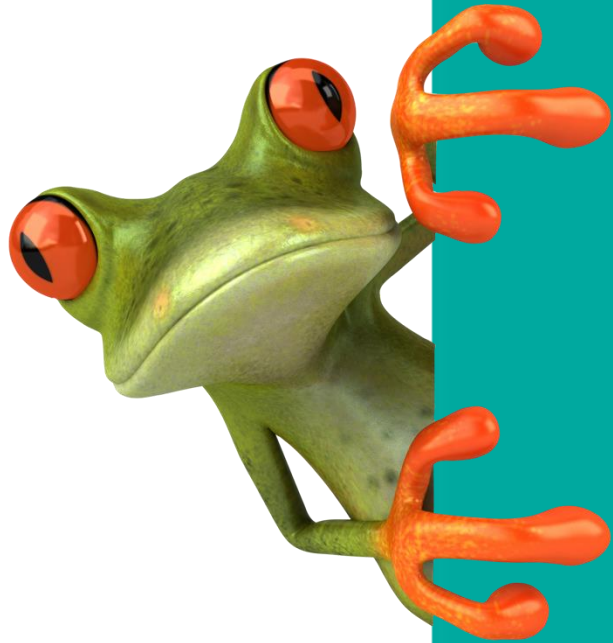
QUESTIONS?

Please do ask

✕
GETTING
GREAT
PEOPLE
TOGETHER



26
NOVEMBER
2024
BERN



Data Community / Switzerland
Conference / 2024

26.11.2024, Bern

data-community.ch