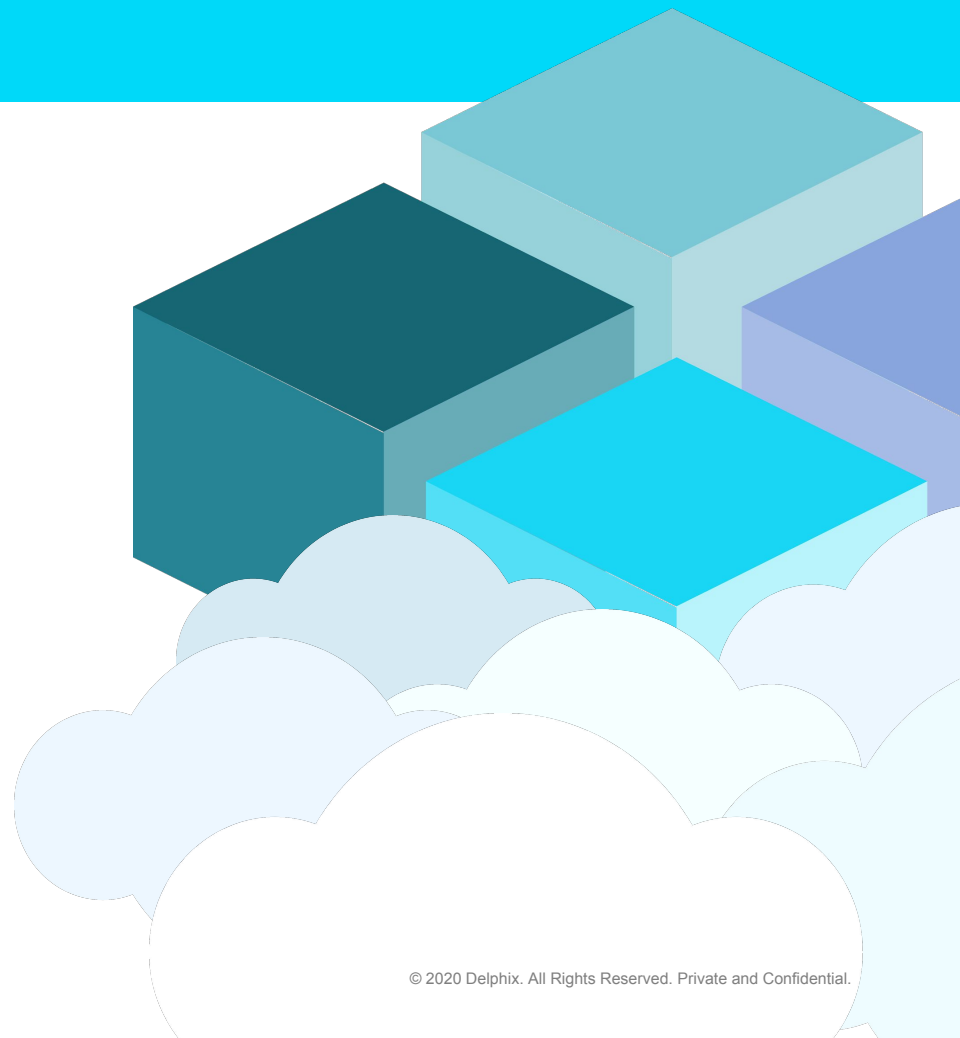


Delphix 6.0.4 and More

September 2020

Product Marketing



Delphix DataOps Platform 6.0.4: What's New

- High Level Updates
 - HashiCorp and Expanded CyberArk Support
 - Masking Job Memory Improvements
 - File Masking Performance
- Central Management Users and Groups
- Technical Updates
 - Algorithm SDK Update
 - New Secure Lookup Algorithm
 - Extensible Connectors Permissions Change
 - Central Management Connectivity Update
 - Certifications: Virtualization, Masking
 - Deprecations

HashiCorp and Expanded CyberArk Support

- In 6.0.3, we enabled the first phase of password vaults. In 6.0.4, we added CyberArk with Oracle and HashiCorp support.
- UI support for HashiCorp Vault during setup to authenticate host users and database users.
- Extended both CyberArk and HashiCorp Vault support to Oracle Database Users in addition to previously supported ASE and MSSQL domain users.
- This minimizes the number of places where credentials need to be stored and therefore the risk of insecure storage.
- Login as sysadmin user and add CyberArk/HashiCorp CA certificate to the truststore as initial configuration.
- Login to Delphix as system administrator and modify “Network Authorization” section to setup vaults.

Network Security [Settings](#)

KeyStore

TrustStore

Open CSRs

...

D. Name	Issued ...	Expires
CN=Engine ...	CN=Engine ...	Apr 20, 202...
CN=cyberar...	CN=cybera...	Jan 10, 202...

CN=cyberark.local, OU=BizDev,
O=Cyberark, L=Newton,
ST=MA, C=US [More info](#)

Issued To

CN=cyberark.local,
OU=BizDev, O=Cyberark,
L=Newton, ST=MA, C=US

Issued By

CN=cyberark.local,
OU=BizDev, O=Cyberark,
L=Newton, ST=MA, C=US

Serial Number

6076310049607000360

Valid From

Jan 10, 2019 8:16:00 PM
UTC

Expires

Jan 10, 2029 8:16:00 PM
UTC

[Certificate Information](#)

Dashboard

Software Version [View](#)

Engine
Current Version
Dynamic Data Platform 6.0.3.0
Build Date
Jun 20, 2020 4:46:06 AM
Latest Version
6.0.3.0
Central Management Connector
[Enable](#)

Managed Source Data

0.00 B
Jun 26, 2020

Time [Modify](#)

Time Zone
US/Pacific UTC -07:00
Current Time
Jun 26, 2020 6:40:35 AM

Storage [Modify](#)

Data

Unassigned

Unused

24.00GB
-
-

Authentication [Modify](#)

Authentication Service
Local Authentication

Network Authorization [Modify](#)

Kerberos Configuration
Disabled
Host Connection Authentication
Enabled

Serviceability [Modify](#)

Users [...](#)

Username

Email

sysadmin

sysadmin@sysadmin...

Password Vault UI

- All the added configurations can be viewed in the 'Network Authorization' tab.

Network Authorization

Kerberos Configuration

☐ Use Kerberos authentication to communicate with remote hosts

Host Connection Authentication

When connecting to hosts, you can provide username-password pairs when setting up the connection, or you can utilize one or more Enterprise Password Vault systems by adding them to your engine setup.

Click the + to add a vault

Vault name	Hostname	Port	Vault Type	Auth Method
TestVault	10.119.132.40	8200	HashiCorp	Token
TestVault1	10.119.132.40	8200	HashiCorp	AppRole
TestVault2	10.119.132.40	8200	HashiCorp	Certificate

Cancel

Save

Masking Job Memory Improvements

- Memory management has been dramatically improved. Not only can jobs run with less memory, but the masking engine will also now ensure that jobs can only run if enough memory is available and that the engine cannot run out of memory.
- Added job queuing so Delphix automatically schedules masking jobs. See job queuing diagram and description on the next slide.
- The performance of file masking has been significantly improved.

1. Upon creating job with memory requirements > available.

Error
This job does not have enough resources to be run. It is allocated 6046MB, while the maximum memory for all simultaneously running jobs is 6045.0MB. Decrease job XMX or increase MaximumMemoryForJobs through application settings.

Masking Method

In-Place

Target: Env

☐ Multi Tenant

Rule Set

oracle_ruleset

Streams: Number

1

Min Memory

In MB

Update Threads

1

☐ Disable Trigger

☒ Batch Update

☐ Drop Indexes

☐ Disable Constraint

Prescript

Select...

Postscript

Select...

Comments

Email

noreply@delphix.com

If Nonconforming Data is encountered

☐ Stop job on first occurrence

Cancel

Save

2. Upon submitting job with memory requirements > available.

Job ID *	Name	Rule Set	Completed
8	TOO_MUCH_MEMORY_J...		
7	job6		

Error
This job does not have enough resources to be run. It is allocated 6045MB, while the maximum memory for all simultaneously running jobs is 6045.0MB. Decrease job XMX or increase MaximumMemoryForJobs through application settings.

3. Monitoring when the next job will be run by the engine.

Home > Monitor

Monitor

1/7
Jobs Running

6045/6045
Memory Usage (MB)

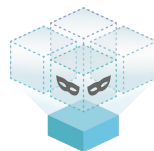
Search

Search

Environment	Job Name	Submit Time	Start Time	Type	Progress	Status	Queue Position *
Env	job5	2020-08-26 14:08			0%	Queued	1
Env	job4	2020-08-26 14:08			0%	Queued	2
Env	job3	2020-08-26 14:08			0%	Queued	3
Env	job2	2020-08-26 14:08			0%	Queued	4
Env	job1	2020-08-26 14:08			0%	Queued	5
Env	job0	2020-08-26 14:08			0%	Queued	6
Env	job6	2020-08-26 14:08	2020-08-26 14:08		0%	Running	

Job Queuing

D E L P H I X



40GB Capacity

Before Job Queuing

Scheduled
Job

1



30GB Memory



Scheduled
Job

2



30GB Memory



User manually schedules next job



With Job Queuing



Delphix automatically triggers next job



Central Management Users and Groups

- In Central Management, we added a new model of managing access to data. Rather than assigning each individual user ownership on a per-engine, per-data set basis, you will create “data access groups,” defining access for groups of datasets that can span multiple engines and the set of users that can then access these groups.
- Access to these groups may be set on a per-user basis
- Simplifies how you can manage your data at scale
- Available for engines on 5.3.5 or greater

The screenshot displays the 'Access Groups' management interface in Delphix. At the top, the user 'ryan.hoguet@delphix.com' is logged in. The main section shows a 'Dev Group' created 'For the new dev team'. Below this, there are tabs for 'Users' and 'Data'. The 'Data' tab is selected, showing a table of datasets. The table has columns for 'Name', 'Engine', 'Datasets', and 'Permissions'. It lists two groups of datasets: one for 'Ross Test' and one for 'ryan_demo2'.

	Name ↑	Engine	Datasets	Permissions
<input type="checkbox"/>	DB Sources Adding	Ross Test	3	Data Operator
<input type="checkbox"/>	orcl	Ross Test		Inherited(Data Operator)
<input type="checkbox"/>	orcl12 Adding	Ross Test		Inherited(Data Operator), Owner
<input type="checkbox"/>	SOE	Ross Test		Inherited(Data Operator)
<input type="checkbox"/>	DB Sources	ryan_demo2	2	
<input type="checkbox"/>	orcl	ryan_demo2		Provisioner
<input type="checkbox"/>	orcl12	ryan_demo2		Reader

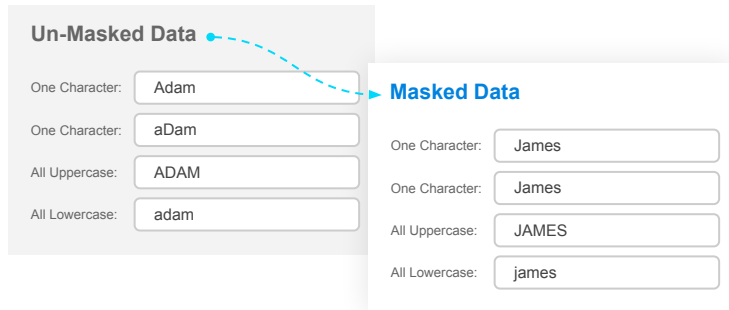
Algorithm SDK Update

- In 6.0.4, we provided the ability to leverage a JDBC connection to create custom algorithms.
- Useful for you if you want an algorithm that can access data from an external store.

New Secure Lookup Algorithm

- In 6.0.3, we introduced the masking algorithm SDK. In addition to enabling our partners and you to write new algorithms, we also intend to use this to introduce new variants of our built-in algorithms.
- The first of these is a new Secure Lookup algorithm. The new Secure Lookup algorithm framework provides improved masking performance, stronger encryption, the ability to call this native algorithm from inside an extended algorithm, and options for case sensitivity.
- New secure lookup algorithm supports case insensitive lookup so data values map consistently and case preservation so upper-case strings map to upper-case and lower-case strings map to lower-case.

Secure Lookup



Support for case insensitive lookup and preservation of cases

Extensible Connectors Permissions Change

- Our previous masking extensible connectors, supporting the ability to upload and use JDBC drivers, required that the permissions for each driver be enumerated at install time. We replaced this mechanism with a fixed security policy blocking only the most dangerous permissions (specifically those that could inflict harm to the masking engine), removing the need for user management of permissions.
- The engine administrator must still ensure that only trusted JDBC driver software is installed.

Central Management Connectivity Update

To simplify the customer onboarding process, we made a few changes to how the engines connect to Central Management.

- First, an engine will respect any configured proxy settings.
- Second, the engine will automatically route all traffic through api.delphix.com if direct access to our certificate management service (GoDaddy) is unavailable.

Certifications

The following certifications were completed through September.

- Virtualization
 - ASE for RHEL 8.1 & 8.2 (certified on 6.0.3.0+)
 - Oracle 19 for RHEL 8.0 (certified on 5.3.9.0 and 6.0.3.0+)
 - NFSv4 support for Db2 on AIX and SuSE
 - SQL Server Instances with a Managed Service Account
 - vFile support for RHEL 8.2
- Masking
 - SQL Server 2017 and 2019

Deprecations

The following features are deprecated as of 6.0.4 and will be removed in a future release:

- Virtualization:
 - HANA 1.0 Plugin - Delphix is adjusting its HANA 1.0 support to be in line with SAP's EoM schedule (May 2021).
 - EBS 12.1 Plugin - Delphix is adjusting its EBS 12.1 support to be in line with Oracle's EoPS schedule (December 2021)
- Masking:
 - Job Scheduler - The introduction of Masking's REST API several releases ago allowed you to schedule job executions using their preferred job scheduler. As a result, the integrated scheduler is seldom used. We plan to EOL this feature in the near future.
 - FTP, SFTP, and mount upload for XML and Cobol formats - FTP/SFTP/Mount-based format import were the original modes for XML and Cobol files. Since then, Delphix has added the ability to upload a format file, which is far simpler to set up. We've seen a dramatic shift away from the legacy import modes in favor of the simplicity of "upload".
 - Row Type Feature - Originally geared for limiting masking to subsets of rows within a column, this feature was seldomly used. Its functionality, if desired, can still be replicated via the Custom SQL feature.
 - Redundant Settings for 'Edit Table' under Rule Sets - Table Suffix, Add Column, Join Table, and List - These settings are redundant and can be replicated with the Custom SQL setting.
 - 'HAVING' clause from Masking API - Deprecating due to low use. If desired, this feature can be replicated with Custom SQL.