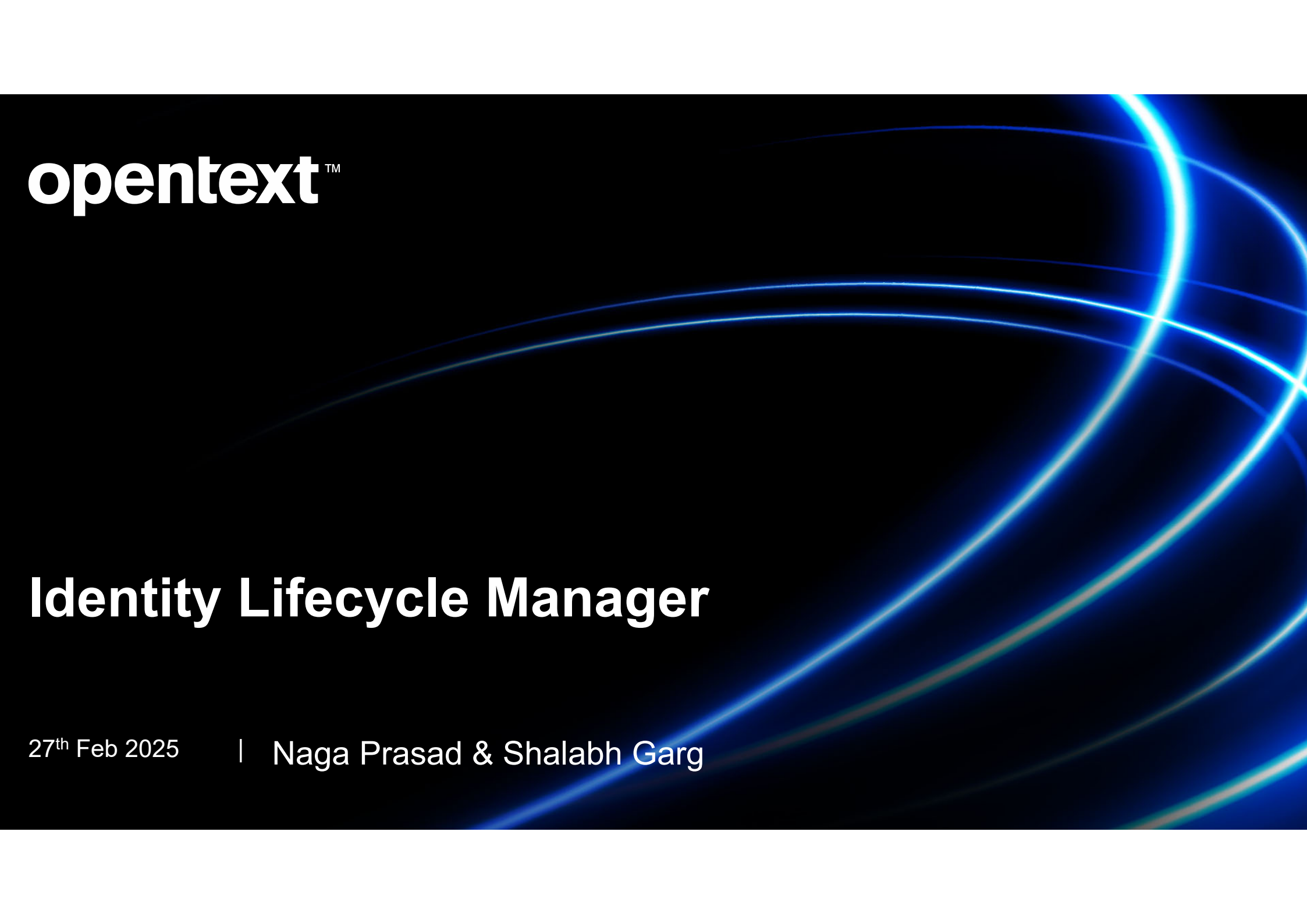


The background of the slide features several glowing blue light trails that curve across the frame, creating a sense of motion and technology.

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Identity Lifecycle Manager

27th Feb 2025 | Naga Prasad & Shalabh Garg

Agenda

- Identity Lifecycle Management (ILM)
 - Architecture
 - Features
 - Authorization
 - Dynamic Fulfillment Policy
 - Entitlement Support
 - Logging
 - Integration with IAM Services
 - AA Integration for Authentication
 - Identity Manager
 - Identity Governance
 - Driver Package Management
 - What's Next?
 - Q&A

The background of the slide is a deep blue with a network of glowing blue lines and dots, creating a sense of connectivity and data flow.

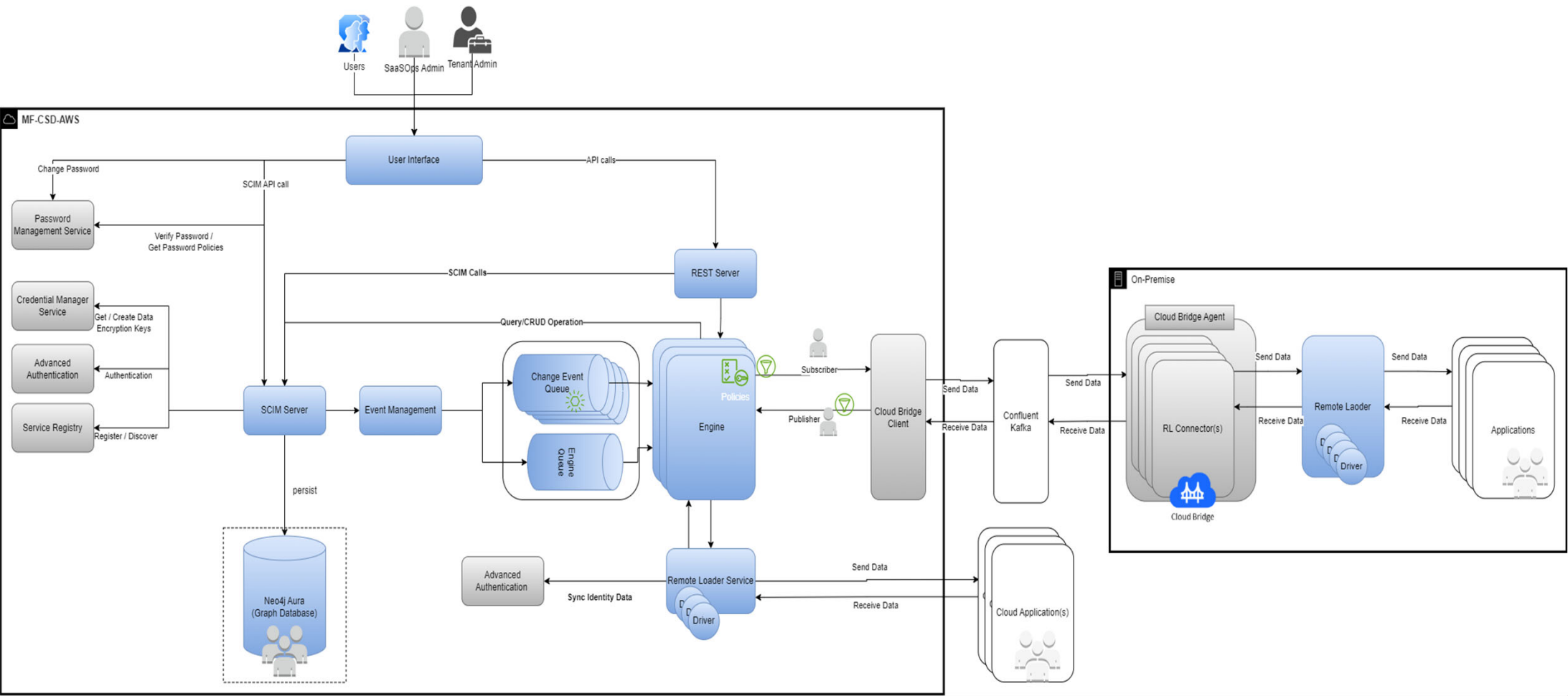
What is ILM?

Identity Lifecycle Management (ILM)

- Identity Manager as a service
- Multi-tenant service
- Connected applications off-cloud and on-cloud

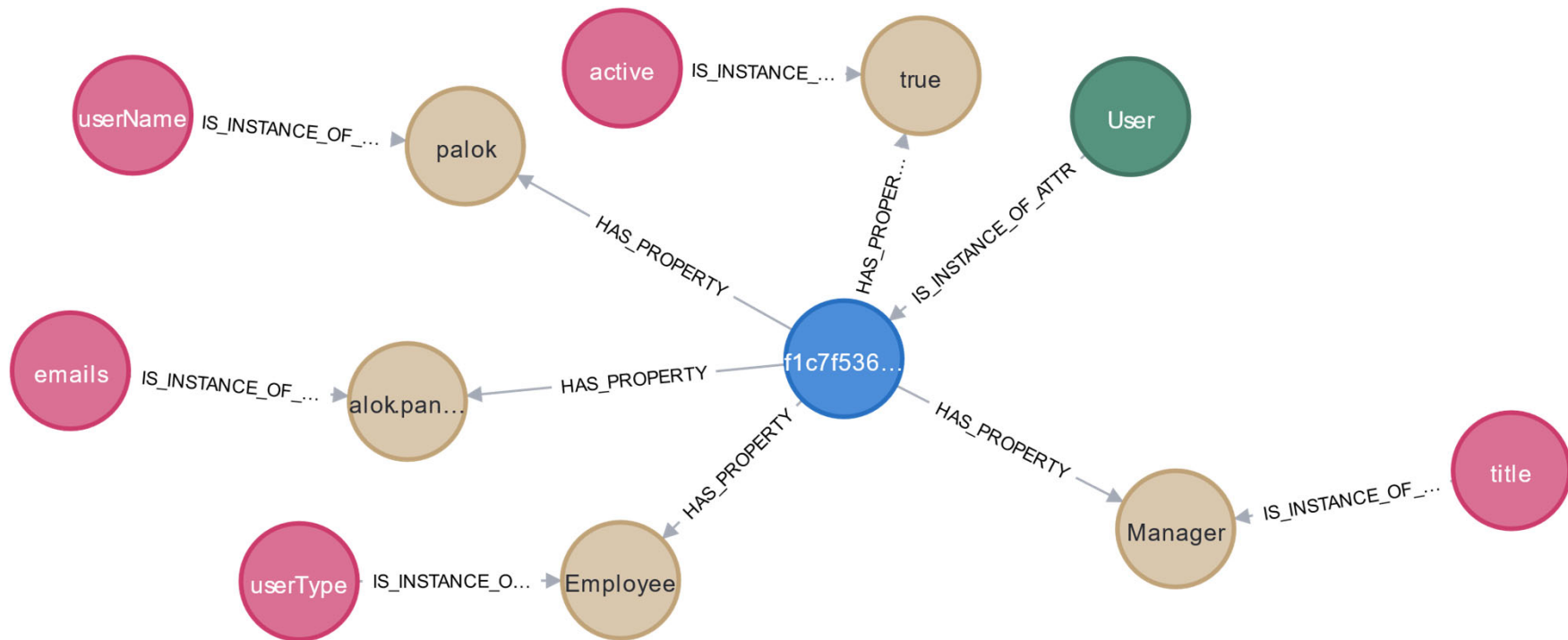


Architecture



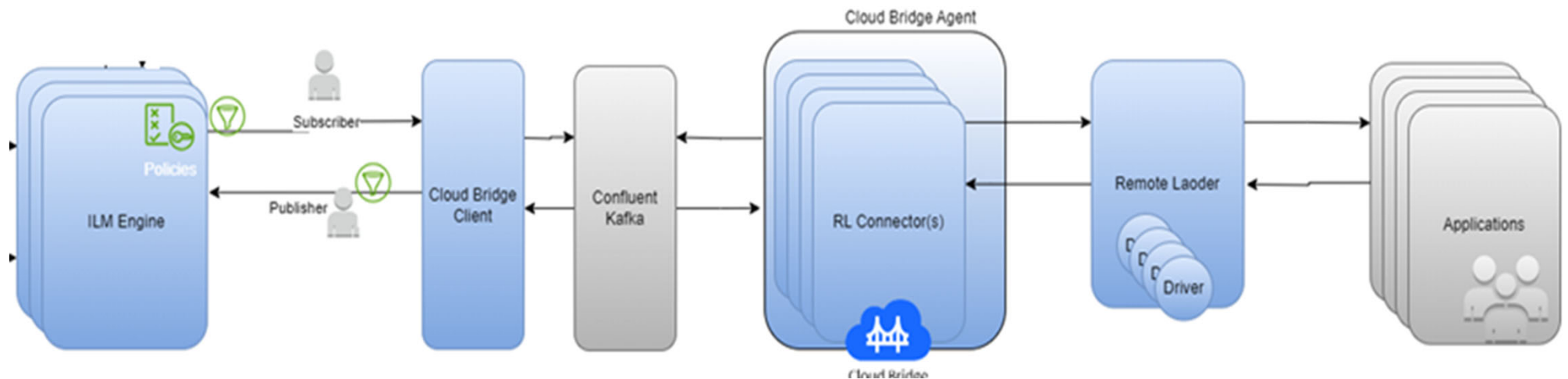
Graph Database - User Object

- Create a node for and **User** Object with Label **Object** for **ObjectType User** which **HAS_PROPERTY** from all three classes **User**, **EnterpriseUser**, **UserExt**

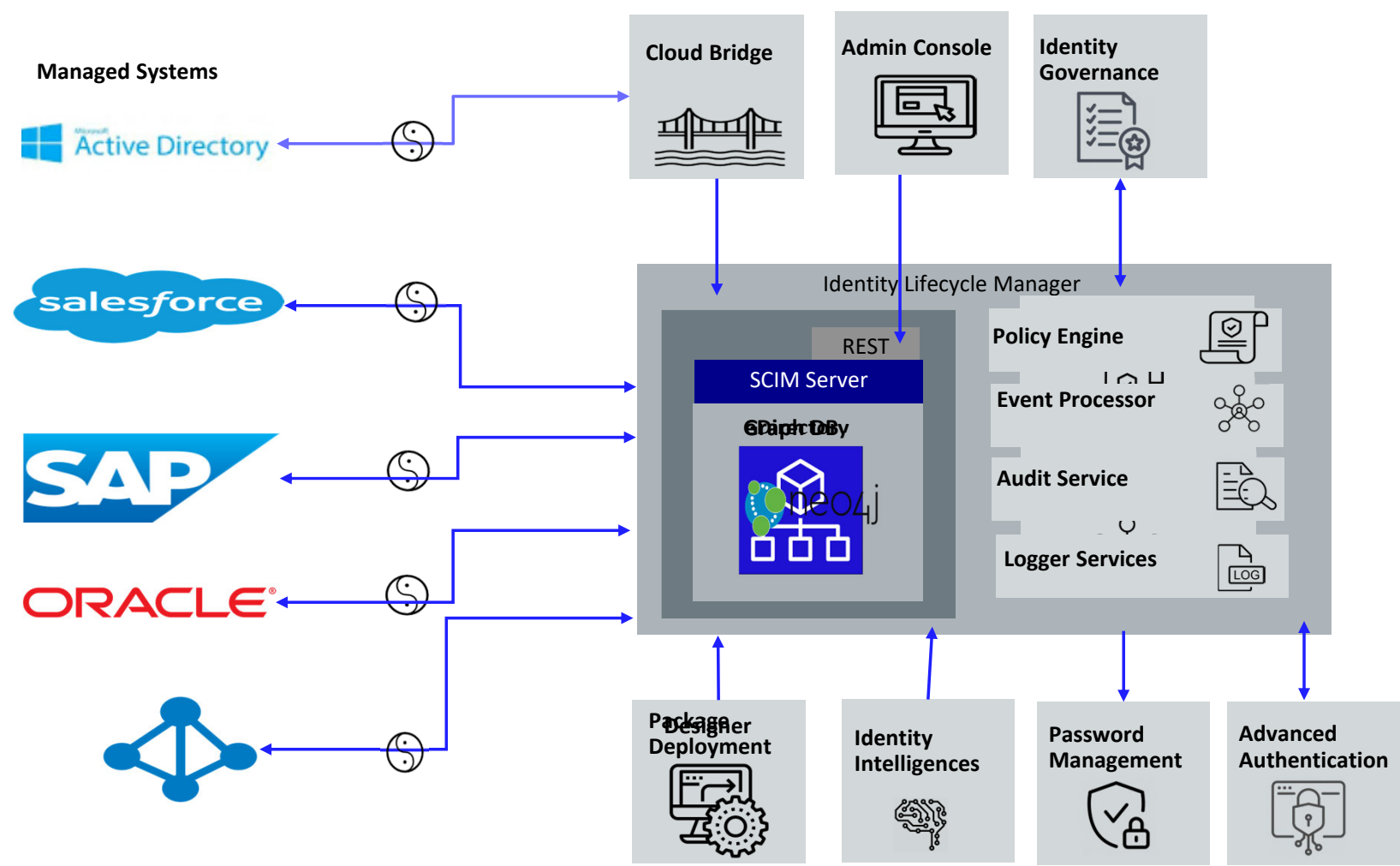


Cloud Bridge Architecture

- Secure communication to off-cloud environment
- No firewall or networking changes needed
- Reliable and scalable
- Bi-directional data flow



Architecture



Features



User Interface

- Modern User Interface
 - Driver Management
 - Policy Builder [25.3]
 - Identity Management
 - Schema Management
 - 360° Identity View



Real-Time Sync

- Near Real-time Data synchronization between connected applications
 - Attribute Authority
 - Merge Authority
- **Entitlements [25.2]**



Multitenancy

- Multi-Tenant Identity Lifecycle Management
 - Engine
 - SCIM Server
 - Graph Database etc...

Authorization

ot Identity Lifecycle Manager

https://ilm3ppt2.iga.cyberresdev.com/ilm/#/roles

opentext | Core Identity Lifecycle Manager CE 24.4

ILM3PPT2

Roles

Search by name

Id	Default	Description	Name
430002	☐	A domain administrator who...	Tenant Administrator
440002	☐	A domain administrator who...	User Administrator
450002	☐	A domain administrator who...	Group Administrator
460002	☐	A domain administrator who...	Role Administrator
470002	☐	A domain administrator who...	Schema Administrator
480002	☐	A domain administrator who...	Driver Administrator
490002	☒	A default role which gets...	Default Role
500002	☐	A domain administrator who...	EncryptionPolicy Administrator
510002	☐	A Workflow administrator who...	Workflow Administrator
520002	☐	A package administrator who...	Package Administrator

Tenant Administrator

Created: Dec 9, 2024, 1:55:34 PM
Modified: Dec 9, 2024, 1:55:34 PM
Location: /v2/ilm/ds/Roles/430002

GeneralPermissionsAssignments

Capabilities

Resource	Capabilities
User	☒ Full access ☐ Create ☐ Delete ☐ Read All ☐ Write All
Group	☒ Full access ☐ Create ☐ Delete ☐ Read All ☐ Write All
Role	☒ Full access ☐ Create ☐ Delete ☐ Read All ☐ Write All
Schema	☒ Full access ☐ Create ☐ Delete ☐ Read All ☐ Write All
ResourceType	☒ Full access ☐ Create ☐ Delete ☐ Read All ☐ Write All
DriverSet	☒ Full access ☐ Create ☐ Delete ☐ Read All ☐ Write All
DataCenter	☒ Full access ☐ Create ☐ Delete ☐ Read All ☐ Write All
Driver	☒ Full access ☐ Create ☐ Delete ☐ Read All ☐ Write All

Type here to search

opentext

Desktop 11:26 AM 12/12/2024

Authorization

ot Identity Lifecycle Manager

https://ilm3ppt2.iga.cyberresdev.com/ilm/#/roles

opentext | Core Identity Lifecycle Manager CE 24.4

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510002	☐	A Workflow administrator who...	Workflow Administrator
520002	☐	A package administrator who...	Package Administrator

Driver Administrator

Created: Dec 9, 2024, 1:55:36 PM
Modified: Dec 9, 2024, 1:55:36 PM
Location: /v2/ilm/ds/Roles/480002

General

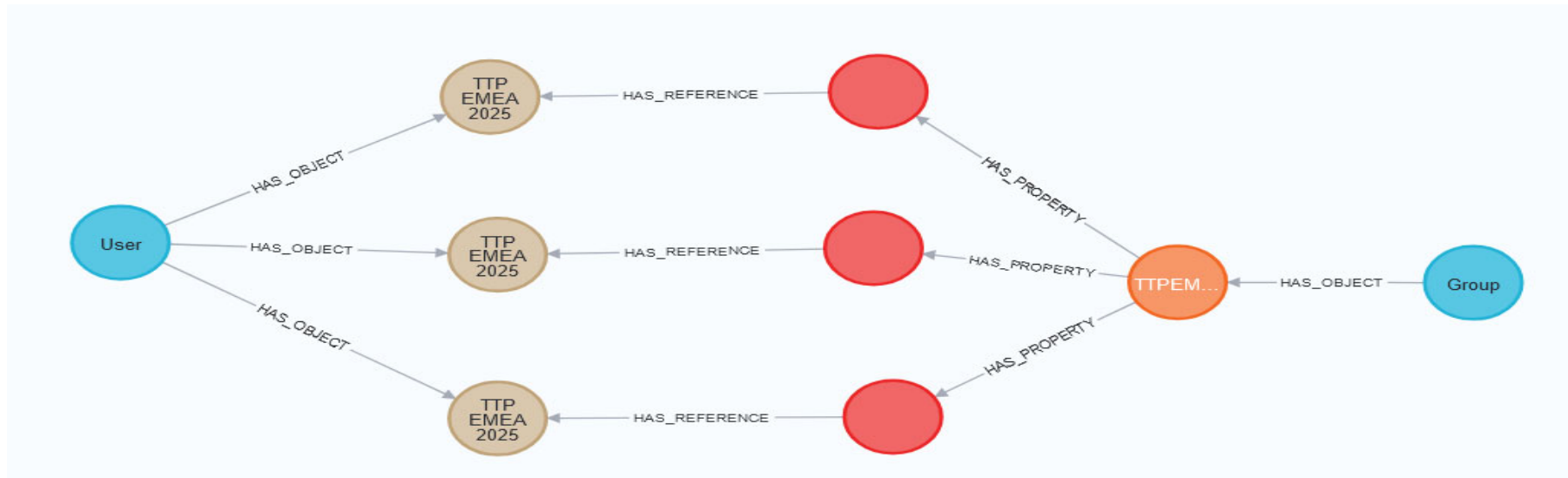
Permissions

Assignments

Full access	☐	Create	☐	Delete	☐	Read All	☐
Write All	☐						
id	☒	Read	☐	Write			
guid	☒	Read	☐	Write			
userName	☒	Read	☐	Write			
name	☒	Read	☐	Write			
displayName	☒	Read	☐	Write			
Full access	☐	Create	☐	Delete	☐	Read All	☐
Write All	☐						
Library	☒	Full access	☐	Create	☐	Delete	☐
GlobalConfigDef	☒	Full access	☐	Create	☐	Delete	☐
EmailTemplate	☒	Full access	☐	Create	☐	Delete	☐
Resource	☒	Full access	☐	Create	☐	Delete	☐
Entitlement	☒	Full access	☐	Create	☐	Delete	☐

Dynamic Fulfillment Policy

- It is a fulfillment policy based on the criteria defined in the fulfillment object
- Dynamic object membership changes will generate an event
- Membership changes will happen near real-time
- Entitlement assignments based on the membership changes



Dynamic Fulfillment Policy

```
<nds dtdversion="4.0" ndsversion="8.x">

  <source>

    <product edition="Advanced" version="4.8.4.0">DirXML</product>

    <contact>NetIQ Corporation</contact>

  </source>

  <input>

    <modify cached-time="20241202055108.894Z" class-name="GROUP" src-dn="" src-entry-id="870001" event-id="9919e5af-4843-491e-8343-9a993e497199"
tenant_id="2e71bdc3-1a09-48cc-ba66-a53a5720374b" tenant_name="THOR" correlation_id="82E121CF-DCA4-488B-9304-2934291A74D7">

      <association />

      <modify-attr attr-name="urn:ietf:params:scim:schemas:core:2.0:Group:members.$ref">

        <add-value> <value timestamp="1733118668.8952086" type="dn" resource_type="User">data\users\pnaga </value> </add-value>

      </modify-attr>

    </modify>

  </input>

</nds>
```

Dynamic Fulfillment Policy - Entitlements

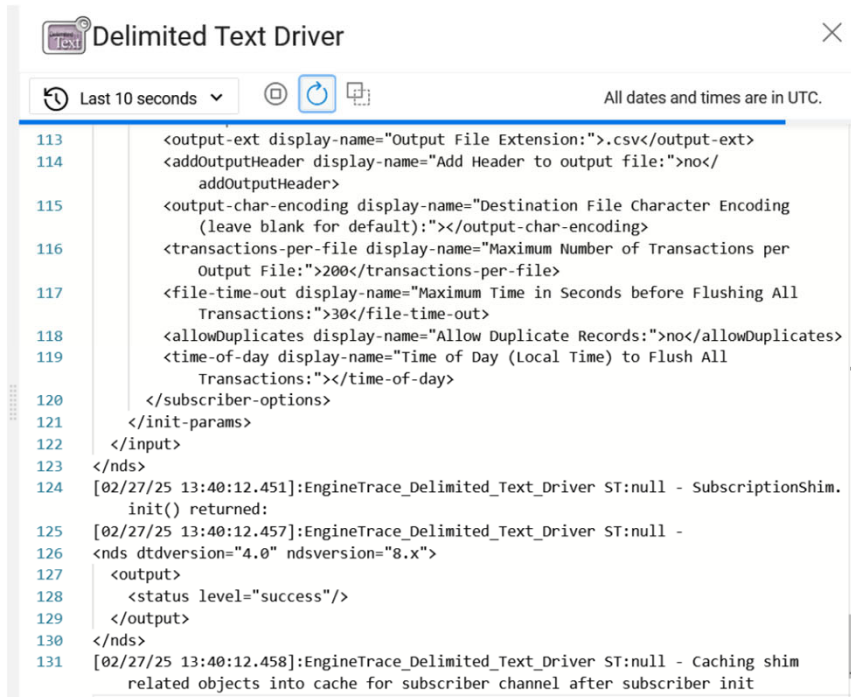
[illegible]

Dynamic Fulfillment Policy - Entitlements

```
<nds dtdversion="4.0" ndsversion="8.x">
  <source>
    <product edition="Advanced" version="4.8.4.0">DirXML</product>
    <contact>NetIQ Corporation</contact>
  </source>
  <input>
    <modify cached-time="20250219111440.869Z" class-name="USER" correlation_id="D3598629-3703-40AF-AA92-F6C30CCD4E1C" event-id="89ed5b50-e65e-4e26-87f9-ef39751afc85" src-dn="" src-entry-id="4140001" tenant_id="896abb9f-230b-4233-a0d8-c515614f2f47" tenant_name="THOR">    <association/>
    <modify-attr attr-name="urn:ietf:params:scim:schemas:ilm:static:1.0:User:dirXMLEntitlementRef">
      <add-value>
        <value timestamp="1739963680.8695624" type="structured">
          <component name="groupDN">data\groups\DFP</component>
          <component name="namespace">1</component>
          <component name="dn">cn=UserAccount,cn=Active Directory Driver_entitlements,cn=ILMConfiguration,o=system</component>
          <component name="value">['CB.lab']</component>
          <component name="$ref">/v2/ilm/ds/Entitlements/1440001</component>
        </value>
      </add-value>
    </modify-attr>
  </input> </nds>
```

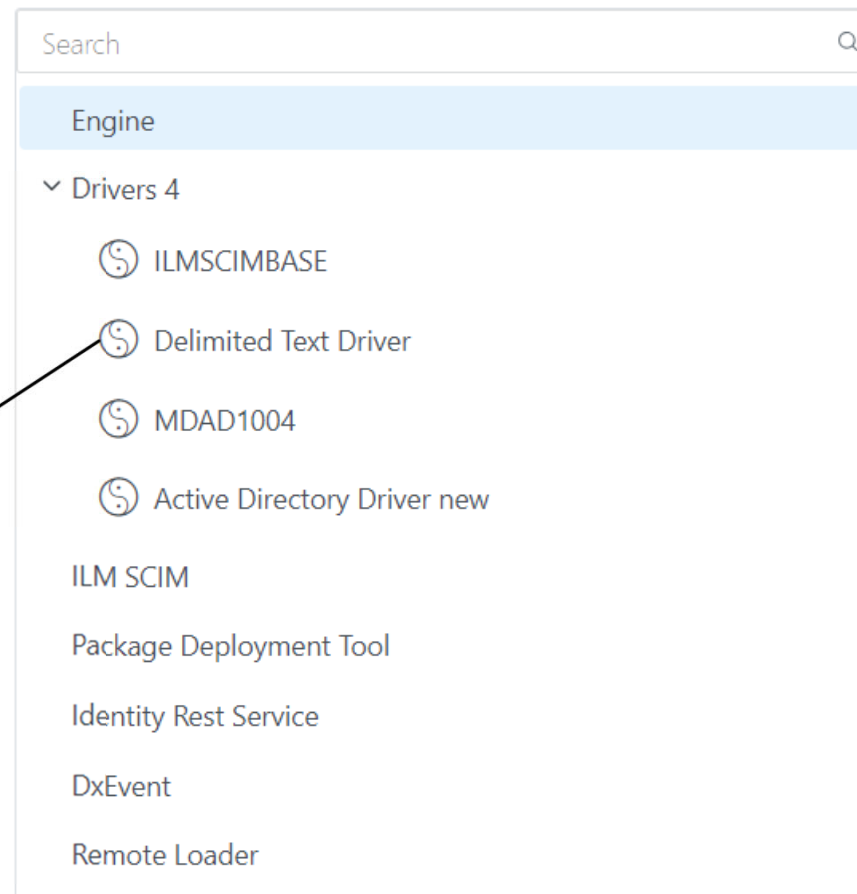
Logging

- Live Traces
- Download Log files



The screenshot shows the 'Delimited Text Driver' configuration window. The top bar includes a 'Last 10 seconds' filter and a 'Refresh' button. The main area displays XML configuration for the driver, including output file extension, character encoding, transactions per file, and time-out settings. Below the XML, there are log entries showing the driver's initialization and successful execution.

```
113 <output-ext display-name="Output File Extension:">.csv</output-ext>
114 <addOutputHeader display-name="Add Header to output file:">no</
115 <output-char-encoding display-name="Destination File Character Encoding
116 <transactions-per-file display-name="Maximum Number of Transactions per
117 <file-time-out display-name="Maximum Time in Seconds before Flushing All
118 <allowDuplicates display-name="Allow Duplicate Records:">no</allowDuplicates>
119 <time-of-day display-name="Time of Day (Local Time) to Flush All
120 </subscriber-options>
121 </init-params>
122 </input>
123 </nds>
124 [02/27/25 13:40:12.451]:EngineTrace_Delimited_Text_Driver ST:null - SubscriptionShim.
125 init() returned:
126 [02/27/25 13:40:12.457]:EngineTrace_Delimited_Text_Driver ST:null -
127 <nds dtdversion="4.0" ndsversion="8.x">
128 <output>
129 <status level="success"/>
130 </output>
131 </nds>
[02/27/25 13:40:12.458]:EngineTrace_Delimited_Text_Driver ST:null - Caching shim
related objects into cache for subscriber channel after subscriber init
```



The screenshot shows the 'Logs Explorer' interface. It has a search bar at the top. Below it, there's a list of drivers under the 'Engine' section. The 'Delimited Text Driver' is highlighted, and an arrow points from it to the XML configuration shown in the previous block.

Search

Engine

▼ Drivers 4

- ILMSCIMBASE
- Delimited Text Driver
- MDAD1004
- Active Directory Driver new

ILM SCIM

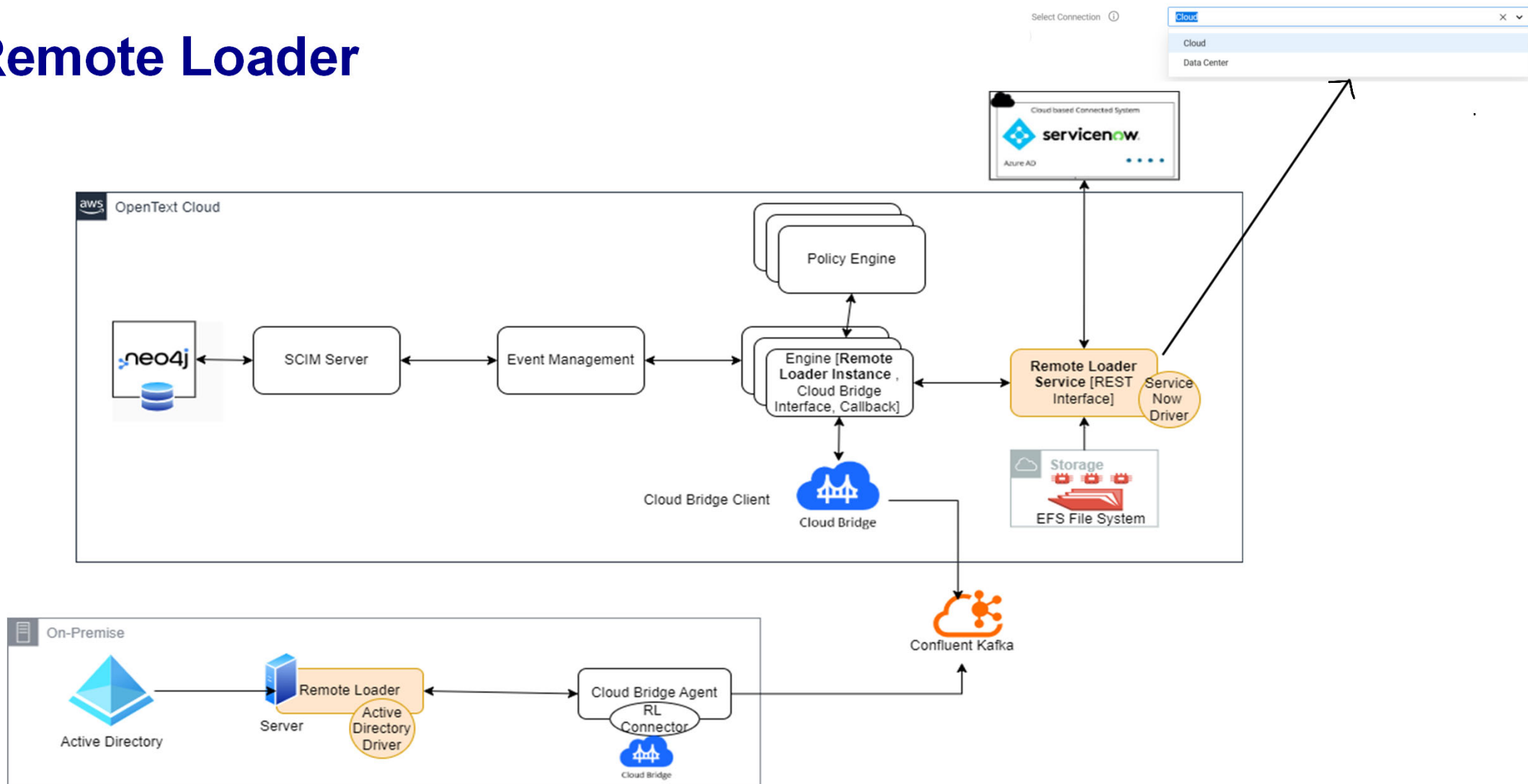
Package Deployment Tool

Identity Rest Service

DxEvent

Remote Loader

Remote Loader



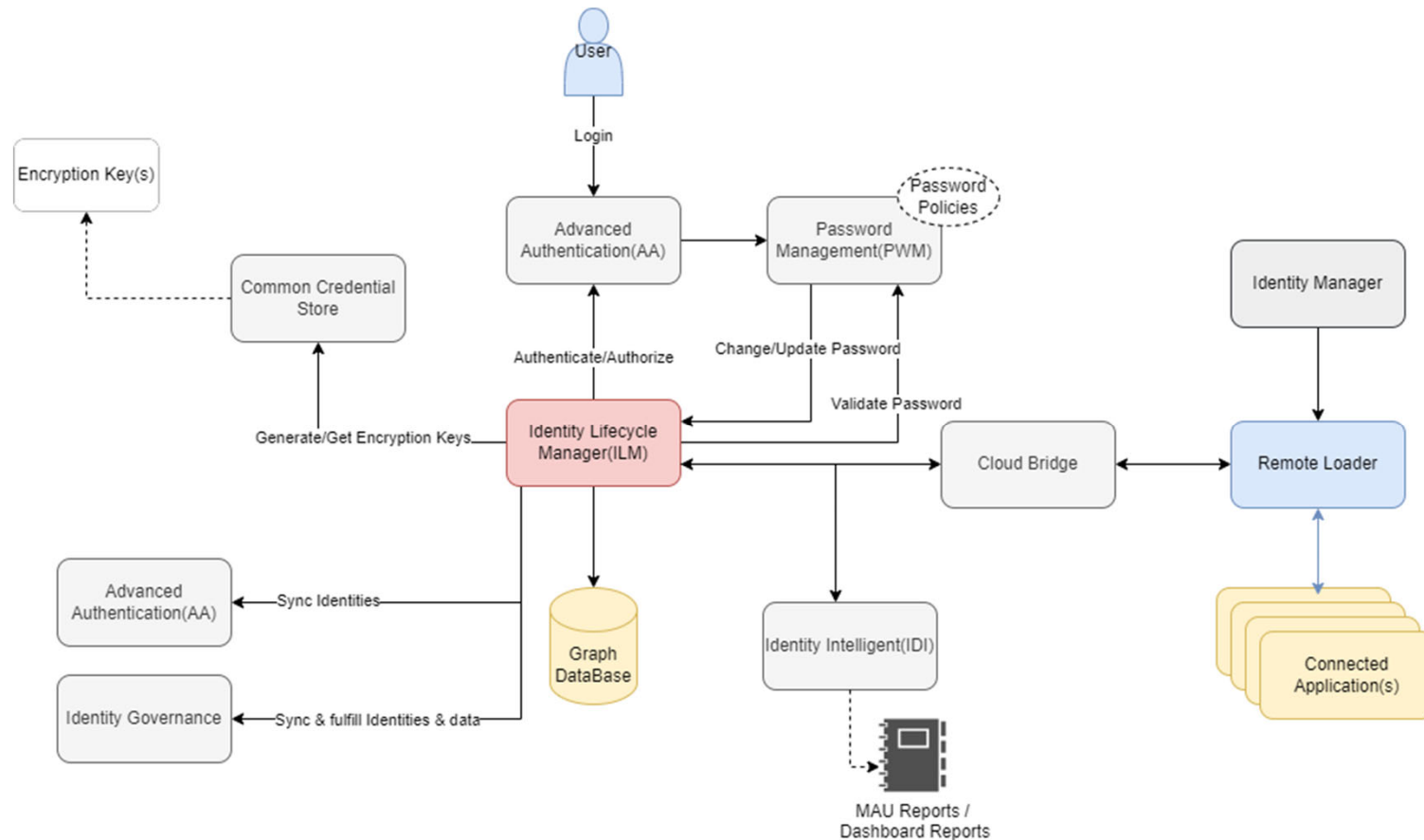
Identity Lifecycle Manager (ILM) – IAM Services Integrations

Identity Lifecycle Manager (ILM) - Integrations

- Advanced Authentication (AA)
- Cloud Bridge
- Governance (IG)
- Common Credential Store
- Password Management (PWM)
- Identity Intelligence (IDI)
- Common Authentication (AuthN)
- Identity Manager



Identity Lifecycle Manager (ILM) - Integrations

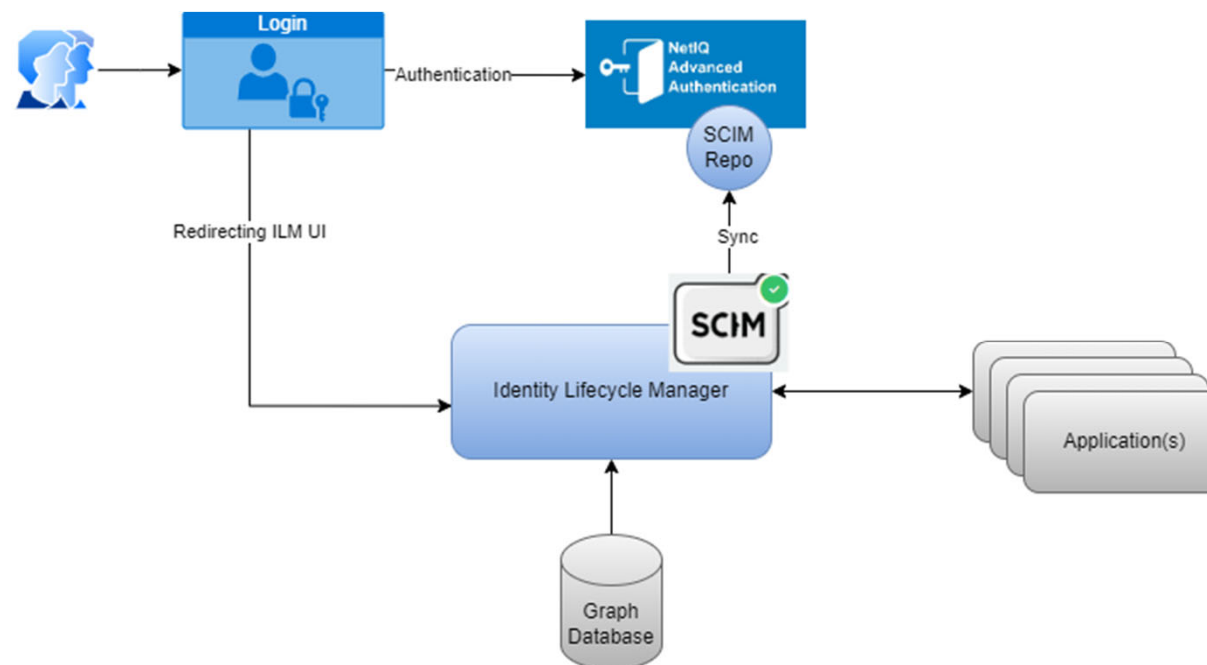


The background of the slide is a deep blue with a network of glowing blue lines and dots, suggesting a digital or technological theme.

Advanced Authentication Integration

Advanced Authentication Integration

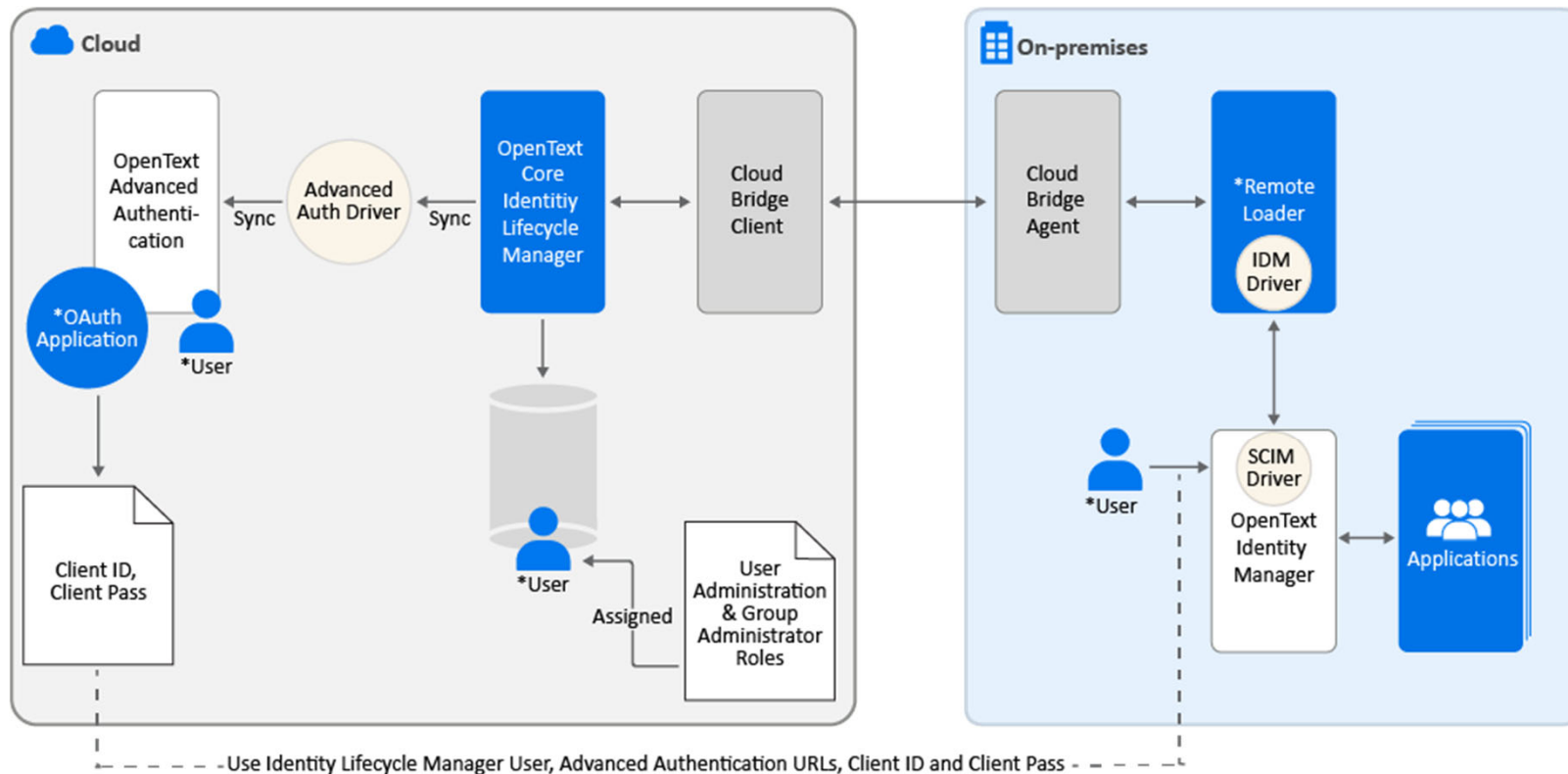
- OOTB integration with AA using the SCIM driver as a Service Driver
- Identities from ILM will get Synchronized to AA SCIM Repo
- Per Tenant we will have a separate SCIM repo in the AA Tenant



The background of the slide is a solid dark blue. Overlaid on this are several thin, white, curved lines that intersect at various points. At these intersection points and along the lines, there are small, glowing white dots of varying sizes, creating a network-like or orbital visual effect.

Identity Manager Integration

Identity Manager Integration



Identity Manager Integration Driver

Drivers

Search Drivers

×

×

> Cloud

> Database

> Directory

> Enterprise

> MainFrame

> Message Bus

> Op System

▼ Service

LoopBack - LoopBack Service

Manual Task - Manual Task Service

Null - Null

Scripting - Scripting Service

WorkOrder - WorkOrder Service

Identity Manager Driver - Integration module for Identity Manager

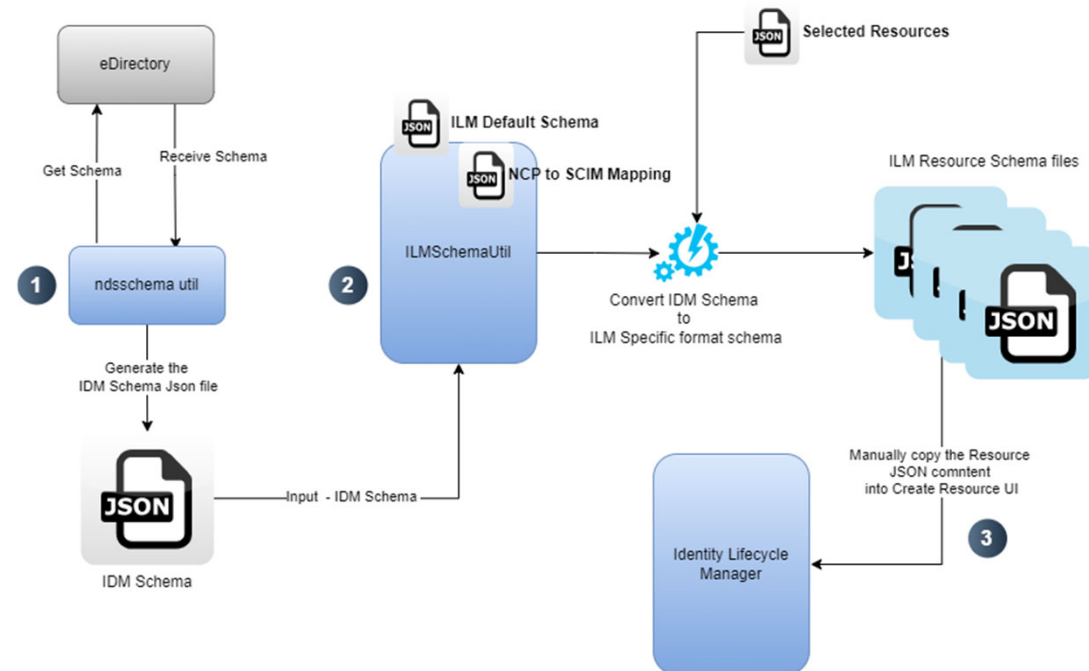
+

> Tool

Schema Migration Utility

- Automated utility
- Converts existing IDM schema into ILM schema

Note: Need to run in IDM environment



The background of the slide is a deep blue. It features several glowing blue lines that curve and intersect across the frame. Small, bright white dots are placed at various points along these lines, creating a sense of motion or data points. The overall aesthetic is modern and technological.

Drivers

Drivers

- All the Identity Manager Drivers are supported

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Drivers

Search by name + ⬇️ ⬆️ ↺

Drivers' Status

✓	0
✗	2
⌚	1
⚠️	0
?	0

Delimited Text Driver

Service Now

Active Directory Driver

Drivers

Search Drivers

Cloud

Azure - Azure

Service Now - Service Now

Database

Directory

Enterprise

MainFrame

Message Bus

Op System

Service

Tool

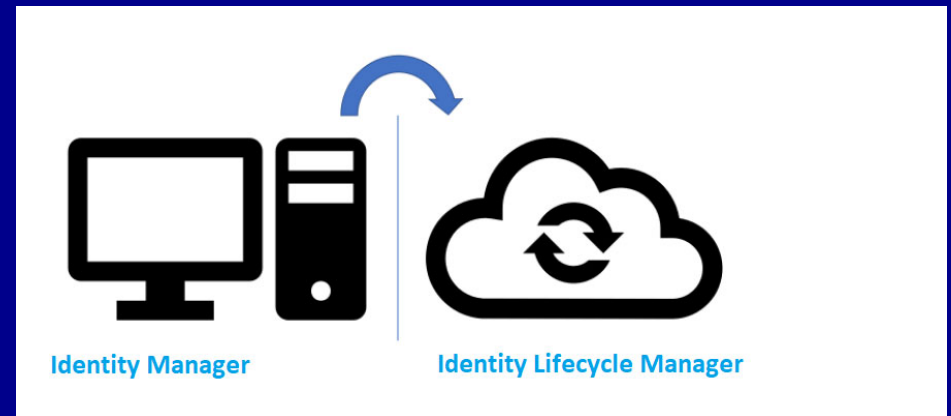
How to Migrate?



Migration

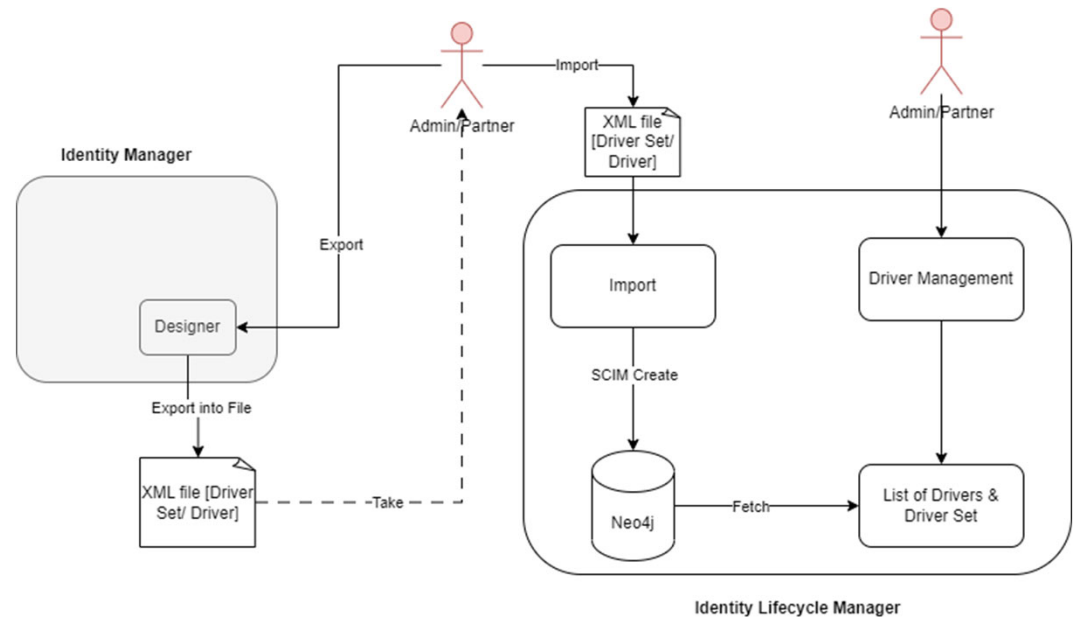
- Export Configuration
- Import configuration to ILM
- Onboard Identities through cloud bridge

Migration of existing IDM Customers to ILM.



IDM configuration migrating to ILM

- Customers with a seamless transition and migration to managed ILM service
- Create the custom schema in ILM [i.e., User/Group custom attributes or custom resource]
- Make sure all the existing NCP Schema or Schema attributes should be mapped with SCIM schema or Schema attributes.
- Export driver set as an XML.
- Import the driver set XML into ILM using the import option in the ILM user interface.
- Change the required driver configuration [Like Remote Loader configuration]
- Enable the driver(s) and start driver(s).
- Once all the drivers are up and running, we can verify the functionalities.



Driver Migration changes

- Active Directory
 - useCloudBridge
 - Remote Loader Configuration: Agent, Datacenter connection Id, Host & Port
- Oracle Internet Directory(LDAP)
 - useCloudBridge
 - Remote Loader Configuration: Agent, Datacenter connection Id, Host & Port
- Delimited Text Driver(DTD)
 - useCloudBridge
 - Remote Loader Configuration: Agent, Datacenter connection Id, Host & Port



Driver packages Migration?

Package Migration Tool

- Converts existing Identity Manager packages to Identity Lifecycle Manager (ILM) packages.



IDM Package Conversion Tool

The tool is to generate Driver packages for Identity Lifecycle Manager (ILM) from existing Identity Manager packages (IDM).

The tool handle following cases:

1. Rename Driver Packages specific to ILM.
2. Change Package Short name to ILM specific.
3. Update the version of packages to 1.0.0 since it is initial release.
4. Update package unique identifier.
5. Update package vendor name to "OpenText".
6. Removes prompt which are applicable to ILM.
 - a. CPRS and Entitlement.
 - b. Designer upgrade.
 - c. Driver upgrade.
 - d. Notification.
7. Update packages resources to align with package short name.
8. Reformat Remote Loader Prompts in accordance with ILM.
 - a. Remote Loader parameters
 - b. Cloud Bridge parameters.
9. Update attributes in packages to ILM Specific.
 - a. User
 - b. Group
 - c. Custom Resources
10. Update Plugin and manifest version.

11. Data Collection, Account Tracking, Entitlements, Managed System Gateway Information packages are not supported for 1.0.

How to generate Identity Lifecycle Manager packages?

1. Get the latest IDM Drivers package version. (For all driver packages that need to be updated).
2. Place all the packages in a folder.

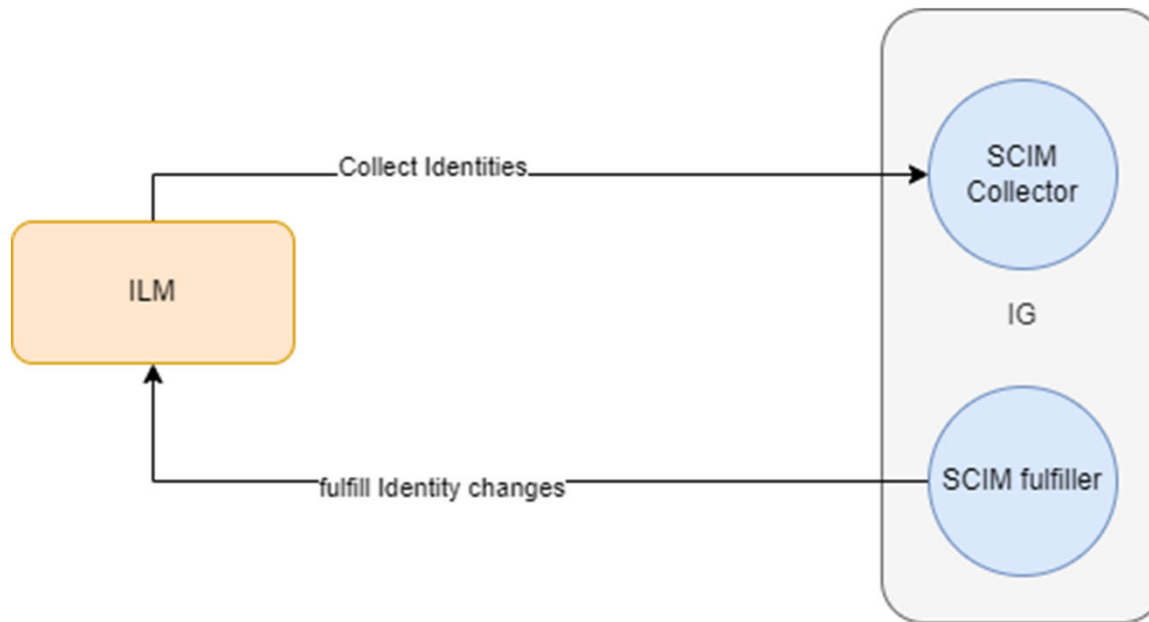
Example: C:\Users\Documents\Developer files\Package Changes for ILM\Package Changes for ILM\IDM Packages

3. Run **script.py** using any of the editor. (Visual studio, PyCharm, command prompt etc.,) Please refer to readme for more details.

The background of the slide is a deep blue with a network of glowing blue lines and dots, suggesting a digital or interconnected theme.

Identity Governance Integration

Identity Governance Integration - Current



Identity Governance Integration

connector?

Authentication Method

Generate Bearer Token

Base URL

https://ilmig.iga.or.cyberresdev.com/v2/ilm/ds

Access Token Endpoint

https://ilmig.or.cyberresdev.com/osp/a/ILMIG/auth/oauth2

Test Connection Web Service Path

/Users

Grant Type

Password Flow

Username

neeraj

Password

.....

Client ID

-9YZL4sOmDLM2iEkaSr8sHKQphFLZA_nmo8olRLOJnlE

Client Secret

.....

Content Type

application/scim+json

Server Certificate

MIIF9TCCBN2gAwIBAgIQD99TWdR1NFzZNU2L2jpBKDA

Batch Size Limit

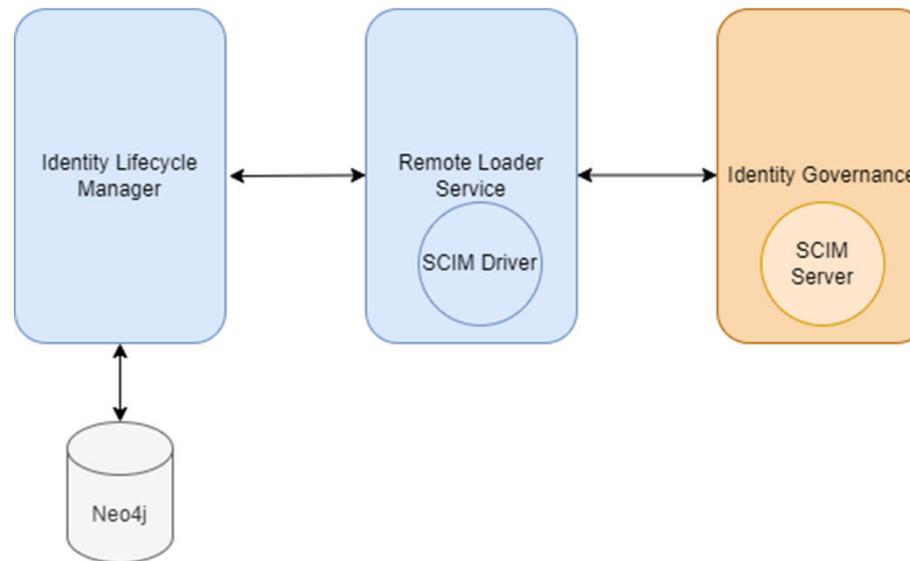
999

Batch Collection Session Timeout Value

60

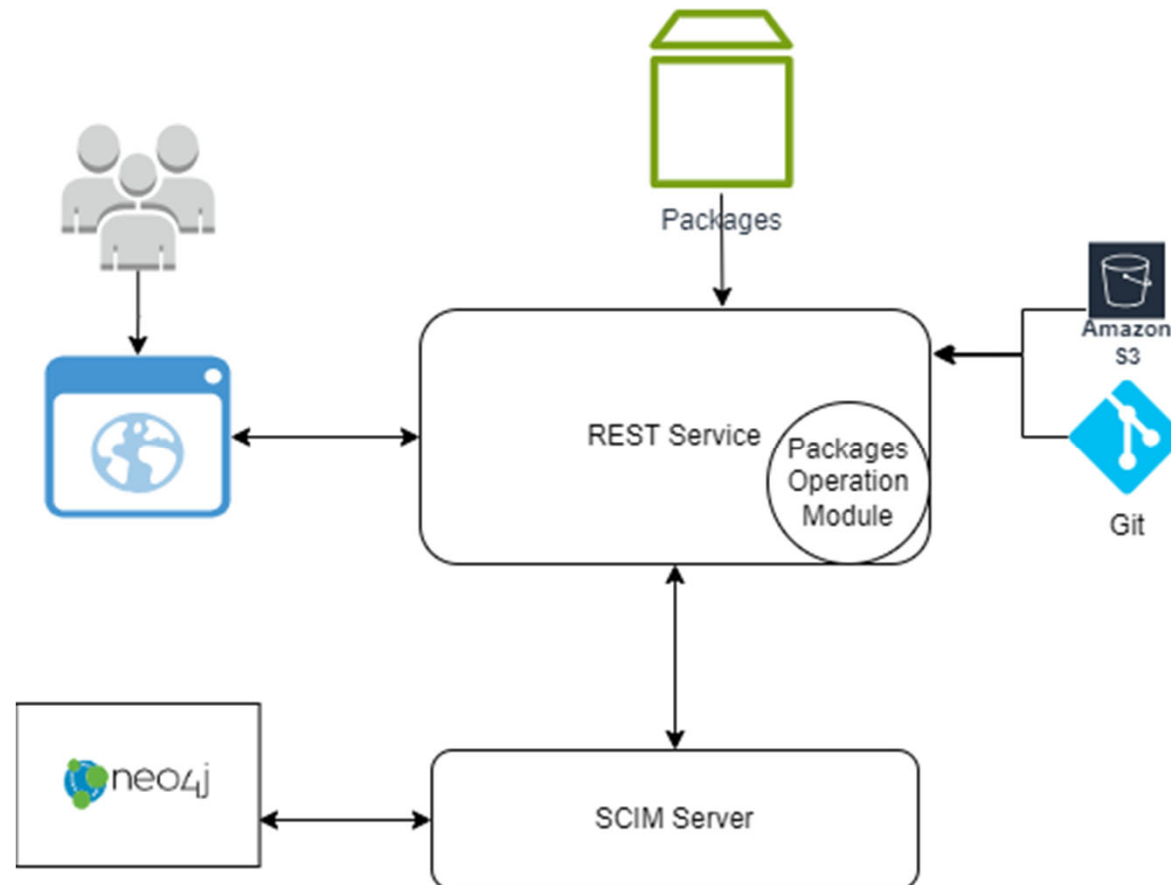
Test connection

Identity Governance Integration - Future



Driver Package Management

Driver Package Management



Driver Package Management

opentext™ Identity Lifecycle Manager

Packages

0

Search

No Packages Found

Package Channel List

Package Channels

Name

novell

novell

Git

Channel Type *

HTTPS

HTTPS

GIT

Channel Name *

Git

Enable

Save

Cancel

opentext™

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What's Next?



Policy Builder

Policy Library

Common Workflow Service

Risk Service

Q&A

The image features the OpenText logo in a bold, white, sans-serif font, centered horizontally. The background is a solid black field, which is dynamically accented by several bright blue, glowing light trails. These trails are curved and sweeping, originating from the right side of the frame and moving towards the left, creating a sense of motion and energy. The light trails vary in thickness and brightness, with some appearing as sharp, intense lines and others as softer, more diffuse glows.

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