On-prem Connector for Generic Databases

Okta Identity Governance

Troubleshooting Guide

Product Acceleration Team

Introduction

Purpose: The goal of this document is to provide a structured approach for diagnosing and resolving common issues encountered with Okta's On-prem Connector for Generic Databases.

Golden Rule: Before diving deep, always check the logs. As there are multiple components involved in this integration, below are some of the important logs which can be used to debug an issue with On-prem Connector for Generic Databases.

Logs

Okta Platform

Location: Okta Admin Console
System Log: This log is part of Okta Platform. It contains details of all logged events for your Okta org.

Okta Provisioning Agent (OPP)

Location: /opt/OktaProvisioningAgent/logs/
Agent.log: It contains all runtime details, including provisioning events, communication with your SCIM server, connection polling to Okta, and any errors encountered during operations

Okta Onprem SCIM Server (OPS)

Location: /var/log/OktaOnPremScimServer/
Application.log: It provides details on the OnPrem SCIM Server services running on the server. It also includes details of any failed transactions of SQL operations.
Service.err: It provides details on any error generated by system services.
Service.out: It provides details on files and properties used by the OPS services.

Health Checks

Perform these quick checks first to rule out common and simple problems.

1. **Confirm Network Connectivity:**
   - Check if any kind of firewall is active and blocking any traffic, using below command.
     # sudo systemctl status firewalld

```
Shell
[user@ip-X-X-X-X /]# sudo systemctl status firewalld
Unit firewalld.service could not be found.
```

```
[user@ip-X-X-X-X /]#
```

Action: If there is a firewall active and running, please make sure that it is stopped or check with the system administrator to allow the required ports.

- Check if Okta Provisioning Agent is able to reach Okta Platform. OPP uses port 443 to connect with Okta Platform, so check using netstat if port 443 is open and on listening mode on the Linux Server.
  Action: If OPP Agent is not able to reach Okta Platform, get the port 443 open or check the firewall.

- Check if Okta OnPremScimServer service is listening on the required ports. Based on the port configured by the organisation, use the below command to check.
  # ss -tuln

```
SQL
[user@ip-X-X-X-X /]# ss -tuln
Netid      State       Recv-Q      Send-Q      Local Address:Port      Peer Address:Port
udp        UNCONN      0           0           127.0.0.1:323           0.0.0.0:*
udp        UNCONN      0           0           [::1]:323               [::]:*
tcp        LISTEN      0           4096        0.0.0.0:1521            0.0.0.0:*
tcp        LISTEN      0           128         0.0.0.0:22              0.0.0.0:*
tcp        LISTEN      0           4096        [::]:1521               [::]:*
tcp        LISTEN      0           100         *:1443                  *:*
tcp        LISTEN      0           128         [::]:22                 [::]:*
[user@ip-X-X-X-X /]#
```

Action: If the port which is used by the database does not show up here, then it is highly likely the services which use those ports are not running or they are using some other ports, check the service status and service configuration to confirm the ports being used by it.

- Check if the host server, where Okta OnPrem SCIM Server is deployed, is able to connect with the database system server. The database systems each have their own default port but they can be customised by the organisation using it during deployment of the database. Check the port configured for the database system and execute the below command from the host server.
  # telnet <DB-IP Address> <Port>

```
Shell
[user@ip-X-X-X-X /]# $ telnet 127.0.0.1 1521
Trying 127.0.0.1...
```

```
Connected to 127.0.0.1.
Escape character is '^]'
```

Action: If the telnet command fails to connect then check with the network team to verify if the ports have been opened in the organisations firewall.

2. **Verify Service Status**:
   - Check if the **Okta Provisioning Agent** service is running using the below command.
     # **sudo systemctl status OktaProvisioningAgent**

```
Shell
[user@ip-X-X-X-X /]# sudo systemctl status OktaProvisioningAgent
● OktaProvisioningAgent.service - OktaProvisioningAgent Agent server daemon
     Loaded: loaded (/etc/systemd/system/OktaProvisioningAgent.service; enabled; preset:
disabled)
     Active: active (running) since Tue 2025-11-11 18:26:15 UTC; 13h ago
   Main PID: 716 (java)
      Tasks: 21 (limit: 22310)
     Memory: 178.0M
        CPU: 1min 20.998s
     CGroup: /system.slice/OktaProvisioningAgent.service
             └─716 /opt/OktaProvisioningAgent/jre/bin/java
-Dagent_home=/opt/OktaProvisioningAgent -Xmx4096m -Dhttps.protocols=TLSv1.2 -jar
/opt/OktaProvisioningAgent/bin/OktaProvisioningA>
Nov 11 18:26:15 ip-10-0-14-162.ap-south-1.compute.internal systemd[1]: Started
OktaProvisioningAgent Agent server daemon.
Nov 11 18:26:15 ip-10-0-14-162.ap-south-1.compute.internal OktaProvisioningAgent[716]: Starting
Okta Provisioning Agent...
```

   - Check if the **Okta OnPrem SCIM Server** service is running using the below command.
     # sudo systemctl status OktaOnPremScimServer

```
Shell
[user@ip-X-X-X-X /]# sudo systemctl status OktaOnPremScimServer
● OktaOnPremScimServer.service - Okta On-Prem SCIM Server
     Loaded: loaded (/usr/lib/systemd/system/OktaOnPremScimServer.service; enabled; preset:
disabled)
     Active: active (running) since Tue 2025-11-11 18:26:15 UTC; 14h ago
   Main PID: 715 (java)
      Tasks: 38 (limit: 22310)
     Memory: 271.2M
```

```
      CPU: 1min 8.350s
   CGroup: /system.slice/OktaOnPremScimServer.service
           └─715 java -Xms512m -Xmx4096m -XX:+UseG1GC -XX:+ExitOnOutOfMemoryError
-Dloader.main=com.okta.server.scim.ScimServerApplication
-Dloader.path=/opt/OktaOnPremScimServer/userlib>
Nov 11 18:26:15 ip-10-0-14-162.ap-south-1.compute.internal systemd[1]: Started Okta On-Prem
SCIM Server.
```

Restart Services

1. **How to restart the Okta Provisioning Agent?**
   The Okta Provisioning Agent service can be restarted using below command:

```
Shell
[user@ip-X-X-X-X /]$ sudo systemctl restart OktaProvisioningAgent
```

2. **How to restart the Okta On-prem SCIM Server?**
   The Okta On-prem SCIM Server service can be restarted using below command:

```
Shell
[user@ip-X-X-X-X /]$ sudo systemctl restart OktaOnPremScimServer
```

Uninstall Services

1. **How to uninstall/remove the Okta Provisioning Agent?**
   The Okta Provisioning Agent is an rpm based installation, so we can uninstall the rpm using the yum utility. Below is the command to uninstall the server.

Caution: If you uninstall/remove the Okta Provisioning Agent, it will stop the connection between Okta and On-prem database system, thereby stopping all the user and entitlement related operations.

Command: yum remove OktaProvisioningAgent

Example:

```
Shell
[user@ip-X-X-X-X /]$ yum remove OktaProvisioningAgent
This system is not registered with an entitlement server. You can use "rhc" or
"subscription-manager" to register.
Dependencies resolved.
```

```
==============================================================================================
========================================================================
 Package                                    Architecture                   Version
Repository                       Size
==============================================================================================
========================================================================
Removing:
 OktaProvisioningAgent                       x86_64
02.03.01-SNAPSHOT20250630205201                     @@System                         26 M
Transaction Summary
==============================================================================================
========================================================================
Remove  1 Package
Freed space: 204 M
Is this ok [y/N]: y
Running transaction check
Running transaction test
Transaction test succeeded.
.
Installed products updated.
Removed:
 OktaProvisioningAgent.x86_64-XXXXX-SNAPSHOT20250630205201
Complete!
[user@ip-X-X-X-X /]$
```

2. **How to uninstall/remove the Okta On-prem SCIM Server?**
The Okta On-prem SCIM Server is an rpm based installation, so we can uninstall the rpm using the yum utility. Below is the command to uninstall the server.

Caution: If you uninstall/remove the Okta On-prem SCIM Server, it will stop the connection between Okta and On-prem database system, thereby stopping all the user and entitlement related operations.

Command: yum remove OktaOnPremScimServer

Example:

```
Shell
[user@ip-X-X-X-X /]$ yum remove OktaOnPremScimServer
This system is not registered with an entitlement server. You can use "rhc" or
"subscription-manager" to register.
Dependencies resolved.
==============================================================================================
========================================================================
 Package                                    Architecture                   Version
Repository                       Size
==============================================================================================
========================================================================
Removing:
 OktaOnPremScimServer                       x86_64
0.0.1-SNAPSHOT20250902071027                     @@System                         26 M
Transaction Summary
==============================================================================================
========================================================================
Remove  1 Package
Freed space: 26 M
```

```
Is this ok [y/N]: y
Running transaction check
Running transaction test
Transaction test succeeded.
.
Installed products updated.
Removed:
  OktaOnPremScimServer-0.0.1-SNAPSHOT20250902071027.x86_64
Complete!
[user@ip-X-X-X-X /]$
```

Upgrade Services

With new features being developed and rolled out, there is a new version of these agents and connectors being rolled out too, which needs to be deployed on the server.

Okta Provisioning Agent

To upgrade the Okta Provisioning Agent, follow these steps:

Before you begin

Before starting the upgrade of the On-prem SCIM Server, there are a few things which we need to consider and be prepared for.

1. During the upgrade process, the Okta Provisioning Agent will be stopped, so the operations supported by it will not work during that time frame.
2. Check the version of the Okta Provisioning Agent running on the server using the command: **#rpm -q OktaProvisioningAgent**

```
Shell
[user@X-X-X-X ~]$ rpm -q OktaProvisioningAgent
OktaProvisioningAgent-03.00.03-SNAPSHOT20250903160015.x86_64
```

Download the latest Okta Provisioning Agent

1. Logon to Okta Admin Console.
2. Navigate to Settings and select **Download**.
3. Scroll down to **Okta Provisioning Agent** section.
4. Click on Download Latest against the **Okta Provisioning Agent**.
5. Once downloaded, upload this file to the host LINUX Server, where there is already a version of **Okta Provisioning Agent** running.

Execute the upgrade of Okta Provisioning Agent

1. Logon to the Linux Server where the Okta Provisioning Agent is installed.
2. Navigate to the location where the latest version of Okta Provisioning Agent has been placed in the last section.
3. Execute below command to upgrade the Onprem SCIM Server.
   # yum localupdate /installers/OktaProvisioningAgent -<VERSION>.rpm

```
Shell
[user@X-X-X-X installers]# yum localupdate
OktaProvisioningAgent-03.00.07-fd641e2.x86_64.rpm
Updating Subscription Management repositories.
Unable to read consumer identity
This system is not registered with an entitlement server. You can use "rhc" or
"subscription-manager" to register.
Last metadata expiration check: 1:53:57 ago on Tue Feb 10 06:09:43 2026.
Dependencies resolved.
================================================================================
======================
 Package                    Arch        Version
Repository         Size
================================================================================
======================
Upgrading:
 OktaProvisioningAgent      x86_64      03.00.07-SNAPSHOT20260130151220
@commandline      196 M
Transaction Summary
================================================================================
======================
Upgrade  1 Package
Total size: 196 M
Is this ok [y/N]: y
Downloading Packages:
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing        :
1/1
  Running scriptlet: OktaProvisioningAgent-03.00.07-SNAPSHOT20260130151220.x86_64
1/2
Stopping service before upgrade.
  Upgrading        : OktaProvisioningAgent-03.00.07-SNAPSHOT20260130151220.x86_64
1/2
  Running scriptlet: OktaProvisioningAgent-03.00.07-SNAPSHOT20260130151220.x86_64
```

```
1/2
/var/tmp/rpm-tmp.1YuG8H: line 29: /opt/OktaProvisioningAgent/jre/bin/java:
Permission denied
  Running scriptlet: OktaProvisioningAgent-03.00.03-SNAPSHOT20250903160015.x86_64
2/2
  Cleanup          : OktaProvisioningAgent-03.00.03-SNAPSHOT20250903160015.x86_64
2/2
  Running scriptlet: OktaProvisioningAgent-03.00.03-SNAPSHOT20250903160015.x86_64
2/2
Installed products updated.
Upgraded:
  OktaProvisioningAgent-03.00.07-SNAPSHOT20260130151220.x86_64
Complete!
[user@X-X-X-X installers]#
```

Start and Check Agent

Once the upgrade is complete the agent will be in a dormant or inactive stage and we need to start the services.

1. Start the Okta Provisioning Agent using the command.
   # sudo systemctl start OktaProvisioningAgent

```
Shell
[user@ip-X-X-X-X /]$ sudo systemctl start OktaProvisioningAgent
```

2. Check the service has started using the command.
   # **sudo systemctl status OktaProvisioningAgent**

```
Shell
[user@ip-X-X-X-X /]# sudo systemctl status OktaProvisioningAgent
●● OktaProvisioningAgent.service - OktaProvisioningAgent Agent server
daemon
     Loaded: loaded (/etc/systemd/system/OktaProvisioningAgent.service;
enabled; preset: disabled)
     Active: active (running) since Tue 2026-02-10 08:21:11 UTC; 2s ago
 Invocation: e31655a61afa49fcab639cacc79edcbf
   Main PID: 8886 (java)
      Tasks: 20 (limit: 22143)
     Memory: 107.1M (peak: 107.5M)
        CPU: 3.856s
     CGroup: /system.slice/OktaProvisioningAgent.service
```

```
             └─8886 /opt/OktaProvisioningAgent/jre/bin/java
-Dagent_home=/opt/OktaProvisioningAgent -Xm>
```

3. There is another way to confirm the version and status of the Okta Provisioning Agent, which is via the Okta Admin Console.
4. In the Okta Admin Console, navigate to Dashboard and then click Agents.
5. Click on On-premise tab, which will show the list of Agents configured in the Okta org along with their status and versions.

Okta On-prem SCIM Server

To upgrade the Onprem SCIM Server, follow these steps:

Before you begin

Before we begin with upgrading the On-prem SCIM Server, there are a few things which we need to consider and be prepared to.

1. During the upgrade process, the Okta On-prem SCIM Services will be stopped, so the operations supported by it will not work during that time frame.
2. With the new version of Okta On-prem SCIM Server, we need to generate a new set of Bearer Token and Certificate files using the **Get-OktaOnPremScimServer-Credentials** script.
3. This new set of credentials needs to be provided in the application configuration section on the Okta Admin console.
4. There will be no other changes made to any other configurations of the application or the Okta Provisioning Agent.

Download the latest On-prem SCIM Server

6. Logon to Okta Admin Console.
7. Navigate to Settings and select **Download**.
8. Scroll down to **Okta On-prem SCIM Server** section.
9. Click on Download Latest against the Okta On-prem SCIM Server.
10. Once downloaded, upload this file to the host LINUX Server, where there is already a version of Okta On-prem SCIM Server running.

Stop Services

1. Confirm that the On-prem SCIM Server services can be stopped, so that it does not impact the ongoing operations.
2. Stop the Okta On-prem SCIM Server using below command
   # sudo systemctl stop OktaOnPremScimServer

Execute the upgrade of OPS

1. Logon the Linux Server where the OPS is installed.
2. Navigate to the location where the latest version of Onprem SCIM Server has been placed.
3. Execute below command to upgrade the Onprem SCIM Server.
   # sudo CUSTOMER_ID=<CUSTOMER_ID> rpm -Uvh /installers/OktaOnPremScimServer-<VERSION>.rpm

```
Shell
[user@X-X-X-X installers]# sudo CUSTOMER_ID=00oevo9zds7GtFLqw1d7 rpm -Uvh
/installers/OktaOnPremScimServer-1.3.0-1762992000.e391127.rpm
warning: /installers/OktaOnPremScimServer-1.3.0-1762992000.e391127.rpm: Header V4 RSA/SHA256
Signature, key ID 7594089a: NOKEY
Verifying...                          ################################# [100%]
Preparing...                          ################################# [100%]
Running %pre. Install type: 2
=====================================================
On-prem SCIM Server EULA - Early Access
This connector is a “Free Trial Service” as defined in Okta’s Master Subscription Agreement,
.
.
If you do not agree to the foregoing you must not download, access or use the connector.
=====================================================
Do you accept the above terms and conditions? (yes/no): yes
EULA accepted. Continue Installation...
Completed %pre.
Updating / installing...
   1:OktaOnPremScimServer-0.0.1-SNAPSH################################# [ 50%]
[2025-11-19T19:15:37Z] Upgrade detected. Reusing existing server keystore and configs.
[2025-11-19T19:15:37Z] Generating new API key
[2025-11-19T19:15:37Z] Writing config:
/etc/OktaOnPremScimServer/config-00oevo9zds7GtFLqw1d7.properties
[2025-11-19T19:15:38Z] OktaOnPremScimServer service enabled and restarted.
Running %preun. Uninstall type: 1
Upgrade detected; not stopping service.
Cleaning up / removing...
   2:OktaOnPremScimServer-0.0.1-SNAPSH################################# [100%]
Running %postun. Uninstall type: 1
[root@ip-10-0-5-127 ec2-user]#
```

4. Execute the following script to get the new API token to be used with the connection.
   # /opt/OktaOnPremScimServer/bin/**Get-OktaOnPremScimServer-Credentials.sh**

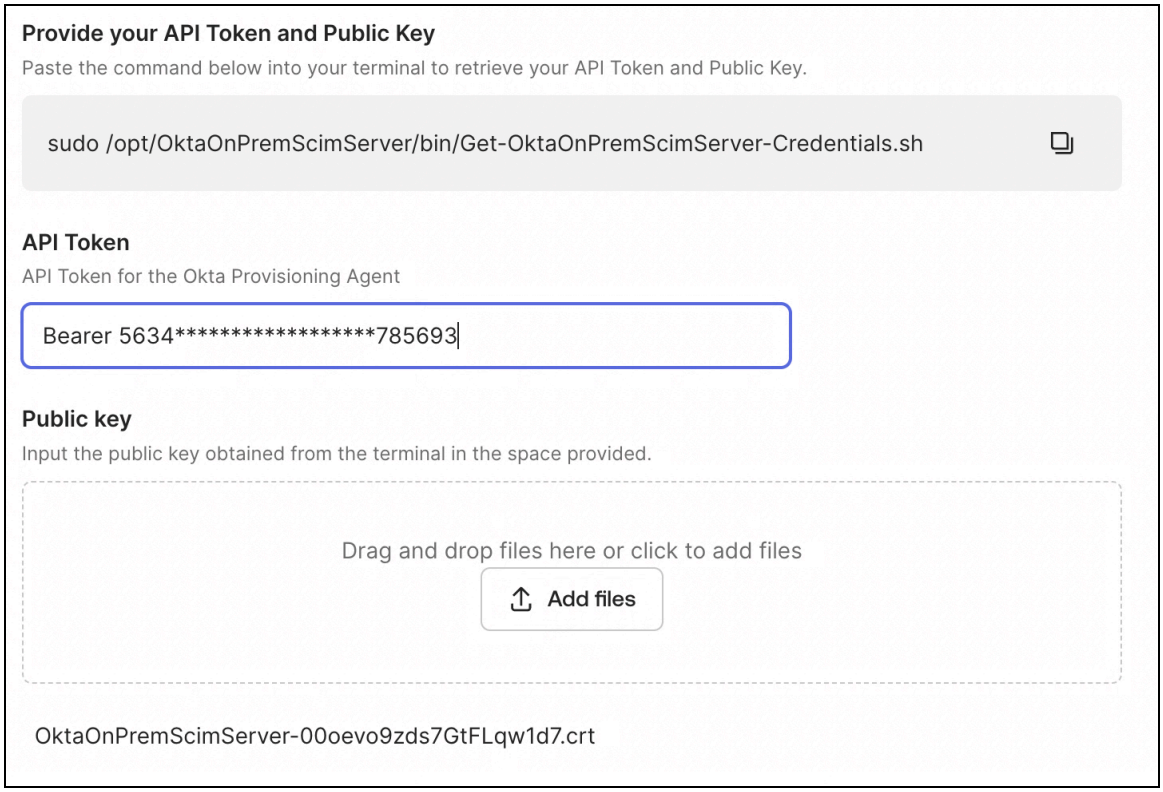
```
None
[user@ip-X-X-X-X installers]$
/opt/OktaOnPremScimServer/bin/Get-OktaOnPremScimServer-Credentials.sh
=========================================================
API Bearer Token (use as 'Authorization: Bearer <token>')
=========================================================
5634******************785693
=========================================================
Server TLS certificate saved for client trust
```

```
============================================================
Path: /tmp/OktaOnPremScimServer-00oevo9zds7GtFLqw1d7.crt
SHA256 Fingerprint:
E1:15:AE:27:D7:3A:23:13:76:C1:1F:2C:89:7D:C7:13:04:8A:CA:76:A0:C4:BA:A1:38:B6:83:D
A:25:25:C7:86
Examples:
  curl --cacert /tmp/OktaOnPremScimServer-mycompany.crt https://<host>:1443/
  keytool -importcert -alias scim -file /tmp/OktaOnPremScimServer-mycompany.crt
-keystore truststore.p12 -storetype PKCS12 -storepass changeit -noprompt
```

5. Take a note of the Bearer token.
6. Download the certificate file to the local workstation.

Update Application Configurations

1. Logon to Okta Admin console.
2. Navigate to **Applications** and select the **On-prem Connector for Generic Databases** application.
3. Select the **Provisioning** tab and then **Integration** sub-tab.
4. Click on **Edit** next to Database Credentials.
5. Scroll down to "**Provide your API Token and Public Key"** section.
6. Provide the Bearer Token, generated in the previous section.
7. Click on **Add files**, under Public key, and select the newly generated certificate in the previous section.



8. Click **Save**.

Once the connection is successfully saved, you will have your On-prem Connector for Generic Databases application using the latest version of Okta On-prem SCIM Server.

Common Errors and Resolutions

Category A: Installation & Setup Issues

Error #1: *Connection timed out: connect*

Reason:

- Incorrect IP address in the Fully Qualified Domain Name (FQDN), specifically the machine's IP address where the On-prem Connector is located.

Resolution:

- Verify and provide the correct IP address of the machine where the On-prem Scim Server is located.

Error #2: *java.net.UnknownHostException: [FQDN address]*

Reason:

- The specified Fully Qualified Domain Name (FQDN) is incorrect or unresolvable. This typically occurs when the FQDN does not correctly point to the machine where the On-prem Scim Server is located.
- Examples of FQDNs
    - Valid: server1.example.com, my-computer.office.local
    - Invalid:
        - Partial FQDN: server1 (missing domain)
        - Unresolvable FQDN: not-a-real-server.example.com (doesn't resolve on the network)

Resolution:

- Ensure that the correct FQDN is provided. Verify the FQDN of the machine hosting the On-prem Connector and update the configuration accordingly.

Error #3: *java.net.ConnectException: Connection refused*
Reason:

- On-prem Scim Server is unavailable due to a network interruption, has been uninstalled, or has been manually stopped.

Resolution:

- Verify connectivity of On-prem Scim Server and reinstall if necessary.

Error #4: *javax.net.ssl.SSLHandshakeException: PKIX path validation failed*
Reason:

- This can occur in older OPP versions when the client cannot validate the server's SSL certificate. Possible causes include outdated truststore handling or lack of support for the server's certificate chain.

Resolution:

- Upgrade to a newer OPP version (>3.0.3). The updated client resolves certificate validation issues and allows the SSL handshake to succeed.

Error #5: *com.zaxxer.hikari.HikariConfig:484 - Failed to load driver class*
Reason:

- The required database driver is not imported into /opt/OktaOnPremScimServer/userlib/.
- The required database driver was imported but the Okta On-Prem SCIM Server was not restarted afterward.

Resolution:

- Import the appropriate database driver into: /opt/OktaOnPremScimServer/userlib/. Check this for more information.
- Restart the Okta On-Prem SCIM Server to apply the changes:
  # sudo systemctl restart OktaOnPremScimServer

Error #6: *java.sql.SQLException: ORA-01017: invalid username/password; logon denied*

Reason:

- The oracle database credentials provided (username or password) in the Application's configuration page are incorrect.

Resolution:

- Verify and update the configuration with a valid oracle database username and password, then retry the connection.

Error #7: *com.microsoft.sqlserver.jdbc.SQLServerException: "encrypt" property is set to "true" and "trustServerCertificate" property is set to "false" but the driver could not establish a secure connection to SQL Server by using Secure Sockets Layer (SSL) encryption: Error: PKIX path building failed: sun.security.provider.certpath.SunCertPathBuilderException: unable to find valid certification path to requested target.*

Reason:

- The JDBC connection is configured with encryption enabled (encrypt=true) but does not trust the server certificate because trustServerCertificate is either not specified or explicitly set to false. As a result, the SSL certificate validation fails.

Resolution:

- Set trustServerCertificate=true in the database connection configuration to allow the driver to bypass certificate validation and establish a successful connection with the SQL Server database.

Error #8: *java.lang.ClassCastException: class com.fasterxml.jackson.databind.node.NullNode*

Reason:

- The *Entitlement ID* column specified in the configuration is invalid (e.g., incorrect column name or the column does not exist in the database table).

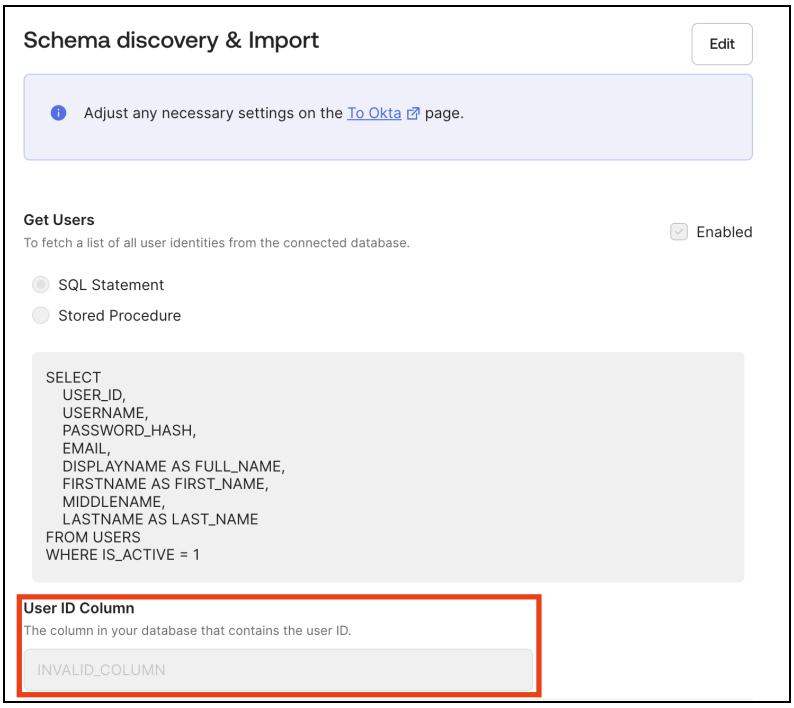
Resolution:

- Ensure that the *Entitlement ID* column exists in the database table and update the configuration with the correct column name.

Error #9: UserImportJob: Error while downloading all users: null

Reason:

The *User ID* column specified in the configuration is invalid (e.g., incorrect column name or the column does not exist in the database table).



Resolution:

- Ensure that the *User ID* column exists in the database table and update the configuration with the correct column name.
- **Steps:**
    1. Navigate to Application → Provisioning.
    2. Go to Provisioning → Integration → To Okta.
    3. Under Schema Discovery & Import, locate the User ID field.
    4. Update the configuration with the correct column name from the database.
    5. Save the changes & Retry the operation.

Error #10: *Save query operation fails for large queries*

Reason:

- The default HTTP request header size (server.max-http-request-header-size=10KB) is too small to handle large queries.

Resolution:

- Update the configuration file to increase the header size:
    a. Open the file: sudo vi /etc/OktaOnPremScimServer/config-<CustomerId>.properties
    b. Modify the property: server.max-http-request-header-size=20KB
    c. Save the changes and restart the server.

Error #11: *SQLTransientConnectionException: dbpool-xxxxx - Connection is not available, request timed out after 30000ms*

Reason:

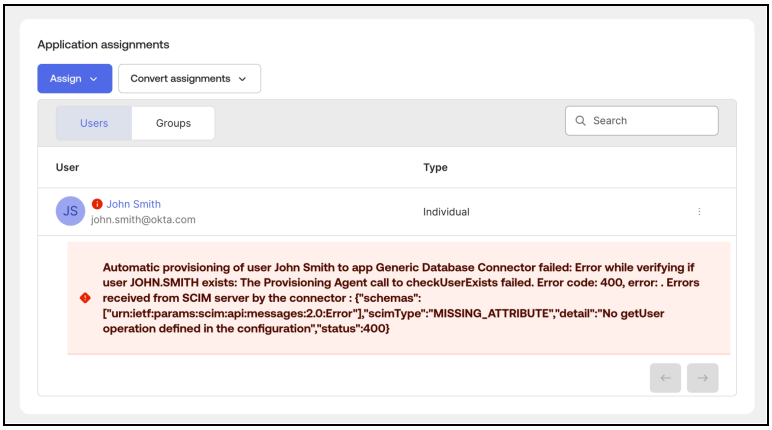
- The database is unavailable due to a network interruption, being down, or having been manually stopped.

Resolution:

- Verify network connectivity between the application and the database.
- Check if the database server is up and the service is running.
- Restart the database service if it has been stopped.
- Once available, retry the connection.

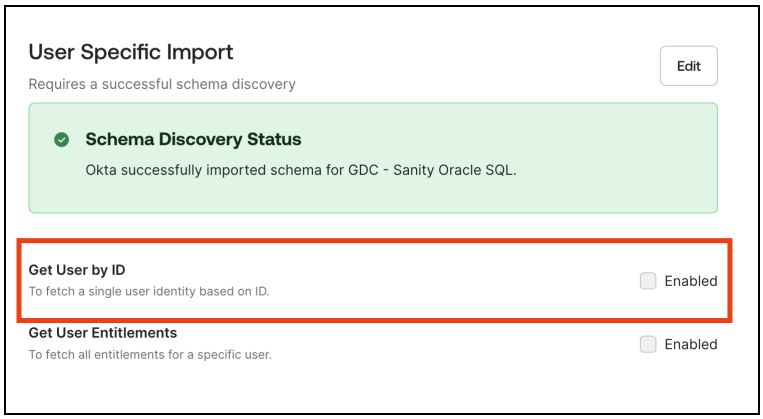
Category B: Errors on the UI

Error #1: *Automatic provisioning of user John Smith to app On-prem Connector for Generic Databases failed: Error while verifying if user JOHN.SMITH exists: The Provisioning Agent call to checkUserExists failed. Error code: 400, error: . Errors received from SCIM server by the connector : {"schemas":["urn:ietf:params:scim:api:messages:2.0:Error"],"scimType":"MISSING_ATTRIBUTE","detail":"No getUser operation defined in the configuration","status":400}*



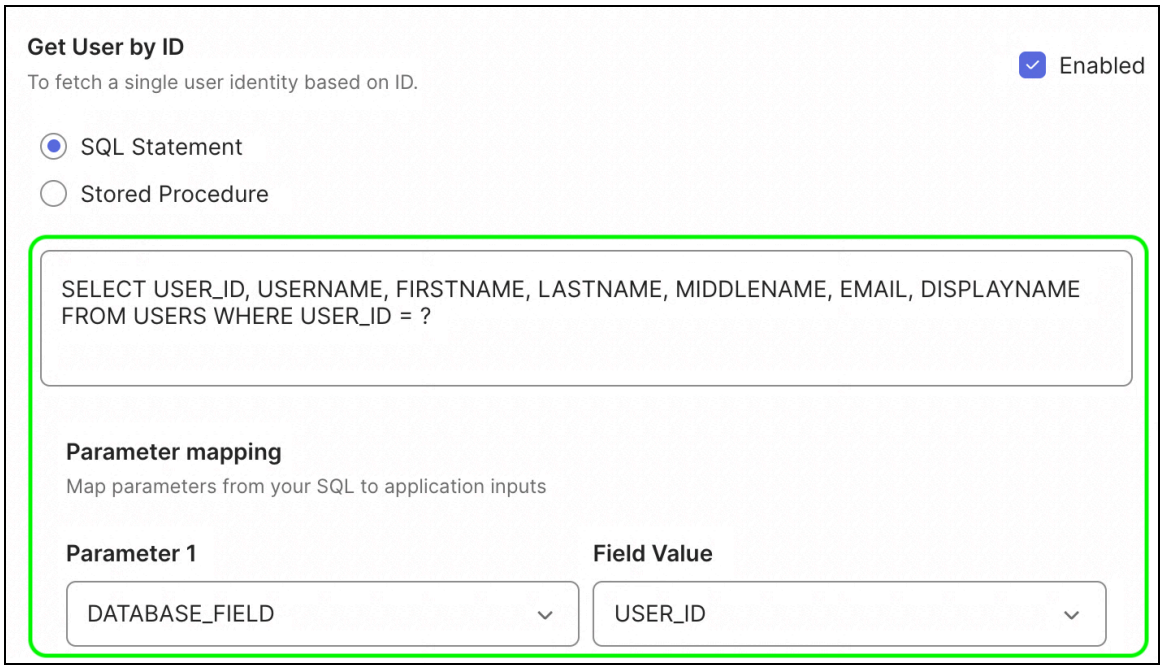
Reason:

- The *Get User by ID* configuration has not been completed.

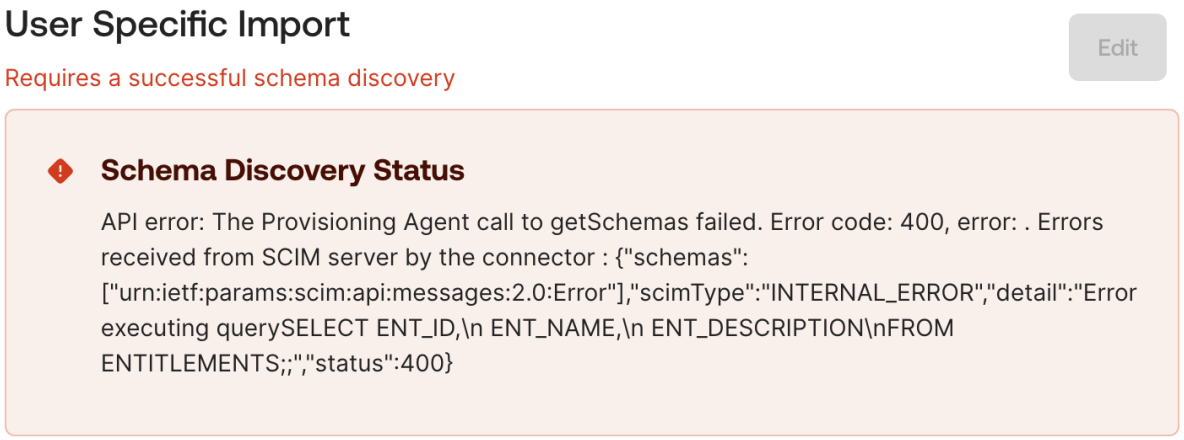


Resolution:

- Ensure that the *Get User by ID* query is properly configured in the system.
- Steps to add Get User by ID:
    1. Navigate to Application → Provisioning.
    2. Go to Provisioning → Integration → To Okta.
    3. Under User Specific Import, add the Get User by ID query.
    4. Save the changes & Retry the operation.



Error #2: *Failed to enable User Specific Import feature*



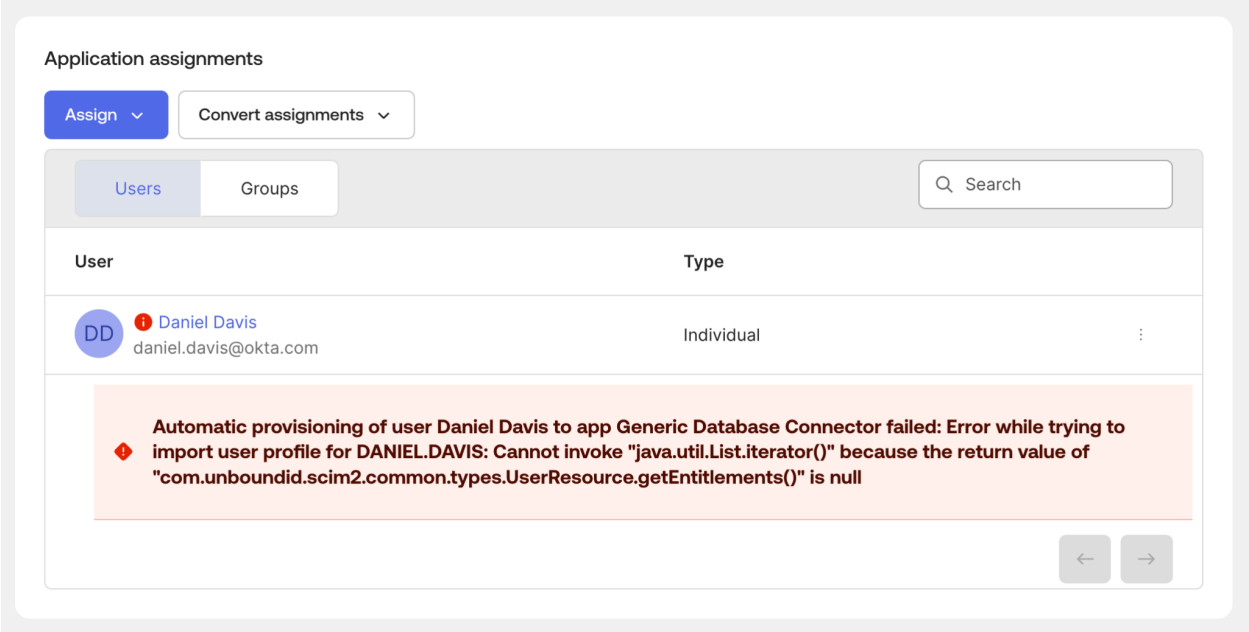
Reason:

- An invalid Get Users query is configured, or the User ID column name is incorrect.
- An invalid Get All Entitlements query is configured, or the Entitlement ID / Entitlement Name column name is incorrect.
- This error can also occur if CRUD operations are enabled in Provisioning before any queries are added in the To Okta tab.

Resolution:

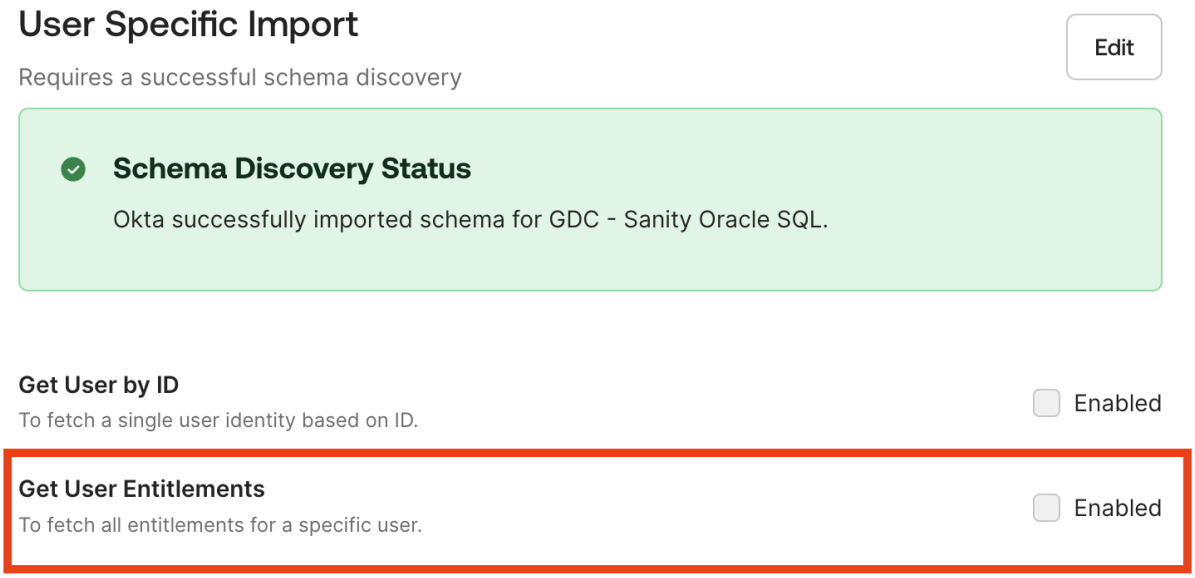
- Verify and update the Get Users and Get All Entitlements queries with the correct column names, then re-enable the User Specific Import feature.

Error #3: *Automatic provisioning of user Daniel Davis to app On-prem Connector for Generic Databases failed: Error while trying to import user profile for DANIEL.DAVIS: Cannot invoke "java.util.List.iterator()" because the return value of "com.unboundid.scim2.common.types.UserResource.getEntitlements()" is null*



Reason:

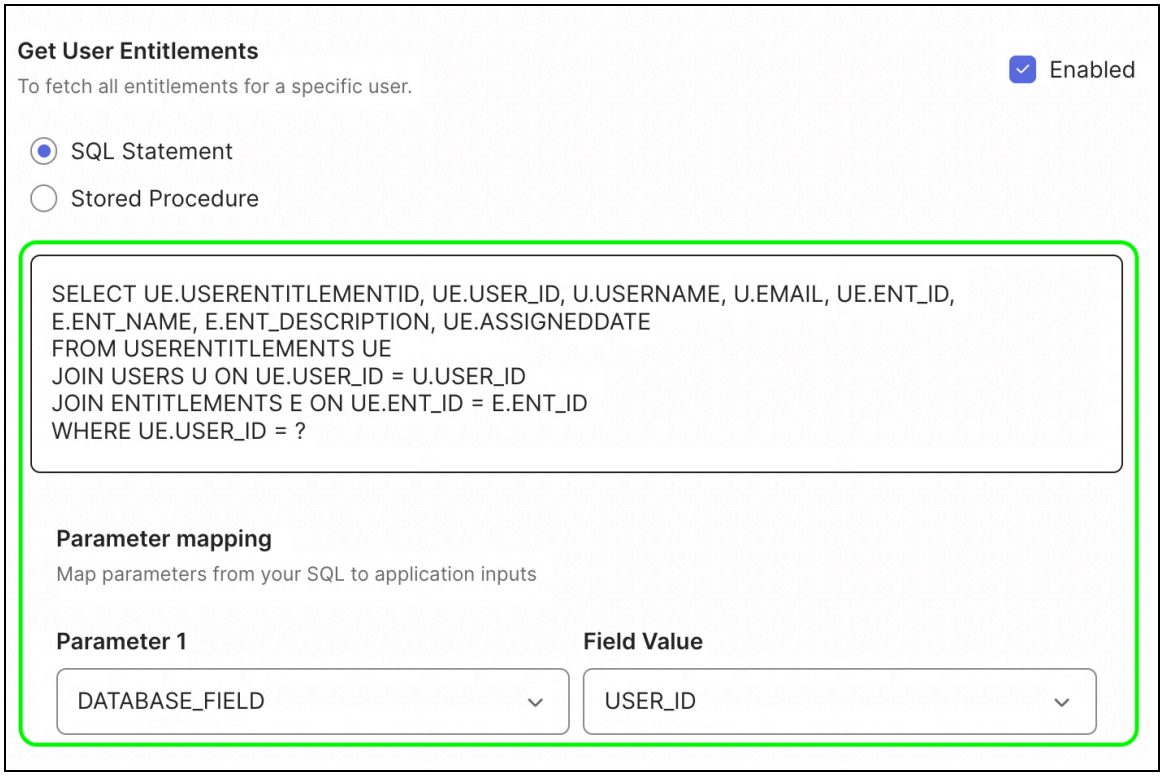
- The *Get User Entitlements* configuration has not been completed.



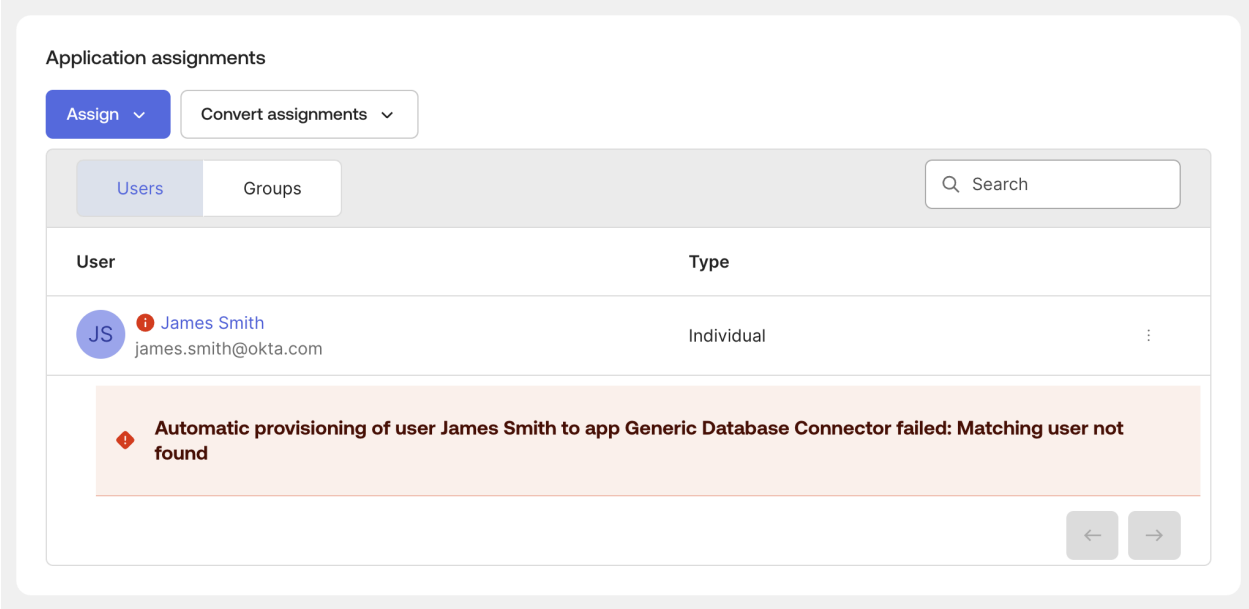
Resolution:

- Ensure that the *Get User Entitlements* query is properly configured in the system.
- Steps to add Get User Entitlements:

a. Navigate to Application → Provisioning.
b. Go to Provisioning → Integration → To Okta.
c. Under User Specific Import, add the Get User Entitlements query.
d. Save the changes & Retry the operation.



Error #4: *Automatic provisioning of user James Smith to app On-prem Connector for Generic Databases failed: Matching user not found*



Reason:

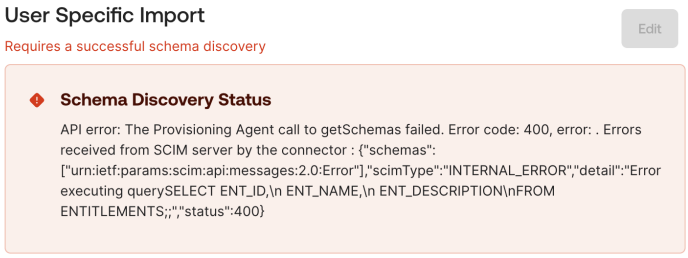
- Provisioning options for the application (such as *Create Users*, *Update Users*, etc.) are not enabled.

Resolution:

- Enable the required provisioning options in the application settings and retry the operation.
- Steps to enable provisioning options:
    1. Navigate to Application → Provisioning.
    2. Under Provisioning → To App, enable the required options, such as:
        - Create Users
        - Update User Attributes
        - Deactivate Users
        - Sync Password
    3. Save the changes & Retry the operation.

Note: Provisioning must be enabled before proceeding

Error #5: *Failed to enable User Specific Import feature*



Reason:

- An invalid Get Users query is configured, or the User ID column name is incorrect.
- An invalid Get All Entitlements query is configured, or the Entitlement ID / Entitlement Name column name is incorrect.
- This error can also occur if CRUD operations are enabled in Provisioning before any queries are added in the To Okta tab.

Resolution:

- Verify and update the Get Users and Get All Entitlements queries with the correct column names, then re-enable the User Specific Import feature.

Category C: Custom Code Errors

Error #1: *Caused by: java.io.FileNotFoundException: /opt/OktaOnPremScimServer/userplugin/test.jar*

Reason 1:

- The required JAR file is not imported into the SCIM Server.

Resolution 1:

- Import the signed JAR file into: /opt/OktaOnPremScimServer/userplugin/
- Then restart the SCIM Server.

Reason 2:

- An invalid file name was provided during the configuration.

Resolution 2:

- Verify and update the configuration with the correct file name.

Error #2: *java.lang.RuntimeException: JAR file integrity check failed*

Reason:

- An invalid hash value was provided during the configuration.

Resolution:

- Update the configuration with the correct hash value and retry.

Error #3: *java.lang.RuntimeException: JAR signature verification failed*

Reason:

- An invalid Public Key was provided during the configuration.

Resolution:

- Provide a valid public key in the configuration and retry the operation.

Error #4: *java.lang.ClassNotFoundException: com.okta.test*

Reason:

- The specified class cannot be loaded due to one of the following:
  - Incorrect class path configuration
  - The class does not exist in the expected package
  - An invalid class name was provided

Resolution:

- Verify that the class name is correct, ensure the class exists in the expected package, and update the class path configuration if necessary. Then restart the server.

Error #4: *Automatic provisioning of user John Smith to app On-prem Connector for Generic Databases failed: Error while creating user JOHN.SMITH: The Provisioning Agent call to createNewUser failed. Error code: 400, error: . Errors received from SCIM server by the connector : {"schemas":["urn:ietf:params:scim:api:messages:2.0:Error"],"scimType":"INTERNAL_ERROR","detail":"Handler dispatch failed: java.lang.NoClassDefFoundError: IllegalName: com/okta/Test","status":400}*

Reason:

- The required methods createUser or updateUser are not implemented in the specified class.

Resolution:

- Implement the missing methods (createUser and/or updateUser) in the class, rebuild the code, and redeploy the updated JAR to the server.

4. Advanced Debugging

Use these steps if the common solutions above do not resolve the issue.

Enabling Verbose/Debug Logging:

> **WARNING:** Debug mode generates very large log files and may capture sensitive data (PII). **Only enable this temporarily** for troubleshooting and revert to info immediately after resolving the issue

Okta On-prem SCIM Server Log (OPS)

To enable debug-level logging for the **On-prem SCIM Server (OPS)**, you must modify the **config-<CUSTOMER_ID>.properties** configuration file. The supported log levels are **INFO, WARN, DEBUG, TRACE**.

Here are the precise steps to change the log level:.

1. Logon to the host Linux Server.
2. Navigate to below location

```shell
cd /etc/OktaOnPremScimServer
```

3. Edit the property file config-<CUSTOMER_ID>.properties (for eg: if the customer id is acbd1234 then the file name is config-abcd1234.properties)
4. Open the file using vi or nano:

```shell
sudo vi config-<CUSTOMER_ID>.properties
```

5. Locate the Log Levels sections as presented below

```none
# ==== Levels ====
logging.level.root=INFO
logging.level.org.springframework.web=WARN
logging.level.org.apache.catalina=WARN
logging.level.org.apache.coyote=WARN
logging.level.org.apache.tomcat=WARN
logging.level.com.zaxxer.hikari=WARN
logging.level.com.okta.server.scim=INFO
```

6. As seen there are different services mentioned above along with their log

level.

7. We would need to update the "logging.level.com.okta.server.scim" to get various details in the log.
8. For example, we will update the log level to Debug for okta.scim.server

```
None
logging.level.com.okta.server.scim=DEBUG
```

9. Save the file.
10. Restart the On-prem SCIM Server service.

```
None
[user@ip-X-X-X-X /]$ sudo systemctl restart OktaOnPremScimServer
```

11. Once restart is successful, verify logs by tailing the log file to confirm detailed output.

```
None
tail -f /opt/OktaProvisioningAgent/logs/agent.log
```