

JPA StorageServiceからJDBC StorageServiceへのマイグレーション

Shibboleth IdP V5より、JPA StorageServiceが廃止されてJDBC StorageServiceに置き換わることがアナウンスされています。[1]

本ページでは、JPA StorageServiceからJDBC StorageServiceへのマイグレーション方法について説明します。各StorageServiceの詳細についてはShibboleth Projectのページをご参照ください。

- <https://shibboleth.atlassian.net/wiki/spaces/IDP4/pages/1265631707/StorageConfiguration>
- <https://shibboleth.atlassian.net/wiki/spaces/IDPPLUGINS/pages/2989096970/JDBCStorageService>

1. JPA StorageService利用の確認

下記コマンドを実行して、Shibboleth IdPでJPA StorageServiceを利用しているか確認します。
grepコマンドの出力がない場合はJPA StorageServiceを利用していませんので、JDBC StorageServiceへのマイグレーションは必要ありません。

```
$ grep '^[^#].*JPASStorageService' /opt/shibboleth-idp/conf/idp.properties
idp.consent.StorageService = shibboleth.JPASStorageService
```

2. JDBC StorageServiceプラグインのインストール

- Shibboleth IdP 4.2およびそれ以降の場合

JDBC StorageServiceプラグインをインストールします。

```
# /opt/shibboleth-idp/bin/plugin.sh -I net.shibboleth.plugin.storage.jdbc
INFO - Including auto-located properties in bin/./conf/admin/admin.properties
INFO - Including auto-located properties in bin/./conf/authn/authn.properties
INFO - Including auto-located properties in bin/./conf/c14n/subject-c14n.properties
INFO - Including auto-located properties in bin/./conf/ldap.properties
INFO - Including auto-located properties in bin/./conf/services.properties
INFO - Including auto-located properties in bin/./conf/saml-nameid.properties
Downloading from HTTPResource [http://shibboleth.net/downloads/identity-provider/plugins/jdbc/x.y.z/java-plugin-jdbc-storage-x.y.z.tar.gz]
Downloading from HTTPResource [http://shibboleth.net/downloads/identity-provider/plugins/jdbc/x.y.z/java-plugin-jdbc-storage-x.y.z.tar.gz.asc]
Plugin net.shibboleth.plugin.storage.jdbc: Trust store folder does not exist, creating
Plugin net.shibboleth.plugin.storage.jdbc: Trust store does not exist, creating
TrustStore does not contain signature 0x1483F262A4B3FF0
Accept this key:
Signature:      0x1483F262A4B3FF0
FingerPrint:    4AF4D83EEDDF43DA3C06CB3101483F262A4B3FF0
Username:       Rod Widdowson <rdw@steadingsoftware.com>
[yN] y
Installing Plugin net.shibboleth.plugin.storage.jdbc version x.y.z
Rebuilding /opt/shibboleth-idp/war/idp.war, Version 4.2.1
Initial populate from /opt/shibboleth-idp/dist/webapp to /opt/shibboleth-idp/webapp.tmp
Overlay from /opt/shibboleth-idp/dist/plugin-webapp to /opt/shibboleth-idp/webapp.tmp
Overlay from /opt/shibboleth-idp/edit-webapp to /opt/shibboleth-idp/webapp.tmp
Creating war file /opt/shibboleth-idp/war/idp.war

# /opt/shibboleth-idp/bin/plugin.sh -l
INFO - Including auto-located properties in bin/./conf/admin/admin.properties
INFO - Including auto-located properties in bin/./conf/authn/authn.properties
INFO - Including auto-located properties in bin/./conf/c14n/subject-c14n.properties
INFO - Including auto-located properties in bin/./conf/ldap.properties
INFO - Including auto-located properties in bin/./conf/services.properties
INFO - Including auto-located properties in bin/./conf/saml-nameid.properties
Plugin: net.shibboleth.plugin.storage.jdbc      Current Version: x.y.z
```

- Shibboleth IdP 4.1の場合

最初に、JDBC StorageServiceプラグインの最新バージョンのURLを確認します。

1. <https://shibboleth.atlassian.net/wiki/spaces/IDPPLUGINS/pages/2989096970/JDBCStorageService>にアクセスして、Plugin Installationにあるdownloadをクリックします。

2. 最新のバージョンのディレクトリ x.y.z にアクセスします。(2022年11月末現在 1.0.4)
3. java-plugin-jdbc-storage-x.y.z.tar.gz のURLを確認します。

確認したURLを引数としてJDBC StorageServiceプラグインをインストールします。

```
# /opt/shibboleth-idp/bin/plugin.sh -i http://shibboleth.net/downloads/identity-provider/plugins/jdbc/x.y.z/java-plugin-jdbc-storage-x.y.z.tar.gz
INFO - Including auto-located properties in bin/./conf/admin/admin.properties
INFO - Including auto-located properties in bin/./conf/authn/authn.properties
INFO - Including auto-located properties in bin/./conf/c14n/subject-c14n.properties
INFO - Including auto-located properties in bin/./conf/ldap.properties
INFO - Including auto-located properties in bin/./conf/services.properties
INFO - Including auto-located properties in bin/./conf/saml-nameid.properties
Downloading from HTTPResource [http://shibboleth.net/downloads/identity-provider/plugins/jdbc/x.y.z/java-plugin-jdbc-storage-x.y.z.tar.gz]
Downloading from HTTPResource [http://shibboleth.net/downloads/identity-provider/plugins/jdbc/x.y.z/java-plugin-jdbc-storage-x.y.z.tar.gz.asc]
Plugin net.shibboleth.plugin.storage.jdbc: Trust store folder does not exist, creating
Plugin net.shibboleth.plugin.storage.jdbc: Trust store does not exist, creating
TrustStore does not contain signature 0x1483F262A4B3FF0
Accept this key:
Signature:      0x1483F262A4B3FF0
FingerPrint:    4AF4D83EEDDF43DA3C06CB3101483F262A4B3FF0
Username:       Rod Widdowson <rdw@steadingsoftware.com>
[yN] y
Installing Plugin net.shibboleth.plugin.storage.jdbc version x.y.z
Rebuilding /opt/shibboleth-idp/war/idp.war, Version 4.2.1
Initial populate from /opt/shibboleth-idp/dist/webapp to /opt/shibboleth-idp/webapp.tmp
Overlay from /opt/shibboleth-idp/dist/plugin-webapp to /opt/shibboleth-idp/webapp.tmp
Overlay from /opt/shibboleth-idp/edit-webapp to /opt/shibboleth-idp/webapp.tmp
Creating war file /opt/shibboleth-idp/war/idp.war

# /opt/shibboleth-idp/bin/plugin.sh -l
INFO - Including auto-located properties in bin/./conf/admin/admin.properties
INFO - Including auto-located properties in bin/./conf/authn/authn.properties
INFO - Including auto-located properties in bin/./conf/c14n/subject-c14n.properties
INFO - Including auto-located properties in bin/./conf/ldap.properties
INFO - Including auto-located properties in bin/./conf/services.properties
INFO - Including auto-located properties in bin/./conf/saml-nameid.properties
Plugin: net.shibboleth.plugin.storage.jdbc      Current Version: x.y.z
```

3. Shibboleth IdPの設定変更

JPA StorageServiceからJDBC StorageServiceにShibboleth IdPの設定を変更します。

- /opt/shibboleth-idp/conf/global.xml

/opt/shibboleth-idp/conf/global.xml

```
@@ -14,24 +14,10 @@

    <!-- Use this file to define any custom beans needed globally. -->
-   <bean id="shibboleth.JPASStorageService"
-       class="org.opensaml.storage.impl.JPASStorageService"
+   <bean id="JDBCStorageService" parent="shibboleth.JDBCStorageService"
+       p:cleanupInterval="%{idp.storage.cleanupInterval:PT10M}"
+       p:dataSource-ref="MyDataSource"
+       p:transactionIsolation="4"
+       p:retryableErrors="40001"
+   />
-       c:factory-ref="shibboleth.JPASStorageService.EntityManagerFactory" />
-
-   <bean id="shibboleth.JPASStorageService.EntityManagerFactory"
-       class="org.springframework.orm.jpa.LocalContainerEntityManagerFactoryBean">
-       <property name="persistenceUnitName" value="storageservice" />
-       <property name="packagesToScan" value="org.opensaml.storage.impl" />
-       <property name="dataSource" ref="MyDataSource" />
-       <property name="jpaVendorAdapter" ref="shibboleth.JPASStorageService.JPAVendorAdapter" />
-       <property name="jpaDialect">
-           <bean class="org.springframework.orm.jpa.vendor.HibernateJpaDialect" />
-       </property>
-   </bean>
-
-   <bean id="shibboleth.JPASStorageService.JPAVendorAdapter"
-       class="org.springframework.orm.jpa.vendor.HibernateJpaVendorAdapter">
-       <property name="database" value="MYSQL" />
-   </bean>

    <!-- A DataSource bean suitable for use in the idp.persistentId.dataSource property. -->
```

- /opt/shibboleth-idp/conf/idp.properties
上記 1.のgrepコマンドで出力された変数の値を shibboleth.JPASStorageService から JDBCStorageService に変更します。

/opt/shibboleth-idp/conf/idp.properties

```
@@ -142,5 +142,5 @@ idp.session.secondaryServiceIndex=true

    # Set to "shibboleth.StorageService" or custom bean for alternate storage of consent
-    idp.consent.StorageService = shibboleth.JPASStorageService
+    idp.consent.StorageService = JDBCStorageService

    # Default consent auditing formats
```

4. Jettyの再起動

Jettyを再起動します。

```
# systemctl restart jetty
```