REMOVED_Upgrading from the Previous Release

The following instructions guide you through upgrading from WSO2 Identity Server 5.5.0 to WSO2 Identity Server 5.6.0. In this topic, <old_IS_HOME> is the directory that Identity Server 5.5.0 resides in and <NEW_IS_HOME> is the directory that Identity Server 5.6.0 resides in.



Before you begin

This release is a WUM-only release. This means that there are no manual patches. Any further fixes or latest updates for this release can be updated through the WSO2 Update Manager (WUM).

• If you are upgrading to this version to use this version in your production environment, use the WSO2 Update Manager and get the latest available updates for WSO2 IS 5.6.0. For more information on how to do this, see Updating WSO2 Products.



Migrating the embedded LDAP user store

It is not generally recommended to use the embedded LDAP user store that is shipped with WSO2 Identity Server in production setups. However, if migration of the embedded LDAP is required, follow the instructions below to migrate the existing IS 5.5.0 LDAP user store to IS 5.6.0.

- Copy the <OLD_IS_HOME>/repository/data folder to <NEW_IS_HOME>/repository/data folder
- Restart the server to save the changes.

To upgrade the version of WSO2 Identity Server, the user store database should be upgraded. Note that there are no registry schema changes between versions.

Follow the steps below as needed to complete the migration process.

- 1. Download Identity Server 5.6.0 and unzip it in the <NEW IS HOME> directory.
- 2. Take a backup of the existing database used by Identity Server 5.5.0. This backup is necessary in case the migration causes issues in the existing database.
- 3. Make the following database updates as indicated below.
 - a. Download the wso2is-migration-x.x.x.zip file from the latest release tag of the migration resources. Unzip it to a local directory.
 - This folder is referred to as <IS_MIGRATION_TOOL_HOME>.
 - b. Copy the org.wso2.carbon.is.migration-x.x.x.jar file in the <IS_MIGRATION_TOOL_HOME >/dropins folder into the <NEW_IS_HOME>/repository/components/dropins directory.
 - c. Copy the migration-resources folder to the <NEW_IS_HOME> root folder.
 - d. Ensure that the following property values are as follows in the migration-config.yaml file found in the <NEW_IS_HOME>/migration-resources folder.

```
migrationEnable: "true"

currentVersion: "5.5.0"

migrateVersion: "5.6.0"
```

- 4. Copy any custom OSGI bundles that were added manually from the <OLD_IS_HOME>/repository /components/dropins folder and paste it in the <NEW_IS_HOME>/repository/components/dropins folder.
- 5. Copy any added JAR files from the <OLD IS HOME>/repository/components/lib folder and paste it in the <NEW IS HOME>/repository/components/lib folder.
- 6. Copy the .jks files from the <OLD_IS_HOME>/repository/resources/security folder and paste them in <NEW_IS_HOME>/repository/resources/security folder.
- 7. If you have created tenants in the previous WSO2 Identity Server version and if there are any resources in the <OLD IS HOME>/repository/tenants directory, copy the content to the <NEW IS HOME> /repository/tenants directory.
- 8. If you have created secondary user stores in the previous WSO2 IS version, copy the content in the <OLD IS directory _HOME>/repository/deployment/server/userstores to the /repository/deployment/server/userstores directory.
- 9. You can use one of the following approaches to migrate depending on your production evironment.
 - Migrate by applying custom configurations to 5.6.0

This approach is recommended if:

 You have done very few configuration changes in your previous version of WSO2 IS. These configuration changes have been tracked and are easy to redo.

Steps:

- a. If you have made configuration changes to the config files in your previous version of WSO2 IS, update the files in the <NEW IS HOME>/repository/conf folder with your own configurations.
- b. Proceed to step 10 to run the migration client.
- Migrate by updating existing configurations with what's new in 5.6.0

This approach is recommended if:

- You have done many configuration changes in your previous version of WSO2 IS.
- These configurations have not been tracked completely and/or are difficult to redo.

Steps:

- a. Make a copy of the <OLD_IS_HOME>/repository/conf folder. (Do not change the original configs. You may use it as a backup in case there are any issues)
- b. The table below lists out all the configuration changes from IS 5.5.0 to IS 5.6.0. You can scroll through the table and change the relevant configurations according to the features you are using.



Tip: Scroll left/right to view the entire table below.

Note: The configuration changes listed below will not affect the existing system because these configurations are applied only at first start up and new tenant

If you wish to change the configurations for the existing tenants, configure it through the management console user interface.

Configuration File	Changes
carbon.xml file stored in the <is_home></is_home>	Change the version property value to 5.6.0.
	<version>5.6.0</version>

/repository /conf folder.

Add the following new property within the <cache> tag. Setting this property to true enables local cache invalidation for clustered nodes.

<ForceLocalCache>false/ForceLocalCache>

axis2.xml file stored in the <I S_HOME> /repository /conf/axis2 folder. Change the following property values to 5.6.0.

applicationauthenticati
on.xml file
stored in the <I
S_HOME>
/repository
/ conf
/identity fol
der.

Add the following new property within the root tag.

<AuthenticationEndpointMissingClaimsURL>
/authenticationendpoint/claims.do<
/AuthenticationEndpointMissingClaimsURL>

entitlement.
properties
file stored in
the <IS_HOME>
/repository
/conf
/identity
folder.

Add the following property. Setting this property to true will shorten the SAML JSON response format.

JSON.Shorten.Form.Enabled=false

identity.xml
file stored in
the <IS_HOME>
/repository
/conf
/identity fol
der.

Add the following properties within the <JDBCPersistenceMana ger><SessionDataPersist> tag. These configurations are relevant for cleaning

temporary authentication context data after each authentication flow.

```
data older than CleanUpTimeout value are
considered as expired
                and would be deleted during
cleanup task -->
    <CleanUpTimeout>40</CleanUpTimeout>
</TempDataCleanup>
```

Add the following property within the <OAuth> tag for OAuth key hashing. For more information, see Setting Up OAuth Token Hashing.

```
<!-- This should be true if the oauth keys
(consumer secret, access token, refresh token
and authorization code) need to be hashed,
before storing them in the database. If the
value is false, the oauth keys will be saved
in a plain text format.
By default : false.
Supported versions: IS 5.6.0 onwards.
<EnableClientSecretHash>false
/EnableClientSecretHash>
```



Tip: Use a fresh server to enable hashing.

Add the following configurations within the <EventListeners> tag.

```
<!-- Audit Loggers -->
<!-- Old Audit Logger -->
<EventListener type="org.wso2.carbon.user.core.</pre>
listener.UserOperationEventListener"
                       name="org.wso2.carbon.
user.mgt.listeners.UserMgtAuditLogger"
                       orderId="0" enable="
false"/>
<!-- New Audit Loggers-->
<EventListener type="org.wso2.carbon.user.core.</pre>
listener.UserOperationEventListener"
                       name="org.wso2.carbon.
user.mgt.listeners.UserManagementAuditLogger"
                       orderId="1" enable="
true"/>
<EventListener type="org.wso2.carbon.user.core.
listener.UserManagementErrorEventListener"
                       name="org.wso2.carbon.
user.mgt.listeners.UserMgtFailureAuditLogger"
                       orderId="0" enable="
true"/>
```

Add the following properties related to the validitating JWT based on JWKS capability. For more information, see Validating JWT based on JWKS.

If you are using SCIM 1.1, disable the following SCIM 2.0 event listener.

If you are using SCIM 2.0, disable the following SCIM 1.1 event listener (this listener is disabled by default in 5.6.0).

oidc-scopeconfig.xml file stored in the <IS_HOME> /repository /conf /identity fol der. Append the values "upn" and "groups" to the comma separated list within the <Scope id="openid"><Claim> element.

```
<Claim>
sub,email,email_verified,name,family_name,
given_name,middle_name,nickname,
preferred_username,upn,groups,profile,picture,
website,gender,birthdate,zoneinfo,locale,
updated_at,phone_number,phone_number_verified,
address,street_address,country,formatted,
postal_code,locality,region
</Claim>
```

These are MP-JWT supported claims. The MP-JWT 1.0 specification has introduced two claims; namely "upn" and "groups", which are mandatory to generate a JWT token that is supported by the MicroProfile JWT authentication framework.

catalinaserver.xml fi
le stored in the
<IS_HOME>
/repository
/conf
/tomcat folder.

Disable the following properties by setting the relevant properties to false to avoid displaying unneccessary information.

```
<!--Error pages -->
<Valve className="org.apache.catalina.valves.
ErrorReportValve" showServerInfo="false"
showReport="false"/>
```

claimconfig.xml fi
le stored in the
<IS_HOME>
/repository
/conf/ folder.

Add the following claims within the <Dialect dialectURI=" http://wso2.org/claims"> dialect tag.

```
<Claim>
    <ClaimURI>http://wso2.org/claims
/userprincipal</ClaimURI>
    <DisplayName>User Principal</DisplayName>
    <AttributeID>uid</AttributeID>
    <Description>User Principal</Description>
</Claim>
<Claim>
    <ClaimURI>http://wso2.org/claims
/extendedRef</ClaimURI>
    <DisplayName>Extended Ref</DisplayName>
    <!-- Proper attribute Id in your user
store must be configured for this -->
    <AttributeID>extendedRef</AttributeID>
    <Description>Extended Ref</Description>
</Claim>
<Claim>
    <ClaimURI>http://wso2.org/claims
/extendedDisplayName</ClaimURI>
    <DisplayName>Extended Display Name<</pre>
/DisplayName>
    <!-- Proper attribute Id in your user
store must be configured for this -->
    <AttributeID>extendedDisplayName<</pre>
/AttributeID>
    <Description>Extended Display Name<</pre>
/Description>
</Claim>
<Claim>
    <ClaimURI>http://wso2.org/claims
/costCenter</ClaimURI>
    <DisplayName>Cost Center</DisplayName>
    <!-- Proper attribute Id in your user
store must be configured for this -->
    <AttributeID>costCenter</AttributeID>
    <Description>Cost Center</Description>
```

Add the following claims within the <Dialect dialectURI="http://wso2.org/oidc/claim"> dialect tag.

```
<Claim>
    <ClaimURI>upn</ClaimURI>
    <DisplayName>User Principal/DisplayName>
    <AttributeID>uid</AttributeID>
    <Description>The user principal name<</pre>
/Description>
    <DisplayOrder>11</DisplayOrder>
    <SupportedByDefault />
    <MappedLocalClaim>http://wso2.org/claims
/userprincipal</MappedLocalClaim>
</Claim>
<Claim>
    <ClaimURI>groups</ClaimURI>
    <DisplayName>User Groups</DisplayName>
    <AttributeID>role</AttributeID>
    <Description>List of group names that have
been assigned to the principal. This typically
will require a mapping at the application
container level to application deployment
roles.</Description>
    <DisplayOrder>12</DisplayOrder>
    <SupportedByDefault />
    <MappedLocalClaim>http://wso2.org/claims
/role</MappedLocalClaim>
</Claim>
```

Add the following claims within the <Dialect dialectURI="urn:ietf:params:scim:schemas:core:2.0:User"> dialect tag.

```
<Description>Email Addresses/Description>
    <DisplayOrder>5</DisplayOrder>
    <SupportedByDefault />
    <RegEx>^([a-zA-Z0-9_\.\-])+\\@(([a-zA-Z0-9\-
])+\.)+([a-zA-Z0-9]{2,4})+$</RegEx>
    <MappedLocalClaim>http://wso2.org/claims
/emailaddress</MappedLocalClaim>
</Claim>
<Claim>
    <ClaimURI>urn:ietf:params:scim:schemas:
core:2.0:User:phoneNumbers</ClaimURI>
    <DisplayName>Phone Numbers
    <AttributeID>phoneNumbers</AttributeID>
    <Description>Phone Numbers/Description>
    <DisplayOrder>5</DisplayOrder>
    <SupportedByDefault/>
    <RegEx>^([a-zA-Z0-9_\.\-])+\\@(([a-zA-Z0-9\-
])+\.)+([a-zA-Z0-9]{2,4})+$</RegEx>
    <MappedLocalClaim>http://wso2.org/claims
/phoneNumbers</MappedLocalClaim>
</Claim>
<Claim>
    <ClaimURI>urn:ietf:params:scim:schemas:
core:2.0:User:photos</ClaimURI>
    <DisplayName>Photo</DisplayName>
    <AttributeID>photos</AttributeID>
    <Description>Photo</Description>
    <DisplayOrder>5</DisplayOrder>
    <SupportedByDefault />
    <MappedLocalClaim>http://wso2.org/claims
/photos</MappedLocalClaim>
</Claim>
<Claim>
    <ClaimURI>urn:ietf:params:scim:schemas:
core:2.0:User:addresses</ClaimURI>
    <DisplayName>Address</DisplayName>
    <AttributeID>addresses/AttributeID>
    <Description>Address/Description>
    <DisplayOrder>5</DisplayOrder>
    <SupportedByDefault />
    <MappedLocalClaim>http://wso2.org/claims
/addresses</MappedLocalClaim>
</Claim>
```

Replace the following property values within the urn:ietf: params:scim:schemas:extension:enterprise:2.0: User:employeeNumber claim URI.

Replace the following property values within the urn:ietf:params: scim:schemas:extension:enterprise:2.0:User:costCenter claim URI.

Replace the following property values within the urn:ietf: params:scim:schemas:extension:enterprise:2.0: User:manager.\$ref claim URI.

Replace the following property values within the urn:ietf: params:scim:schemas:extension:enterprise:2.0: User:manager.displayName claim URI.

```
<Claim>
    <ClaimURI>urn:ietf:params:scim:schemas:
extension:enterprise:2.0:User:manager.
displayName</ClaimURI>
    <DisplayName>Manager - Display Name<</pre>
/DisplayName>
    <AttributeID>extendedDisplayName<</pre>
/AttributeID>
    <Description>Manager - Display Name<</pre>
/Description>
    <Required />
    <DisplayOrder>1</DisplayOrder>
    <SupportedByDefault />
    <MappedLocalClaim>http://wso2.org/claims
/extendedDisplayName</MappedLocalClaim>
</Claim>
```

Add the following claims within the root tag. This new claim dialect and the claims within it are required for eiDAS.

For more information, see eIDAS SAML Attribute Profile Support via WSO2 Identity Server.

```
<Dialect dialectURI="http://eidas.europa.eu</pre>
/attributes/naturalperson">
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/naturalperson/PersonIdentifier<
/ClaimURI>
        <DisplayName>Person Identifier<</pre>
/DisplayName>
        <AttributeID>scimId</AttributeID>
        <Description>Person Identifier<</pre>
/Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/userid</MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/naturalperson/CurrentFamilyName<
/ClaimURI>
        <DisplayName>Current Family Name<</pre>
/DisplayName>
        <AttributeID>sn</AttributeID>
        <Description>Current Family Name<</pre>
/Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
```

```
<MappedLocalClaim>http://wso2.org
/claims/lastname</MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/naturalperson/CurrentGivenName<
/ClaimURI>
        <DisplayName>Current Given Name<</pre>
/DisplayName>
        <AttributeID>givenName</AttributeID>
        <Description>Current Given Name<</pre>
/Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/givenname</MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/naturalperson/DateOfBirth<
/ClaimURI>
        <DisplayName>Date of birth<
/DisplayName>
        <AttributeID>dateOfBirth<
/AttributeID>
        <Description>Date of birth<</pre>
/Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/dob</MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/naturalperson/BirthName<
/ClaimURI>
        <DisplayName>Birth Name<
/DisplayName>
        <AttributeID>uid</AttributeID>
        <Description>Birth Name<</pre>
/Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/username</MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/naturalperson/PlaceOfBirth<
/ClaimURI>
```

```
<DisplayName>Place of Birth<
/DisplayName>
        <AttributeID>country</AttributeID>
        <Description>Place of Birth<</pre>
/Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/country</MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/naturalperson/CurrentAddress<
/ClaimURI>
        <DisplayName>Current Address
/DisplayName>
        <AttributeID>localityAddress<</pre>
/AttributeID>
        <Description>Current Address<</pre>
/Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/addresses</MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/naturalperson/Gender</ClaimURI>
        <DisplayName>Gender</DisplayName>
        <AttributeID>gender</AttributeID>
        <Description>Gender/Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/gender</MappedLocalClaim>
    </Claim>
</Dialect>
<Dialect dialectURI="http://eidas.europa.eu</pre>
/attributes/legalperson">
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/legalperson
/LegalPersonIdentifier</ClaimURI>
        <DisplayName>Legal Person
Identifier</DisplayName>
        <AttributeID>extendedExternalId<</pre>
/AttributeID>
        <Description>Legal Person
Identifier</Description>
        <Required/>
```

```
<DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/extendedExternalId<
/MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/legalperson/LegalName</ClaimURI>
        <DisplayName>Legal Person Name<</pre>
/DisplayName>
        <AttributeID>extendedDisplayName<</pre>
/AttributeID>
        <Description>Legal Person Name<</pre>
/Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/extendedDisplayName<
/MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/legalperson/LegalPersonAddress<
/ClaimURI>
        <DisplayName>Legal Person Address
/DisplayName>
        <AttributeID>localityAddress
/AttributeID>
        <Description>Legal Person Address
/Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/addresses</MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/legalperson
/VATRegistrationNumber</ClaimURI>
        <DisplayName>VAT Registration
Number</DisplayName>
        <AttributeID>im</AttributeID>
        <Description>VAT Registration
Number</Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/im</MappedLocalClaim>
    </Claim>
```

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```
<Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/legalperson/TaxReference<
/ClaimURI>
        <DisplayName>Tax Reference<</pre>
/DisplayName>
        <AttributeID>postalcode<</pre>
/AttributeID>
        <Description>Tax Reference<</pre>
/Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/postalcode</MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/legalperson/D-2012-17-
EUIdentifier</ClaimURI>
        <DisplayName>EU Identifier<</pre>
/DisplayName>
        <AttributeID>externalId<
/AttributeID>
        <Description>EU Identifier<</pre>
/Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/externalid</MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/legalperson/LEI</ClaimURI>
        <DisplayName>LEI</DisplayName>
        <AttributeID>extendedRef<</pre>
/AttributeID>
        <Description>LEI</Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/extendedRef</MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/legalperson/EORI</ClaimURI>
        <DisplayName>Economic Operator
Registration and Identification<
/DisplayName>
        <AttributeID>departmentNumber<</pre>
/AttributeID>
```

```
<Description>Economic Operator
Registration and Identification<
/Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/department</MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/legalperson/SEED</ClaimURI>
        <DisplayName>System for Exchange of
Excise Data Identifier</DisplayName>
        <AttributeID>nickName</AttributeID>
        <Description>System for Exchange of
Excise Data Identifier</Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/nickname</MappedLocalClaim>
    </Claim>
    <Claim>
        <ClaimURI>http://eidas.europa.eu
/attributes/legalperson/SIC</ClaimURI>
        <DisplayName>Standard Industrial
Classification</DisplayName>
        <AttributeID>nickName</AttributeID>
        <Description>Standard Industrial
Classification</Description>
        <Required/>
        <DisplayOrder>1</DisplayOrder>
        <SupportedByDefault/>
        <MappedLocalClaim>http://wso2.org
/claims/nickname</MappedLocalClaim>
    </Claim>
</Dialect>
```

- c. Replace the <NEW_IS_HOME>/repository/conf folder with the modified copy of the <OLD _IS_HOME>/repository/conf folder.
- d. Proceed to step 10 to run the migration client.
- 10. Start the Identity Server 5.6.0 with the following command to perform the data migration for all components.
 - a. Linux/Unix:

```
sh wso2server.sh -Dmigrate -Dcomponent=identity
```

b. Windows:

wso2server.bat -Dmigrate -Dcomponent=identity

- 11. Once the migration is successful, stop the server and start using the appropriate command. a. Linux/Unix:

sh wso2server.sh

b. Windows:

wso2server.bat