USING SERVICE ACCOUNT INSTEAD OF NETWORK SERVICE FOR INTEGRATED DATABASE AUTHENTICATION

Contents

A. Preamble

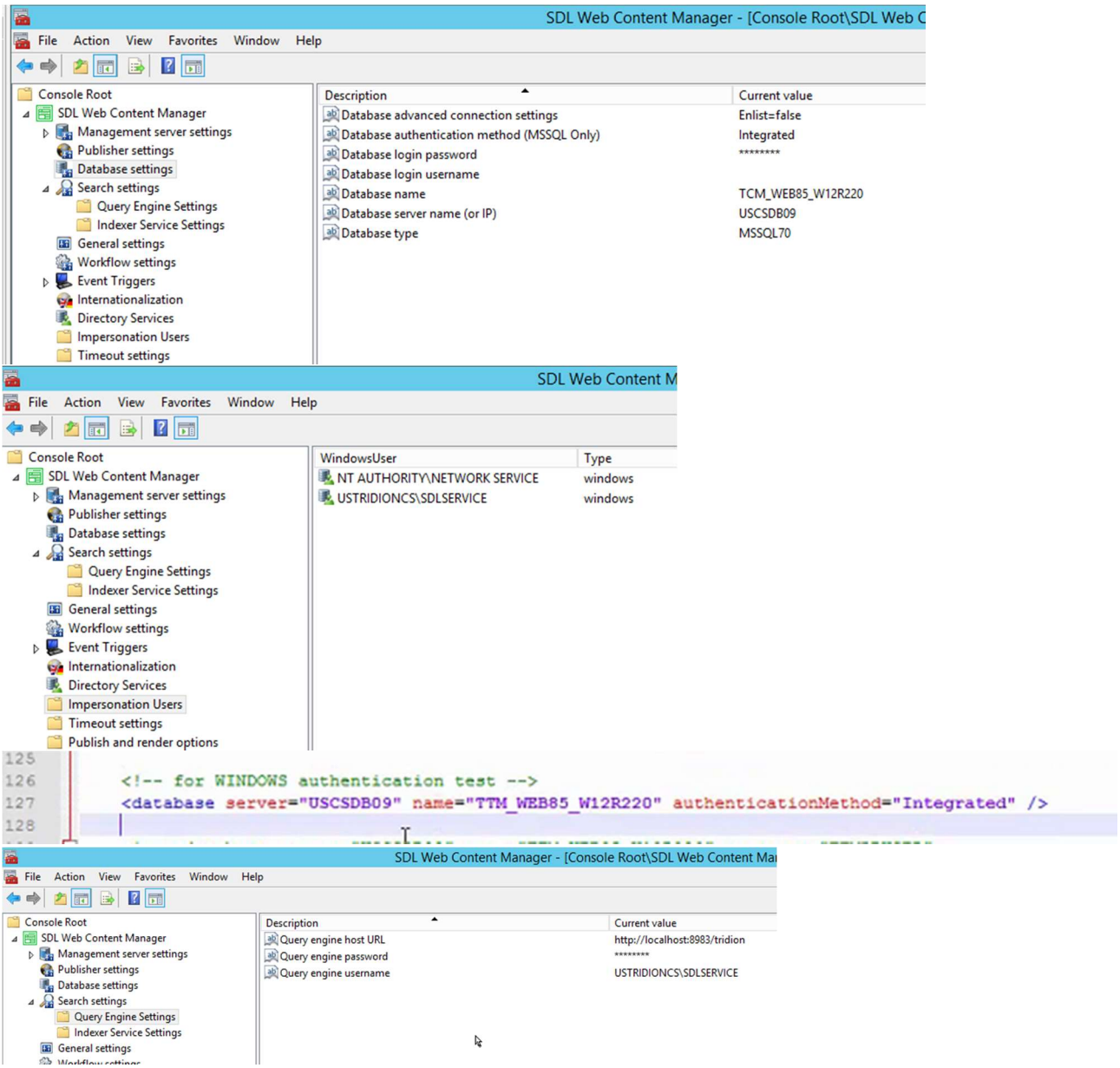
This document is a supplement to the SDL Web 8.5 online documentation, and describes in more detail how to install the Content Manager, Topology Manager, and Content Delivery with integrated database authentication.

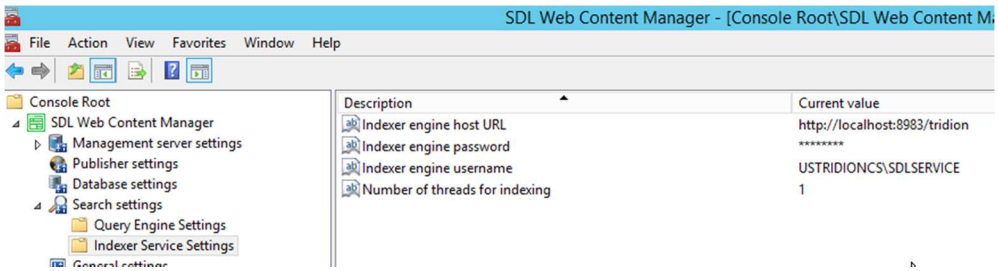
The document was verified for SDL Web 8.5 (SQL Server), and tested on Windows 2012 R2 (x64) with SQL Server 2014 (SP3) (KB4022619). Minor differences in interface and functionality when referenced for prior major versions of SDL Web. Compatibility with future versions of SDL Web (ie Tridion Sites 9.0) is not assured.

Verified on a test server only, further configuration changes may be required in a production environment. Not all configuration specifications may be necessary for integrated authentication.

B. CM configuration

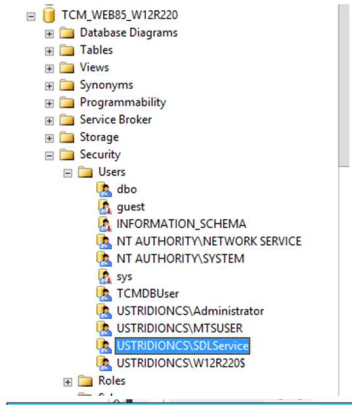
1. SDL Web MMC

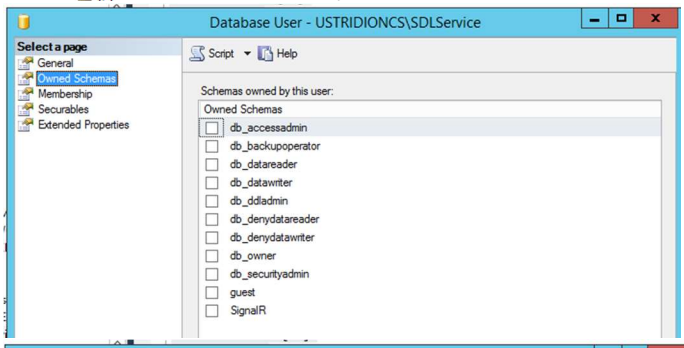


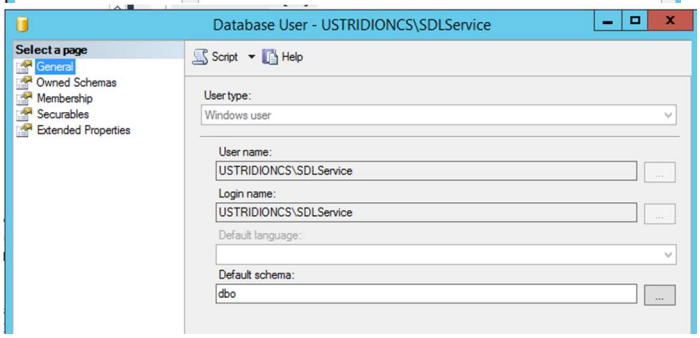


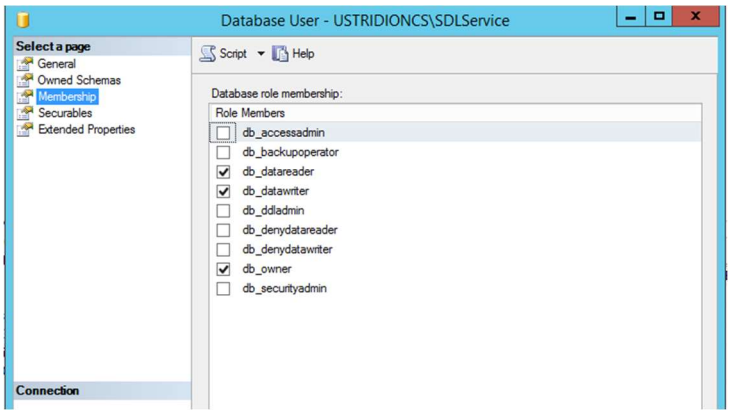
2. Database configuration

1. SSMS > TCM DB > Security > Users
   - User USTRIDIONCS\SDLService is added

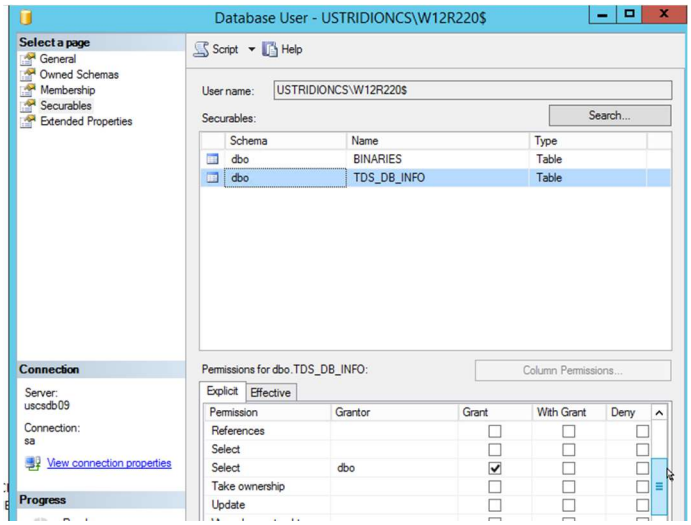






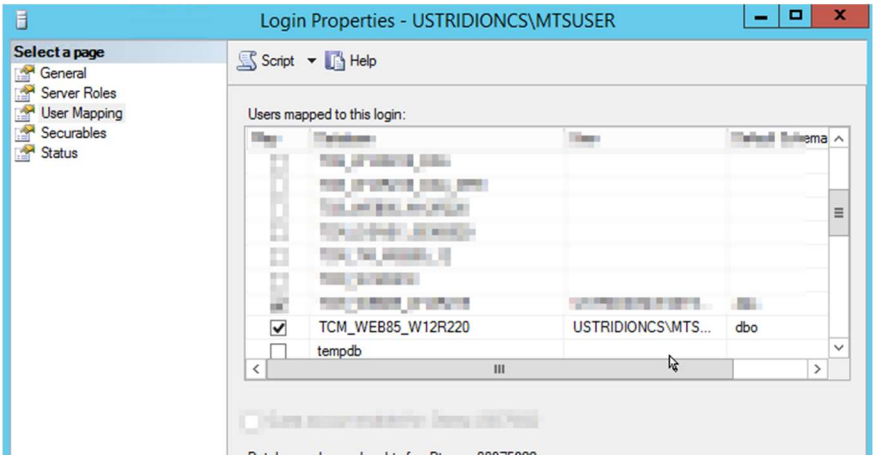


- Permissions for SDLService does *not* need to be granted to the BINARIES and TDS_DB_INFO tables.

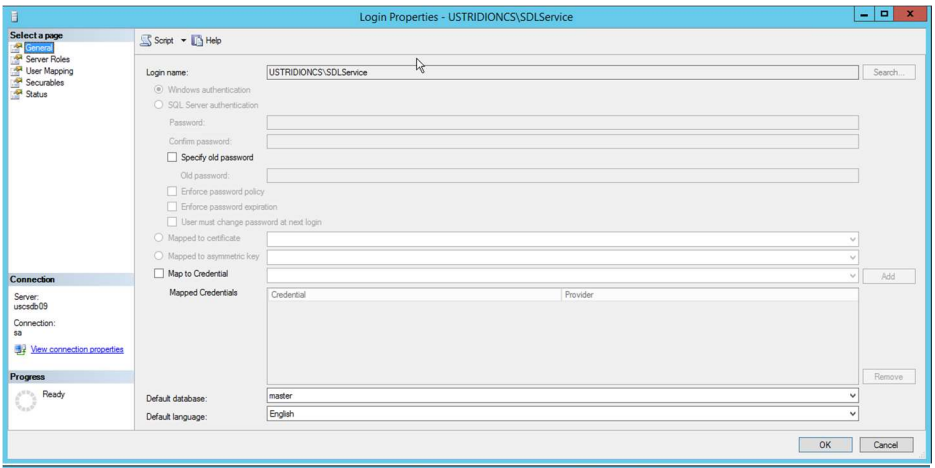


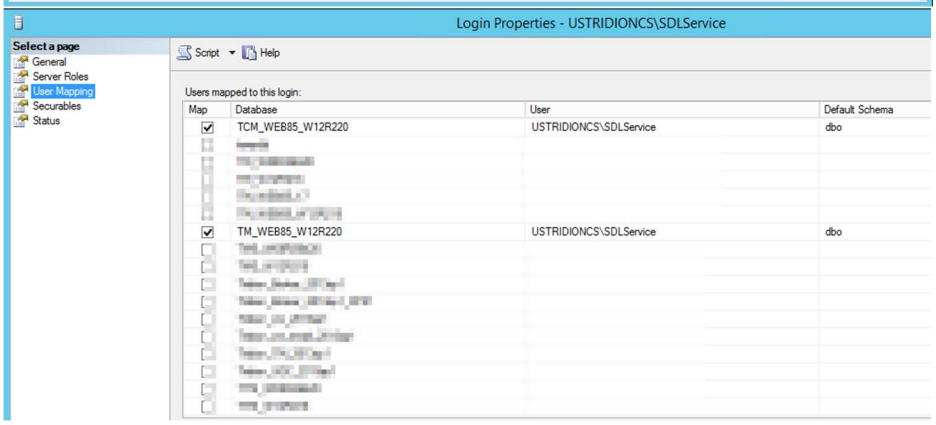
2. Ensure that the user accounts of any users that need to access your database are listed under Security > Logins . You typically would have specified these user accounts during installation or configuration. Ensure that they include:

- The MTS User account



- SDLService account





- The user who was logged in when you ran the Content Manager installer.

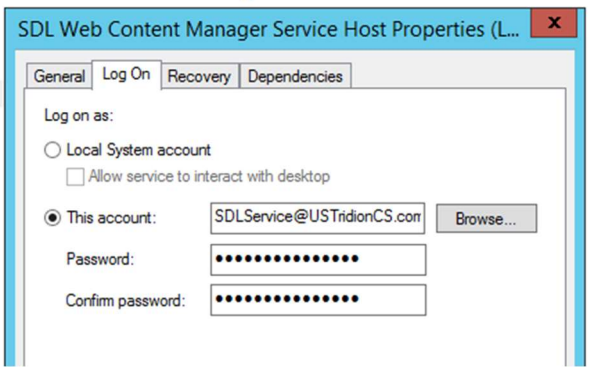
5. Ensure that these new users have administrator-level access to the software. You do this by setting the value of the privilege column to "1" for this user.

Results | Messages

	ID	NAME	ENABLED	IS_PREDEFINED	ITEM_TYPE	PRIVILEGE	IS_DEFAULT_GROUP	DELETED	DESCRIPTION
1	12	USTRIDIONCS\Administrator	1	0	65552	1	0	0	SDL Web Content Management Administrator
2	13	USTRIDIONCS\MTSUser	1	1	65552	1	0	0	System Account
3	14	USTRIDIONCS\SDLService	1	1	65552	1	0	0	SDLService account
4	15	W12R220\Admin	1	0	65552	1	0	0	Admin
5	16	W12R220\MTSUSER	1	1	65552	1	0	0	MTSUSER
6	17	NT AUTHORITY\NETWORK SERVICE	1	1	65552	1	0	0	NULL

3. Tridion Service CM Logins

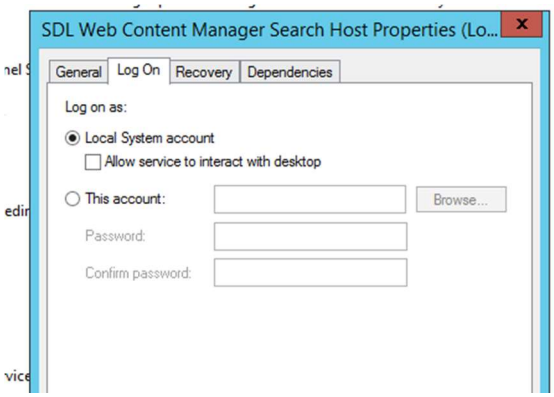
1. Log on for Tridion services is the SDLService account as in screenshot.



- Transport service
- Publisher
- Search Host

- Service Host
- Workflow Agent
- Translation Manager

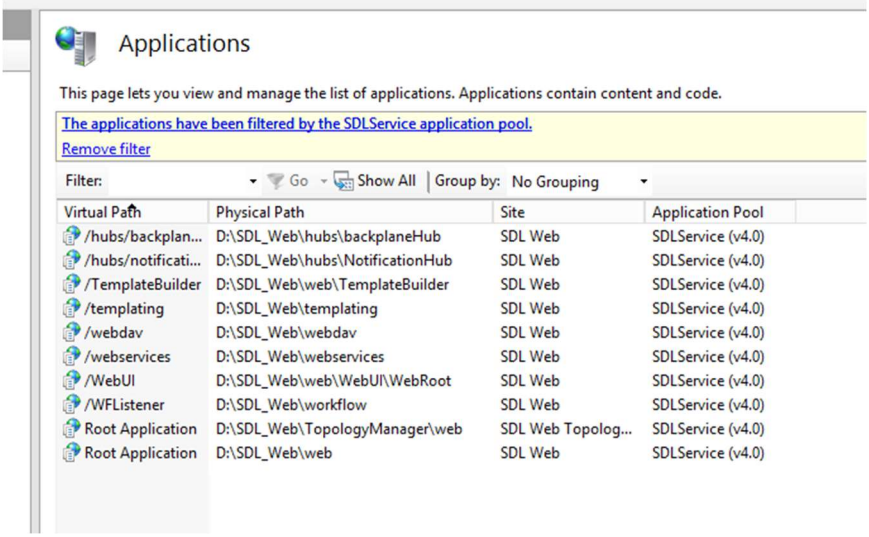
2. Logon to these services is SYSTEM account as in screenshot



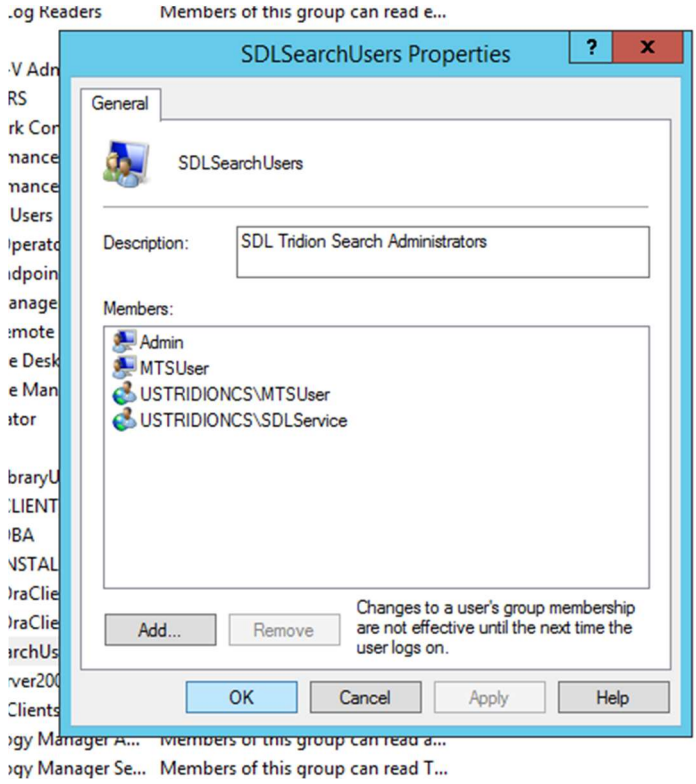
   a. Search Indexer
   b. Monitoring service

4. IIS config

1. All CM endpoints including Topology Manager are using the SDLService application pool



5. Add service user account to the SDLSearchUsers group

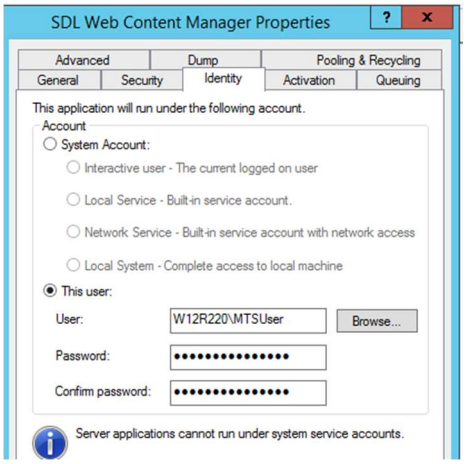


6. Other CM functionality tested

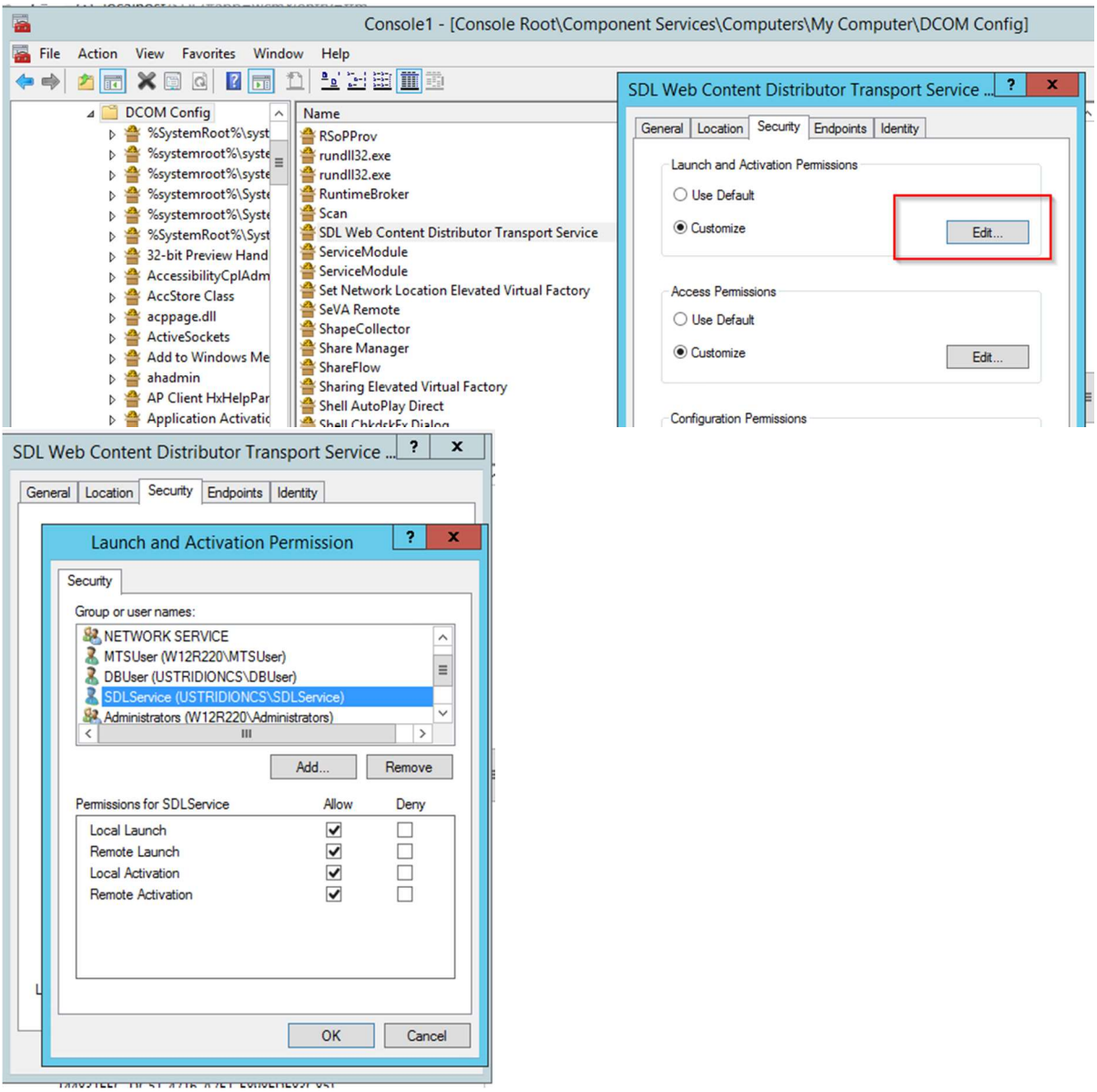
1. Publishing
2. Content Porter
3. Template Builder
4. Event system (by customer)

7. Component service configuration

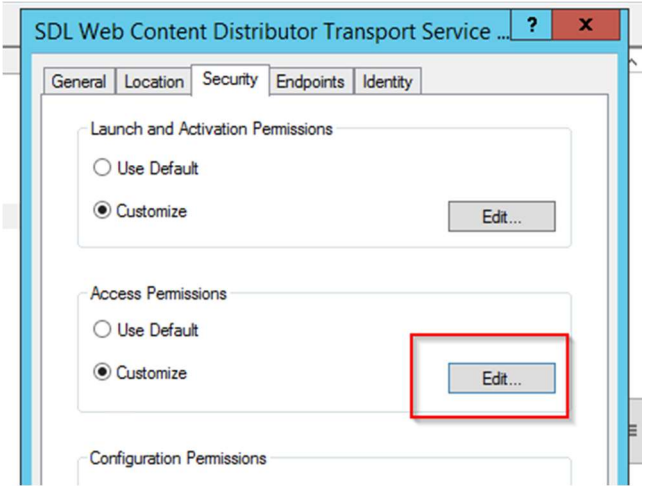
1. COM+ SDL Web Content Manager identity is machine name\MTSUSER

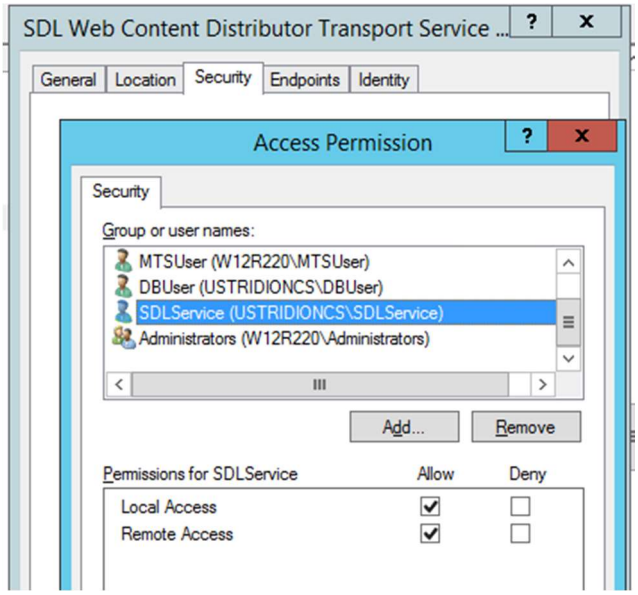


2. Navigate to MMC > Components Services > Computers > My Computers > DCOM Config > SDL Web Content Distributor Transport Service
    a. Edit Launch and Activation Permissions. Add SDLService as user and grant permissions.

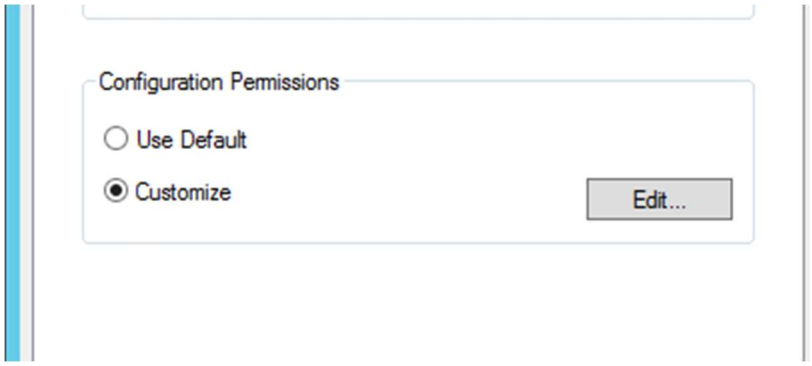


b. Also add service account for “Access Permissions”





c. No changes needed for Configuration Permissions.



8. Topology Manager configuration

As noted in the Web 8.5 documentation, it is necessary to modify the Topology Manager Web.config to use integrated authentication.

https://docs.sdl.com/LiveContent/content/en-US/SDL%20Web-v5/GUID-A7B26918-1A7B-4AE8-A6A6-16B82C893CC0

C. CD configuration

Documentation page on configuring CD databases for integrated authentication
https://docs.sdl.com/LiveContent/content/en-US/SDL%20Web-v5/GUID-975723FD-3A94-40F6-BBC7-82571A851488

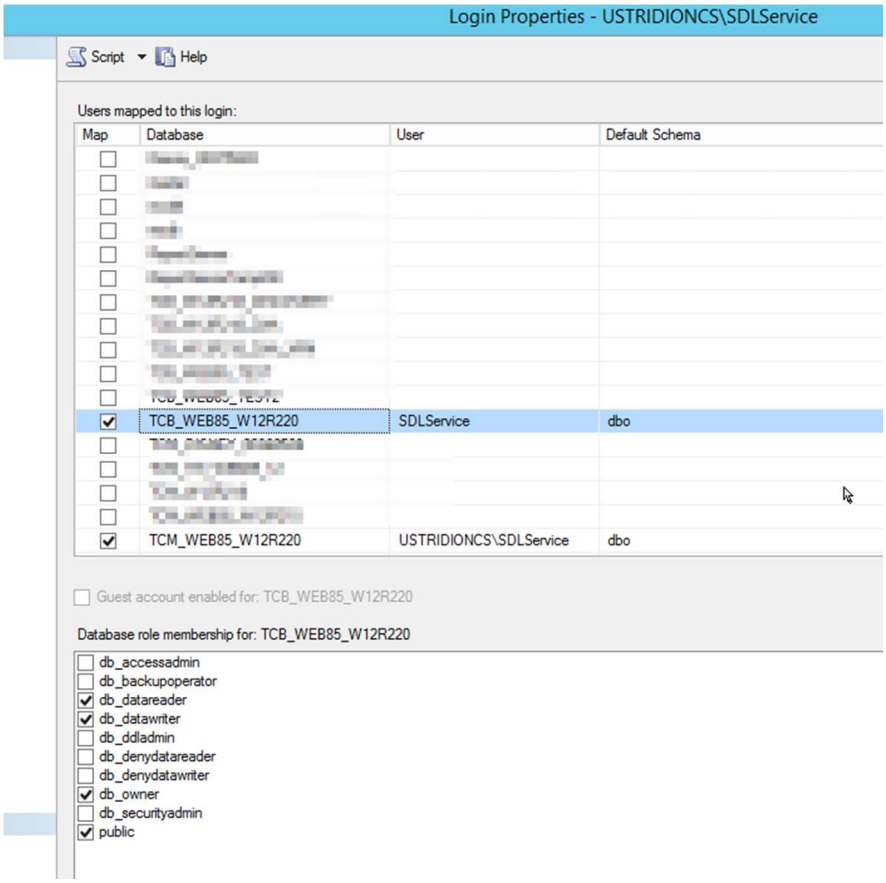
For SQL Server 2014, MS JDBC driver 7.2 was downloaded from page

https://docs.microsoft.com/en-us/sql/connect/jdbc/download-microsoft-jdbc-driver-for-sql-server?view=sql-server-2017

sqljdbc_auth.dll was placed at C:\Program Files\Java\jre1.8.0_172\bin on test server, but can be put in other location as desired.

1. Microservice configuration

1. Database configured as per documentation



2. $jvmoptions in .\installService.ps1 script of Microservice bin folder was modified to include reference to java.library.path param, ie
   $jvmoptions = "-Xrs", "-Xms128m", "-Xmx128m", "-Djava.library.path=C:/Program Files/Java/jre1.8.0_172/"
   Microservice was then reinstalled.
3. cd_storage_conf.xml of microservice edited as below

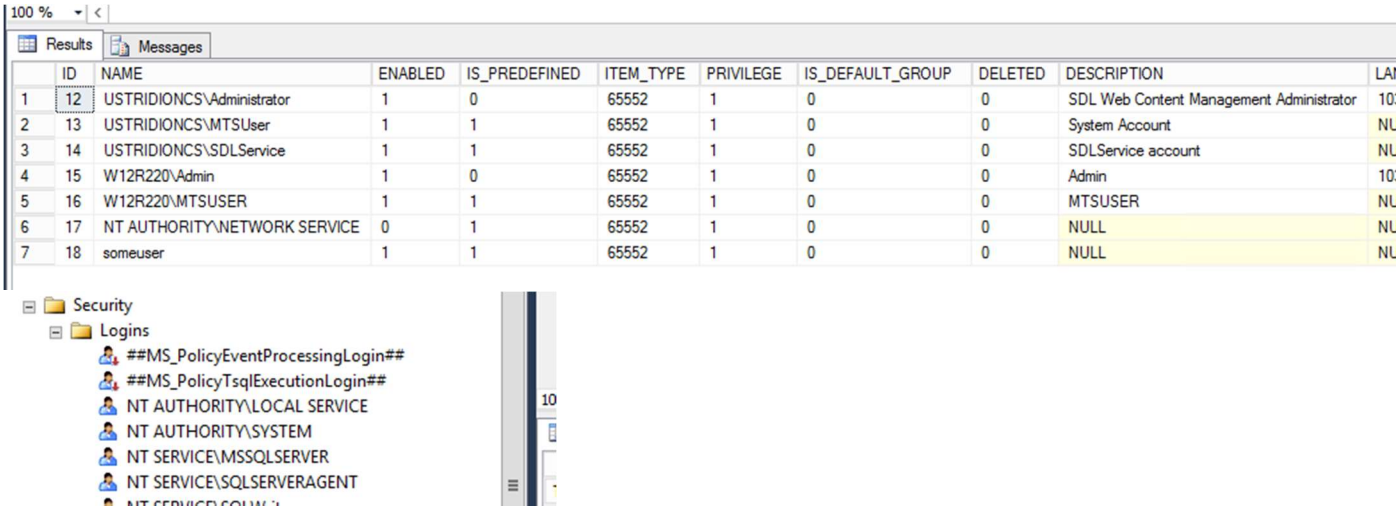
```
<Property Name="databaseName" Value="DATABASE_NAME"/>
<!-- <Property Name="user" Value="USERNAME"/>
<Property Name="password" Value="PASSWORD"/> -->
<Property Name="integratedSecurity" Value="true"/>
```

4. After service startup, fails with error
   2019-05-14 19:17:39,667 ERROR RetryPoolingDataSource - Passing exception to the caller. Attempt:0 Message:Integrated authentication failed. ClientConnectionId:9dff118a-e5be-4a98-9f04-a0ec11187ab8
   2019-05-14 19:17:59,462 ERROR SqlExceptionHelper - Integrated authentication failed. ClientConnectionId:62865e3e-93a1-4771-8493-6184dfb96032
   …
   2019-05-14 19:17:59,586 ERROR SpringApplication - Application startup failed
   org.springframework.beans.factory.UnsatisfiedDependencyException: Error creating bean with name 'dataSourceFactoryImpl': Unsatisfied dependency expressed through field 'dataSourceProviders'; nested exception is org.springframework.beans.factory.UnsatisfiedDependencyException: Error creating bean with name 'tridionConfigDataSourceProvider': Unsatisfied dependency expressed through field 'dataSource'; nested exception is org.springframework.beans.factory.BeanCreationException: Error creating bean with name 'tridionConfigDataSource': Invocation of init method failed; nested exception is javax.persistence.PersistenceException: org.hibernate.exception.JDBCConnectionException: Unable to

acquire JDBC Connection
…
Caused by: org.springframework.beans.factory.UnsatisfiedDependencyException: Error creating bean with name 'tridionConfigDataSourceProvider': Unsatisfied dependency expressed through field 'dataSource'; nested exception is org.springframework.beans.factory.BeanCreationException: Error creating bean with name 'tridionConfigDataSource': Invocation of init method failed; nested exception is javax.persistence.PersistenceException: org.hibernate.exception.JDBCConnectionException: Unable to acquire JDBC Connection
…
Caused by: javax.persistence.PersistenceException: org.hibernate.exception.JDBCConnectionException: Unable to acquire JDBC Connection
    at org.hibernate.internal.ExceptionConverterImpl.convert(ExceptionConverterImpl.java:147)
    at org.hibernate.internal.ExceptionConverterImpl.convert(ExceptionConverterImpl.java:155)
…
Caused by: org.hibernate.exception.JDBCConnectionException: Unable to acquire JDBC Connection
    at org.hibernate.exception.internal.SQLStateConversionDelegate.convert(SQLStateConversionDelegate.java:115)
    at org.hibernate.exception.internal.StandardSQLExceptionConverter.convert(StandardSQLExceptionConverter.java:42)
    at org.hibernate.engine.jdbc.spi.SqlExceptionHelper.convert(SqlExceptionHelper.java:111)
    at org.hibernate.engine.jdbc.spi.SqlExceptionHelper.convert(SqlExceptionHelper.java:97)
…
Caused by: com.microsoft.sqlserver.jdbc.SQLServerException: Integrated authentication failed. ClientConnectionId:62865e3e-93a1-4771-8493-6184dfb96032

D. Addendum

9. CM and DB must be hosted on separate machines.
10. Both servers must be added to the same domain.
11. NT AUTHORITY\NETWORK SERVICE user does not need to be added as a SQL Server Login, or as a DB user, or to the TRUSTEES table. It had previously been added but functionality is not disrupted when it is disabled as in screenshot.



12. If below error (the target principal is incorrect. Cannot generate SSPI context) is seen, this is likely due to an application pool or logon account being designated to an account other than the service account.