Common issue and fix – Test it out

* Transaction log grow very larger
* DML operation done on subscriber will stop replicate data
* Schema changes DDL

**Design**: SQL 2012 is publisher and SQL 2014 is subscriber & Distributer.

Ex: 1 - Insert

1. Manually insert rows in subscriber 2. Insert the same data in publisher as well– That will break the replication, since PK violation.

Fix: Whatever is inserted manually needs to be deleted from subscriber with where condition.

Ex: 2 – Delete

1. Insert three rows on publisher, after rows replicate 2. Delete in wrong order i.e delete first from subscriber 3. Then delete it from publisher

Fix: Insert that deleted rows in the subscriber

Ex: 3 – DDL

1. Add column in subscriber 2. Add column on publisher – Error out says the column name must be unique

Fix: Drop that column from subscriber

**Alter table drop column and see**

Drop column is replicating to subscriber

**Alter table add column and see**

Add column is replicating to subscriber

**Alter table add Unique constraint & Drop constraint the and see**

Adding and dropping constraint both are replicating to subscriber

**Alter table drop constraint PK and see**

Not working, since primary key is must. We need to remove table from replication and add it

**How to fix for these errors and make the replication back to SYNC**

* Full reinitialize for small database.
* Skip the commands in distribution. But make sure are you doing for correct known transactions

Drawback: The entire transaction will be skipped. Manually you can delete or make a dummy insert etc.

* Ignore errors in the agent. But make sure are you doing for correct known transactions

Identify the error number that is causing an issue. Modify the agent profile to ignore the specific error. Restart the distribution agent.

Drawback: We do not know what is exactly skipped. It will tell how many skipped.

* Re-initialize i. Full **snapshot** ii. From **backup** iii. Just initialize the **article** that is only having problem (just drop that article).

**How to fix table issue:**

Is the table is small remove and re add that single article using T-SQL, for larger table can use initialize From backup.

**Initialize Single article**

Remove existing article and re add – Working fine and changes are coming

Add new article– Working fine and changes are coming

**Initialize From backup**

Initialize single article when initialized from backup - Same like Single article initialized, but only changes instead of sp\_refreshsubscriptions, just generate new subscription (Video 57 min)

Using this method - both existing article changes and new added article are coming

Make DML changes in existing article - Working fine and changes are coming

Add new article and do DML– Working fine and changes are coming

**Sometimes, we need to remove or recreate complete publication and subscription**

Test removes only subscription and try it in the existing replication, which is configured by using snapshot method

Error - subscription is missing in subscriber and login account for distributer is using agent account, we can change it in subscription property

New article is not replicating it, only changes to existing article are coming up.

3. Test remove both publication (Script out Pub) and subscription and try it , which is configured by using snapshot method