# Syniti

## Data Replication

Setup Notes for Replications in SQL Always On AG Environment

Version 9.6.0.50

Software Release Date: 9/12/19



https://support.hitsw.com

#### **Document History**

Version	Author	Date	Reviewer	Date	Comments
1	SUpadhaya	6/19/20	VFarruggio	6/23/20	

#### Table of Contents

Overview	1
Environment	1
Configuring the Publisher DB in Availability Group	1
Configuring the Distribution DB in Availability Group	9
Additional Workflow	. 14
Configuration of replication in SDR	17

#### Overview

This document gives detailed steps on setting up transactional replications on a Microsoft SQL Server database that is part of an Always On Availability Group (AG) and the distribution database is also part of an availability group. It uses the environment described in next section as an example.

SQL Server 2017 CU6 and SQL Server 2016 SP2-CU3 introduced support for replication distribution database in an AG. When the publisher DB is part of an AG and the distribution DB is a remote stand-alone instance, please refer to the document named **MSSQLServer-AlwaysOn-DBMoto9.pdf** in the Help Center to correctly configure publisher and distributor.

Here is a brief overview as it relates to setting up Always On Availability Groups with Syniti DR. In a Microsoft SQL Server environment, an availability group can provide a failover environment for a set of user databases by supporting a set of primary databases and one to eight sets of secondary databases. Each set of availability databases is hosted by an availability replica. A single primary replica hosts the primary databases, and one to eight secondary replicas, which host a set of secondary databases that serve as a potential failover targets for the availability group.

The use of Always On Availability Groups requires the establishment of a Windows Server Failover Clustering (WSFC) cluster. Each availability replica within an availability group resides on a different node of the same WSFC cluster.

#### Environment

The example used to explain how to set up and use an Always On Availability Group with Syniti Data Replicaton is described below.

Distribution Database	Publisher Database
Cluster Name: WS19DISTRCLSTR1	Cluster Name: WS19ALWONCLSTR1
Nodes:	Nodes:
WS19-ALWON-MAC1 (Primary Replica)	WS19-ALWON-SQL1 (Primary Replica)
WS19-ALWON-MAC2 (Secondary Replica)	WS19-ALWON-SQL2 (Secondary Replica)
AG Name: Distributor_AG	AG Name: SyniAG
AG Listener: DistAGListener	AG Listener: SyniAGListener
DB Name: DBRS_distribution	DB Name: syni

#### Configuring the Publisher DB in Availability Group

The Publisher DB can be any source database that contains the data which needs to be replicated. This document uses **syni** as an example of a Publisher database. The Availability Group for the Publisher DB can be created via the Availability Group Wizard in SQL Server Management Studio.

Before starting with the wizard, make sure endpoints for database mirroring and login accounts on the server instances of primary and replicas are created.

Copyright © 2020 HiT Software, Inc d/b/a Syniti and/or its affiliates. All rights reserved. This document contains confidential and proprietary information and reproduction is prohibited unless authorized by Syniti. Names appearing within the product manuals may be trademarks of their respective owners.

1. Create endpoints on primary and secondary replicas for database mirroring.

```
--- Run below script on WS19-ALWON-SQL1 and WS19-ALWON-SQL2

CREATE ENDPOINT [Hadr_endpoint]

STATE=STARTED

AS TCP (LISTENER_PORT = 5022, LISTENER_IP = ALL)

FOR DATA_MIRRORING (ROLE = ALL, AUTHENTICATION = WINDOWS NEGOTIATE

, ENCRYPTION = REQUIRED ALGORITHM AES)

Go
```

2. Create a login account in the primary replica's server instance for the secondary replica to connect. Then, that login must be granted CONNECT permissions to connect to the database mirroring endpoint of that server instance.

```
-- Run below script on WS19-ALWON-SQL1(primary replica)
USE [master]
Go
CREATE LOGIN [HITSW\WS19-ALWON-SQL2$] FROM WINDOWS WITH
DEFAULT_DATABASE=[master], DEFAULT_LANGUAGE=[us_english]
Go
GRANT CONNECT on ENDPOINT::[Hadr_Endpoint] T0 [HITSW\WS19-ALWON-SQL2$];
```

Object Explorer Connect -	Login Properties - HITSW\WS1	19-ALWON-SQL2	\$			_			
□	Select a page  General  Server Roles	∬ Script ▼ 🥹 Help							
🗄 🛑 System Databases	User Mapping	Login name:	HITSW\WS19-ALW	ON-SQL2\$					
Database Snapshots Sample	<ul> <li>Securables</li> <li>Status</li> </ul>	Securables:				Search			
🗄 🛢 syni		Name				Туре			
🖃 🛑 Security		📱 Hadr_end	point			Endpoi	nt		
🖃 💻 Logins		WS19-AL	WON-SQL1			Server			
<ul> <li>Logins <ul> <li>##MS_PolicyEventProcessingLogi</li> <li>##MS_PolicyTsqlExecutionLogin#</li> <li>##TCMAnaged for grading of the second secon</li></ul></li></ul>									
NT SERVICE\Winmgmt	Connection	Permissions for	or Hadr_endpoint:						
🗳 sa	Server:	Explicit Effect	tive						
🗄 💻 Server Roles	WS19-ALWON-SQLT	Permission		Grantor	Grant	With Gr	Deny		
🕀 🗰 Credentials	Connection: sa	Alter							
E Cryptographic Providers		Connect							
🗄 💻 Audits	YT view connection properties	Connect		CTOM: Long.					
E Server Augit Specifications		Control							
Server Objects		Take owners	hin						

 Create a login account in the secondary replica's server instance for the primary replica to connect. Then, that login must be granted CONNECT permissions to connect to the database mirroring endpoint of that server instance.

-- Run below script on WS19-ALWON-SQL2(secondary replica) USE [master]



4. The Publisher DB syni is only present in the primary replica, with recovery set to "Full".



5. Start the wizard to create the availability group.



6. Provide the AG name and click **Next**.

new Availability Group			_		×
Specify Availabili	ity Group Options				
Introduction				0	Help
Specify Options					
Select Databases	Specify availability grou	ip options			
Specify Replicas	Availability group name:	syniAG			
Select Data Synchronization	Cluster type:	Windows Server Failover Cluste $$			
Validation	charter type:				
Summary		Database Level Health Detection			
Results					

7. Select database "syni" from the options and click Next.

👸 New Availability Group				_		×
Select Databases						
Introduction						) Help
Specify Options						
Select Databases	Select user database	es for the availa	bility group.			
Specify Replicas	User databases on th	is instance of SC	)L Server:			
Select Data Synchronization	Name	Size	Status	Passwo	ord	
Validation	5	16.0 MB	Full backup is required			
Valuation	🗹 syni	128.0 MB	Meets prerequisites			
Summary						
Results						

8. Set readable secondary to yes and availability mode to Synchronous commit and then click Add Replica.

👸 New Availability Group						—		×
Specify Replicas								
Introduction							0	Help
Specify Options	<b>.</b>							
Select Databases	Specify an instance	of SQL Se	rver to host	a second	dary replica.			
Specify Replicas	Replicas Endpoints	Backup	Preferences	Listener	Read-Only Routin	g		
Select Data Synchronization	Availability Replica	IS:						
Validation	Server	Initial	Automatic				<b>c</b> 1	
Summary	Instance Role to 3)			кеадаріе	Seconda	ry		
Results	WS19-ALWON-S	Primary		Synch	nronous commit $\times$	Yes		~
	Add Replica Summary for the Replica mode: Sy	Remo replica ho nchronous	ve Replica	519-ALW	ON-SQL1			

9. Add the secondary replica and set properties as shown in the screenshot below.

Introduction						C	) Help
Specify Options							
Select Databases	Specify an instance of	SQL Server to I	nost a seconda	ary replica.			
Specify Replicas	Replicas Endpoints B	ackup Preferen	ces Listener I	Read-Only Routing			
Select Data Synchronization	Availability Replicas:						
Validation		Initial	Automatic				
Summary	Server Instance	Role	to 3)	Availability Mode		Readable Secondary	
Results	WS19-ALWON-SQL1	Primary		Synchronous commit	~	Yes	$\sim$
	WS19-ALWON-SQL2	Secondary		Synchronous commit	~	Yes	$\sim$
	Add Replica	Remove Replic					
	Add Replica	Remove Replic	,u				

10. Select the **Automatic seeding** option in the "Select Data Synchronization" step.

Copyright © 2020 HiT Software, Inc d/b/a Syniti and/or its affiliates. All rights reserved. This document contains confidential and proprietary information and reproduction is prohibited unless authorized by Syniti. Names appearing within the product manuals may be trademarks of their respective owners.

Introduction	🕡 Help
Specify Options	
Select Databases	Select your data synchronization preference.
Specify Replicas	<u>A</u> utomatic seeding
Select Data Synchronization	SQL Server automatically creates databases for every selected secondary replica. Automatic seeding requires that the data and log file paths are the same on every SQL Server instance
Validation	participating in the availability group.
Summary	○ <u>F</u> ull database and log backup
Results	Starts data synchronization by performing full database and log backups for each selected database. These databases are restored to each secondary and joined to the availability group. Make sure the file share is accessible to all replicas and is mounted to the same directory on all Linux replicas.
	Specify the me share path in windows format.
	Specify the file share location in Linux format:
	Starts data synchronization where you have already restored database and log backups to each

11. Click **Next** on the validation step.

Validation		
Introduction		🕜 Help
Specify Options		
Select Databases	Results of availability group validation.	
Specify Replicas	Name	Result
Select Data Synchronization	Checking for free disk space on the server instance that hosts secondary replica	Success
Sciect Data Synchronization	Checking if the selected databases already exist on the server instance that host	Success
Validation	Checking for the existence of the database files on the server instance that hosts	Success
Summary	Checking for compatibility of the database file locations on the server instance	Success
Results	Checking whether the endpoint is encrypted using a compatible algorithm	Success
105016	Checking replica availability mode	Success
	Checking the listener configuration	Warning

12. Click **Finish** to complete the wizard successfully.

Copyright © 2020 HiT Software, Inc d/b/a Syniti and/or its affiliates. All rights reserved. This document contains confidential and proprietary information and reproduction is prohibited unless authorized by Syniti. Names appearing within the product manuals may be trademarks of their respective owners.



#### 13. Add the listener to the AG.



📱 New Availability Group Listen	er		-	$\times$
Select a page	🖵 Script 🔻 😯 Help			
	Listener DNS Name:	syniAGListener		
	Port: Network Mode: Choose a Subnet:	1433		
		DHCP		$\sim$
		10.60.10.0/24		$\sim$

14. The Availability Group's dashboard should look like the screenshot below.

syniAG:WS19-ALWON-S	iQL1 +⊨ ×					
🕑 syniAG: ho	sted by WS19-AL	WON-SQL1 (Replica	a role: Prima	ary)		
Availability group stat	te: Ø Healthy					
Primary instance:	WS19-ALWON-	SQL1				
Failover mode:	Manual					
Cluster state:	WS19ALWONCL	STR1 (Normal Quorum)				
Cluster type:	Windows Server	Failover Cluster				
Availability replica:						
Name	Role	Availability Mode	Failover M	Seeding M	Synchronization	Issues
WS19-ALWON-SQL	<u>1</u> Primary	Synchronous commit	Manual	Automatic	Synchronized	
WS19-ALWON-SQL	2 Secondary	Synchronous commit	Manual	Automatic	Synchronized	
Group by -						
Name WS19-ALWON-SQL1	Replica	Synchronization	St Failover F	Re Issues		
Syni	WS19-ALWON-SQL1	Synchronized	No Data L	-0		
Ø syni	WS19-ALWON-SQL2	Synchronized	No Data I	-0		

#### Configuring the Distribution DB in Availability Group

The distribution database AG needs to have a listener. When the Publisher adds the Distributor, it uses the listener name as the Distributor name. The log reader agent jobs created on the distribution server get created on all secondary replicas of the AG for Distribution DB. Please refer to below document for detailed information about setting up distribution databases in an AG.

https://docs.microsoft.com/en-us/sql/relational-databases/replication/configure-distribution-availabilitygroup?view=sql-server-ver15

1. Create endpoints on primary and secondary replicas for database mirroring.

```
-- Run below script on WS19-ALWON-MAC1 and WS19-ALWON-MAC2
CREATE ENDPOINT [Hadr_endpoint]
STATE=STARTED
AS TCP (LISTENER_PORT = 5022, LISTENER_IP = ALL)
FOR DATA_MIRRORING (ROLE = ALL, AUTHENTICATION = WINDOWS NEGOTIATE
, ENCRYPTION = REQUIRED ALGORITHM AES)
```

 Create a login account in the primary replica's server instance for the secondary replica to connect. Then, that login must be granted CONNECT permissions to connect to the database mirroring endpoint of that server instance.

```
-- Run below script on WS19-ALWON-MAC1(primary replica)
USE [master]
Go
CREATE LOGIN [HITSW\WS19-ALWON-MAC2$] FROM WINDOWS WITH
DEFAULT_DATABASE=[master], DEFAULT_LANGUAGE=[us_english]
Go
GRANT CONNECT on ENDPOINT::[Hadr_Endpoint] T0 [HITSW\WS19-ALWON-MAC2$];
```

Copyright © 2020 HiT Software, Inc d/b/a Syniti and/or its affiliates. All rights reserved. This document contains confidential and proprietary information and reproduction is prohibited unless authorized by Syniti. Names appearing within the product manuals may be trademarks of their respective owners.

	cace op_a	opurser i second and			,		
Batabases	🕯 📱 Login Properties - HITSW\WS	19-ALWON-MAC2\$			-		×
□ ■ Security	Select a page	🗖 Sariat 📼 🙆 Hala					
🖃 💻 Logins	🖋 General	🖬 Script 🕈 🔂 Help					
##MS_PolicyEventProcessingLo ##MS_PolicyTsqlExecutionLogin	g ⊮ Server Roles ⊯ User Mapping ⊮ Securables	Login name: HITSW\WS19-A	LWON-MAC2\$				
1. 17 Mar. 19 Mar.	🖋 Status	Securables:			Se	arch	
LITCANALIS		Name			Type		
introne, Jario	<b>L</b>	Hadr endpoint			Endpoi	nt	
HITSW\WS19-ALWON-MAC2\$	-	WS19-ALWON-MAC1			Server		
NT AUTHORITY STSTEM							
NT SERVICE\SOLSERVERAGENT							
NT SERVICE SOLITELEMETRY							
NT SERVICE\SQLWriter							
NT SERVICE\Winmgmt							
🔓 sa							
🗄 📕 Server Roles							
🗄 💻 Credentials	Connection						
표 🛑 Cryptographic Providers	Connection						_
🕀 📕 Audits	Server:	Permissions for Hadr_endpoir	nt:				
E Server Audit Specifications		Explicit Effective					
Server Objects	Connection:	Permission	Grantor	Grant	With Gr	Deny	
Replication     Replication	View connection properties	Alter					
🖮 💻 Polybase	TT view connection properties	Connect					
Aiways on high Availability     Management		Connect	LITCHARD	$\checkmark$			
Integration Services Catalogs		Control					
■ 易 SOL Server Agent	Progress	Take ownership					
		View definition					

3. Run the script below on the secondary replica to create a login account for the primary replica to connect.

```
-- Run below script on WS19-ALWON-MAC2
USE [master]
Go
CREATE LOGIN [HITSW\WS19-ALWON-MAC1$] FROM WINDOWS WITH
DEFAULT_DATABASE=[master], DEFAULT_LANGUAGE=[us_english]
Go
GRANT CONNECT on ENDPOINT::[Hadr_Endpoint] T0 [HITSW\WS19-ALWON-MAC1$];
```

Object Explorer	Login Properties - HITSW\WS	19-ALWON-MAC1\$		- 🗆 X
Object Explorer         Connect * # *# = * C         • • • WS19-ALWON-MAC2 (SQL Server 14.0.32         • • • • Databases         • • • • Databases         • • • • Cogins         • ##MS_PolicyTsqlExecutionLogin#         • • • • • • • • • • • • • • • • • • •	Login Properties - HITSWWS Select a page # General # Server Roles # User Mapping # Securables * Status	19-ALWON-MAC1\$ I Script ▼  Help Login name: HITSW/WS19-ALW Securables: Name ¥ Hadr_endpoint WS19-ALWON-MAC2	ON-MAC1\$	- X
Credentials     Cryptographic Providers     Audits     Server Audit Specifications     Server Objects     Replication     PolyBase	Connection Server: WS19-ALWON-MAC2 Connection:	Permissions for Hadr_endpoint: Explicit Effective Permission Alter Connect Connect Connect	Grantor	Grant With Gr Deny

4. Connect to the system WS19-ALWON-MAC1 (primary replica) from MS SQL Server Management Studio and run the script below.

```
Use master
Go
-- Add distributor.
--Specify the password for distributor_admin through the @password. The
@password should be identical across 'WS19-ALWON-MAC1' and 'WS19-ALWON-MAC2'
exec sp adddistributor @distributor = 'WS19-ALWON-MAC1', @password =
'Password'
Go
-- Create distribution DB 'DBRS distribution
exec sp adddistributiondb @database = 'DBRS distribution', @data file =
'DBRS_distribution_Data', @data_file_size = 5, @log_file =
'DBRS_distribution_Log', @log_file_size = 2, @max_distretention = 72,
@security_mode = 1
Go
-- Set Recovery to Full
Alter Database [DBRS_distribution] Set Recovery Full
Go
-- Take DB backup
Backup Database [DBRS_distribution] to Disk = 'Nul'
Go
```

Copyright © 2020 HiT Software, Inc d/b/a Syniti and/or its affiliates. All rights reserved. This document contains confidential and proprietary information and reproduction is prohibited unless authorized by Syniti. Names appearing within the product manuals may be trademarks of their respective owners.

5. Create the Availability Group Distributor\_AG

```
-- Create availability group for 'DBRS distribution'.
USE [master]
Go
CREATE AVAILABILITY GROUP [Distributor_AG]
  FOR DATABASE DBRS_distribution
  REPLICA ON N'WS19-ALWON-MAC1'
WITH (
  ENDPOINT_URL = N'TCP://WS19-ALWON-MAC1.hitsw.com:5022',
  FAILOVER MODE = AUTOMATIC,
  AVAILABILITY_MODE = SYNCHRONOUS_COMMIT,
SECONDARY_ROLE(ALLOW_CONNECTIONS = ALL),
SESSION_TIMEOUT = 10
),
  N'WS19-ALWON-MAC2' WITH (
    ENDPOINT URL = N'TCP://WS19-ALWON-MAC2.hitsw.com:5022',
    FAILOVER_MODE = AUTOMATIC,
AVAILABILITY_MODE = SYNCHRONOUS_COMMIT,
    SEEDING_MODE = AUTOMATIC,
SECONDARY_ROLE(ALLOW_CONNECTIONS = ALL),
SESSION TIMEOUT = 10;
Go
```

Add a listener to the AG from Object Explorer. Provide the default port 1433 when creating the listener.



📱 Availability Group Liste	ener Properties - DistAGListene	er		-	$\times$
Select a page	🖵 Script 🔻 😮 Help				
	Listener DNS Name:	DistAGLis	stener		
	Port:	1433			
	Network Mode:	DHCP			$\sim$
	Subnet		IP Address		
	10.60.10.0/24		10.60.10.67		

6. Run the script below on the secondary replica (system: WS19-ALWON-MAC2)

```
USE master
Go
--Specify the same password as provided when running the sp on 'WS19-ALWON-
MAC1'
exec sp_adddistributor @distributor = 'WS19-ALWON-MAC2', @password =
'Password'
Go
ALTER AVAILABILITY GROUP [Distributor_AG] JOIN
GO
ALTER AVAILABILITY GROUP [Distributor_AG] GRANT CREATE ANY DATABASE
Go
exec sp_adddistributiondb @database = 'DBRS_distribution', @security_mode = 1
```

 Run the script below to add WS19-ALWON-SQL1 and WS19-ALWON-SQL2 as publisher on WS19-ALWON-MAC1 and WS19-ALWON-MAC2

```
--Run below script on WS19-ALWON-MAC1 and WS19-ALWON-MAC2
USE master
Go
EXEC sp_addDistPublisher @publisher = 'WS19-ALWON-SQL1', @distribution_db =
'DBRS_distribution',
    @working_directory =
'\\hitsnap03\Public\SHARED\DistributionDB_WorkingFolder\'
Go
    EXEC sp_addDistPublisher @publisher = 'WS19-ALWON-SQL2', @distribution_db
= 'DBRS_distribution',
    @working_directory =
'\\hitsnap03\Public\SHARED\DistributionDB_WorkingFolder\'
```

The value of @working\_directory should be a network path independent of WS19-ALWON-MAC1 and WS19-ALWON-MAC2.

8. All the nodes in the distribution database AG need to use the same domain account to run SQL Server Agent, and this domain account needs to have the same privilege on each node.

#### Additional Workflow

After AGs for Distributor and Publisher are configured properly, follow the steps below.

1. To add the distribution database AG listener as the Distributor, on Publisher DB replicas, run:

```
--Run below script on WS19-ALWON-SQL1 and WS19-ALWON-SQL2
USE master
Go
EXEC sp_adddistributor @distributor = 'DistAGListener', @password =
'Password'
```

The value of @password should be the one that was specified when Distributors were configured.

2. After adding the Distributor on the Publisher, enable replication for the publisher database syni.

```
-- run only on server instance used as primary replica (WS19-ALWON-SQL1)
Use master
Go
EXEC sys.sp_replicationdboption
@dbname = 'syni',
@optname = 'publish',
@value = 'true';
```

- 3. Follow steps in **Configuration of Replication in SDR** to create a replication.
- 4. After the publication has been created on the Publisher database, run the stored procedure sp\_redirect\_publisher to associate the original Publisher and the published DB with the AG listener name. Run the script below on the primary replica of Distribution DB.

```
-- Run on Primary replica (WS19-ALWON-MAC1), add Publisher's listener
USE DBRS_distribution
G0
EXEC sys.sp_redirect_publisher
@original_publisher = 'WS19-ALWON-SQL1',
@publisher_db = 'syni',
@redirected_publisher = 'SyniAGListener'
G0
```

5. Run the stored procedure sp\_validate\_replica\_hosts\_as\_publishers to verify that the replica host is now configured to serve as Publisher for the published database.

-- Run on Primary replica (WS19-ALWON-MAC1) USE DBRS distribution;



6. Using the Replication Monitor, register the Publisher's listener **syniAGListener** on the Distributor's Primary replica.

	🗉 🚞 Trigger	s	
+	Replication		
+	PolyBase		Distributor Properties
-	Always O		Disable Publishing and Distribution
	🗆 📕 Availa		
			Launch Replication Monitor

7. Click on the **Add Publisher** link.



8. Click on Add SQL Server Publisher as shown.

Copy message

Add Publisher		_		×		
Connection	ing Publisher(s):					
Publisher	Distributor		Add	•		
			Add S	QL Server	r Publisher	
			Add C	racle Pub	olisher	
Connect automatically	when Replication Monitor starts		Specif	y a Distril	butor and Add Its Publish	ers
Auto refresh						
Refresh rate:	<ul> <li>seconds</li> </ul>					
Ţ						
Connect to Server				×		
	SQL Server					
Server type:	Database Engine			~		
Server name:	syniAGListener			-		
<u>A</u> uthentication:	Windows Authentication			•		
User name:	птотт заравнаув			-		
Password:				_		
_	Remember password					
	Connect Cancel He	elp	Options	»		
		·				
Replication Monitor					×	
Status information the following dialo	for Publisher 'syniAGListener' is stored at its Dis g box, specify how Replication Monitor should co	stributor, 'DI onnect to the	STAGLISTEN Distributor.	NER'. In		

Copyright © 2020 HiT Software, Inc d/b/a Syniti and/or its affiliates. All rights reserved. This document contains confidential and proprietary information and reproduction is prohibited unless authorized by Syniti. Names appearing within the product manuals may be trademarks of their respective owners.

ΟK

Cancel

Connect to Serve	r X
	SQL Server
Server type:	Database Engine
Server name:	DISTAGLISTENER
<u>Authentication:</u>	Windows Authentication
<u>U</u> ser name:	miori supumuju
Password:	
	Remember password
	<u>Connect</u> Cancel Help <u>Options &gt;&gt;</u>

9. Connect to the Distributor's listener to retrieve publisher settings.

Publisher         Distributor         Add           syniAGListener         DISTAGLISTENER	
syniAGListener DISTAGLISTENER	•
<u>R</u> emov	э

#### Configuration of Replication in SDR

1. Create a source connection to the Publisher DB from SDR. The Publisher's AG Listener name should be used as **Data Source** in the connection string (as shown in the screenshot), instead of one of the node's instance names.

	ta Providenta,				
C	Database:	Microsoft Se	QL Server	~	
F	Provider:	Microsoft.N	IET Driver (SQLClient)	~	
4	Assembly:			🔍 Browse	
on	nnection Optic	ns:			
~	Misc Type Mappir	on Conditions	Unspecified		
Tvi	pe Mapping	Conditions			
Cor	pe Mapping ntains a list o mmand param	Conditions f conditions to se eters. Possible v	t for assigning type mapp alues: - Unspecified: no c	ing when building condition active; - Un.	
Con	pe Mapping ntains a list o mmand param nnection Strin	Conditions f conditions to se leters. Possible v g:	t for assigning type mapp alues: - Unspecified: no c	ing when building condition active; - Un.	
Con Con	pe Mapping ntains a list o mmand param nection Strin Required	Conditions f conditions to se teters. Possible v g:	t for assigning type mapp alues: - Unspecified: no c	ing when building condition active; - Un.	~
Tyr Cor Cor	pe Mapping ntains a list o mmand param nection Strin Required Data Source	Conditions f conditions to se teters. Possible v g:	t for assigning type mapp alues: - Unspecified: no c SyniAGListener	ing when building condition active; - Un.	^
Con Con	pe Mapping ntains a list o mmand param nection Strin Required Data Source User ID	Conditions f conditions to se leters. Possible v g:	t for assigning type mapp alues: - Unspecified: no c SyniAGListener Sa	ing when building condition active; - Un.	^
Tyr Cor Cor	pe Mapping ntains a list o mmand param nection Strin Required Data Source User ID Password Optional	Conditions f conditions to se eters. Possible v g:	t for assigning type mapp alues: - Unspecified: no c SyniAGListener Sa	ing when building condition active; - Un.	~
Tyr Cor Cor	pe Mapping ntains a list o mmand param nection Strin Required Data Source User ID Password Optional Initial Catalo	Conditions f conditions to se eters. Possible v g: e	t for assigning type mapp alues: - Unspecified: no c SyniAGListener Sa	ing when building condition active; - Un.	^

2. Enable a transactional replication using the Enable Transactional Replication Setup wizard in SDR.





3. Choose **Log Reader** as the Log Type.

💰 Enable Transactional Rep	lication Wizard	Х
	Syniti Data Replication	
Log Type	Choose the appropriate type of logging for this connection. For more information, see Choosing a Log Type for Transactional Replications	
Actions Summary	<ul> <li>Log Reader</li> <li>[Default option] Every replication will activate a reader thread to check for new transactions to replicate. Choose this option if you plan to add a limited number of replications and do not want to install additional services on the system that is</li> </ul>	
	<ul> <li>Log Server Agent         A Server Agent service will be created to autonomously read the transaction log from         the database. Choose this option if you plan to add many replications and you need a         scalable solution that doesn't require multiple simultaneous connections to the     </li> <li>Triggers         Every replication will create a trigger on the database to log data from committed         transactions. Choose this option if you plan to add a limited number of replications and         you can allow changes to the source database.</li> </ul>	
	< Back Next > Cancel Help	

4. Provide system admin credentials and click on the highlighted button to make sure the remote distributor is selected.

💰 Enable Transactional Re	plication Wizard	<
	Syniti Data Replication	
Log Type	Add a sysadmin login below for creating the Distributor and accessing the transaction log.	
Actions Summary	Distributor Settings - Log Reader Publisher: syniAGListener Distributor: syniAGListener	
	Use Windows authentication Use SQL Server authentication User: sa Password: *******	tor
	< Back Next > Cancel Help	

5. Provide login credentials for the remote distributor and click **OK**.

Change Distribut	or X
Distributor	
🔿 Use Local Distribu	itor
Server.	WS19-ALWON-SQL1
Database:	DBRS_distribution
Use Remote Distri	butor
Server:	DISTAGLISTENER
Database:	DBRS_distribution
Login	
O Use Wi Use SQ	ndows authentication L Server authentication
User:	sa
Passwo	ord: *******
Specify Install Pat	h for the Distributor
Path:	

6. Add a target connection and create replications in the usual way. This will create publications on the Publisher DB.