1. Create/Configure Monitor Server (Tried CMS but not working due to column issues during execution)

2. Create Linked Servers on Monitor for Primary, Secondary AG Replica's.

3. Configure DB Mail on Monitor Server.

4. Deploy SP: Query Result to HTML on Monitor Server

5. Execute below script on Monitor Server

(or) Create a SQL Agent Job using below given job script.

==================================

**--Linked Server-1:**

USE [master]

GO

/\*\*\*\*\*\* Object: LinkedServer [Alpha] Script Date: 17-08-2020 15:09:27 \*\*\*\*\*\*/

EXEC master.dbo.sp\_addlinkedserver @server = N'Alpha', @srvproduct=N'SQLServer', @provider=N'SQLNCLI', @datasrc=N'WPMADUPU\Alpha'

/\* For security reasons the linked server remote logins password is changed with ######## \*/

EXEC master.dbo.sp\_addlinkedsrvlogin @rmtsrvname=N'Alpha',@useself=N'True',@locallogin=NULL,@rmtuser=NULL,@rmtpassword=NULL

GO

EXEC master.dbo.sp\_serveroption @server=N'Alpha', @optname=N'collation compatible', @optvalue=N'false'

GO

EXEC master.dbo.sp\_serveroption @server=N'Alpha', @optname=N'data access', @optvalue=N'true'

GO

EXEC master.dbo.sp\_serveroption @server=N'Alpha', @optname=N'dist', @optvalue=N'false'

GO

EXEC master.dbo.sp\_serveroption @server=N'Alpha', @optname=N'pub', @optvalue=N'false'

GO

EXEC master.dbo.sp\_serveroption @server=N'Alpha', @optname=N'rpc', @optvalue=N'true'

GO

EXEC master.dbo.sp\_serveroption @server=N'Alpha', @optname=N'rpc out', @optvalue=N'true'

GO

EXEC master.dbo.sp\_serveroption @server=N'Alpha', @optname=N'sub', @optvalue=N'false'

GO

EXEC master.dbo.sp\_serveroption @server=N'Alpha', @optname=N'connect timeout', @optvalue=N'0'

GO

EXEC master.dbo.sp\_serveroption @server=N'Alpha', @optname=N'collation name', @optvalue=null

GO

EXEC master.dbo.sp\_serveroption @server=N'Alpha', @optname=N'lazy schema validation', @optvalue=N'false'

GO

EXEC master.dbo.sp\_serveroption @server=N'Alpha', @optname=N'query timeout', @optvalue=N'0'

GO

EXEC master.dbo.sp\_serveroption @server=N'Alpha', @optname=N'use remote collation', @optvalue=N'true'

GO

EXEC master.dbo.sp\_serveroption @server=N'Alpha', @optname=N'remote proc transaction promotion', @optvalue=N'true'

GO

**--Linked Server-2:**

USE [master]

GO

/\*\*\*\*\*\* Object: LinkedServer [Beta] Script Date: 17-08-2020 15:09:55 \*\*\*\*\*\*/

EXEC master.dbo.sp\_addlinkedserver @server = N'Beta', @srvproduct=N'SQLServer', @provider=N'SQLNCLI', @datasrc=N'WPMADUPU\BETA'

/\* For security reasons the linked server remote logins password is changed with ######## \*/

EXEC master.dbo.sp\_addlinkedsrvlogin @rmtsrvname=N'Beta',@useself=N'True',@locallogin=NULL,@rmtuser=NULL,@rmtpassword=NULL

GO

EXEC master.dbo.sp\_serveroption @server=N'Beta', @optname=N'collation compatible', @optvalue=N'false'

GO

EXEC master.dbo.sp\_serveroption @server=N'Beta', @optname=N'data access', @optvalue=N'true'

GO

EXEC master.dbo.sp\_serveroption @server=N'Beta', @optname=N'dist', @optvalue=N'false'

GO

EXEC master.dbo.sp\_serveroption @server=N'Beta', @optname=N'pub', @optvalue=N'false'

GO

EXEC master.dbo.sp\_serveroption @server=N'Beta', @optname=N'rpc', @optvalue=N'true'

GO

EXEC master.dbo.sp\_serveroption @server=N'Beta', @optname=N'rpc out', @optvalue=N'true'

GO

EXEC master.dbo.sp\_serveroption @server=N'Beta', @optname=N'sub', @optvalue=N'false'

GO

EXEC master.dbo.sp\_serveroption @server=N'Beta', @optname=N'connect timeout', @optvalue=N'0'

GO

EXEC master.dbo.sp\_serveroption @server=N'Beta', @optname=N'collation name', @optvalue=null

GO

EXEC master.dbo.sp\_serveroption @server=N'Beta', @optname=N'lazy schema validation', @optvalue=N'false'

GO

EXEC master.dbo.sp\_serveroption @server=N'Beta', @optname=N'query timeout', @optvalue=N'0'

GO

EXEC master.dbo.sp\_serveroption @server=N'Beta', @optname=N'use remote collation', @optvalue=N'true'

GO

EXEC master.dbo.sp\_serveroption @server=N'Beta', @optname=N'remote proc transaction promotion', @optvalue=N'true'

GO

**--DB Mail:**

use master

go

sp\_configure 'show advanced options',1

go

reconfigure with override

go

sp\_configure 'Database Mail XPs',1

--go

--sp\_configure 'SQL Mail XPs',0

go

reconfigure

go

--------------------------------------------------------------------------------------------------

-- BEGIN Mail Settings Test2

--------------------------------------------------------------------------------------------------

IF NOT EXISTS(SELECT \* FROM msdb.dbo.sysmail\_profile WHERE name = 'Test2')

BEGIN

--CREATE Profile [Test2]

EXECUTE msdb.dbo.sysmail\_add\_profile\_sp

@profile\_name = 'Test2',

@description = 'DBA Team - Alerts';

END --IF EXISTS profile

IF NOT EXISTS(SELECT \* FROM msdb.dbo.sysmail\_account WHERE name = 'Test2')

BEGIN

--CREATE Account [Test2]

EXECUTE msdb.dbo.sysmail\_add\_account\_sp

@account\_name = 'Test2',

@email\_address = 'praveen.madupu@gmail.com',

@display\_name = 'Test2',

@replyto\_address = 'praveen.madupu@gmail.com',

@description = '',

@mailserver\_name = 'relay.xyz.gmail.com',

@mailserver\_type = 'SMTP',

@port = '25',

@username = NULL ,

@password = NULL ,

@use\_default\_credentials = 0 ,

@enable\_ssl = 0 ;

END --IF EXISTS account

IF NOT EXISTS(SELECT \*

FROM msdb.dbo.sysmail\_profileaccount pa

INNER JOIN msdb.dbo.sysmail\_profile p ON pa.profile\_id = p.profile\_id

INNER JOIN msdb.dbo.sysmail\_account a ON pa.account\_id = a.account\_id

WHERE p.name = 'Test2'

AND a.name = 'Test2')

BEGIN

-- Associate Account [Test2] to Profile [Test2]

EXECUTE msdb.dbo.sysmail\_add\_profileaccount\_sp

@profile\_name = 'Test2',

@account\_name = 'Test2',

@sequence\_number = 1 ;

END

--IF EXISTS associate accounts to profiles

---------------------------------------------------------------------------------------------------

-- Drop Settings For Test2

--------------------------------------------------------------------------------------------------

/\*

IF EXISTS(SELECT \*

FROM msdb.dbo.sysmail\_profileaccount pa

INNER JOIN msdb.dbo.sysmail\_profile p ON pa.profile\_id = p.profile\_id

INNER JOIN msdb.dbo.sysmail\_account a ON pa.account\_id = a.account\_id

WHERE p.name = 'Test2'

AND a.name = 'Test2')

BEGIN

EXECUTE msdb.dbo.sysmail\_delete\_profileaccount\_sp @profile\_name = 'Test2',@account\_name = 'Test2'

END

IF EXISTS(SELECT \* FROM msdb.dbo.sysmail\_account WHERE name = 'Test2')

BEGIN

EXECUTE msdb.dbo.sysmail\_delete\_account\_sp @account\_name = 'Test2'

END

IF EXISTS(SELECT \* FROM msdb.dbo.sysmail\_profile WHERE name = 'Test2')

BEGIN

EXECUTE msdb.dbo.sysmail\_delete\_profile\_sp @profile\_name = 'Test2'

END

\*/

===================================

**--SP: spQueryToHtmlTable**

use master

CREATE PROC [dbo].[spQueryToHtmlTable]

(

@query nvarchar(MAX), --A query to turn into HTML format. It should not include an ORDER BY clause.

@orderBy nvarchar(MAX) = NULL, --An optional ORDER BY clause. It should contain the words 'ORDER BY'.

@html nvarchar(MAX) = NULL OUTPUT --The HTML output of the procedure.

)

AS

BEGIN

SET NOCOUNT ON;

IF @orderBy IS NULL BEGIN

SET @orderBy = ''

END

SET @orderBy = REPLACE(@orderBy, '''', '''''');

DECLARE @realQuery nvarchar(MAX) = '

DECLARE @headerRow nvarchar(MAX);

DECLARE @cols nvarchar(MAX);

SELECT \* INTO #dynSql FROM (' + @query + ') sub;

SELECT @cols = COALESCE(@cols + '', '''''''', '', '''') + ''['' + name + ''] AS ''''td''''''

FROM tempdb.sys.columns

WHERE object\_id = object\_id(''tempdb..#dynSql'')

ORDER BY column\_id;

SET @cols = ''SET @html = CAST(( SELECT '' + @cols + '' FROM #dynSql ' + @orderBy + ' FOR XML PATH(''''tr''''), ELEMENTS XSINIL) AS nvarchar(max))''

EXEC sys.sp\_executesql @cols, N''@html nvarchar(MAX) OUTPUT'', @html=@html OUTPUT

SELECT @headerRow = COALESCE(@headerRow + '''', '''') + ''<th>'' + name + ''</th>''

FROM tempdb.sys.columns

WHERE object\_id = object\_id(''tempdb..#dynSql'')

ORDER BY column\_id;

SET @headerRow = ''<tr>'' + @headerRow + ''</tr>'';

SET @html = ''<table border="1">'' + @headerRow + @html + ''</table>'';

';

EXEC sys.sp\_executesql @realQuery, N'@html nvarchar(MAX) OUTPUT', @html=@html OUTPUT

END

GO

============================================================

**--Original Script which Compares, Filters logins on both Primary & Secondary Servers and sends results via notification.**

use master

SELECT name into Slogins from **alpha**.master.sys.syslogins

where name NOT LIKE 'NT AUTHORITY%'

AND name NOT LIKE 'NT SERVICE\%'

AND name <> ('sa')

AND name NOT LIKE '##%'

--select name from slogins --alpha.master.sys.syslogins

SELECT name into Dlogins from BETA.master.sys.syslogins

where name NOT LIKE 'NT AUTHORITY%'

AND name NOT LIKE 'NT SERVICE%'

AND name <> ('sa')

AND name NOT LIKE '##%'

--select \* from #Dlogins

go

DECLARE @html nvarchar(MAX);

EXEC spQueryToHtmlTable @html = @html OUTPUT,

@query = N'SELECT s.name FROM Slogins S

LEFT OUTER JOIN Dlogins D

ON s.name = D.name

WHERE D.name IS NULL';

EXEC msdb.dbo.sp\_send\_dbmail

@profile\_name = 'Test2',

@recipients = 'praveen.madupu@oeconnection.com',

@subject = 'Audit-Logins not found on Secondary AG Replica',

@body = @html,

@body\_format = 'HTML',

@query\_no\_truncate = 1,

@attach\_query\_result\_as\_file = 0;

DROP TABLE Slogins

DROP TABLE Dlogins

============================================================

**Job Script: Schedule: Every day for every 4 hours.**

USE [msdb]

GO

/\*\*\*\*\*\* Object: Job [Audit-Logins Not in Secondary AG Replica] Script Date: 17-08-2020 15:08:06 \*\*\*\*\*\*/

BEGIN TRANSACTION

DECLARE @ReturnCode INT

SELECT @ReturnCode = 0

/\*\*\*\*\*\* Object: JobCategory [Database Maintenance] Script Date: 17-08-2020 15:08:06 \*\*\*\*\*\*/

IF NOT EXISTS (SELECT name FROM msdb.dbo.syscategories WHERE name=N'Database Maintenance' AND category\_class=1)

BEGIN

EXEC @ReturnCode = msdb.dbo.sp\_add\_category @class=N'JOB', @type=N'LOCAL', @name=N'Database Maintenance'

IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback

END

DECLARE @jobId BINARY(16)

EXEC @ReturnCode = msdb.dbo.sp\_add\_job @job\_name=N'Audit-Logins Not in Secondary AG Replica',

@enabled=1,

@notify\_level\_eventlog=0,

@notify\_level\_email=0,

@notify\_level\_netsend=0,

@notify\_level\_page=0,

@delete\_level=0,

@description=N'Audit-Logins Not in Secondary AG Replica',

@category\_name=N'Database Maintenance',

@owner\_login\_name=N'google\PMadupu', @job\_id = @jobId OUTPUT

IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback

/\*\*\*\*\*\* Object: Step [Audit-Logins Not in Secondary AG Replica] Script Date: 17-08-2020 15:08:06 \*\*\*\*\*\*/

EXEC @ReturnCode = msdb.dbo.sp\_add\_jobstep @job\_id=@jobId, @step\_name=N'Audit-Logins Not in Secondary AG Replica',

@step\_id=1,

@cmdexec\_success\_code=0,

@on\_success\_action=1,

@on\_success\_step\_id=0,

@on\_fail\_action=2,

@on\_fail\_step\_id=0,

@retry\_attempts=0,

@retry\_interval=0,

@os\_run\_priority=0, @subsystem=N'TSQL',

@command=N'use master

SELECT name into Slogins from alpha.master.sys.syslogins

where name NOT LIKE ''NT AUTHORITY%''

AND name NOT LIKE ''NT SERVICE\%''

AND name <> (''sa'')

AND name NOT LIKE ''##%''

--select name from slogins --alpha.master.sys.syslogins

SELECT name into Dlogins from BETA.master.sys.syslogins

where name NOT LIKE ''NT AUTHORITY%''

AND name NOT LIKE ''NT SERVICE%''

AND name <> (''sa'')

AND name NOT LIKE ''##%''

--select \* from #Dlogins

go

DECLARE @html nvarchar(MAX);

EXEC spQueryToHtmlTable @html = @html OUTPUT,

@query = N''SELECT s.name FROM Slogins S

LEFT OUTER JOIN Dlogins D

ON s.name = D.name

WHERE D.name IS NULL'';

EXEC msdb.dbo.sp\_send\_dbmail

@profile\_name = ''Test2'',

@recipients = ''praveen.madupu@gmail.com'',

@subject = ''Audit-Logins not found on Secondary AG Replica'',

@body = @html,

@body\_format = ''HTML'',

@query\_no\_truncate = 1,

@attach\_query\_result\_as\_file = 0;

DROP TABLE Slogins

DROP TABLE Dlogins',

@database\_name=N'master',

@flags=8

IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback

EXEC @ReturnCode = msdb.dbo.sp\_update\_job @job\_id = @jobId, @start\_step\_id = 1

IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback

EXEC @ReturnCode = msdb.dbo.sp\_add\_jobschedule @job\_id=@jobId, @name=N'AG Missing Logins on Secondary Mail',

@enabled=1,

@freq\_type=4,

@freq\_interval=1,

@freq\_subday\_type=1,

@freq\_subday\_interval=4,

@freq\_relative\_interval=0,

@freq\_recurrence\_factor=0,

@active\_start\_date=20200817,

@active\_end\_date=99991231,

@active\_start\_time=135000,

@active\_end\_time=235959,

@schedule\_uid=N'0fd3d658-47a6-480b-8d4a-56aa660d7ae4'

IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback

EXEC @ReturnCode = msdb.dbo.sp\_add\_jobserver @job\_id = @jobId, @server\_name = N'(local)'

IF (@@ERROR <> 0 OR @ReturnCode <> 0) GOTO QuitWithRollback

COMMIT TRANSACTION

GOTO EndSave

QuitWithRollback:

IF (@@TRANCOUNT > 0) ROLLBACK TRANSACTION

EndSave:

GO