Database Migration Service : Homogeneous Migration between On-premise MySql to RDS MySQL

Step 1: Create an EC2 instance (On-Premise) with MYSQL Server 5.7 installed on it

```
sudo wget http://repo.mysql.com/mysql-community-release-el7-5.noarch.rpm
sudo rpm -ivh mysql-community-release-el7-5.noarch.rpm
sudo yum install mysql-server -y
sudo service mysqld start
sudo systemctl enable mysqld
```

Step 2: Login to mysql and create a database. Also create a few tables that we want to migrate to AWS RDS Mysql Instance

```
mysql -uroot
mysql> create database myonpremdb;
mysql> CREATE USER 'onpremuser'@'localhost' IDENTIFIED BY
'onpremuser';

mysql> GRANT ALL PRIVILEGES ON *.* TO 'onpremuser'@'localhost' WITH
GRANT OPTION;

mysql> CREATE USER 'onpremuser'@'%' IDENTIFIED BY 'onpremuser';
mysql> GRANT ALL PRIVILEGES ON *.* TO 'onpremuser'@'%' WITH GRANT
OPTION;
mysql> exit;
```

Login as onprem user

```
$ mysql -u onpremuser -ponpremuser
mysql> use myonpremdb;
```

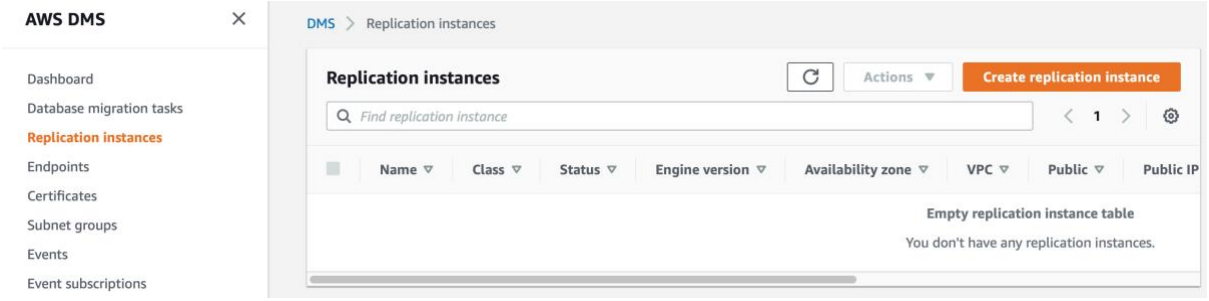
Create some tables

```
mysql> create table customer (custid int,custname varchar(100),address
varchar(200));
insert into customer values(1,'Ravi','Hyderabad');
insert into customer values(2,'Rakesh','Banglore');
insert into customer values(3,'Vijay','Pune');
```

Step 3: Create a new DB in RDS with mysql 5.7 as the engine with old interface. Note down the endpoint once created.

Make sure the security group created by RDS has “everyone” in the source.

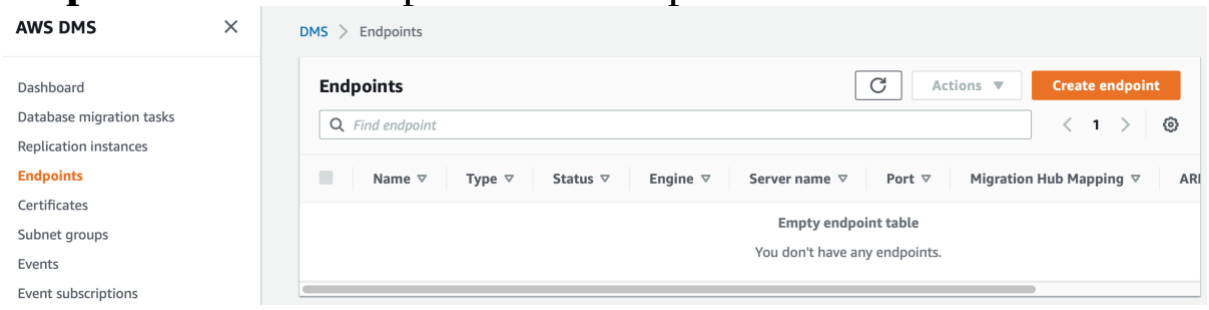
Step 4: Open DMS in AWS console and click on Replication Instances.



Step 5: Click on Create Replication instance and choose the following options
Name : ReplicationInstance
Instance class : T2.micro
VPC: Default VPC
Publicly Accessible: Checked
Multi – AZ: Single AZ
Click Create

Create end point connection for your source and Destination databases.

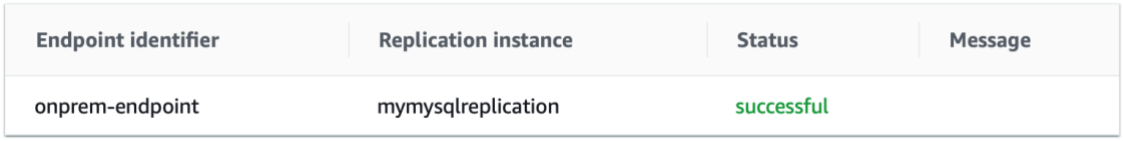
Step 6: Click on endpoints on left panel



Step 7: Click create endpoint. Choose Source endpoint and enter the following details

Endpoint identifier: Onprem-endpoint
Source Engine: MySQL
Access to endpoint database: Manual
Server name: Public IP of your MySQL instance(on prem)
User name:onpremuser
Password: onpremuser
Port: 3306
Click Test Endpoint and choose Default VPC. Click Run Test
Note: Make sure you have mysql protocol allowed in your ec2 instance(On-prem mysql instance) inbound rules

Once the test is successful following screen is displayed



Click Create Endpoint.
Step 8: Click create endpoint. Choose Target endpoint and enter the following details

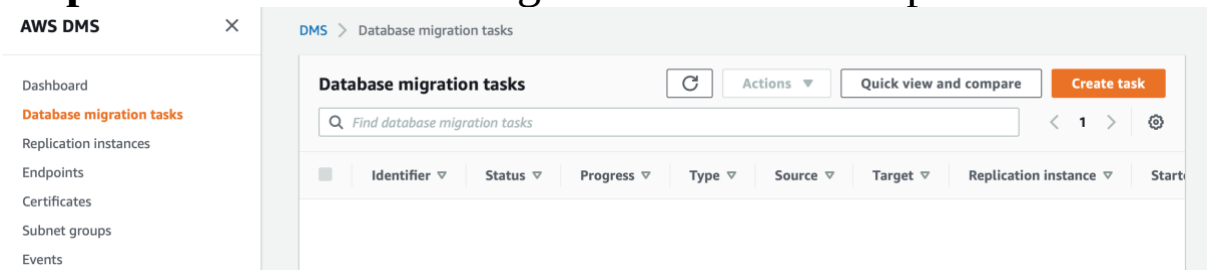
Select RDS db instance: Check and select the RDS database
Endpoint identifier: AWS-endpoint
Source Engine: MySQL
Access to endpoint database: Manual
Server name: mysql endpoint
User name:mysqlinstance
Password: mysqlinstance
Port: 3306
Click Test Endpoint and choose Default VPC. Click Run Test

Once the test is successful following screen is displayed

Endpoint identifier	Replication instance	Status	Message
aws-endpoint	mymysqlreplication	successful	

Click Create Endpoint.

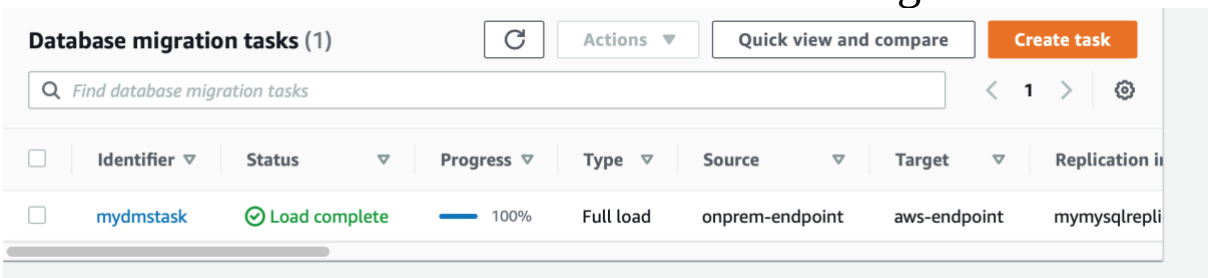
Step 9: Click Database Migration Task on left panel

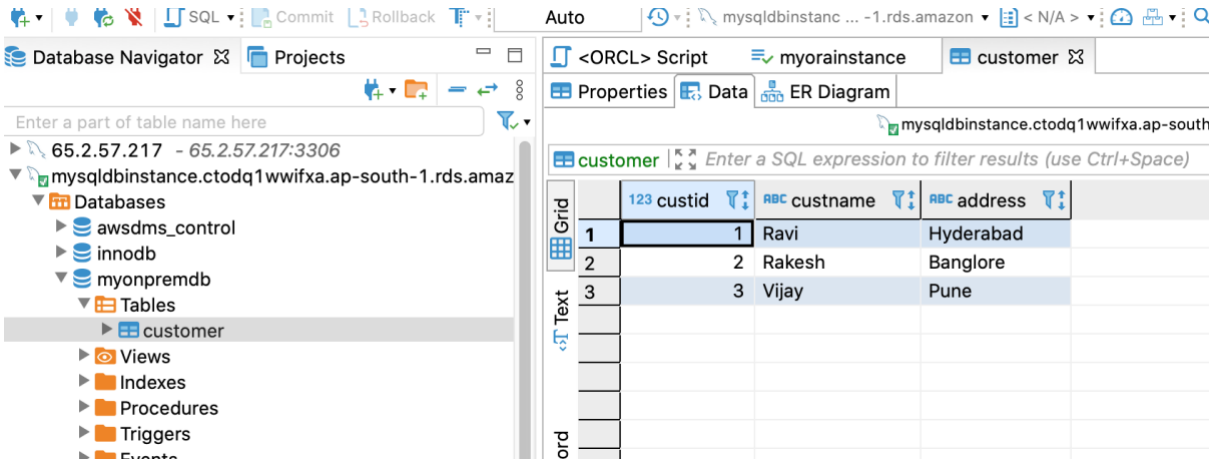


Step 10: Click Create task and enter following details
Task Identifier: MyDMS Task
Replication instance: Select
Source DB Endpoint: Select
Target DB Endpoint: Select
Under table Mappings do the following
Click Add New selection rule
Schema: Enter a schema
Source name: %myonpremdb
Table name: %

Click Create task. Wait till the state is changed to Load complete

Step 11: Use the DB tool of your choice and connect to RDS DB and check if the DB tables and data are migrated




SQL
Commit
Rollback
Auto
mysqldbinstanc ... -1.rds.amazon
< N/A >
Database Navigator
Projects
Enter a part of table name here
65.2.57.217 - 65.2.57.217:3306
mysqldbinstance.ctodq1wwifxa.ap-south-1.rds.amaz
Databases
awsdms_control
innodb
myonpremdb
Tables
customer
Views
Indexes
Procedures
Triggers
<ORCL> Script
myorainstance
customer
Properties
Data
ER Diagram
mysqldbinstance.ctodq1wwifxa.ap-south
customer
Enter a SQL expression to filter results (use Ctrl+Space)
Grid
Text
ord
123 custid
ABC custname
ABC address
1 1 Ravi Hyderabad
2 2 Rakesh Banglore
3 3 Vijay Pune