

Experiment 8

Migrating to Amazon RDS

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Aim: Migrating to AWS RDS

Step 1 :

Search for DATABASE MANAGEMENT SERVICE

The screenshot shows the AWS Database Migration Service (DMS) dashboard. The left sidebar has a 'Dashboard' section with links for 'Database migration tasks', 'Replication instances', 'Endpoints', 'Certificates', 'Subnet groups', 'Events', and 'Event subscriptions'. Below that is a 'New feature announcements' section. The main content area has a 'Database migration tasks' summary with four categories: Active (0), Error (0), Failed (0), and Load complete (0). Below this is a 'Resources' section with three items: Database migration tasks (Max quota: 600, 0), Replication instances (Max quota: 60, 0), and Endpoints (Max quota: 1000, 0). At the bottom, there are links for 'Feedback', 'Language selection', 'Privacy', 'Terms', and 'Cookie preferences'.

Step 2:

Open REPLICATION INSTANCES

The screenshot shows the AWS DMS console interface. The left sidebar has a dark theme with white text. It includes sections for DMS Studio (New), Dashboard, Database migration tasks, Replication instances (which is highlighted in orange), Endpoints, Certificates, Subnet groups, Events, and Event subscriptions. Below these is a 'New feature announcements' section with a small icon. At the bottom of the sidebar is a 'Feedback' link and a note about language selection.

The main content area is titled 'Replication instances (0)'. It features a search bar with placeholder text 'Find replication instance' and a 'Create replication instance' button. A message 'Empty replication instance table' and 'You don't have any replication instances.' is displayed above the table. The table itself has columns for Name, Status, VPC, Class, Engine version, Availability zone, Public, Public IP address, and Private. The 'Create replication instance' button is located at the bottom right of the table area.

Step 3: Create Replication Instances

← → ⌂ ap-south-1.console.aws.amazon.com/dms/v2/home?region=ap-south-1#createReplicationInstance

AWS Services Search [Option+S]

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Resource Groups & Tag Editor

AWS DMS X

DMS > Replication instances > Create replication instance

Create replication instance

Replication instance configuration

Name
The name must be unique among all of your replication instances in the current AWS region.
 Replication instance name must not start with a numeric value

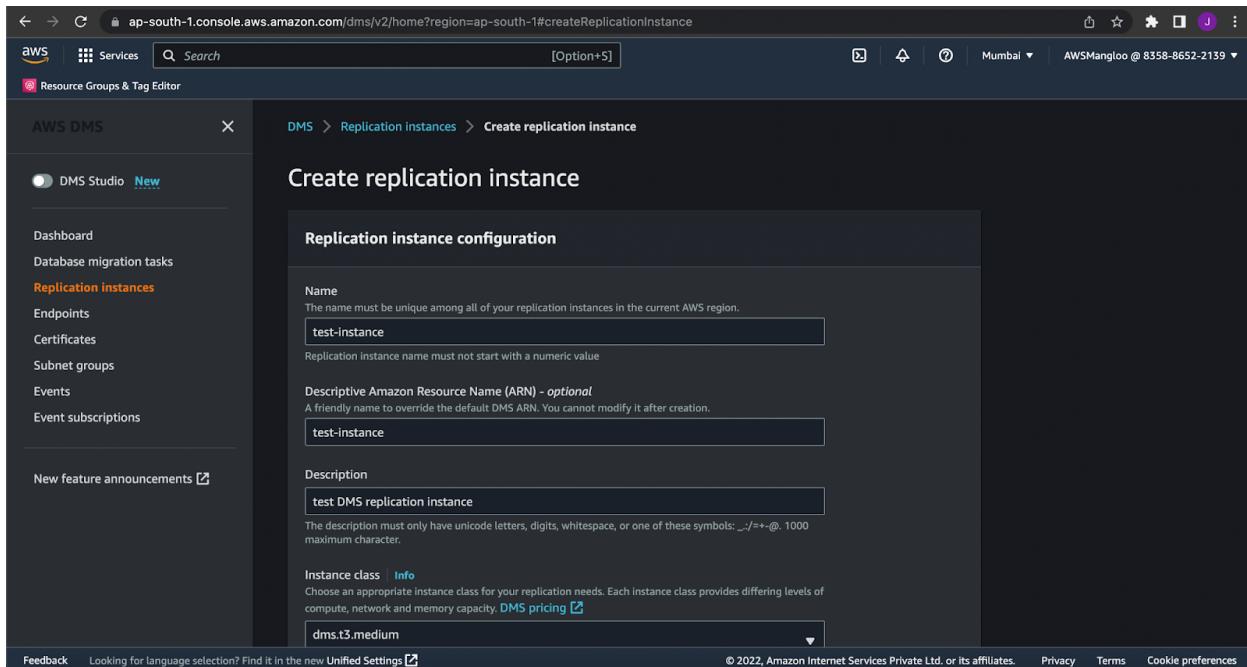
Descriptive Amazon Resource Name (ARN) - optional
A friendly name to override the default DMS ARN. You cannot modify it after creation.

Description
 The description must only have unicode letters, digits, whitespace, or one of these symbols: _:/=+-@. 1000 maximum character.

Instance class [Info](#)
Choose an appropriate instance class for your replication needs. Each instance class provides differing levels of compute, network and memory capacity. [DMS pricing](#)

dms.t3.medium

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← → ⌂ ap-south-1.console.aws.amazon.com/dms/v2/home?region=ap-south-1#createReplicationInstance

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Resource Groups & Tag Editor

AWS DMS X

DMS > Replication instances > Create replication instance

Choose an appropriate instance class for your replication needs. Each instance class provides differing levels of compute, network and memory capacity. [DMS pricing](#)

dms.t3.medium
2 vCPUs - 4 GiB Memory

Include previous-generation instance classes

Engine version
Choose an AWS DMS version to run on your replication instance. [DMS versions](#)

3.4.7

Include Beta DMS versions

Upgrades to versions 3.4.7 and higher
Upgrades to AWS DMS versions 3.4.7 and higher require that you configure AWS DMS to use VPC endpoints or use public routes. This requirement applies to source and target endpoints for S3, Kinesis, Secrets Manager, DynamoDB, Amazon Redshift, and OpenSearch Service. [Learn more](#)

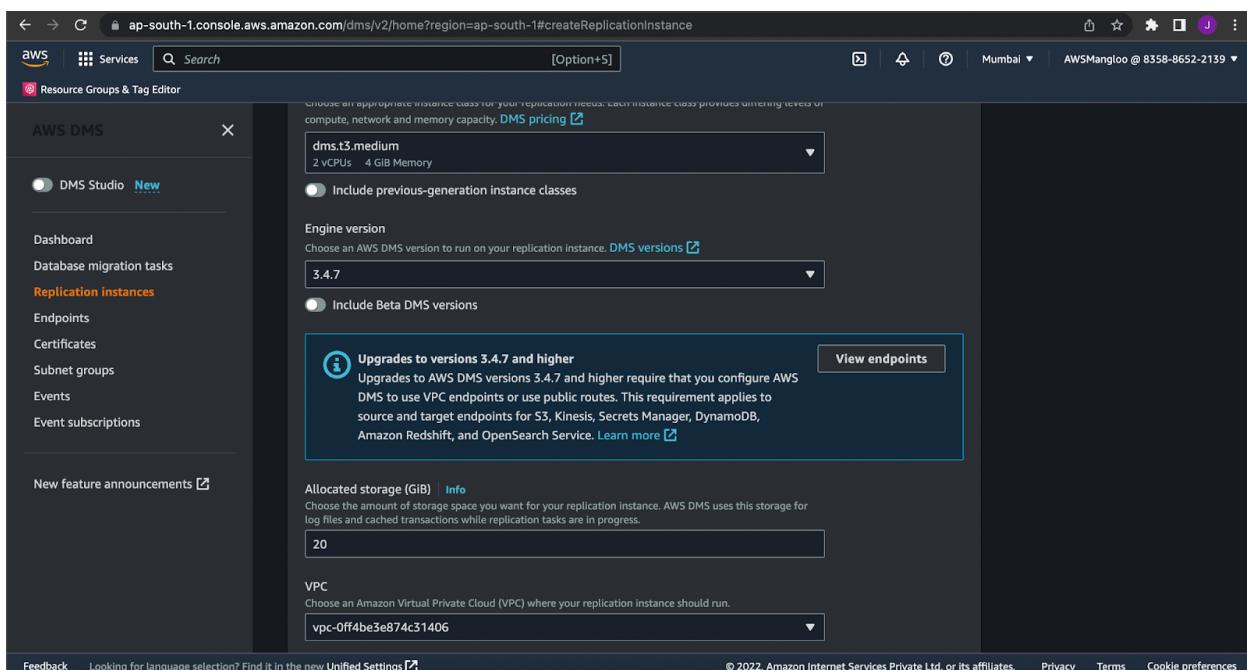
Allocated storage (GiB) [Info](#)
Choose the amount of storage space you want for your replication instance. AWS DMS uses this storage for log files and cached transactions while replication tasks are in progress.

20

VPC
Choose an Amazon Virtual Private Cloud (VPC) where your replication instance should run.

vpc-0ff4be3e874c31406

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ap-south-1.console.aws.amazon.com/dms/v2/home?region=ap-south-1#createReplicationInstance

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Resource Groups & Tag Editor

AWS DMS X

DMS Studio New

Dashboard

Database migration tasks

Replication instances

Endpoints

Certificates

Subnet groups

Events

Event subscriptions

New feature announcements [i]

VPC
Choose an Amazon Virtual Private Cloud (VPC) where your replication instance should run.
▼

Multi AZ
The Multi-AZ option deploys a primary replication instance in one Availability Zone (AZ) and a standby in another AZ. The Single-AZ option deploys a single replication instance in one AZ. Billing is based on DMS pricing.
 Dev or test workload (Single-AZ)
 Production workload (Multi-AZ)

Publicly accessible
If you choose this option, AWS DMS will assign a public IP address to your replication instance, and you'll be able to connect to databases outside of your Amazon VPC.

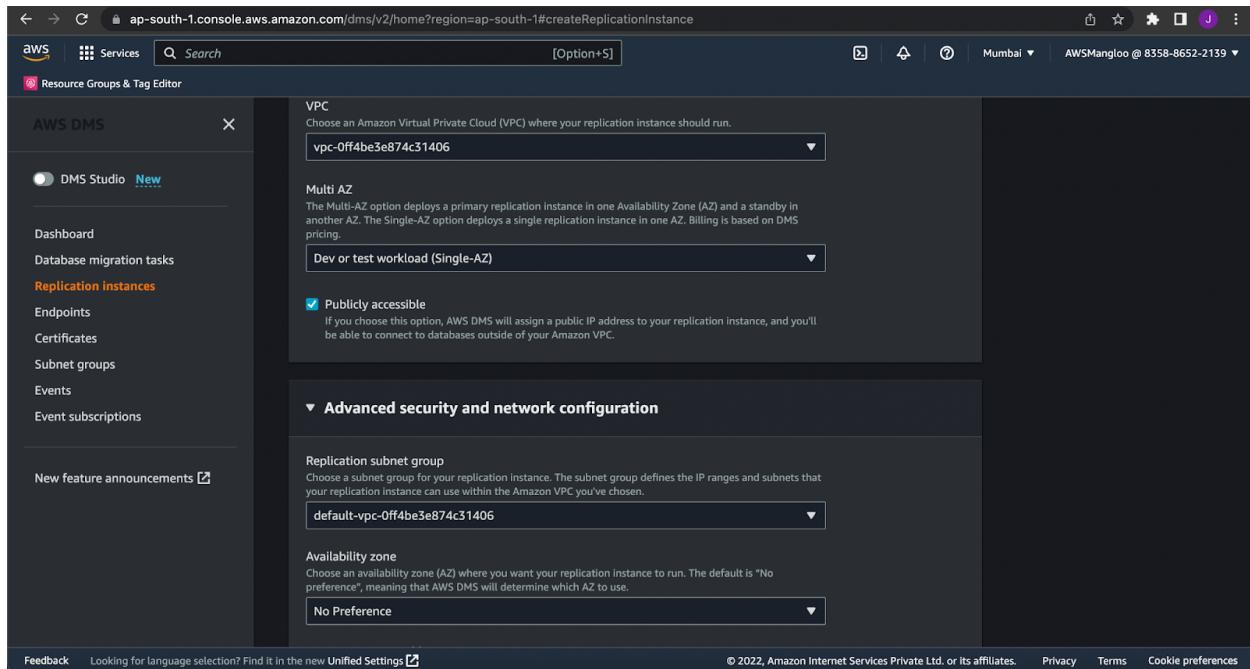
Advanced security and network configuration

Replication subnet group
Choose a subnet group for your replication instance. The subnet group defines the IP ranges and subnets that your replication instance can use within the Amazon VPC you've chosen.
▼

Availability zone
Choose an availability zone (AZ) where you want your replication instance to run. The default is "No preference", meaning that AWS DMS will determine which AZ to use.
▼

Feedback Looking for language selection? Find it in the new Unified Settings [i]

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This screenshot shows the 'Create replication instance' wizard on the AWS DMS console. The left sidebar lists navigation options like Dashboard, Database migration tasks, and Replication instances (which is selected). The main form is titled 'VPC' and asks for a VPC. A dropdown shows 'vpc-0ff4be3e874c31406'. Below it, 'Multi AZ' is selected for deployment. Under 'Advanced security and network configuration', 'Replication subnet group' is set to 'default-vpc-0ff4be3e874c31406' and 'Availability zone' is set to 'No Preference'. At the bottom, there's a note about DMS requiring access permissions to manage VPC resources, followed by 'Cancel' and 'Create' buttons.

ap-south-1.console.aws.amazon.com/dms/v2/home?region=ap-south-1#createReplicationInstance

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Resource Groups & Tag Editor

AWS DMS X

DMS Studio New

Dashboard

Database migration tasks

Replication instances

Endpoints

Certificates

Subnet groups

Events

Event subscriptions

New feature announcements [i]

Choose an availability zone (AZ) where you want your replication instance to run. The default is "No preference", meaning that AWS DMS will determine which AZ to use.
▼

VPC security group(s)
Choose one or more security groups for your replication instances. The security group(s) specify inbound and outbound rules to control network access to your replication instance.
▼

KMS key Info
▼

Maintenance

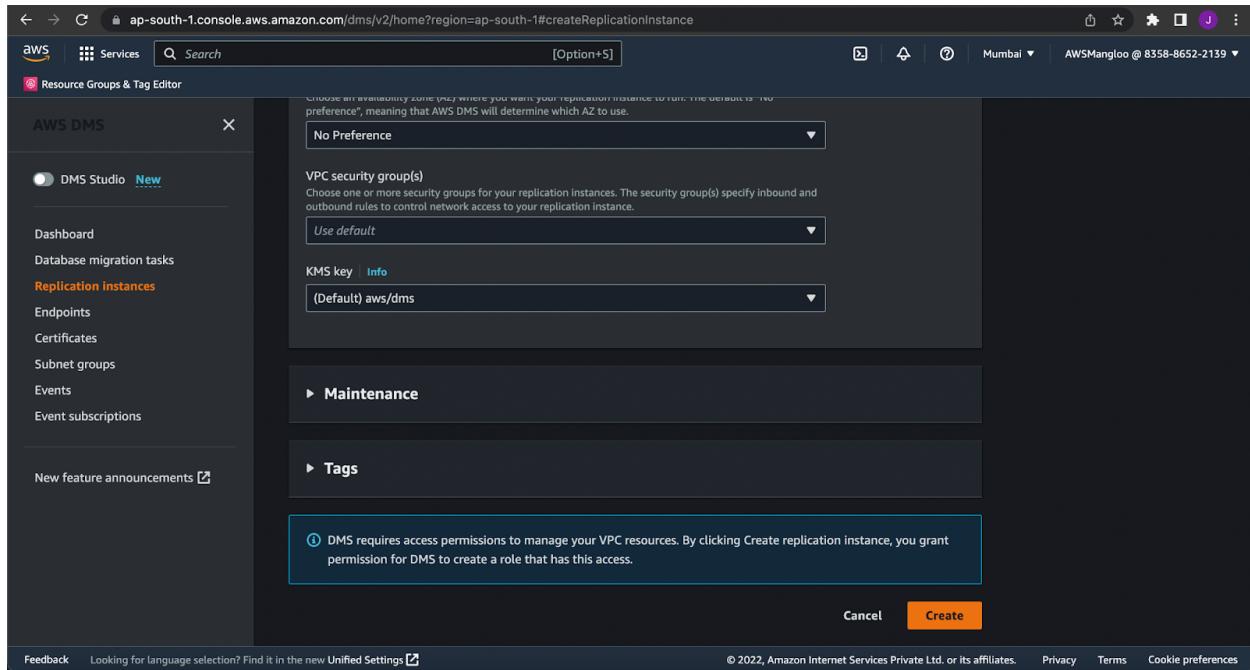
Tags

ⓘ DMS requires access permissions to manage your VPC resources. By clicking Create replication instance, you grant permission for DMS to create a role that has this access.

Cancel Create

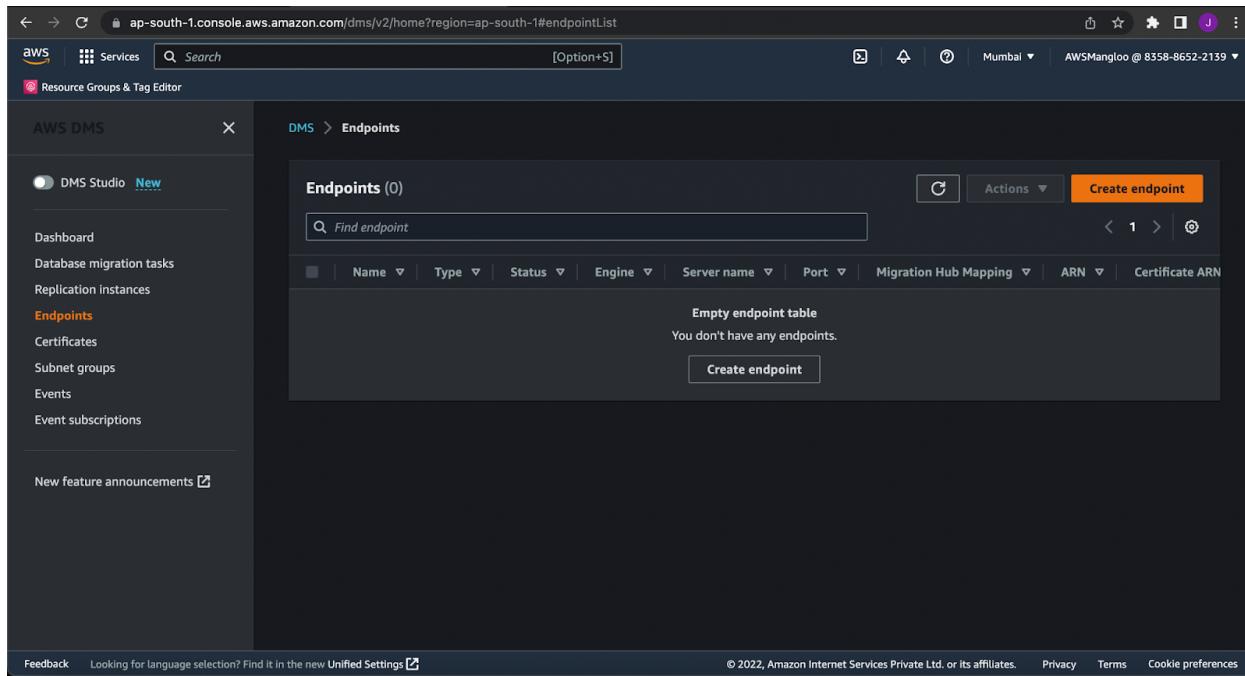
Feedback Looking for language selection? Find it in the new Unified Settings [i]

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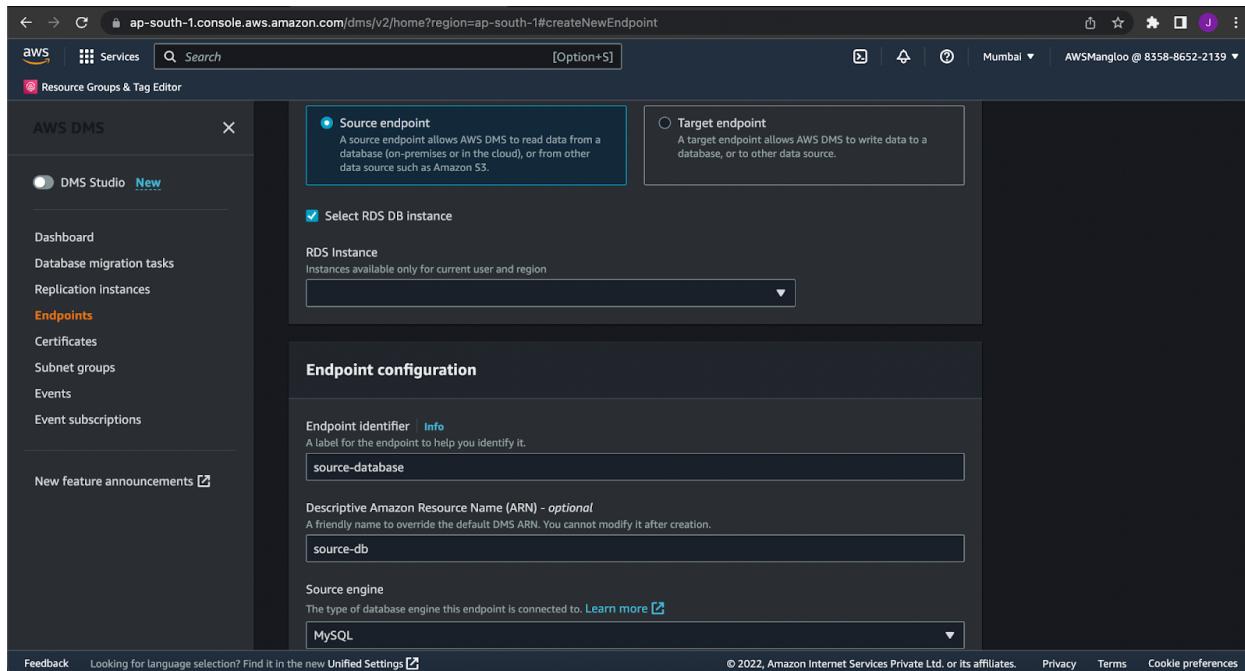


This screenshot continues the 'Create replication instance' wizard. It shows the 'Maintenance' and 'Tags' sections. There's a note at the bottom about granting DMS access to VPC resources. The 'Create' button is highlighted in orange at the bottom right.

Step 4 : Create Endpoints



The screenshot shows the AWS DMS console with the 'Endpoints' section selected. The main area displays a table titled 'Endpoints (0)' with a single row labeled 'Empty endpoint table'. Below the table, a message says 'You don't have any endpoints.' A prominent orange button at the bottom right of the table area is labeled 'Create endpoint'.



The screenshot shows the 'Create New Endpoint' wizard. The first step, 'Source endpoint', is selected. It contains two options: 'Source endpoint' (selected) and 'Target endpoint'. Below this, there is a checked checkbox for 'Select RDS DB instance'. A dropdown menu for 'RDS Instance' is open, showing a list of available instances. The 'Endpoint configuration' section includes fields for 'Endpoint identifier' (set to 'source-database'), 'Descriptive Amazon Resource Name (ARN) - optional' (set to 'source-db'), and 'Source engine' (set to 'MySQL').

ap-south-1.console.aws.amazon.com/dms/v2/home?region=ap-south-1#createNewEndpoint

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Resource Groups & Tag Editor

AWS DMS

- DMS Studio **New**
- Dashboard
- Database migration tasks
- Replication instances
- Endpoints**
- Certificates
- Subnet groups
- Events
- Event subscriptions
- New feature announcements

MySQL

Access to endpoint database
 AWS Secrets Manager
 Provide access information manually

Server name: source-database.c39ashxlmfg.ap-south-1.rds.amazonaws.com

Port: 3306

User name: admin Password: *****

Secure Socket Layer (SSL) mode: none

Endpoint settings

KMS key

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Step 5 : Create Database Migration Task

ap-south-1.console.aws.amazon.com/dms/v2/home?region=ap-south-1#taskConfiguration

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Resource Groups & Tag Editor

AWS DMS

- DMS Studio **New**
- Dashboard
- Database migration tasks**
- Replication instances
- Endpoints
- Certificates
- Subnet groups
- Events
- Event subscriptions
- New feature announcements

Task configuration

Task identifier: test-task

Descriptive Amazon Resource Name (ARN) - optional: test

Replication instance: test-instance - vpc-0ff4be3e874c31406

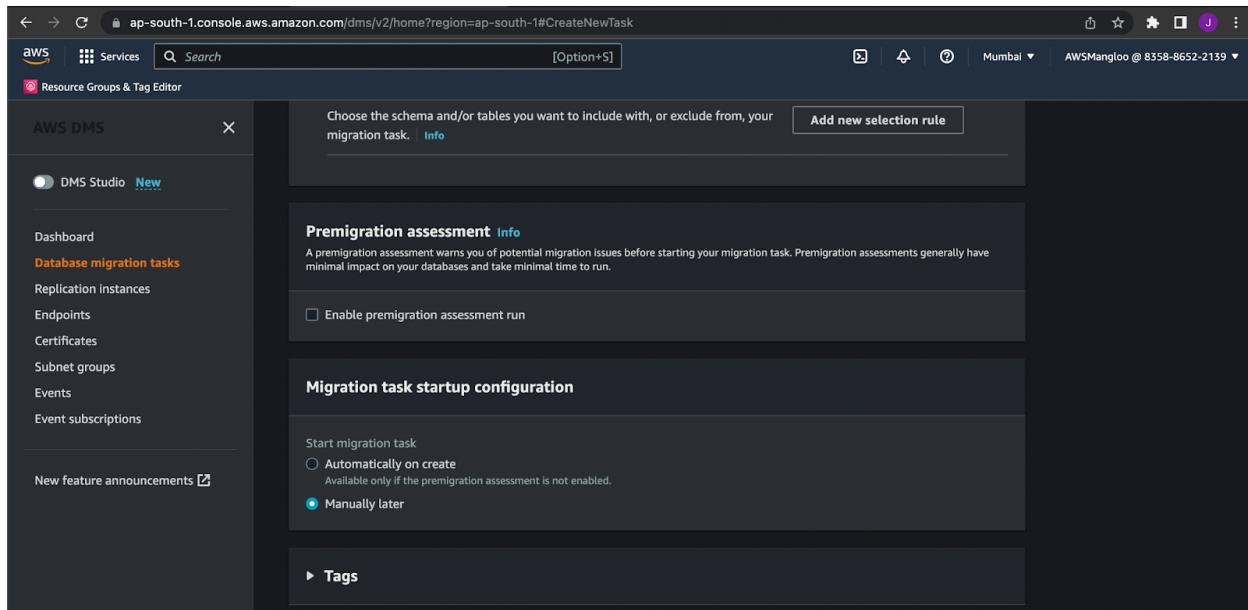
Upgrades to versions 3.4.7 and higher
 You have 1 instance that uses AWS DMS version 3.4.7. Upgrades to AWS DMS versions 3.4.7 and higher require that you configure AWS DMS to use VPC endpoints or use public routes. This requirement applies to source and target endpoints for these data stores: S3, Kinesis, Secrets Manager, DynamoDB, Amazon Redshift, and OpenSearch Service. [Learn more](#)

View endpoints

Source database endpoint: source-database

Target database endpoint: Choose a target database endpoint

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Result : Hence we migrated data to Amazon RDS