DB Migration on-prom server to azure MySQL server
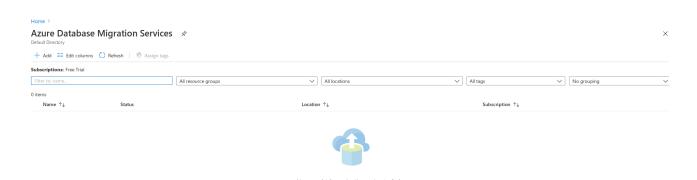
```
On-Prom MySQL ───── DMS ───── MySQL-Azure
```

Requirements:

1. Ubuntu-server
2. Azure MysqlDB server
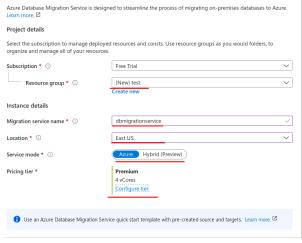3. Azure DB migration service

Create Azure DB Migration Service:

screenshot1

Home >

Azure Database Migration Services 📌
Default Directory

＋ Add ⊞ Edit columns ↻ Refresh ⊘ Assign tags

Subscriptions: Free Trial

| Filter by name... | All resource groups ∨ | All locations ∨ | All tags ∨ | No grouping ∨ |

0 items

Name ↑↓	Status	Location ↑↓	Subscription ↑↓

No azure database migration services to display

Try changing your filters if you don't see what you're looking for.

Create azure database migration service

Click Add

Home > Azure Database Migration Services >

Create Migration Service

Azure Database Migration Service is designed to streamline the process of migrating on-premises databases to Azure.
Learn more. ⧉

Project details

Select the subscription to manage deployed resources and consts. Use resource groups as you would folders, to organize and manage all of your resources.

Subscription * ⓘ	Free Trial ∨
Resource group * ⓘ	(New) test ∨
	Create new

Instance details

Migration service name * ⓘ	dbmigrationservice ✓
Location * ⓘ	East US ∨
Service mode * ⓘ	Azure / Hybrid (Preview)
Pricing tier *	**Premium**
	4 vCores
	Configure tier

ⓘ Use an Azure Database Migration Service quick start template with pre-created source and targets. Learn more. ⧉

Review + create   Next : Networking >>

Create Migration Service

Basics Networking Tags Review + create

Select an existing virtual network or create a new one.

ℹ Select from a list of existing virtual networks. Click on the links to see more details about the selected virtual network.
Learn more. ↗

🔍 Search to filter items...

↑↓ Name	↑↓ Resource group	↑↓ Gateways	↑↓ Connections	↑↓

No results
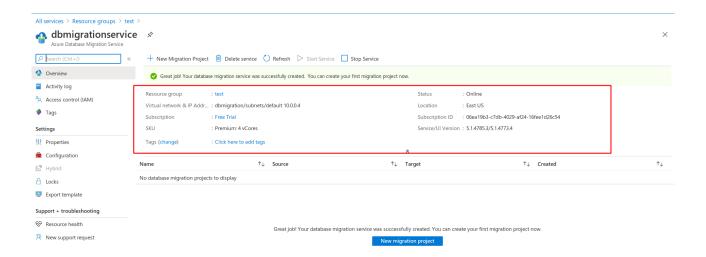
ℹ Create a new virtual network by entering a name below. This will create a basic VNET that can connect to source servers with public facing IPs. You can then take additional steps to upgrade this network and increase your connectivity options.
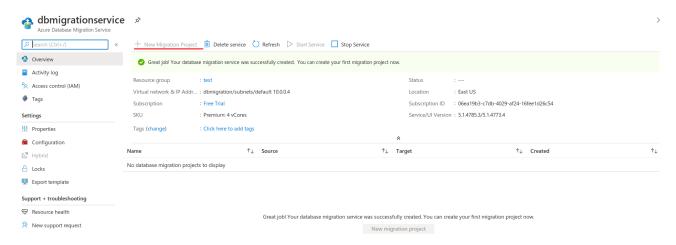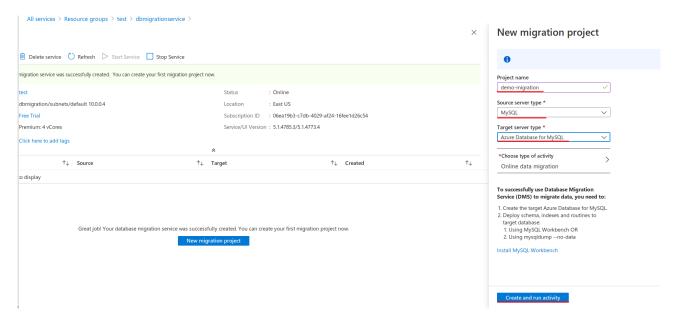Learn more. ↗

Virtual network name   dbmigration ✓

[Review + create] [<< Previous] [Next : Tags >>]

All services > Resource groups > test >

☁ **dbmigrationservice** 📌
    Azure Database Migration Service

🔍 Search (Ctrl+/) «   + New Migration Project 🗑 Delete service 🔄 Refresh ▷ Start Service ☐ Stop Service

☁ Overview   ✓ Great job! Your database migration service was successfully created. You can create your first migration project now.
📋 Activity log
👥 Access control (IAM)   Resource group   : test   Status   : Online
🏷 Tags   Virtual network & IP Addr... : dbmigration/subnets/default 10.0.0.4   Location   : East US
Settings   Subscription   : Free Trial   Subscription ID : 06ea19b3-c7db-4029-af24-16fee1d26c54
📊 Properties   SKU   : Premium: 4 vCores   Service/UI Version : 5.1.4785.3/5.1.4773.4
🖥 Configuration   Tags (change)   : Click here to add tags
Hybrid
🔒 Locks   ⌄
📤 Export template   Name   Source   ↑↓ Target   ↑↓ Created   ↑↓
Support + troubleshooting   No database migration projects to display
❤ Resource health
📞 New support request

                                    Great job! Your database migration service was successfully created. You can create your first migration project now.
                                    [New migration project]

Create new project

☁ **dbmigrationservice** 📌
    Azure Database Migration Service

🔍 Search (Ctrl+/) «   + New Migration Project 🗑 Delete service 🔄 Refresh ▷ Start Service ☐ Stop Service

☁ Overview   ✓ Great job! Your database migration service was successfully created. You can create your first migration project now.
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🖥 Configuration   Tags (change)   : Click here to add tags
Hybrid
🔒 Locks   ⌄
📤 Export template   Name   Source   ↑↓ Target   ↑↓ Created   ↑↓
Support + troubleshooting   No database migration projects to display
❤ Resource health
📞 New support request

                                    Great job! Your database migration service was successfully created. You can create your first migration project now.
                                    [New migration project]

This is on-prom mysql to azure MySQL server migration

✕

New migration project

🛈

Project name
demo-migration ✓

Source server type *
MySQL ⌄

Target server type *
Azure Database for MySQL ⌄

*Choose type of activity ⟩
Online data migration

To successfully use Database Migration Service (DMS) to migrate data, you need to:
1. Create the target Azure Database for MySQL.
2. Deploy schema, indexes and routines to target database:
   1. Using MySQL Workbench OR
   2. Using mysqldump --no-data

Install MySQL Workbench

Create and run activity

🗑 Delete service ↻ Refresh ▷ Start Service ☐ Stop Service

migration service was successfully created. You can create your first migration project now.

test   Status   : Online
dbmigration/subnets/default 10.0.0.4   Location   : East US
Free Trial   Subscription ID : 06ea19b3-c7db-4029-af24-16fee1d26c54
Premium: 4 vCores   Service/UI Version : 5.1.4785.3/5.1.4773.4
Click here to add tags

⌃

	↑↓	Source	↑↓	Target	↑↓	Created	↑↓

to display

Great job! Your database migration service was successfully created. You can create your first migration project now.

New migration project

On prom mysql server creation:

ubuntu machine:

Wan IP: 52.188.120.86

$ sudo apt update
$ sudo apt install mysql-server
$ sudo mysql_secure_installtion
$ sudo -u root -p [password]
$ ufw disable

sudo vim /etc/mysql/mysql.conf.d/mysqld.cnf

Edit:

bind-address = 0.0.0.0

uncomment lines are

server-id   = 1
log_bin   = /var/log/mysql/mysql-bin.log

$ sudo systemctl restart mysql

> create database jino;
> grant all privileges on *.* to 'node'@'%' identified by 'Password@123';
> flush privileges;
> create table tableone(id int(6) auto_increament primary key, name varchar(255), state varchar(255));
> INSERT INTO tableone (name,state) values("jino", "active");
> INSERT INTO tableone (name,state) values("test", "active");
> INSERT INTO tableone (name,state) values("king", "active");
> INSERT INTO tableone (name,state) values("wing", "active");
> INSERT INTO tableone (name,state) values("chung", "active");
> select * from tableone
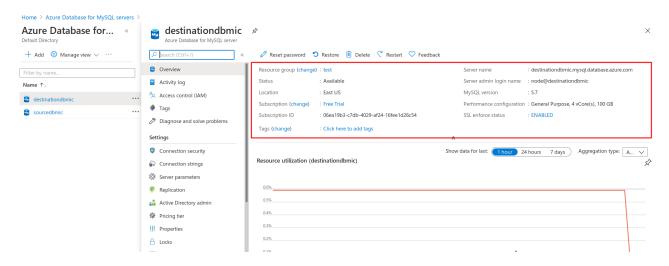> exit

# create schema backup
 $ mysqldump -h 52.188.120.86 -u node -pPassword@123 --databases jino --no-data > test.sql
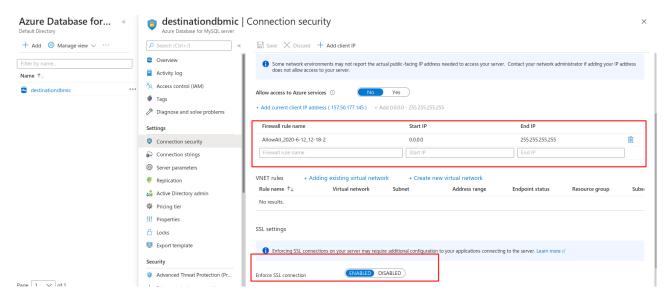
we need source and destination MySQL credentials

Source DB:

user = node
password = Password@123
host = 52.188.120.86
port = 3306
database = jino

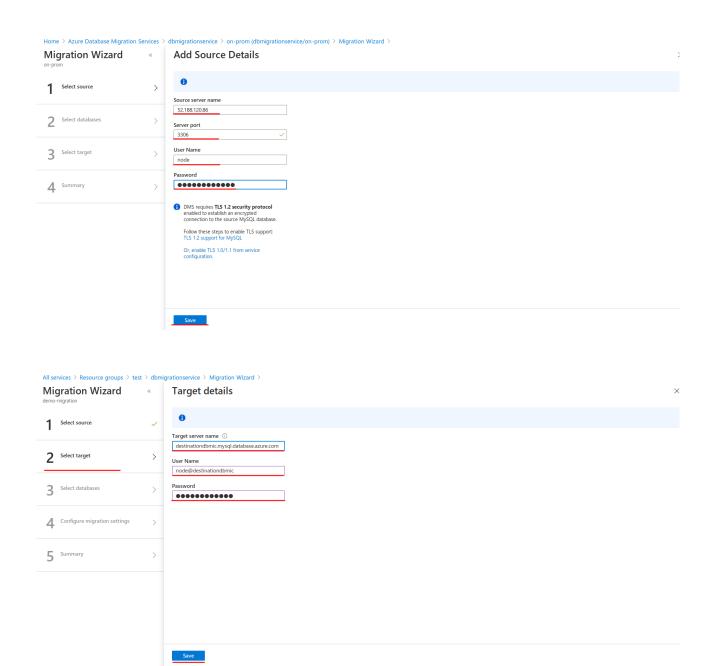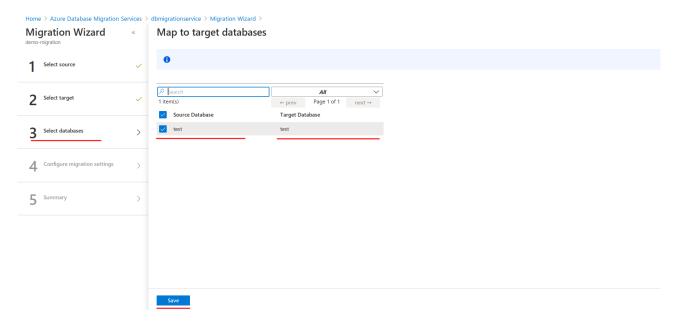This is azure Mysql Db server details

Firewall whitelist:


```
$ mysql –h destinationdbmic.mysql.database.azure.com –u node@destinationdbmic –pPassword@123
> create database jino;
> exit
```
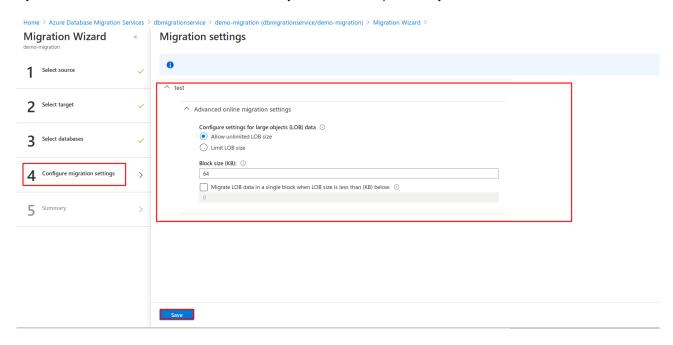
Destination DB:

user = node@destinationdbmic
password = Password@123
host = destinationdbmic.mysql.database.azure.com
port = 3306
database = jino

Restore the schema

```
$ mysql –h destinationdbmic.mysql.database.azure.com –u node@destinationdbmic –pPassword@123  jino < test.sql
```

Migration Wizard
on-prom

1 Select source
2 Select databases
3 Select target
4 Summary

Add Source Details

Source server name
52.188.120.86

Server port
3306

User Name
node

Password
●●●●●●●●●●●●

ℹ DMS requires **TLS 1.2 security protocol** enabled to establish an encrypted connection to the source MySQL database.

Follow these steps to enable TLS support:
TLS 1.2 support for MySQL

Or, enable TLS 1.0/1.1 from service configuration.

Save

Migration Wizard
demo-migration

1 Select source
2 Select target
3 Select databases
4 Configure migration settings
5 Summary

Target details

Target server name ℹ
destinationdbmic.mysql.database.azure.com

User Name
node@destinationdbmic

Password
●●●●●●●●●●●●

Save

Migration Wizard
demo-migration

1 Select source ✓

2 Select target ✓

3 Select databases >

4 Configure migration settings >

5 Summary >

Map to target databases

ⓘ

	Search		All	⌄
1 item(s)		← prev	Page 1 of 1	next →
☑	Source Database		Target Database	
☑	test		test	

Save

If you want LOB size to increment select this otherwise by default. This example select by default

Migration Wizard
demo-migration

1 Select source ✓

2 Select target ✓

3 Select databases ✓

4 Configure migration settings >

5 Summary >

Migration settings

ⓘ

∧ test

∧ Advanced online migration settings

Configure settings for large objects (LOB) data ⓘ
◉ Allow unlimited LOB size
○ Limit LOB size

Block size (KB): ⓘ
64

☐ Migrate LOB data in a single block when LOB size is less than (KB) below: ⓘ
0

Save

Migration Wizard
demo-migration

1 Select source ✓

2 Select target ✓

3 Select databases ✓

4 Configure migration settings ✓

5 Summary

Migration summary

ⓘ

Activity name

migration

Target server name
destinationdbmic.mysql.database.azure.com

Target server version
Azure Database for MySQL
5.7.29-log

Source server name
sourcedbmic.mysql.database.azure.com

Source server version
MySQL
5.7.29-log

Database(s) to migrate
1 of 1

Run migration

Azure Database Mi...
Default Directory

+ Add ≣ Edit columns ⋯

Filter by name..

☐ Name ↑↓

☐ dbmigrationservice ⋯

dbmigrationservice
Azure Database Migration Service

Search (Ctrl+/)

◎ Overview

📄 Activity log

🔑 Access control (IAM)

🏷 Tags

Settings

▦ Properties

⚙ Configuration

+ New Migration Project   🗑 Delete service   🔄 Refresh   ▷ Start Service   ⊟ Stop Service

Resource group   : test
Virtual network & IP Addr... : dbmigration/subnets/default 10.0.0.4
Subscription   : Free Trial
SKU   : Premium: 4 vCores
Tags (change)   : Click here to add tags

Status   : Online
Location   : East US
Subscription ID   : 06ea19b3-c7db-4029-af24-16fee1d26c54
Service/UI Version   : 5.1.4785.3/5.1.4773.4

Name	Source	Target	Created	
on-prom	MySQL	Azure Database for MySQL	06/12/2020, 6:48:04 PM	⋯

we need to create schema for target database table schemas.

---

jino

🔄 Refresh   ▷ Start Cutover

ⓘ

Source database name
jino

Target database name
jino

Database status
Running

Migration details
Ready to cutover

Full load completed
1

Full load queued
0

Full load loading
0

Full load failed
0

Incremental updates
0

Incremental inserts
0

Incremental deletes
0

Pending changes
0

Applied changes
0

Tables in error state
0

Full load   Incremental data sync

1 item(s)   ← prev   Page 1 of 1   next →

Table name	Status	Completed	Rows	Duration
jino.tableone	Completed	6/12/2020, 6:54:48 PM	5	00:00:00

Final result:

```
root@65756625493f:/# mysql -h destinationdbmic.mysql.database.azure.com -u node@destinationdbmic -pPassword@123
mysql: [Warning] Using a password on the command line interface can be insecure.
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 65420
Server version: 5.6.42.0 MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use jino;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> select * from tablesone;
ERROR 1146 (42S02): Table 'jino.tablesone' doesn't exist
mysql> select * from tableone;
+----+-------+--------+
| id | name  | state  |
+----+-------+--------+
|  1 | jino  | active |
|  2 | jjino | active |
|  3 | gino  | active |
|  4 | kino  | active |
|  5 | eino  | active |
+----+-------+--------+
5 rows in set (0.51 sec)

mysql> _
```

This example for DB migration from on-prom MySQL to Azure MySQL DB service.