

DELL ECS

ECS SYNC INSTALLATION

Bern, April 2023

www.backup.ch

Inhaltsverzeichnis

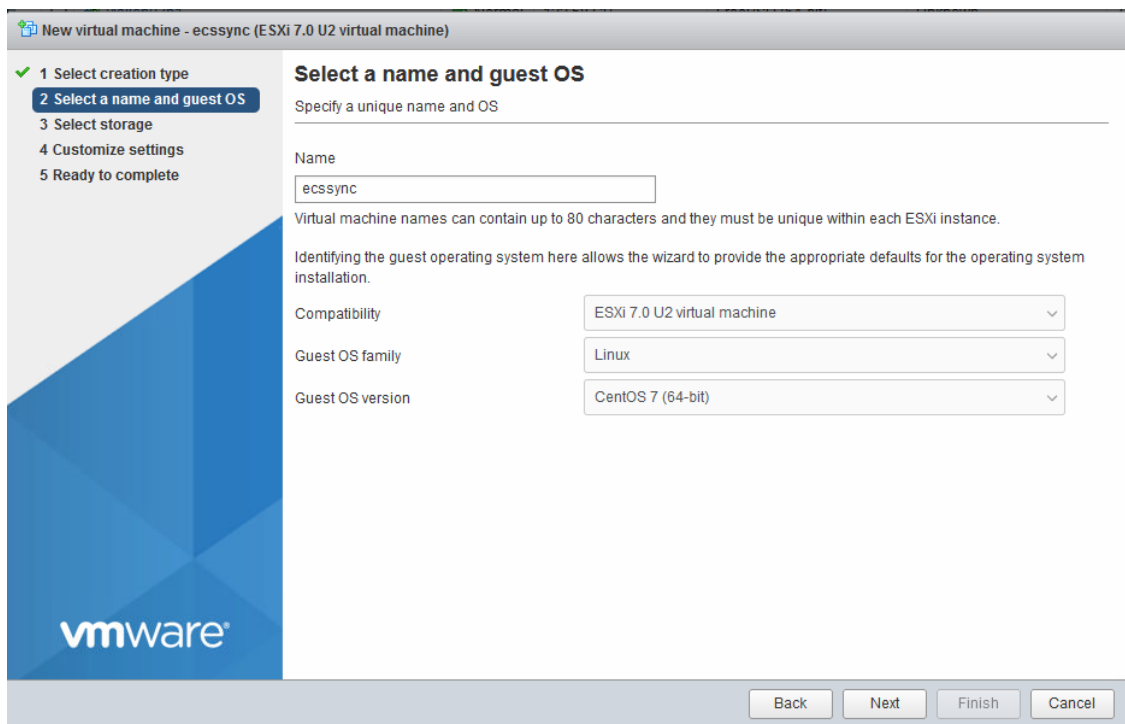
1. ECS Sync Installation	3
1.1. Getting help	3
1.2. Create a new virtual machine	3
1.3. ECS Sync Installation	6
Install ECS Sync	6
Configure ECSSync to use 64 GB of memory	6
Install Centera SDK	7
Install JCASScript.....	7
Finishing the installation.....	7
1.4. Running ECSSync Migrations.....	8
Running JCASScript	8
Running ECSSync Migrations	8
1.5. Backup ONE best practices for migrations.....	8
1.6. DB Enhanced Details	9
1.7. ECSSync VM Settings.....	10
1.8. Generating Migration Output Files	10

1. ECS Sync Installation

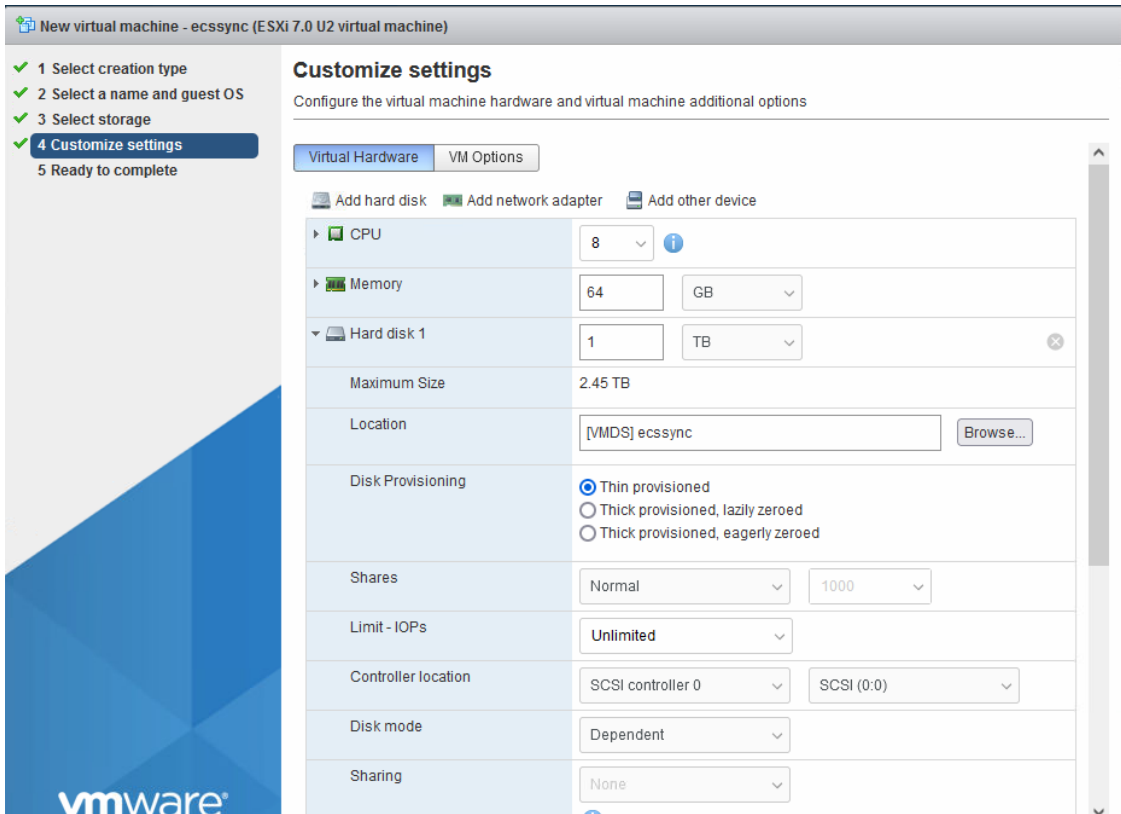
1.1. Getting help

In case of any questions, inability to access or find any of the required files or if you simply want an up-to-date OVF File that you can deploy, contact dellsupport@backup.ch.

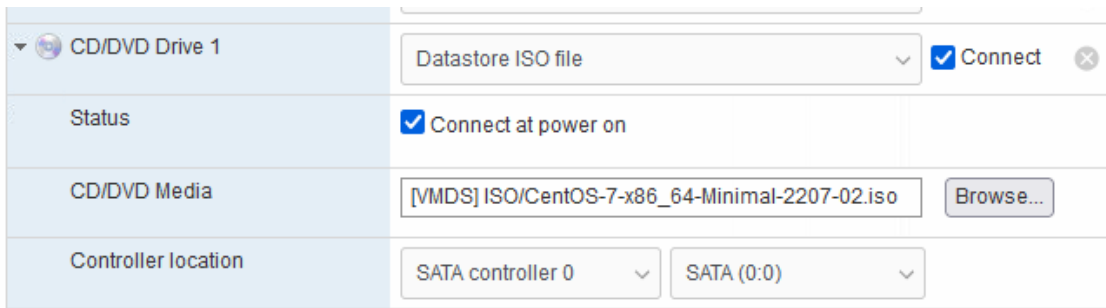
1.2. Create a new virtual machine



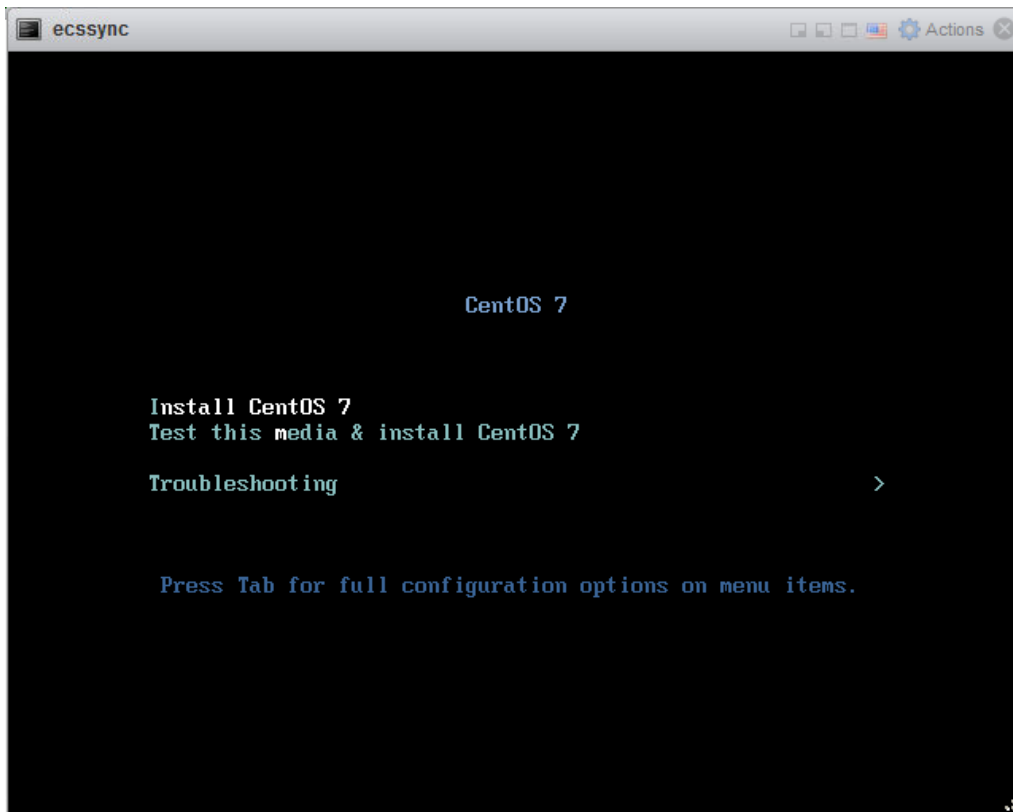
Choose a Datastore and customize the settings: Choose 8 CPUs, 64 GB of Memory, 1 TB of Disk and make it thin provisioned.



Attach the CentOS 7 minimal ISO file from [CentOS Linux](#)



Start the machine and install CentOS 7



Choose Language, Keyboard, Date & Time, Installation Destination and Network as requested.

Set the root user password and create the ecssync user as admin (sudo enabled).

Complete the installation and reboot the machine.

After the reboot:

Optionally install the VMWare Tools

```
sudo yum install perl
```

Install the VMWare Tools as shown in [Installing VMware Tools in a Linux virtual machine using a Compiler \(1018414\)](#)

Optionally configure the network

```
Nmtui
```

1.3. ECS Sync Installation

IMPORTANT: Ensure the VM has internet connectivity!

Install ECS Sync

```
copy ecs-sync-3.5.2.zip to /usr/local
yum install unzip
cd /usr/local
unzip ecs-sync-3.5.2.zip
delete ecs-sync-3.5.2.zip in /usr/local
copy ecs-sync-ui-3.5.2.jar to /usr/local/ecs-sync-3.5.2
sudo yum update
```

```
umask 022
cd ecs-sync-3.5.2
ova/configure-centos.sh
Initially choose enter for none for the MariaDB password.
set mariadb password
remove anonymous user
disallow root from remote
remove test database
reload privilege tables
ova/install.sh
sudo yum update
```

Configure ECSSync to use 64 GB of memory

```
sudo vi /etc/init.d/ecs-sync and set the -Xmx argument passed to java (4GB less than
physical RAM, JAVA_OPS line)
systemctl daemon-reload

sudo systemctl restart ecs-sync
```

Install Centera SDK

In order to install the Centera SDK Version 3.4 do the following as root:

```
copy Centera_SDK_Linux-gcc4.tgz to /usr/tmp
```

```
cd /usr/tmp
```

```
gzip -d Centera_SDK_Linux-gcc4.tgz
```

```
tar -xvf Centera_SDK_Linux-gcc4.tar
```

```
cd Centera_SDK/install
```

```
./install
```

```
echo "export PATH=${PATH}:/usr/local/Centera_SDK/lib/64" > /etc/profile.d/CenteraSDK-
```

```
path.sh && chmod 755 /etc/profile.d/CenteraSDK-path.sh
```

```
echo "export LD_LIBRARY_PATH=/usr/local/Centera_SDK/lib/64" >
```

```
/etc/profile.d/CenteraLIB-path.sh && chmod 755 /etc/profile.d/CenteraLIB-path.sh
```

```
./etc/profile
```

Install JCASScript

```
copy JCASScript_Linux_x86_64_0.02.tar_prm_en_US_1.gz to /var/
```

```
cd /var
```

```
tar -xvf JCASScript-Linux_x86_64-0.02-GCC3.3-3.2.35.tar
```

```
mv JCASScript_x86_64/ JCASScript/
```

```
rm mv JCASScript_x86_64/ JCASScript/
```

```
cd JCASScript
```

Finishing the installation

```
sudo yum update
```

```
sudo reboot
```

1.4. Running ECSSync Migrations

Running JCAScript

```
sudo -i java -jar /var/JCASScript/JCASScript.jar
```

Running ECSSync Migrations

Connect to VM IP Address

If logging in for the first time, click Save and Write Configuration to Storage one

Go to the status website and create a new sync job.

1.5. Backup ONE best practices for migrations

Create `/home/ecssync/centerapea/source` and `/home/ecssync/centerapea/target` directories to store the pea files. These can be referenced in the job using `sourceip?/home/ecssync/centerapea/source/somefile.pea`.

Give a meaningful name for the job. This helps to find them again in the history if you want to re-use the job configuration. Re-running a job or creating an incremental job from an initial complete sync.

Make sure to choose a db table name. This prevents the table from being deleted when the job is archived.

Ensure Verify is selected to get the job to read the migrated objects and calculate their target MD5 values which ensures a proper verification of the migrated content.

Start with a thread count of 4. Check the load on the source and target system and then start increasing the tread count in the running job ui.

Check the DB Enhanced Details Checkbox to ensure that source and target MD5 values are stored in the database.

1.6. DB Enhanced Details

Normally, the migration output should be detailed enough to serve as proof of the migration. For this it is important that the DB Enhanced Details Checkbox is selected:

ECS Sync UI		Status	Schedule	Storage	Migration	History	Config
Sync Options		hide advanced options					
Sync Metadata	<input checked="" type="checkbox"/>						
Sync Retention Expiration	<input type="checkbox"/>						
Sync Acl	<input type="checkbox"/>						
Sync Data	<input checked="" type="checkbox"/>						
Estimation Enabled	<input checked="" type="checkbox"/>						
Source List	<input type="text" value="source-list"/>						
Source List File	<input type="text" value="source-list-file"/>						
Source List Raw Values	<input type="checkbox"/>						
Recursive	<input checked="" type="checkbox"/>						
Ignore Invalid Acls	<input type="checkbox"/>						
Force Sync	<input type="checkbox"/>						
Verify	<input type="checkbox"/>						
Verify Only	<input type="checkbox"/>						
Delete Source	<input type="checkbox"/>						
Buffer Size	<input type="text" value="131072"/>						
Thread Count	<input type="text" value="16"/>						
Retry Attempts	<input type="text" value="2"/>						
Monitor Performance	<input checked="" type="checkbox"/>						
Timings Enabled	<input type="checkbox"/>						
Timing Window	<input type="text" value="1000"/>						
Remember Failed	<input type="checkbox"/>						
Db File	<input type="text" value="db-file"/>						
Db Connect String	<input type="text" value="db-connect-string"/>						
Db Enc Password	<input type="text" value="db-enc-password"/>						
Db Table	<input type="text" value="db-table"/>						
Db Enhanced Details Enabled	<input type="checkbox"/>						
Use Metadata Checksum For Verification	<input type="checkbox"/>	<small>Specifies whether the DB should included enhanced details, like source/target MD5 checksum, retention durations, etc. Note this will cause the DB to consume more storage and may add some latency to each copy operation</small>					
Bandwidth Limit	<input type="text" value="0"/>						
Throughput Limit	<input type="text" value="0"/>						

Only when this is checked, the MD5 values are stored in the database. If unchecked, these values will be calculated and verified but not stored in the database.

1.7. ECSSync VM Settings

Enabled Network with DHCP

Passwords chosen for image distributed:

Linux User: root / Ecs\$ync0va

Linux User: ecssync / ecs-sync-ova

GUI login: admin / ecs-sync

MariaDB: ecssync / ecs-sync-db

1.8. Generating Migration Output Files

Use putty to connect to the vm

```
mysql -u ecssync -p ecs-sync-db
```

```
use ecs_sync;
```

List available tables

```
show tables;
```

Get all fields from table:

```
MariaDB [ecs_sync]> describe test_job;
```

Field	Type	Null	Key	Default	Extra
source_id	varchar(750)	NO	PRI	NULL	
target_id	varchar(750)	YES		NULL	
is_directory	int(11)	NO		NULL	
size	bigint(20)	YES		NULL	
mtime	datetime	YES		NULL	
status	varchar(32)	NO	MUL	NULL	
transfer_start	datetime	YES		NULL	
transfer_complete	datetime	YES		NULL	
verify_start	datetime	YES		NULL	
verify_complete	datetime	YES		NULL	
retry_count	int(11)	YES		NULL	
error_message	varchar(2048)	YES		NULL	
is_source_deleted	int(11)	YES		NULL	

```
13 rows in set (0.00 sec)
```

Get the status of a migration of one table:

```
select status,count(*) from <table> group by status;
```

```
MariaDB [ecs_sync]> select status,count(*) from test_job group by status;
```

status	count(*)
Verified	10

```
1 row in set (0.00 sec)
```

Get e.g some fields based on status:

select <field>,<field>,<field>,from <table> where status='Verified';

```
MariaDB [ecs_sync]> select source_id,error_message,verify_start from test_job where status='Verified';
```

source_id	error_message	verify_start
0SBH2TOMKV2DIEd6S8835MC3N5GG41GSP9JJ020P30ORQF7NMQVPJ	NULL	2023-04-05 09:43:10
0VL0D9D4KQ5VBe7KSCMAUQDF44G41GSP9JT060E4JT9J1RRF8FF8	NULL	2023-04-05 09:43:10
3G5CITCLV01JNeCM6R698C7EM9VG41GSP9JC00038JF0680DOCD03	NULL	2023-04-05 09:43:10
43BSDQH8QEVTBeC5R9IFTV871S7G41GSP9J0040J5ED8TFEU4UAV4	NULL	2023-04-05 09:43:10
6A6N1BEJFC81KeBCUNBCC6V6BGAG41GSP9JR05073LGIRPMNTGUSG	NULL	2023-04-05 09:43:10
8CSG77UTH56Sce9TN50IDUDDDSRG41GSP9K2080RA8NDNCF44FMIP	NULL	2023-04-05 09:43:10
8FHK07U07N1Foe2QQH81O3M8DTQG41GSP9K5090U76K8TGBQLNTOJ	NULL	2023-04-05 09:43:10
DRTHB0T2SMSJDe64A146JL4F7CGG41GSP9JG010U7O9ECUSQECK6S	NULL	2023-04-05 09:43:10
E9VVSHE3F5HJ3e0DDA1HCS9LTJ3G41GSP9JM030E4TRGBD6S758SO	NULL	2023-04-05 09:43:10
ELAIGRTHP6VBCe616P3AP2COT5AG41GSP9K00704563UF0SPPH2O9	NULL	2023-04-05 09:43:10

10 rows in set (0.00 sec)