

Migrating NMIS and Modules from CentOS 6 to CentOS 7

- [Purpose](#)
- [Assumptions](#)
- [Prerequisites](#)
- [Procedure](#)
 - [Prepare Target CentOS 7 Server](#)
 - [Install prerequisite packages](#)
 - [Install NMIS and OMK Applications](#)
 - [Install SSH Keys](#)
 - [Shutdown Related Services](#)
 - [Run Export Script](#)
 - [Update your Mongo Config File on the New CentOS 7 Server](#)
 - [Correct NMIS Hostname on the New CentOS 7 Server](#)
 - [Restart Related Services on the New CentOS 7 Server](#)
- [Verification](#)

Purpose

Customers that are running NMIS and OMK applications on CentOS 6 may want to move them to CentOS 7. Will article will present one method of accomplishing this.

Assumptions

The CentOS 7 server will run the same version of NMIS and OMK applications that are currently running on the CentOS 6 server.

Prerequisites

- Selinux disabled or configured to allow NMIS/OMK installation.
- Firewall disabled or configured to allow all necessary OMK/NMIS network calls.



Selinux Warning

If selinux is enabled and at its default configuration during the NMIS installation perl modules will be installed with the wrong path. This will cause NMIS to be non-functional.

Procedure

Prepare Target CentOS 7 Server

Install prerequisite packages

After installing CentOS 7 on the new server install the following packages.

- yum update
- yum install perl
- yum install perl-core
- yum install rrdtool
- yum install rrdtool-perl
- yum install libpng12
- yum install rsync
- yum install ntp

Install NMIS and OMK Applications

Install the correct NMIS and OMK application versions on the new CentOS 7 server. If you no longer have the installer packages for the correct versions contact support@opmantek.com and someone will provide them.

Install SSH Keys

In order for the export script to work a valid ssh key must be installed in the `/root/.ssh/authorized_keys` file.

Shutdown Related Services

On both the old CentOS 6 and the new CentOS 7 servers shutdown the following services:

- opeventsd
- opconfigd
- opflowd
- omkd
- mongod

Run Export Script

Run the following script on the old CentOS 6 server. The following six variables at the top of the script will need to be modified to suit your environment.

Please take into consideration that the new environment may store the database in different folders. Check your "dbpath" in your servers (/etc/mongod.conf).

- TARGET : IP address of the new CentOS 7 server.
- NODEDATA: Full path to the directory that contains NMIS node files.
- SOURCE_MONGODBLOCATION: Full path to the current Mongo database directory to be migrated.
- SOURCE_MONGOSDIR: The name of the directory that contains the current MongoDB files.
- DESTINATION_MONGODBLOCATION: Full path to the new Mongo database directory.
- DESTINATION_MONGOSDIR: The name of the directory that will receive the MongoDB files.

exportNMIS_OMK.sh

```
#!/bin/sh

TARGET=192.168.10.67
NODEDATA=/usr/local/nmis8/database/nodes
SOURCE_MONGODBLOCATION=/data
SOURCE_MONGODBDIR=mongodb
DESTINATION_MONGODBLOCATION=/var/lib
DESTINATION_MONGODBDIR=mongo
NODES=$(fgrep "'name'" /usr/local/nmis8/conf/Nodes.nmis | awk '{print $3}' | tr '\n' ' ' | tr ', ' ' ' | awk '{print $1}')

# copy mongodb
rsync --progress -av $SOURCE_MONGODBLOCATION/$SOURCE_MONGODBDIR $TARGET:$DESTINATION_MONGODBLOCATION/
ssh $TARGET "chown -R mongod:mongod $DESTINATION_MONGODBLOCATION/$DESTINATION_MONGODBDIR"

for NODE in $NODES
do
# create a directory to store the node export JSON files.
install -d $NODEDATA

# export the node records from NMIS
/usr/local/nmis8/admin/node_admin.pl act=export node=$NODE file=$NODEDATA/$NODE.json

# get the node data to the target server
rsync -avz -e ssh $NODEDATA/* $TARGET:$NODEDATA/
rsync -avz -e ssh /usr/local/nmis8/database/nodes/$NODE $TARGET:/usr/local/nmis8/database/nodes
scp /usr/local/nmis8/var/$NODE* $TARGET:/usr/local/nmis8/var

# remotely add the nodes to the TARGET server
ssh -t $TARGET "/usr/local/nmis8/admin/node_admin.pl act=create node=$NODE file=$NODEDATA/$NODE.json"
done

# Update the group list with any new groups
ssh -t $TARGET "/usr/local/nmis8/admin/grouplist.pl patch=true"

# copy NMIS/OMK config
rsync --progress -av /usr/local/nmis8/models root@$TARGET:/usr/local/nmis8/.
rsync --progress -av /usr/local/nmis8/conf root@$TARGET:/usr/local/nmis8/.
rsync --progress -av /usr/local/omk/conf root@$TARGET:/usr/local/omk/.

# Fix file permissions
ssh $TARGET /usr/local/nmis8/admin/fixperms.pl
```

Update your Mongo Config File on the New CentOS 7 Server

Update your `/etc/mongod.conf` to reflect the current configuration from your old CentOS 6 Server, note that the `dbpath` could be different from your old environment.

Correct NMIS Hostname on the New CentOS 7 Server

In `/usr/local/nmis8/conf` put the correct hostname for `'server_name'` attribute.

Restart Related Services on the New CentOS 7 Server

Restart the following services:

- mongod
- omkd
- opeventsd
- opconfigd
- opflowd

Verification

Log into the GUI on the new CentOS 7 server and verify each application is functional and presents data from before the migration.