**Helpful:**

<http://unixadminguide.blogspot.com/2014/04/restore-or-install-aix-with-mksysb.html>

<http://aix4admins.blogspot.com/2011/05/mksysb-this-resource-is-file-containing.html>

Good troubleshoot doc:

<https://www-304.ibm.com/support/docview.wss?uid=isg3T1012561>

**1. Check the status of the mksysb resource for the host that you want to restore. There should be no issue but can’t hurt to check:**

lsnim -t mksysb | grep <hostUwant>

lsnim -l <mksysb\_resource\_Uwant>

*If your installing a mkysb to clone to a* ***new LPAR on a different machine****, simply create the machine resource leaving out options for the ethernent device. Just need to specify the NIM network which should be pre selected for you when your run smitty nim\_mkmac. Make sure there is an entry for the LPAR hostname in /etc/hosts if can’t be resolved via DNS. Also make sure ‘recover devices’ set to no in the installation settings (“Change/Show Installation Settings..”). This can also be set in the bosinst.data file. See https://www.ibm.com/support/knowledgecenter/ssw\_aix\_61/com.ibm.aix.install/basic\_mksysb\_image.htm*

**Only if there is no SPOT that matches the mksysb** **OS Level,**  create the SPOT from the mksysb. In most cases, there will be a SPOT that will work. You can list them and check them:

lsnim -t spot; lsnim -l SPOT\_61\_09

If you do need to create the spot, do ( using axdedifm as an example):

nim -o define -t spot -a server=master -a location=/export/spot -a source=mksysb\_axdedifm axdedifm\_5300-12\_spot

lsnim -l axdedifm\_5300-12\_spot

sanity check:

nim -o fix\_query axdedifm\_5300-12\_spot | grep ML

**2. Initiate the bos install for server recover using the mksysb for the server you are restoring and SPOT that matches the OS Level of the mksysb:**

The mksysb images are in /export/images. **However because of space limitation, most are stored on an NFS mount: /mnt/nim**. If the image you are looking for is not in /export/images, you will need

To copy it from the NFS mount before you begin. The most critical servers are kept in /export/images.

smitty nim\_bosinst

say no on these 2 options:

Initiate reboot and installation now?         [no]

-OR-

Set bootlist for installation at the next reboot?    [no]

**3. Perform the install from the client**

Boot client into SMS mode using HMC and select the option 2 ( Setup IPL) and select the Ethernet adapter that is configured ( if you don’t know might have to try them all )

At the next screen setup the IP parameters, Adapter Config **( turn spanning tree off** ) , and do the ping test. The ping test must work for this to work

Go back to the main menu and select 5 for boot options

Select 1 Select Install/Boot Device and Select 6 for Network. Then Select Network Adapter from previous step as option 2. Select Normal Mode Boot and Select 1 to Exit System Management Services

Wait for the BOOTP process to load the kernel. Watch the LED codes to see what’s going on. Check the LPAR resource to see the progress or any errors:

lsnim -l <lpar\_name>

If all goes well, you we get the normal install screens. You can except the defaults or optionally change Install settings ( Disks to install on etc) :

Type menu item number and press Enter or select Navigation key:

Welcome to Base Operating System Installation and Maintenance

Type the number of your choice and press Enter. Choice is indicated by >>>.

>>> 1 Start Install Now with Default Settings

2 Change/Show Installation Settings and Install

…..

*Note: If the source server is mirrored, you need to specify the 2 disks in the “Change/Show Instal..” or hack the image files OR break the mirror on source server before creating the mksysb*

*Also make sure the install setting are set to 'recover devices: NO” if installing to a different machine*

4. **VIO Restore**

The metadata backups for VIO severs are kept here: /export/images/VIOS

I the VIO sever is completely hosed, you will first need to install VIO server from DVD or virtually mounted ISO to the VIO LPAR

After the install, copy the backup file to the VIO server.

You can optionally look at some details of the backup:

viosbr -view -file mvVIO.backup.tar.gz

viosbr -view -file mvVIO.backup.tar.gz -mapping

See viosbr man page for more options

Run the restore:

viosbr -restore -file /home/padmin/myvios.tar.gz

If this does not go well, you can manually reconfigure the VIO server using the information stored in the backup file ( disk/net mappings, LVM details, etc)

**5. Installing a mksysbe to a \*new\* machine/LPAR**

Here are the general steps:

1 Make sure your network is defined, if not, then you need to define it and you need the network subnet, netmask and gateway information.   
2. Add the client IP and host name in the /etc/hosts file  
3. Define machine (use command smitty nim\_mkmac) . Can look at other machines on the same network to make sure parameters are correct.   
4. Push the OS image to the LPAR (Use command smitty nim\_bosinst) and then mksysb option and then select the LPP source you have already defined on the NIM server and then SPOT....accept license and do not boot the LPAR should   
be selected...   
5. Check the status of the defined clinet LPAR by using the command : lsnim -l <clinet LPAR>   
If BOS installation has been enabled without errors, you can activate the LPAR through HMC and then go into SMS   
6. Enter the IPL parameters on the selected interface card and see if the pinging is successful.

*Steps 4 and 5 are generally the same as doing the mksysb restore steps*7. select the boot option from the SMS menu and select Network and then select the interface that you used in the last step and it should start the OS installation

**Is this right??? : other docs say u don’t need the LPP source for clones**

This command will initiate a mksysb install to ClientA using its own mksysb image. Since this is a mksysb restore back to the exact same system it was taken from, I do not need to use an lpp\_source resource. **If I were to be cloning this mksysb to any other system.**..even the same system type, I would need to allocate an lpp\_source resource.

# nim -o bos\_inst -a source=mksysb -a spot=5305\_spot -a mksysb=ClientA\_mksysb -a boot\_client=yes ClientA