Deploy a Departmental Classroom OS Image via MDT - Network Boot

Most departmental classroom computers are registered with network names in LUNET, Lehigh's DNS / DHCP server system. Check your classroom's user spec doc (and hardware details spreadsheet) to see what these names are. These records and the appropriate firmware / BIOS configuration enable the systems to be booted to the network to run the OS deployment wizard.

Note that this method will generally erase the hard disk of the machine in question, so be sure that any desired user data has been backed up. To use a non-data-destructive method, see Deploy a Departmental Classroom OS Image via MDT - Share Script.

1. **Boot to the network**: Turn on the machine, while it's connected via Ethernet cable to the Lehigh LAN, and upon the display of it's BIOS logo, **press** the proper function key to either display the boot options menu (example shown) or directly initiate PXE booting.

   Select the option that boots to the network using "IPV4". The MDT server is not configured for IPV6 services.

   On Dells, **F12** gives access to the 'One-Time Boot' Menu, from which the Network card can be selected for boot. On Lenovo's **F12** generally takes one directly to the Network boot option. On HPs, **F9** gets the Boot Options screen. The screen will look different for firmware type and revision. Practically speaking, it's different for every model of PC.

   In most cases, booting to the network card will only be available in one or the other of the two boot modes, Legacy or UEFI. If you have a choice (unusual), choose UEFI.

   In most cases, the LUnet network reservation for the machine has been set up already, and the machine will boot properly to the correct network boot server. If not, a CC may need to update the LUnet record for that machine. The DHCP option must be set to "PXE - DAB" for BIOS-booting machines, or "DAB - UEFI" for UEFI-booting machines.

   Note that most of the CAS Departmental Classroom systems have already had their BIOS configured to enable network booting, but since most of those firmware settings are not password-protected, they can be altered. You may need to update firmware settings to achieve the desired boot options.

   Also note: if your system is brand new, and the Mid-Level Computing consultant hasn't created a LUnet record for it yet, none of the following will steps work.

2. **Load MDT WinPE from Network**: Watch for the offer of the "Network Service Boot" (or network boot service). Depending on the setup of the classroom's machines, you'll need to **press** either **F12** or 'Enter' to accept the network boot. It can go past in a few seconds if you're not watching.

   When it starts downloading the mini-OS for the wizard, you'll see a progress bar indicating that files are loading 

3. Once the mini-OS (Windows PE) has loaded, it will run a wizard, displaying a screen with two options:

   a. Run the Deployment Wizard to install a new Operating System
   or
   
   b. Exit to the Command Prompt.

**Click 'Run the Deployment Wizard' to proceed.**

4. You’ll need to **log in** with your Lehigh credentials. If you are denied access, you’ll need to request it from the Mid-Level Computing Consultant.
5. The next screen allows the choice of image you'd like to deploy. Be kind, and don't deploy images (and software licenses) for departments you don't work for. Choosing your image may depend on which machine model you're working on -- some machines have multiple drives, and require them to be deployed in a certain layout.

Click the radio button next to the 'task sequence' you'd like to run (the image you'd like to deploy), and click 'Next'.

6. In the last screen, simply make sure that no errors are indicated (i.e. that a machine name like 'FS<this machine's MAC address>' has been automatically entered), and click 'Next'.

7. While the deployment runs, there will be progress bars . . .
8. The deployment should finish in the local ‘Administrator’ account, with an indication of success (yellow screen).