

Windows Enterprise OU Administrator Policy and Procedures Joining a Computer to a College/Departmental Organizational Unit

Steven L. Kunz
September 26, 2002
Last Update: January 13, 2009

This document describes how to add a new computer to a departmental OU in the Iowa State Windows 2000 enterprise domain ("iastate.edu").

Determine the DNS Hostname of the Computer to be Joined to Your OU

Determine the fully qualified DNS hostname of the system to be made a member of the departmental OU. For this document, assume the DNS name is:

deptpc01.dept.iastate.edu

Computers with Multiple Network Interfaces

It is common for computers to have multiple NICs (Network Interface Cards) and therefore multiple IP numbers and DNS hostnames. The most common occurrence of this is when a laptop has both "wired" and "wireless" network connectivity. At the current time both NICs need to be registered via "NetReg".

You should not create a separate Active Directory computer object for each wired/wireless interface (even though you currently still have to register each interface via NetReg - getting two DNS hostnames). After NetReg'ing each interface, pre-create ONE AD computer object (see below) and join it to the domain. This creates a computer object with the name (based on the "DNS hostname") of one interface (typically the "wired" one).

When the system is made a member of the domain the Windows GUID (Global Universal Identifier) is registered by Active Directory as being attached to that computer object. The DNS hostname at the time of domain membership is then inserted into the computer object. When the system uses the second (wireless) interface card do NOT make it member of the domain again. Active Directory should see the same GUID when it is connected, no matter what network interface is used. In this way, whether the system is "plugged in" or "roaming" (wireless or wired) it appears to Active Directory as the same system (because it presents the same GUID when connected no matter how/where it is connected).

The “DNS name” associated with the computer object will be the one for one of the interfaces (typically the “wired” one). The major use for the "DNS name:" contained in the Active Directory computer object is when you fire up "Active Directory Users and Computers" and "right-click" the computer object and select "Manage". AD then tries to make a connection to the system based on the indicated "DNS name" in the computer object. If you joined the system to the domain when it was "wired" and it is up and currently "wired", then connecting to this DNS name WILL work. However, if you joined the system to the domain when it was "wired" and now it is "wireless connected" (with a different DNS name) then this connection will NOT work (because the "wired" interface/hostname is not currently "up"). So, to remotely manage the machine from Active Directory Users and Computers it will have to be up and connected to the network with the interface that has the "DNS name:" indicated on the AD computer object.

Pre-Creating the Computer Object in Your OU

You must “pre-create” a computer object for the Windows system in your OU before joining the computer to the “iastate.edu” domain. This is done using “Active Directory Users and Computers” (on one of your OU maintenance systems). To do this:

1. Login to your OU maintenance system with a NetID that is a member of your “!<OU-name> Admins” security group.
2. Start up “Active Directory Users and Computers”, find your OU, and right-click the container where you want the new computer object to reside.
3. Select “New” and then “Computer”. Supply the “hostname” term (the leftmost term, everything to LEFT of the leftmost period) for the “Computer name”. In our example, this would be “deptpc01”. Do not change the value for “Computer name (pre- Windows 2000)” (which will be defaulted to the correct value for you). DON'T CLICK “NEXT”! The next step is important!
4. Look for “The following user or group can join this computer to a domain”. Make sure you indicate that you (or your !<OU> Admins” security group) can admit the computer to a domain (DO NOT leave the default “Domain Admins” selection, since you are not a full “Domain Admin”). Click “Next”.
5. Click “Next on the “Managed Computer” screen and then “Finish” on the final screen.

The remaining steps are done on the system being joined to the domain.

Joining the Computer to Your OU

Logon to the computer being joined to your OU (“deptpc01.dept.iastate.edu” in our example) with an account that has “local Administrator” privileges.

1. Set your computer clock to the within a minute or two of the correct network time. Authentication with your OU manager domain account will fail in Step 6 below with the error “Logon failure: unknown user name or bad password” if the time is too far off.
2. Right-click "My Computer" and select "Properties" to get the System Properties displayed.
3. Click the "Network Identification" tab and then the "Properties" button. The "Computer name" should be the leftmost term on the DNS hostname (everything to the LEFT of the left-most period in the DNS hostname). In our example this would be “deptpc01”.
4. The "Member of" area should have "Domain" selected and the domain should be "iastate.edu"
5. Click the "More" button on this screen. The "Primary DNS suffix of this computer" should be everything EXCEPT the leftmost term of the DNS name (everything to the RIGHT of the left-most period in the DNS hostname). In our example this would be “dept.iastate.edu”. You should "uncheck" the box that says "Change primary DNS suffix when domain membership changes". Click “OK” when your changes are completed.
6. When asked for credentials to join the computer to the domain, supply the NetID and password for a member of your “!<OU> Admins” group. This directly relates to the values supplied in “Step 4” of the previous section.
7. When completed you will need to reboot the computer.

After each system is admitted to the “iastate.edu” domain (in your OU) the users can login with their ISU Network-ID (and password).