



TECH NOTE

VICON TECHNICAL SERVICES GROUP

Subject: Network using DHCP
Product: Kollektor Elite & KPro (Viconnet)
Number: 1400-0001-56-00
Date: 12/31/03

This note reviews ViconNet version 2.8 support of DHCP. (dynamic host communication protocol) This document assumes some knowledge of networking and assigning IP in a Windows environment. This tip covers how ViconNet utilizes networking and in particular the use of DHCP. Adherence to this setup will insure stable ViconNet network connectivity.

NOTE: Always assign IP within the ViconNet application. Never assign an IP, either statically or dynamically in Windows unless otherwise noted.

Basic Networking rules.

ViconNet manages its network elements within itself. It is **STRONGLY** advised to manually assign IP addresses to each ViconNet networked device, avoiding DHCP. If DHCP must be used, some rules on its use must be observed.

How to access ViconNet network properties. (Kollektor Elite, Kol Pro, any workstation)

All log-in is done by Admin. To access networking properties in ViconNet, start the ViconNet application, Login as Admin, then select: Setup; Setup Site Selection;(select the machine at the top of the list), Main Settings; Network Setup and Site name.

DHCP SETUP

Kollektor Elite / Pro.

1. A DHCP server **MUST** be connected to the Kollektor prior to and during the DHCP setup phase of the ViconNet software.
2. Log-In, click Set-Up, Setup Site Selection, click on the pc at the top the list and click Select,
3. At Main Settings click on Network Settings and Site Name
4. At the bottom of the screen is IP Address Settings.
5. A new Kollektor will have an IP manually set in ViconNet at 0.0.0.0 (default)
6. Check the box " Obtain an IP address automatically",
7. ViconNet and the PC will reboot.
8. When unit has rebooted, repeat steps 2 thru 4
9. A completed DHCP setup will look as displayed here.

NOTES:

The screenshot shows the 'Network Settings' dialog box in ViconNet. At the top, it displays 'Site Name: KPRO-20943' and 'Ip Address: 10.10.10.92'. Below this, there are several sections: 'To rename this computer or join a domain click change:' with a 'Change...' button; 'Nucleus Settings' with radio buttons for 'This Site is the Master Nucleus' (selected) and 'This Site is the Backup Nucleus'. The 'Master Nucleus IP' is set to 10.10.10.6. There are also fields for 'Master Nucleus DNS name', 'Backup Nucleus IP' (set to 0.0.0.0), and 'Backup Nucleus DNS name'. A 'Synchronize Time' section has a checked box for 'Synchronize Time on the Network' and a 'Change Time...' button. The 'IP Address Settings' section has radio buttons for 'Obtain an IP address automatically' (selected) and 'Specify an IP address', with fields for 'Local IP', 'Subnet Mask', and 'Default Gateway'. 'OK' and 'Cancel' buttons are at the bottom.

Upon reboot the IP is displayed under the **Network Settings** (ex: Ip Address 10.10.10.92)

NOTE: Once ViconNet has an IP, it will no longer utilize an IP assigned by Windows or if the DHCP server should attempt to reassign an IP to the PC.

To force a new DHCP detection of the Kollektor requires setting an IP manually first, the Kollektor will restart with the new manual address. Repeat steps 1 thru 9 to obtain a new address.

The NUCLEUS and Back-Up Nucleus should never have IP assigned by DHCP. It is the core networking component of ViconNet. Its IP should never be changed. All other ViconNet Kollektors and Workstations refer to its IP. (An IT administrator can exclude IP's from the DHCP server, insuring those IP's are never assigned by the DHCP server)



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DHCP SETUP

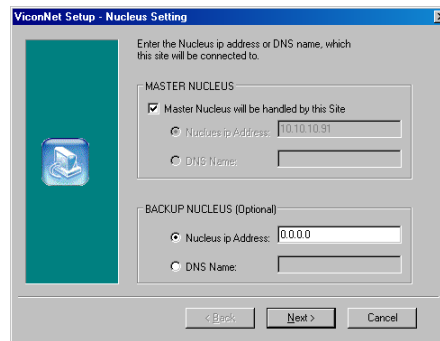
ViconNet on a Workstation

This procedure assumes a new installation of ViconNet. A DHCP server **MUST** be connected to the prior to and during the DHCP setup phase of the ViconNet software.

An IP is requested during initial installation of the ViconNet software on a workstation.

Do not fill in any values. If the PC already has an IP assigned its IP settings will be displayed. Do not change it.

The installation will require a reboot. Upon PC restart, start the newly installed ViconNet application.



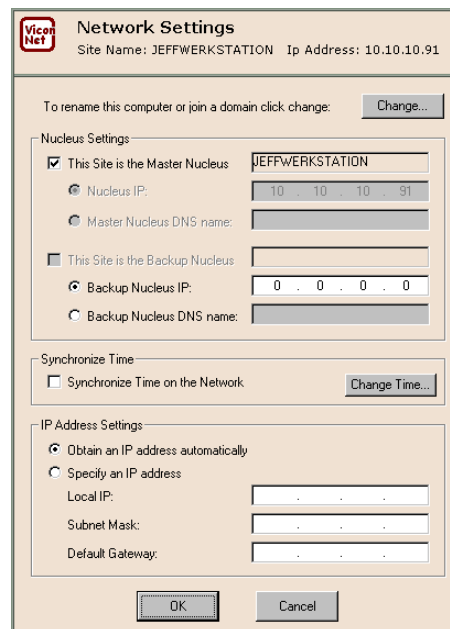
ViconNet IP Setup

1. Log-In, click Set-Up, Setup Site Selection, click on the pc at the top the list and click Select,
2. At Main Settings click on Network Settings and Site Name
3. At the bottom of the screen is IP Address Settings.
4. As noted above, a new installation will have the IP Check box “ Obtain an IP address automatically”,
5. Note the Ip address is already set. ViconNet ‘inherited’ the IP from Windows during the initial installation.

The IP is displayed under the **Network Settings** (ex: Ip Address 10.10.10.91)

NOTE: Once ViconNet has an IP, it will no longer utilize an IP assigned by Windows or if the DHCP server should attempt to reassign an IP to the PC.

To force a new DHCP detection of the Workstation requires setting an IP manually first, the Workstation will restart with the new manual address. Repeat steps 1 thru 8 from previous page to obtain a new address.





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OVERVIEW OF VICONNET NETWORK FUNCTIONS.

Nucleus

Nucleus IP must be manually assigned.

(reserve this IP in the DHCP server to omit from the pool)

When a ViconNet network is required, **one** of the machines must be assigned as a **Nucleus**. The other machines would need to know where the Nucleus is. Each machine (DVR or workstation) has an option to input the Nucleus IP.

Backup Nucleus Can be any **one** DVR or workstation. It's IP nucleus is assigned by the nucleus only. Once a machine has designated as the back-up nucleus, it's IP settings should not be changed. NOTE: It's IP settings are "grayed" out, preventing any changes to it.

DVR's Kollektor Elite and Kollektor Pro are video servers, providing digital recording and networking of its resources to a other DVR's and workstations. They can see cameras and playback video from other ViconNet resources.

Workstation's Workstations are PC's that have ViconNet workstation software installed. They act as server or client. They can see cameras from Kol Elites, Kol Pros and playback video from any Viconnet DVR or workstation. Workstations features are dependent on its license. VN1000 16 channels plus full administrative capabilities / VN100; 4 channel viewer / VN500; 16 channel viewer.

Nucleus Can be any **one** DVR or Full version workstation. If 5 or more DVR's are on a network, a VN1000 workstation should be assigned the nucleus function.