

DHCP Relay Option 82 (Relay Agent Information Option)

Ethernet Switch

ZyNOS 3.7

Support Notes

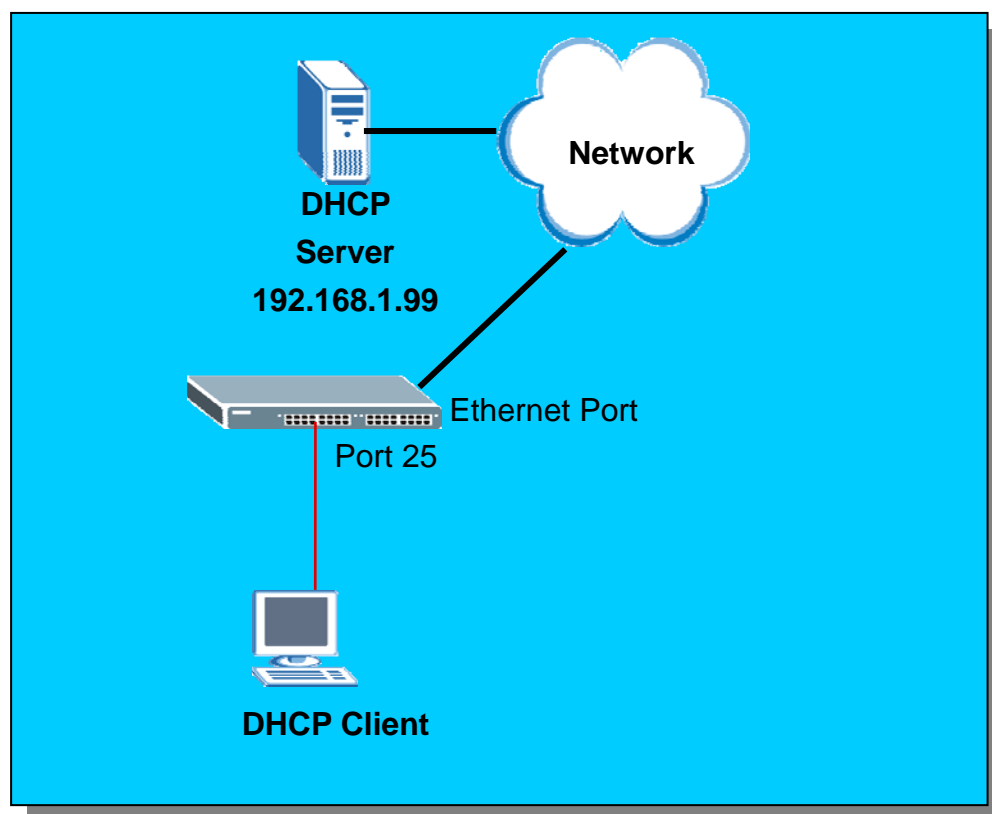
Version 3.70

August 2006



DHCP Relay Option 82 Application

ISP may want to limit the number of IP address or deliver some specific IP addresses according to a certain Switch port, VLAN ID and option 82 string. This can easily be achieved by using DHCP Relay Option 82 feature and a DHCP server supporting Option 82 function.



How to set up DHCP Relay Option 82 Environment

Here, we will set up an environment to allow a PC to get DHCP IP address in specific IP pool according to its Switch port, VLAN ID and the option 82 string. In this case, we are using ES-3124 for the demonstration. PC is behind 25th Switch port and the option 82 string is a string "ES-3124". We use the IP Commander as DHCP server. Its IP is 192.168.1.99 and the IP pool is between 192.168.1.201 and 192.168.1.203 for VID=1, Switch port=25 and the option 82 string is "ES-3124".

1. Switch settings

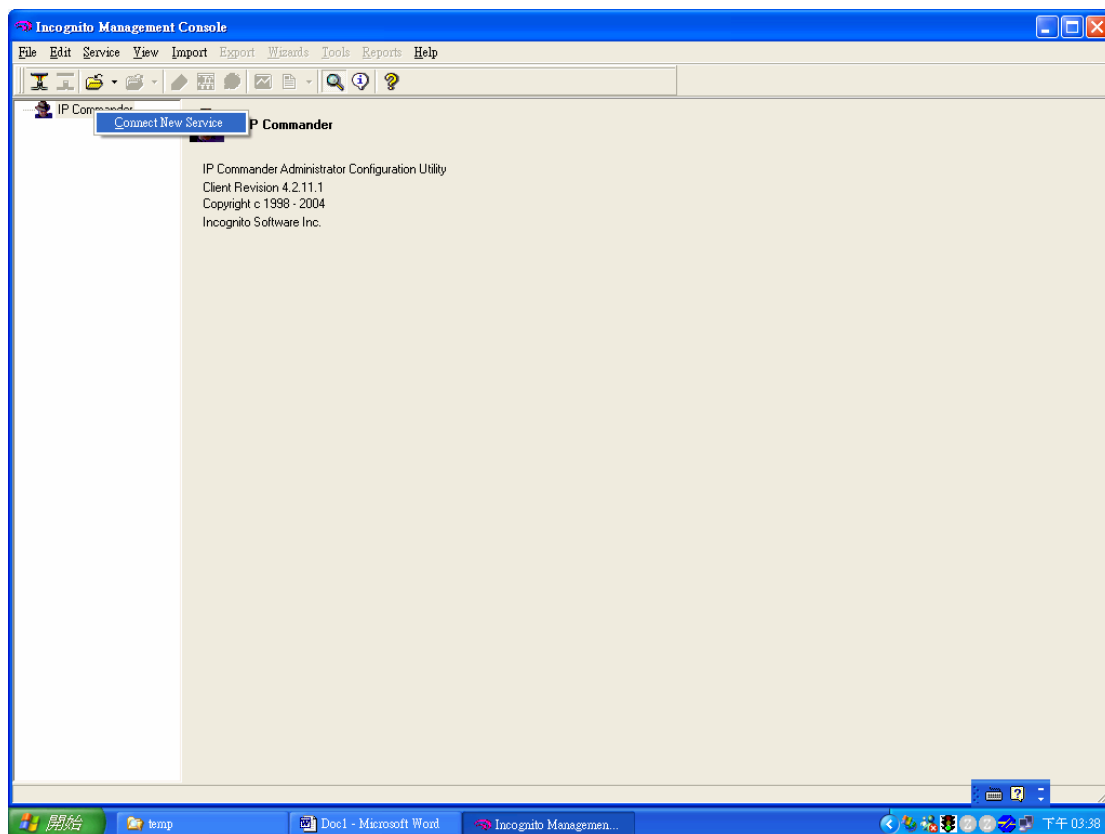
Click **IP Application**, **DHCP Relay** in the navigation panel to display the configuration screen as shown below, the **DHCP Relay** setup page. To activate the DHCP relay and Option 82 function check the Active box. Also, check the **Information** checkbox to make "ES-3124" the Option 82 string. **Information** is READ ONLY here and it is the same as the host name of the Switch.

DHCP Relay	
Active	<input checked="" type="checkbox"/>
Remote DHCP Server 1	192.168.1.99
Remote DHCP Server 2	0.0.0.0
Remote DHCP Server 3	0.0.0.0
Relay Agent Information	<input checked="" type="checkbox"/> Option 82
Information	<input checked="" type="checkbox"/> ES-3124

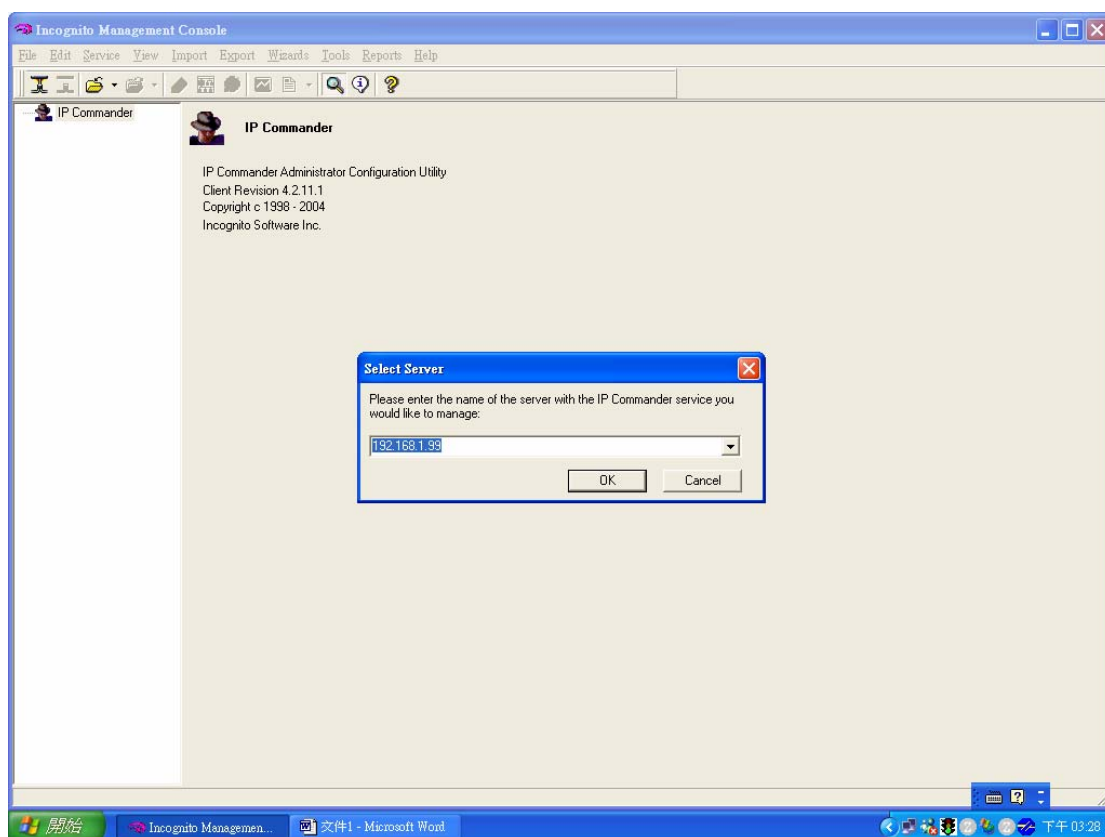
Now we can connect PC to the 25th SWITCH port. Please see the former applications for detailed settings.

3. IP Commander settings

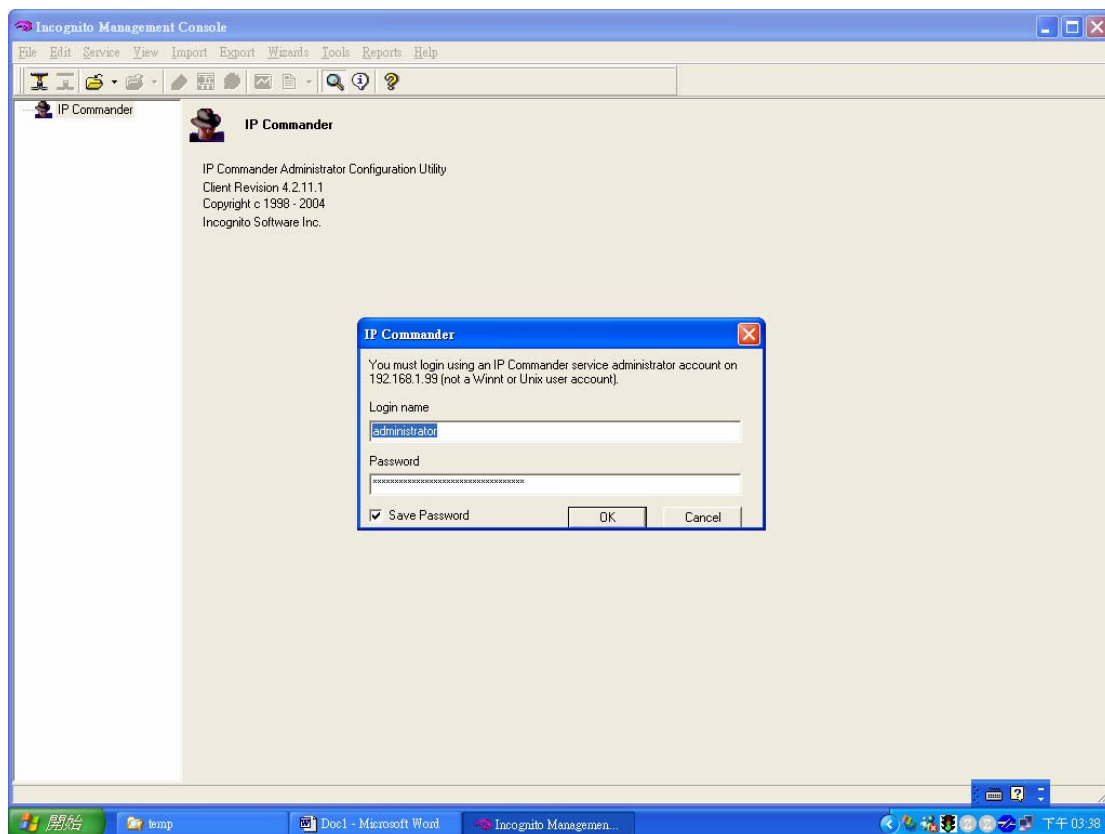
Open IP Commander. Right click "IP commander" and then click "**connect new server**".



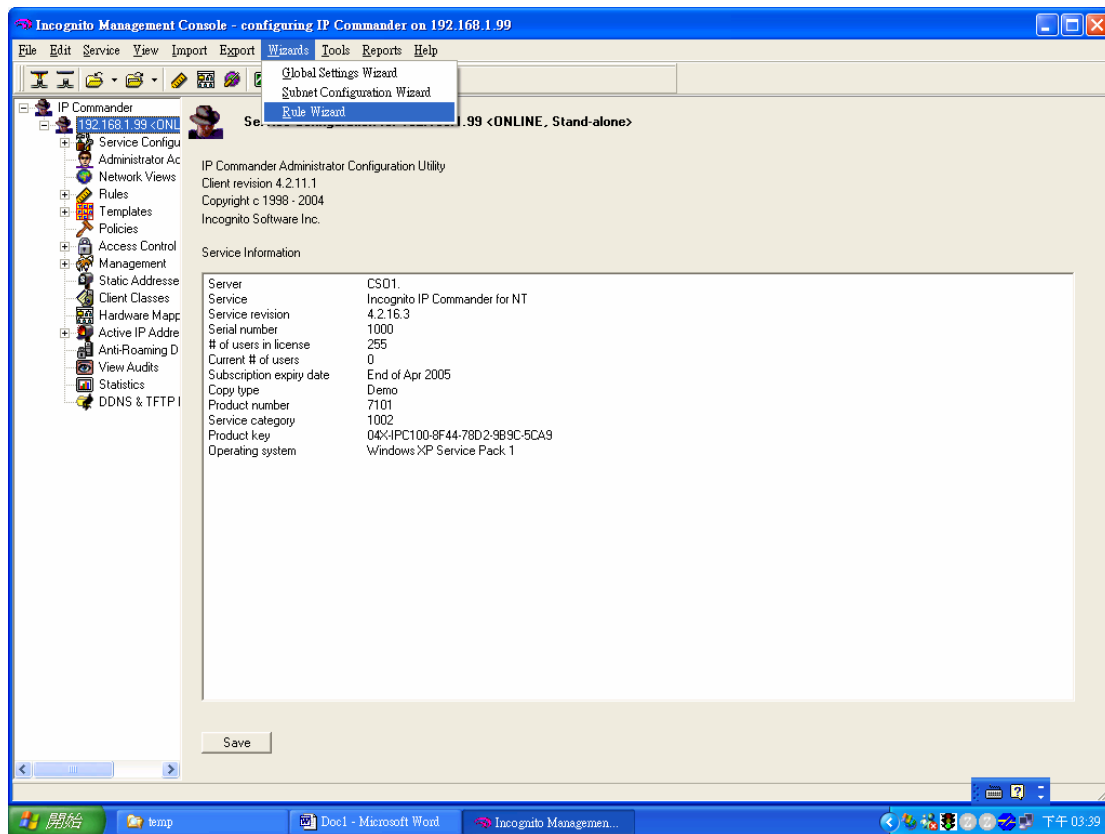
Input the DHCP IP address or domain name and click "ok". Our IP is 192.168.1.99.



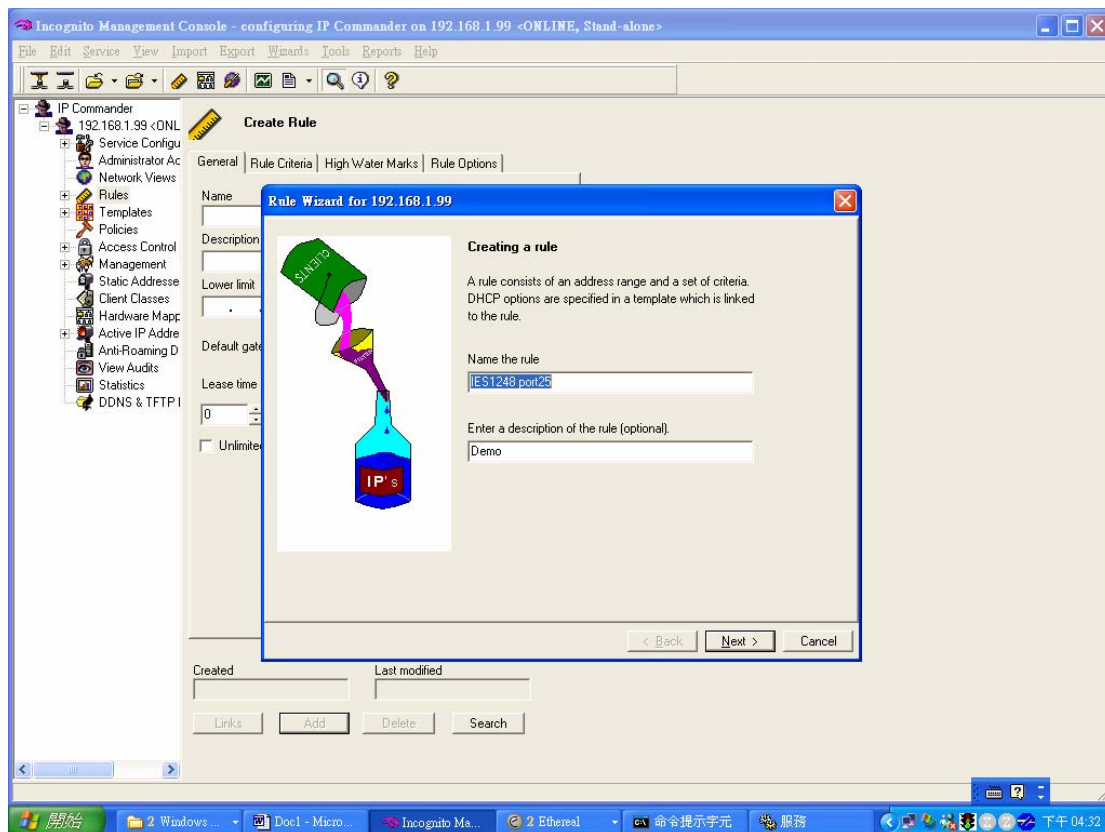
Insert the user name and the password. The default user name is “administrator” and the password is “incognito”.



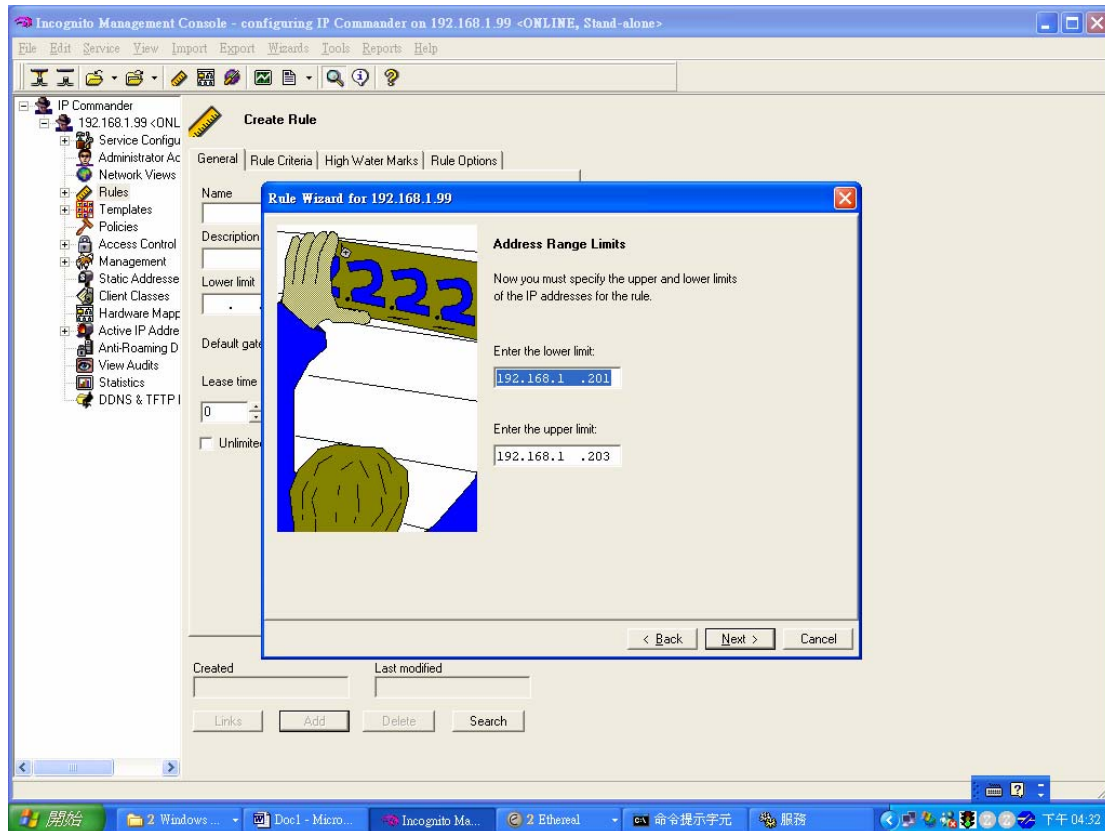
It will bring up the following screen, please make sure that your DHCP is in the **“online”** status. Then click **“wizard”** in the top tool bars and select **“rule wizard”**.



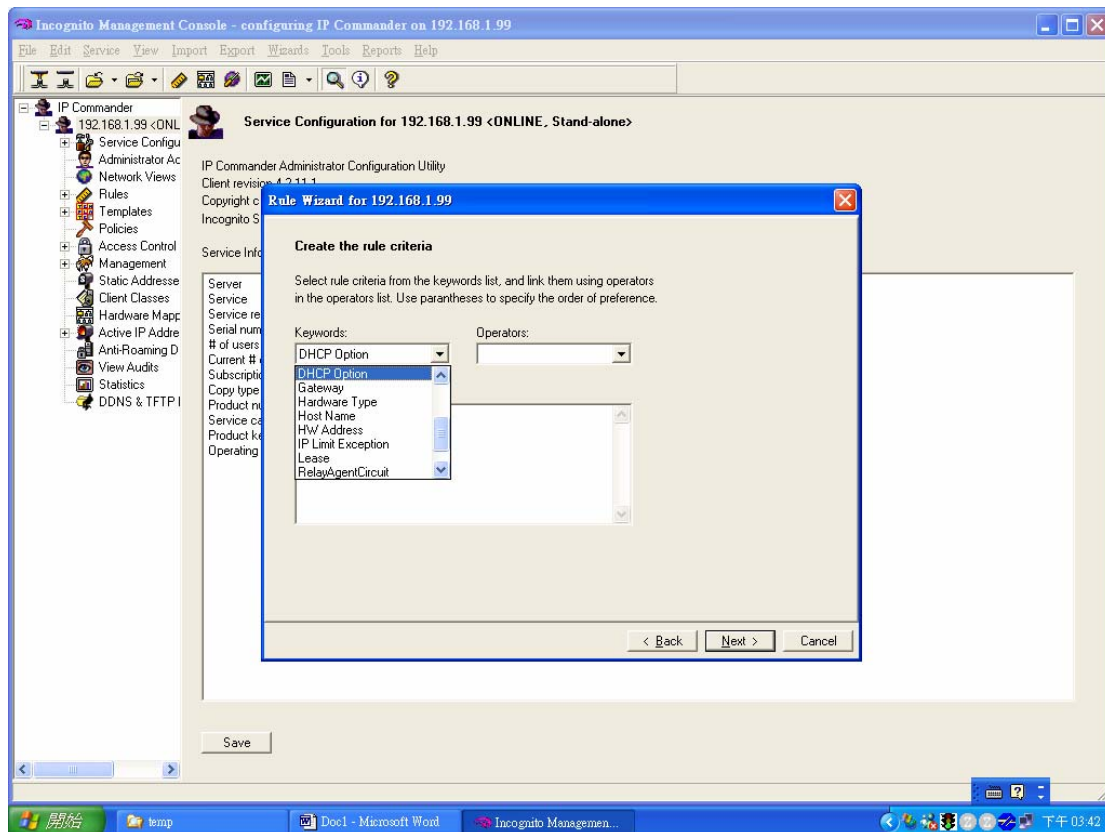
Assign a name and a description to the new rule.



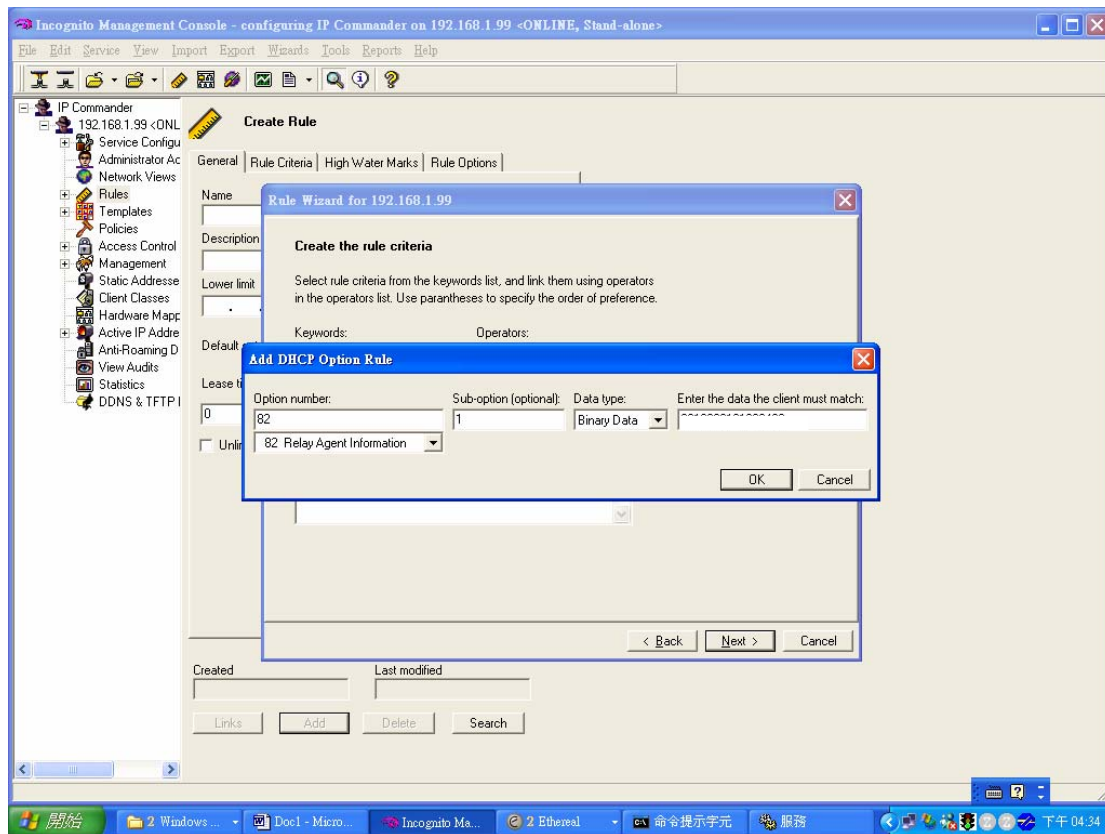
Assign a range of IP addresses or just one IP address to this rule. In our case, we set the IP pool to range from 192.168.1.201 to 192.168.1.203.



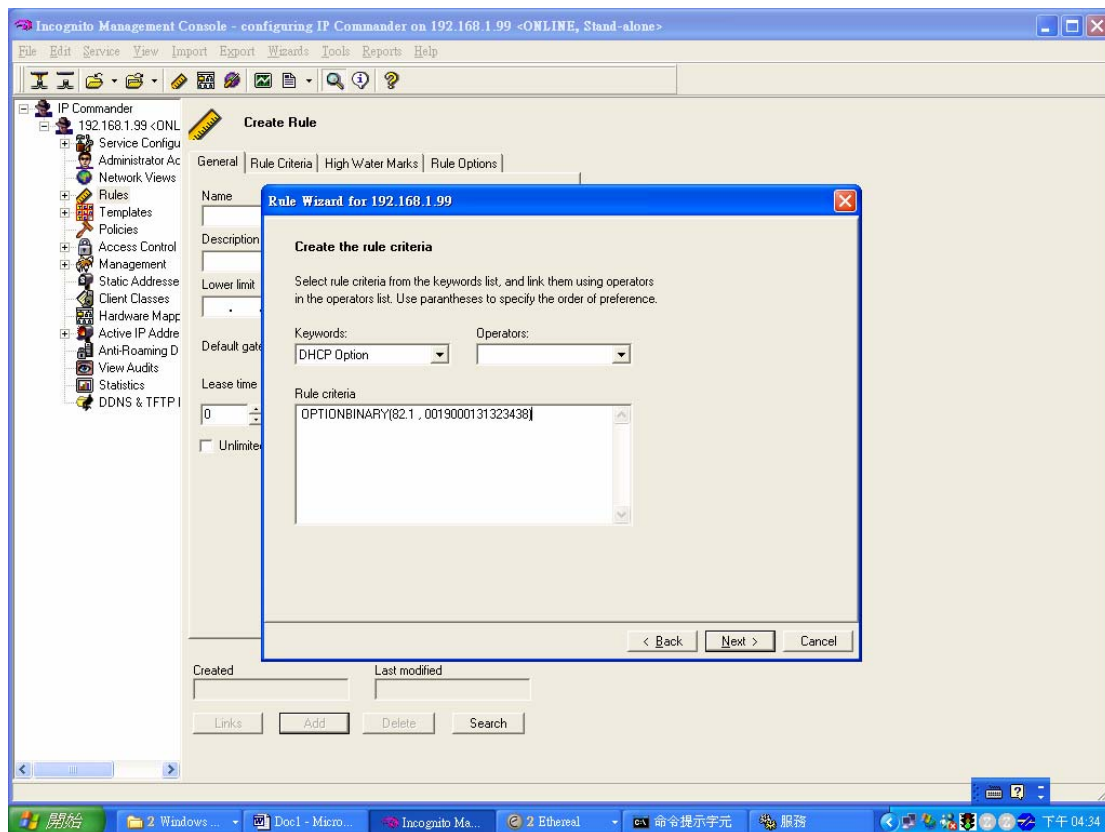
After setting the IP pool, we select “DHCP Option” in the Keywords combo box.



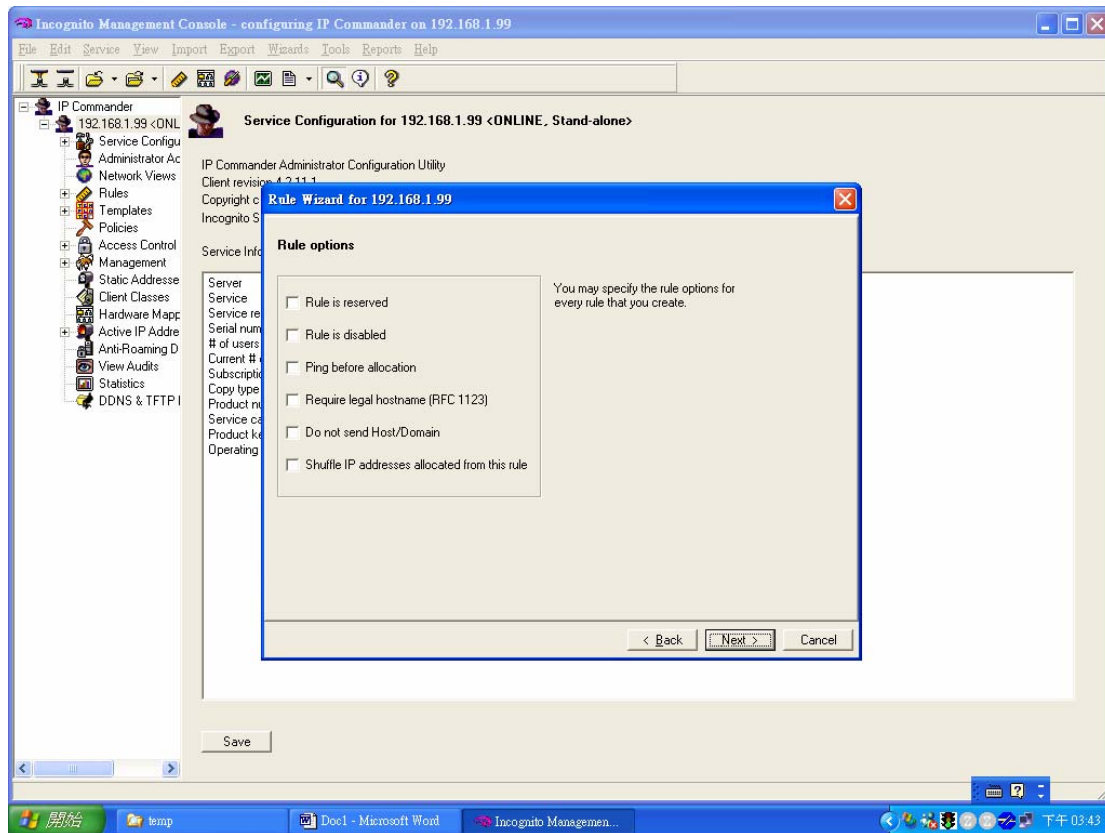
After selecting the “DHCP Option”, the “Add DHCP Option Rule” dialog will pop up. Select “option 82 Relay Agent Information”, sub-option 1, binary data. For port 25, VLAN 1, “ES-3124”, type “0019000147532d33303132” as the key value and click OK. Please note, that the first 2 bytes define port number, the second 2 bytes is VLAN ID and the other bytes are the Option 82 string.



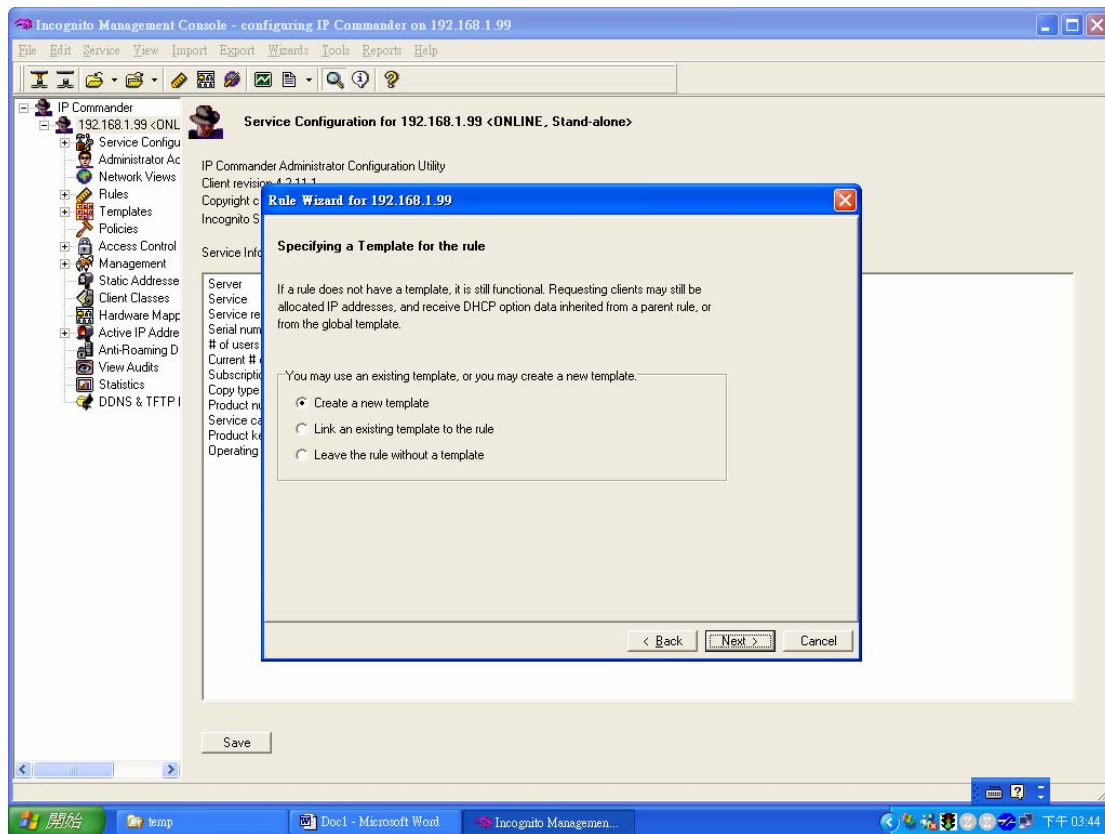
After you finish the steps above, you will see the following figure.



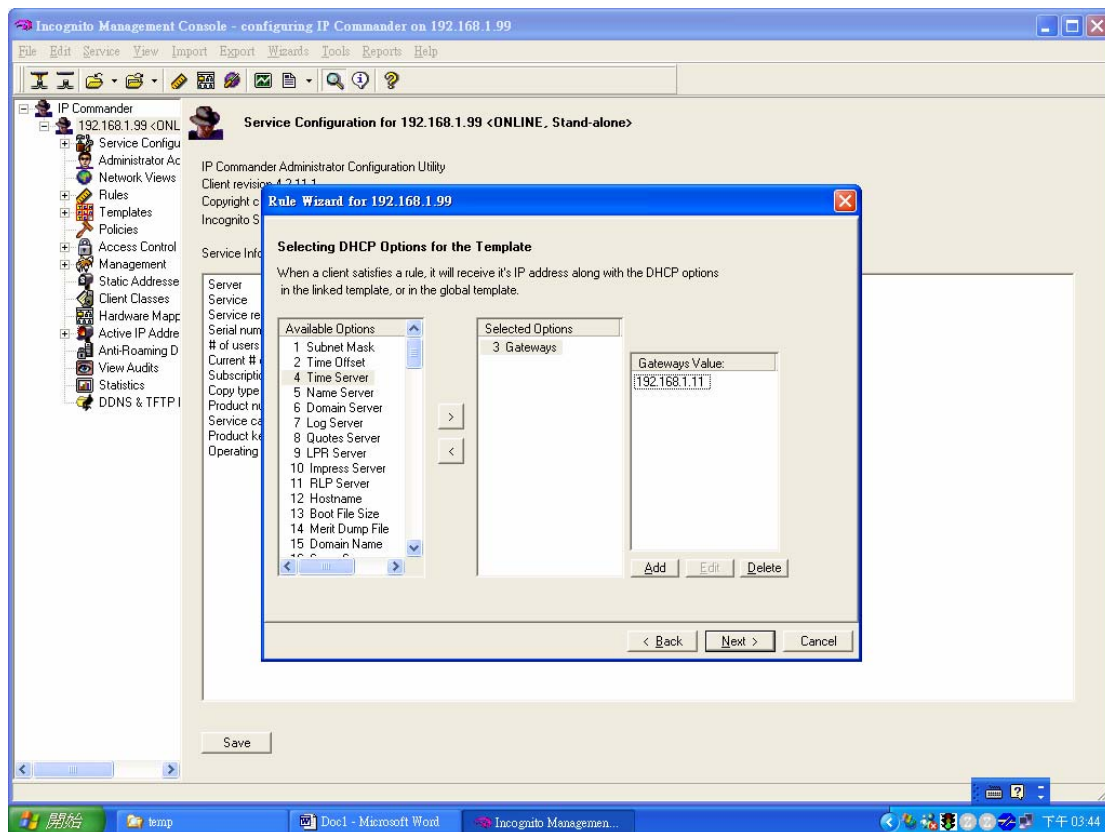
When the following screen pops up, press the **Next** button.



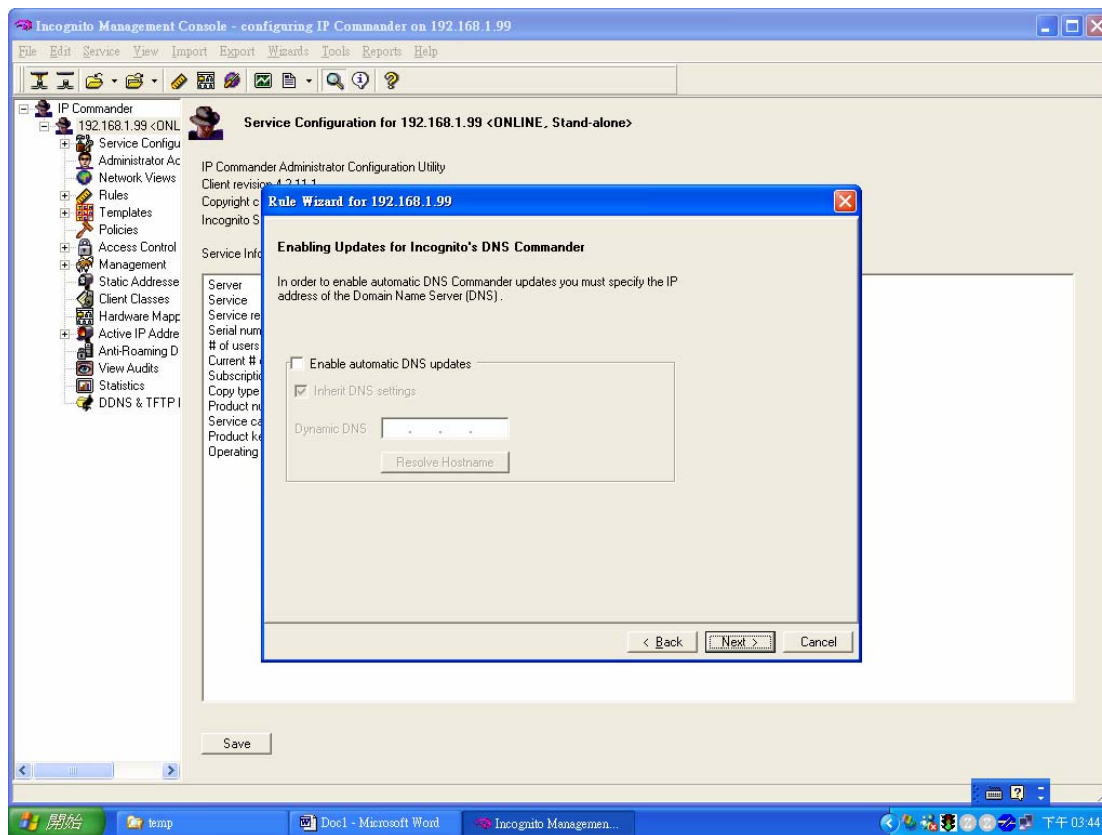
Now you can add DHCP template (option) such as gateway, DNS server and so on.



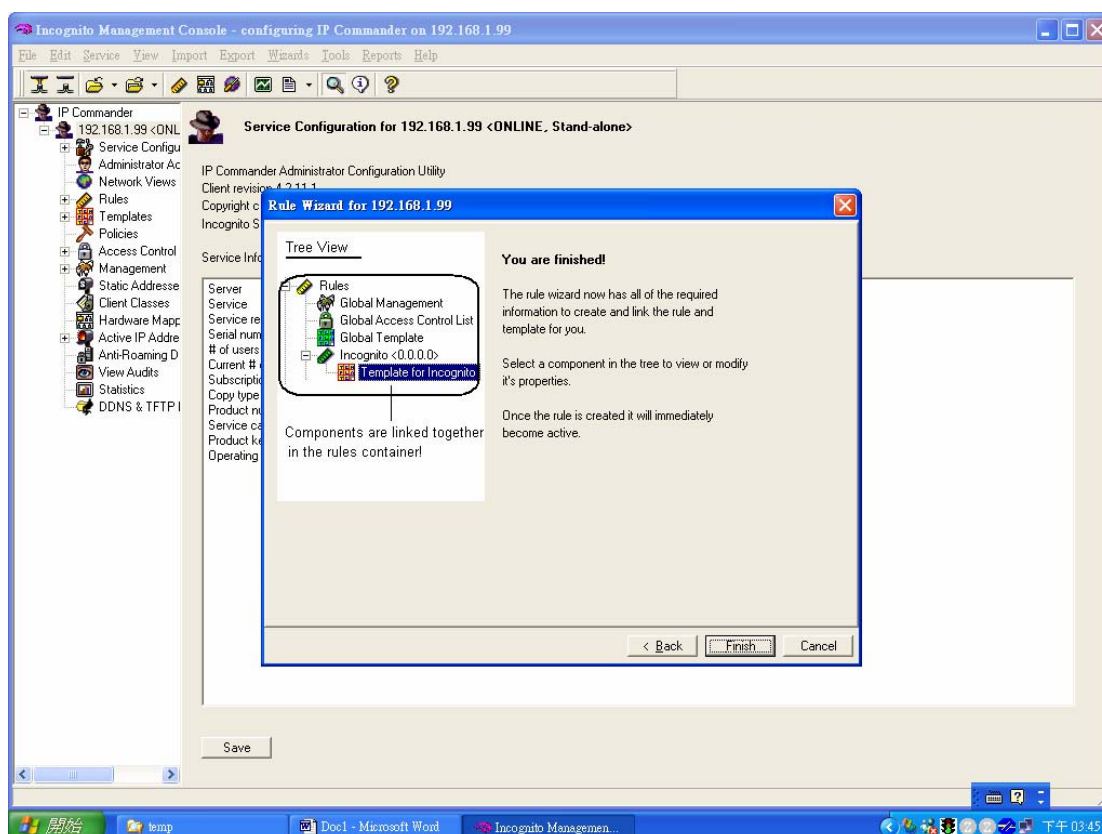
Here we use “192.168.1.1” as the gateway IP address of DHCP client PC.



You can apply DDNS service to DHCP server if you want to.



The rule creation has been finished.



After finishing all the above procedures, when you send a DHCP request, your PC will get the IP address 192.168.1.201.