

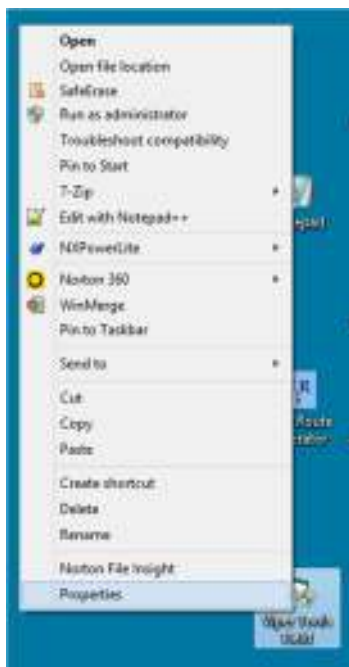
Using the Viper Field Tool

Installing Viper Tool

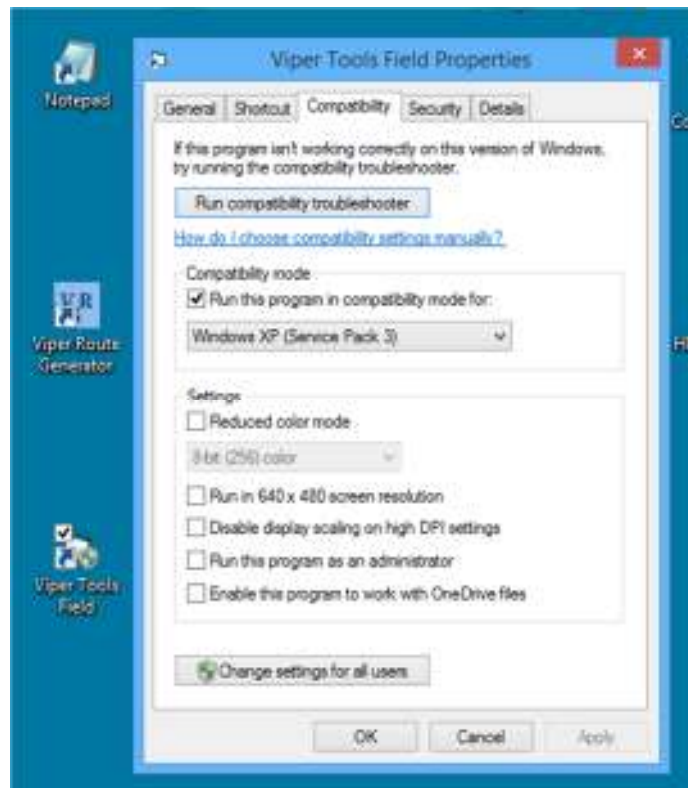
Install the Viper Field Tool. Some PCs may need to download a missing ActiveX file (mscomctrl.ocx) that is required to use the Viper Tool. Download the missing file and put it in the Windows\syswow32 or syswow64 depending on if the PC is a 32 or 64 bit Windows machine.



The Viper Tools Field is a telnet utility that allows the user to telnet to any Viper locally (via the LAN port) or over the RF network as long as there is a RF path from the master Viper to the remote Viper. The user can monitor/change the parameters in the Viper by using Command Line Interfaces (CLI) commands. Please review the attached CLI manual that contains all the CLI commands and their definition. The user should right click on the icon and select properties and the Compatibility mode.



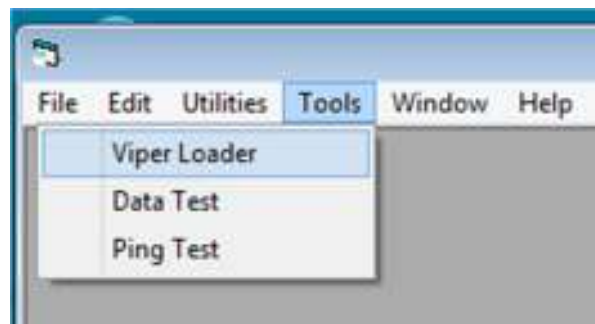
The user should run the Viper Tool in XP Compatibility Service Pack 3 mode.



XP Compatibility Service Pack 3 Mode

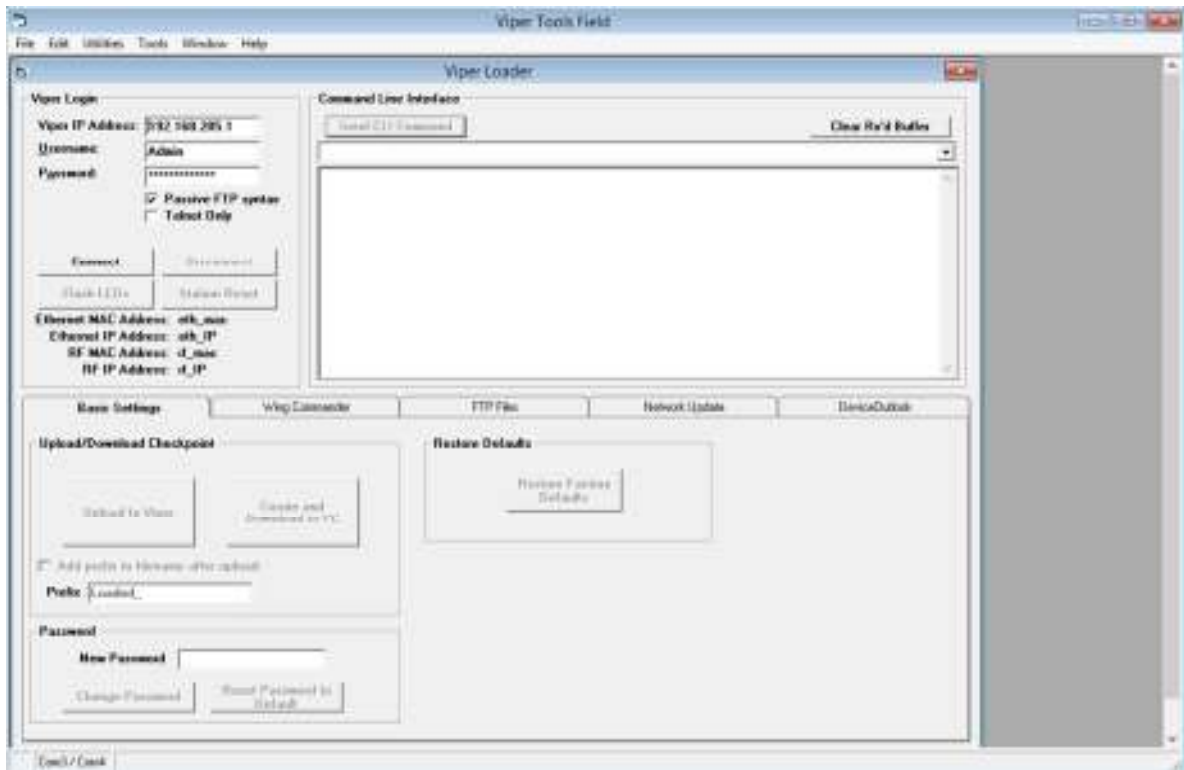
Starting Viper Tool

Click on the Viper Tools icon to start up the tool and then click on the Viper Loader under the Tools menu in the tool bar of the application.



Viper Loader

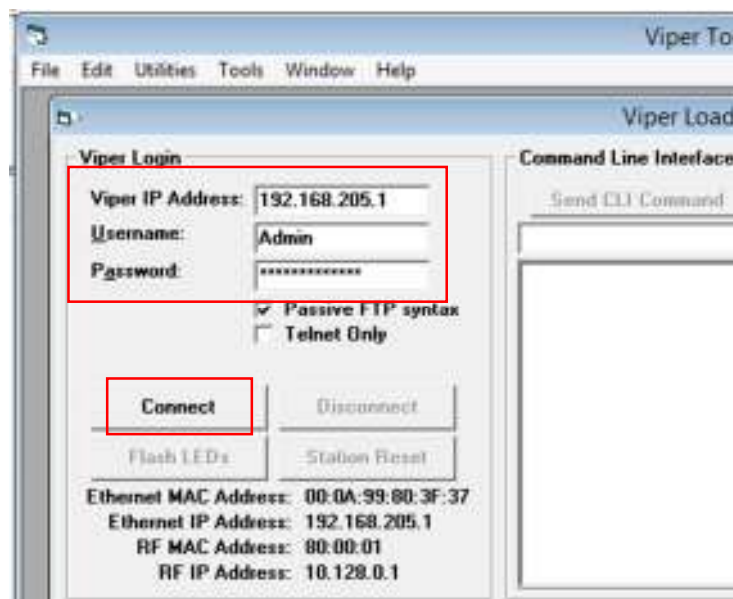
Clicking the Viper Loader will display the telnet application as shown below.



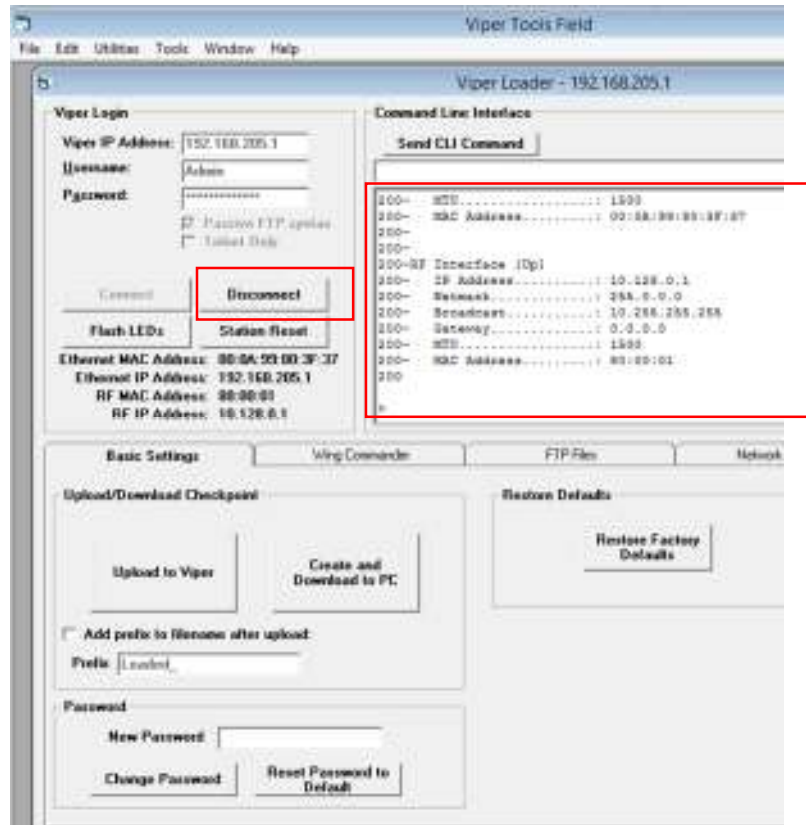
Viper Telnet CLI

Connecting to Local Viper or Remote Viper

Enter the desired Viper's IP Address that the user wants to connect to (it can be used to connect locally via the LAN port or remotely via the RF as well). Ensure the correct user name and password has been entered. In this example the default values of 192.168.205.1 will be used for the Viper IP Address, Admin for the Username and ADMINISTRATOR for the Password. Click on the connect button to connect to the Viper.

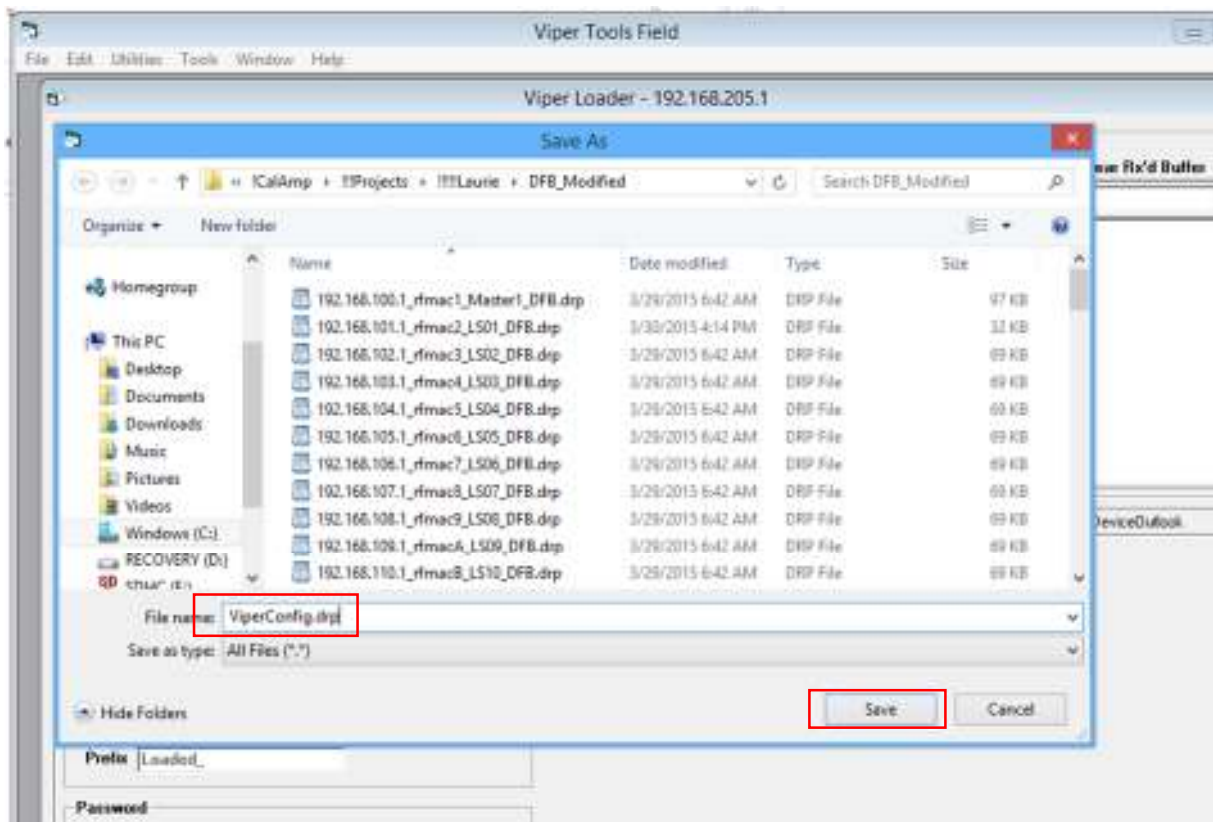


If the Viper Tools connects to the Viper, the Viper will enable the Disconnect button and will display the Ethernet IP settings in the CLI text panel.



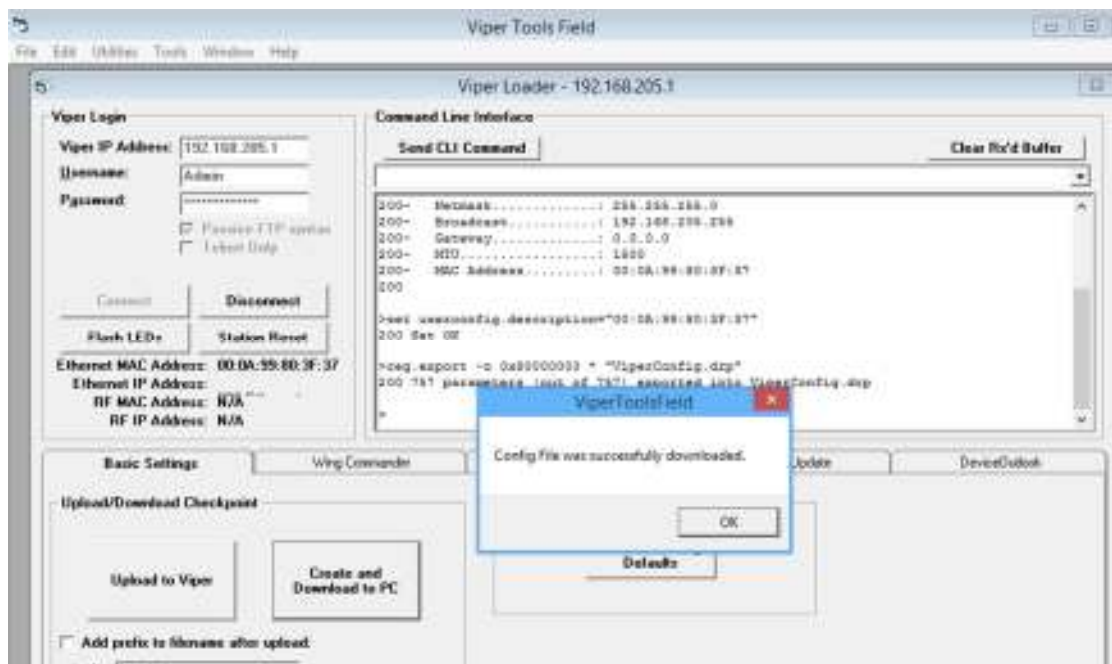
Download Current Checkpoint Configuration .drp File from Viper (Cloning)

Click on the Basic Settings tab to enable the features located on the tab. Click on the Create and Download to PC button to download the current Checkpoint Configuration .drp file. The Viper Tool will prompt the user to save the current Checkpoint Configuration .drp file as ViperConfig.drp. The user can save the file where ever and with whatever name the user chooses. This file can be used in the Cloning process.



Save ViperConfig.drp

The Viper Tool will prompt the user when the file has been transferred to the PC.

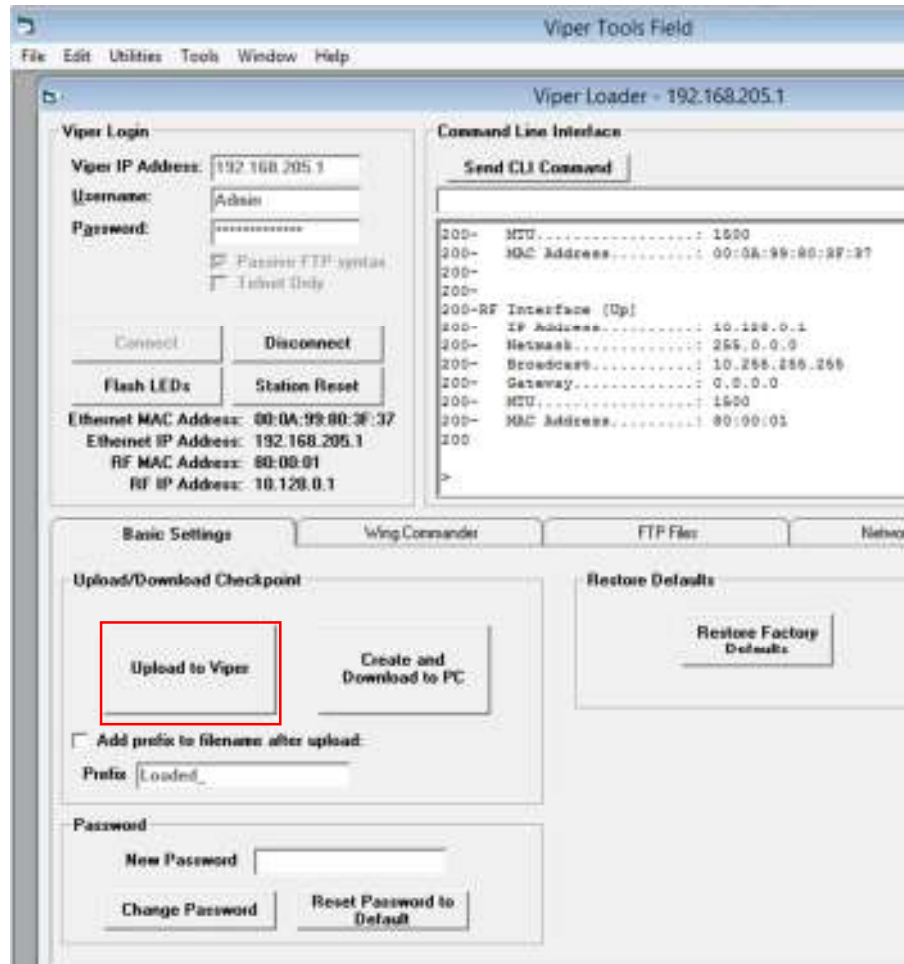


Config File Successfully Downloaded

Upload Configuration .drp File to Viper (Cloning)

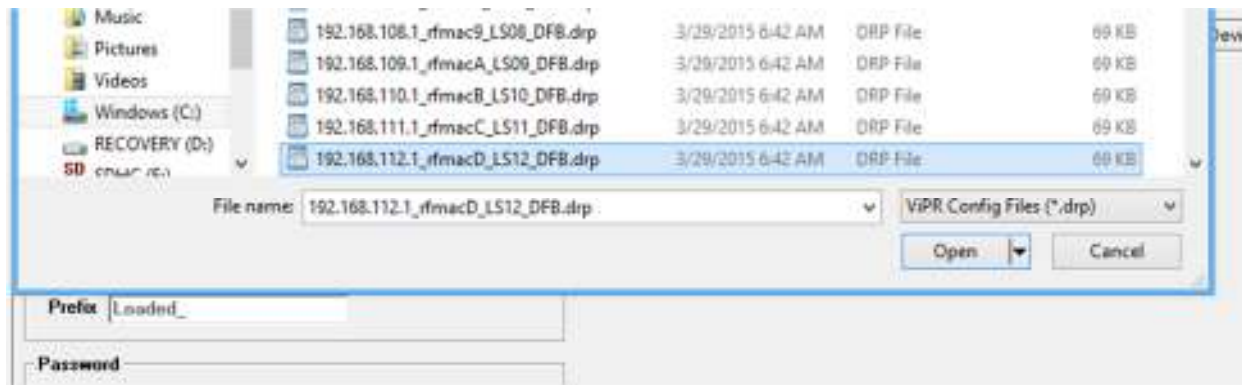
Note: The below Cloning procedure should only be used to clone a Viper if connected locally via the Ethernet LAN port. It should not be used to Clone a Viper remotely over the RF link, the user may lose connectivity to the remote Viper. A script file should be used to ensure that RF connectivity is not lost. The script procedure will be outlined in another procedure.

A Viper's configuration .drp file can be transferred to another Viper by an FTP utility and then using the Clone procedure outlined in the CalAmp pdf Cloning procedure for the Viper. The user can also use the Upload to Viper button to FTP the file into a Viper. This process is also referred to as Cloning a Viper.



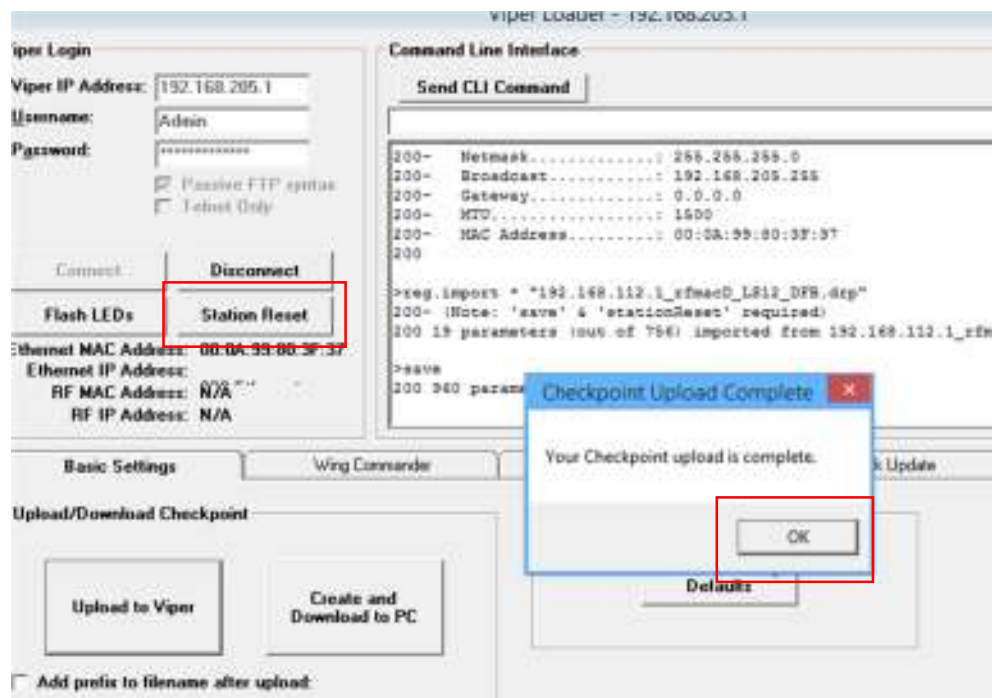
Use the Upload To Viper to Import a configuration .drp file (Clone)

The user will be prompted to select the desired configuration .drp file to import into the desired Viper. In this example 192.168.112.1_rfmacD_LS12DFB.drp file (this file was created by using the Viper Route Generator application) will be used as the new configuration file to send to the Viper.



Select Configuration file to send to the Viper

The Viper Tool will prompt the user that the file was imported and the Upload is complete. The user must issue a Stationreset by clicking on the Station Reset button for the new configuration to take effect, this will reset the Viper.



Click OK then Click Station Reset button

After the Viper resets itself the new configuration will take effect. The user must change the Viper IP Address in the Viper Tool in order to connect to the new IP configuration. If you have connected locally to the Ethernet LAN port of the Viper then the user must update their PC's IP address in the Network Interface connection as well.

Using CLI Commands to Add Neighbors to the Viper

Ensure the Viper Tool is connected by clicking the Connect button.

The Viper Tool can also be used to add Neighbors to a Viper's Neighbor Table. In the following example the following remote Vipers will be added to the master Viper's Neighbor Table.

Remote1: 192.168.206.1 1 hop away

Remote 2: 192.168.206.9 1 hop away

Remote 3: 192.168.206.17 1 hop away

Remote 4: 192.168.206.25 2 hops away Hoping through Remote 1

Ethernet LAN IP Address	Subnet Mask /XX	RF IP Address	Subnet Mask /XX	RF MAC	Hop Count	Next Hop
192.168.206.1	255.255.255.248 /29	10.128.0.2	255.255.255.0 /24	80:00:02	1	80:00:02
192.168.206.9	255.255.255.248 /29	10.128.0.3	255.255.255.0 /24	80:00:03	1	80:00:03
192.168.206.17	255.255.255.248 /29	10.128.0.4	255.255.255.0 /24	80:00:04	1	80:00:04
192.168.206.25	255.255.255.248 /29	10.128.0.5	255.255.255.0 /24	80:00:05	2	80:00:02

The user should ensure the Viper Neighbor Discovery mode is Disabled by sending the following CLI command to disable the Neighbor Discovery feature:

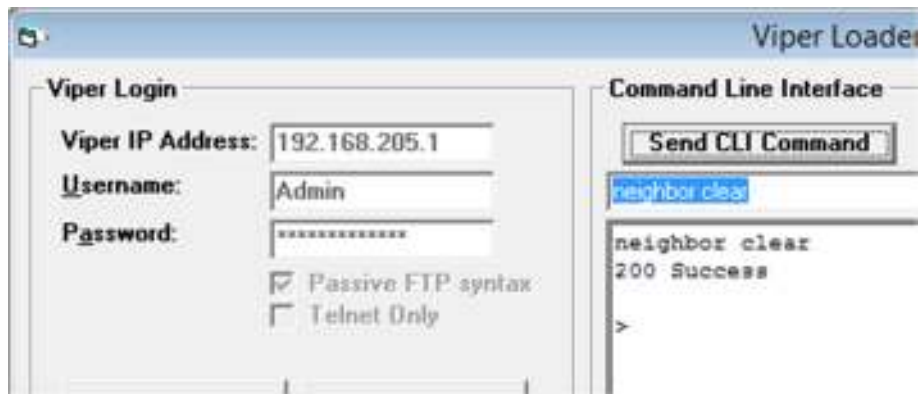
set neighborDiscovery.mode= 0



Then send the Save CLI command to save

The user can also clear the entire Neighbor table (if required or leave as to add entries to an existing table) with the CLI command.

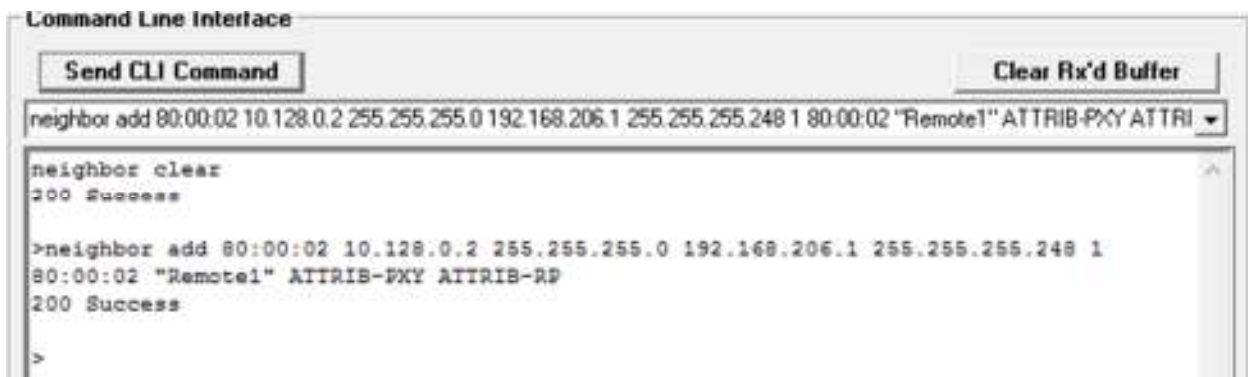
Neighbor clear



Clear All Neighbor Entries

The neighbor add CLI command will be used to add each neighbor table entry. The following syntax is used to add neighbor entries.

```
neighbor add 80:00:02 10.128.0.2 255.255.255.0 192.168.206.1 255.255.255.248 1 80:00:02  
"Remotel" ATTRIB-PXY ATTRIB-RP
```



Neighbor Add Command

After the CLI command has been sent the user can verify that the entry is correct by displaying the Neighbor table in the Viper.

Local Status							
Scanning For Neighbors		Neighboring Vipers found		1	Discovery Duration		00:00:00
Discovered Viper Neighbors							
Information on Neighboring Viper				Route to Neighboring Viper			
RF MAC Address	RF IP Address	Eth IP Address	RSSI (dBm)	Hop Count	Next Hop	Entry Type	Connectivity Status
80:00:02	10.128.0.2/24	192.168.206.1/29	----	1	80:00:02	Static	-
Control Operations							
Clear RSSIs		Clear List		Force Scan		Test Connectivity	
Add Static Entry				Delete Entry			

Neighbor table in the Viper

Continue adding the rest of the remotes.

```
neighbor add 80:00:03 10.128.0.3 255.255.255.0 192.168.206.9 255.255.255.248 1 80:00:03
"Remote2" ATTRIB-PXY
```

```
neighbor add 80:00:04 10.128.0.4 255.255.255.0 192.168.206.17 255.255.255.248 1 80:00:04
"Remote3" ATTRIB-PXY
```

```
neighbor add 80:00:05 10.128.0.5 255.255.255.0 192.168.206.25 255.255.255.248 2 80:00:02
"Remote4" ATTRIB-PXY
```

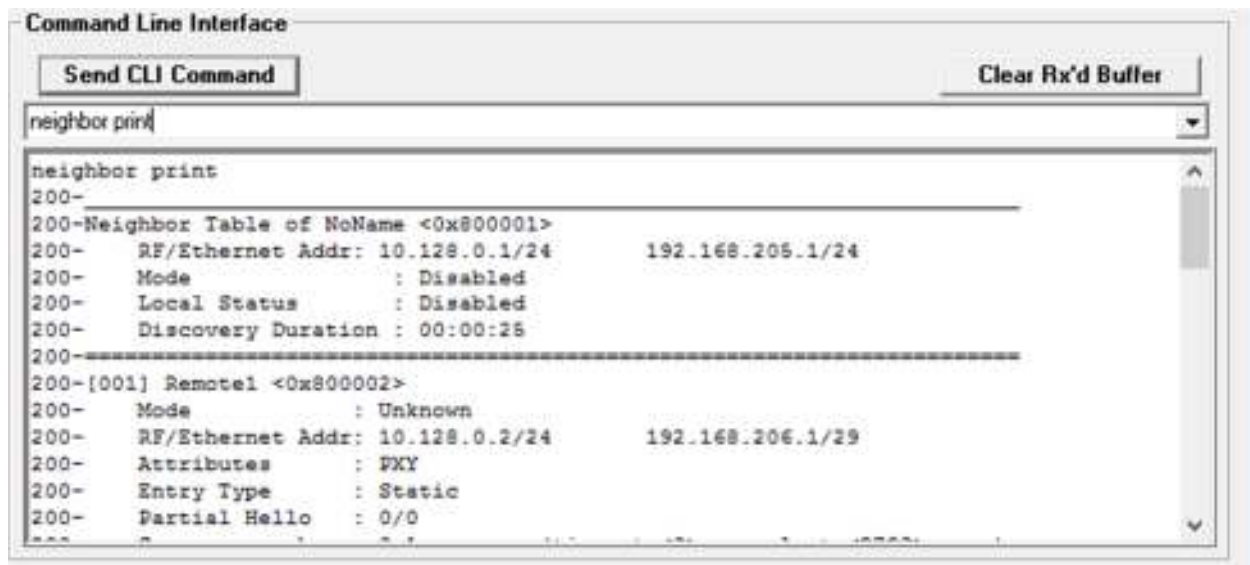
Ensure a Save command is sent to save the entries to the current configuration. These entries take effect immediately and does not require a stationreset command.

Verify that the Neighbor table is correct.

Local Status							
Disabled		Neighboring Vipers found		4	Discovery Duration		00:00:25
Discovered Viper Neighbors							
Information on Neighboring Viper				Route to Neighboring Viper			
RF MAC Address	RF IP Address	Eth IP Address	RSSI (dBm)	Hop Count	Next Hop	Entry Type	Connectivity Status
80:00:02	10.128.0.2/24	192.168.206.1/29	----	1	80:00:02	Static	-
80:00:03	10.128.0.3/24	192.168.206.9/29	----	1	80:00:03	Static	-
80:00:04	10.128.0.4/24	192.168.206.17/29	----	1	80:00:04	Static	-
80:00:05	10.128.0.5/24	192.168.206.25/29		2	80:00:02	Static	-
Control Operations							

Verify that the Neighbor table is correct.

The Neighbor Print CLI command can also be used to verify the Neighbor entries.



Neighbor print CLI command

The **ATTRIB RP** is for a Relay Point, **ATTRIB AP** is for an Access Point.