SoftRemote- Virtual Adapter Troubleshooting

1   Summary

The SoftRemote Virtual Adapter (VA) allows the VPN client to appear to have a local interface on the remote VPN network. The Virtual adapter address and other TCP/IP properties are assigned through IKE Mode configuration. This document describes how to determine if the VA is installed properly. Symptoms of not having the Virtual adapter properly installed are:
- Log indicates No Virtual adapters present and Failed to create Required Virtual adapter.
- Mode config sessions only work with Virtual adapter setting set to Disabled.

This document also describes how to disable the creation of a default route to the VA since SoftRemote automatically creates this route. This will route all traffic into the VA and to the IKE peer, which may or may not be desirable.

2   Windows 2000 Installation

2.1   Verify SafeNet VA is installed

2.1.1   Access Windows 2000 Device Manager
- Start -> Settings -> Control Panel -> System -> Hardware -> Device Manager.
- View Network Adapters: SafeNet VA miniport should be listed as a network adapter. (see Figure below). If the SafeNet VA Miniport driver is not installed, re-install the driver (see 2.1.2)
- Double click SafeNet VA Miniport adapter and verify device status indicates Device is working properly.
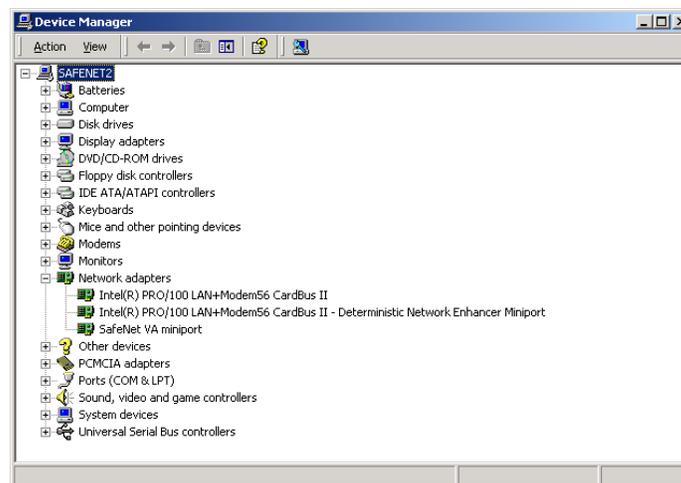
If the SafeNet VA miniport device has a yellow exclamation point (See icon) on it then the VA Miniport driver is not installed properly. This can occur due to a problem with previous versions of SoftRemote un-install. If SoftRemote was un-installed If a VA session had been established and an SoftRemote un-install was performed, the un-install would hang. Follow the following procedure to correct:

1) Verify that the SoftRemote product has been un-installed in Control Panel. It may take two un-installs to remove the product if a VA session was established before attempting an un-install.
2) Verify that the VA Miniport driver is no longer displayed under Device Manager and re-boot.
3) Install SoftRemote and Re-boot. Verify the VA Miniport is installed properly as in 2.1.1.

2.1.2 Install the SafeNet VA Adapter

Most likely the VA adapter was not selected during the install as a component. To install the adapter:

- Start -> Settings -> Control Panel -> Add/Remove Programs- Select the correct VPN client. Click Remove
- Select Modify and select the SafeNet VA adapter.

2.2 Verify SafeNet Virtual adapter connection is created

After a VA connection is attempted, SoftRemote creates a dial-up networking connection:

- Start -> Settings -> Network and Dial-up connections
- Verify a Virtual Private network connection is listed with connection name SafeNet Virtual Adapter interface and a Device Name of SafeNet VA miniport (see figure below).
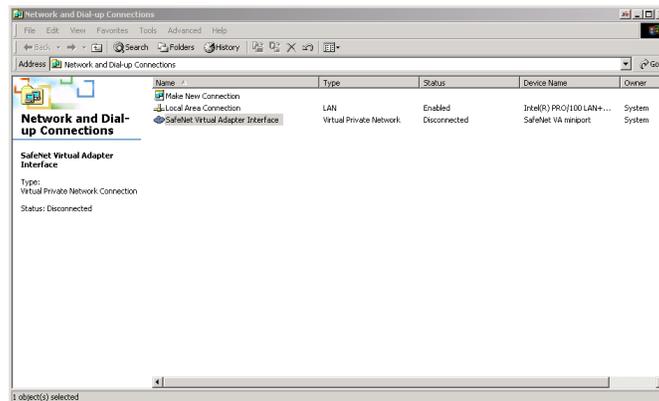
2.3 Disable creation of default route to VA

The address assigned through Mode config will automatically add a class route to the machine when it adds the interface. The SoftRemote client will also add a default route to the same virtual adapter interface (which will cause all traffic to go into the VA). If this is not desireable then the default route creation can be disabled. Note: The automatic route that is added must then encompass the remote party field that was specified in the client policy.
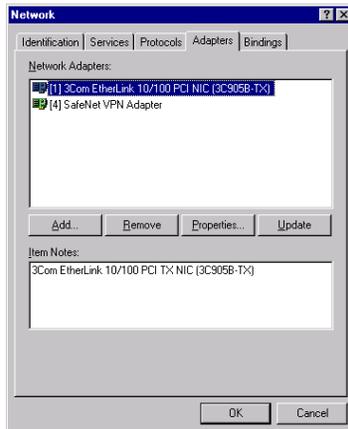
- Select SafeNet Virtual Adapter interface properties. Click on Network-> TCP/IP Properties-> Advanced.
- Uncheck the 'Use default gateway on remote network'. (see figure below).
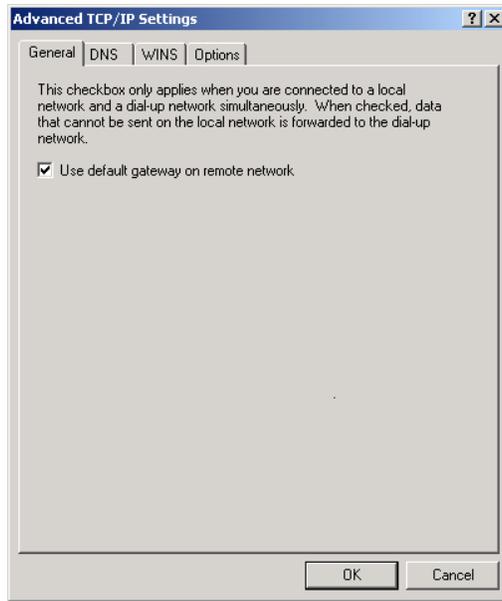
3 Windows NT

## 3.1 Verify SafeNet VA adapter is installed

- Start -> Control Panel -> Network-> Adapters.
- Verify that the SafeNet VPN adapter is displayed. (see below)

3.2 Verify the SafeNet_L2TP RAS port is installed

During the install of the SafeNet VPN adapter on Windows NT, the user must add the L2TP port manually. If the RAS port is not added manually, the VA will not be created.

- Start -> Control Panel -> Network-> Services -> Remote Access properties.
- Verify that a port labeled L2TP1 is available with a Device name of SafeNet_VPN. (see figure below)

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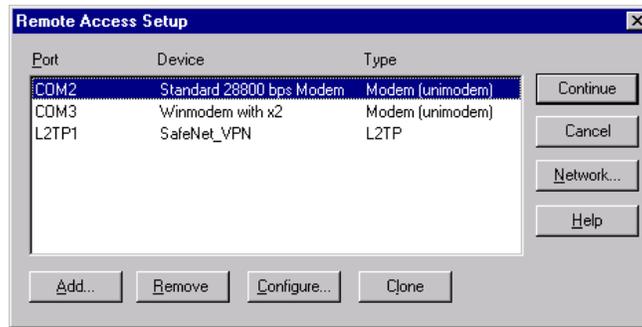
3.3 Verify SafeNet Virtual adapter connection is created

After a VA connection is attempted, SoftRemote creates a dial-up networking connection:

- Access Dial-up Networking.
- Verify a 'SafeNet Virtual Adapter Interface' phonebook entry exists with a phone number of 000. (see figure below).
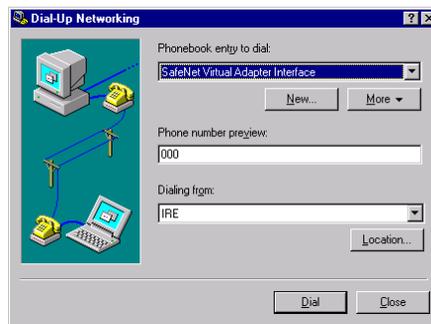
3.4 Disable creation of default route to VA

The address assigned through Mode config will automatically add a class route to the machine when it adds the interface. The SoftRemote client will also add a default route to the same virtual adapter interface (which will cause all traffic to go into the VA). If this is not desirable then the default route creation can be disabled. Note: The automatic route that is added must then encompass the remote party field that was specified in the client policy.

- Access Dial-up Networking- Select the 'SafeNet Virtual Adapter Interface' phonebook entry. Click on More, edit entry, Server, TCP/IP settings.
- Uncheck the 'Use default gateway on remote network'. (see figure below).