Technical Bulletin

RAINlink Troubleshooting

ZNYX

The Microsoft Windows NT system crashes soon after logging in.

- Make sure you have **Microsoft Windows NT 4.0 with Service Pack 3 and NDISFIXI** installed on your host computer system. You can find NDISFIXI at the following URL:
  ftp://ftp.microsoft.com/bussys/winnt/winnt-public/fixes/usa/nt40/hotfixes-postSP3/ndis-fix/

  IMPORTANT: *Before* installing Service Pack 3 (SP3) and NDISFIXI of the Microsoft Windows NT 4.0, you must add any protocols and/or devices that you wish to use. Installing protocols and/or drivers *after* installing SP3 will force you to reapply SP3 and NDISFIXI. Specifically, NDISFIXI solves a memory leak problem that leads to a "Blue Screen of Death" soon after a login attempt.

Why don't I get a link light on my Fast Ethernet or Ethernet adapter?

- Verify that you are using a null (crossover) cable when your adapter is connected directly to another adapter. Otherwise, use a straight cable.

I don't see improved throughput to my Cisco switch even if I configured my adapter for link aggregation. Why?

- To see improved throughput, the ports on Cisco switch must be configured for Fast EtherChannel. Configure Fast Ethernet ports into Fast EtherChannel groups containing 2 or 4 segments, yielding 400- or 800-Mbps bi-directional bandwidth, respectively. Channels (Fast EtherChannels) can be configured using the command-line-interface (CLI) or Simple Network Management Protocol (SNMP).

- For instance, to set up a Fast EtherChannel, login to Cisco switch via a Telnet session. Then type:

  ```
  Enable
  ```

  To aggregate ports 1 and 2 on the line card module 2 to be a Fast EtherChannel, type:

  ```
  set port channel 2/1-2 on
  ```

  To see how ports are configured, type:

  ```
  show port
  ```

  To see how Fast EtherChannels are configured, type:

  ```
  show port channel
  ```

  Refer to the user's manual of Cisco switch for more information on Fast EtherChannel configuration.

I want to aggregate 8 ports into Fast EtherChannel group to my Cisco switch. Is it possible?

- Cisco Fast EtherChannel does not support this option. Most of Fast EtherChannel-compatible switches only permit 2 or 4 ports in a link aggregation group at this time.

I keep getting this error message of "having no MAC address" for the NICs which I just added.

- Close network control panel, but do NOT restart system. Open a DOS window and type:

```
netstart (device name, such as zx346)
```

When I have two RAINlink systems configured NIC-to-NIC, why does it not work with more than one port plugged in between them?

- Check to see if you have a configuration mismatch. If one system is configured for trunking and the other for failover, having multiple ports between them will cause the link to fail.

In NIC-to-Cisco FEC Switch or Router configurations, the process of unplugging the "last working port" and failing over to a "new working port" takes a very long time.

- The spanning tree "relearning" on the Cisco FEC switch may take long time to relearn (~ 20 seconds). There is a parameter on the Cisco FEC switch, which you can tweak on a set of ports to make the relearning happen much sooner. Use the following SNMP (Simple Network Management Protocol) command on your Cisco switch:

```
set spantree fastport <mod/port> enable
```

  For example, "set spantree fastport 2/5-8 enable" enables fast learning on the ports 5 through 8 on line card module 2 of a Cisco FEC switch. Now you can unplug and plug a network link (port) quickly. You can also verify this using the ping command. You should notice that a network link establishes in just a few ping timeouts (<3 tries) during the process of unplugging and plugging a link.

Can two Token Ring stations be directly attached?

- Unlike Ethernet stations, Token Ring stations cannot be directly attached with a cross-over (null) cable. Because of the process required for inserting a token into a ring, a loop-back process must complete and phantom voltage must exist on a wire for a relay to open. A MAU must be used to directly connect two workstations. However, some Token Ring switches allow a station to directly connect to a switch. This Direct Token Ring (DTR) connection is a non-standard method of connecting a switch and a workstation onto a single ring. This non-standard DTR connectivity does not allow for two workstations to be directly connected.

Contact ZNYX Technical Support for the troubleshooting information on problems, which are not covered here.

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