



Inspired Innovation

TRT 模拟 RIP 路由器



A photograph of a man in a suit and tie standing in a server room, looking at a tablet device. He is positioned on the left side of a large blue rectangular graphic. On the right side of this graphic, white text reads: "Leverage our expertise so you can focus on yours."

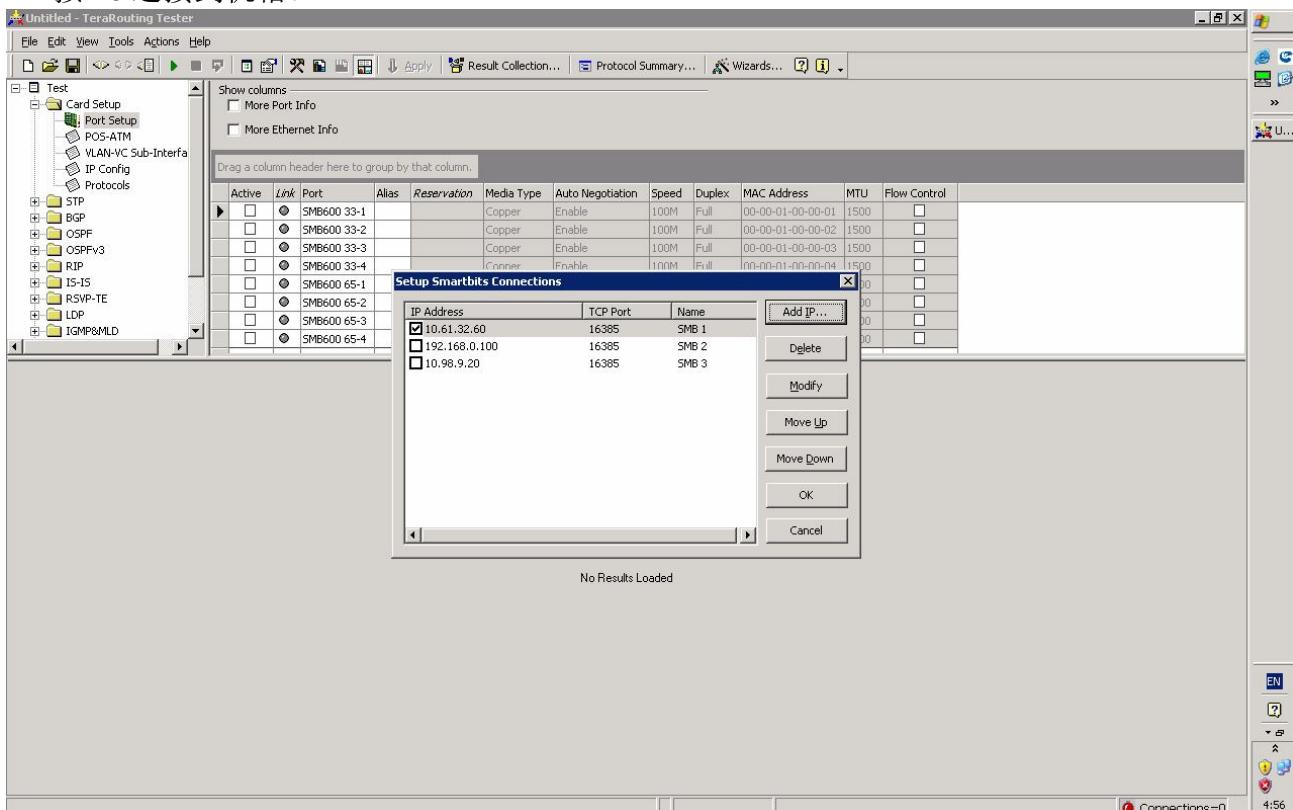
Leverage our expertise
so you can
focus on yours.

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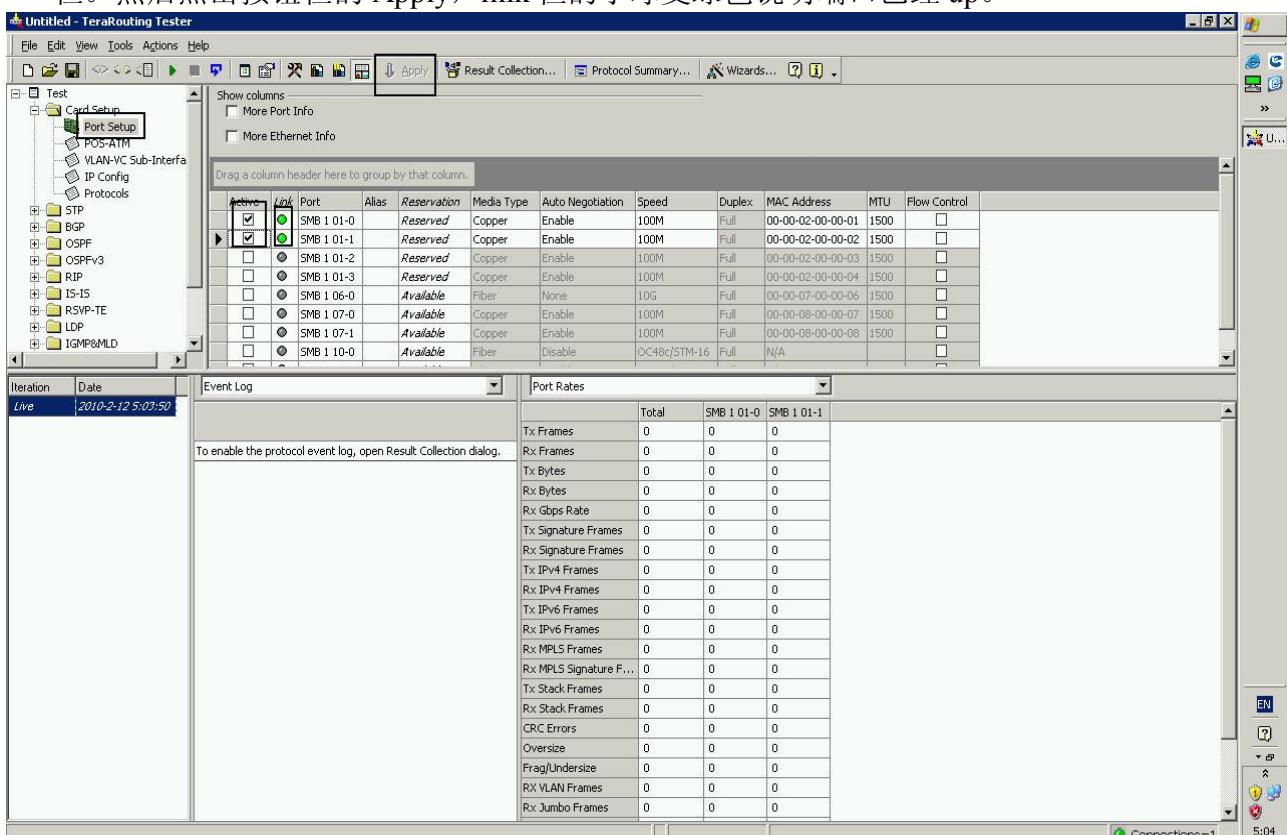
测试拓扑：

1. 连接 SmartBits 机箱并占用测试端口

- 1) 点击 Tools→Setup Chassis Connections，在弹出窗口中添加机箱 IP 地址，点击 OK 退出后按 F8 连接到机箱。



- 2) 在左边窗口中点击 Test→Card Setup→Port Setup，在右边窗口中勾上要使用端口的 Active 栏。然后点击按钮栏的 Apply，link 栏的小球变绿色说明端口已经 up。



2. 设置测试端口属性

1) 在下图方框勾出的栏中可以用下拉列表来设置端口物理层属性。

The screenshot shows the TeraRouting Tester interface with the 'Port Setup' section selected. A callout box highlights the 'Media Type' column for both port entries. The table below shows the current configuration:

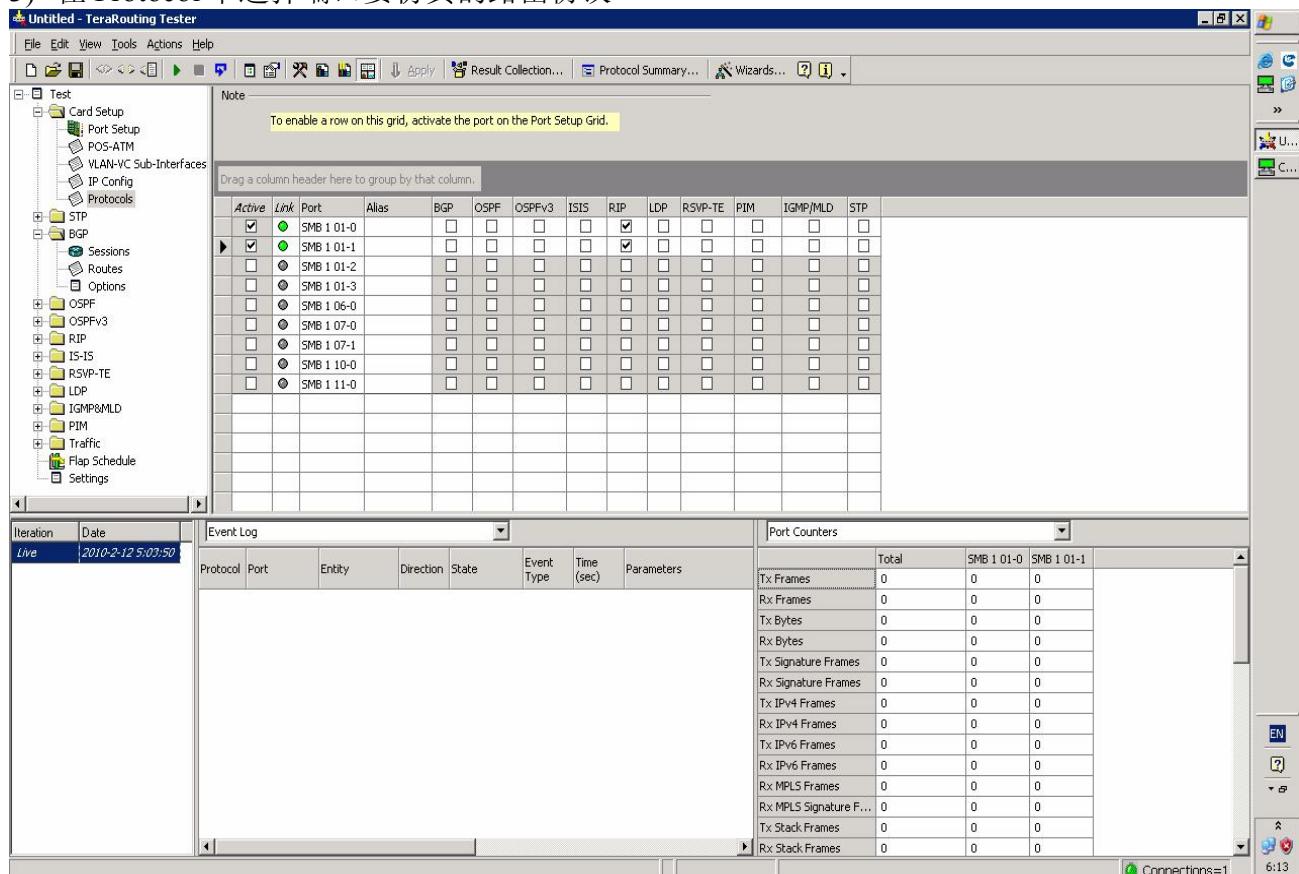
Active	Link	Port	Alias	Reservation	Media Type	Auto Negotiation	Speed	Duplex	MAC Address	MTU	Flow Control
✓	✓	SMB 1 01-0		Reserved	Copper	Enable	100M	Full	00-00-02-00-00-01	1500	□
✓	✓	SMB 1 01-1		Reserved	Copper	Enable	1000M	Full	00-00-02-00-00-02	1500	□
		SMB 1 01-2		Reserved	Copper	Enable	100M	Full	00-00-02-00-00-03	1500	□
		SMB 1 01-3		Reserved	Copper	Enable	10M	Full	00-00-02-00-00-04	1500	□
		SMB 1 06-0		Available	Fiber	None	10G	Full	00-00-07-00-00-06	1500	□
		SMB 1 07-0		Available	Copper	Enable	100M	Full	00-00-08-00-00-07	1500	□
		SMB 1 07-1		Available	Copper	Enable	100M	Full	00-00-08-00-00-08	1500	□
		SMB 1 10-0		Available	Fiber	Disable	OC48c/STM-16	Full	N/A		□

2) 在 IP Config 中设置端口 IP 相关属性

The screenshot shows the TeraRouting Tester interface with the 'IP Config' section selected. A callout box highlights the 'IPv4' checkbox in the 'Show columns' section. The table below shows the current IPv4 configuration for all ports:

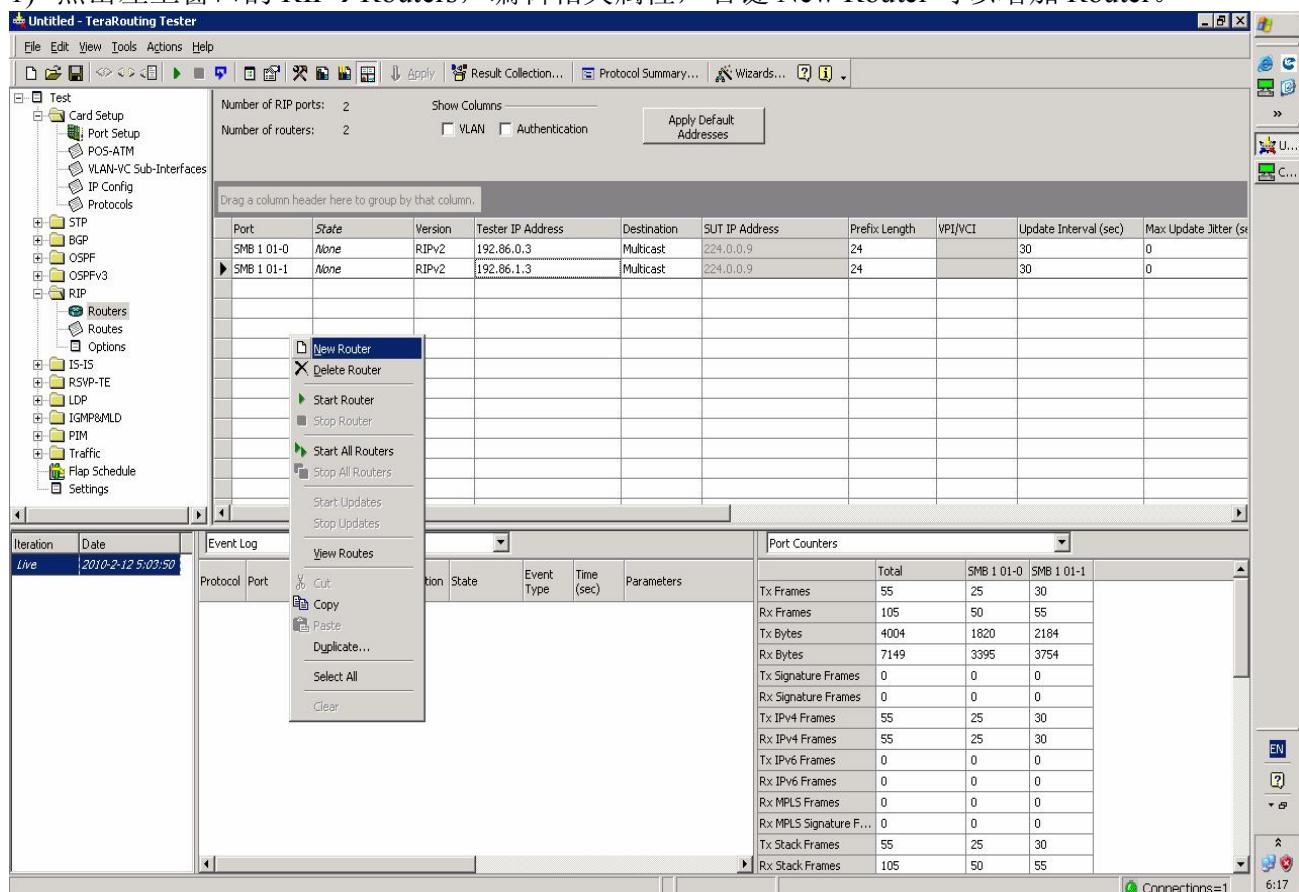
Active	Link	Port	Alias	IPv4	IPv4 Address	IPv4 Gateway	IPv4 Prefix Length
✓	✓	SMB 1 01-0		IPv4	192.86.0.2	192.86.0.1	24
✓	✓	SMB 1 01-1		IPv4	192.86.1.2	192.86.1.1	24
		SMB 1 01-2		IPv4	192.86.2.2	192.86.2.1	24
		SMB 1 01-3		IPv4	192.86.3.2	192.86.3.1	24
		SMB 1 06-0		IPv4	192.86.1.2	192.86.1.1	24
		SMB 1 07-0		IPv4	192.87.1.2	192.87.1.1	24
		SMB 1 07-1		IPv4	192.87.2.2	192.87.2.1	24
		SMB 1 10-0		IPv4	192.88.1.2	192.88.1.1	24

3) 在 Protocol 中选择端口要仿真的路由协议

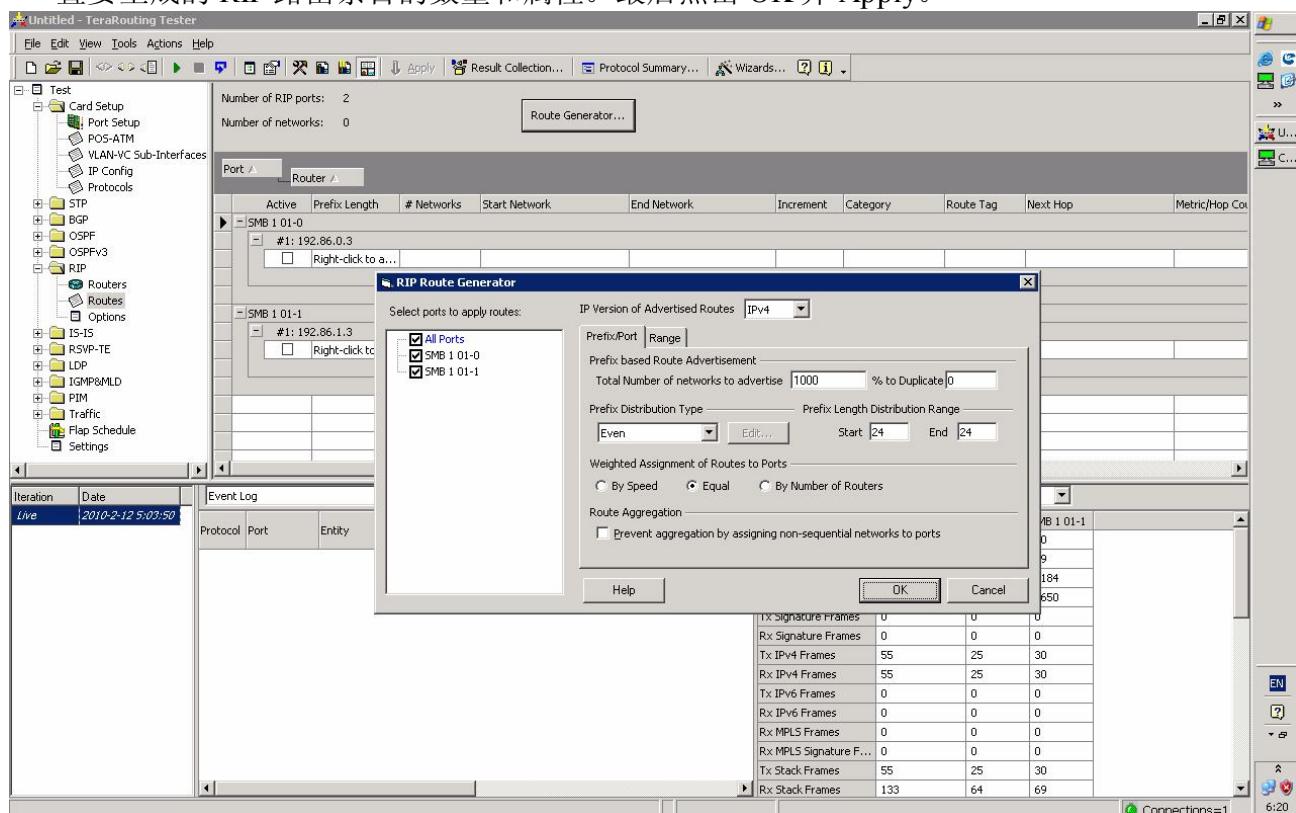


3. 创建 RIP 路由器

1) 点击左上窗口的 RIP→Routers，编辑相关属性，右键 New Router 可以增加 Router。

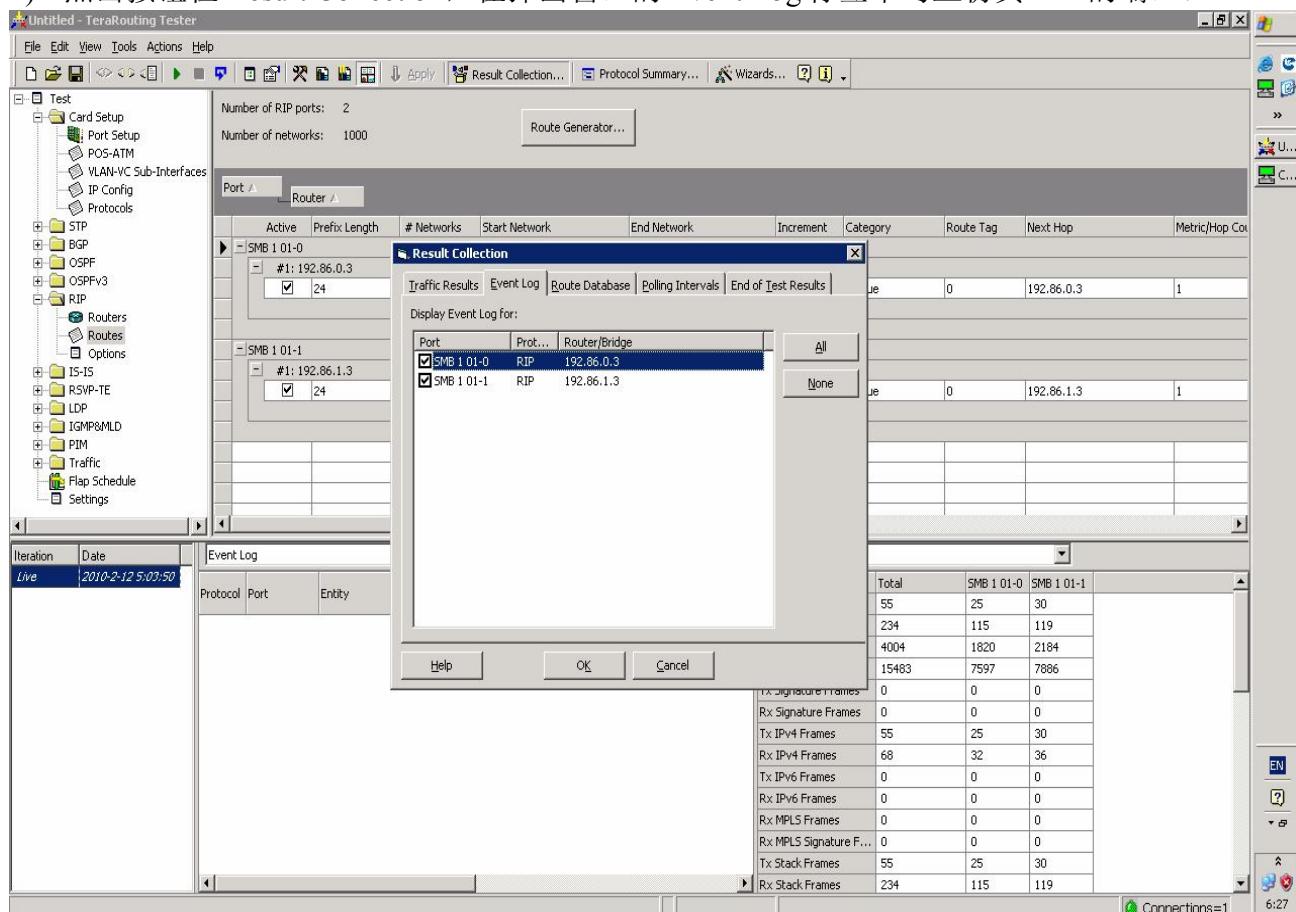


- 2) 点击左上窗口中的 Routes，然后点击右上窗口中的 Route Generator 按钮，在弹出窗口中设置要生成的 RIP 路由条目的数量和属性。最后点击 OK 并 Apply。

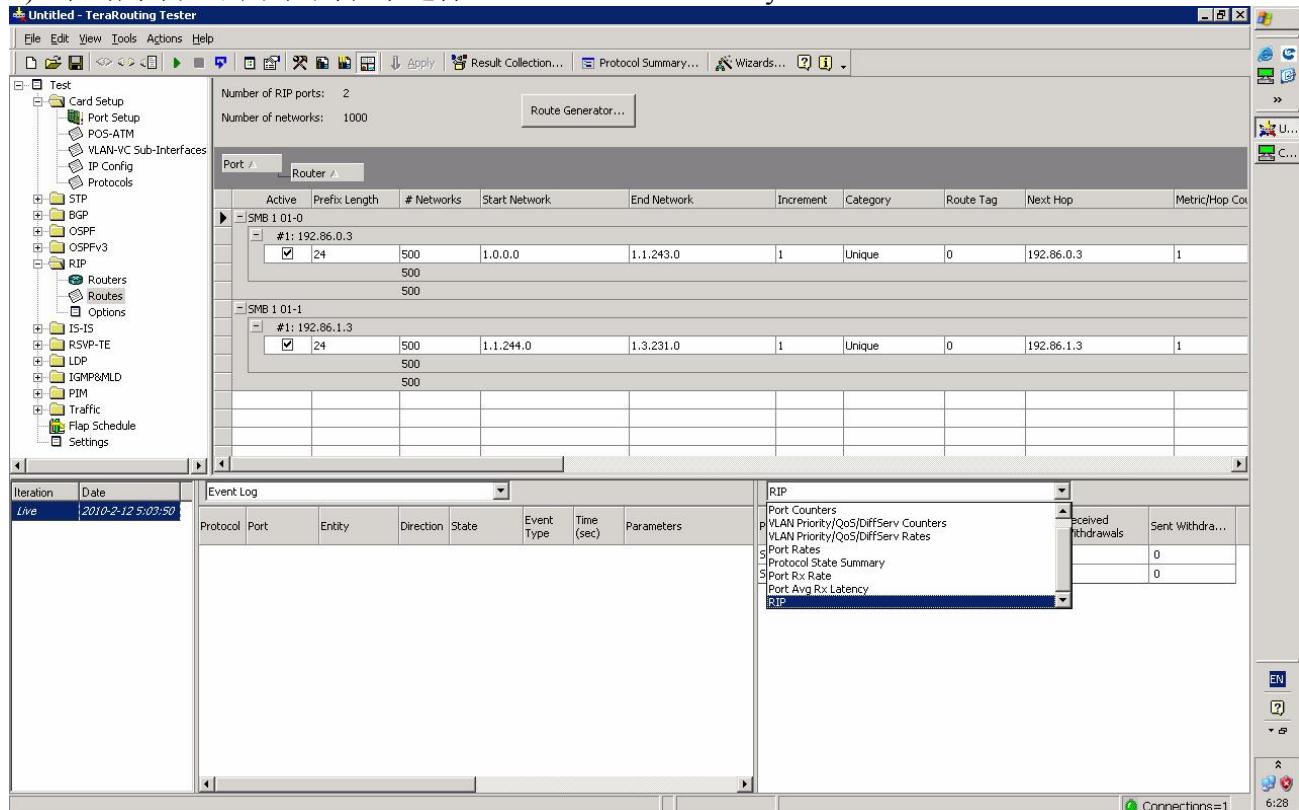


4. 运行测试，查看和分析测试结果

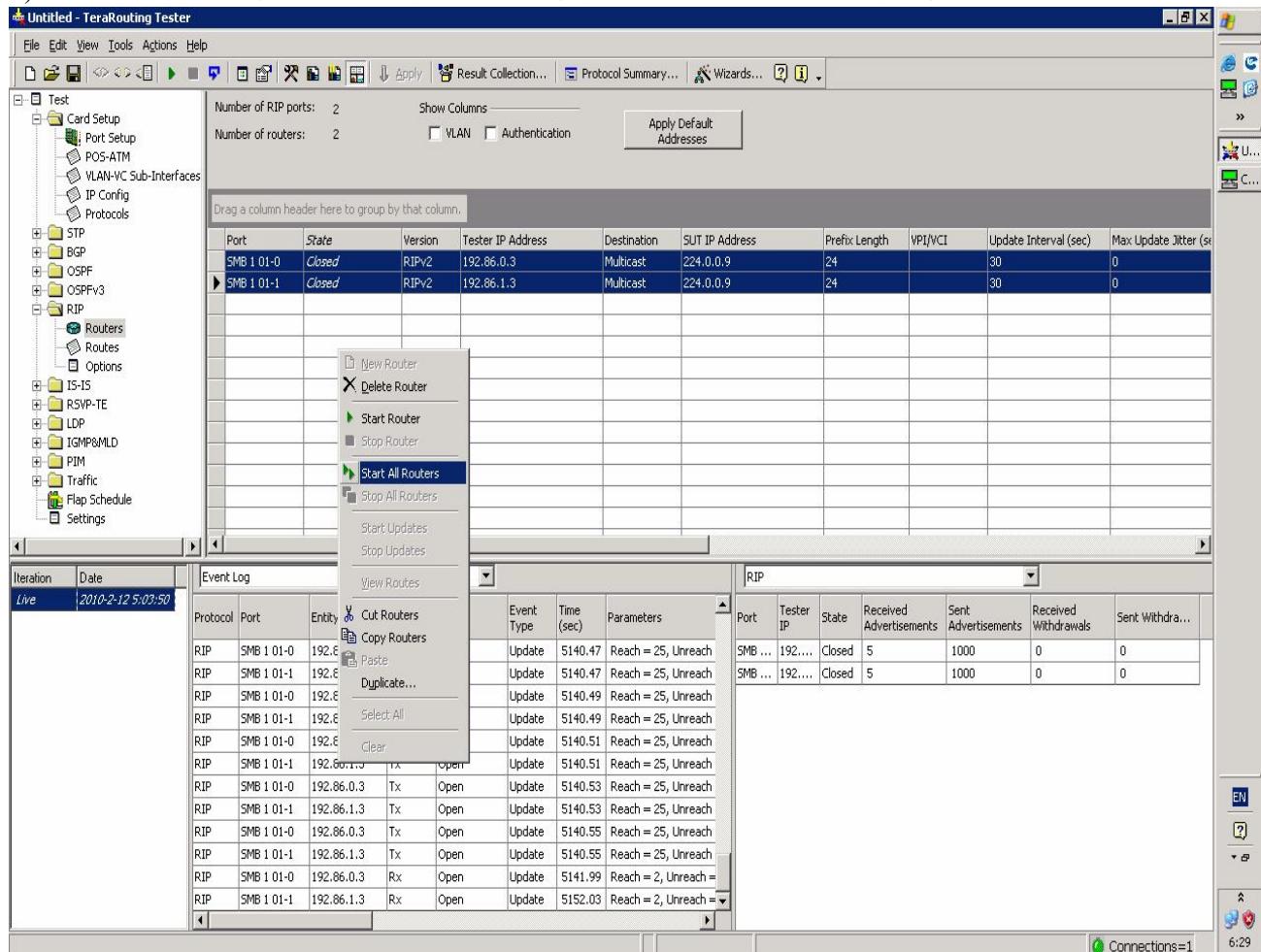
- 1) 点击按钮栏 Result Collection，在弹出窗口的 Event Log 标签中勾上仿真 RIP 的端口。



2) 在结果窗口的下拉列表中选择 Protocol State Summary



3) 点击 Routers，在右边窗口中点击右键然后点击 Start Router 启动仿真路由器。



4) 在下方的结果窗口中可以看到 RIP 相关 log 和仿真路由器的状态。

The screenshot shows the TeraRouting Tester interface. On the left, a tree view under the 'Test' category shows various protocol configurations: Card Setup, Port Setup, POS-ATM, VLAN-VC Sub-Interfaces, IP Config, Protocols (STP, BGP, OSPF, OSPFv3, RIF), Routers, Routes, Options, IS-IS, RSVP-TE, LDP, IGMP&MLD, PIM, Traffic, Flap Schedule, and Settings. The 'RIP' node is expanded, showing 'Routers' and 'Routes'. The main window displays two tables. The top table, titled 'RIP', lists routes with columns: Port, State, Version, Tester IP Address, Destination, SUT IP Address, Prefix Length, VPI/VCI, Update Interval (sec), and Max Update Jitter (sec). It contains two entries for ports SMB 1 01-0 and SMB 1 01-1, both set to 'Open' with version 'RIPv2'. The bottom table, titled 'Event Log', shows a list of events with columns: Iteration, Date, Protocol, Port, Entity, Direction, State, Event Type, Time (sec), and Parameters. The log shows multiple 'Update' events for RIP on ports SMB 1 01-0 and SMB 1 01-1, indicating periodic route advertisements. A status bar at the bottom right shows 'Connections=1' and the time '6:29'.