For ADSL router manufacture the price war is started. Due to the SOC solution more and more manufacturer can make ADSL router, so the profit margin is lower. But the function in ADSL router is powerful. How can one manufacturer confirm the function in ADSL router is correct or not. So the function test and quality control in ADSL router are the important part in cost control.

Due to the powerful and flexible feature in ADSL router we may have console port (serial port) in each ADSL router. We can use console port to configure and monitor the status in ADSL router.

When one ADSL router need to have two hours burn-in on-line test. It is not reasonable for one engineer to check one ADSL router in one console. So we may have one console for each ADSL router. And one engineer may handle 16 consoles. In this condition one test engineer need to walk and check each console sequentially. The invest for this condition will be 16 sets of console and one engineer work so hard to check each console.

Now, we find that we can have multi-console in Windows system. When one WIN2000 system installs 48 serial ports to connect with ADSL router. Then we can have one engineer to check 48 ADSL router's status in his WIN2000 system.

Then we find that we can have KVM to let one console (keyboard, mouse, display) to handle 8 WIN2000 systems. In this condition one engineer can use one set of console to switch between 8 WIN2000 systems. And each WIN2000 system can connect with 48 ADSL routers. So one engineer can handle 384 ADSL routers.

As you can see in diagram, we can have more WIN2000 system to handle in KVM. Then one engineer can handle more ADSL router. So the test cost for each ADSL router will be shared by more units. But we need to consider the time for one engineer to exchage the uder test units. When each ADSL router need two hours burn-in test. We need to exchage the under test unit every two hours. So we need to check the possible units for one engineer to handle within two hours. In current condition 384 units will be exchanged within two hours. It means that you need to exchange 4 units per minute.

From above information you can know one manufacturer to reduce the test cost for each ADSL router. Of course there are another consideration for each manufacturer. But they all need to use multi-serial port product to handle more and more ADSL router.

