

Media Problems: Token Ring

| Media Problem | Suggested Actions |
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| Nonfunctional Token Ring | <p>Step 1 Use the <code>show interfaces tokenring</code> command to determine the status of the Token Ring interfaces.</p> <p>Step 2 If the status line indicates that the interface and line protocol are not up, check the cable from the router to the MAU or token ring switch. Make sure that the cable is in good condition. If it is not, replace it.</p> <p>Step 3 If you are performing a new installation, make sure that the MAU has been properly initialized. For information on initializing your MAU, refer to the manufacturer's documentation.</p> |
| Ring Speed Mismatch | <p>Step 1 Check the ring-speed specification on all nodes attached to the Token Ring backbone. The ring speed configured for all stations must be the same (either 4 or 16 megabits per second [Mbps]). Use the <code>show running-config</code> privileged EXEC command to determine which speed is specified on the router.</p> <p>Step 2 If necessary, modify ring-speed specifications for clients, servers, and routers. On routers, use the <code>ring-speed</code> interface configuration command to change the ring speed.</p> <p>Change jumpers as needed for modular router platforms that do not support software speed configuration. For more information about ring-speed specifications, refer to the hardware installation and maintenance manual for your system.</p> |
| Relay in MAU | <p>Step 1 If an "open lobe fault" message appears on the console at system power up, check the cable connection to the MAU.</p> <p>Step 2 Use the <code>clear interface</code> privileged command to reset the Token Ring interface and reinsert the router into the ring.</p> <p>For all Token Ring cards except the CTR (Token Ring card for the cBus controller on a Cisco 7500 series router) and access routers, you must use the <code>clear interface</code> command to reinitialize the Token Ring interface if the interface is down.</p> <p>Step 3 Use the <code>show interfaces tokenring</code> command to verify that the interface and line protocol are up.</p> <p>Step 4 If the interface is operational, but the "open lobe fault" message persists and the router still cannot connect to the ring, connect the router to a different MAU port.</p> <p>Step 5 If the message continues to appear, disconnect all devices from the MAU and reset the MAU relay with the tool provided by the MAU vendor.</p> <p>Step 6 Reattach the router and determine whether it can connect to the ring. If resetting the relay does not solve the problem, try replacing the MAU with one that is known to be operational.</p> <p>Step 7 If the router still cannot connect to the ring, check internal cable connections of the router Token Ring cards. Ensure that cables associated with the respective port numbers are correctly wired and that they are not swapped.</p> <p>Step 8 If the router still cannot connect to the ring, replace the cables that connect the router to the MAU with working cables.</p> <p>Step 9 Use the <code>clear interface</code> command to reset the interface and reinsert the router into the ring. Use the <code>show interfaces tokenring</code> command to verify that the interface and line protocol are up.</p> <p>Step 10 Alternatively, you can connect the router to a spare MAU to which no stations are connected. If the router can attach to the ring, replace the original MAU.</p> |

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| Duplicate MAC Address | <p>Step 1 Use the no lnm rps interface configuration command to disable the Ring Parameter Server (RPS) function on the router that you are trying to insert into the ring.</p> <p>Step 2 Try to insert the router into the ring.</p> <p>Step 3 If you can insert the router with RPS disabled, there is a conflict between RPS implementations. Contact your technical support representative for more information.</p> |
| Congested Ring | <p>Step 1 Insert the router during an off-peak period.</p> <p>Step 2 If insertion is successful during off-peak periods but unsuccessful during peak load, segment your internetwork to distribute traffic.</p> |
| RPS Conflict | <p>Step 1 Use the no lnm rps interface configuration command to disable the Ring Parameter Server (RPS) function on the router that you are trying to insert into the ring.</p> <p>Step 2 Try to insert the router into the ring.</p> <p>Step 3 If you can insert the router with RPS disabled, there is a conflict between RPS implementations. Contact your technical support representative for more information.</p> |