

Technical Bulletin #: TM-C1-0137A

Date Issued: January 11, 1996

Audience: Customers Using or Upgrading to Generic V3.3 FSR03 and Higher

Product(s) Affected: SDS-1000, SDS-500, and VCO/80

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## Purpose of Bulletin

To provide users with information about updating an ARP table when it continues to use the Ethernet address of a previous CPU after it has been replaced with a new one.

## Corrective Action

Every CPU comes with a specific Ethernet address that gets assigned to it from the factory. This Ethernet address is located on the CPU's P2 connector that goes into the backplane. It is like a Network Interface Card (NIC) with its own physical hardware address.

Address Resolution Protocol (ARP) is the TCP/IP Internet layer protocol that is responsible for converting the Internet address (IP) to the Ethernet address. The Reverse Address Resolution Protocol (RARP) performs the reverse conversion. It accepts the Ethernet address (physical hardware address) of the CPU and returns the Internet address by which it should be known in the network.

The ARP table maintains the IP addresses and the corresponding Ethernet addresses of the various nodes on the network. Whenever a new CPU gets installed in a switch, or a particular side of the switch in the case of redundant systems, it is configured for the IP address assigned to it by the network administrator.

After the switch is rebooted, you may not be able to ping it or telnet into it from the host or any other terminal on the same network. The cause of this could be an invalid entry in the ARP table of the host or terminal. If the ARP table is not updated after the CPU has been swapped, the ARP table might still be using the Ethernet address of the previous CPU. To confirm whether this is true, use the following TCP/IP commands on your host:

```
ping <name>                                (name assigned to the CPU)
arp <name>
or
ping <IP address>                          (IP address assigned to the CPU)
arp <IP address>
```

Response to this command is the Ethernet address associated with the IP address. If it is the Ethernet address of the previous CPU, then the ARP table needs to be updated.

To update the ARP table, use any one of the alternatives listed below:

- Use the `arp` command to update the table. Contact your network administrator or refer to the host documentation for details on support of this TCP/IP command.
- Reboot the host or the terminal from which you are trying to ping. Wait until the ARP table gets updated. The amount of time it takes depends on the configuration of the network. Contact your network administrator or refer to the host documentation for more information.
- Assign a new IP address instead of using the previous one.

After performing any one of the previous alternatives, confirm that the ARP table entry has been updated by using the `arp` command. It should give you the correct Ethernet address corresponding to the IP address.

## Related Documents

none