

MeetingPlace Server Additional LAN Requirements

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Introduction

Prerequisites

- Requirements

- Components Used

- Conventions

LAN Requirements

- Measure the Broadcast Traffic

Related Information

Introduction

This document explains the new LAN requirements for the Cisco MeetingPlace Server.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on MeetingPlace Server Software, all versions.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

For more information on document conventions, refer to the Cisco Technical Tips Conventions.

LAN Requirements

If the rate of broadcast or multicast packet generation on the LAN segment exceeds an average of 40 packets per second (pps), you must configure the Ethernet link from the MeetingPlace Server into the local LAN for 100 MB, not 10 MB. This configuration avoids congestion of the link.

Note: You cannot configure for 100 MB the early MeetingPlace Servers that have an Extended Industry–Standard Architecture (EISA) basis. Do not attach these servers to a LAN segment that experiences this level of broadcast traffic.

If broadcast and multicast traffic exceeds 100 pps, isolate the MeetingPlace Server from that segment with use of a router.

The 40 pps rate is the default threshold that a 10 MB Network Associates Sniffer uses to report a "Broadcast/Multicast Symptom".

Measure the Broadcast Traffic

Have the support engineer complete these steps in order to approximately measure the broadcast traffic:

1. Log in as a superuser and issue this command sequence: **netstat -i; sleep 100; netstat -i**.

Note: This sequence takes 100 seconds to run.

You see two sets of output.

2. Look at the `Ipkts` and `Opkts` numbers from the last line of each set.

These numbers are the count of input and output packets that the Ethernet card has seen since the last reboot.

3. Subtract the numbers in the first set from the numbers in the second set.

This computation yields the number of input and output packets that were seen during the 100-second period.

4. Subtract the input packets from the output packets.

Normal MeetingPlace traffic yields input and output numbers that are about equal. The excess of input over output is approximately the number of broadcast packets that were seen during the period.

5. Divide the result by 100 to get the pps.

If the result exceeds 40 pps on a 10 MB line or 100 pps on a 100 MB line, assume that the broadcast traffic has an adverse effect on service.

Here is an example:

```
courage:csc$ netstat -i; sleep 100; netstat -i
Name Mtu Network Address Ipkts Ierrs Opkts Oerrs Coll
s10 1006 198.207.208 cmslip-com1 0 0 0 0 0
s11 1006 198.207.208 cmslip-modem 64 0 64 0 0
s12* 1006 none none 0 0 0 0 0
s13* 1006 none none 0 0 0 0 0
s14* 1006 none none 0 0 0 0 0
s15* 1006 none none 0 0 0 0 0
s16* 1006 none none 0 0 0 0 0
s17* 1006 none none 0 0 0 0 0
lo 1536 loopback-ne localhost 10802 0 10802 0 0
smc_d 1500 38.246.124 courage 1765971 0 1299245 0 91875
Name Mtu Network Address Ipkts Ierrs Opkts Oerrs Coll
s10 1006 198.207.208 cmslip-com1 0 0 0 0 0
s11 1006 198.207.208 cmslip-modem 64 0 64 0 0
s12* 1006 none none 0 0 0 0 0
s13* 1006 none none 0 0 0 0 0
s14* 1006 none none 0 0 0 0 0
s15* 1006 none none 0 0 0 0 0
s16* 1006 none none 0 0 0 0 0
s17* 1006 none none 0 0 0 0 0
lo 1536 loopback-ne localhost 10834 0 10834 0 0
smc_d 1500 38.246.124 courage 1768370 0 1300948 0 91877
```

In this case, there is an average of 6.96 broadcasts per second, which is excellent:

$$((1768370 - 1765971) - (1300948 - 1299245))/100 = 6.96$$

Note: Notice the collisions (`Coll`) column. If this number exceeds 10 percent of the `Opkts` number, there is an excessive number of collisions. Excessive collisions indicate a high level of network

congestion, which can also be an indicator of trouble. In the example in this step, there were only two collisions in the 100-second period, which is not a problem. However, the average since the system startup is about 7 percent. This average indicates that there can be periods of high congestion when the MeetingPlace Server can have communication difficulty.

Related Information

- **Voice Technology Support**
 - **Voice and IP Communications Product Support**
 - **Recommended Reading: Troubleshooting Cisco IP Telephony**
 - **Technical Support – Cisco Systems**
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