

MeetingPlace Server Disk Failure Recovery

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Introduction

This document provides step-by-step procedures to isolate and repair a Cisco MeetingPlace Server 8112 disk failure.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on the MeetingPlace Server 8112 (M3), 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.

Symptoms of Disk Failure

The most obvious symptom of a disk failure is failure of the server to boot. However, boot failure is not the only symptom. In fact, because there is a backup partition for most crucial functions on a MeetingPlace Server 8112, the system can switch over to the good partition after a reboot. However, if one or more backup partitions have taken over because of a disk failure, an alarm occurs.

Note: A failure of the server to boot can also be a symptom of failure of the CPU or hot-swappable controller.

Here is an example of the alarm:

```
09/03 23:18:36 MIN 0x100010 0/0, "exlog.cc", 40 (0, 0, 0, 0)
Disk mount table does not match saved configuration
```

If you issue the **sysconfig** command and there has been a disk failure, you see output similar to this output:

```
wh-latitude:csc$ sysconfig
Root:                1a
Database:            2c
Temporary files:    1b
Prompts:             1f
Voice files:         1g
Voice files:         2g

WARNING: The current configuration does not match the saved configuration
1,2c1,2
< /dev/disk1c on /lat/db rw
< /dev/disk2b on /tmp rw
---
> /dev/disk2c on /lat/db rw
> /dev/disk1b on /tmp rw

WARNING: Disk backups are disabled. Run "save" to enable.
```

In this example, there is a swap of the database partition from 1c to 2c and a swap of the temporary files (tmp) partition from 2b to 1b.

Disk Failure Cases and Recovery

There are two cases that this section covers:

- The system automatically recovers after a restart.
- The system is not able to boot.

This section also presents a procedure to replace a faulty drive and provides additional notes.

System Automatically Recovers After a Restart

You can identify this case by a system restart and generation of the alarm that the Symptoms of Disk Failure section provides.

There are two possibilities in this case:

1. One of the drives is not accessible, and the location of all partitions is now on the same drive.

Identify the problem drive and replace the drive. In order to identify the problem drive, issue the **sysconfig** command. If you see something like this example, in which all partitions are on the second drive, the first drive has failed:

```
wh-latitude:csc$ sysconfig

Root:                2a

Database:            2c

Temporary files:    2b

Prompts:             2f

Voice files:         2g
```

If instead you see that all partitions are on the first drive, the second drive has failed.

2. One or more partitions are corrupt, and the system automatically switches over to use the backup partition.

In order to identify the problem, issue the **sysconfig** command. If you see something like the example, in which there is a swap of one or more partitions, then some corruption has occurred on the original active partition. A WARNING message indicates that there has been a swap:

```
wh-latitude:csc$ sysconfig

Root:                1a

Database:            2c

Temporary files:    1b

Prompts:             1f

Voice files:         1g

Voice files:         2g

WARNING: The current configuration does not match the saved configuration
1,2c1,2

< /dev/disk1c on /lat/db rw

< /dev/disk2b on /tmp rw

---

> /dev/disk2c on /lat/db rw

> /dev/disk1b on /tmp rw

WARNING: Disk backups are disabled. Run "save" to enable.
```

In this example, there has been a corruption of the original database, the tmp partition, or both. You can issue the **save** command to recover from this error in most cases. The system automatically attempts to rebuild the partition upon a save.

Note: Before you issue the **save** command, see the Notes section of this document for information about the command.

If the automatic attempt fails, you must escalate the problem for Cisco Technical Support to further identify the drives that require replacement.

System Is Not Able to Boot

If the system is not able to boot and you suspect a hard drive failure, try the two procedures in this section.

Procedure 1

Complete these steps first:

1. Turn off the MeetingPlace Server.
2. Remove drive 1.
3. Turn on the server again.

The system tries to come up on drive 2. This procedure works if drive 1 is the problem.

Procedure 2

If Procedure 1 does not work, complete these steps:

1. Turn off the MeetingPlace Server.
2. Remove both drives.
3. Reassign the SCSI ID for drive 1 so that drive 1 becomes drive 2 and has SCSI ID 1.
4. Plug the former drive 1 into the lower-right slot, drive 2.

- Leave the upper-right slot, drive 1, *empty*.
5. Turn on the MeetingPlace Server.

This procedure works if drive 2 is the problem.

If either procedure works, fill the empty slot with a spare drive when one is available. If you have not yet created a service request with Cisco Technical Support, create one and return the drive with the failure to Cisco.

If neither works, the problem can be that there is damage to both drives. But this scenario is unlikely. Reinstall the drives in the original locations and look for other problems.

Note: If there is a diskette in the diskette drive, the system does not boot.

Replace the Drive

This section provides the procedure to replace a drive. Perform this procedure if you have removed the original drive from the system.

Complete these steps:

1. Run a raw meeting detail report for the next few weeks.
2. Halt the system.
3. Power down the system when you see the message "Lynx OS is down."
4. Place the new drive in slot 1.
5. Power up the system.

Note: The system can require a few reboot cycles to get back in sync. The system then comes back up.

6. Make sure that most basic functions work.

You can generate a raw meeting detail report and compare the report with the original.

7. Issue the **save** command.

8. Return the defective disk drive to Cisco for further analysis.

Notes

- If possible, preserve at least one of the original drives so that you do not need to restore the database from tape.
- Do not change out both a drive and a CPU card at the same time. The change of both a drive and CPU card confuses the software. The software uses the CPU serial number to identify the drives that were originally in the system. If you suspect the CPU card, change the card but leave both original drives in place.
- Do not allow the system to use a suboptimal set of disk partitions. An example is the use of a replacement database instead of an original database. If you suspect that the system has made a suboptimal choice, issue the **revert** command to modify the selection. After you issue the command, restart.
- The "disk mount table does not match" alarm also indicates the disable of the internal backup mechanism. You must issue the **save** command in order to get the mechanism to run again.
- Do not issue the **save** command unless you are completely happy with the current system configuration and the system runs well. A premature issue of the **save** command limits your recovery options.

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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