

*Knowledge Base***Steps to Recover a Failed Mirrored System/Boot Partition**

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The information in this article applies to:

- Microsoft Windows NT Server 3.1
 - Microsoft Windows NT Server 3.5
 - Microsoft Windows NT Server 3.51
 - Microsoft Windows NT Server 4.0
 - Microsoft Windows NT Workstation 3.1
 - Microsoft Windows NT Advanced Server 3.1
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SUMMARY

Under some circumstances, the fault tolerance (FT) driver cannot initialize after a failure of a mirrored boot partition (containing Windows NT system files) and system partition (containing NTLDR and boot loader files). This article provides a step-by-step system recovery procedure for such a failure.

MORE INFORMATION

There are two recovery options:

Option 1

1. If the hard disk drive with the primary system partition has failed and you have a single controller mirror set established, set the physical SCSI ID on the mirror drive to zero. If you have a duplex mirror set, swap the drive from the primary controller to the secondary controller.
2. Use a Windows NT Fault Tolerance (FT) boot floppy disk to point to and boot the system/boot partition. Make sure the BOOT.INI file points to the partition with the Windows NT system files.
3. Open Disk Administrator, break the mirror set and mark the primary system partition on Disk0 as Active so that the Windows NT FT disk is not necessary for the next startup.
4. If the failed drive has been replaced, establish the mirror set and allow data regeneration during the next system boot.

Option 2: No Hardware Changes

1. Before breaking the mirror set in disk administrator, shut down the server and use the Windows NT Fault Tolerance boot floppy disk to point to and boot the remaining healthy partition (the mirror).
2. Open Disk Administrator, select the mirror set partition and break the mirror. The healthy partition retains the drive letter previously assigned to the mirror set. The faulty partition, if it is still available, is assigned the next available letter.
3. Delete the faulty partition on Disk0 or replace the disk drive if necessary. You cannot delete the active boot partition through Disk Administrator in 80x86-based computers; you have to use the Windows NT Setup Disk to delete it.
4. Establish the mirror between the healthy system/boot partition and the raw disk space on Disk0. Exit Disk Administrator and save the disk configuration changes.
5. Use the Windows NT FT boot floppy to start regenerating the mirror set to Disk0. Time required for this depends on factors such as disk size, access time and controller type.
6. Verify that the mirror set is healthy and has completed regenerating, then select the set and break the mirror. You have to do this on 80x86-based computers because the system partition needs to be marked as Active for startup, and Disk Administrator allows you to mark only primary partitions on Disk0 as Active.
7. From Disk Administrator, modify the partition drive letters to have the appropriate assignments (C drive on Disk0 and D drive on Disk1). Mark the primary partition on Disk0 as Active.
8. Reboot the system without the Windows NT FT boot floppy. Run Disk Administrator and delete the partition on Disk1 and then re-establish the mirror from Disk0 to Disk1.

For additional information, please see the following articles in the Microsoft Knowledge Base:

- [108304](#): Recovering from Loss of FT Disk Configuration Information
- [113976](#): Using Emergency Repair Disk With Fault Tolerance Partitions
- [113977](#): Booting From Mirror After Primary Partition Is Lost
- [114779](#): Overview of Disk Mirroring (RAID Level 1) in Windows NT

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