

VOD 가

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Self Recovery System With High Availability in Clustered VOD Server

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VOD 가 가 VOD 가 가 가

RAID-3, 4 , VOD

RAID-4 , RAID-3

가 , CPU, ,

가

1. Introduction

가 VOD RAID-3, 4

가 가 , RAID-4

가 가 , RAID-3

가 가 가

[1][2][3][4].

[10][11][12][13]

. Bolosky [5] Tiger

RAID-1 Mirror-Based [4][14]

VOD

CD(Chained Declustering)[8][9] RMD(Rotational

Mirrored Declustering)[1] Mirror-Based

, Mirror-Based

가 Mirror-Based

2.1

RAID-3,5 Parity-Based [14]

VODCA[15][16]

[7], RAID-3 1

가 Parity-Based RAID-4

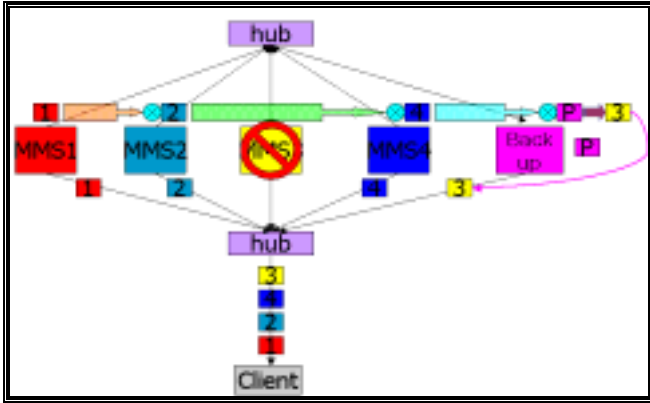
, RAID-5 MMS(Media Management Server)[15][16]

가가 , Parity Data , Parity

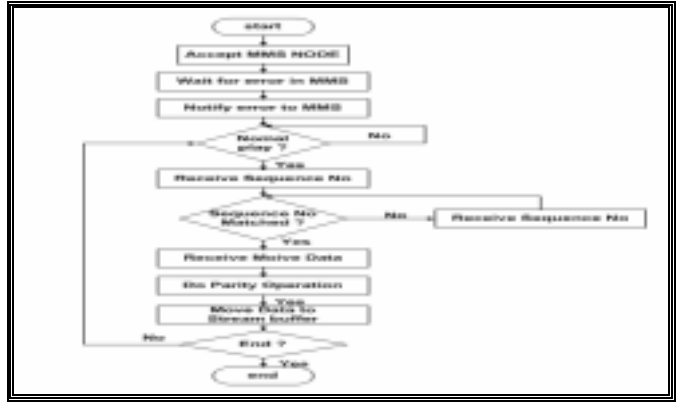
[1][4][14].

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* (R05-2003-000-12146-0)

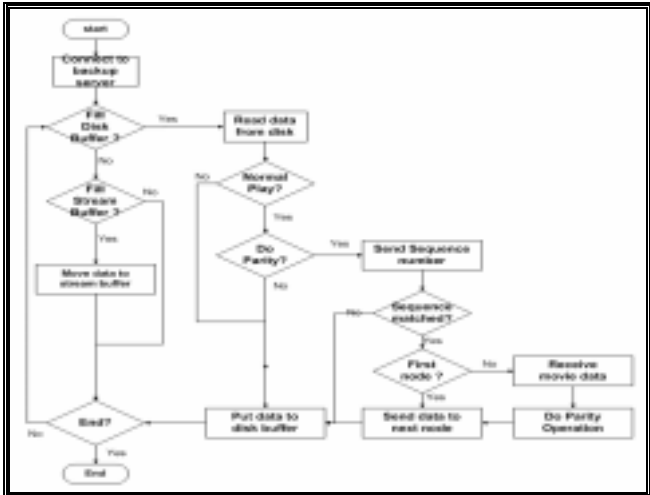


1

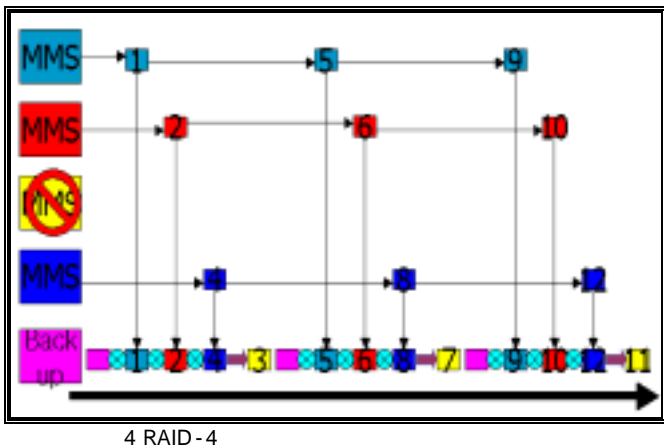
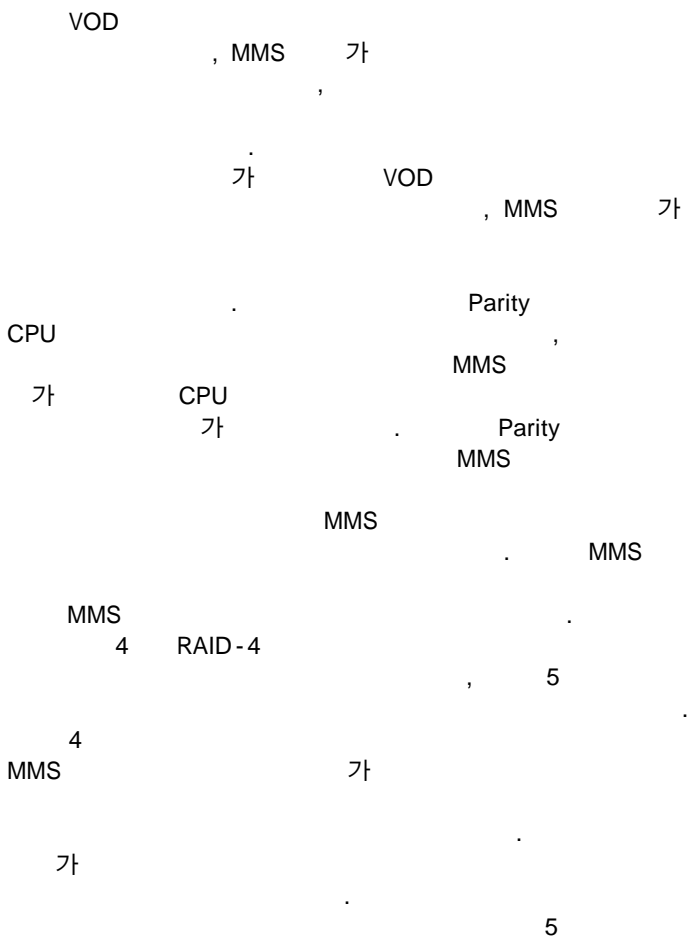
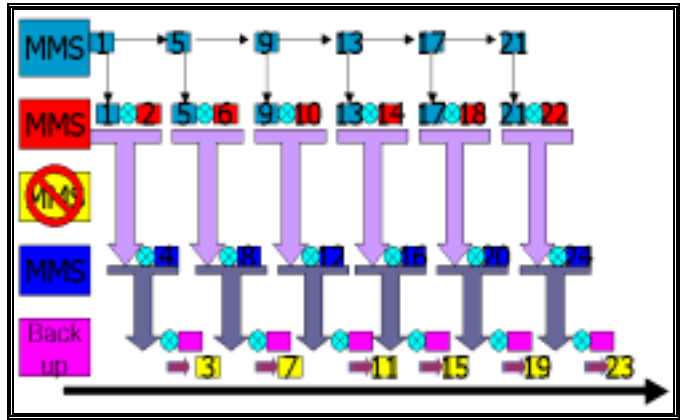
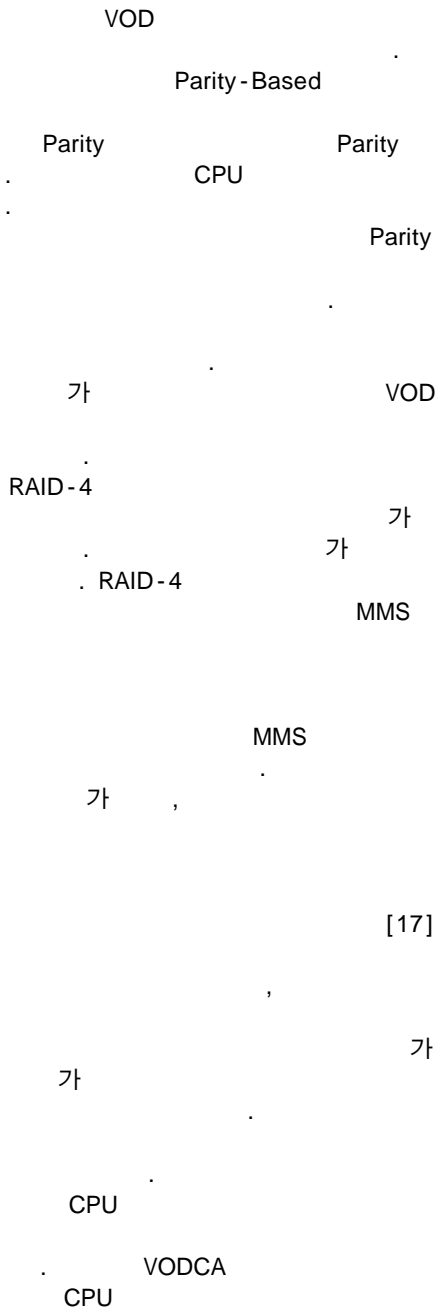


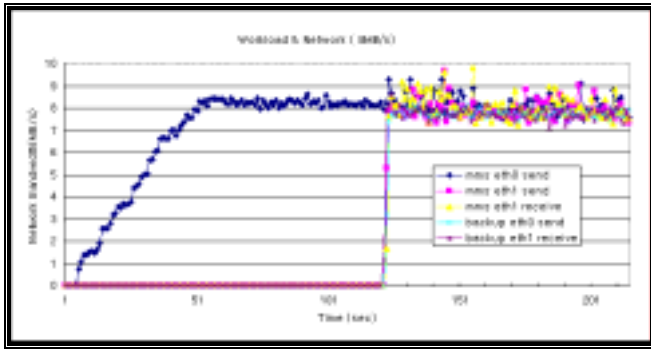
3

가 MMS . I Picture Picture
 가 MMS , Picture
 MMS 가 Picture
 MMS 가 가
 MMS , MMS 3 가
 MMS MMS MMS
 MMS Parity
 Parity Parity Parity
 Parity MMS
 가
 가 2.2 RAID-4
 MMS
 가 Fast Forward Parity
 Fast Rewind I Picture 가
 MMS MMS
 MMS MMS
 MMS 가 MMS
 MMS

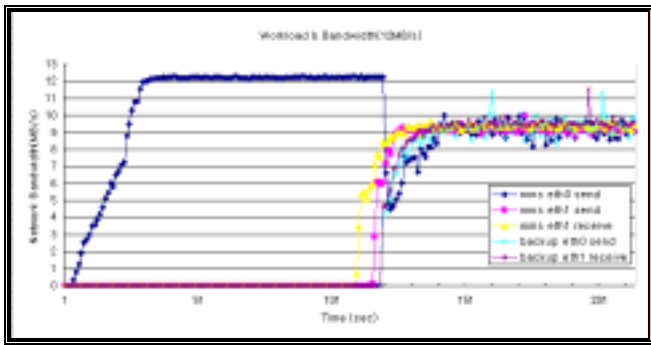


2 MMS





6 MMS (8MB/s) 1



7 MMS (12MB/s) 2

3.

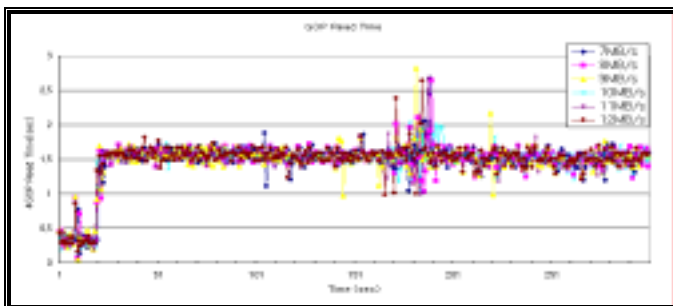
VODCA
 MMS 가 4
 [15][16]. 4
 MMS
 VODCA [15][16], 100Mbps Ethernet
 가 MMS

Yardstick Program[16]
 , VOD

MMS

MMS 6 7 6
 MMS

가 7 가
 12MB/s 가
 가
 [16].



8 GOP Read Time

8

GOP

가

4.

VOD
 RAID-3, 4

가

가

가

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