

Virtual Machine File System (VMFS)

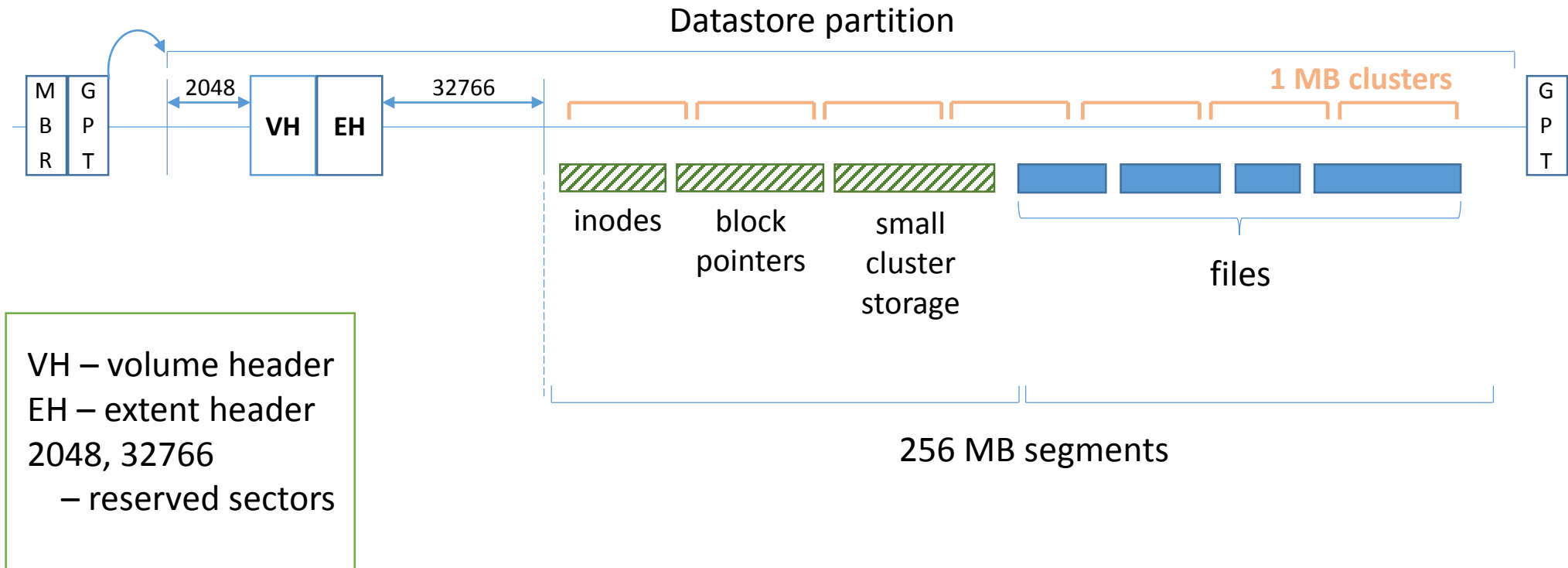
- first release in 2002
- not a general-purpose filesystem
- designed to store virtual machine files

VMFS uses

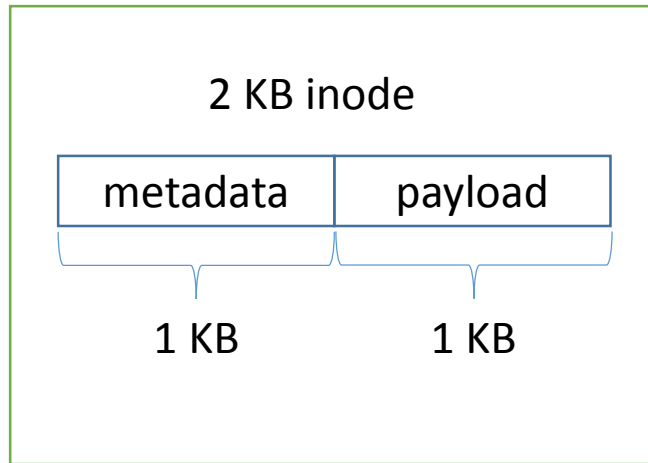
- inodes
- indirect block tables
- small and large clusters
- small cluster storage as file
- files <1KB in inode, VMFS5 only

VMFS combines several disks into a JBOD

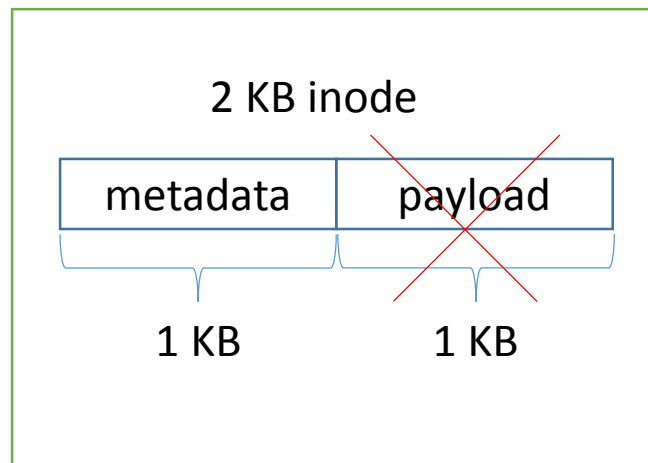
VMFS volume structure



VMFS inode structure



if a file is deleted,
payload is zeroed out



inode metadata:

- date and time of file creation
- file type
- file size

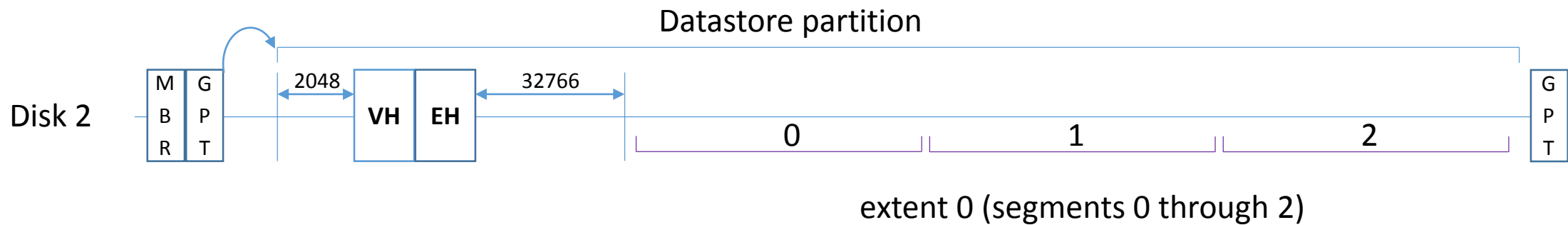
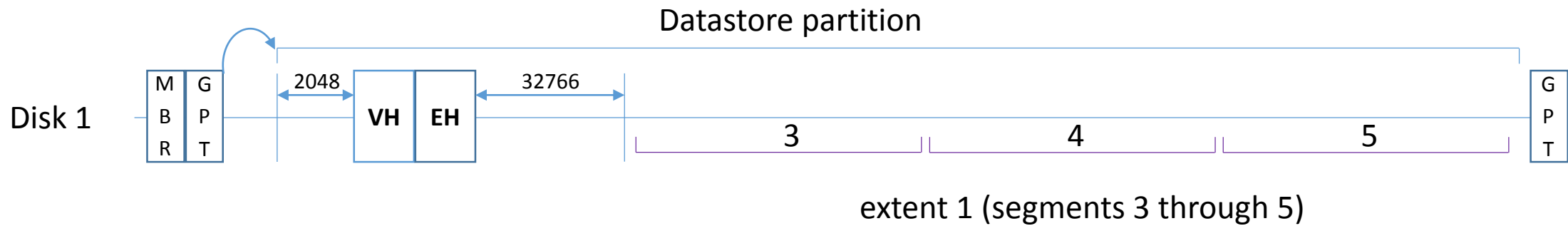
inode payload, one of:

- 256 pointers to large clusters
- 256 pointers to indirect blocks
- 256 pointers to small clusters
- file content for files smaller than 1 KB



There is no undelete on VMFS

VMFS on several disks



VMFS JBOD: Disk 2 (extent 0) and Disk 1 (extent 1),
extent header contains segment numbers for the extent