



????????????, ???LSI RAID 5 VD(IMR), ??????LSISAS2008. ??RE3 500GB??RE3??HSP??Web Server. ?????
?, IMR?LSISAS2008??Software RAID Stack???, ??????????, firmware-based RAID?cacheless, ???parity RAID
mode?????????????. ??????????????????Web Server, ??????????????????.

???LSISAS2008??RAID 5 VD, ??????????. ???????PD????, ??????HSP????Auto-rebuild. ????, ?rebuild???, ??????
????(ex: ?????????), UPS????, ???????, ??????????. ??????????????????, MIS?????????????:

1. VD????.

2. rebuild??????.

??????, ???????rebuild?????????, ??????normal status????, ???????COD???, ???VD???????. ???drop??PD????
?, ??RAID controller??scan?, ???????COD??, ???foreign status. ??????PD?????, ?????????drop??VD?????. ???
?PD??????, ???HSP??, ??????Auto-rebuild??:

1. VD??, ??HSP?????Auto-rebuild.

2. ??bad slot?PD?????, ???Unconfigured Good status.

3. ?rebuild??????, ??????copyback??.

Note: When a drive fails or is expected to fail, the data is rebuilt on a hot spare. The failed drive is replaced
with a new disk. Then the data is copied from the hot spare to the new drive, and the hot spare reverts
from a rebuild drive to its original hot spare status.

????????, ??????????????????????. ??PD????????, ??rebuild????????, ?LSISAS2008??4?PD?rebuild, ??????9hrs???. ?
???2????????, ?????????, ??RAID 5????PD?????, ??????parity??XOR?????????????.

????????????PD?normal status, ??????????online, ??????????VD?????. ??????????, ??????????VD creation
without initialization, ?????????????DG(Drive Group)?PD, ???VD?PD?COD??, ???WebBIOS??MSM??Clear
Configuration?. ??????VD, ??????????:

1. ??????????VD??.

2. ??????(slot number).

3. ??????initialization??.

?????????????????VD????, ??????????, ??????????VD?????, ??????????, ?????????, ?????????, ??????????VD
creation without initialization.

???RAID Controller?, ?????OAR(Online RAID Roaming)???, ??????????????RAID??????, ???????????, ?????
???. ??????????VD.

OAR?????DG??????, ???DG?????RAID Controller, OAR?????. OAR?????PD??metadata, ??RAID HBA??
NVRAM, ??????COD??NVRAM??, ??slot number, ?OAR????, VD?????. ??????????????????ODR(Online Drive
Roaming)????, ??VD??100%????, ??????????DG???, drive slot number?????????. ?????????, ?????????, PD?????
foreign status?bad, ???online?????????. ???VD creation without initialization, ??????, ???HSP?rebuild?????
VD??, ??????????????. ??????OAR????:

1. ?shutdown??.

2. ?VD??PD????(pull out)

3. ???, ?RAID BIOS?????????VD missing, ?NVRAM?COD??.

4. ??shutdown?, ???PD???, ??! ??????slot.

????????, ?????, OAR?????????metadata??PD?????COD???, ???????(import), ???Y??, ??????COD??NVRAM, ??
VD????????????, ??????????????, VD????????! ???HSP??rebuild????, ??write-journaling????????(record)????
rebuild??????, ???0%????, ??????????NVRAM?, LSI??RAID HBA????32KB??NVRAM. ??????default factory
configuration(persistent area), COD, firmware log(tty log, ???3???)???write-journaling??, ??????????. ??
??????, ??OAR?????????VD creation without initialization???

?????????????, BIOS??????, ??OAR???, ???hang?initializing?????. ??????, ??shutdown????????PD, ?????VD
missing??, ???WebBIOS, ??default factory?(reset)????, ??????NVRAM?COD?????. ??????PD????????,

default factory????????????, ???5~6????, ?????, OAR????, ??NVRAM?COD????, PD??metadata????, ??
initializing??hang?????????. ??default factory reset??OAR????????, default factory reset????, OAR??,
COD????import, ???import, ??foreign status?????. ?????OAR??, ??parity RAID mode, ???BGI??????
?. ??default factory??, OAR??, BGI???. ?????parity????, ?????CC??, ?????????.
native configuration error????????, ??????????. ?????????, ?????????, ??????:
1. ??f/w, ??f/w?NVDATA?????
2. ???(slot number), ??COD??.
????, ?????f/w?????. ?????????, ?????????, ?????????.
???BIOS????????, ??hang????, ?????StopOnError??, ?????tty log(firmware-based log)????, ??T26?
????PD????.