

Levels of nested RAID (hybrid RAID) combine more than one standard levels of RAID to gain performance and/or redundancy.

### **RAID 01:**

a mirror of stripes. The usable capacity of RAID 01 array is the same as the capacity of RAID 1 array where half of the total capacity is used to mirror the other half. The actual minimal number of required discs to implement RAID 01 is three: data is striped across two discs in RAID 0 and then all data is mirrored on a third disc. It is more common to use a minimum of four discs.

### **RAID 10:**

similar to RAID 01 with the difference that RAID 10 is a stripe of mirrors.

### **RAID 100:**

a stripe of RAID 10s. This is logically equivalent to a wider RAID 10 array, but is generally implemented using software RAID 0 over hardware RAID 10.

### **RAID 03:**

a dedicated parity array across striped disks. Each block of data at the RAID 3 level is broken up amongst RAID 0 arrays where the smaller pieces are striped across disks.

### **RAID 30:**

is also known as striping of dedicated parity arrays. It is a combination of RAID level 3 and RAID level 0. RAID 30 provides high data transfer rates, combined with high data reliability.

### **RAID 50:**

combines the straight block-level striping of RAID 0 with the distributed parity of RAID 5. This is a RAID 0 array striped across RAID 5 elements. It requires at least 6 drives.

### **RAID 51:**

is an array that consists of two RAID 5's that are mirrors of each other. Generally this configuration is used so that each RAID 5 resides on a separate controller.

**RAID 05:**

consists of several RAID 0's (a minimum of three) that are grouped into a single RAID 5 set. The total capacity is  $(N-1)$  where  $N$  is total number of RAID 0's that make up the RAID 5. This configuration is not generally used in production systems.

**RAID 60:**

combines the straight block-level striping of RAID 0 with the distributed double parity of RAID 6. That is, a RAID 0 array striped across RAID 6 elements. It requires at least eight disks.