3380
Direct Access Storage Device
IBM 3380 PRODUCT DESCRIPTION

The 3380 is a high capacity, high speed, Direct Access Storage Device. The 3380 is designed for channel attachment via the 3880 storage director.

Four 3380 models are available:
- AA4 — Two HDA units with two controllers.
- AAF — Same as AA4 with addition of fixed head feature.
- B04 — Two HDA units.
- B4F — Same as B04 with addition of fixed head feature.

The storage controllers in the 3380 models AA4 and AAF provide the interface between the storage directors and the drives.

Up to three models B04 or B4F four actuator drive units may be attached to the models AA4 or AAF.

An AA4 or AAF must be the first unit of the subsystem.

The 3380 utilizes the Count Key Data (CKD) architecture.

General Characteristics
- Seek Time (average) — 16.0 ms
- Latency — 8.3 ms
- Data Rate — 3.0 MB/s

Capacity
- Single HDA — 1260 MB (1.26 GB) *
- Per 3380 — 2520 MB (2.52 GB) *
- Per string — 10080 MB (10.08 GB) *

* Gigabyte

Design Features

Heads, disks and the access mechanisms are contained in a non-removable (by customer) head/disk assembly (HDA). The 3380 utilizes two HDA units, each replaceable by the CE. Each HDA has two independently addressable actuator units.

The basic B model consists of two HDA's. The mechanical, electronic and electromechanical components required to drive the HDA's and to record and retrieve information stored on the HDA's. The A model contains in addition two controllers (Dynamic Pathing) with its own power and cooling.

Optional Feature
- Fixed Head Feature —
  Capacity under the fixed heads is approximately 5.6 MB per 3380, replacing the same capacity under the movable heads.
Service Features

The 3380 will utilize the Maintenance Device (MD) as the prime service tool. Maintenance can be performed concurrently with customer operation.

Most controller failures and repair actions do not disrupt the operation of the other controller. Most actuator failures and repair actions do not disrupt the operation of other actuators.

Maintenance programs reside on a diskette in the storage director and will run concurrently with customer operation. The majority of repair actions will be performed via the MD and soft copy maps.

The Maintenance Device (MD) can execute procedures, monitor hardware test points, call maintenance programs from the storage director and analyze test results.

In addition, a Maintenance Information Manual (MIM) will be available for tasks that are not suitable for the MD, such as installation, relocation, removal and adjustment procedures, locations, program running instructions, log analysis, power system error analysis and other reference detail.

Additional service aids utilized by the 3380 are EREP and Device Support Facility (DSF).

An enhancement to EREP will examine 3380 system LOGREC entries, summarize according to failure type, perform data reduction and communicate results to the CE in coded messages, called Maintenance Device Codes (MDC). These messages are used as entries into the soft copy maps.

A new method of physical device identification is utilized and failures are identified to the device level.

Additional support will be provided via attachment of the Programmable Terminal Device (PT-2) as a trace device.