

AVAILABILITY ENVIRONMENT CLASSIFICATIONS (AEC)

Harvard Research Group, Inc. (HRG) has defined availability in terms of the impact of an outage on the activity of the business and consumer (end user) of the service. The five Availability Environments (AE) below define availability in terms of the impact on the both the business and the end user or consumer. Each successive level incorporates all the functionality of the previous level. When a failure and subsequent system recovery response has occurred the system is assumed to not be at its original Availability Environment Classification until the failure has been corrected and any failed components have been replaced or repaired. In some cases, there may be system redundancies that support fail over capabilities in the event of an additional failure. The minimum requirement for a system to be considered highly available is that there is a backup copy of data available on a redundant disk and a log-based or journal file system exists for identification and recovery of incomplete transactions -- this represents the AE 1 Availability Environment Classification.

- **AE4** – Business functions that demand continuous computing and where any failure is transparent to the user. This means no interruption of work; no transactions lost; no degradation in performance; and continuous 24x7 operation.
- **AE3** – Business functions that require uninterrupted computing services, either during essential time periods, or during most hours of the day and most days of the week throughout the year. This means that the user stays on-line. However, the current transaction may need restarting and users may experience some performance degradation.
- **AE2** - Business functions that allow minimally interrupted computing services, either during essential time periods, or during most hours of the day and most days of the week throughout the year. This means the user will be interrupted but can quickly relog on. However, they may have to rerun some transactions from journal files and they may experience some performance degradation.
- **AE1** – Business functions that can be interrupted as long as the availability of the data is insured. To the user work stops and an uncontrolled shutdown occurs. However, data availability is ensured. A backup copy of data is available on a redundant disk and a log-based or journal file system is being used for identification and recovery of incomplete transactions.
- **AE-0** – Business functions that can be interrupted and where the availability of the data is not essential. To the user work stops and uncontrolled shutdown occurs. Data may be lost or corrupted.

* **Disaster Recovery** capability is a horizontal availability feature that is applicable to any of the Availability Environments (AEs). It provides for remote backup of the information system and makes it safe from disasters such as an earthquake fire, flood, hurricane, power failure, vandalism, or an act of terrorism.