

Availability Environment Definitions

These descriptions represent the reality of the requirement for recovery. The same categories may be used to define a non-systems environment. They are assigned an Availability Environment (AE) designation from 0 to 4.

Fault Tolerant: (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 operations. The methodology of backup is a function of fail-over and/or load balance to one or more remote duplicated environments coupled with tape or other media back up. The process must keep all locations in synchronous operation. Alternate hardware and networks must be continually available.

Fault Resilient: (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 must be constructed as Fault Resilient. This means that the user stays on-line. However, the current transaction may need restarting and users may experience performance degradation. Similar to the High Availability requirement, the methodology of backup to remote on-line storage device(s) coupled with tape or other media, on a scheduled cycle, synchronous or asynchronously remains part of this process with restore to alternate and dedicated hardware is the most common type of recovery schemes for this environment. Recovery is usually to a point 4 to 12 hours earlier than the incident necessitating some forward recovery efforts. Alternate hardware and networks must be continually available.

High Availability: (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 year. This means that users will be interrupted but must quickly log on again. However, they may have to rerun some transactions from a journal file and they may experience performance degradation. The methodology of backup to remote on-line storage device(s) coupled with tape or other media, on a scheduled cycle, synchronous or asynchronously, with restore to alternate hardware is the most common type of recovery schemes for this environment. Recovery is usually to a point 12 to 24 hours earlier than the incident necessitating some forward recovery efforts. Alternate hardware and switched networks must be available.

Highly Reliable: (AE1)

Business functions that can be interrupted so long as the integrity of the data can be insured. To the user work stops and uncontrolled shutdown occurs. However data integrity is ensured to a specified point in past time. The methodology of backup to tape, portable media or storage device, on a scheduled cycle or cycles with restore to alternate hardware is the most common type of recovery schemes for this environment. Transactions in progress are lost, batch processes may have to be restarted and manual re-entry of records may be required. Recovery is usually to a point 12 to 48 hours earlier than the incident necessitating forward recovery efforts. Alternate hardware is generally contracted. This is the most common form of recovery preparedness.

Conventional: (AE0)

Business functions that can be interrupted and where the integrity of the data is not essential for the process to be resumed at a future date or time may use conventional recovery techniques. To the user work stops and uncontrolled shutdown occurs. Data may be lost or corrupted, transactions in progress are lost and the process may be halted for more than 48 hours. The methodology of backup to tape or portable media on a scheduled cycle or cycles with restore to alternate hardware is the most common type of recovery schemes. Recovery is usually to a point 24 to 72 hours earlier than the incident necessitating forward recovery efforts.

The overall common term of disaster recovery is still applied and the disciplines used to provide protection are all common.