TRAC2 5.1.1.5

5.1.1.5 - The repository shall have defined processes for storage media and/or hardware change (e.g., refreshing, migration).

Explanation

SP replaces storage media according to a predetermined schedule or whenever media exhibit performance problems. As a rule, SP refreshes its storage array media within a 5-year period (i.e. every 5 years or less) even if the drives are functioning normally and appear healthy. Typically, SP buys a 5-year warranty for hardware. SP tests, re-tensions, and, if necessary, replaces backup tapes annually to reduce the risk of degradation.

Large-scale media and hardware change is carried out by technicians from the hardware vendor in collaboration with systems administrators from SP and the University of Toronto Libraries' Information Technology Services. Staff test and evaluate new hardware in isolation before moving the repository to the new component(s). In addition to tests and checks carried out by automated hardware monitoring programs (see 5.1.1.1.2), staff manually assess changes by examining samples of relevant content. Staff evaluate changes for their effect on the integrity and understandability of information, the speed and interoperability of the system, and the accessibility and usability of disseminated content. Whenever hardware changes involve migrating data, the repository performs checksum and file size tests to validate the integrity of information.

Responsibility

Digital Preservation Policy Librarian

Systems Administrator

Potential Risks

There is always a risk of data corruption during large-scale migration. For this reason, the repository retains known good copies of all information until testing and evaluation of new components has been completed.

Relevant Documents

1. Risk Analysis and Management Strategies
2. Backup Plan