

Audit trail

An **audit trail** (also called **audit log**) is a security-relevant chronological record, set of records, and/or destination and source of records that provide documentary evidence of the sequence of activities that have affected at any time a specific operation, procedure, or event.^{[1][2]} Audit records typically result from activities such as financial transactions,^[3] scientific research and health care data transactions,^[4] or communications by individual people, systems, accounts, or other entities.

The process that creates an audit trail is typically required to always run in a privileged mode, so it can access and supervise all actions from all users; a normal user should not be allowed to stop/change it. Furthermore, for the same reason, trail file or database table with a trail should not be accessible to normal users. Another way of handling this issue is through the use of a role-based security model in the software.^[5] The software can operate with the closed-looped controls, or as a 'closed system', as required by many companies when using audit trail functionality.

Industry uses of the audit trail

In telecommunication, the term means a record of both completed and attempted accesses and service, or data forming a logical path linking a sequence of events, used to trace the transactions that have affected the contents of a record.

In information or communications security, information audit means a chronological record of system activities to enable the reconstruction and examination of the sequence of events and/or changes in an event.

In nursing research, it refers to the act of maintaining a running log or journal of decisions relating to a research project, thus making clear the steps taken and changes made to the original protocol.

In accounting, it refers to documentation of detailed transactions supporting summary ledger entries. This documentation may be on paper or on electronic records.

In online proofing, it pertains to the version history of a piece of artwork, design, photograph, video, or web design proof in a project.

In clinical research, server based systems call Clinical Trial Management Systems (CTMS) require audit trails. Anything regulatory or QA/QC related also requires audit trails.

In voting, a voter-verified paper audit trail is a method of providing feedback to voters using a ballotless voting system.

References

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3. "SEC Proposes Consolidated Audit Trail System to Better Track Market Trades" (<https://www.sec.gov/news/press/2010/2010-86.htm>). U.S. Securities and Exchange Commission. 26 May 2010. Retrieved 7 March 2012.
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