
DOI’s defense-in-depth, layered approach to data management assurance/security parallels the Department of Homeland Security (DHS) recommended practices and the same construct used in the operational risk management of aviation safety:

1. Identify the hazard.
2. Analyze the hazard.
3. Make risk decisions.
4. Implement independent controls that together as a layered defense, greatly reduce the probability of the hazard occurring.
5. Monitor and adjust based on documented results.

The illustration to the right depicts some of the layered defense-in-depth security measures DOI employs. Others include policy, training, top-to-bottom personnel accountability, regular external audits, etc.

*Recommended Practice: Improving Industrial Control System Cybersecurity with Defense-in-Depth Strategies Industrial Control Systems Cyber Emergency Response Team September 2016*