

Information systems security modes of operations

Used in mandatory access control (MAC) systems which often times contain information at various levels of security classification.

The mode of operation is determined by:

- * The type of users who will be directly or indirectly accessing the system.
- * The type of data, including classification levels, compartments, and categories, that are processed on the system.
- * The type of levels of users, their need to know, and formal access approvals that the users will have.

	Signed NDA for	Proper clearance for	Formal access approval for	A valid need to know for
Dedicated security mode	ALL information on the system.	ALL information on the system.	ALL information on the system.	ALL information on the system.
System high security mode	ALL information on the system	ALL information on the system	ALL information on the system	SOME information on the system
Compartmented security mode	ALL information on the system	ALL information on the system	SOME information on the system	SOME information on the system
Multilevel security mode	ALL information on the system	SOME information on the system	SOME information on the system	SOME information on the system

Source: http://en.wikipedia.org/wiki/Security_modes

State: Refers to how many classifications

Single State Machine

- Processes data of a single security level
- No way to separate classifications
- All users are assumed to have full clearance

Multi-state Machine

- Processes data at two or more security levels without risk of compromising the system's security
- Data can be classified
- Not all users require full clearance