

Lock-Key and Ring-Based Access Control

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GWU

Sources:

Memon's notes, Brooklyn Poly

Bishop's Text, Chapter 15

Bishop's slides, Chapter 15

Text by Pfleeger and Pfleeger, Chapter 3

Access Control Mechanisms

- Access Control Matrix
- Access Control List
- Capability based access control
- Lock and Key based access control.
- Rings-based access control

Access control with Locks and Keys

- Combines features of ACL's and capabilities.
- A piece of information (*lock*) associated with the object.
- Another piece of information (*key*) associated with subjects authorized to access the object.
- This can be dynamic
 - ACLs, C-Lists static and must be manually changed
 - Locks and keys can change based on system constraints, other factors (not necessarily manual).