

ECS 235B Module 32

Break-the-Glass Policies

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- Motivation: when security requirements conflict, some access controls may need to be overwritten in an unpredictable manner
 - Example: a doctor may need access to a medical record to treat someone, yet that person is unable to give consent (without which access would be denied)
- User overrides the denial
 - Controls notify some people about the override
 - Controls log override for later audit

Example: Rumpole

- Implements a break-the-glass policy
- *Evidential rules*: how to assemble evidence to create context for request
- *Break-glass rules*: define permissions
 - Includes constraints such as obligations to justify need for actions
- *Grant policies*: how rules are combined to determine whether to grant override

Example: Rumpole Enforcement Model

- *Request*: subject, desired action, resource, obligations acceptable to subject
- Decision point:
 - Grants request
 - Denies request
 - Returns request with set of obligations subject must accept; subject then can send a new request with that set of obligations, if they are acceptable

Quiz

When it is necessary to break the glass to override an access control mechanism, which of the following is critical to do?

1. The break the glass mechanism and associate metadata (such as the entity requesting the override, the time, the reason, and so forth) must be logged
2. The break the glass mechanism must immediately refer the request to a higher authority, who must immediately approve or disapprove
3. The break the glass mechanism immediately disables the access controls that it is overriding
4. The break the glass mechanism immediately disables all access controls, in case the requesters need to access other data or resources