

Access Control

Modeling Access Control

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Modeling Access Control

- Subjects S
 - Things in the system that can act
- Objects O
 - Assets or objects in the system (acted upon)
- Rights R
 - What can the subject do to the object?

Access Matrix Model

	F	G	U	V
U	<i>r1, r2</i>	<i>r2</i>	<i>r4</i>	
V	<i>r2, r3</i>		<i>r5, r6</i>	

Simplified UNIX Model

- Subjects are processes
 - p, q
- Files are objects
 - f, g
- Rights (read, write, execute, append, own)
 - r, w, x, a, o

Access Control Matrix Model

	<i>f</i>	<i>g</i>	<i>p</i>	<i>q</i>
<i>p</i>	rwo	r	rwxo	w
<i>q</i>	a	ro	r	rwxo

Access Control Matrix

- Benefits
- Drawbacks