

THE CHINESE WALL SECURITY POLICY

Dr. David F.C. Brewer and Dr. Michael J. Nash, 1989

November 06, 2015

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Who is the enemy?

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Introduction

Bell-LaPadula

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Background

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- ▶ Coined in 1929 following the Wall Street crash
- ▶ Chinese Wall policies are already in use
 - ▶ Not necessarily digital
 - ▶ Can have authority of law
- ▶ Other terms, as some find the original offensive
 - ▶ "Screen", "firewall", "cone of silence", and "ethical wall"

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Relevance

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- ▶ Before 1989, most security policies were military
 - ▶ E.g. Bell-LaPadula (more about this later)
- ▶ Need of something that holds up in court
- ▶ Relevant anywhere conflicts of interest can exist

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Bell-LaPadula

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- ▶ Proposed by Bell and LaPadula in 1973
- ▶ Security policy model
- ▶ Designed for military use

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Terminology

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Object Data or program.

Classification Minimum security level.

Category Security group(s).

Subject Person or program.

Clearance Maximum security level.

Need-to-know Security group(s).

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Access rules

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Simple security: access is granted only if the subject's clearance is *greater* than the object's classification and the subject's need-to-know *includes* the object's category(ies)

***-property:** write access is granted only if the output object's classification is *greater* than the classification of all input objects, and its category *includes* the category(ies) of all input objects.

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Example

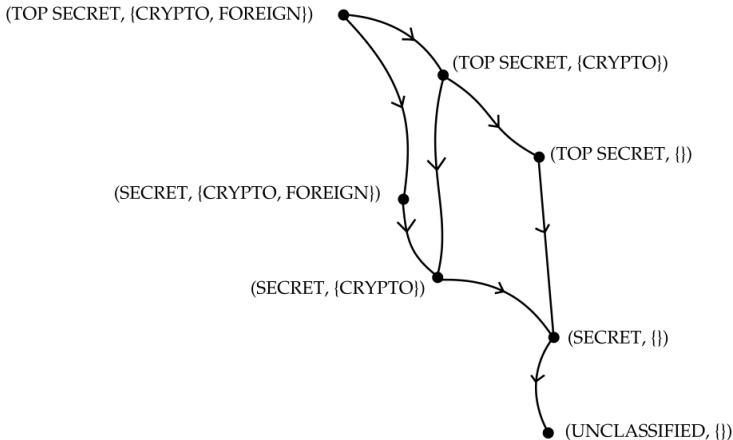
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Example (2)

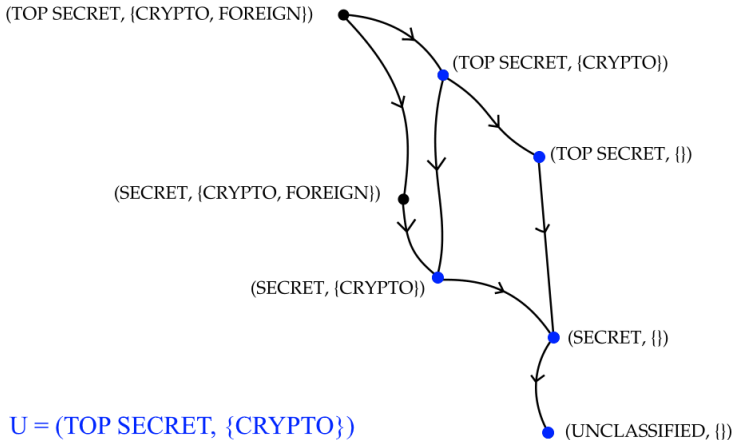
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Questions?



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