INFS 767 FALL 1999

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2nd Midterm Examination

This is an open-book open-notes take-home exam. The exam questions should not be discussed with anyone. You must solve the exam on your own. Discussion of the general topic area with your fellow students and colleagues is permitted.

Due: Hard copy solution due on 11/12/99 in class

Please sign and submit the following statement along with your solution: *As per the GMU honor code I have not given nor received any help on this examination.*

Solve all questions. All questions have equal weightage. Limit your answers to 1 page maximum. Explain your answer so it is self-contained. Hand written answers are acceptable but must be neatly presented. Make your answers crisp and to the point. Please do not discuss the questions with me. Make and state any assumptions necessary to progress on the solution.

1. Does it make sense to have user-pull and server-pull authorization architecture in the same RBAC system. Discuss.

2. Consider a Public-Key Infrastructure based on X.509v3 certificates as discussed in class. Relate it to the Policy-Model-Architecture-Mechanism framework discussed in class.

3. Discuss the claim: client-pull architecture requires cryptographically protected credentials (such as a certificate or ticket) whereas server-pull architecture does not. Give arguments for and against this claim.

4. Give 3 examples of secure electronic commerce applications that use roles. Be creative.