CS6600 Homework 4

Matthew Whitesides

I. Chapter 3 Problems

7) Lemma 3.1 shows how through the use of a newly created object two subjects with one having take rights over the other, can work together to take a right one of the subjects has over a thrid subject/object. If **X** was an object however the first step would not work as **X** could not create the new vertx **V**. This would not allow **X** to ever have a connection with an object it has *tg* privliages over so **Z** would not be able to take the grant privliages from that object and share alpha right with it.
9) Because $s' = s \; or \; s'$ and $x_n = s'$ and x_i are all connected by label $t, g, bridge$ any of the three options for subject x will be able to take or pass any right from x_n. Then since there is a sequence of subjects where eventually $x_n = s'$ and s' has tg over s which in turn has α over y, x can obtain α from y.
10)
11)
12)

Acknowledgment

The author would like to thank Professor Bruce McMillin with the Department of Computer Science, Missouri University of Science and Technology.

Matthew Whitesides Master's Student at Missouri University of Science and Technology.