

	Threat	Cost if occurs	Probability of Occurrence	Expected Loss
A	Accidental Erasure	500000	0.15	
B	Theft of Data	2000000	0.05	
C	Unauthorized Access	100000	0.05	

	Control	Cost to buy	Cost to operate	Probability of failure
C1	Biometrics	10000	10000	0.05
C2	Background Checks	50000	0	0.05
C3	RAID Drives	25000	10000	0.01
C4	Password Cycling	0	4000	0.15

Prevents threats: write which threats from table 1 is addressed

Question 1: What the expected loss for the considered threats?

Question 2: Which controls should be installed?

Prevents threats Cost

Savings

Sheet2

		Cost if occurs	Probability of Occurrence	Expected Loss
A	Accidental Erasure	500000	0.15	75000
B	Theft of Data	2000000	0.05	100000
C	Unauthorized Access	100000	0.05	5000
Total				180000

	Control	Cost to buy	Cost to operate	Probability of failure
C1	Biometrics	10000	10000	0.05
C2	Background Checks	50000	0	0.05
C3	RAID Drives	25000	10000	0.01
C4	Password Cycling	0	4000	0.15
C2 & C3		75000	10000	0.01 A, 0.0005 B

Conclusion: They should buy controls C3 and C4.

Reasons:

It does not make sense to buy C1 in any combination as it does save money on its own and he  
 The effect of C4 is independent of C2 and C3 and hence the savings of using C4 with C2, C3, or  
 The last row of the table shows that buying both C2 and C3 does not increase the savings in cc

Limitations:

1. these are all PROBABILISTIC losses. If you actually experience accidental data erasure (Thre
2. many criticise that the cost to buy the control is factored in fully. There is no spreading out c

Sheet2

Prevents threats	Cost	Expected controlled loss of threats in F	Expected Loss from uncontrolled threats	Total Expected Loss
C	20000	250	175000	195250
B	50000	5000	80000	135000
A&B	35000	1750	5000	41750
C	4000	750	175000	179750
A&B	85000	800	5000	90800

nce will not in combination.

both will be the sum of the savings. As C4 indeed saves money, it should hence be bought regardless of contrast to only buying C3, which has the larger savings.

at A) you will be out \$1/2 million -- not \$75,000.  
of this cost over the years the control is in place.

Savings

-15250

45000

138250

250

89200

our actions for C2 and C3.