Exercise 1

I:
Contribution from A: (1/10)*0.5=0.05
Contribution from B: (2/10)*0.8=0.16
Contribution from C: (6/10)*0.1=0.06

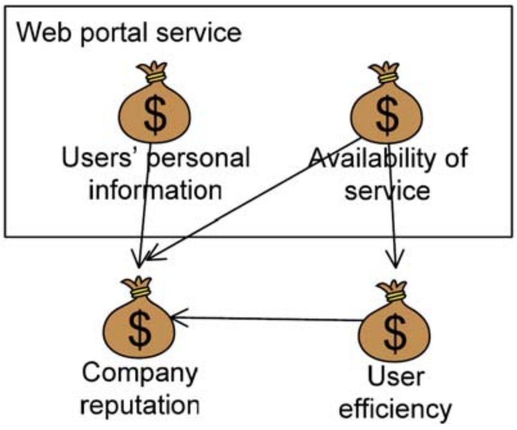
Minimum likelihood for E:
1-(1-0.05)*(1-0.16)*(1-0.06)=1-0.95*0.84*0.94=0.25. This corresponds to 2.5 per 10 years (or once per 4 years).

II:
We need to find the minimum likelihood for the unwanted incident:
Contribution from E: (4/10)*1=0.4
Contribution from D: (2/10)*0.7=0.14
Minimum likelihood for U:
1-(1-0.4)*(1-0.14)=1-0.6*0.86=0.48. This corresponds to 4.8 times per 10 years. This is lower than the estimate in the diagram, which means that the estimates are consistent.

Exercise 2

PHASE I: establishing the context

Exercise Ia: Draw an asset diagram from the information above.

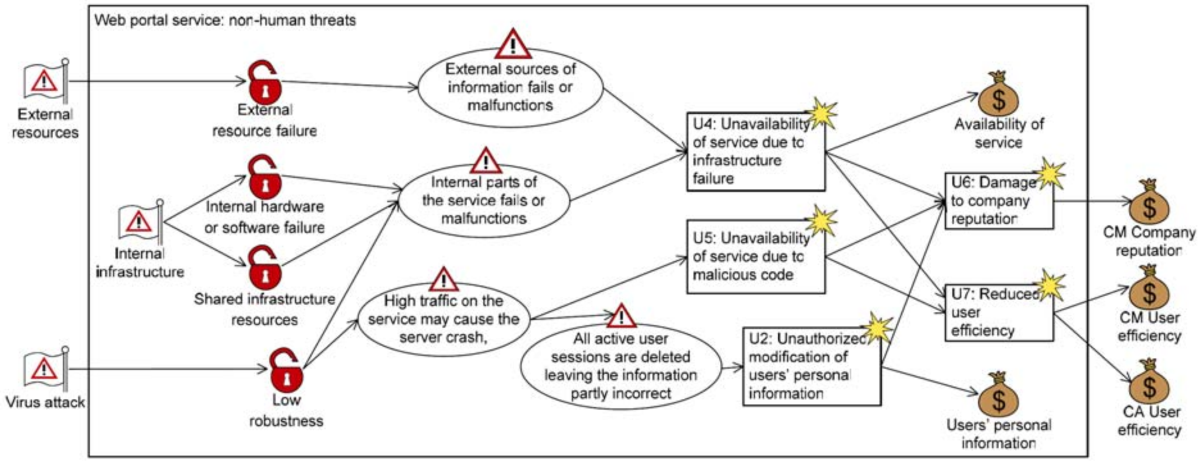


Exercise Ib: Draw a risk value matrix that uses the above scales for likelihood and consequence. (It is up to you to decide exactly how a consequence value and a risk value combines into a risk value.)

	Likelihood		
Consequence	Seldom	Sometimes	Often
Minor	*Low*	*Low*	*Medium*
Moderate	*Low*	*Medium*	*High*
Major	*Medium*	*High*	*High*

Phase II: Identifying risks

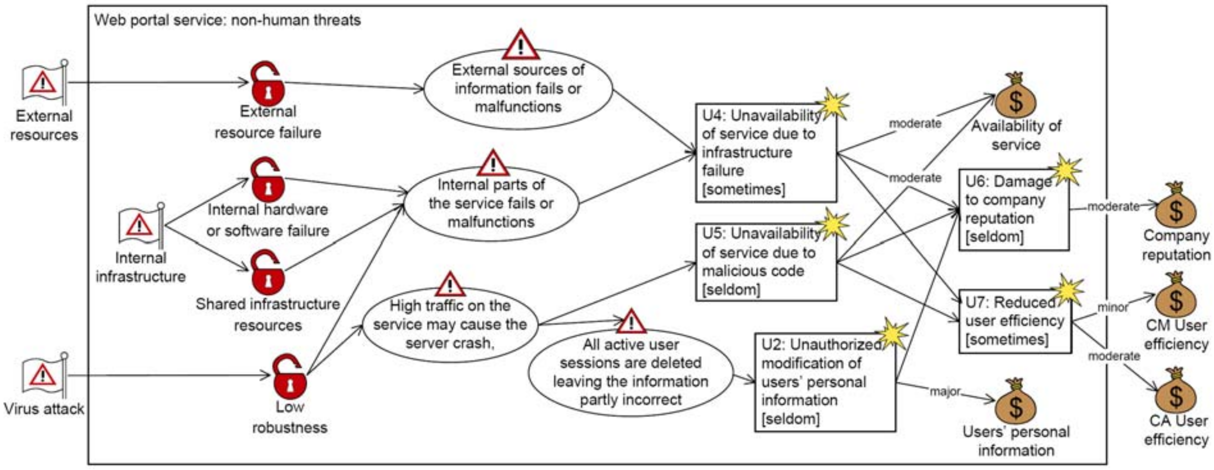
Exercise IIa: Draw a threat diagram for the information above.



Note: There should also have been an arrow from U5 to the "Availability of service" asset. Ignore the "CA User efficiency" asset – it comes from a larger analysis.

Phase III: Estimating risks

Exercise IIIa: Add consequence and likelihood estimates to the threat diagram from Exercise 2a.



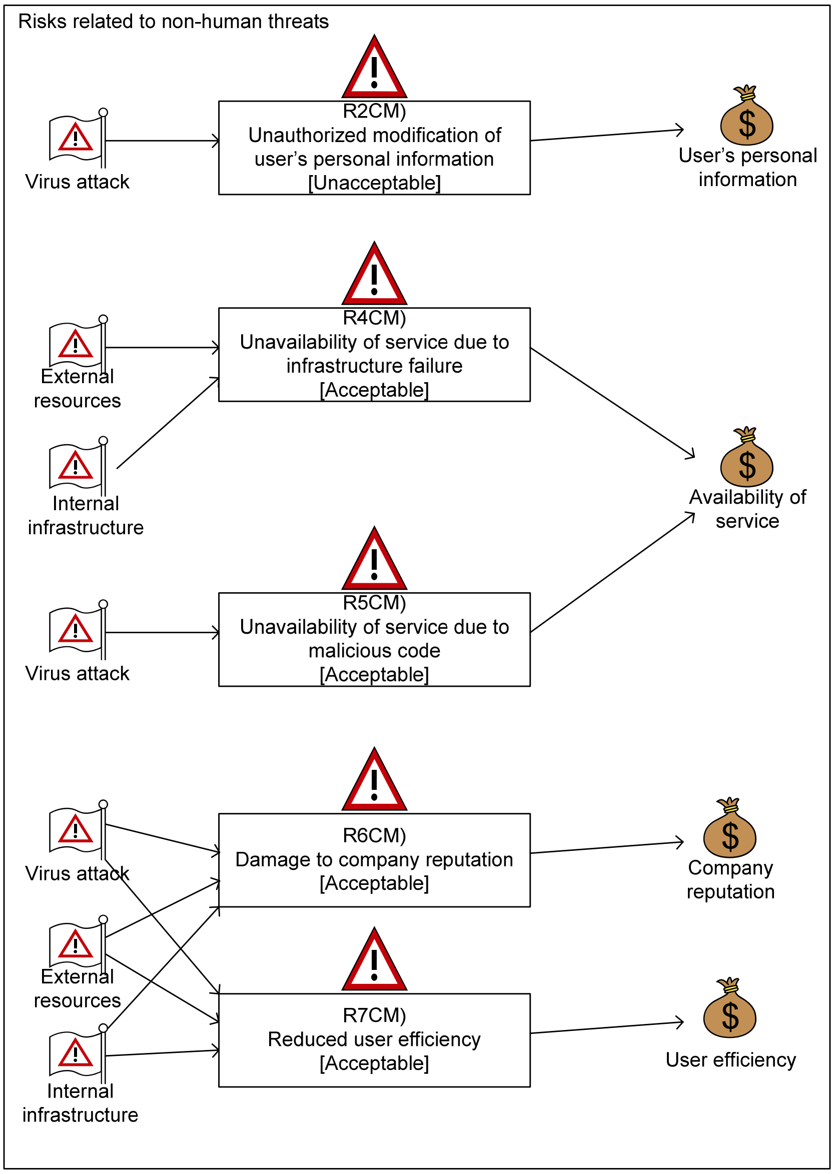
Note: Ignore the "CA User efficiency" asset – it comes from a larger analysis.

Exercise IIIb: Draw a risk evaluation matrix with all identified risks.

	Likelihood		
Consequence	Seldom	Sometimes	Often
Minor		R7CM	
Moderate	R5CM, R6CM	R4CM	
Major	R2CM		

Phase IV: Evaluating risks

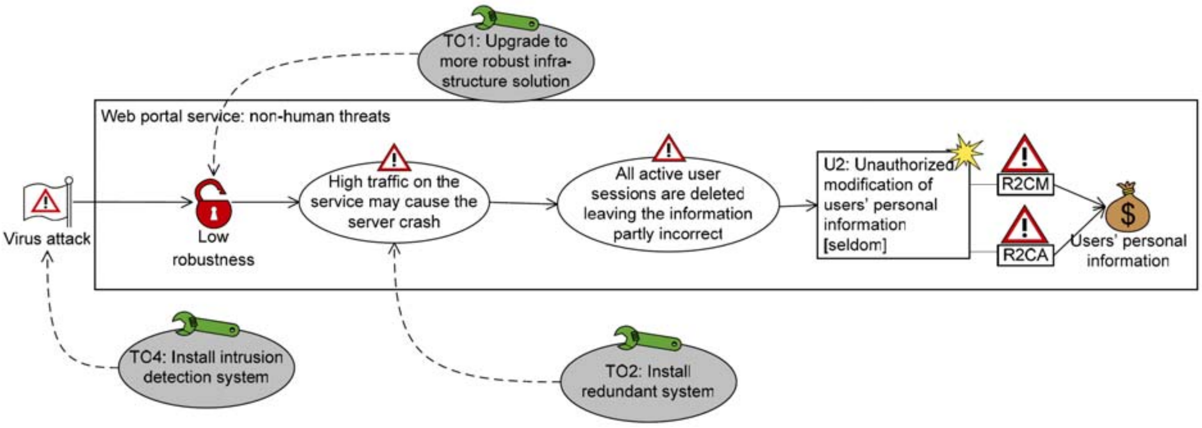
Exercise IVa: Draw a risk overview diagram showing whether risks are acceptable or not.



(We have chosen to draw only a single diagram due to the low number of risks.)

Phase V: Identifying treatments

Exercise Va: Draw a treatment diagram showing where these treatments have an effect.



Note: Ignore the risk R2CA – it comes from a larger analysis.