#### **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=0.4Contribution from D: (2/10)\*0.7=0.14

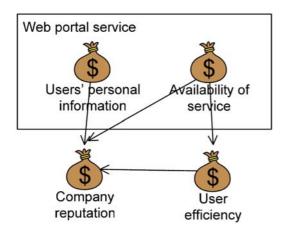
Minimum likelihood for U:

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.

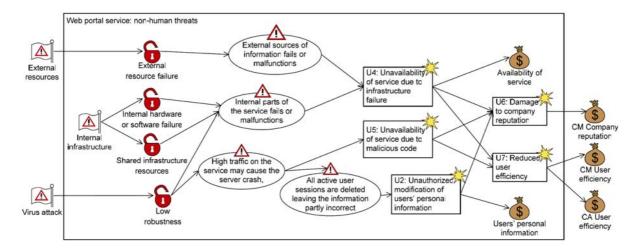


Exercise Ib: Draw a risk value matrix that uses the above scales for likelihood and consequence. (It is up to you to decide exactly how a consequence value and a risk value combines into a risk value.)

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

#### Phase II: Identifying risks

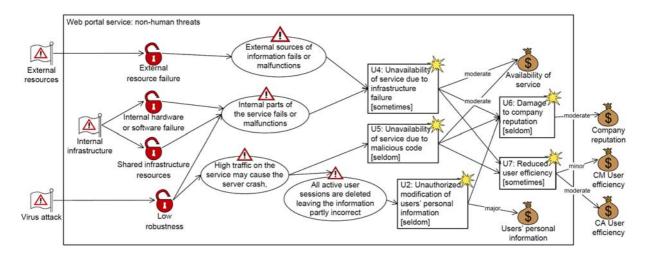
Exercise IIa: Draw a threat diagram for the information above.



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.



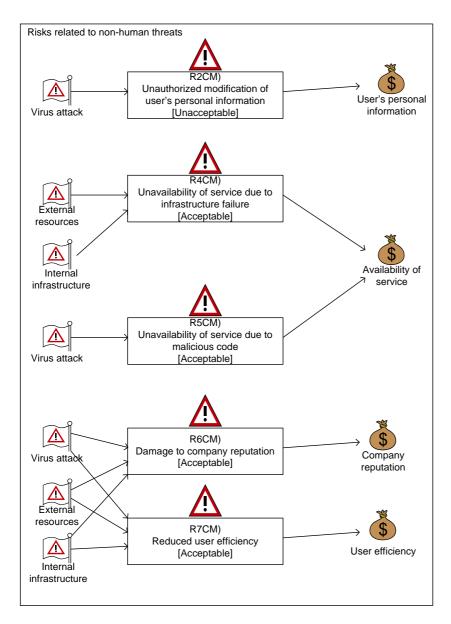
Note: Ignore the "CA User efficiency" asset – it comes from a larger analysis.

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

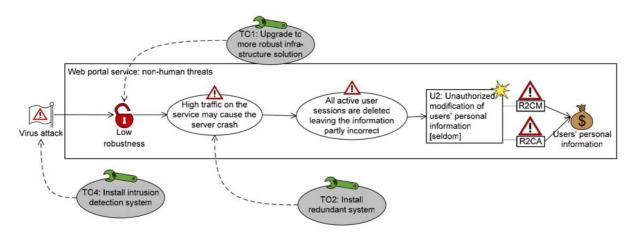
Exercise IVa: Draw a risk overview diagram showing whether risks are acceptable or not.



(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.