

The electronic health card, summer 2008

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6. Exercise sheet

Hand in solutions until Monday, 2 June 2008.

Exercise 6.1 (Requirements for the electronic health card). (6 points)

In class we studied several requirements for the electronic health card. In particular we saw different aspects of such a system which have to be taken into account.

- (i) Describe the difference of the aspects of information security and data protection. 3
- (ii) For some of the requirements which have to be met, we know cryptographic primitives that help to realize them. State at least one requirement for which you have an idea of how to realize it and two for which the realization is not evident at all. 3

Exercise 6.2 (Requirements for stored documents). (6+2 points)

Consider yourself going to, say, a dentist. While you are there many different documents are created, eg. an x-ray, and notes which tooth has been filled. We are now going to explore which kind of information has to be stored together with such documents.

- (i) Remember that the documents are sent to some central computing center. Which information has to be added to the document to ensure that one can easily find the document again, if one (say you or your second dentist [sometimes your standard dentist sends you to a specialized colleague]) looks for it? 2
- (ii) Which problems do you see concerning confidentiality and anonymity? 2
- (iii) Which consequences does the solution given in class have? Consider in particular cryptographic, organisational and person consequences. 2
- (iv) Consider alternatives and discuss. +2