Introduction to Modern Cryptography, Exercise # 12

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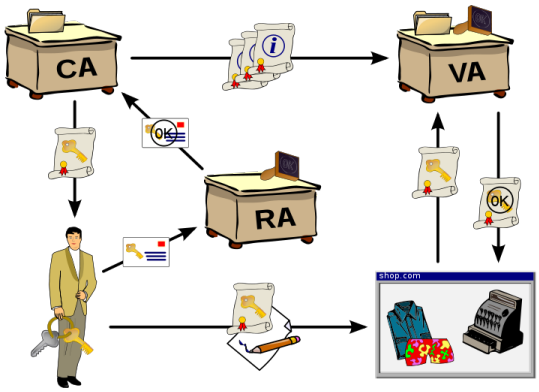
(to be handed in by Tuesday, 13 December 2011, 9:00. Due to next week's presentations, you get two weeks time.)

1. **(In-)Security of Textbook RSA Signatures for Weaker Security Notions:** Exercise 12.2 in [KL].
2. **Encoded RSA:** Exercise 12.4 in [KL].
3. **Public-Key Infrastructures:** Exercise 12.13 in [KL]
4. **Secure E-mail in Practice:** (This is a *bonus* exercise!) Send and receive PGP-encrypted e-mail. Start from `http://www.gnupg.org/` (GnuPG, includes links to Windows/Mac OS), look at `http://enigmail.mozdev.org/documentation/quickstart.php.html` (Thunderbird), or use whatever software makes sense for you.
   (a) There are several files in `http://homepages.cwi.nl/~schaffne/course/pgp-exercise/`. What can you tell us about these files?
   (b) Send an e-mail, encrypted and signed by your personal key, to both Joachim and Christian. Ideally, your public key should be on the public keyservers; if you don't want to upload it, please send it to us (in the same or a separate message.)



Public-Key Infrastructure
Image credit: `wikimedia.org`.