

## Notes for December 6, 1999

1. Greetings and Felicitations!
2. Puzzle of the Day
3. Practise: detecting writing
  - a. Integrity check files *à la* binaudit, tripwire; go through signature block
  - b. LOCUS approach: encipher program, decipher as you execute.
  - c. Co-processors: checksum each sequence of instructions, compute checksum as you go; on difference, complain
4. Network security
  - a. Main point: just like a system
5. Review of ISO model
6. Authentication protocols
  - a. Kerberos
7. PKI
  - a. Certificate-based key management
  - b. X.509 model, other models
8. PEM, PGP
  - a. Goals: confidentiality, authentication, integrity, non-repudiation (maybe)
  - b. Design goals: drop in (not change), works with any RFC 821-conformant MTA and any UA, and exchange messages without prior interaction
  - c. Use of Data Exchange Key, Interchange Key
  - d. Review of how to do confidentiality, authentication, integrity with public key IKs
  - e. Details: canonicalization, security services, printable encoding (PEM)
  - f. PGP v. PEM