Assignment 3: Analysis of Secure Cloud Sync
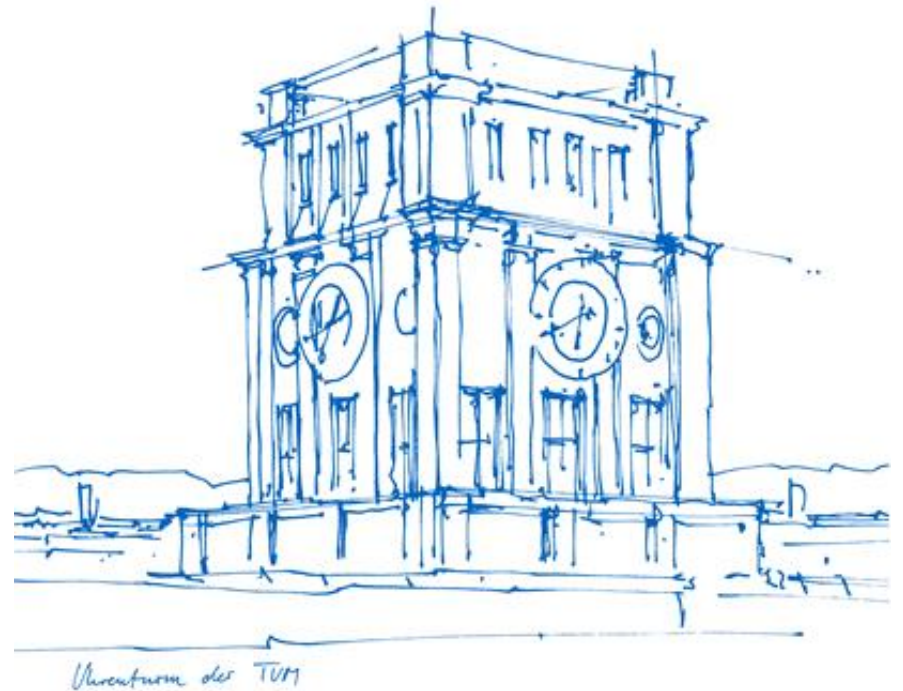
Analysis Aspects

1. Identify vulnerabilities in your protocol (theoretical analysis, no implementation)
   - Documentation pattern (example)
     - 1. Security objective   Integrity
     - 2. Vulnerability   Attacker modifies content during transmission (man-in-the-middle attack)
     - 3. Approach   md5, SHA-3

2. Scalability analysis of your protocol (practical analysis, implementation of evaluation)
   - For comparability, implementation of three predefined metrics
     - Perf file download time
     - Per file overhead: how many bytes to send for metadata besides payload
     - Setup time until first byte received (Time-to-first byte)

     - File sizes: 5 MB, 50 MB, 100 MB, 200 MB, 500 MB, 1 GB

Regulations

- Deadline for your protocol analysis 9th July 2018, 23:59:59

- Final assignment review on 10th July 2018
  - Prepare slides for 10 min.
  - Explain all steps from assignment 1 to assignment 3
    - Present in short your solutions for assignment 1 and 2
    - Spend more time to explain your findings for assignment 3