

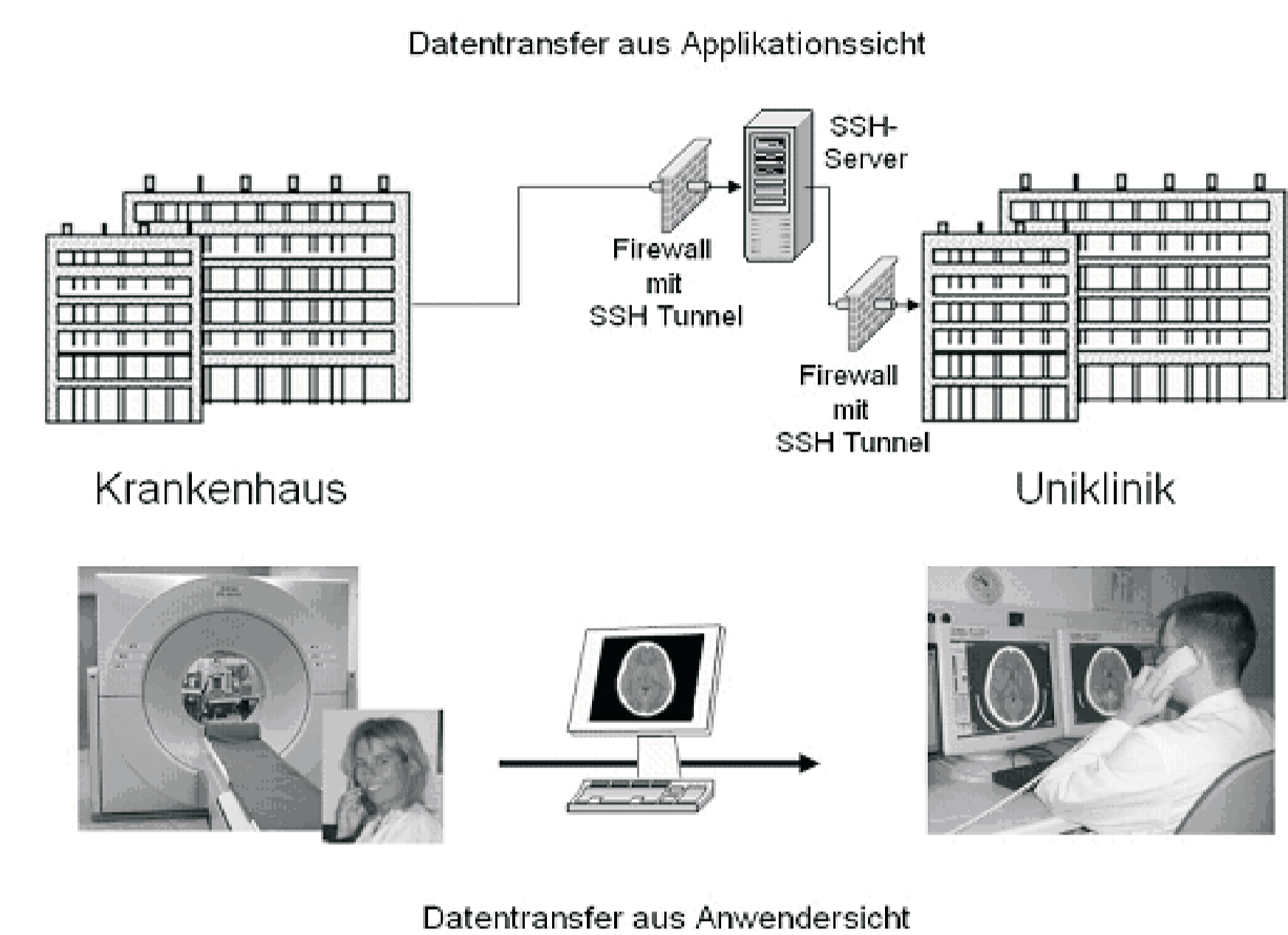
Teleradiologie according to German "Röntgenverordnung" - exemplary application of the Open Source Software "SecTelMed"

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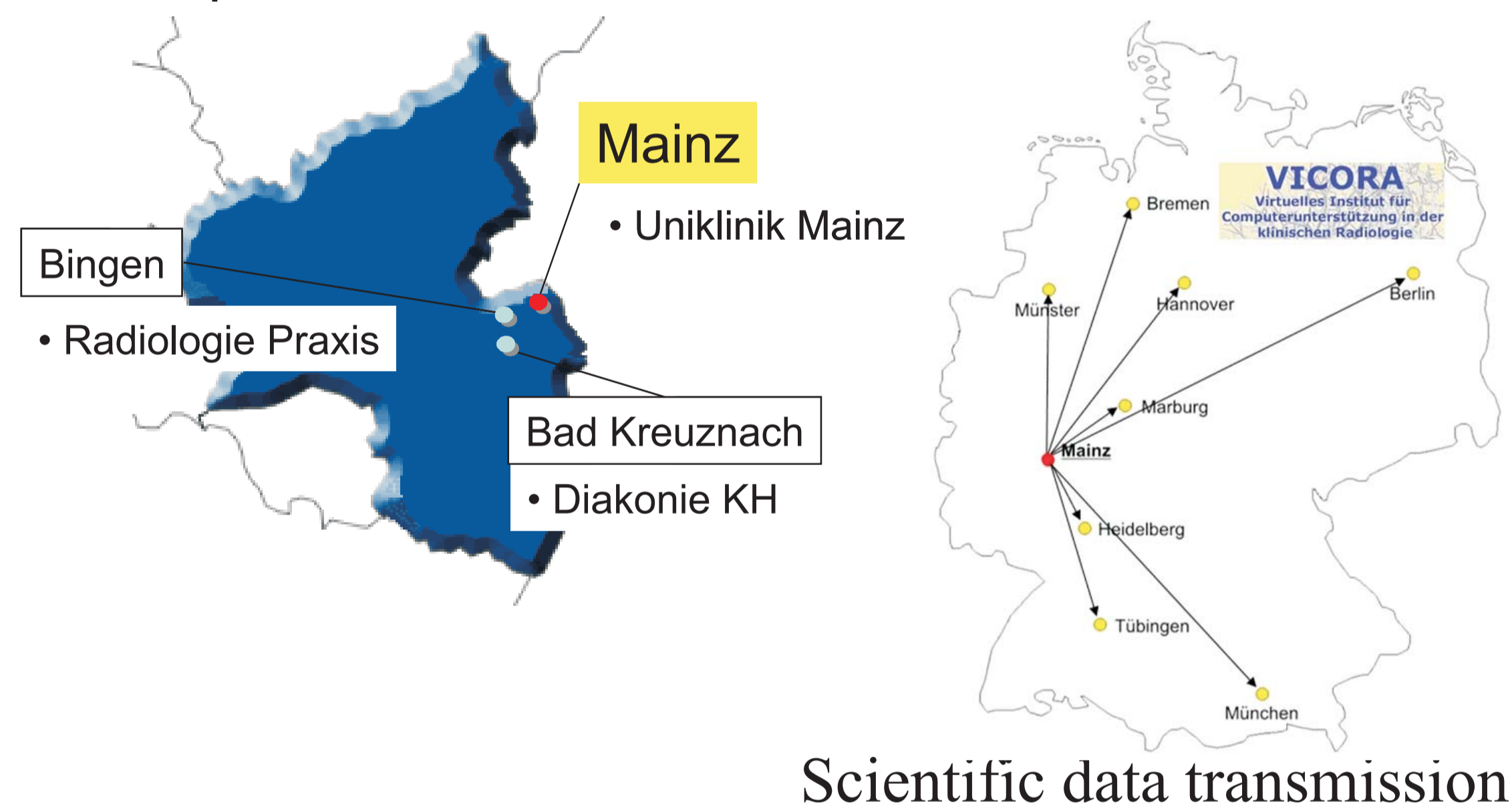
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Goals of this project

- Standardized and selective data interchange (Optimization of the patient supply)
- Integration into the available IT structures
- Consideration of safety advantages (Firewall and others)
- Fulfillment of the legal requirements (Protection of data privacy, RöV.)



Data transport in the clinical routine



Material and Method

- Dispatch of arbitrary data - use in daily routine and clinical research
- Near line connections
- Data interchange by means of SSH/SCP or e-mail servers
- Use of *Secure Tele-Medicine (SecTelMed)* as communication software:
 - Communication application for the data interchange via SSH/SCP and e-mail (@GIT e-mail standard)
 - "Wrapper program" for (standard) Open Source Software
 - OpenSSH / Putty
 - GnuPG
- Available as Open source license

Results

Cooperation with other hospitals

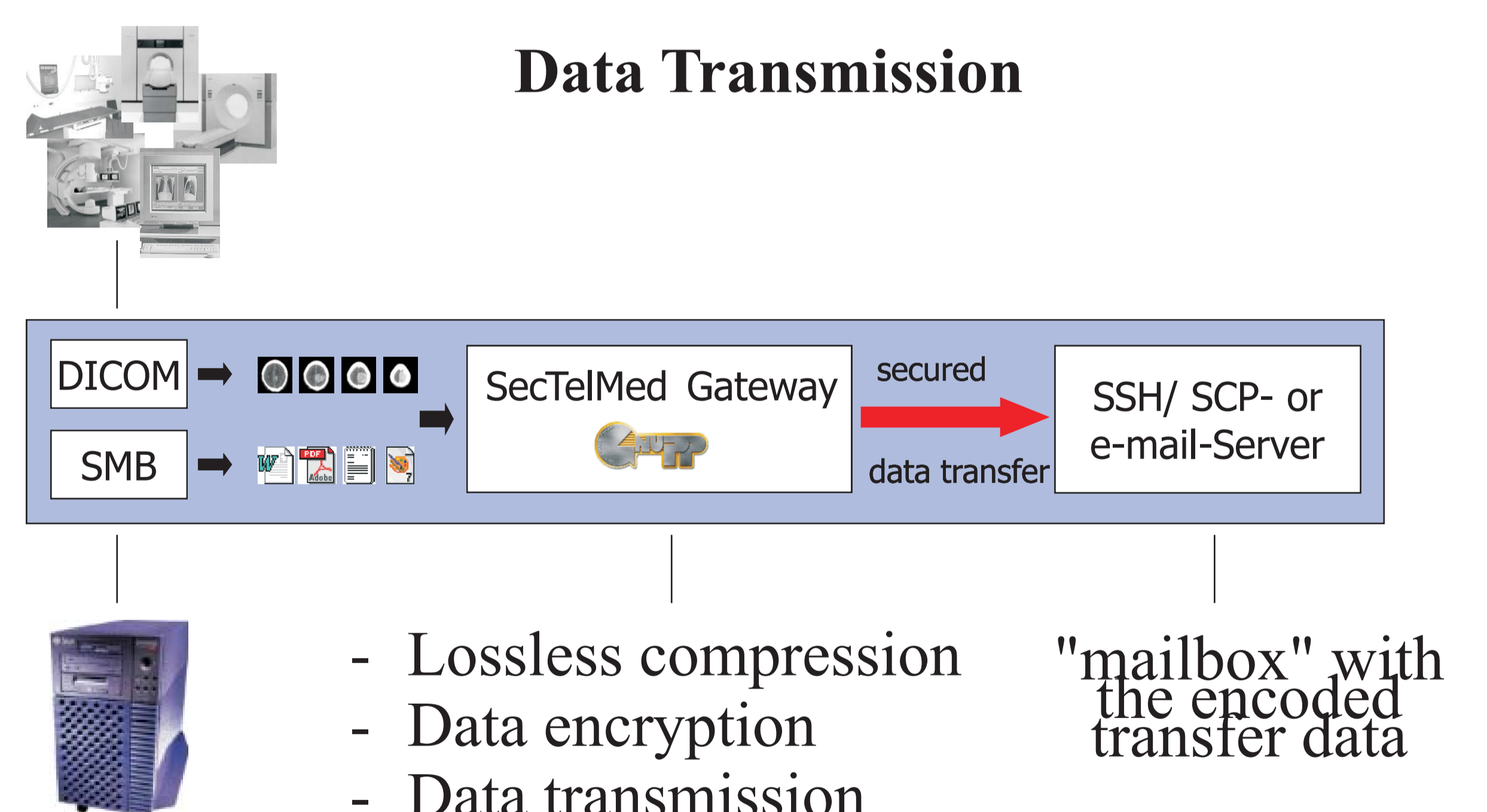
- Upload with 128 kb/s (ADSL 768/128)
- Upload CCT (30 pictures): 7,5 - 12 min
- Upload abdomen (200 images): 50 - 80 min
- 98% availability

Communication with medical practitioner

- Upload with 1.5 MB/s (leased line)
- Within 3 months upload of approx. 3.8 GB of compressed data:
 - 1/3 consultation (medical practitioner),
 - 1/3 pre-studies,
 - 1/3 consultation (Hospital)

Scientific data interchange

- Possibility for the automatic anonymization of patient data
- Simple integration into the scientific workflow
- Adjustment of the software in keeping with requirement
- Straightforward conveyance of different data formats



Conclusion

- Telemedicine can be realized with simplest means.
- Open source is reliably usable software for telemedicine.
- The compliance with the legal framework conditions is possible without problems.
- SecTelMed is usable as a flexible Open source telemedicine solution which covers a wide range of telemedical applications.

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