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Research interests:

- Systems security / distributed systems architecture
- Authorization systems, trust models
- Medical processes & applications
- Patient/doctor (privacy) preferences
- Research data: anonymization and management
- Background: distributed systems security / architecture (PhD Vrije Universiteit Amsterdam, mobile agent systems)



# whitebox

A novel healthcare communication system,  
with distributed **discretionary** access control

UvA spin-off  
*Whitebox Systems*  
[www.whitebox-systems.com](http://www.whitebox-systems.com)





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MD-controlled authorization to medical records,  
using a box in the doctor's office:

- End-user controllable authorization

**Pharmacy**

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- Explicit authorization..
- And workflow-based authorization
- End-to-end security
- No external data storage or hidden data flows
- Scale around patient & limit attack surface

... So the doctor can uphold his Hippocratic promise...



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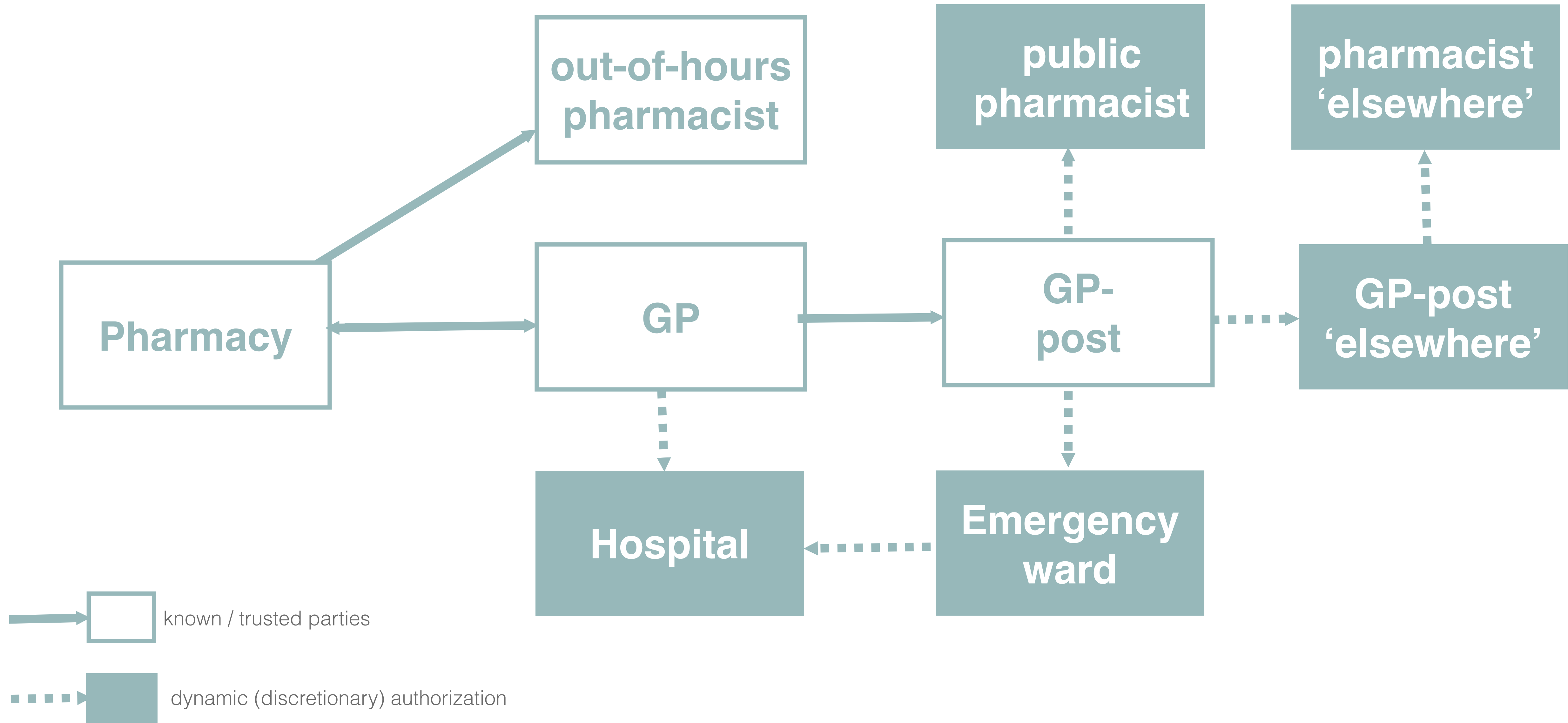
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## Possible flows of authorisation

whitebox



All authorisations are tractable at the source (i.e., by the responsible party)

# current (whitebox-related) research

- ‘push authorization’ model and use cases (patient control, physician control and hybrid control)
  - security, authorization, privacy
- A minimal “patient summary”
  - legal/privacy requirements, (clinical) usability
- Privacy perceptions on health information exchange systems and professional secrecy, among patients and doctors
  - sociology
- Systems work, e.g., on Linux-based reproducible build systems
  - systems security