Delay-tolerant Distributed Downloads Using Haggle

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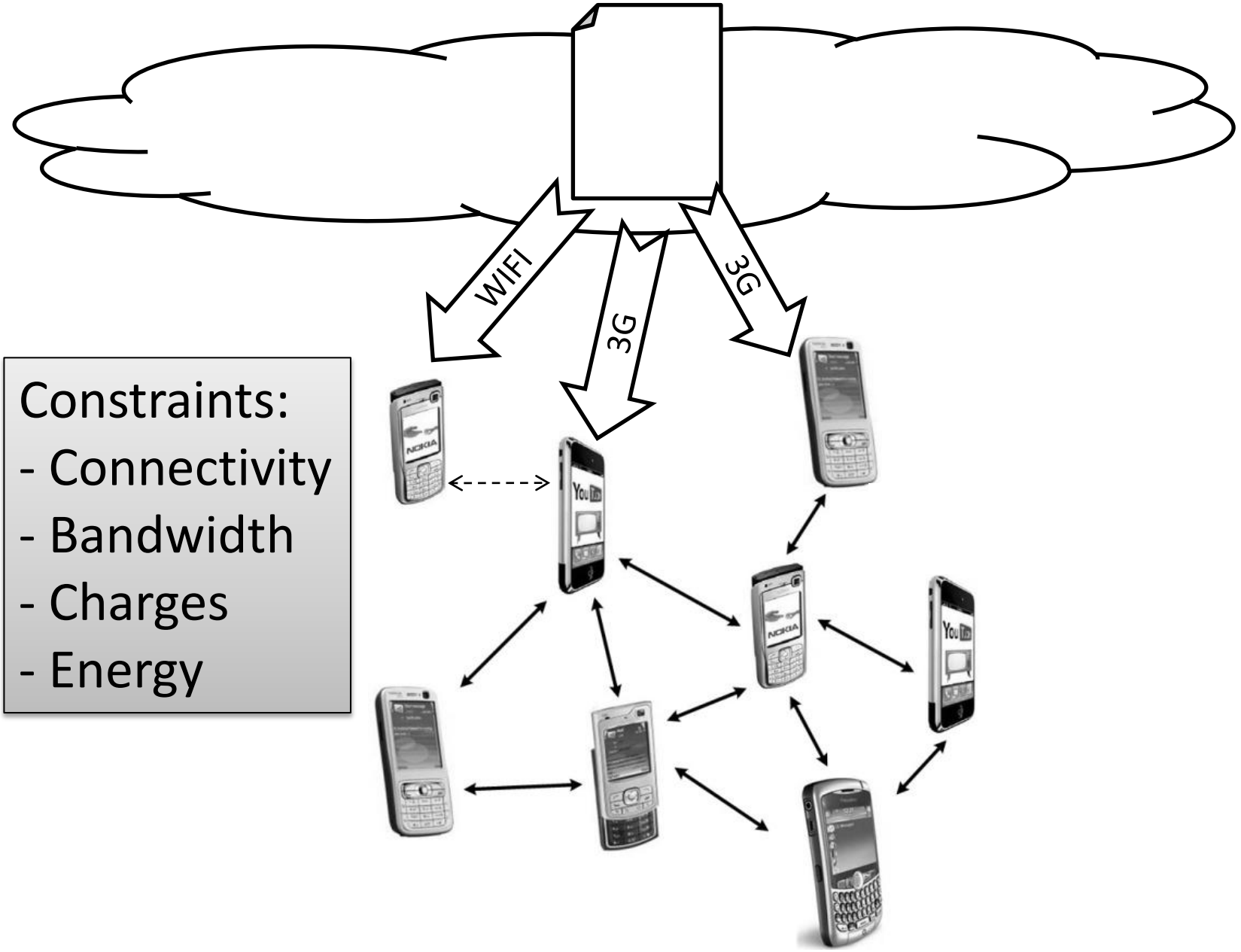
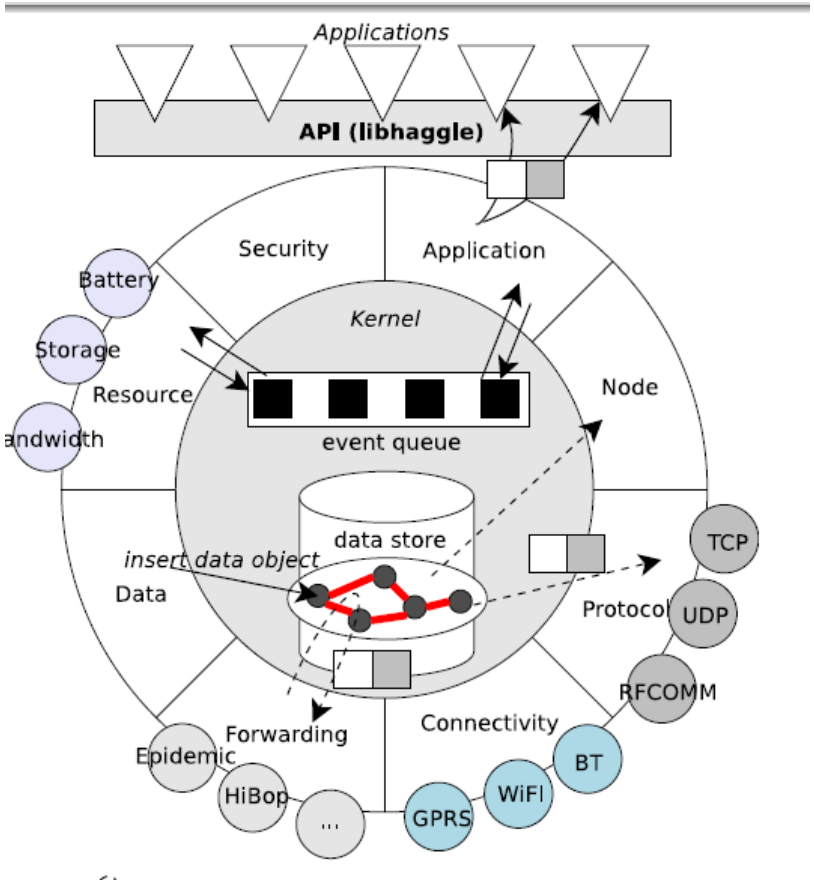

WIFI
3G
3G
Constraints:
- Connectivity
- Bandwidth
- Charges
- Energy

Application Structure



- Application layer:
  - Requestor (subscriber)
  - Retriever (publisher)
- Segmentation scheme, protocol to avoid re-download
- Constraint management through other modules (e.g. resource manager for battery life)

Plan of Attack

- Implement on Android 2.1 and desktop platform
- Allow customisable segmentation scheme
- Evaluation:
  - Test various use cases such as delegated download, distributed multicast, disruption tolerant download
  - Test platform interoperability
  - Possible use simulation workbench to test on a higher scale

- Current status:
  - Still implementing Android functionality
- Issues
  - Temperamental runtime engine on Android
  - Lack of devices to test with at present
- Possible extensions:
  - Authentication / integrity checking / error correction
  - Dynamic segmentation, locking schemes