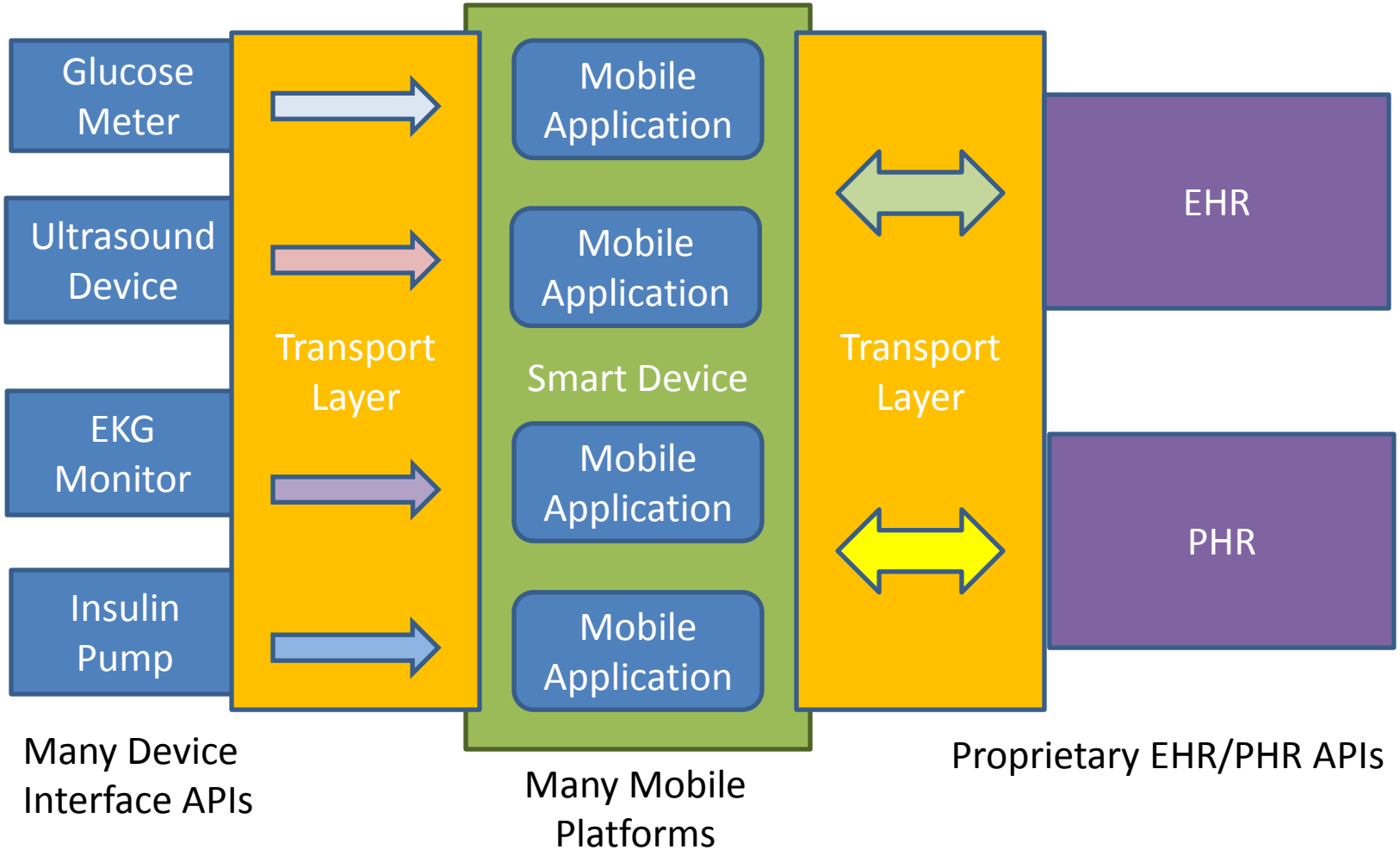
FHIRframe

Mobile Data Interoperability

Introduction

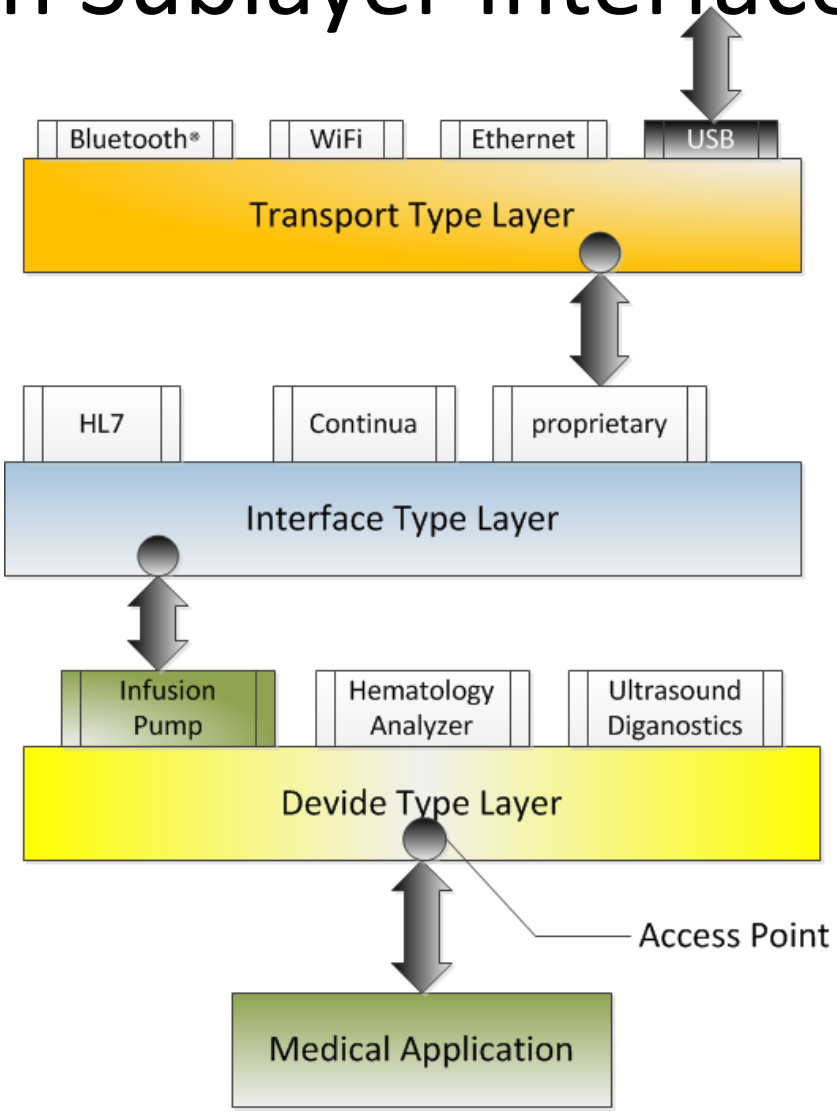
- Identify
  - Current Healthcare Device APIs
  - Current EHR/PHR APIs
  - Support multiple mobile platforms
  - Data Interface interoperability gap
- Can common APIs combined with FHIR resources simplify data exchange?

Current State Mobile Health APIs

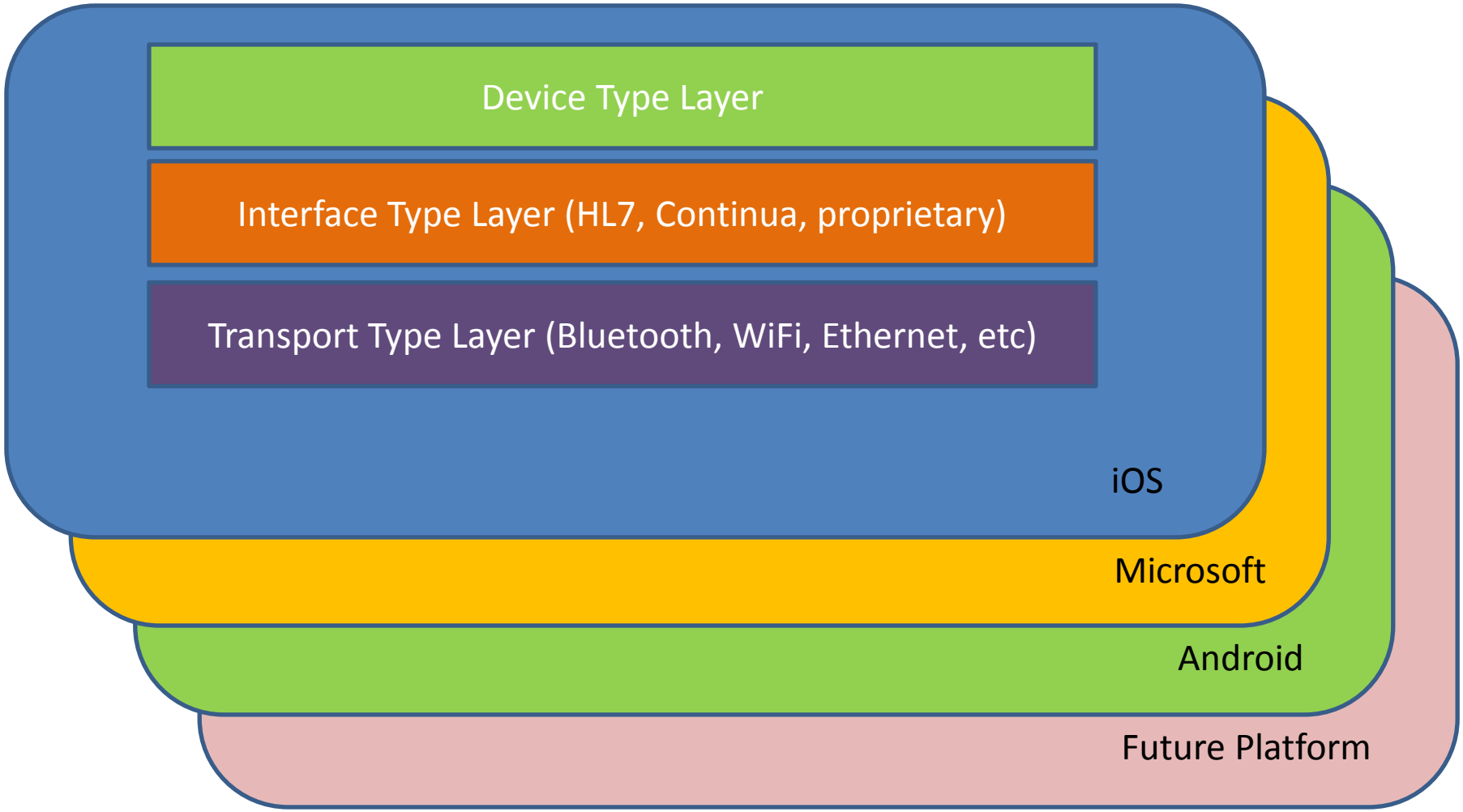


Device Translation Sublayer Interfaces

Illustrating a *Medical Infusion Pump application* interfacing over a *proprietary* interface connected to a Medical Infusion Pump machine over a *USB* connection.



Device APIs Across Platforms



Use Cases

- Health Application
- Medical Device
- Wearable Device
- Server Side Medical Data Repository

API Concepts

- Functional Calls
  - API calls
  - Call back functions
  - Transactions
- Layered Architecture
  - Layering facilitates loose coupling from proprietary technology

FHIR Argonaut Project

The purpose of the Argonaut Project is to develop a first-generation API and Core Data Services specification to enable expanded information sharing for electronic health records, documents, and other health information based on the FHIR specification.

Conclusion

- Identify current data APIs and gaps in data interoperability between healthcare devices, mobile application development and EHR/PHR systems.
- Consider new HL7 FHIR resources to promote standardize APIs for mobile application development.