ITU-T Kaleidoscope Conference
Innovations in NGN

Open API Standardisation for the NGN Platform

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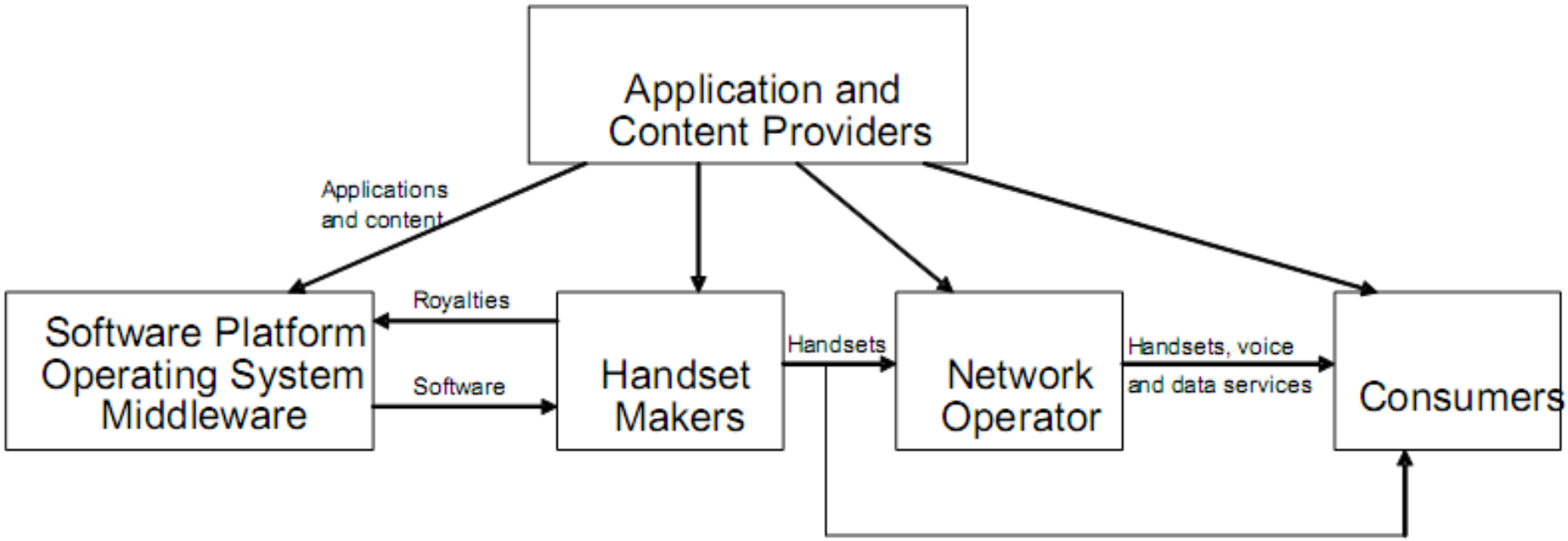
Introduction

- Platform Economics & Open APIs
- De-facto APIs and the NGN platform
- Future of Open APIs
  - Evolution of standards bodies to cope with new challenges for creating Open APIs

Platform Economics and the NGN

- Platforms bring together distinct groups of customers
  - API on an OS brings together developers, OS and hardware vendors
- Attractive APIs mean more end-users
- Quality of Open APIs will define the success/failure of NGN platform
- Unattractive or no APIs will force developers to other platforms and communities

NGN Platform Economics



Source: Invisible Engines, MIT Press, 2007

Existing Open APIs in NGN Standards

- Three main models:
  - Web Services; Parlay-X exposing IMS, Circuit Switched (CS) and Packet Switched (PS) networks
  - Java APIs; expose SIP/IMS capabilities
  - OMA enablers

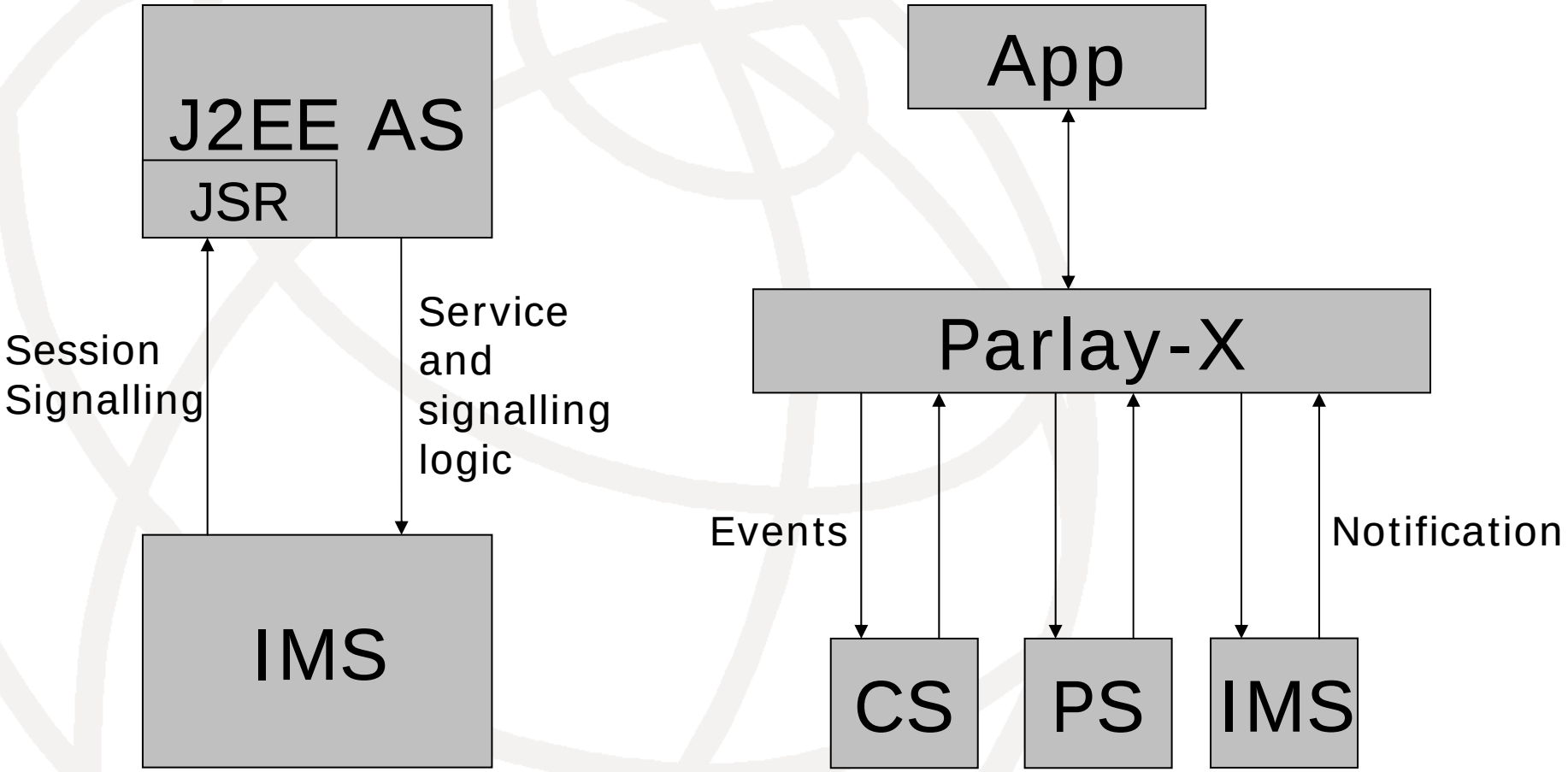
Java Specification Requests

- Java community has provided Service level APIs to developers
  - JSR 281 IMS Services API (JME) (Q3 2005 – Q2 2008)
  - JSR 289 SIP Servlet v1.1 (January 2006 – Jan 2008)
  - JSR 325 (JME)
- IMS-only, Java developers only

Parlay-X

- Until recently, standardised within joint WG between 3GPP, Parlay, TISPAN
- Affiliated with OMA in Q1 2008
- APIs are an abstraction of underlying network technologies
- Compatible with WS Basic Profile
- 22 APIs, provided royalty free
- Very limited functionality and control for the developer

Open APIs Comparison



OMA

- Aim: “to facilitate global user adoption of mobile data services by specifying market driven mobile service enablers”
  - OMA OWSER
  - PAG
  - BCAST
  - …
- BUT… no APIs for developers to build applications on top of the enablers

Traditional NGN Standardisation Method

What about IOP/IOT?

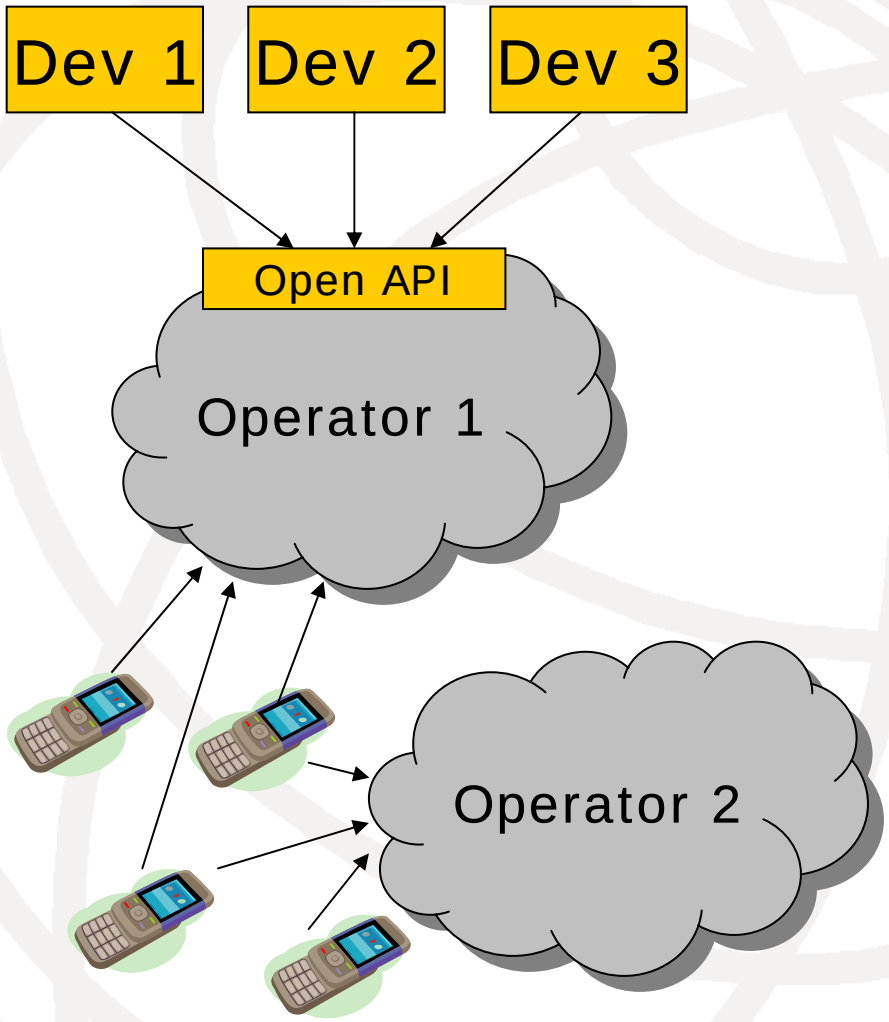
Traditional NGN Standardisation Issues

- Designed for Radio and Core Network standardisation, interfaces for:
  - Terminal -> Base Station
  - Terminal -> BSC / RNC
  - Terminal -> MSC/SGSN
  - Terminal -> IMS Core
- These interfaces are fully standardised, including IOT specifications, ensuring a true global multi-vendor environment

Traditional NGN Standardisation Issues – Open APIs

- Open APIs are currently forced to use same standardisation methodology as Core and Radio network
  - Does not reflect the reality of developer needs and slows the process down
- Open APIs are built on top of the standardised solutions, e.g. MMTel
  - No need for IOT testing, limited need for IOP when compared to terminal to radio or core network requirements

Traditional NGN Standardisation Issues – Open APIs

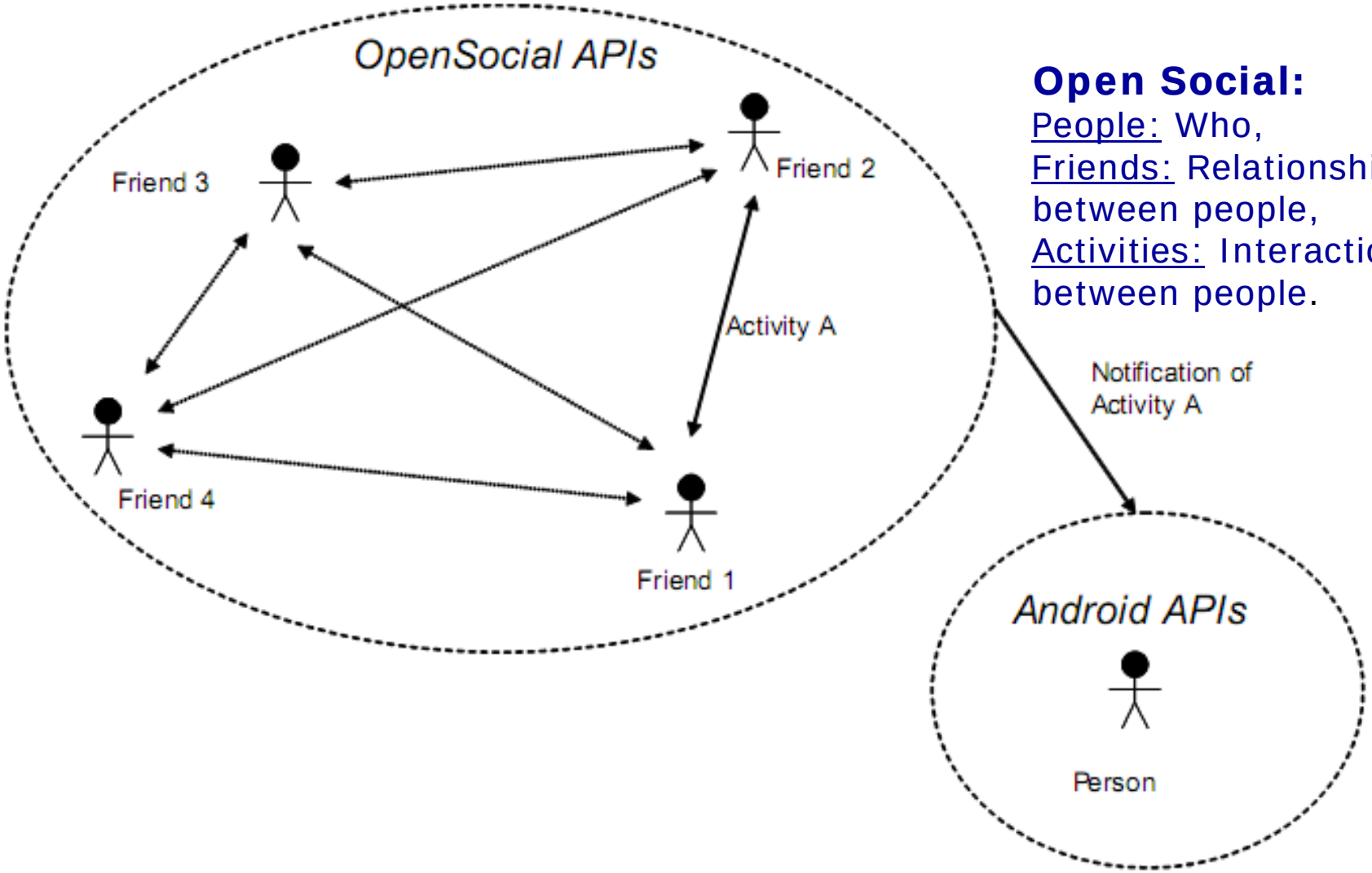


- True multi-vendor environment and standardisation is not required for Open APIs
  - Interface between entity offering API and entity consuming the API
- Vacuum for APIs being filled by de-facto standards

De-Facto APIs and the NGN Platform

- Google have created two main “de-facto standards”
  - Google Open Social
  - Google Android
- Google aim at capturing a significant developer community
  - Don’t create a perfect API, they create a good one FAST

Open Social and Android

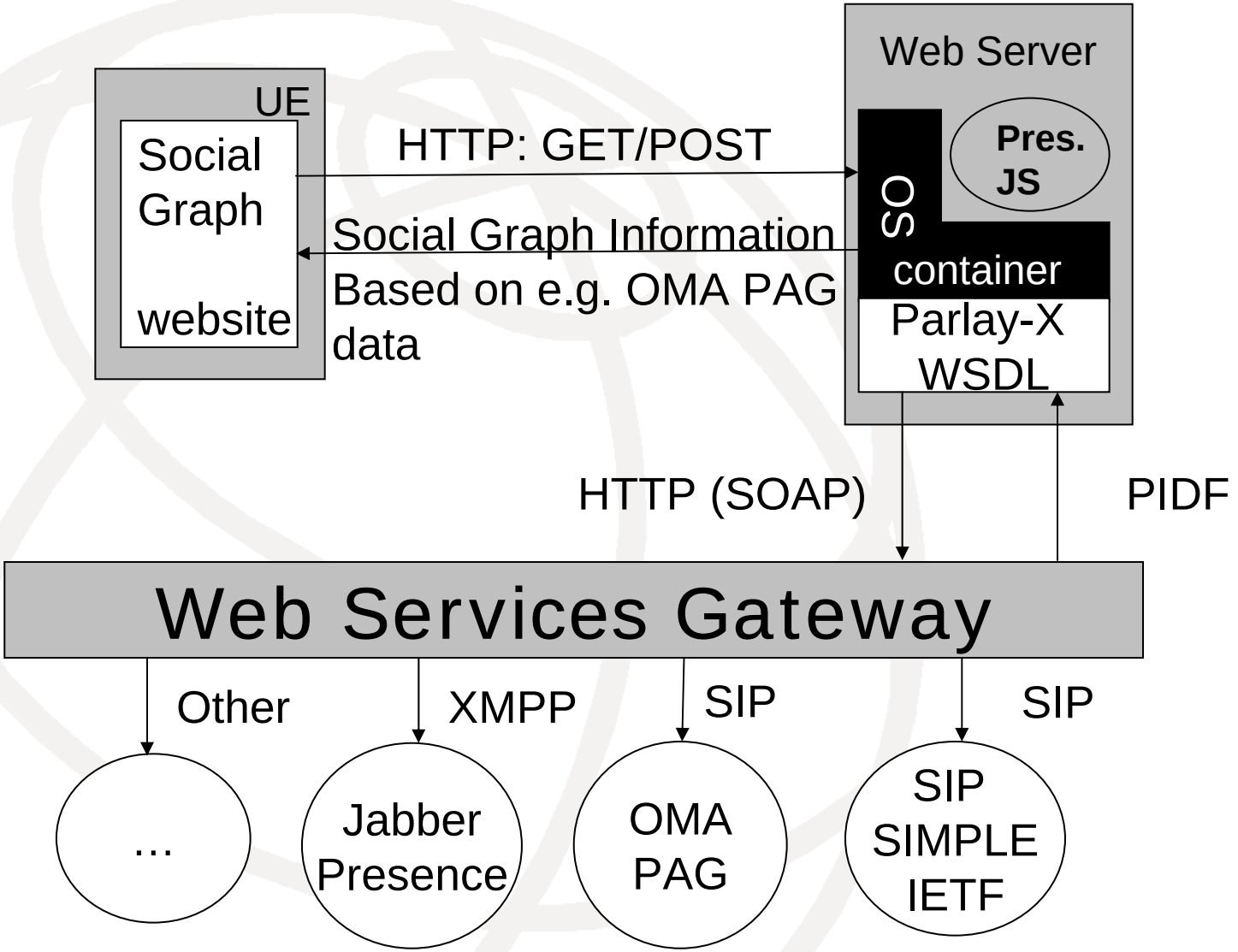


Open Social:
People: Who,
Friends: Relationships between people,
Activities: Interactions between people.

Open Social and Android

- APIs are data driven
  - Developers can pull data from different sources
- Open Social and Android do yet not provide APIs for SIP, IMS or any other NGN enablers
  - Developer community will be established around platforms other than NGN

Open Social using NGN Open APIs



What NGN Standards Bodies can learn from Google

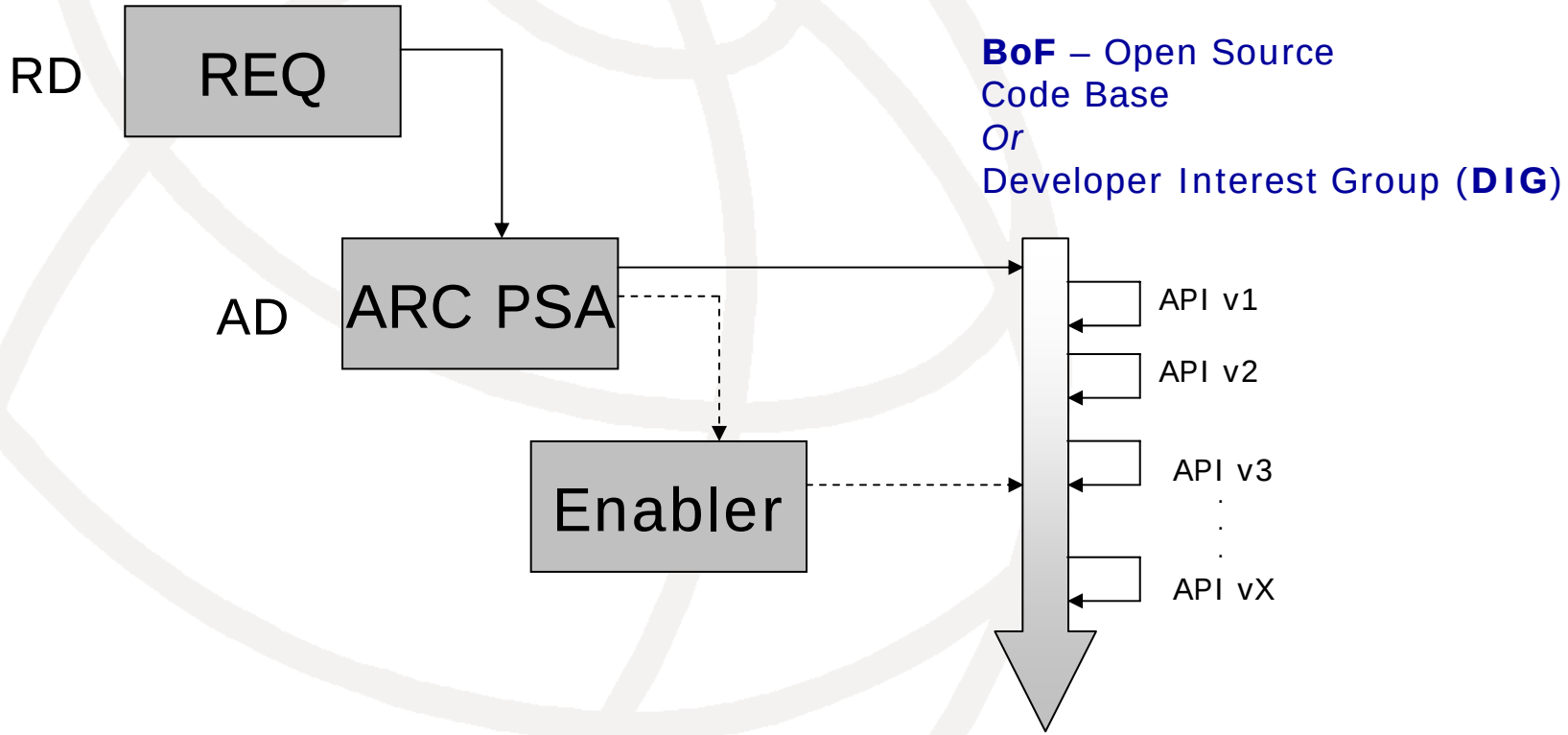
- Speed is valued much more than perfection first time
- API development must produce running code to be taken seriously
- APIs can be developed in parallel with stage 2 and stage 3
- Developers want input into APIs; Open Source methods are the way forward

Evolving NGN Standardisation Bodies

- Google gains much from the “Open Source” / “de-facto” standard moniker
  - In fact, they are less open in some respects than traditional standardisation bodies
- Traditional “Telecom” standardisation has much to offer, however:
  - Emerging value chain for converged communications creates new challenges
  - Need to embrace Open Source / de-facto standardisation methods

Evolving Open API Standardisation

- Example: Evolving OMA to use open source methods for Enabler Open APIs



The Future of Open APIs

- Embracing de-facto standardisation methods for APIs in standard bodies implies evolution in:
  - IPR rules in NGN standards bodies
  - Business Models: Operators/Vendors need to move towards “Big Table” for telecom
  - Greater permeability of R&D and standardisation units in companies
  - Competence of participants in standards bodies

Thank-you

Questions?