

# Business, IT and the pursuit of APIness



Excellence prospers in the absence of excuses.  
- Lorii Myers



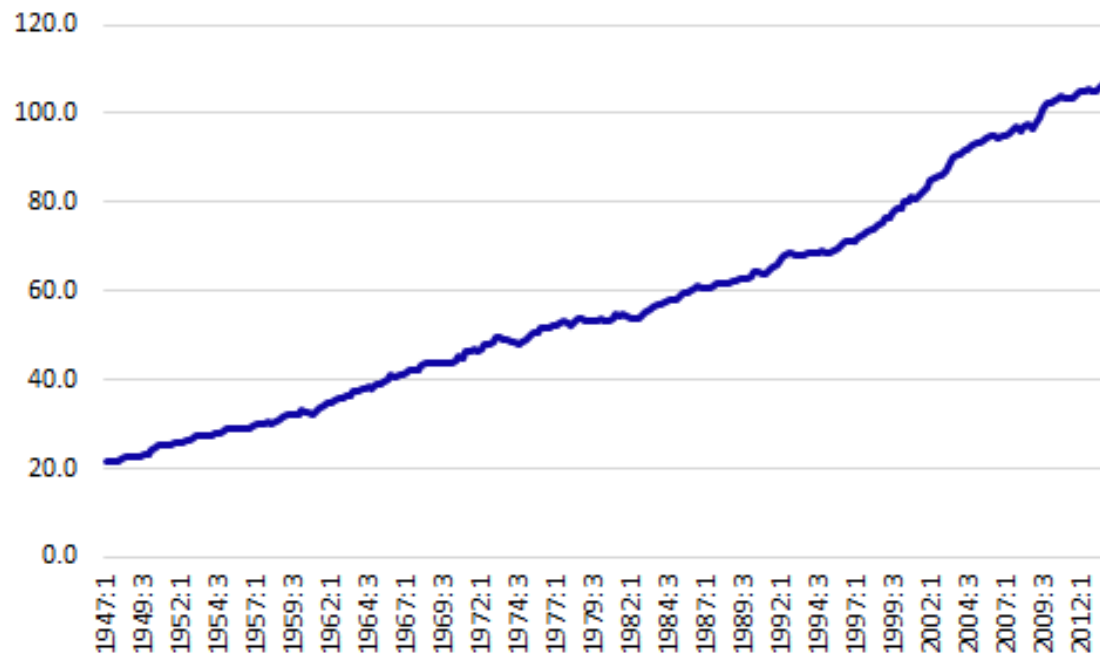
```
curl -v -i -X GET http://quotes.rest/qod.json?category=inspire
```

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{
  "success": {
    "total": 1
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  "contents": {
    "quotes": [
      {
        "quote": "Excellence prospers in the absence of excuses.",
        "length": "46",
        "author": "Lorii Myers",
        "tags": [
          "excellence",
          "excuse",
          "inspire",
          "self-improvement"
        ],
        "category": "inspire",
        "date": "2016-05-17",
        "title": "Inspiring Quote of the day",
        "background": "https://theysaidso.com/img/bgs/man_on_the_mountain.jpg",
        "id": "Gh0YN82TDj2MB_42U8dQLAeF"
      }
    ]
  }
}
```

# Where's the revolution?

**Labor productivity in the business sector, first quarter 1947–fourth quarter 2013**

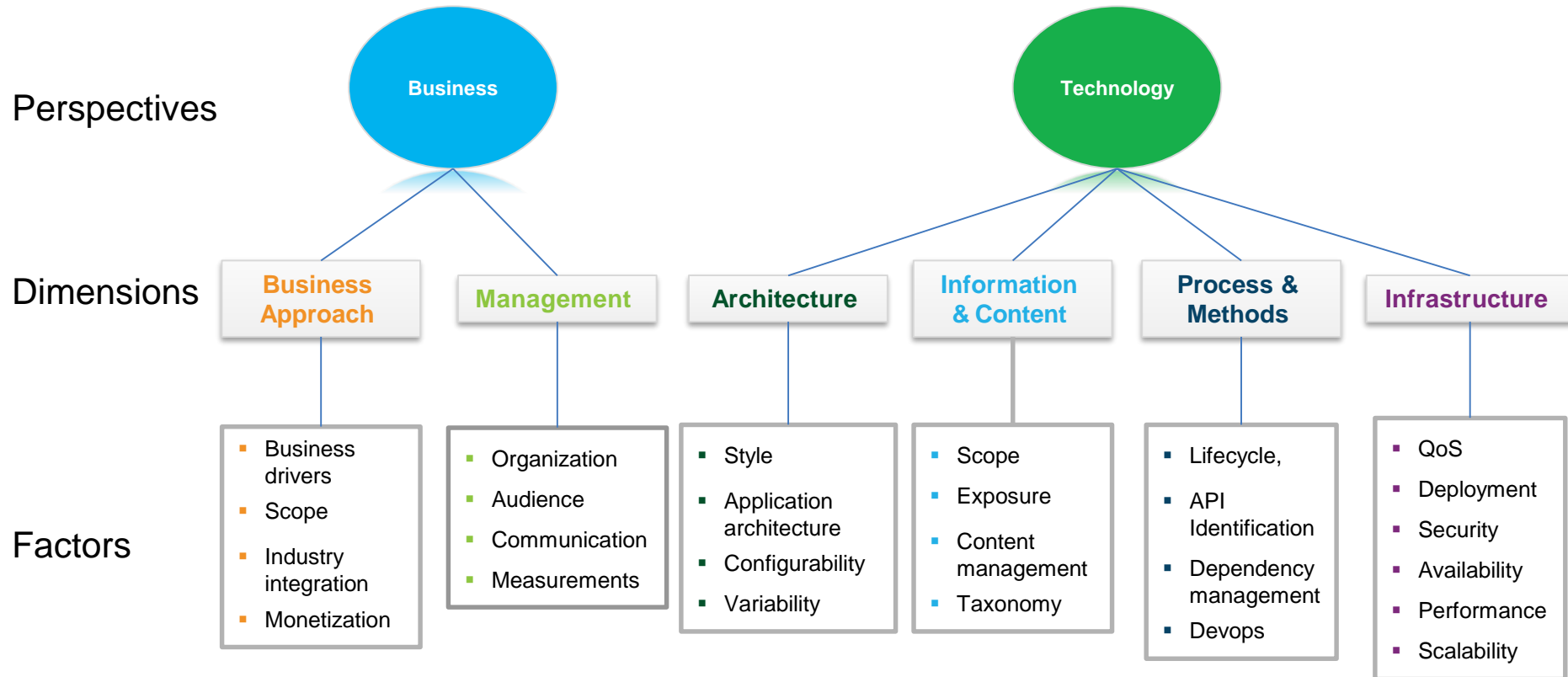
Index (2009 = 100)



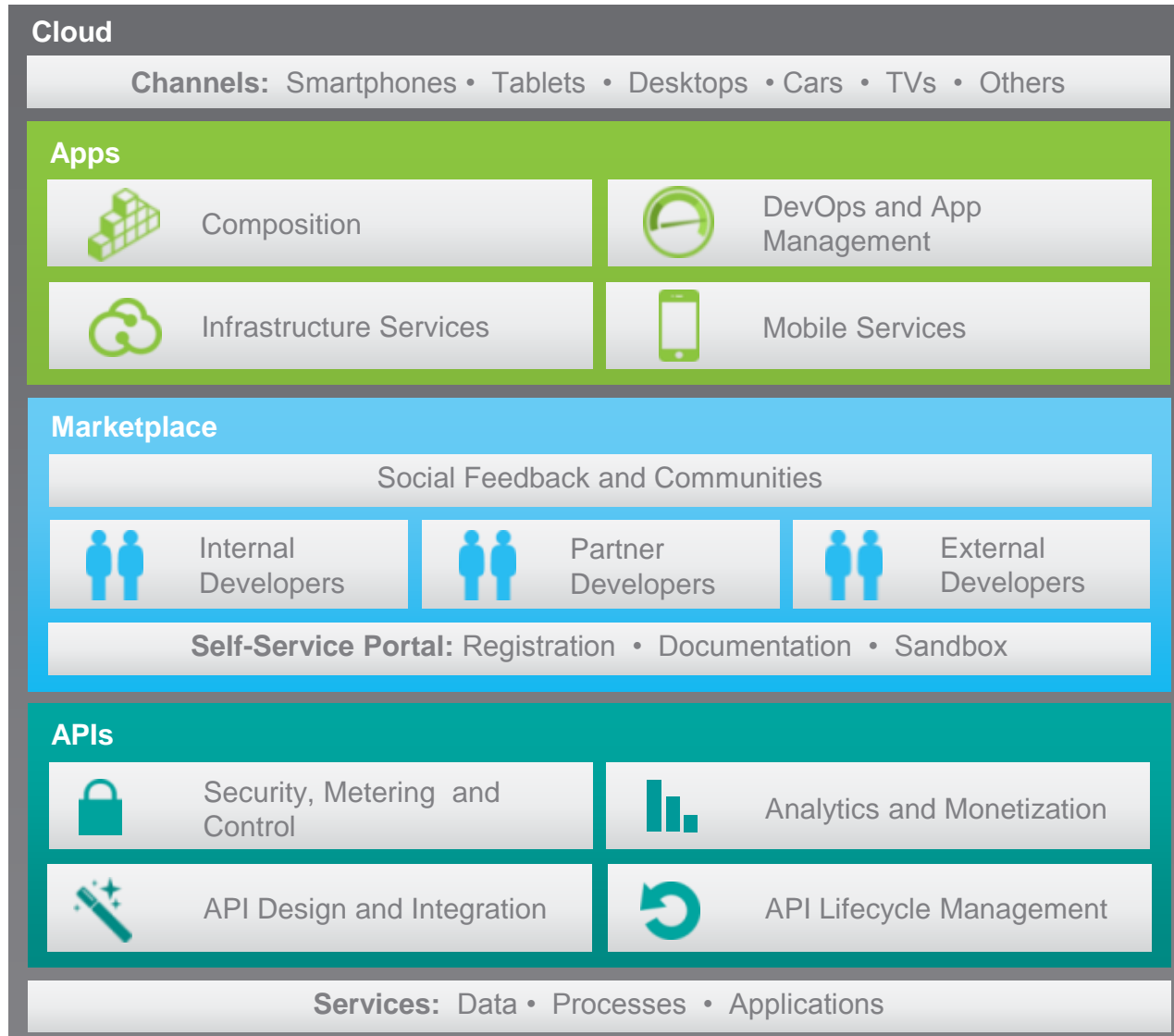
Source: U.S. Bureau of Labor Statistics.



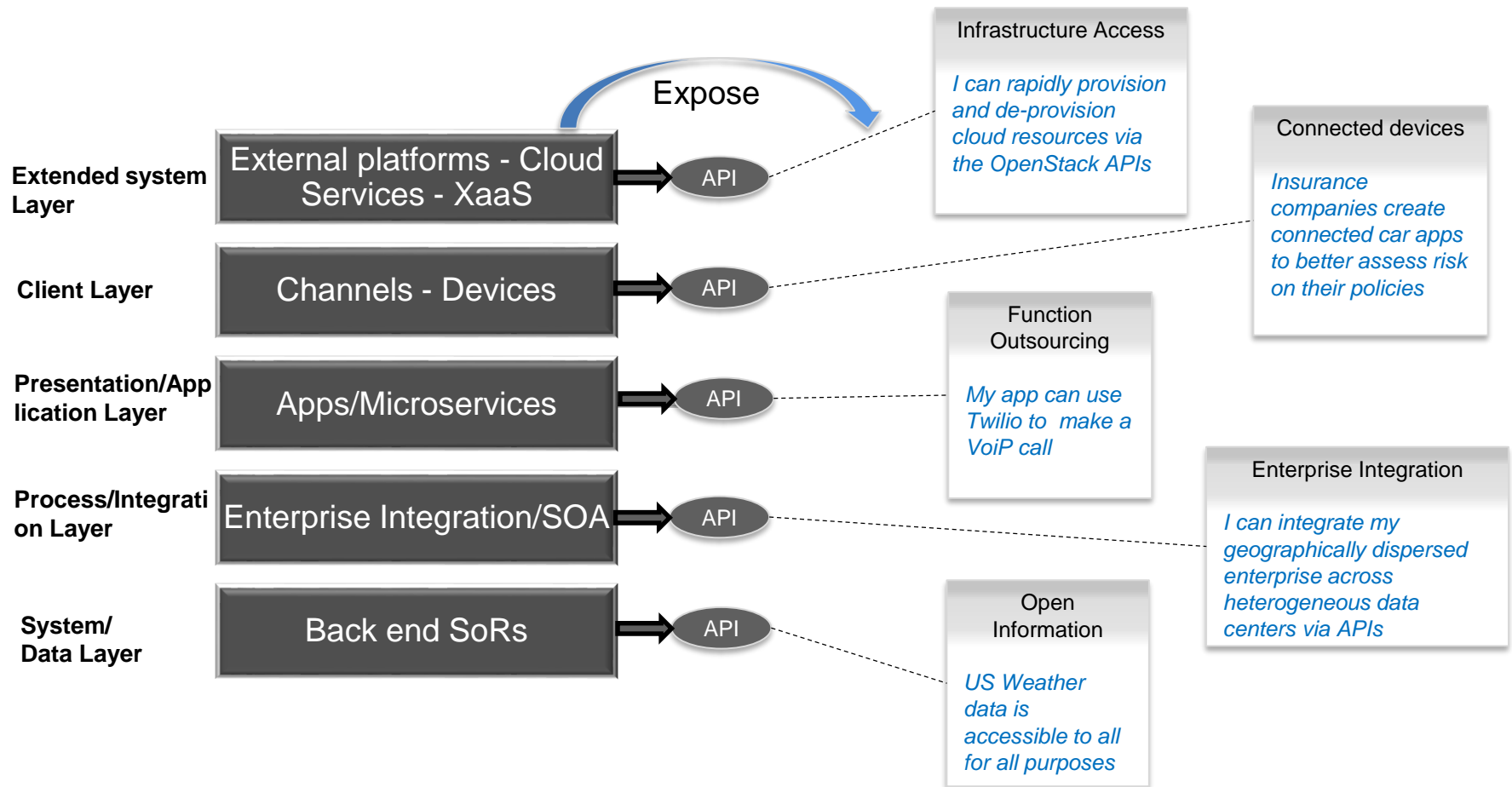
# Perspectives, Dimensions and Factors



# A successful API initiative requires end-to-end focus

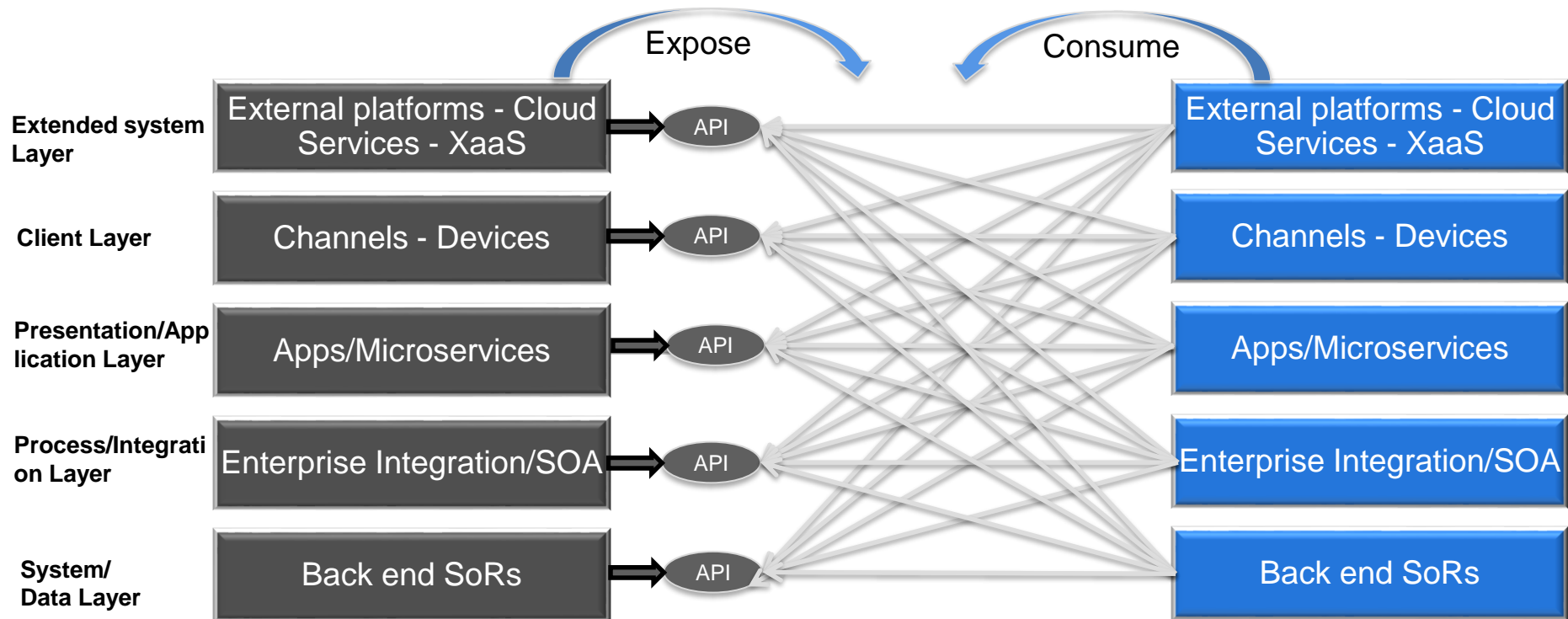


# APIs are exposed from all architectural layers





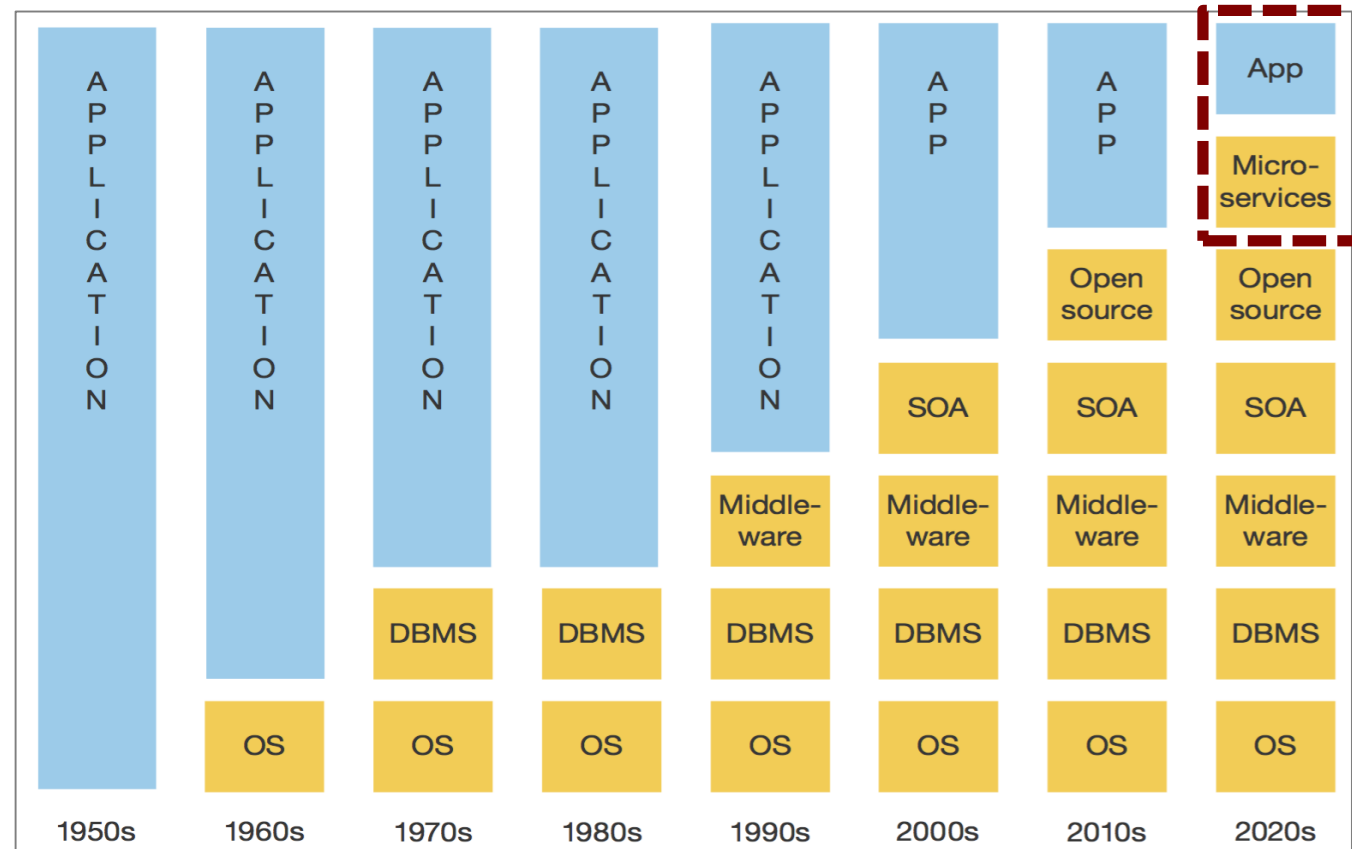
# APIs are exposed AND consumed at all architectural layers



*Defocus on stacks and hierarchy due to API atomicity and granularity*

# Evolution of Application Architecture for Digital Business

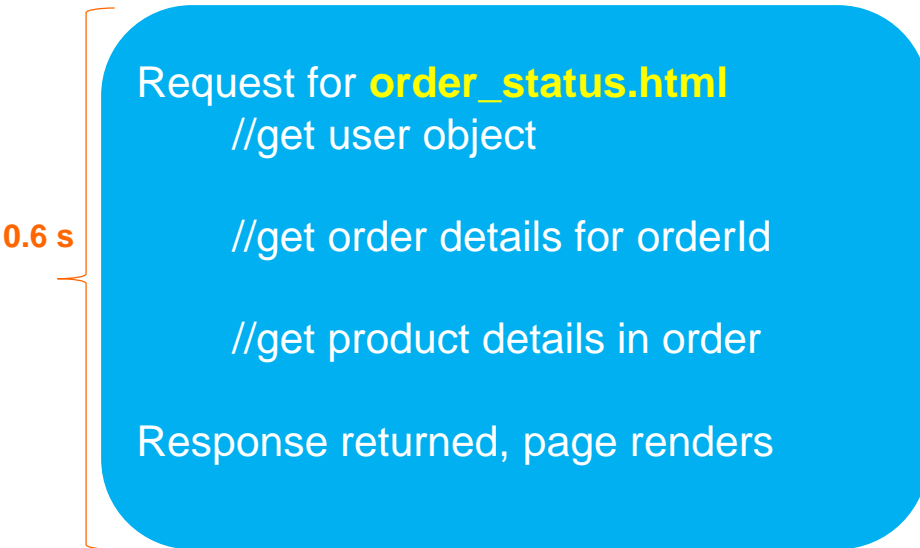
**An evolving 4<sup>th</sup> tier** for  
Modern Digital  
Applications driven by  
APIs and Microservices



Source: Forrester; Application Modernization, Service By Microservice; Nov 2015

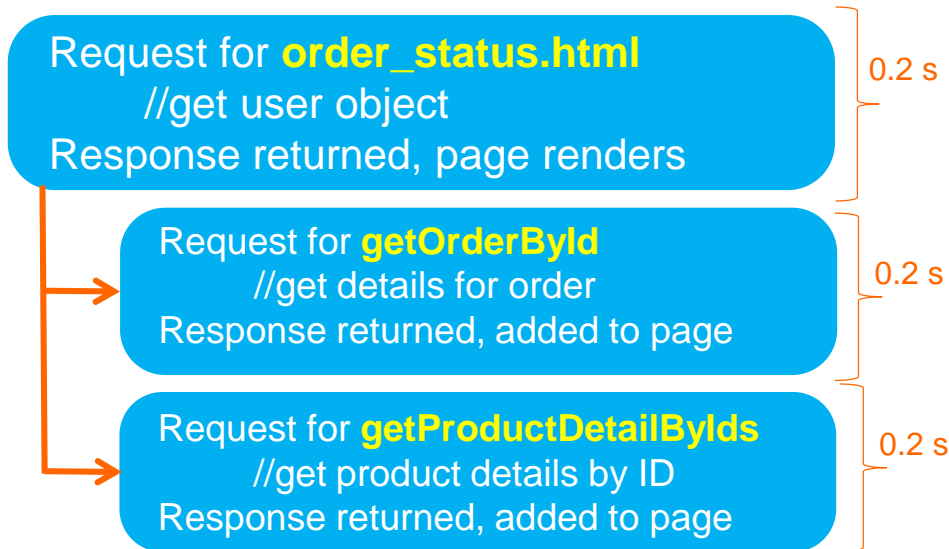
# Microservice Architecture

## The old way: monolithic app



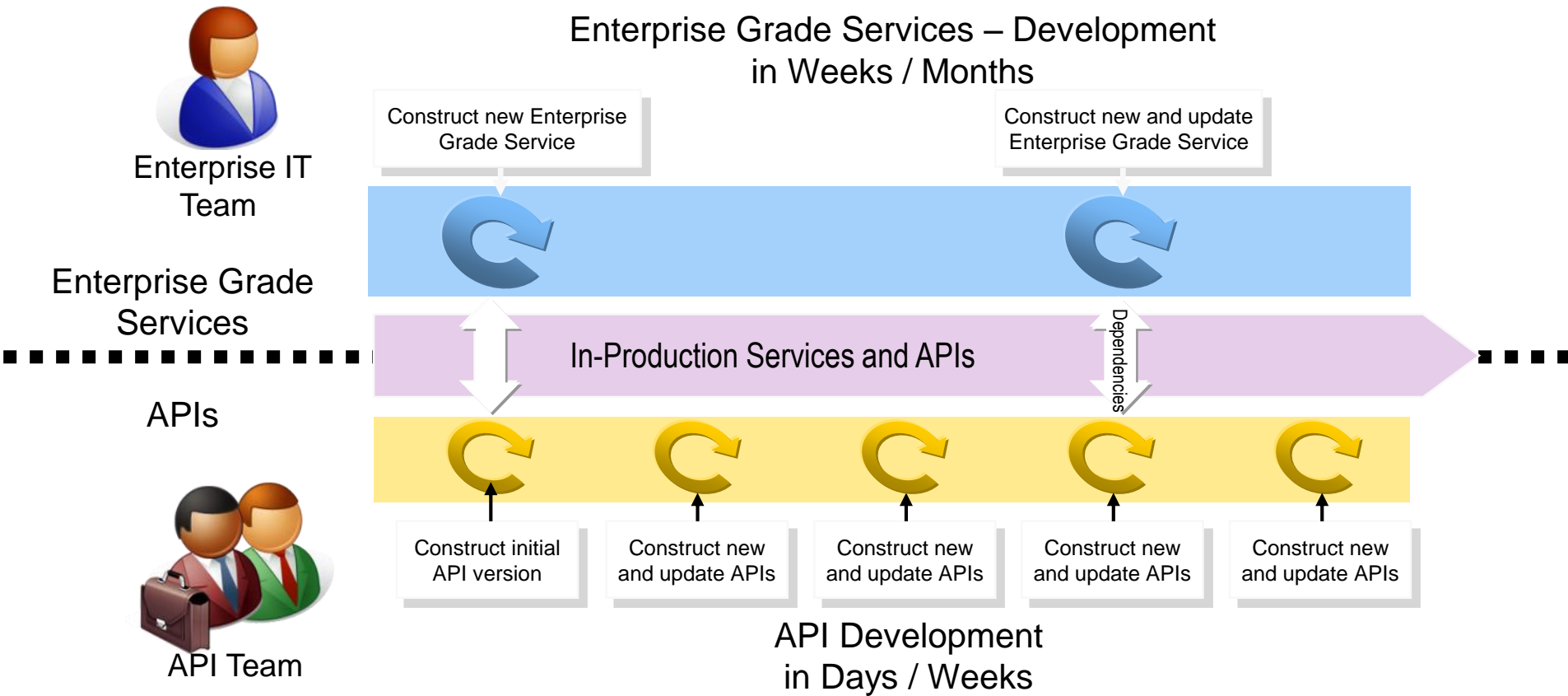
- Pages are slow to load (all at once)
- Rewriting: all the code is in the app
- Pages are mostly static
- Quality/Agility suffers: Updating any piece requires re-testing the full app

## The new way: microservices

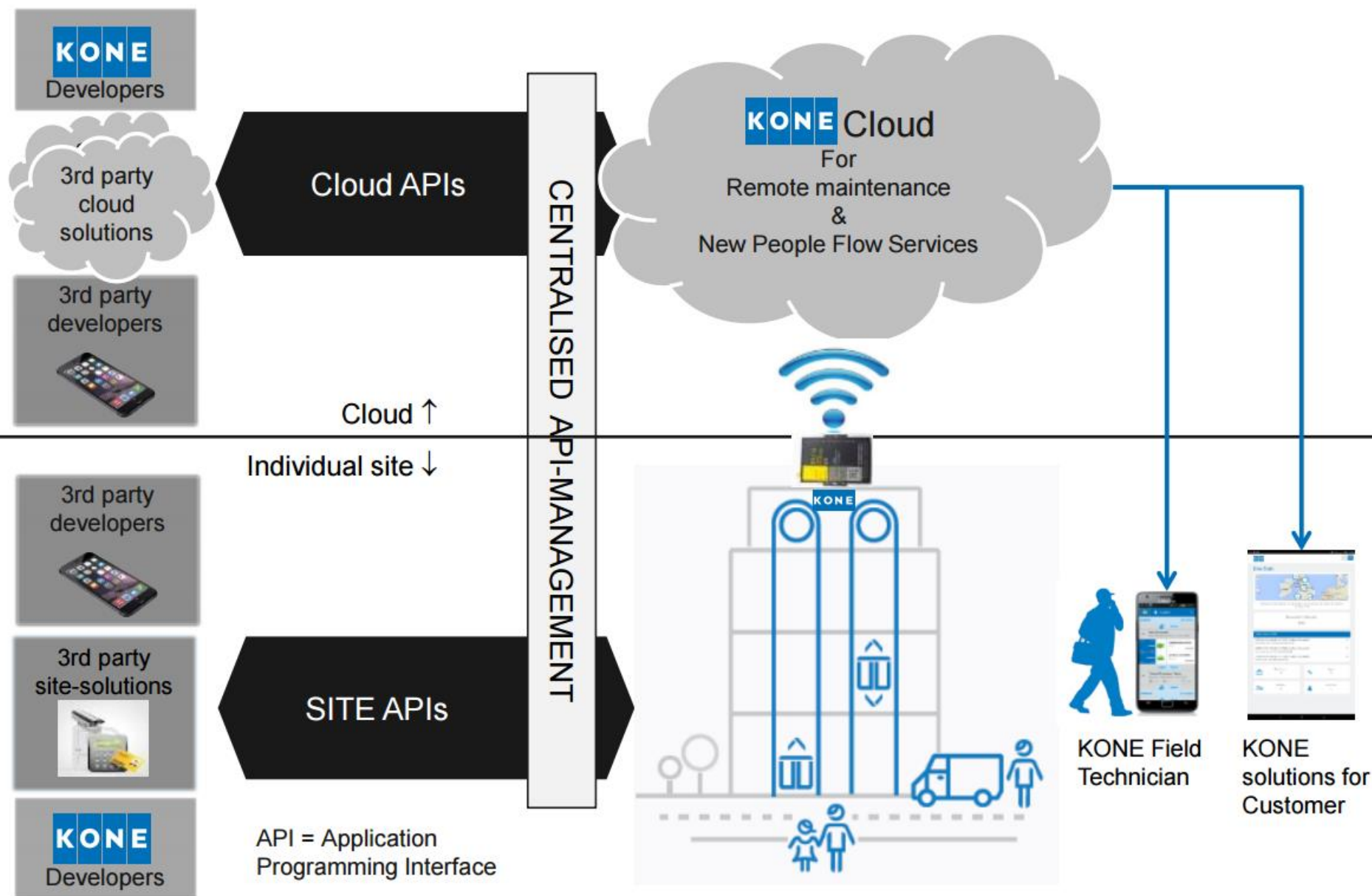


- Pages are fast to load (with minimal data)
- Reusable: Other apps can reuse microservices (multi-channel: web, mobile, IoT, B2B etc.)
- Pages are more dynamic (update when needed)
- Quality/Agility: Updates are localized to an API

# API DevOps: Separate the SOA and API Lifecycles

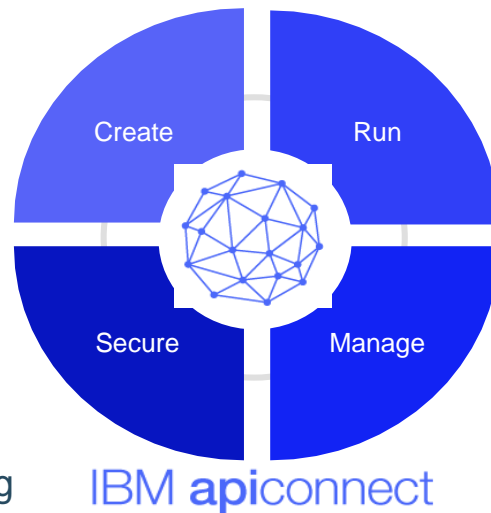


# KONE equipments connected to the cloud with APIs available to 3<sup>rd</sup> party developers



# IBM API Connect: Capabilities Delivered

- Rapid model-driven API creation
- Data source to API mapping automation
- Standards-based visual API spec creation in Swagger 2.0
- Local API creation and testing
- On-cloud & on-premises staging of APIs, Plans & Products
- Policy enforcement
- Enterprise security
- Quota management & rate limiting
- Content-based routing
- Response caching, load-balancing and offload processing
- Message format & transport protocol mediation



- Node.js & Java Microservice runtime
- Node.js & Java integrated runtime management
- Enterprise HA & scaling
- On-cloud & on-premises staging of Microservice applications
- API discovery
- API, Plan & Product policy creation
- API, Plan & Product lifecycle mgmt.
- Self-service, customizable, developer portal
- Advanced Analytics
- Subscription & community mgmt.



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