



October 4-6, 2017 | Vancouver, BC

Node.js at Alibaba

Joyee Cheung, Alibaba Cloud



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About Me

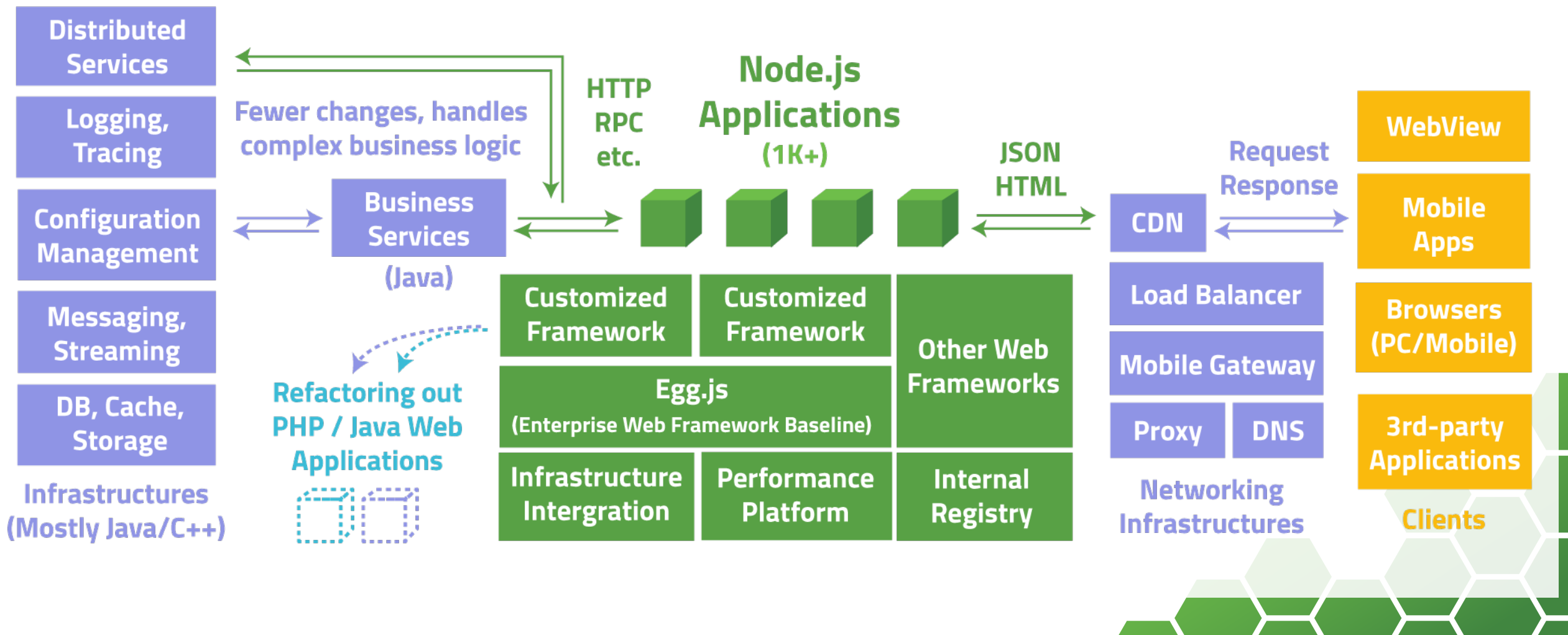
- Joyee Cheung (Cantonese) / Qiuyi Zhang (Mandarin)
- Alibaba Cloud & Node.js TSC
- Twitter & GitHub: @joyeecheung



A Brief History

- 2011** ● First Node.js application in production
- 2014** ● Public CNPM & Internal npm registry
- 2015** ● Node.js Performance Platform (alinode)
- 2016** ● Egg.js distilled from internal frameworks and open sourced

The Whole Picture



Node.js Tech Stack

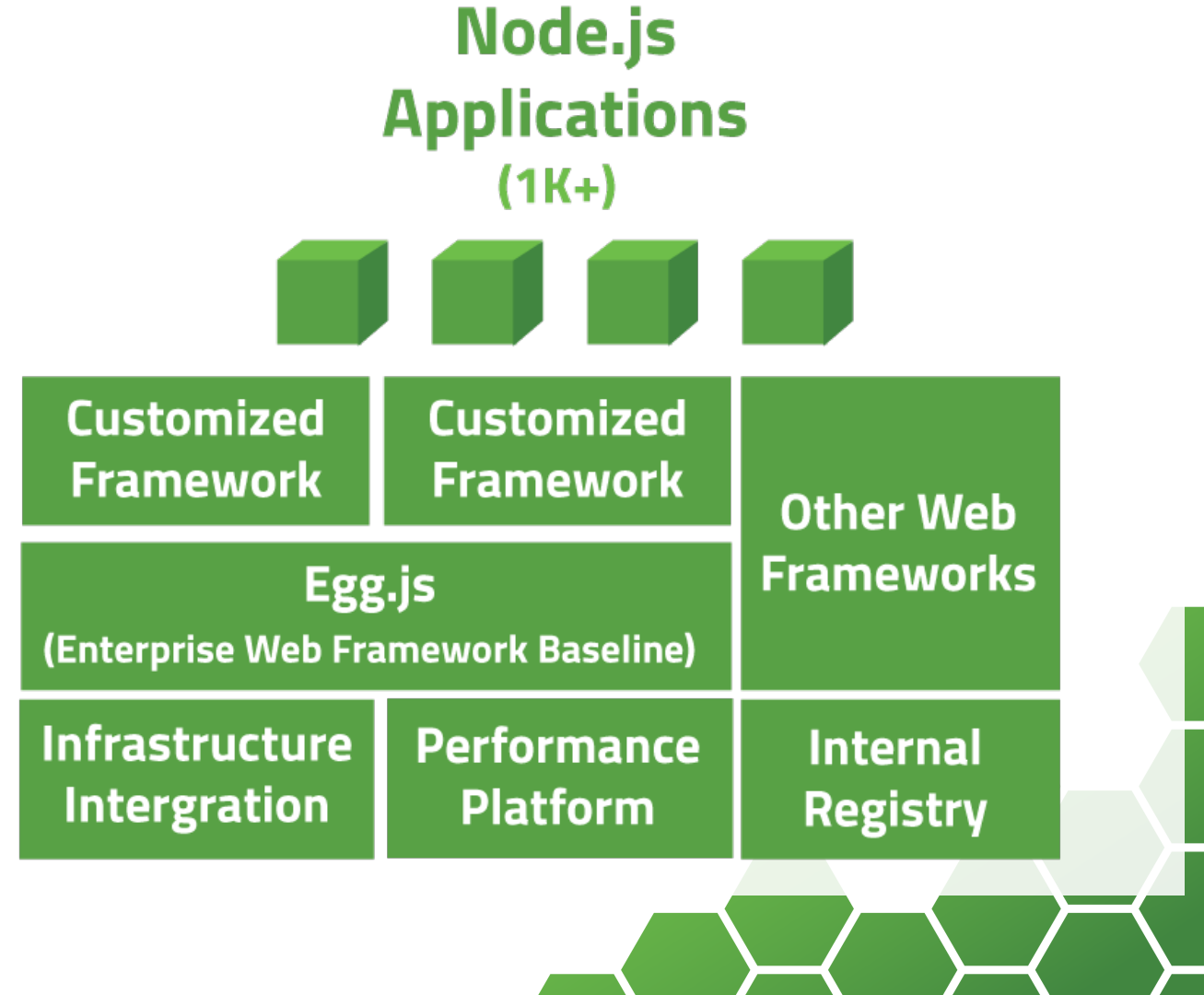
- **Development**

- Web Frameworks
- Internal Registry
- Infrastructure Integration

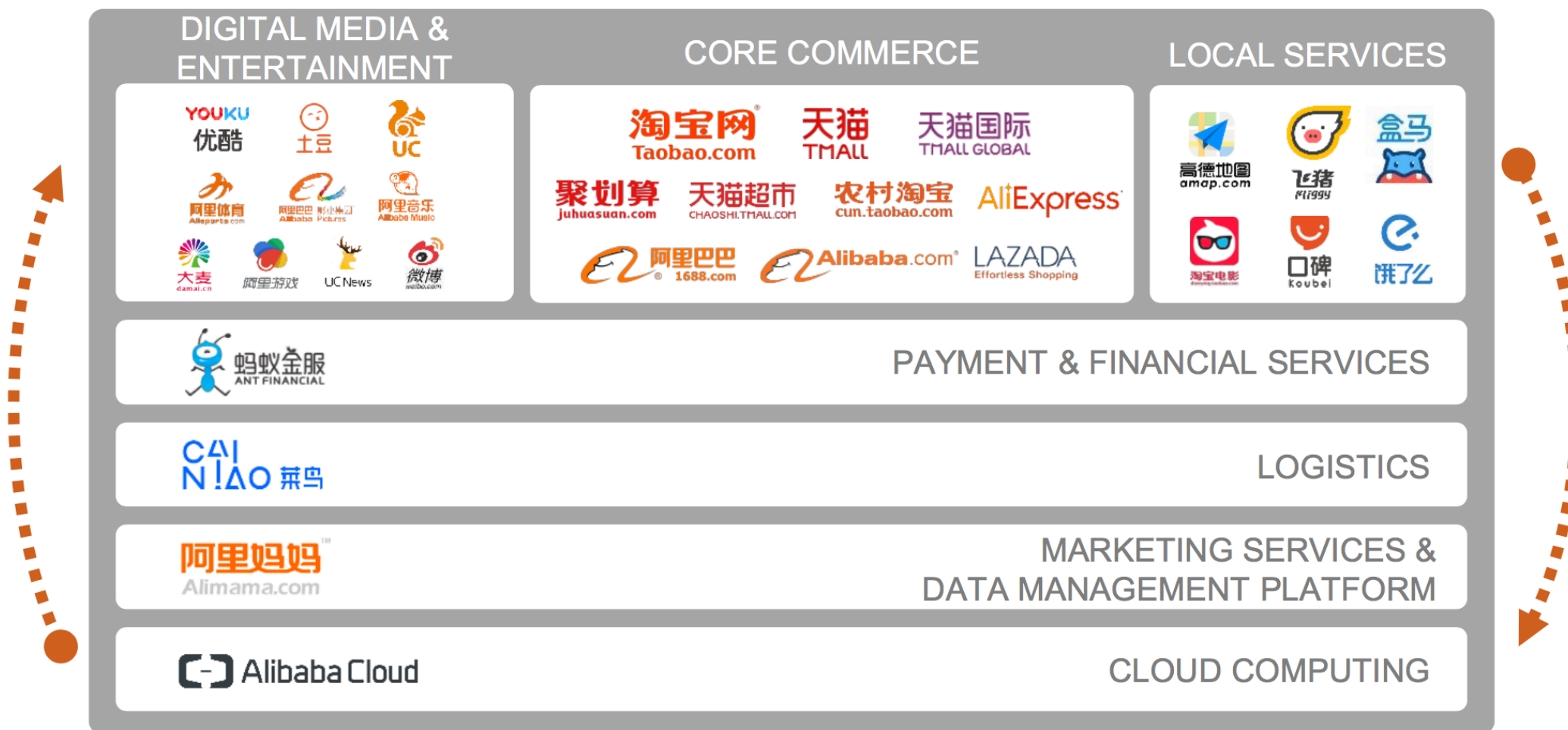
- **Deployment**

- **Performance Platform**

- Monitoring
- Diagnostics
- Profiling

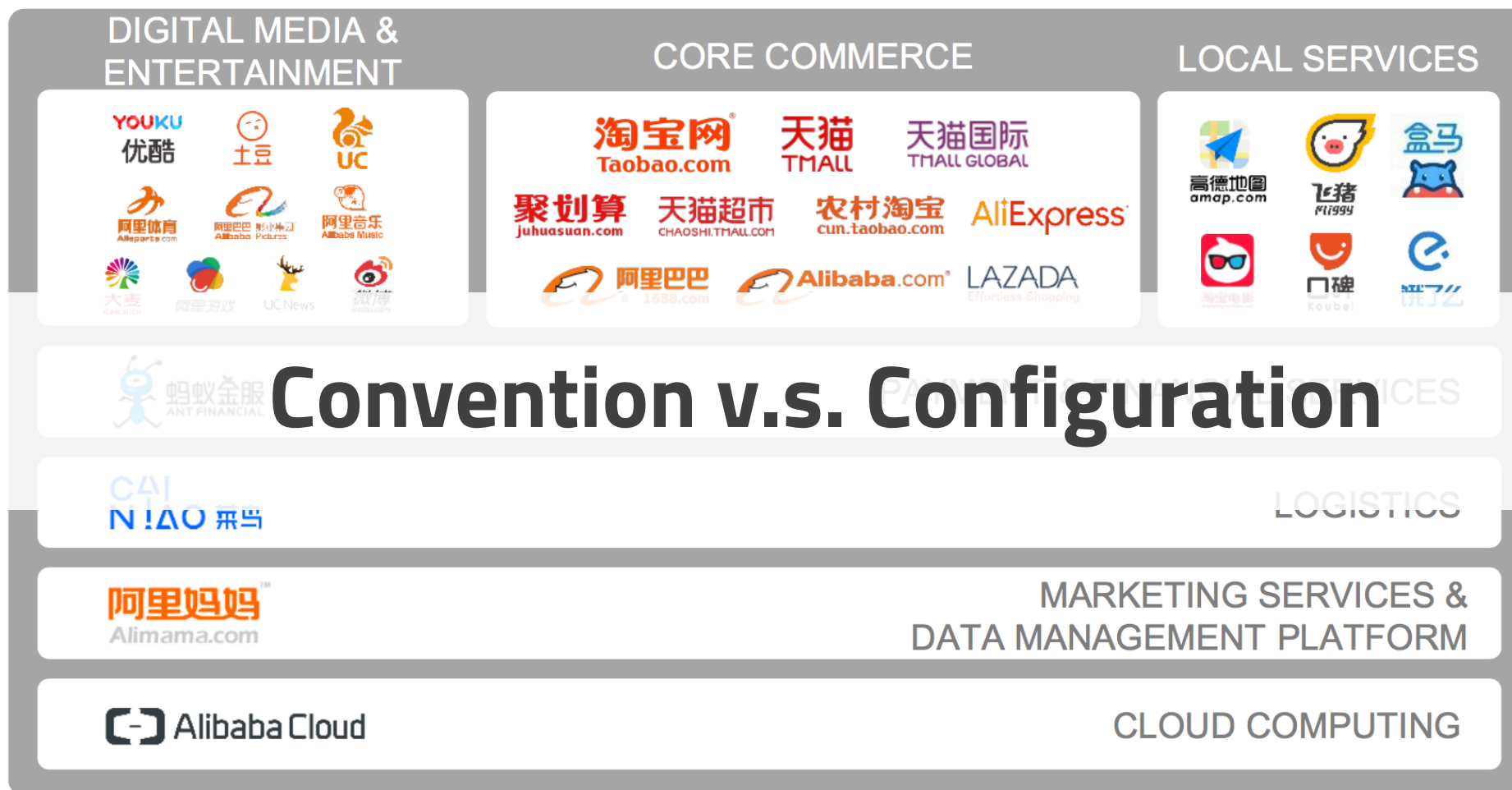


The Alibaba Ecosystem



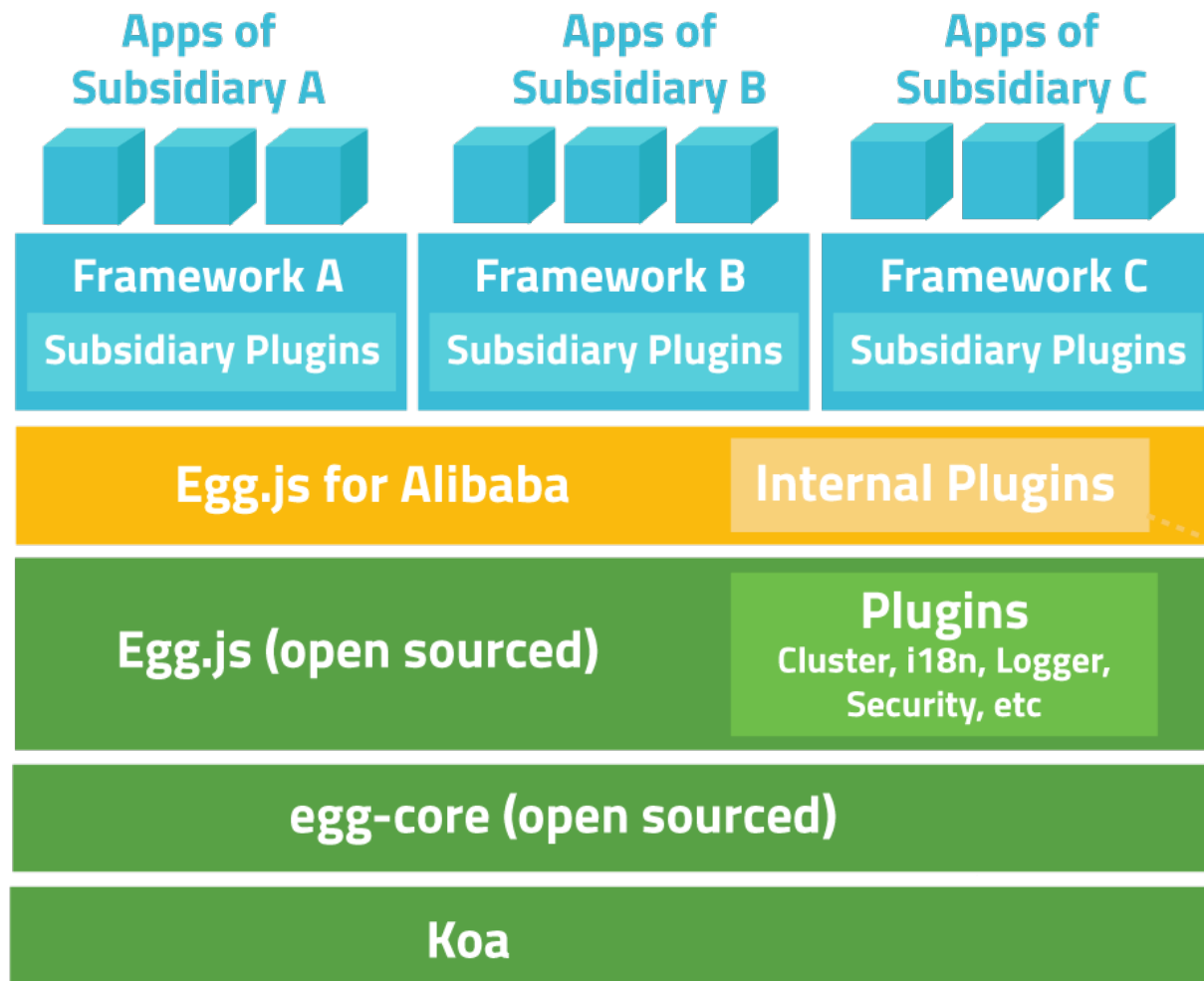
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The Alibaba Ecosystem



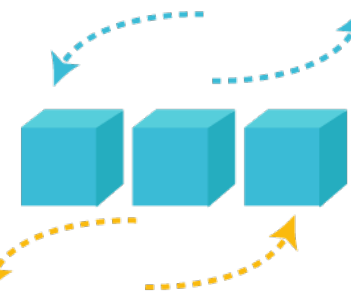
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Web Frameworks



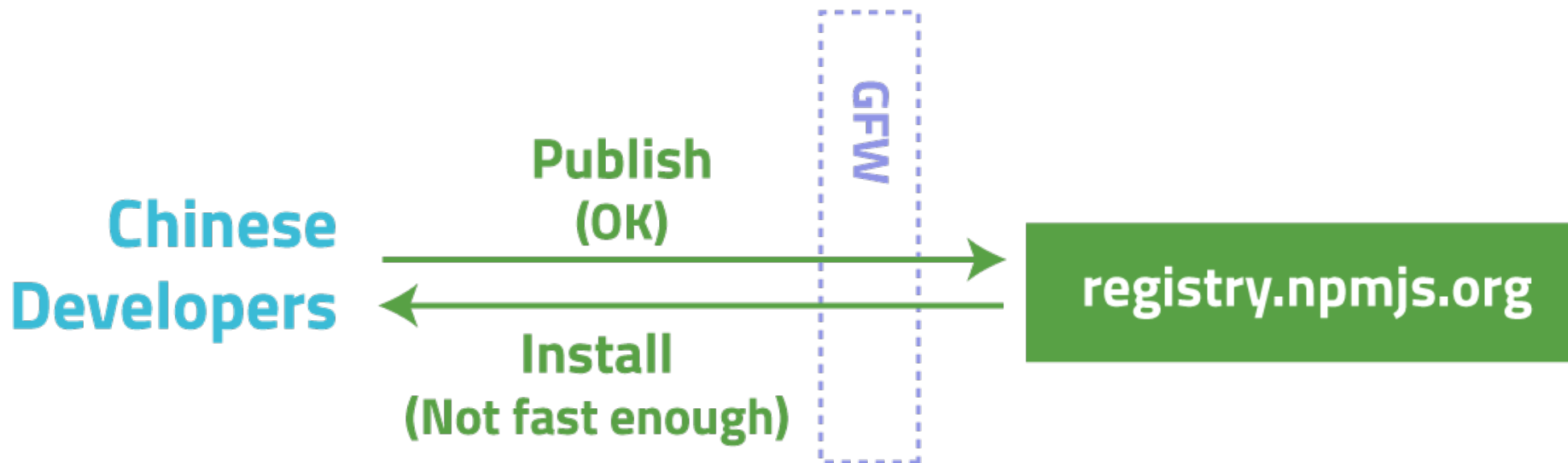
Acquired subsidiaries come with their own legacy infrastructures

Internal Services/Conventions of Different Subsidiaries

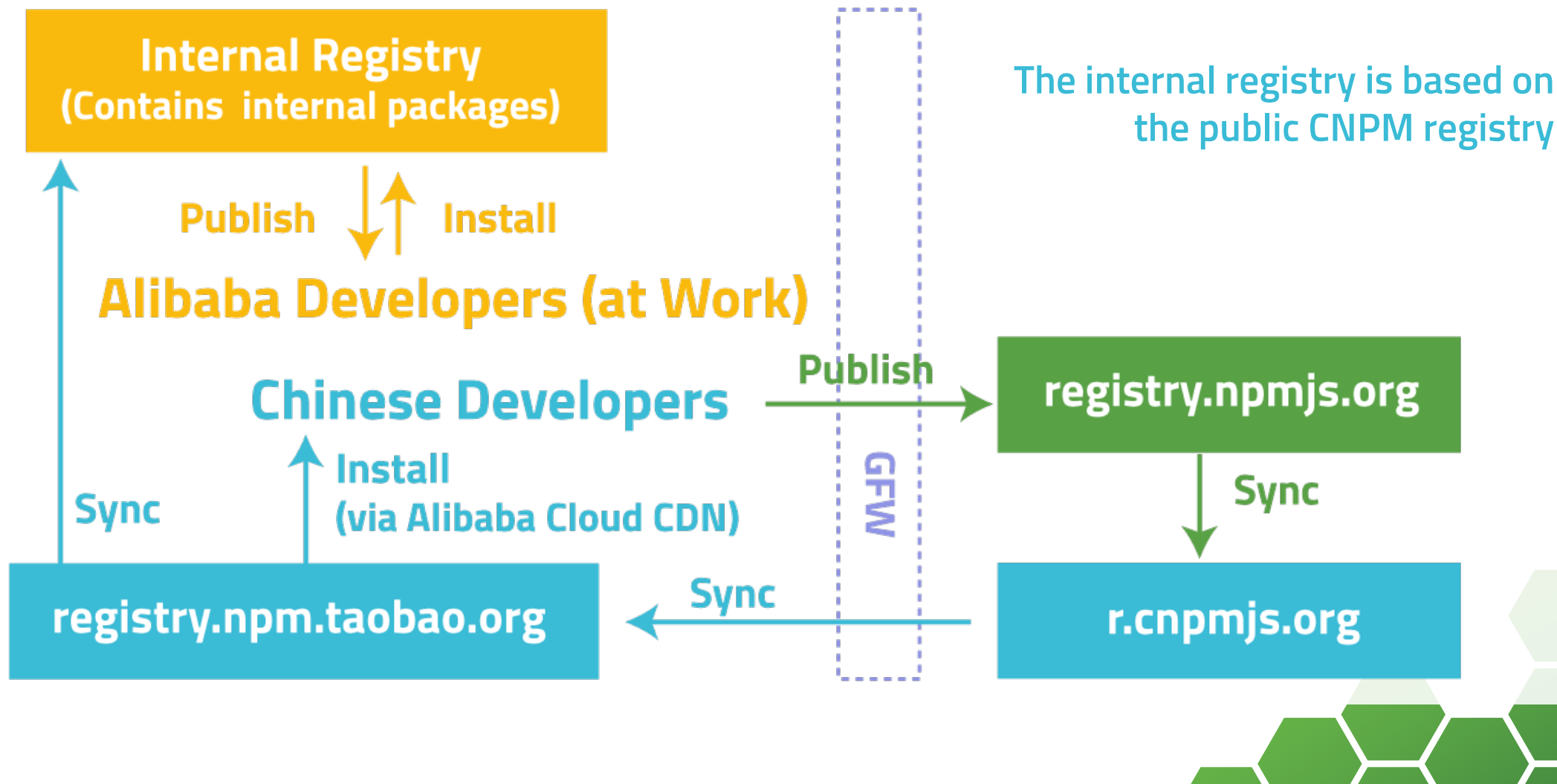


Internal Services/Conventions for the whole Alibaba Ecosystem

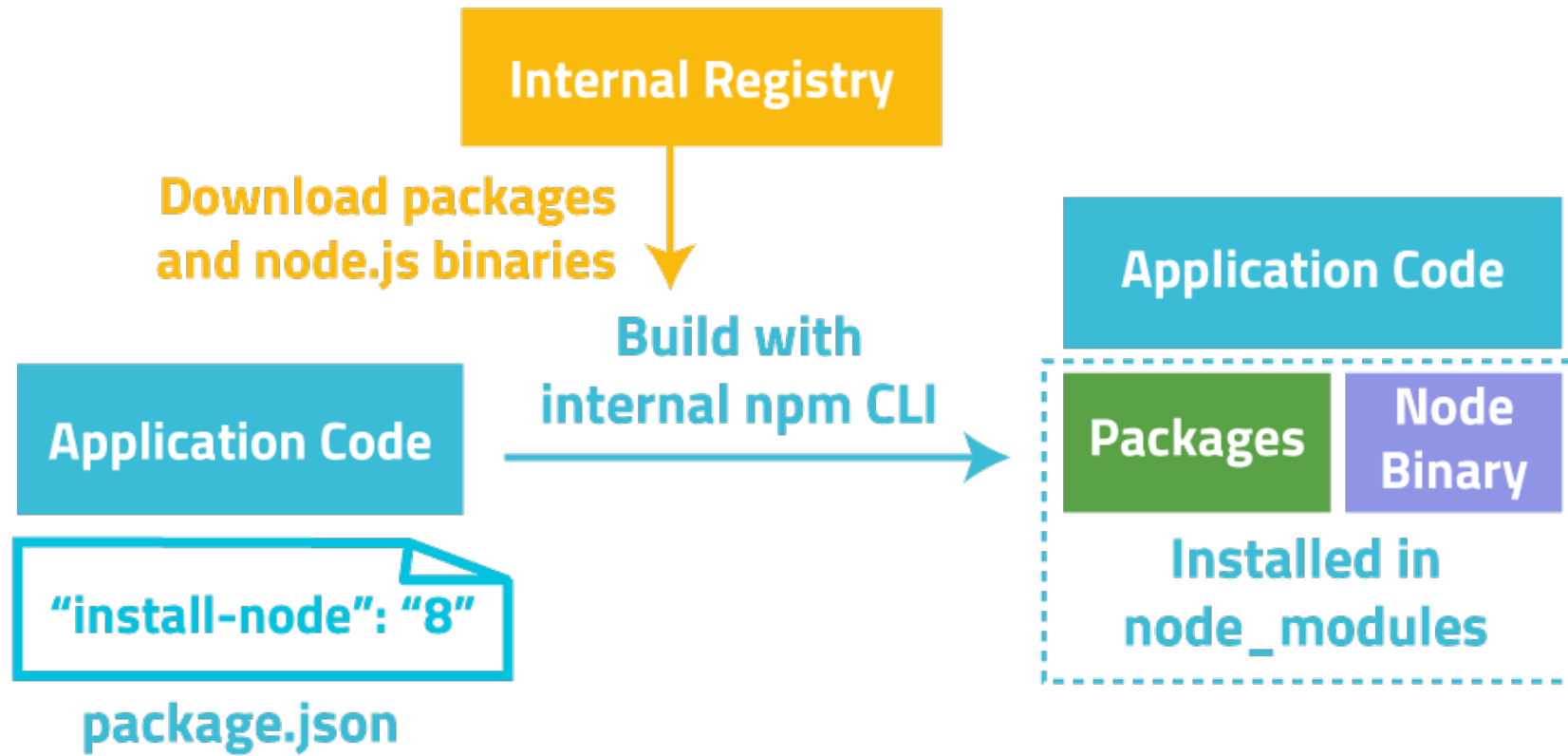
Packages



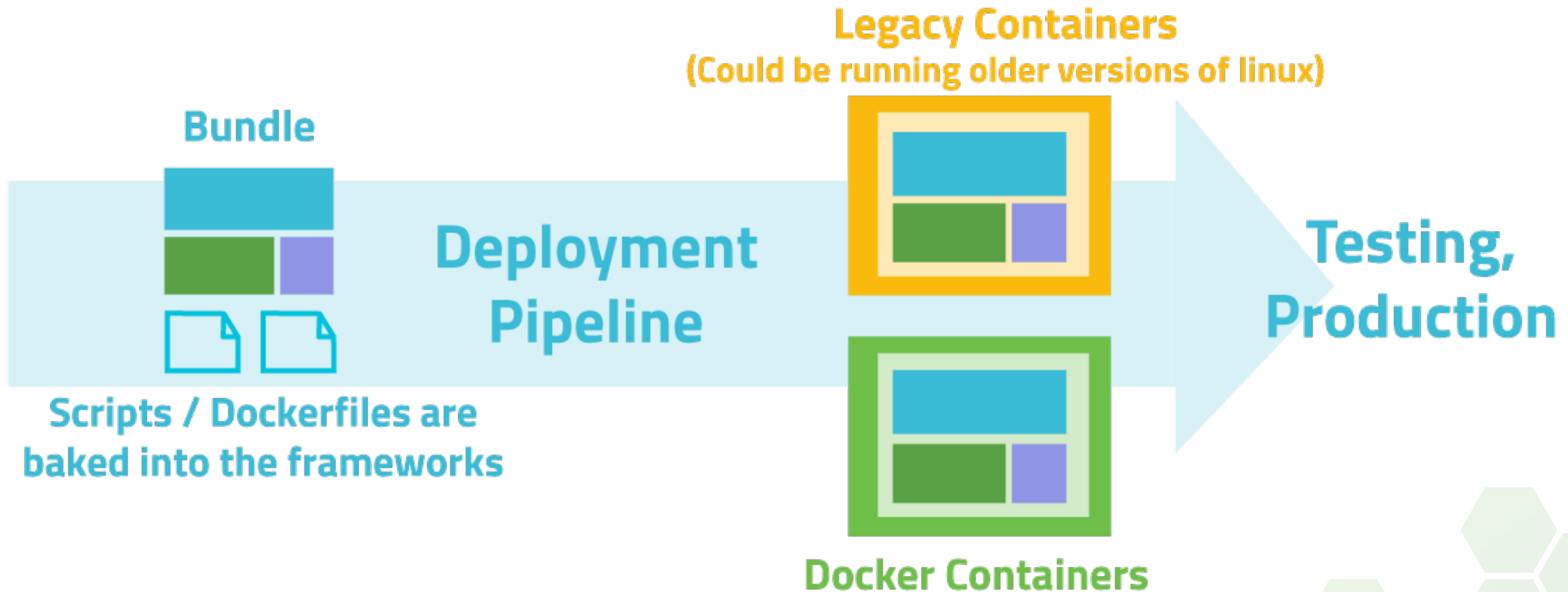
Packages



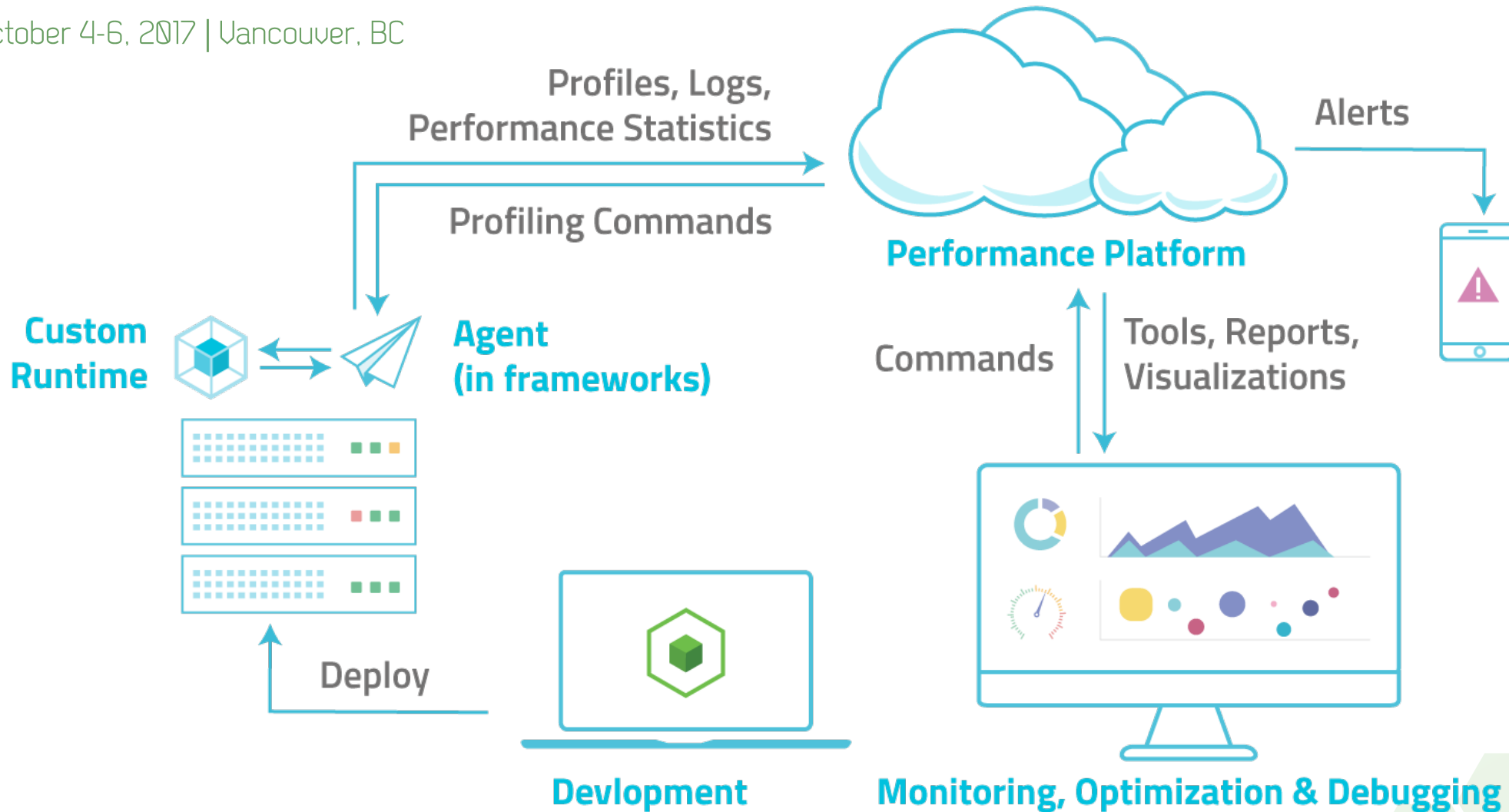
Deployment



Deployment



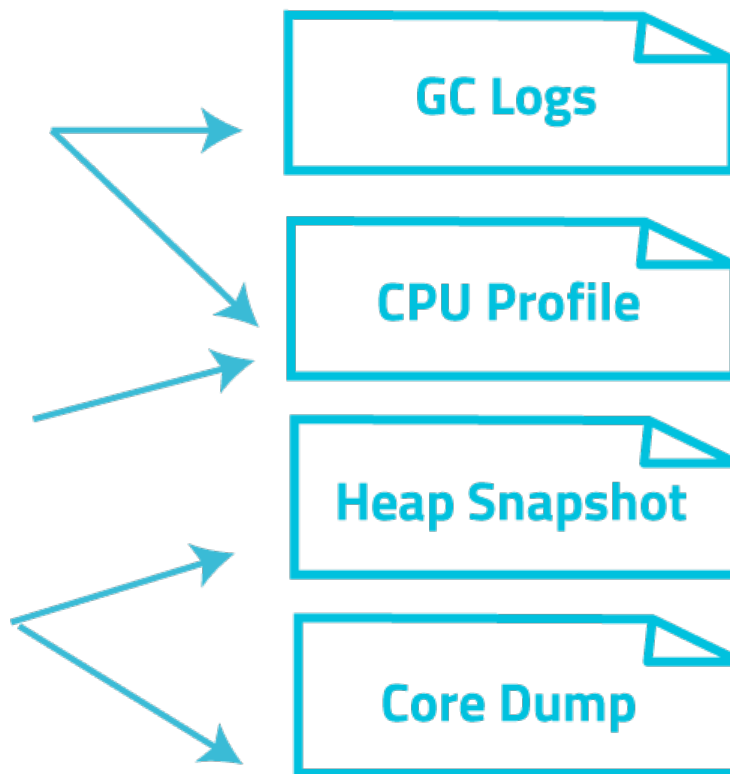
Node.js Performance Platform



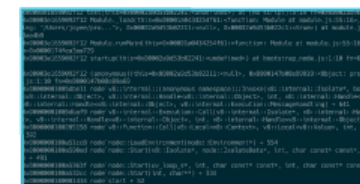
Profiling



Statistics Compared with
Latency & Throughput



Generated during Load Testing
or in Production



Custom
Visualizations

Devtools
Flame Chart

Extended MAT &
Devtools

Ilnode



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Future

- **Serverless**
 - Alibaba Cloud Function Compute
- Intergration with the Serverless framework coming soon



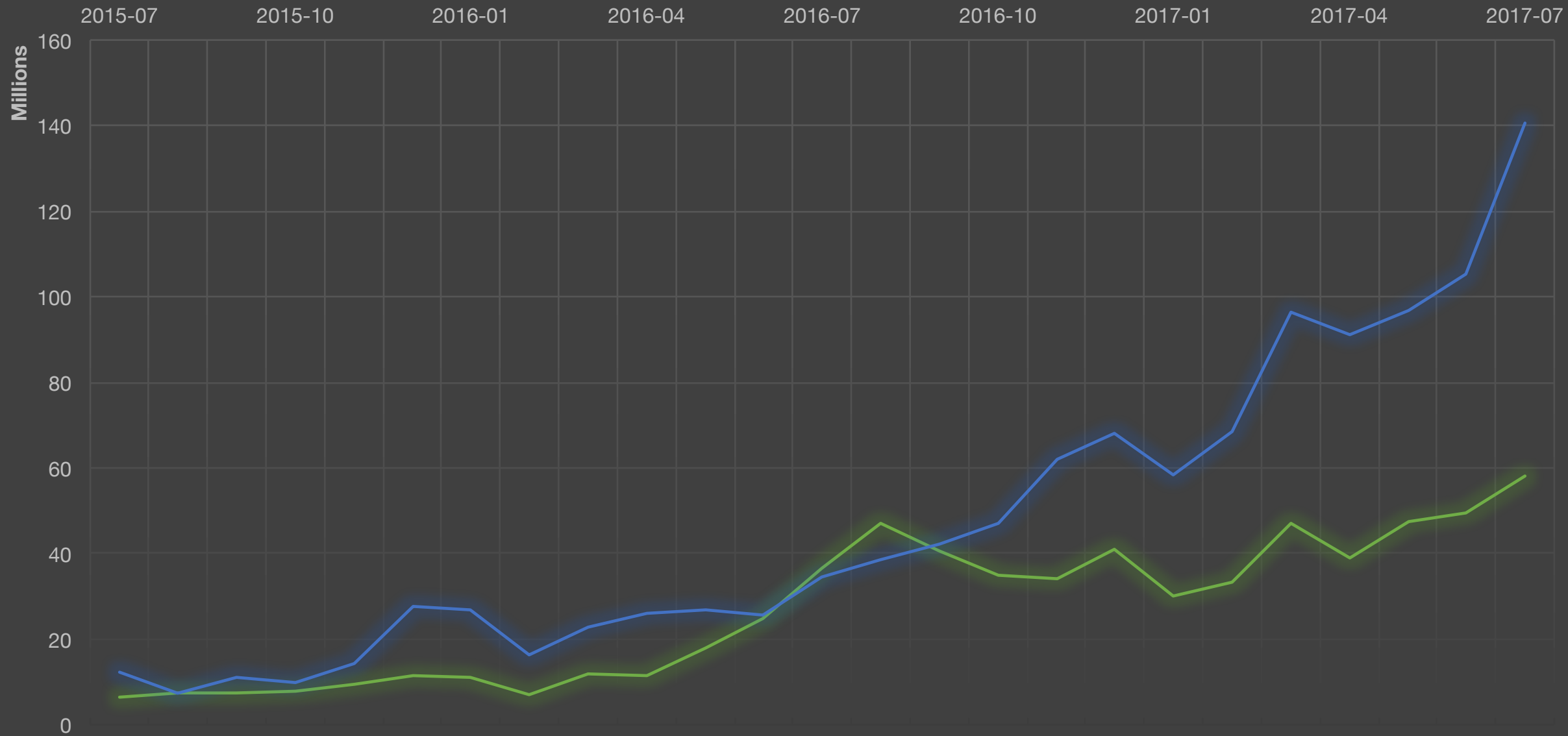


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THANKS

Installations per Month

Internal Registry npm.taobao.org



Common Issues

- **GC overhead**
 - Tuning V8 arguments
- **SSR & Memory leaks**
 - Life cycle hooks and globals
- **Serialization and deserialization**
 - In-memory cache for data without strong consistency requirements
 - GC overhead
- **Dead loops**

