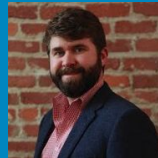


FINOS

Fintech
Open Source
Foundation

Overcoming Compliance Barriers to Open Source Collaboration Infrastructure

Open Source Strategy Forum
London, 14 November 2018



Jamie Jones
(Lead)



Diane
Mueller



Maurizio
Pillitu

Agenda

- Financial Services software development requirements and barriers
- The FinServ Developer Experience (FDX) Program @ FINOS
- The Developer Experience (DX) Working Group
- The Cloud Native Working Group
- The Open Developer Platform (Working Group)
- Final Remarks

Financial Services software development requirements and barriers



Highly regulated

- Financial Services has always been highly regulated
- But since 2009 (GFC) regulation has markedly increased
- Society has decided that unregulated banking (and the boom / bust cycles that that creates) is unacceptable



Information loss is a primary risk

- FinServ is fundamentally an information business
- Preventing information (data, intellectual property) loss is therefore a paramount priority



Ubiquitous surveillance

- As a result of this, surveillance of employee activity is ubiquitous
- This helps ensure compliance with both regulations and policies

Note: this is not a secret or in any way nefarious - all firm employees are fully briefed on their firm's surveillance policies when they join.



Financial Services Developer Landscape

- Locked down development environments
- Internet services are blocked by default
 - Exceptions involve bureaucratic approval processes
- All internet access is surveilled
 - IP & DLP analysis
 - Fraud, collusion, bribery detection
- Compliance violations are often a fireable offense
- As a result, firm employees:
 - **rarely have access to open source infrastructure**
 - **are reserved when in those arenas**



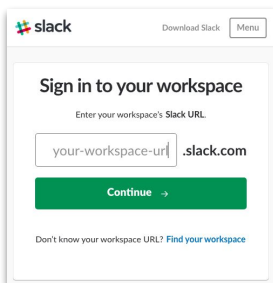
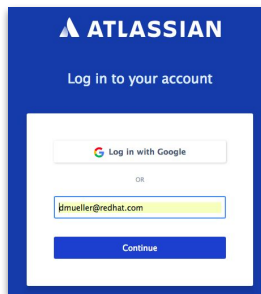
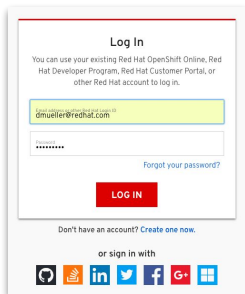
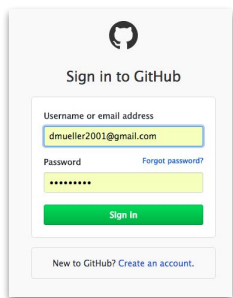
Access to Open Source Infrastructure & Tools

Goals

- Lower barriers to participation
- Incremental gains in quality as ideas & fixes are shared and submitted
- Users are more able to solve their own problems and offer solutions
- Shared CI/CD pipelines
- Shared Development Platforms

Tools

- Github
- Confluence
- Mailing Lists
 - Gmail, Mailman
- Real-time Chat
 - IRC, Slack..
- CI/CD Pipelines
- Container Registries
- Wikis
- Documentation
- OAuth



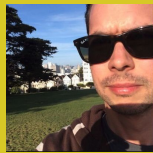
The FinServ Developer Experience **FDX** Program @ FINOS



Jamie Jones
(Lead)



Diane
Mueller



Brian
Ingenito



Maurizio
Pillitu

FDX Mission

Define high-productivity end-to-end development workflows, tooling, and environments that Foundation members and the community at large can leverage.

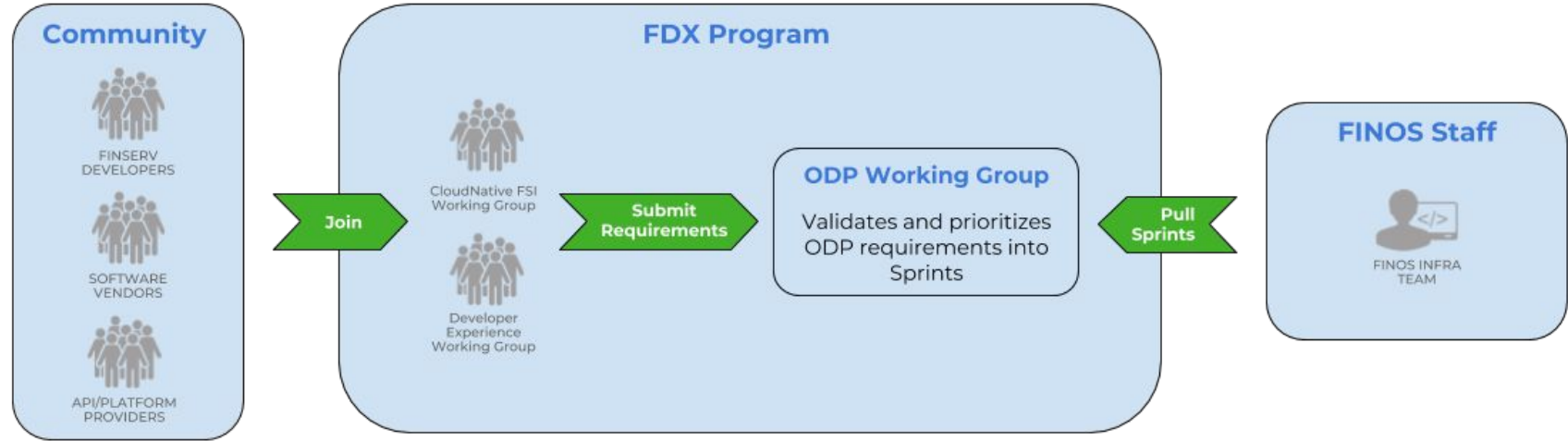
This will enable the development of high quality, secure, compliant software, all while delivering results faster and simplifying the evaluation and consumption of that software.

Developer Experience(DX) Working Group

Cloud Native Working Group

Open Developer Platform Working Group

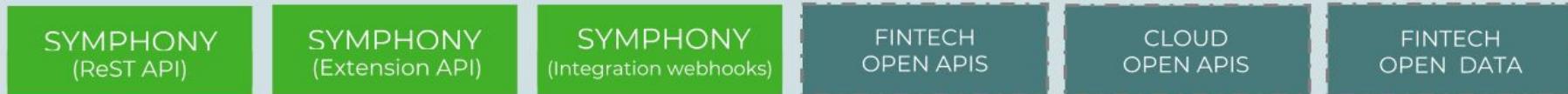
FDX Landscape



Open Developer Platform landscape

Hosted Platforms

Future partnerships and contributions



High Productivity Turnkey Developer Experience

Development Infrastructure



Biz & Legal Peace Of Mind - We Do The Hard Part!

Collaboration Services



OSSF Sessions

- Today (Wednesday 14)
 - *11am - Pull what where? Contributing to Open Source, securely, on GitHub (Jamie Jones)*
 - *1.30pm - Tools, Bots and Automation for better Open Source Projects (Colin Eberhardt)*
- Tomorrow (Thursday 15)
 - **9.40am, room 7** - The Goldman Sachs Open Source Program: Presentation/discussion/Q&A (Goldman Sachs)
 - **10am, room 8** - FDX and ODP Program Working Session (FDX PMC)

The Developer Experience (DX) Working Group



Jamie Jones
(Chair)

DX Working Group Mission

Support FINOS members, technology vendors, and other community members working together on practical guidance and reference architecture(s) to deepen and enhance the developer workflows and reduce the barriers to secure collaboration, regardless of the venue.

Topics include:

Technological access -- Regulatory concern and compliance -- On-boarding and training
Best practices and architecture discussions

Call for Participation

- **FINOS Members** *joining/proposing collaboration activities, looking for guidance and tooling*
- **FINOS Program participants**, *looking for support for their project and working group*
- **Financial Services industry**
 - *Developers at a financial institution interested in modern or open source development practices*
 - *Software vendors providing build automation tools and data APIs*

DX Status update

- *Hosted a focus group with various financial institutions discussing access and capabilities of various cloud-based development tools.*
 - *Additional questions regarding blocking and restricting access to various SAAS solutions.*
- *Worked with the FDC3 program on tools and workflow to disseminate their products*
- *Worked with members on questions of Open Source security and compliance for using GitHub.com*

Waiting on YOUR questions

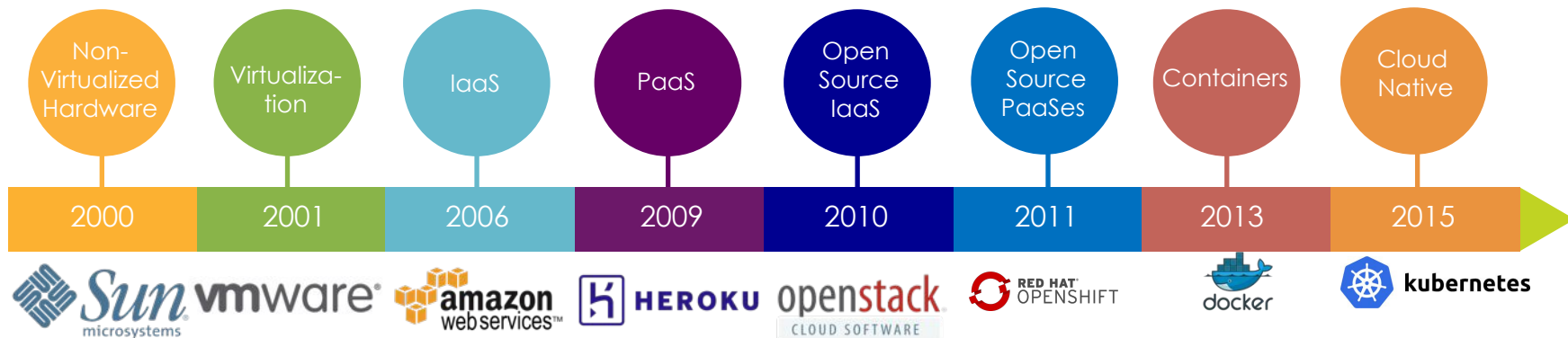
The Cloud Native Working Group



Diane Mueller,
Red Hat
(Chair)

Cloud Native @ FINOS

- Cloud native computing uses an open source software stack to:
 - segment applications into **microservices**,
 - packaging each part into its own **container**
 - and dynamically **orchestrating** those containers to optimize resource utilization



Cloud Native @ FINOS

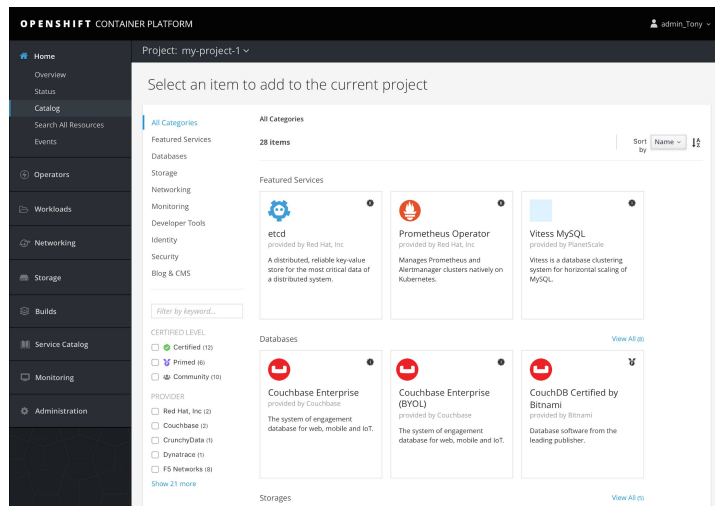
What have we learned?

- Core Building Block:
 - Servers → Virtual Machines → Containers
- Isolation Units
 - From heavier to lighter weight, in spin-up time and size
- Immutability
 - From pets to cattle
- Provider
 - From closed source, single vendor to open source, cross-vendor

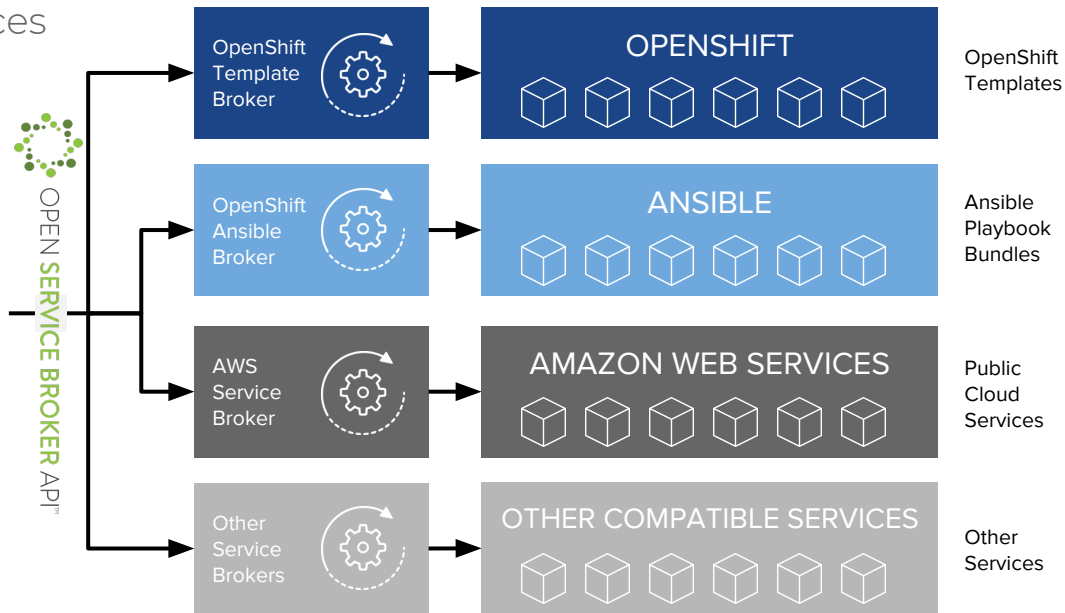
Cloud Native @ FINOS

Building out the FINOS Service Catalog

- Expose and Provision FINOS Services



ODP SERVICE CATALOG



SERVICE BROKERS

CloudNative Working Group Charter

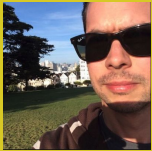
Define, build and maintain a collection of white papers and use cases that help members adopting containerized architectures.

Curate and promote the FINOS Service Catalog for use with the Open Developer Platform that help members develop, test and collaborate on

Call for Participation

- **FINOS Members** looking for
 - guidance on cloud native technologies
 - sharing best practices and requirements on containerised architectures
- **FINOS Program participants**, looking for
 - Continuous delivery solutions for their FINOS hosted projects
 - A catalog of containers to publish their containerised solutions

The Open Developer Platform (Working Group)



Brian
Ingenito
(Chair)

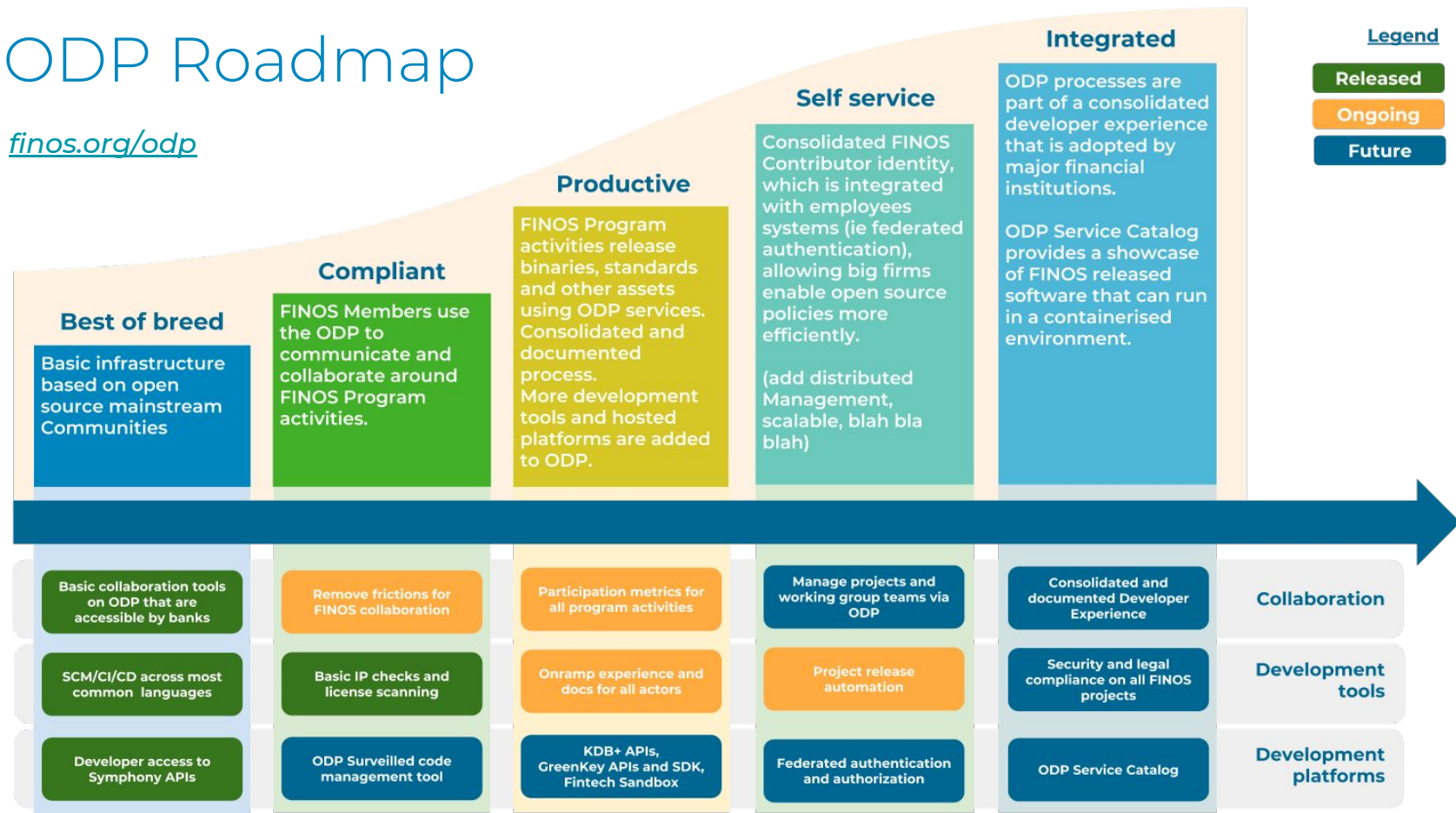
ODP Working Group Mission

*Advising and prioritizing of the building and managing of FINOS infrastructure that FINOS members are able to access for communication and open source software development, also known as the **Open Developer Platform (ODP)***

finos.org/odp/docs
fdx-odp+subscribe@finos.org

ODP Roadmap

finos.org/odp



Call for participation

- **Software vendors** supporting integrations with ODP
- Anyone **interested on activities within ODP backlog**
 - DX and CloudNative Working Group participants
 - FINOS Members
 - FINOS Program Participants

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fdx-odp+subscribe@finos.org

Final Remarks



Closing the collaboration loop

Contribution (FDX)

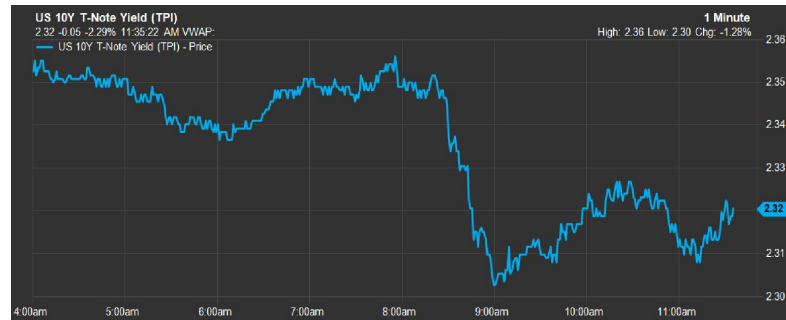
- Security and license scanning
- Release and documentation automation
- Continuous Integration and Delivery

Consumption (OSR)

- Open source policies in place and checked
- Developer activity is approved
- Project consumption is approved

FinServ is a real time business

- Trading is increasingly automated
 - Confers competitive advantage
- Low latency and high throughput are key
 - Market transactions routinely complete in < 10ms
 - This is bumping into physics (e.g. light travels a mere 1900 miles in that time!)





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Thanks!