



EDGE X FOUNDRY™

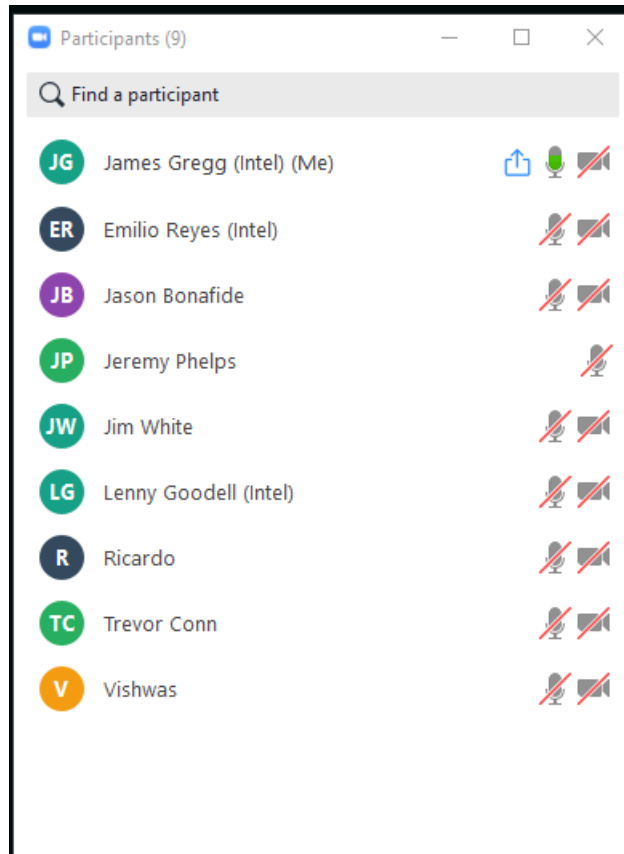
# DevOps Working Group

Thursday September 19, 2019

# Agenda

Time	Topic	Owner
10 Min	DevOps WG Update (Fuji)	James
10 Min	Release Update	Lisa / Jim
10 Min	Geneva Planning	All
10 Min	Opens	

# Attendees



# DevOps WG Update

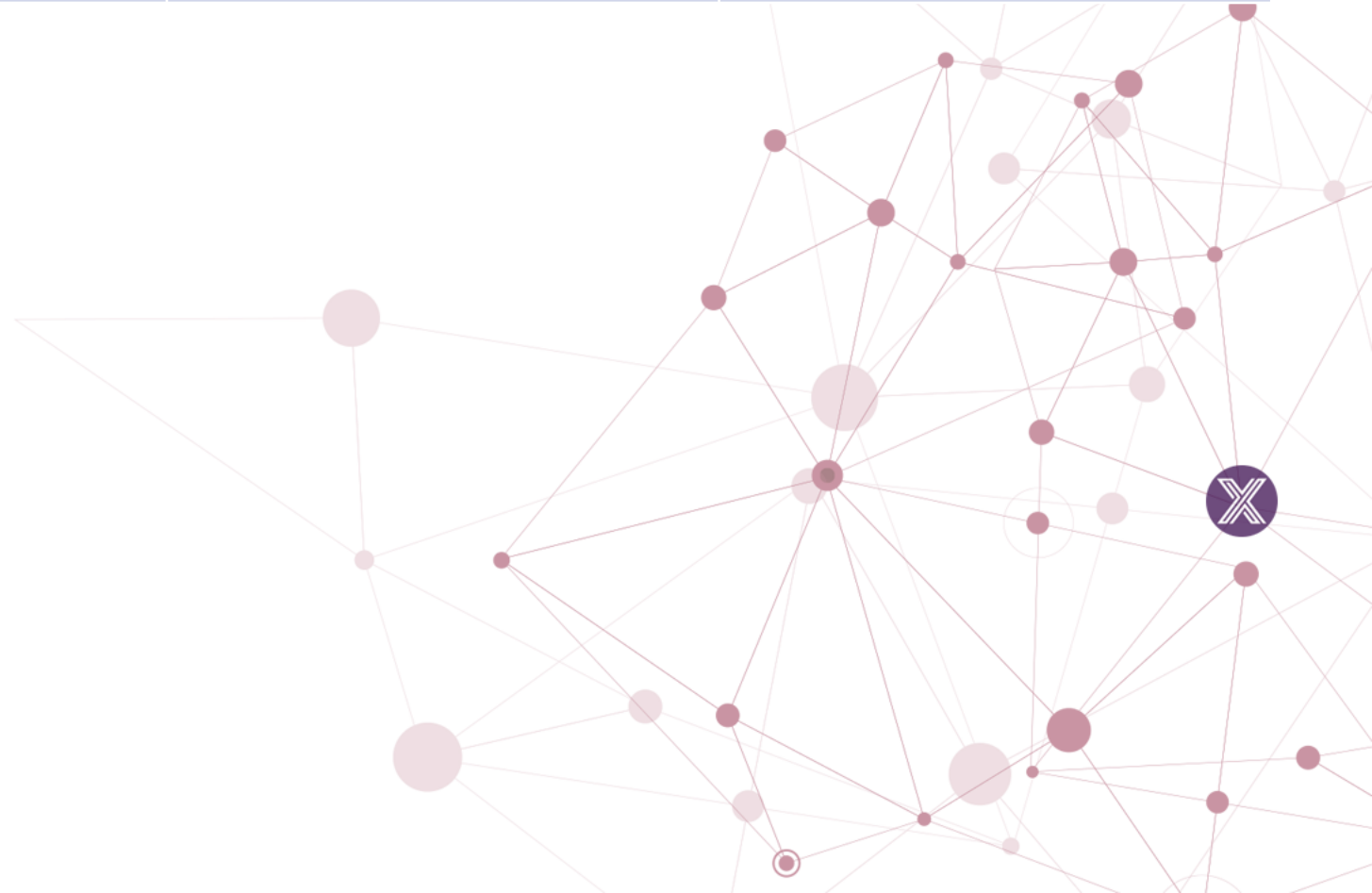
## Fuji Scope

### Static Code Analysis Tools

- Snyc Integration with Jenkins
  - Provisioning authentication tokens with Snyc, Linux Foundation - **DONE**
  - Create a new global library that will be used with Jenkins Pipeline stage that runs the Snyc CLI scan using the new Snyc build-agent image - **DONE**
- GitHub Repo / Snyc Integration
  - Jenkins Snyc plugin as an alternative to the Snyc CLI - **DONE**  
Plugin doesn't use Snyc CLI and go modules can only be scanned using the CLI at this time
  - Integrate Open Source repos (app-service-configurable) using a common / shared account to Snyc - **WIP**
  - Configure notifications to SIR team members – **WIP**
  - Add Scan stage to Jenkinsfile (app-service-configurable) – **WIP**
- New device services – **BLOCKED**  
Per TSC call new service added to holding – device-opcua-c
- **Release Date – TBD**  
*Tracking to mid November with formal announcements after TSC call next week*

# Work Review

Helpdesk Ticket #	Description	Details	Status
IT-17609	IT-17609 Add additional contacts to a JSD ticket	Unable to add Lisa to the JSD tickets using LFID or GitHub ID	WIP
IT-17606 Snyk integration for EdgeX repos	IT-17606 Snyk integration for EdgeX repos	Snyk GitHub repo integration (app-services-configurable)	WIP
IT-17602 Blue Ocean Plugin for Jenkins	IT-17602 Blue Ocean Plugin for Jenkins		DONE



# Backlog Review

EdgeX Foundry Project

Repositories 90 Packages People 59 Teams 91 Projects 11

DevOps WG Updated 2 days ago

Filter cards + Add cards Fullscreen Menu

**Icebox**

- Snap builds should use unbuffer for better output logging  
ci-management#369 opened by anonymous64
- edgeXSemver leaves command to caller but doesn't allow specifying the version/image to use  
edgex-global-pipelines#15 opened by dweomer
- Slack integration with Jenkins Pipeline for Clair reporting.  
ci-build-images#54 opened by jamesgregg
- Update snapcraft inside docker to use new setup from snapcraft  
ci-management#449 opened by anonymous64
- Create global function for snap releases (Geneva)  
edgex-global-pipelines#45 opened by jamesgregg
- Make stage-snap jobs more smart about pushing metadata  
ci-management#475 opened by anonymous64
- SPIKE: How will we automate full delivery (release management) of a Jenkins Pipeline

**New Issues**

Automated as To do Manase

**Release Backlog**

- New build automation for docker-edgex-consul (BLOCKED)  
ci-management#480 opened by Iranjbar
- New build automation for device-bacnet-c (BLOCKED)  
ci-management#451 opened by jamesgregg
- New build automation for device-bluetooth-c (BLOCKED)  
ci-management#470 opened by jamesgregg
- New build automation needed for device-gps service (BLOCKED)  
ci-management#446 opened by jamesgregg
- New build automation for device-opcu-c (BLOCKED)  
ci-management#481 opened by jamesgregg

**In Progress**

- We will need help from LF to add the Snyk config to each of the repos that have Pipelines  
ci-build-images#76 opened by jamesgregg
- Create the edgex-taf docker image build job  
ci-build-images#74 opened by weichou1229

**QA/Code Review**

- WIP: Add sigul signing to golang binaries  
ci-management#318 opened by JPKWU
- Add edgex-taf docker image build job  
ci-build-images#75 opened by weichou1229
- JJB template for regression test  
ci-management#461 opened by vishwasp-hd-intel

**Done**

- Snyk integration with EdgeX Foundry Open Source repo as POC  
ci-management#469 opened by jamesgregg
- EdgeX DevOps: Create the EdgeX TAF Reporting US5089  
Added by jamesgregg
- Remove old demo functions  
edgex-global-pipelines#44 opened by Iranjbar
- SPIKE: Investigate need for snap global function in edgex-global-pipelines (FUJI) US4581  
Added by jamesgregg
- Add global function to run snyk scans  
edgex-global-pipelines#43 opened by tpmowers
- New build automation for docker-edgex-mongo bootstrap  
ci-management#460 opened by jamesgregg
- Clair Server landing - LF Infrastructure or AWS decision and architecture / SS with TSC approval (@jamesgregg)

# Meeting Minutes

- Expect Release date by EOW next week
  - Tracking to early December
- Issue needs to be created for support-rules engine
  - May require additional build automation
- New device-camera-go service will be moving out of holding
  - Need to add new user story for build automation once it moves out of holding
- Based on feedback of the planned scope for Geneva
  - No dissent re: plans for transformation of JJB Freestyle jobs to Jenkins Pipeline
  - Scope of work should comprehend what's involved and need estimates
    - Backlog grooming session will estimate scope of work Lisa has already broken down with Geneva user stories
    - Need to comprehend any additional work that may be coming from other working groups
    - No need to build the argument for Pipeline transformation – focus on what it will take to do the work



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# Geneva Planning

Scope Discussions



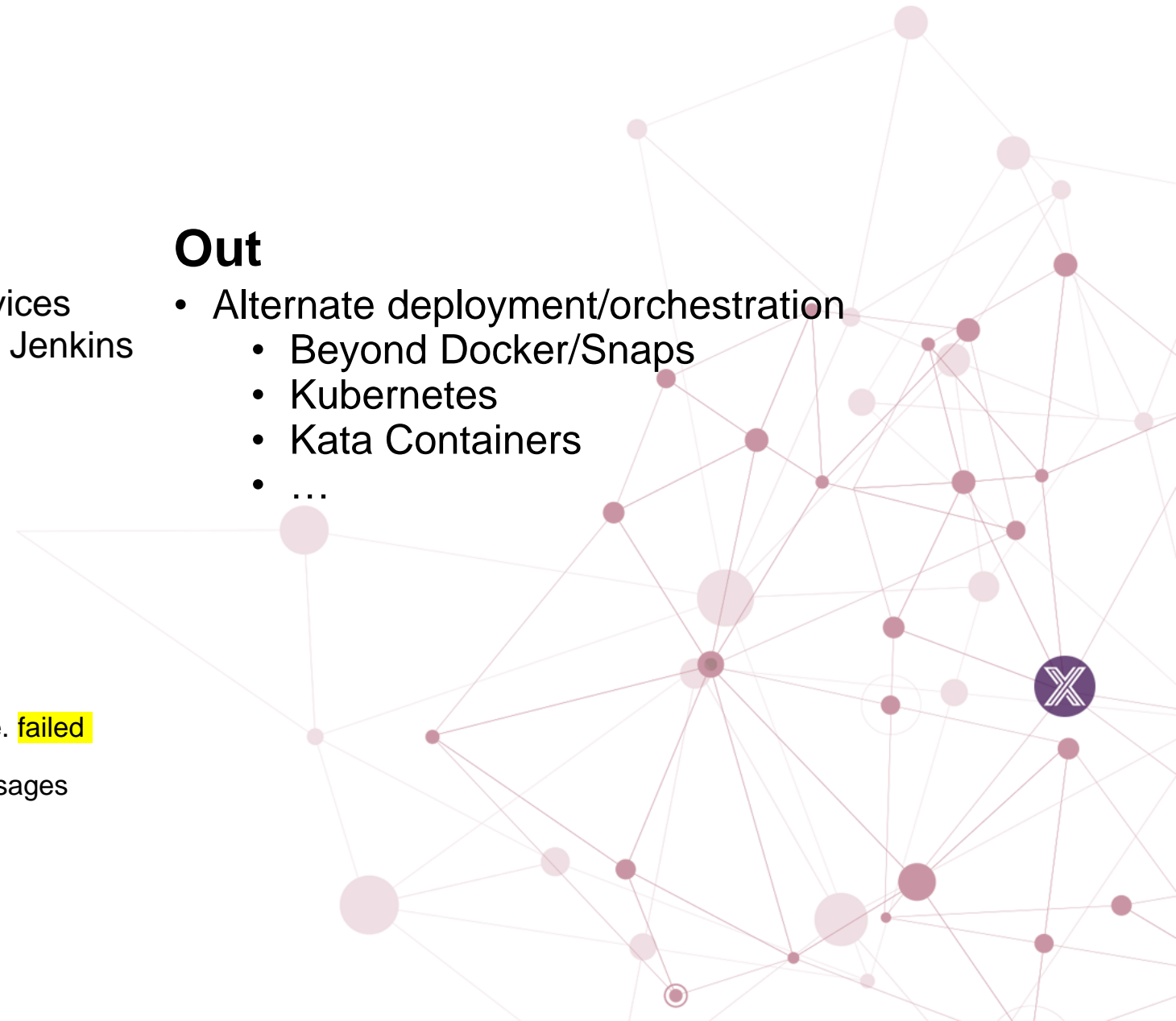
# Geneva – DevOps

## In

- Full Pipeline transformation for EdgeX services
  - Convert Jenkins JJB Freestyle jobs to Jenkins Pipelines
- Introduce GitHub Org Plugin
- Add Unit testing to global-libraries
- Ocean Blue Jenkins Plugin
- Nexus Cleanup / Lifecycle Policy
- Snyk integration all repos
- Slack integration with Jenkins pipelines.
  - Determine what level of messages are needed i.e. **failed only**
  - If too verbose, determine plan for archival of messages

## Out

- Alternate deployment/orchestration
  - Beyond Docker/Snaps
  - Kubernetes
  - Kata Containers
  - ...





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# Fuji Planning

Scope Discussions

# Fuji – DevOps

## In

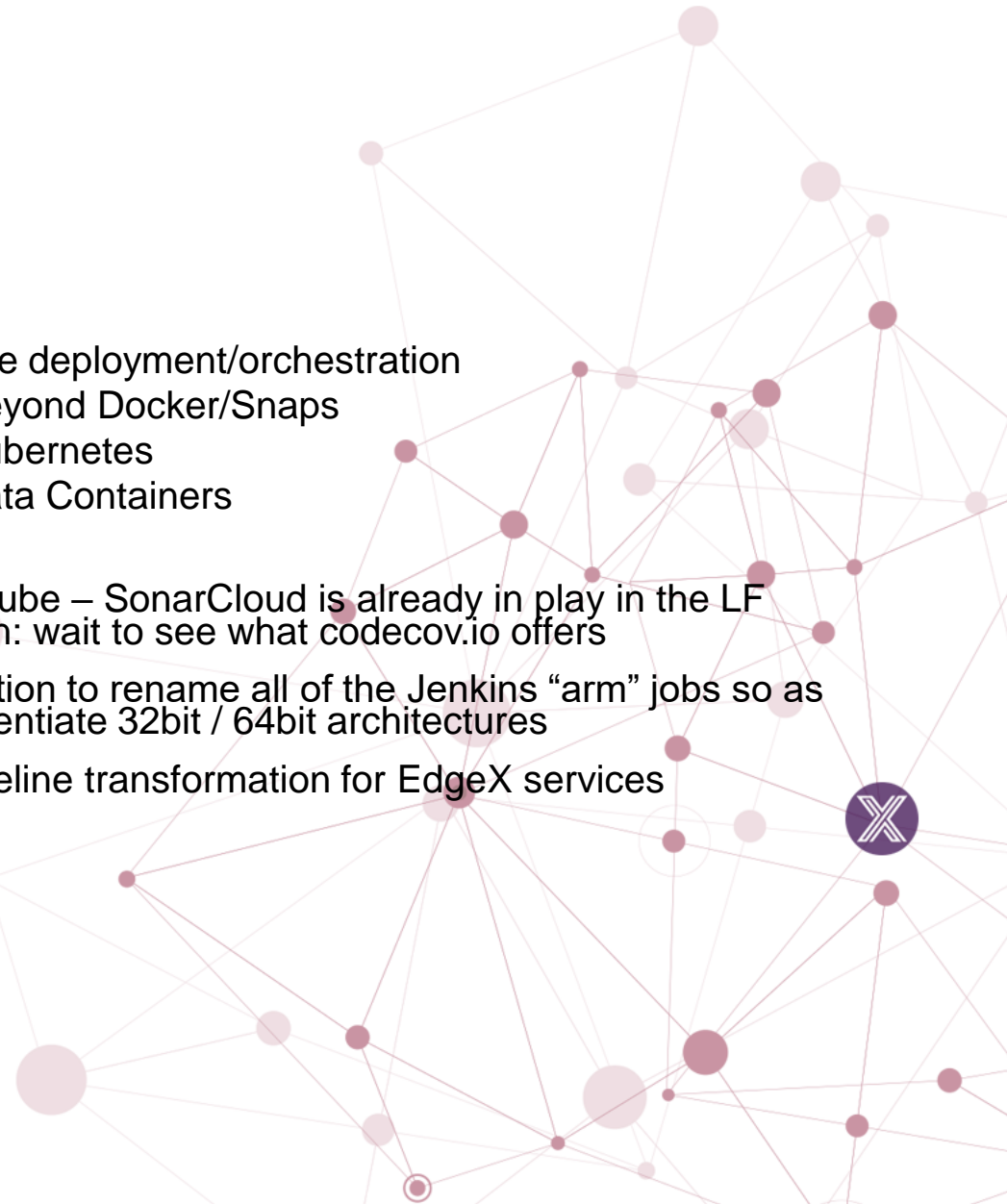
- Static code analysis tool identified and integrated into the EdgeX Jenkins Pipeline for Docker image scanning (Clair Server)

Explore SAST for true static code analysis to include additional tooling such as Fortify / Coverity





- Code and artifact signing with semantic versioning
- Fix Documentation – edgex-go
  - Create a new repo for edgex-docs
- Build Performance Optimizations
  - Pipelines for EdgeX Foundry base build images
  - Basebuild images managed locally within Nexus
  - Leverage PyPi Proxy for local pip dependencies
  - ARM builds – optimization leveraging different high CPU build nodes / OS (ARM Team)

## Out

- Alternate deployment/orchestration
  - Beyond Docker/Snaps
  - Kubernetes
  - Kata Containers
  - ...
- SonarQube – SonarCloud is already in play in the LF Decision: wait to see what codecov.io offers
- Suggestion to rename all of the Jenkins “arm” jobs so as to differentiate 32bit / 64bit architectures
- Full Pipeline transformation for EdgeX services



# EdgeX DevOps Commitments (Fuji)

Scope of Work	
Add static artifact analysis into the EdgeX Jenkins Pipeline (analysis of Docker /runtime artifacts, not the source code)	
Add code and artifact signing with semantic versioning	
Conduct build performance optimizations by: <ul style="list-style-type: none"> <li>• Adding Pipelines for EdgeX Foundry base build images</li> <li>• Allow base build images to be managed locally within Nexus</li> <li>• Leverage PyPi Proxy for local pip dependencies</li> </ul>	
Explore static code analysis like Checkmarx, Coverity, GuardRails, Synk, SonarQube	

- Clair Server landing no longer at risk for Fuji
  - LF committed to implement on AWS and fund with expected completion next week
- gitsemver along with lftools used for artifact signing and semantic versioning
- Jenkins build performance optimizations for base build images completed
- All base build images will now be stored in Nexus (Snapshot):10003
- PyPi enabled as part of Edinburgh scope
- Initial review of GuardRails showed that the product was identifying issues which were not applicable for microservices architecture



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# Past / Future Agenda Topics

WW36	
WW37	