



EDGE X FOUNDRY™

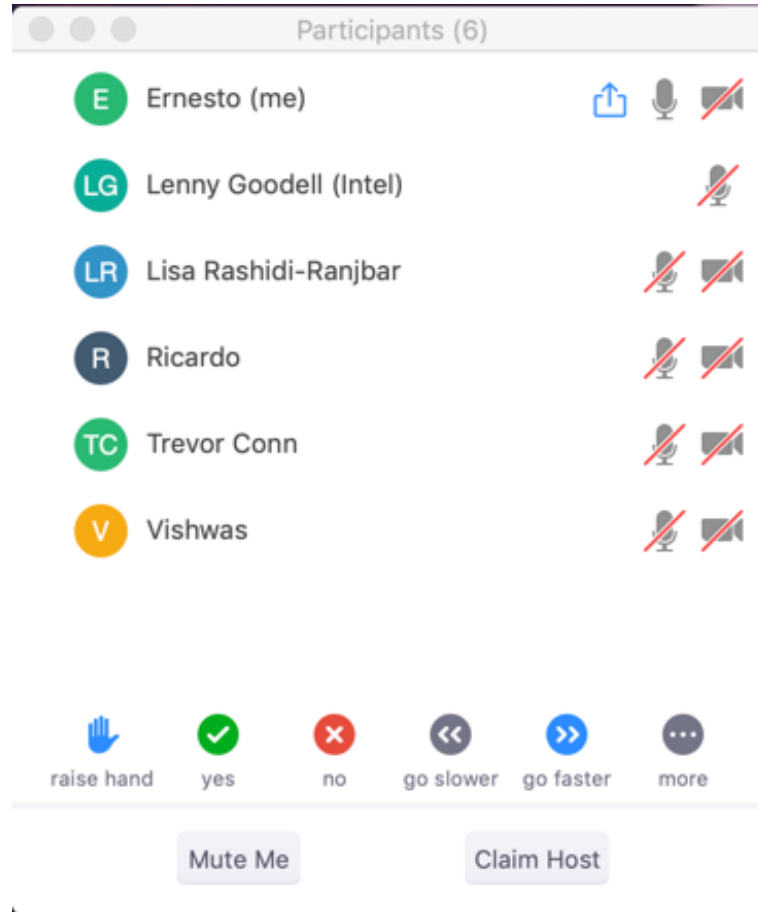
# DevOps Working Group

Thursday September 5, 2019













# Agenda







Time	Topic	Owner
10 Min	DevOps WG Update (Fuji)	
10 Min	CI/CD Transformation - Lisa	
10 Min	Geneva Planning	
10 Min	Opens	

# Attendees



Participants (6)

- E** Ernesto (me)   
- LG** Lenny Goodell (Intel) 
- LR** Lisa Rashidi-Ranjbar  
- R** Ricardo  
- TC** Trevor Conn  
- V** Vishwas  

 raise hand  yes  no  go slower  go faster  more

Mute Me Claim Host



# DevOps WG Update

## Fuji Scope

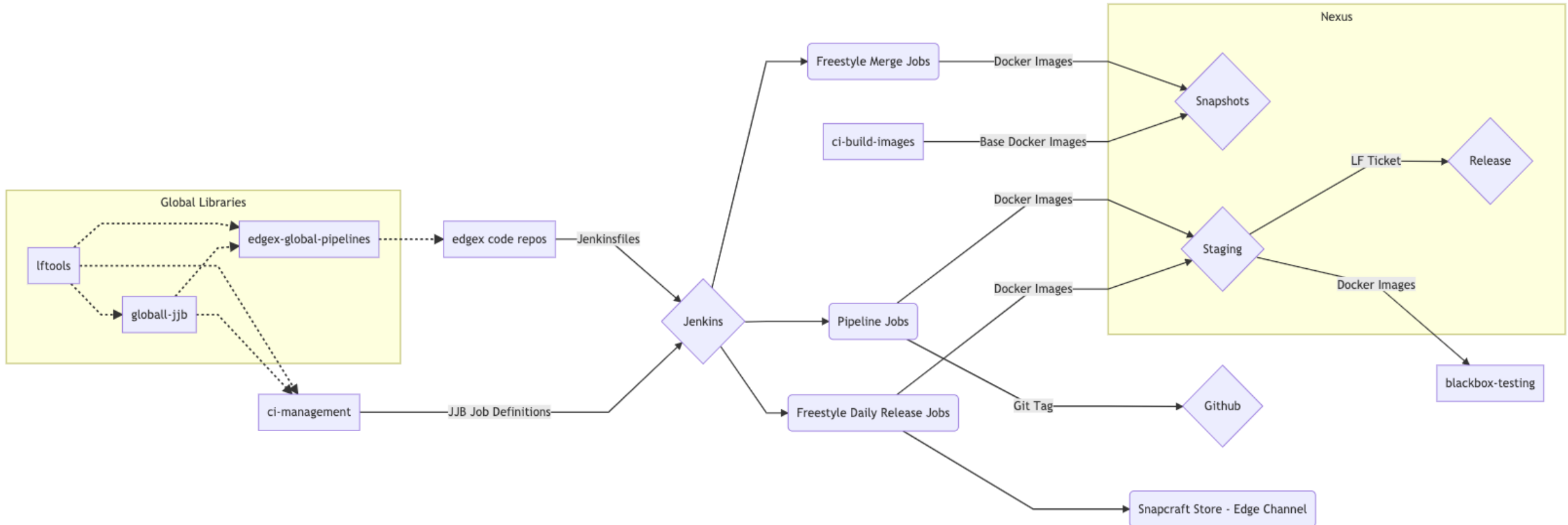
### Static Code Analysis Tools

- 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 - **WIP**
  - SPIKE:
    - Jenkins Snyc plugin as an alternative to the Snyc CLI - **WIP**
    - Need to figure out the way we want to integrate Open Source repos using a common / shared account to Snyc
    - Configure notifications to SIR team members

### Snapcraft Jenkins Global Function

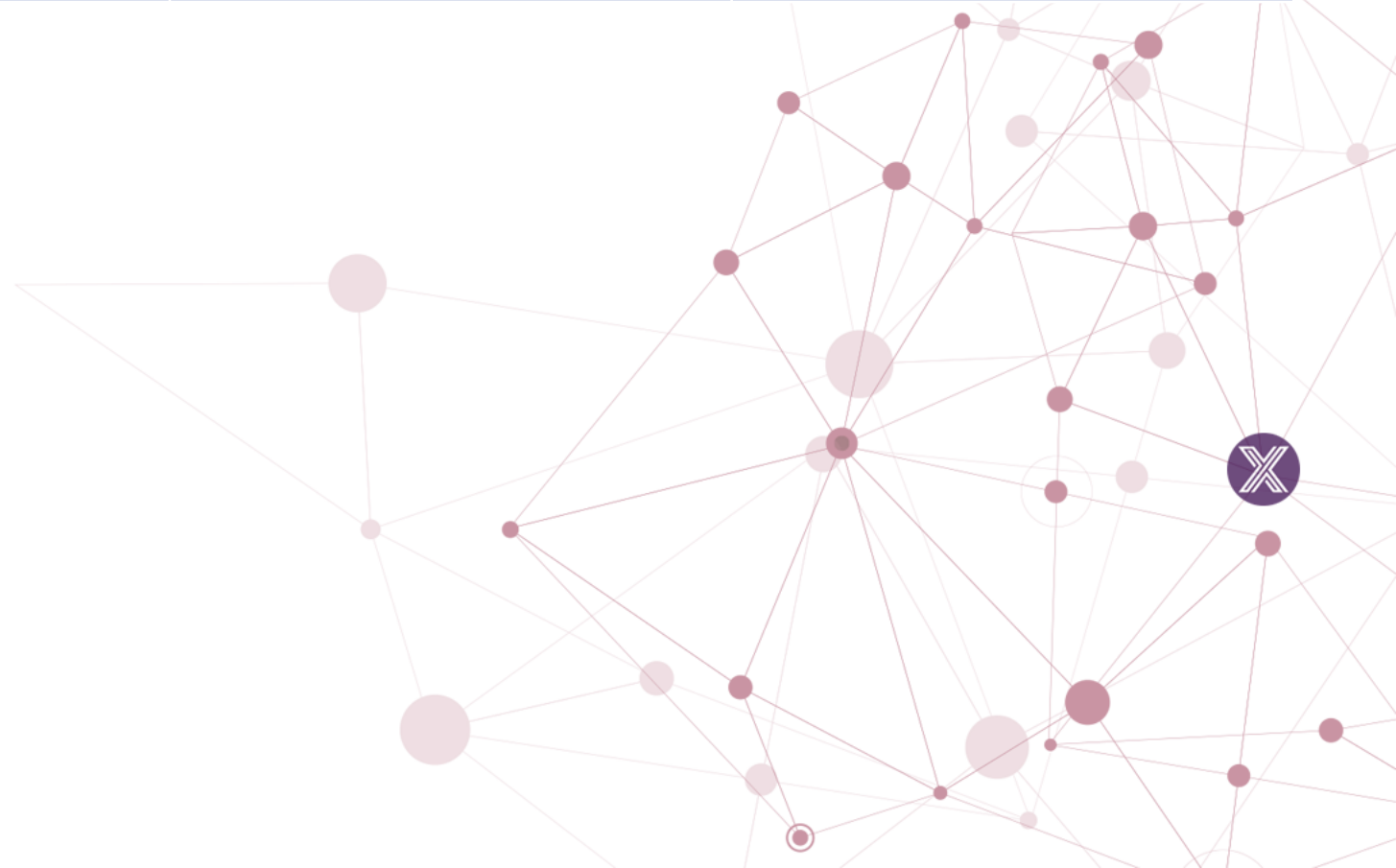
- **Push to Geneva?** Need to replace Freestyle jobs.

# CI/CD Transformation



# Work Review

Helpdesk Ticket #	Description	Details	Status
	Snyk configuration on repo using LF service account	Tyler opened ticket IT-17373.	Complete
	Nexus Lifecycle Policy	Need to work with LF to figure out what is supported. Groovy script provided but don't know how to implement.	In Progress





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# Geneva Planning

Scope Discussions

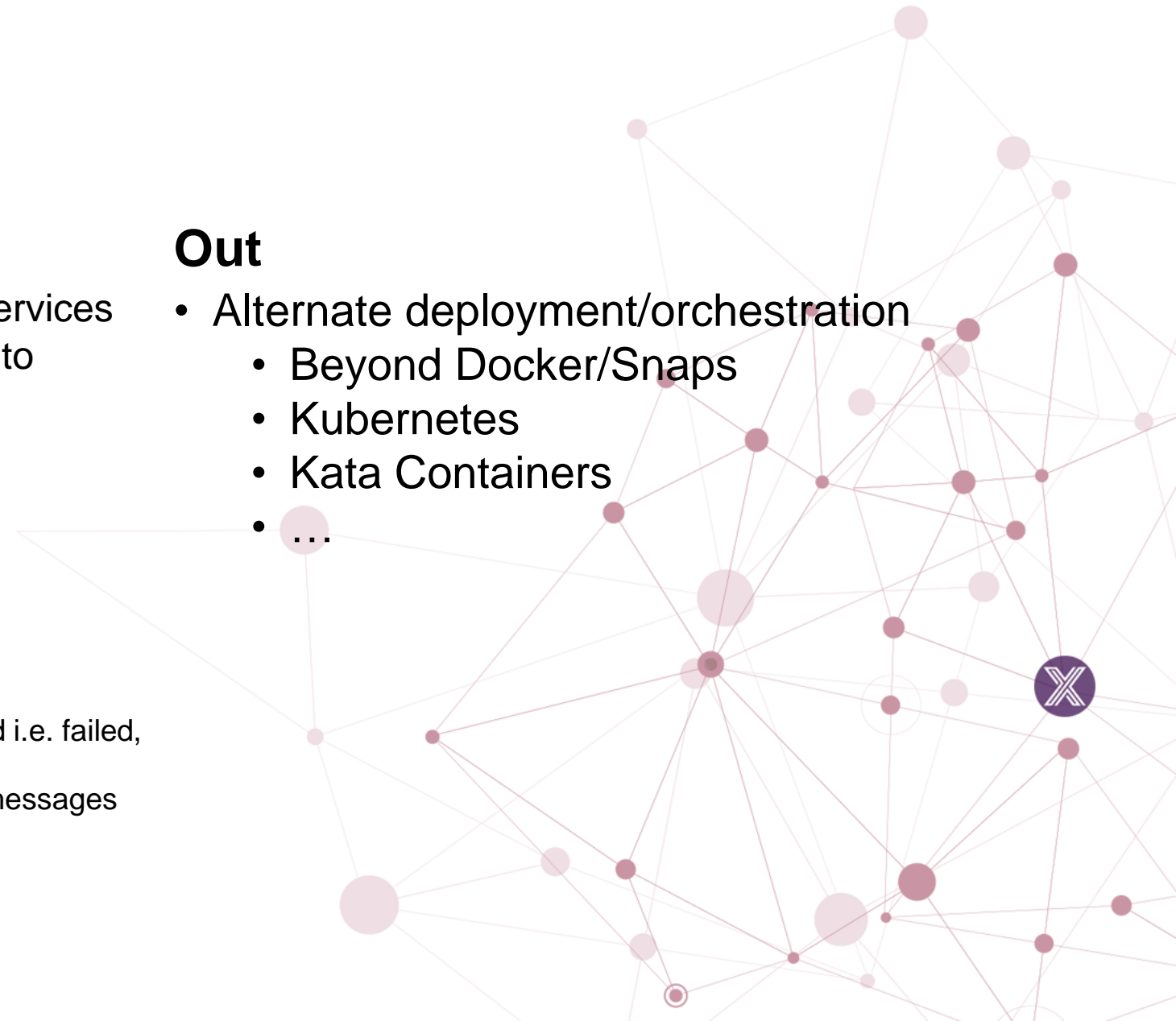
# Geneva – DevOps

## 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
- Nexus Cleanup
- Snyk integration all repos
- Slack integration with Jenkins pipelines.
  - Determine what level of messages are needed i.e. failed, success
  - 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

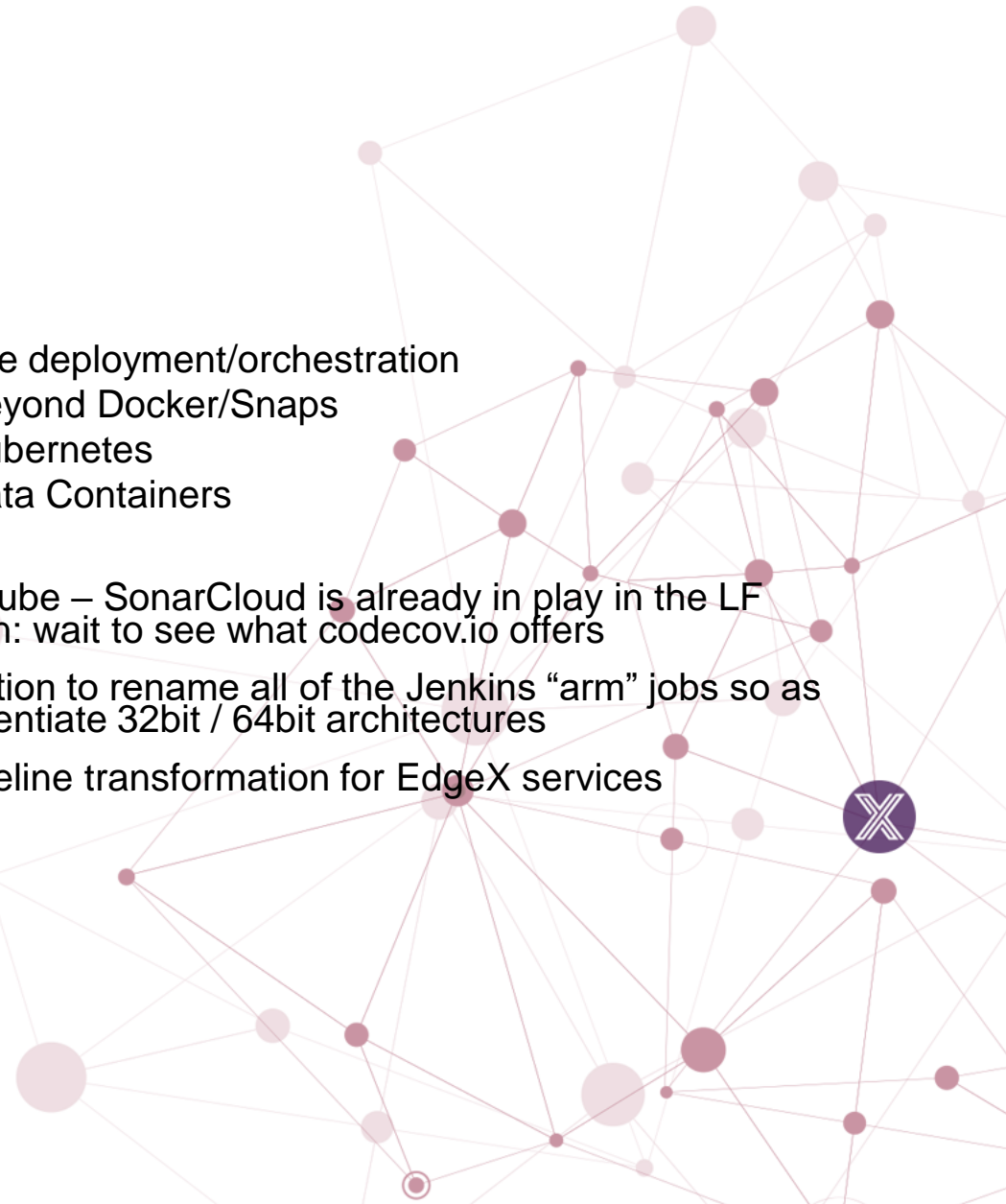
- Static code analysis tool identified and integrated into the EdgeX Jenkins Pipeline for Docker image scanning (Clair Server)

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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